**AGENDA FOR**
**THE MINNESOTA BOARD OF MEDICAL PRACTICE**
**BOARD MEETING THAT WILL BE HELD ON:**
**MAY 14, 2016, 9:00 AM**
**AT:**
**2829 UNIVERSITY AVENUE SE,**
**FOURTH FLOOR, CONFERENCE ROOM A**
**MINNEAPOLIS, MN 55414**
**(612) 617-2130**

## PUBLIC SESSION

**President: Subbarao Inampudi, M.B., B.S., FACR**


| | | |
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# MINNESOTA BOARD OF MEDICAL PRACTICE

## ROLL CALL
## MAY 14, 2016
## BOARD MEETING

| NAME | CONGRESSIONAL DISTRICT | APPOINTMENT FROM | TO |
|---|---|---|---|
| INAMPUDI, Subbarao, M.B., B.S., FACR (**President)** | 3 | 4/27/09 | 1/17 |
| KAPLAN, Gerald T., M.A., L.P. (**Vice President)** | 3 | 3/29/11 | 1/19 |
| JAFRI, Irshad H., M.B., B.S., FACP **(Secretary)** | 2 | 10/15/12 | 1/19 |
| BERGE, Keith H., M.D. | 1 | 9/23/08 | 1/16 |
| EGGEN, Mark A., M.D. | 4 | 4/27/09 | 1/17 |
| ELLA, V. John, J.D. | 5 | 3/09/10 | 1/18 |
| EVENSON, Sarah L., J.D., M.B.A. | 3 | 4/27/09 | 1/16 |
| HAFNER-FOGARTY, Rebecca J., M.D., M.B.A. | 6 | 6/30/12 | 1/16 |
| JOHNSON, Kelli, M.B.A. | 4 | 3/09/10 | 1/18 |
| LINDHOLM, Patricia J., M.D., FAAFP | 7 | 10/30/13 | 1/16 |
| RASMUSSEN, Allen G., M.A. | 8 | 9/29/14 | 1/18 |
| STATTON, Maria K., M.D., Ph.D. | 8 | 10/15/12 | 1/17 |
| THOMAS, Jon V., M.D., M.B.A. | At large | 3/09/10 | 1/18 |
| WILLETT, Joseph R., D.O., FACOI | 7 | 3/29/11 | 1/19 |

DATE: May 14, 2016 SUBJECT Approve the Minutes of the March 12, 2016, Board Meeting

SUBMITTED BY: Irshad H. Jafri, M.B., B.S., FACP, Secretary

REQUEST FOR BOARD ACTION
MINNESOTA BOARD OF MEDICAL PRACTICE

REQUESTED ACTION:

Approve the minutes of the March 12, 2016, Board Meeting as circulated.

MOTION BY: SECOND:

( ) PASSED ( ) PASSED AMENDED ( ) LAYED OVER ( ) DEFEATED

BACKGROUND:

See attached Minutes.

**MINNESOTA BOARD OF MEDICAL PRACTICE**
**BOARD MEETING**
**2829 UNIVERSITY AVE. SE**
**MINNEAPOLIS, MN 55414-3246**

**March 12, 2016**

The Minnesota Board of Medical Practice met on March 12, 2016, at its offices in Minneapolis, Minnesota.

The following Board members were present for both Public and Executive Sessions, unless otherwise indicated: Gerald T. Kaplan, M.A., L.P., Vice President; Irshad H. Jafri, M.B., B.S., FACP, Secretary; Keith H. Berge, M.D.; Mark A. Eggen, M.D.; V. John Ella, J.D.; Sarah L. Evenson, J.D., M.B.A.; Dr. Eduardo T. Fernandes; Kelli Johnson, M.B.A.; Patricia J. Lindholm, M.D., FAAFP; Maria K. Statton, M.D., Ph.D.; Jon V. Thomas, M.D., M.B.A., and Joseph R. Willett, D.O., FACOI

## PUBLIC SESSION

Agenda Item 1: Call to Order and Roll Call
The meeting was called to order by Board Vice President Gerald T. Kaplan, M.A., L.P., in the absence of Board President Subbarao Inampudi, M.B., B.S., FACR. Roll call was taken by Board staff.

Agenda Item 2: Minutes of the January 9, 2016, Board Meeting
The minutes of the January 9, 2016, Board meeting were received and approved as circulated.

Agenda Item 3: MN Department of Corrections Presentation by Health Services Director Nanette M. Larson
Health Services Director Nanette M. Larson provided a presentation regarding healthcare delivery within the prison system, the interaction of physicians within the system and the Board. A question and answer session followed.

Ms. Larson offered a tour of a prison to Board members and staff. Former Board members, Medical Coordinators and staff previously toured the prisons and found it to be an excellent opportunity and an insightful experience. Ms. Larson and Ms. Martinez will coordinate scheduling a tour.

Ms. Larson suggested reading "Medicine Behind Bars" published in the March/April 2016 issue of *Minnesota Medicine*.

The Board gave Ms. Larson a round of applause.

Mr. Kaplan requested to move agenda item 6 before agenda item 4.

Agenda Item 6: Policy and Planning Committee Report, March 12, 2016
Policy & Planning Committee Chair V. John Ella, J.D., provided an oral report of the March 12, 2016, 8 a.m., meeting.

- Licensing of Genetic Counselors, S.F. 37/H.F. 978 and Amended Language
  The Policy & Planning Committee discussed a bill and amendment regarding licensing of genetic counselors, H.F. 978. The bill was introduced last session in the House. This year, the bill was introduced in a prehearing session in the House Licensing Subcommittee. Executive Director Ruth Martinez, M.A., related the Board's comments about issuance of a "provisional License" pending an applicant being fully certified by the ABGC or ABMG as a genetic counselor. Language was amended in response to the Board's concern. The revised language repeals the provisional license and, instead, creates a licensure exemption for a student or intern working in

an educational program under direct supervision, much as physicians are allowed to practice as interns/residents without being required to obtain licensure.

Matthew Bergeron, J.D., lobbyist and representative for the Minnesota Genetic Counselor's Association, provided an overview of the pending legislation and amendments.

- The amendment presented to the Policy & Planning Committee removes the provisional license and extends the definition of a genetic counseling intern to allow genetic counselor students to maintain the title for 6 months post-graduation to allow time to take the first exam, which is only held twice a year. This also allows genetic counselors to continue to work under supervision of a physician or a licensed genetic counselor, as allowed, while a student.

- Ms. Martinez requested that Mr. Bergeron provide an overview of what she and Mr. Bergeron had previously discussed regarding changing the renewal cycle and continuing education reporting requirements. Mr. Bergeron stated that, to be consistent with the other professions regulated by the Board, the genetic counselors have agreed to a one-year renewal cycle and reporting of their continuing education every two years. The *model* genetic counselors legislation proposed a one-year continuing reporting period and a two-year license.

- Additional language has been added to the bill to clarify that a physician practicing as a genetic counselor doesn't also have to be licensed as a genetic counselor.

- The legislation has been introduced in both the House and Senate with bipartisan support. The bill moved out of the House Subcommittee on Licensing on March 10, 2016. The bill is scheduled to be heard in the House Health and Human Services Committee on March 15, 2016, and the amended language will be added as an author's amendment. Mr. Bergeron does not anticipate other amendments. Ms. Martinez is hopeful that the bill will be heard in the Senate Health and Human Services Policy Committee either on March 16 or March 17, 2016. The bill also has other committee stops, including the Senate Judiciary, State and Local Government, and Finance Committees, and the House Government Operations, Public Safety and Crime Prevention, and Finance Committees. The bill is expected to progress through the committees within the next couple of weeks.

Teresa Knoedler, J.D., Minnesota Medical Association (MMA) Policy Council, stated that MMA is neutral on the bill, particularly with the inclusion of language clarifying that physicians who engage in genetic counseling in the course of their practice can do so without additional licensure.

A question and answer session followed.

Ms. Martinez thanked Mr. Bergeron for the opportunity to work with him on some of the amended language and also for his responsiveness to the Board's concerns.

Mr. Bergeron thanked the Board for the opportunity to explain the bill and answer questions.

The Policy and Planning Committee recommends that, with the above amendments, the Board remain neutral on the bill authorizing licensure of genetic counselors. Motion carried unanimously.

Agenda Item 4: Licensure and Registration

On recommendation of the Licensure Committee, physician applicants 1 – 248 of the agenda were approved for licensure subject to the receipt of verification documents.

On recommendation of the Licensure Committee, physician applicants 249 - 251 of the agenda were approved for Emeritus registration.

On recommendation of the Acupuncture Advisory Council, acupuncturist applicants 252 - 264 of the agenda were approved for licensure subject to the receipt of verification documents.

On recommendation of the Athletic Trainers Advisory Council, athletic trainer applicants 265 - 278 of the agenda were approved for registration subject to the receipt of verification documents.

On recommendation of the Physician Assistant Advisory Council, physician assistant applicants 279 - 335 of the agenda were approved for licensure subject to the receipt of verification documents.

On recommendation of the Respiratory Therapist Advisory Council, respiratory therapist applicants 336 – 350 of the agenda were approved for licensure subject to the receipt of verification documents.

Ms. Martinez noted that there aren't any applicants for naturopathic doctors or traditional midwifes.

Agenda Item 5: Licensure Committee Report

- Agenda Item 5a: Draft Minutes of the February 25, 2016, Licensure Committee
  Licensure Chair Patricia Lindholm, M.D., FAAFP, presented the draft minutes of the February 25, 2015, Licensure Committee Meeting, noting that the final minutes have not changed.

  Dr. Lindholm summarized the Licensure Committee's actions and discussions.

  The minutes and actions of the February 25, 2016, meeting of the Licensure Committee were received and approved as circulated.

- Agenda Item 5b: Athletic Trainers Advisory Council Appointments
  The Licensure Committee's motion to reappoint Kenji Sudoh, M.D., physician member to the Athletic Trainers Advisory Council passed unanimously.

Agenda Item 7: Health Professionals Services Program (HPSP) Program Committee Report
Allen G. Rasmussen, M.A., is the Board representative and Chair of the HPSP Program Committee. Mr. Rasmussen's written report was distributed with the agenda and Ms. Martinez provided a summary of the February 16, 2016, HPSP Program Committee Report in Mr. Rasmussen's absence.

Agenda Item 8: Executive Director's Report
Ms. Martinez provided a summary of the Executive Director's Report.

- State Opioid Oversight Project (SOOP)
  The Board continues to participate on the SOOP Work Group, which convenes monthly. Subcommittees of the Work Group are pursuing initiatives, particularly related to Naloxone access, educational efforts related to opioid risks for newborns, and development of messages between health care systems, providers, and patients. Ms. Martinez attended a meeting on March 11, 2016.
  - The Minnesota Board of Pharmacy has been working on a Naloxone bill that Board staff just learned about on March 10, 2016. There is language inserted into the draft bill which involves the Board in promulgating a protocol under which pharmacists prescribing would occur, in conjunction with the Boards of Nursing and Pharmacy, as well as the professional associations. At the March 11, 2016, SOOP meeting, the discussion focused on the Naloxone bill. Ms. Martinez invited Ms. Knoedler to offer comments from the MMA perspective, as well. Ms. Knoedler stated that the MMA doesn't have an official position on the Naloxone bill, but has been working with the Board of Pharmacy and its Executive Director Cody Wiberg, Pharm.D., R.Ph., to find a way to achieve the goal of increasing access and availability of Naloxone without permitting pharmacists to prescribe.

- The Board of Pharmacy reports pressure to address the Naloxone (Narcan™) issue. It is something several Boards are trying to achieve. Board staff has not seen the bill and the Board hasn't been invited to take a position on it. Ms. Martinez wanted the board be aware of this bill.
- Ms. Martinez invited Board members to contact their representatives if they have personal concerns about this bill. Ms. Martinez will not ask the Board to take a position on the bill until there is formal language to review. The Board may also be asked to complete a fiscal note.

The Board had a lengthy discussion about prescribing of Naloxone by pharmacists.

- Interstate Collaboration in Healthcare
  The Board continues to participate on weekly conference calls with the Interstate Collaboration in Healthcare. The group is continuing to monitor progress of medical and nursing licensure compacts, telemedicine initiatives and other topics of interest to stakeholders.

- National Governors' Association (NGA) Health Care Workforce Technical Assistance Program
  The Core Team of the NGA Health Care Workforce Technical Assistance Program (NGA-TA Program), of which the tri-regulatory Boards of Medical Practice, Nursing and Pharmacy are members, continued its efforts to develop a consensus framework for legislative evaluation of scope-of-practice proposals. The group reviewed and offered comment on a draft framework and discussed goals for Interprofessional collaboration.

- Immigrant International Medical Graduate (IIMG) Stakeholder Advisory Group
  Board representatives Molly Schwanz and Ruth Martinez hosted and participated in a meeting of the Licensure Study work group.

- Office of Administrative Hearings 40th Anniversary Reception: Mitchell Hamline School of Law
  Board and AGO staff joined others in a reception to celebrate the 40th anniversary of the Office of Administrative Hearings. Governor Dayton, Chief Administrative Law Judge Tammy Pust, Administrative Law Judge Barbara Nielsen and others addressed attendees and reviewed the history and evolution of the responsibilities of the office. The reception followed investiture of judges and a continuing legal education session.

  Board staff had a private meeting with Chief Administrative Law Judge Tammy Pust on February 17, 2016 to discuss pending legislation relating to temporary suspension of licenses, administrative hearing procedures, and mediations. Chief Pust assisted the Board in drafting language for the pending legislation.

- Inaugural Minnesota Tri-Regulatory Symposium:
  The Boards of Medical Practice, Nursing and Pharmacy are finalizing plans to host the first Minnesota Tri-Regulatory Symposium on June 1, 2016 at the Commons Hotel in Minneapolis. Speakers include Doris Gundersen, M.D., Medical Director of the Colorado Physician Health Program, and Barbara Brandt, Ph.D., Director of the University of Minnesota Center for Interprofessional Practice and Education. Panelists include the Chief Executive Officers of the national regulatory organizations and the Presidents of the Minnesota Boards of Medical Practice, Nursing and Pharmacy. Invited guests include Governor Dayton, key legislators with whom the Boards have interacted, and members and staff of Minnesota's Medical, Nursing and Pharmacy Boards. A draft agenda was included in the Board agenda. Ms. Martinez encouraged Board members to attend.

  Ms. Martinez and Minnesota Board of Nursing (MBN) Executive Director Shirley Brekken, R.N., M.S., have been invited to present at the Federation of State Medical Boards' Annual meeting on April 30, 2016, on the topic of Interprofessional Practice and Regulatory Collaboration.

- On January 29, 2016, the executive directors of the tri-regulatory Boards of Medical Practice, Nursing and Pharmacy met with representatives from the MN Department of Health (MDH) to discuss a proposal that would allow pharmacists to prescribe oral contraceptives. The oral contraception bill may be introduced in the 2016 legislative session shortly.
    - Ms. Martinez learned of the oral contraception bill on March 10, 2016. The Board has been similarly referenced in the Naloxone bill, in that the Board is engaged in developing protocols for pharmacists to prescribe. This Board has not yet seen the full language. Ms. Martinez will not ask the Board to take a position until there is formal language to review. Ms. Martinez wanted the Board to be aware of this bill. The Naloxone bill and the oral contraceptives bills have similar language and involve pharmacists prescribing without a physician's order. Ms. Martinez met with Mr. Wiberg and Ms. Brekken to discuss the need for communication among affected boards about legislation being brought forward.

- <u>January 19, 2016: Minnesota Inter-Agency Antibiotic Stewardship Collaborative</u>. Representatives of Health Licensing Boards joined the Department of Health, Department of Agriculture, Board of Animal Health, Pollution Control Agency, and Department of Human Services to explore the complex issue of antibiotic stewardship. The group heard presentations by speakers on relevant topics related to antibiotic impact, and engaged in small and large group discussions. Future meetings on the topic are anticipated.

- <u>January 27, 2016: Exploring a Collaborative Effort to Address Diagnostic Error in Health Care in Minnesota.</u> The Board will recall the presentation at the July 2015 Board meeting by Dr. Laurie Drill-Mellum, who facilitated the discussion along with representatives from Stratis Health.

- <u>March 31 – April 1, 2016: Interstate Medical Licensure Compact (IMLC) Commission Meeting</u>. Minnesota will host a meeting of the IMLC Commission on March 31 – April 1, 2016 at the Stassen Building in St. Paul, Minnesota. The meeting is open to the public. Board members and other interested parties are invited to attend. Details are attached and are also posted on the Board's website. Ms. Martinez and Dr. Thomas, IMLC Commissioners for the state of Minnesota, will report on the status of the IMLC at the May 14, 2016, Board meeting.

- <u>Legislative Update</u>
  The MN Association of Athletic Trainers (MATA) and an acupuncturist introduced legislation this session. Neither group notified the Board of Medical Practice of the intent to introduce legislation affecting individuals regulated by the Board.
    - MATA introduced a bill moving athletic trainers from registration to licensure that was reviewed in the Licensing Subcommittee on March 10, 2016. Athletic trainers currently work under the orders of a physician. The language in the bill would allow athletic trainers to work under the orders of any licensed healthcare provider. Ms. Martinez found this language particularly concerning. Ms. Martinez was able to speak with a few key legislatures and feels fairly confident that this bill will not proceed this session. Ms. Martinez will speak to MATA and the Athletic Trainer Advisory Council about the process that should be followed when legislation is brought forward that may impact existing statutes.

    - An acupuncturist introduced a bill that would legislate specific continuing education related to opioids. This bill also involves nurses, dentists, and podiatrists. The Board has previously taken the position that it is unnecessary and inappropriate to mandate specific continuing education for healthcare providers and that providers should be allowed to take continuing education that is appropriate to their practice and expertise. The impacted Boards plan to meet with the acupuncturist who introduced the bill to discuss the intent of the bill.

- Board staff continues to participate in the 2016 legislative process to advance or monitor progress of the following bills:

- S.F. 454/H.F. 1036: Physician assistant housekeeping modifications; temporary suspension process alignment:
  The bill, which was introduced during the 2015 session, was amended to incorporate the temporary suspension alignment language. The Board took a neutral position on the physician assistant housekeeping bill, which removes the cap on the number of physician assistants a supervising physician can oversee and expands the time allowed to file a Notice of Intent to Practice so it doesn't hold up a licensee's ability to start employment. Although the bill passed in the Senate, controversy arose in the House regarding some of the language. Ms. Martinez has scheduled meetings with legislators to address concerns and is hopeful that the bill will pass this session.

- S.F. 2341/H.F. 2445: Osteopathic physician housekeeping modifications:
  The osteopathic physician housekeeping bill which cleans up osteopathic physician language, modifies the opportunity for osteopaths to serve on the Board and aligns testing requirements, has been very well received. The bill was introduced in the Licensing Subcommittee in the House, and was moved forward to a hearing in the House Health and Human Services Reform Committee on March 15, 2016. Ms. Martinez anticipates that there will be a hearing scheduled on the Senate side soon. Ms. Martinez believes that it is moving along very nicely.

- S.F. 1440/H.F. 1652: Expansion of access to Prescription Monitoring Program (PMP) data:
  This bill is still alive, but is meeting with controversy regarding data privacy. The Board continues to express its support of this bill. The recommendations to expand access to PMP data came from the PMP Advisory Taskforce. Currently prescribers have access to the PMP data. Law enforcement can access the PMP data if they obtain a subpoena. Law enforcement would like broader access. The proposed language increases access for regulatory Board when investigating a complaint either involving a drug seeking patient or involving a licensee who is diverting for self-use. The Attorney General's Office, when acting as an agent for the Board, may also have access to the PMP data. The opposition is based on how much access others should be allowed to personal data about patients and their prescriptions.
  - Board staff is in the testing phase of embedding a link to the PMP registration site into the Board's on-line renewal process. The link to the PMP registration site should be available shortly.

Agenda Item 9: Federation of State Medical Boards' (FSMB) Annual Meeting Instructions

Mr. Kaplan advised Board members to make their hotel reservations soon to ensure they are able to get a room in the FSMB conference hotel. Ms. Martinez encouraged Board members to attend the Minnesota Welcome Reception that will be held on April 27, 2016, at 5:30 p.m. Ms. Martinez noted that the FSMB will send two e-mail blasts between now and the FSMB Annual Meeting reminding attendees of the Minnesota Welcome Reception. The Board will provide small containers of honey and light and dark chocolate candies shaped like Minnesota to attendees at the Reception. Ms. Martinez thanked Terry Statton (Board member Maria Statton's husband) for providing the honey and a reasonable price to the Board.

Agenda Item 10: Corrective and Other Actions

The Corrective and other actions were presented for Board information only.

Agenda Item 11: New Business

There wasn't any new business to discuss.

Mr. Kaplan adjourned the public session of the meeting.

The following Board members were present for both Public and Executive Sessions, unless otherwise indicated: Gerald T. Kaplan, M.A., L.P., Vice President; Irshad H. Jafri, M.B., B.S., FACP, Secretary; Keith H. Berge, M.D.; Mark A. Eggen, M.D.; V. John Ella, J.D.; Sarah L. Evenson, J.D., M.B.A.; Dr. Eduardo T. Fernandes; Kelli Johnson, M.B.A.; Patricia J. Lindholm, M.D., FAAFP; Maria K. Statton, M.D., Ph.D.; Jon V. Thomas, M.D., M.B.A., and Joseph R. Willett, D.O., FACOI

**MATTHEW P. BOENTE, M.D.**
On recommendation of the Complaint Review Committee, the Board approved the Stipulation and Order for stayed suspension and conditioned license signed by Dr. Boente. V. John Ella, J.D., recused.

**DANIEL T. CABOT, D.O.**
On recommendation of the Complaint Review Committee, the Board approved the Stipulation and Order for voluntary surrender of license signed by Dr. Cabot.

**LEE V. GIORGI, M.D..**
On recommendation of the Complaint Review Committee, the Board approved the Stipulation and Order for stayed suspension and conditioned license signed by Dr. Giorgi.

**JUDITH F. KASHTAN, M.D.**
On recommendation of the Complaint Review Committee, the Board approved the Order for unconditional license.

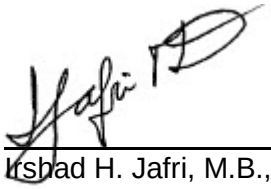
**DAVID M. KROSCHEL, M.D.**
On recommendation of the Complaint Review Committee, the Board approved the Stipulation and Order for reprimand signed by Dr. Kroschel. Jon V. Thomas, M.D., M.B.A., recused.

**SEAN T. O'GRADY, M.D.**
On recommendation of the Complaint Review Committee, the Board approved the Order for unconditional license.

**DR. STEVEN SHU**
On recommendation of the Complaint Review Committee, the Board approved the Order for unconditional license.

**DAVID A. WIECHMANN, M.D.**
On recommendation of the Complaint Review Committee, the Board approved the Stipulation and Order for indefinite suspension signed by Dr. Wiechmann.

There being no further business, the meeting was adjourned.



Irshad H. Jafri, M.B., B.S., FACP
Secretary
MN Board of Medical Practice

May 4, 2016
Date

DATE: May 14, 2016

SUBJECT: Opioid Addiction and the Centers for Disease Control and Prevention Guidelines For Prescribing Opioids for Chronic Pain

SUBMITTED BY: Subbarao Inampudi, M.B., B.S., FACR, President

REQUEST FOR BOARD ACTION
MINNESOTA BOARD OF MEDICAL PRACTICE

REQUESTED ACTION:

For information only.

MOTION BY: SECOND:

( ) PASSED ( ) PASSED AMENDED ( ) LAYED OVER ( ) DEFEATED

BACKGROUND:

Charles Reznikoff, M.D., is an internal medicine specialist and addiction medicine subspecialist at Hennepin County Medical Center and Assistant Professor of Medicine at the University of Minnesota. Dr. Reznikoff will provide a presentation to the Board regarding opioid addiction and the Centers for Disease Control and Prevention (CDC) Guidelines for prescribing opioids for chronic pain.

Please note: An erratum has been published for this issue. To view the erratum, please click here.

Centers for Disease Control and Prevention

MMWR

Morbidity and Mortality Weekly Report

Recommendations and Reports / Vol. 65 / No. 1

March 18, 2016

# CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016

Continuing Education Examination available at http://www.cdc.gov/mmwr/cme/conted.html.

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

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### Disclosure of Relationship

The Core Expert Group (CEG) members disclose that they have no financial conflicts of interest. Experts disclose the following activities related to the content of this guideline: Pam Archer discloses authorship of the Oklahoma Emergency Department and Urgent Care Clinic Opioid Prescribing Guidelines and the Opioid Prescribing Guidelines for Oklahoma Health Care Providers in the Office Based Setting; Bonnie Burman discloses authorship of the Ohio Guidelines for Prescribing Opioids for the Treatment of Chronic, Non-Terminal Pain; Jane Ballantyne discloses that she has served as a paid consultant to Cohen Milstein Sellers & Toll, PLLC, and has special advisory committee responsibilities on the Food and Drug Administration (FDA) Risk Evaluation and Mitigation Strategies committee; Phillip Coffin discloses that in 2012 he provided expert testimony to the California State Assembly regarding a bill to expand naloxone access and reports that he is the principal investigator on a research study of methamphetamine dependence that receives donated injectable naltrexone from Alkermes, Inc.; Gary Franklin discloses authorship of the AMDG Interagency Guideline on Prescribing Opioids for Pain; Erin Krebs discloses that she represented the American College of Physicians at a 2014 Food and Drug Administration meeting on Abuse Deterrent Opioid Formulations; Lewis Nelson discloses his ad-hoc membership on the FDA Drug Safety and Risk Management Advisory Committee; Trupti Patel discloses authorship of the Arizona Opioid Prescribing Guidelines; Robert "Chuck" Rich discloses that he was an author of the 2013 American Academy of Family Physicians position paper on opioids and pain management; Joanna Starrels discloses that she received honoraria from the Betty Ford Institute; Thomas Tape discloses that he was an author of the 2013 American College of Physicians policy position paper on prescription drug abuse. CDC provided 100% of the funding for the supplemental evidence review tasks and meeting support. No foundation or industry support was accepted.

The Opioid Guideline Workgroup (OGW) members disclose that they have no financial conflicts of interest. Experts disclose the following activities related to the content of this guideline: Anne Burns discloses that she participated in a congressional briefing sponsored by Reps. Carter and DeSaulnier on the pharmacist's role of furnishing Naloxone and that she participates on the National Advisory Board for the Prescription Drug Abuse and Heroin Summit. Chinazo Cunningham discloses that her husband is employed by Quest Diagnostics and Dr. Cunningham was recused from any discussion related to urine drug testing. Traci Green discloses that she was previously employed by Inflexxion, a small business that conducts Small Business Innovation Research on behavioral interventions for behavioral health and chronic pain and created several psychometric tools for conducting risk assessment for prescription opioid abuse potential. Dr. Green also discloses that while at the hospital where she is employed, she provided consultation to Purdue Pharma Ltd to design overdose prevention brochures for persons who use diverted prescription opioids non-medically with an emphasis on persons who inject prescription drugs, and not for patients using opioid therapy for pain. Dr. Green was recused from any discussion related to risk assessment tools and patient education materials. Erin Krebs discloses that she served on the CDC Opioid Prescribing Guideline CEG. Christina Porucznik discloses that she served on the CDC Opioid Prescribing Guideline CEG. Greg Terman discloses that he serves as the President of the American Pain Society. Mark Wallace discloses that he served on a Kempharma advisory panel for an abuse-deterrent hydrocodone formulation to treat acute postoperative pain and Dr. Wallace was recused form any discussion related to abuse-deterrent drugs.

The NCIPC Board of Scientific Counselors (BSC) members disclose that they have no financial conflicts of interest. Two BSC members, Traci Green and Christina Porucznik, served on the Opioid Guideline Workgroup. Traci Green discloses that she was previously employed by Inflexxion, a small business that conducts Small Business Innovation Research on behavioral interventions for behavioral health and chronic pain and created several psychometric tools for conducting risk assessment for prescription opioid abuse potential. Dr. Green also discloses that while at the hospital where she is employed, she provided consultation to Purdue Pharma Ltd to design overdose prevention brochures for persons who use diverted prescription opioids non-medically with an emphasis on persons who inject prescription drugs, and not for patients using opioid therapy for pain. Dr. Green was recused from any discussion related to risk assessment tools and patient education materials. Christina Porucznik discloses that she served on the CDC Opioid Prescribing Guideline CEG.

The *MMWR* series of publications is published by the Center for Surveillance, Epidemiology, and Laboratory Services, Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, Atlanta, GA 30329-4027.

**Suggested citation:** [Author names; first three, then et al., if more than six.] [Title]. MMWR Recomm Rep 2016;65(No. RR-#):[inclusive page numbers].

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Joanne Cono, MD, ScM, *Director, Office of Science Quality*
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# CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016

Prepared by
Deborah Dowell, MD[1]
Tamara M. Haegerich, PhD[1]
Roger Chou, MD[1]
[1]*Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, CDC, Atlanta, Georgia*

## Summary

*This guideline provides recommendations for primary care clinicians who are prescribing opioids for chronic pain outside of active cancer treatment, palliative care, and end-of-life care. The guideline addresses 1) when to initiate or continue opioids for chronic pain; 2) opioid selection, dosage, duration, follow-up, and discontinuation; and 3) assessing risk and addressing harms of opioid use. CDC developed the guideline using the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) framework, and recommendations are made on the basis of a systematic review of the scientific evidence while considering benefits and harms, values and preferences, and resource allocation. CDC obtained input from experts, stakeholders, the public, peer reviewers, and a federally chartered advisory committee. It is important that patients receive appropriate pain treatment with careful consideration of the benefits and risks of treatment options. This guideline is intended to improve communication between clinicians and patients about the risks and benefits of opioid therapy for chronic pain, improve the safety and effectiveness of pain treatment, and reduce the risks associated with long-term opioid therapy, including opioid use disorder, overdose, and death. CDC has provided a checklist for prescribing opioids for chronic pain (http://stacks.cdc.gov/view/cdc/38025) as well as a website (http://www.cdc.gov/drugoverdose/prescribingresources.html) with additional tools to guide clinicians in implementing the recommendations.*

## Introduction

### Background

Opioids are commonly prescribed for pain. An estimated 20% of patients presenting to physician offices with noncancer pain symptoms or pain-related diagnoses (including acute and chronic pain) receive an opioid prescription (*1*). In 2012, health care providers wrote 259 million prescriptions for opioid pain medication, enough for every adult in the United States to have a bottle of pills (*2*). Opioid prescriptions per capita increased 7.3% from 2007 to 2012, with opioid prescribing rates increasing more for family practice, general practice, and internal medicine compared with other specialties (*3*). Rates of opioid prescribing vary greatly across states in ways that cannot be explained by the underlying health status of the population, highlighting the lack of consensus among clinicians on how to use opioid pain medication (*2*).

Prevention, assessment, and treatment of chronic pain are challenges for health providers and systems. Pain might go unrecognized, and patients, particularly members of racial and ethnic minority groups, women, the elderly, persons with cognitive impairment, and those with cancer and at the end of life, can be at risk for inadequate pain treatment (*4*). Patients can experience persistent pain that is not well controlled. There are clinical, psychological, and social consequences associated with chronic pain including limitations in complex activities, lost work productivity, reduced quality of life, and stigma, emphasizing the importance of appropriate and compassionate patient care (*4*). Patients should receive appropriate pain treatment based on a careful consideration of the benefits and risks of treatment options.

Chronic pain has been variably defined but is defined within this guideline as pain that typically lasts >3 months or past the time of normal tissue healing (*5*). Chronic pain can be the result of an underlying medical disease or condition, injury, medical treatment, inflammation, or an unknown cause (*4*). Estimates of the prevalence of chronic pain vary, but it is clear that the number of persons experiencing chronic pain in the United States is substantial. The 1999–2002 National Health and Nutrition Examination Survey estimated that 14.6% of adults have current widespread or localized pain lasting at least 3 months (*6*). Based on a survey conducted during 2001–2003 (*7*), the overall prevalence of common, predominantly musculoskeletal pain conditions (e.g., arthritis, rheumatism, chronic back or neck problems, and frequent severe headaches) was estimated at 43% among adults in the

**Corresponding author:** Deborah Dowell, Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, CDC. E-mail: gdo7@cdc.gov.

United States, although minimum duration of symptoms was not specified. Most recently, analysis of data from the 2012 National Health Interview Study showed that 11.2% of adults report having daily pain (*8*). Clinicians should consider the full range of therapeutic options for the treatment of chronic pain. However, it is hard to estimate the number of persons who could potentially benefit from opioid pain medication long term. Evidence supports short-term efficacy of opioids for reducing pain and improving function in noncancer nociceptive and neuropathic pain in randomized clinical trials lasting primarily ≤12 weeks (*9*,*10*), and patients receiving opioid therapy for chronic pain report some pain relief when surveyed (*11*–*13*). However, few studies have been conducted to rigorously assess the long-term benefits of opioids for chronic pain (pain lasting >3 months) with outcomes examined at least 1 year later (*14*). On the basis of data available from health systems, researchers estimate that 9.6–11.5 million adults, or approximately 3%–4% of the adult U.S. population, were prescribed long-term opioid therapy in 2005 (*15*).

Opioid pain medication use presents serious risks, including overdose and opioid use disorder. From 1999 to 2014, more than 165,000 persons died from overdose related to opioid pain medication in the United States (*16*). In the past decade, while the death rates for the top leading causes of death such as heart disease and cancer have decreased substantially, the death rate associated with opioid pain medication has increased markedly (*17*). Sales of opioid pain medication have increased in parallel with opioid-related overdose deaths (*18*). The Drug Abuse Warning Network estimated that >420,000 emergency department visits were related to the misuse or abuse of narcotic pain relievers in 2011, the most recent year for which data are available (*19*). Although clinical criteria have varied over time, opioid use disorder is a problematic pattern of opioid use leading to clinically significant impairment or distress. This disorder is manifested by specific criteria such as unsuccessful efforts to cut down or control use and use resulting in social problems and a failure to fulfill major role obligations at work, school, or home (*20*). This diagnosis has also been referred to as "abuse or dependence" and "addiction" in the literature, and is different from tolerance (diminished response to a drug with repeated use) and physical dependence (adaptation to a drug that produces symptoms of withdrawal when the drug is stopped), both of which can exist without a diagnosed disorder. In 2013, on the basis of DSM-IV diagnosis criteria, an estimated 1.9 million persons abused or were dependent on prescription opioid pain medication (*21*). Having a history of a prescription for an opioid pain medication increases the risk for overdose and opioid use disorder (*22*–*24*), highlighting the value of guidance on safer prescribing practices for clinicians. For example, a recent study of patients aged 15–64 years receiving opioids for chronic noncancer pain and followed for up to 13 years revealed that one in 550 patients died from opioid-related overdose at a median of 2.6 years from their first opioid prescription, and one in 32 patients who escalated to opioid dosages >200 morphine milligram equivalents (MME) died from opioid-related overdose (*25*).

This guideline provides recommendations for the prescribing of opioid pain medication by primary care clinicians for chronic pain (i.e., pain conditions that typically last >3 months or past the time of normal tissue healing) in outpatient settings outside of active cancer treatment, palliative care, and end-of-life care. Although the guideline does not focus broadly on pain management, appropriate use of long-term opioid therapy must be considered within the context of all pain management strategies (including nonopioid pain medications and nonpharmacologic treatments). CDC's recommendations are made on the basis of a systematic review of the best available evidence, along with input from experts, and further review and deliberation by a federally chartered advisory committee. The guideline is intended to ensure that clinicians and patients consider safer and more effective treatment, improve patient outcomes such as reduced pain and improved function, and reduce the number of persons who develop opioid use disorder, overdose, or experience other adverse events related to these drugs. Clinical decision making should be based on a relationship between the clinician and patient, and an understanding of the patient's clinical situation, functioning, and life context. The recommendations in the guideline are voluntary, rather than prescriptive standards. They are based on emerging evidence, including observational studies or randomized clinical trials with notable limitations. Clinicians should consider the circumstances and unique needs of each patient when providing care.

## Rationale

Primary care clinicians report having concerns about opioid pain medication misuse, find managing patients with chronic pain stressful, express concern about patient addiction, and report insufficient training in prescribing opioids (*26*). Across specialties, physicians believe that opioid pain medication can be effective in controlling pain, that addiction is a common consequence of prolonged use, and that long-term opioid therapy often is overprescribed for patients with chronic noncancer pain (*27*). These attitudes and beliefs, combined with increasing trends in opioid-related overdose, underscore the need for better clinician guidance on opioid prescribing. Clinical practice guidelines focused on prescribing can improve clinician knowledge, change prescribing practices (*28*), and ultimately benefit patient health.

Professional organizations, states, and federal agencies (e.g., the American Pain Society/American Academy of Pain Medicine, 2009; the Washington Agency Medical Directors Group, 2015; and the U.S. Department of Veterans Affairs/Department of Defense, 2010) have developed guidelines for opioid prescribing (*29–31*). Existing guidelines share some common elements, including dosing thresholds, cautious titration, and risk mitigation strategies such as using risk assessment tools, treatment agreements, and urine drug testing. However, there is considerable variability in the specific recommendations (e.g., range of dosing thresholds of 90 MME/day to 200 MME/day), audience (e.g., primary care clinicians versus specialists), use of evidence (e.g., systematic review, grading of evidence and recommendations, and role of expert opinion), and rigor of methods for addressing conflict of interest (*32*). Most guidelines, especially those that are not based on evidence from scientific studies published in 2010 or later, also do not reflect the most recent scientific evidence about risks related to opioid dosage.

This CDC guideline offers clarity on recommendations based on the most recent scientific evidence, informed by expert opinion and stakeholder and public input. Scientific research has identified high-risk prescribing practices that have contributed to the overdose epidemic (e.g., high-dose prescribing, overlapping opioid and benzodiazepine prescriptions, and extended-release/long-acting [ER/LA] opioids for acute pain) (*24*,*33*,*34*). Using guidelines to address problematic prescribing has the potential to optimize care and improve patient safety based on evidence-based practice (*28*), as well as reverse the cycle of opioid pain medication misuse that contributes to the opioid overdose epidemic.

## Scope and Audience

This guideline is intended for primary care clinicians (e.g., family physicians and internists) who are treating patients with chronic pain (i.e., pain lasting >3 months or past the time of normal tissue healing) in outpatient settings. Prescriptions by primary care clinicians account for nearly half of all dispensed opioid prescriptions, and the growth in prescribing rates among these clinicians has been above average (*3*). Primary care clinicians include physicians as well as nurse practitioners and physician assistants. Although the focus is on primary care clinicians, because clinicians work within team-based care, the recommendations refer to and promote integrated pain management and collaborative working relationships with other providers (e.g., behavioral health providers, pharmacists, and pain management specialists). Although the transition from use of opioid therapy for acute pain to use for chronic pain is hard to predict and identify, the guideline is intended to inform clinicians who are considering prescribing opioid pain medication for painful conditions that can or have become chronic.

This guideline is intended to apply to patients aged ≥18 years with chronic pain outside of palliative and end-of-life care. For this guideline, palliative care is defined in a manner consistent with that of the Institute of Medicine as care that provides relief from pain and other symptoms, supports quality of life, and is focused on patients with serious advanced illness. Palliative care can begin early in the course of treatment for any serious illness that requires excellent management of pain or other distressing symptoms (*35*). End-of-life care is defined as care for persons with a terminal illness or at high risk for dying in the near future in hospice care, hospitals, long-term care settings, or at home. Patients within the scope of this guideline include cancer survivors with chronic pain who have completed cancer treatment, are in clinical remission, and are under cancer surveillance only. The guideline is not intended for patients undergoing active cancer treatment, palliative care, or end-of-life care because of the unique therapeutic goals, ethical considerations, opportunities for medical supervision, and balance of risks and benefits with opioid therapy in such care.

The recommendations address the use of opioid pain medication in certain special populations (e.g., older adults and pregnant women) and in populations with conditions posing special risks (e.g., a history of substance use disorder). The recommendations do not address the use of opioid pain medication in children or adolescents aged <18 years. The available evidence concerning the benefits and harms of long-term opioid therapy in children and adolescents is limited, and few opioid medications provide information on the label regarding safety and effectiveness in pediatric patients. However, observational research shows significant increases in opioid prescriptions for pediatric populations from 2001 to 2010 (*36*), and a large proportion of adolescents are commonly prescribed opioid pain medications for conditions such as headache and sports injuries (e.g., in one study, 50% of adolescents presenting with headache received a prescription for an opioid pain medication [*37*,*38*]). Adolescents who misuse opioid pain medication often misuse medications from their own previous prescriptions (*39*), with an estimated 20% of adolescents with currently prescribed opioid medications reporting using them intentionally to get high or increase the effects of alcohol or other drugs (*40*). Use of prescribed opioid pain medication before high school graduation is associated with a 33% increase in the risk of later opioid misuse (*41*). Misuse of opioid pain medications in adolescence strongly predicts later onset of heroin use (*42*). Thus, risk of opioid medication use in pediatric populations is of great concern. Additional clinical trial and observational research is needed,

and encouraged, to inform development of future guidelines for this critical population.

The recommendations are not intended to provide guidance on use of opioids as part of medication-assisted treatment for opioid use disorder. Some of the recommendations might be relevant for acute care settings or other specialists, such as emergency physicians or dentists, but use in these settings or by other specialists is not the focus of this guideline. Readers are referred to other sources for prescribing recommendations within acute care settings and in dental practice, such as the American College of Emergency Physicians' guideline for prescribing of opioids in the emergency department (*43*); the American Society of Anesthesiologists' guideline for acute pain management in the perioperative setting (*44*); the Washington Agency Medical Directors' Group Interagency Guideline on Prescribing Opioids for Pain, Part II: Prescribing Opioids in the Acute and Subacute Phase (*30*); and the Pennsylvania Guidelines on the Use of Opioids in Dental Practice (*45*). In addition, given the challenges of managing the painful complications of sickle cell disease, readers are referred to the NIH National Heart, Lung, and Blood Institute's Evidence Based Management of Sickle Cell Disease Expert Panel Report for management of sickle cell disease (*46*).

# Guideline Development Methods

## Guideline Development Using the Grading of Recommendations Assessment, Development, and Evaluation Method

CDC developed this guideline using the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) method (http://www.gradeworkinggroup.org). This method specifies the systematic review of scientific evidence and offers a transparent approach to grading quality of evidence and strength of recommendations. The method has been adapted by the CDC Advisory Committee on Immunization Practices (ACIP) (*47*). CDC has applied the ACIP translation of the GRADE framework in this guideline. Within the ACIP GRADE framework, the body of evidence is categorized in a hierarchy. This hierarchy reflects degree of confidence in the effect of a clinical action on health outcomes. The categories include type 1 evidence (randomized clinical trials or overwhelming evidence from observational studies), type 2 evidence (randomized clinical trials with important limitations, or exceptionally strong evidence from observational studies), type 3 evidence (observational studies or randomized clinical trials with notable limitations), and type 4 evidence (clinical experience and observations, observational studies with important limitations, or randomized clinical trials with several major limitations). Type of evidence is categorized by study design as well as limitations in study design or implementation, imprecision of estimates, variability in findings, indirectness of evidence, publication bias, magnitude of treatment effects, dose-response gradient, and a constellation of plausible biases that could change observations of effects. Type 1 evidence indicates that one can be very confident that the true effect lies close to that of the estimate of the effect; type 2 evidence means that the true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different; type 3 evidence means that confidence in the effect estimate is limited and the true effect might be substantially different from the estimate of the effect; and type 4 evidence indicates that one has very little confidence in the effect estimate, and the true effect is likely to be substantially different from the estimate of the effect (*47*,*48*). When no studies are present, evidence is considered to be insufficient. The ACIP GRADE framework places recommendations in two categories, Category A and Category B. Four major factors determine the category of the recommendation: the quality of evidence, the balance between desirable and undesirable effects, values and preferences, and resource allocation (cost). Category A recommendations apply to all persons in a specified group and indicate that most patients should receive the recommended course of action. Category B recommendations indicate that there should be individual decision making; different choices will be appropriate for different patients, so clinicians must help patients arrive at a decision consistent with patient values and preferences, and specific clinical situations (*47*). According to the GRADE methodology, a particular quality of evidence does not necessarily imply a particular strength of recommendation (*48–50*). Category A recommendations can be made based on type 3 or type 4 evidence when the advantages of a clinical action greatly outweigh the disadvantages based on a consideration of benefits and harms, values and preferences, and costs. Category B recommendations are made when the advantages and disadvantages of a clinical action are more balanced. GRADE methodology is discussed extensively elsewhere (*47*,*51*). The U.S. Preventive Services Task Force (USPSTF) follows different methods for developing and categorizing recommendations (http://www.uspreventiveservicestaskforce.org). USPSTF recommendations focus on preventive services and are categorized as A, B, C, D, and I. Under the Affordable Care Act, all "nongrandfathered" health plans (that is, those health plans not in existence prior to March 23, 2010 or those with significant changes to their coverage) and expanded Medicaid plans are required to cover

preventive services recommended by USPSTF with a category A or B rating with no cost sharing. The coverage requirements went into effect September 23, 2010. Similar requirements are in place for vaccinations recommended by ACIP, but do not exist for other recommendations made by CDC, including recommendations within this guideline.

A previously published systematic review sponsored by the Agency for Healthcare Research and Quality (AHRQ) on the effectiveness and risks of long-term opioid treatment of chronic pain (*14*,*52*) initially served to directly inform the recommendation statements. This systematic clinical evidence review addressed the effectiveness of long-term opioid therapy for outcomes related to pain, function, and quality of life; the comparative effectiveness of different methods for initiating and titrating opioids; the harms and adverse events associated with opioids; and the accuracy of risk-prediction instruments and effectiveness of risk mitigation strategies on outcomes related to overdose, addiction, abuse, or misuse. For the current guideline development, CDC conducted additional literature searches to update the evidence review to include more recently available publications and to answer an additional clinical question about the effect of opioid therapy for acute pain on long-term use. More details about the literature search strategies and GRADE methods applied are provided in the Clinical Evidence Review (http://stacks.cdc.gov/view/cdc/38026). CDC developed GRADE evidence tables to illustrate the quality of the evidence for each clinical question.

As identified in the AHRQ-sponsored clinical evidence review, the overall evidence base for the effectiveness and risks of long-term opioid therapy is low in quality per the GRADE criteria. Thus, contextual evidence is needed to provide information about the benefits and harms of nonpharmacologic and nonopioid pharmacologic therapy and the epidemiology of opioid pain medication overdose and inform the recommendations. Further, as elucidated by the GRADE Working Group, supplemental information on clinician and patient values and preferences and resource allocation can inform judgments of benefits and harms and be helpful for translating the evidence into recommendations. CDC conducted a contextual evidence review to supplement the clinical evidence review based on systematic searches of the literature. The review focused on the following four areas: effectiveness of nonpharmacologic and nonopioid pharmacologic treatments; benefits and harms related to opioid therapy (including additional studies not included in the clinical evidence review such as studies that evaluated outcomes at any duration or used observational study designs related to specific opioid pain medications, high-dose opioid therapy, co-prescription of opioids with other controlled substances, duration of opioid use, special populations, risk stratification/mitigation approaches, and effectiveness of treatments for addressing potential harms of opioid therapy); clinician and patient values and preferences; and resource allocation. CDC constructed narrative summaries of this contextual evidence and used the information to support the clinical recommendations. More details on methods for the contextual evidence review are provided in the Contextual Evidence Review (http://stacks.cdc.gov/view/cdc/38027).

On the basis of a review of the clinical and contextual evidence (review methods are described in more detail in subsequent sections of this report), CDC drafted recommendation statements focused on determining when to initiate or continue opioids for chronic pain; opioid selection, dosage, duration, follow-up, and discontinuation; and assessing risk and addressing harms of opioid use. To help assure the draft guideline's integrity and credibility, CDC then began a multistep review process to obtain input from experts, stakeholders, and the public to help refine the recommendations.

## Solicitation of Expert Opinion

CDC sought the input of experts to assist in reviewing the evidence and providing perspective on how CDC used the evidence to develop the draft recommendations. These experts, referred to as the "Core Expert Group" (CEG) included subject matter experts, representatives of primary care professional societies and state agencies, and an expert in guideline development methodology.* CDC identified subject matter experts with high scientific standing; appropriate academic and clinical training and relevant clinical experience; and proven scientific excellence in opioid prescribing, substance use disorder treatment, and pain management. CDC identified representatives from leading primary care professional organizations to represent the audience for this guideline. Finally, CDC identified state agency officials and representatives based on their experience with state guidelines for opioid prescribing that were developed with multiple agency stakeholders and informed by scientific literature and existing evidence-based guidelines.

Prior to their participation, CDC asked potential experts to reveal possible conflicts of interest such as financial relationships with industry, intellectual preconceptions, or previously stated public positions. Experts could not serve if they had conflicts that might have a direct and predictable effect on the recommendations. CDC excluded experts who had a financial or promotional relationship with a company

* A list of the members appears at the end of this report. The recommendations and all statements included in this guideline are those of CDC and do not necessarily represent the official position of any persons or organizations providing comments on the draft guideline.

that makes a product that might be affected by the guideline. CDC reviewed potential nonfinancial conflicts carefully (e.g., intellectual property, travel, public statements or positions such as congressional testimony) to determine if the activities would have a direct and predictable effect on the recommendations. CDC determined the risk of these types of activities to be minimal for the identified experts. All experts completed a statement certifying that there was no potential or actual conflict of interest. Activities that did not pose a conflict (e.g., participation in Food and Drug Administration [FDA] activities or other guideline efforts) are disclosed.

CDC provided to each expert written summaries of the scientific evidence (both the clinical and contextual evidence reviews conducted for this guideline) and CDC's draft recommendation statements. Experts provided individual ratings for each draft recommendation statement based on the balance of benefits and harms, evidence strength, certainty of values and preferences, cost, recommendation strength, rationale, importance, clarity, and ease of implementation. CDC hosted an in-person meeting of the experts that was held on June 23–24, 2015, in Atlanta, Georgia, to seek their views on the evidence and draft recommendations and to better understand their premeeting ratings. CDC sought the experts' individual opinions at the meeting. Although there was widespread agreement on some of the recommendations, there was disagreement on others. Experts did not vote on the recommendations or seek to come to a consensus. Decisions about recommendations to be included in the guideline, and their rationale, were made by CDC. After revising the guideline, CDC sent written copies of it to each of the experts for review and asked for any additional comments; CDC reviewed these written comments and considered them when making further revisions to the draft guideline. The experts have not reviewed the final version of the guideline.

## Federal Partner Engagement

Given the scope of this guideline and the interest of agencies across the federal government in appropriate pain management, opioid prescribing, and related outcomes, CDC invited its National Institute of Occupational Safety and Health and CDC's federal partners to observe the expert meeting, provide written comments on the full draft guideline after the meeting, and review the guideline through an agency clearance process; CDC reviewed comments and incorporated changes. Interagency collaboration will be critical for translating these recommendations into clinical practice. Federal partners included representatives from the Substance Abuse and Mental Health Services Administration, the National Institute on Drug Abuse, FDA, the U.S. Department of Veterans Affairs, the U.S. Department of Defense, the Office of the National Coordinator for Health Information Technology, the Centers for Medicare and Medicaid Services, the Health Resources and Services Administration, AHRQ, and the Office of National Drug Control Policy.

## Stakeholder Comment

Given the importance of the guideline for a wide variety of stakeholders, CDC also invited review from a Stakeholder Review Group (SRG) to provide comment so that CDC could consider modifications that would improve the recommendations' specificity, applicability, and ease of implementation. The SRG included representatives from professional organizations that represent specialties that commonly prescribe opioids (e.g., pain medicine, physical medicine and rehabilitation), delivery systems within which opioid prescribing occurs (e.g., hospitals), and representation from community organizations with interests in pain management and opioid prescribing.* Representatives from each of the SRG organizations were provided a copy of the guideline for comment. Each of these representatives provided written comments. Once input was received from the full SRG, CDC reviewed all comments and carefully considered them when revising the draft guideline.

## Constituent Engagement

To obtain initial perspectives from constituents on the recommendation statements, including clinicians and prospective patients, CDC convened a constituent engagement webinar and circulated information about the webinar in advance through announcements to partners. CDC hosted the webinar on September 16 and 17, 2015, provided information about the methodology for developing the guideline, and presented the key recommendations. A fact sheet was posted on the CDC Injury Center website (http://www.cdc.gov/injury) summarizing the guideline development process and clinical practice areas addressed in the guideline; instructions were included on how to submit comments via email. CDC received comments during and for 2 days following the first webinar. Over 1,200 constituent comments were received. Comments were reviewed and carefully considered when revising the draft guideline.

## Peer Review

Per the final information quality bulletin for peer review (https://www.whitehouse.gov/sites/default/files/omb/memoranda/fy2005/m05-03.pdf), peer review requirements applied to this guideline because it provides influential

scientific information that could have a clear and substantial impact on public- and private-sector decisions. Three experts independently reviewed the guideline to determine the reasonableness and strength of recommendations; the clarity with which scientific uncertainties were clearly identified; and the rationale, importance, clarity, and ease of implementation of the recommendations.* CDC selected peer reviewers based on expertise, diversity of scientific viewpoints, and independence from the guideline development process. CDC assessed and managed potential conflicts of interest using a process similar to the one as described for solicitation of expert opinion. No financial interests were identified in the disclosure and review process, and nonfinancial activities were determined to be of minimal risk; thus, no significant conflict of interest concerns were identified. CDC placed the names of peer reviewers on the CDC and the National Center for Injury Prevention and Control Peer Review Agenda websites that are used to provide information about the peer review of influential documents. CDC reviewed peer review comments and revised the draft guideline accordingly.

## Public Comment

To obtain comments from the public on the full guideline, CDC published a notice in the *Federal Register* (80 FR 77351) announcing the availability of the guideline and the supporting clinical and contextual evidence reviews for public comment. The comment period closed January 13, 2016. CDC received more than 4,350 comments from the general public, including patients with chronic pain, clinicians, families who have lost loved ones to overdose, medical associations, professional organizations, academic institutions, state and local governments, and industry. CDC reviewed each of the comments and carefully considered them when revising the draft guideline.

## Federal Advisory Committee Review and Recommendation

The National Center for Injury Prevention and Control (NCIPC) Board of Scientific Counselors (BSC) is a federal advisory committee that advises and makes recommendations to the Secretary of the Department of Health and Human Services, the Director of CDC, and the Director of NCIPC.* The BSC makes recommendations regarding policies, strategies, objectives, and priorities, and reviews progress toward injury and violence prevention. CDC sought the BSC's advice on the draft guideline. BSC members are special government employees appointed as CDC advisory committee members; as such, all members completed an OGE Form 450 to disclose relevant interests. BSC members also reported on their disclosures during meetings. Disclosures for the BSC are reported in the guideline.

To assist in guideline review, on December 14, 2015, via Federal Register notice, CDC announced the intent to form an Opioid Guideline Workgroup (OGW) to provide observations on the draft guideline to the BSC. CDC provided the BSC with the draft guideline as well as summaries of comments provided to CDC by stakeholders, constituents, and peer reviewers, and edits made to the draft guideline in response. During an open meeting held on January 7, 2016, the BSC recommended the formation of the OGW. The OGW included a balance of perspectives from audiences directly affected by the guideline, audiences that would be directly involved with implementing the recommendations, and audiences qualified to provide representation. The OGW comprised clinicians, subject matter experts, and a patient representative, with the following perspectives represented: primary care, pain medicine, public health, behavioral health, substance abuse treatment, pharmacy, patients, and research.* Additional sought-after attributes were appropriate academic and clinical training and relevant clinical experience; high scientific standing; and knowledge of the patient, clinician, and caregiver perspectives. In accordance with CDC policy, two BSC committee members also served as OGW members, with one serving as the OGW Chair. The professional credentials and interests of OGW members were carefully reviewed to identify possible conflicts of interest such as financial relationships with industry, intellectual preconceptions, or previously stated public positions. Only OGW members whose interests were determined to be minimal were selected. When an activity was perceived as having the potential to affect a specific aspect of the recommendations, the activity was disclosed, and the OGW member was recused from discussions related to that specific aspect of the recommendations (e.g., urine drug testing and abuse-deterrent formulations). Disclosures for the OGW are reported. CDC and the OGW identified ad-hoc consultants to supplement the workgroup expertise, when needed, in the areas of pediatrics, occupational medicine, obstetrics and gynecology, medical ethics, addiction psychiatry, physical medicine and rehabilitation, guideline development methodology, and the perspective of a family member who lost a loved one to opioid use disorder or overdose.

The BSC charged the OGW with reviewing the quality of the clinical and contextual evidence reviews and reviewing each of the recommendation statements and accompanying rationales. For each recommendation statement, the OGW considered the quality of the evidence, the balance of benefits and risks, the values and preferences of clinicians and patients, the cost feasibility, and the category designation

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of the recommendation (A or B). The OGW also reviewed supplementary documents, including input provided by the CEG, SRG, peer reviewers, and the public. OGW members discussed the guideline accordingly during virtual meetings and drafted a summary report of members' observations, including points of agreement and disagreement, and delivered the report to the BSC.

NCIPC announced an open meeting of the NCIPC BSC in the Federal Register on January 11, 2015. The BSC met on January 28, 2016, to discuss the OGW report and deliberate on the draft guideline itself. Members of the public provided comments at this meeting. After discussing the OGW report, deliberating on specific issues about the draft guideline identified at the meeting, and hearing public comment, the BSC voted unanimously: to support the observations made by the OGW; that CDC adopt the guideline recommendations that, according to the workgroup's report, had unanimous or majority support; and that CDC further consider the guideline recommendations for which the group had mixed opinions. CDC carefully considered the OGW observations, public comments, and BSC recommendations, and revised the guideline in response.

# Summary of the Clinical Evidence Review

## Primary Clinical Questions

CDC conducted a clinical systematic review of the scientific evidence to identify the effectiveness, benefits, and harms of long-term opioid therapy for chronic pain, consistent with the GRADE approach (*47*,*48*). Long-term opioid therapy is defined as use of opioids on most days for >3 months. A previously published AHRQ-funded systematic review on the effectiveness and risks of long-term opioid therapy for chronic pain comprehensively addressed four clinical questions (*14*,*52*). CDC, with the assistance of a methodology expert, searched the literature to identify newly published studies on these four original questions. Because long-term opioid use might be affected by use of opioids for acute pain, CDC subsequently developed a fifth clinical question (last in the series below), and in collaboration with a methodologist conducted a systematic review of the scientific evidence to address it. In brief, five clinical questions were addressed:

- The effectiveness of long-term opioid therapy versus placebo, no opioid therapy, or nonopioid therapy for long term (≥1 year) outcomes related to pain, function, and quality of life, and how effectiveness varies according to the type/cause of pain, patient demographics, and patient comorbidities (Key Question [KQ] 1).
- The risks of opioids versus placebo or no opioids on abuse, addiction, overdose, and other harms, and how harms vary according to the type/cause of pain, patient demographics, patient comorbidities, and dose (KQ2).
- The comparative effectiveness of opioid dosing strategies (different methods for initiating and titrating opioids; immediate-release versus ER/LA opioids; different ER/LA opioids; immediate-release plus ER/LA opioids versus ER/LA opioids alone; scheduled, continuous versus as-needed dosing; dose escalation versus dose maintenance; opioid rotation versus maintenance; different strategies for treating acute exacerbations of chronic pain; decreasing opioid doses or tapering off versus continuation; and different tapering protocols and strategies) (KQ3).
- The accuracy of instruments for predicting risk for opioid overdose, addiction, abuse, or misuse; the effectiveness of risk mitigation strategies (use of risk prediction instruments); effectiveness of risk mitigation strategies including opioid management plans, patient education, urine drug testing, prescription drug monitoring program (PDMP) data, monitoring instruments, monitoring intervals, pill counts, and abuse-deterrent formulations for reducing risk for opioid overdose, addiction, abuse, or misuse; and the comparative effectiveness of treatment strategies for managing patients with addiction (KQ4).
- The effects of prescribing opioid therapy versus not prescribing opioid therapy for acute pain on long-term use (KQ5).

The review was focused on the effectiveness of long-term opioid therapy on long-term (>1 year) outcomes related to pain, function, and quality of life to ensure that findings are relevant to patients with chronic pain and long-term opioid prescribing. The effectiveness of short-term opioid therapy has already been established (*10*). However, opioids have unique effects such as tolerance and physical dependence that might influence assessments of benefit over time. These effects raise questions about whether findings on short-term effectiveness of opioid therapy can be extrapolated to estimate benefits of long-term therapy for chronic pain. Thus, it is important to consider studies that provide data on long-term benefit. For certain opioid-related harms (overdose, fractures, falls, motor vehicle crashes), observational studies were included with outcomes measured at shorter intervals because such outcomes can occur early during opioid therapy, and such harms are not captured well in short-term clinical trials. A detailed listing of the key questions is provided in the Clinical Evidence Review (http://stacks.cdc.gov/view/cdc/38026).

## Clinical Evidence Systematic Review Methods

Complete methods and data for the 2014 AHRQ report, upon which this updated systematic review is based, have been published previously (*14*,*52*). Study authors developed the protocol using a standardized process (*53*) with input from experts and the public and registered the protocol in the PROSPERO database (*54*). For the 2014 AHRQ report, a research librarian searched MEDLINE, the Cochrane Central Register of Controlled Trials, the Cochrane Database of Systematic Reviews, PsycINFO, and CINAHL for English-language articles published January 2008 through August 2014, using search terms for opioid therapy, specific opioids, chronic pain, and comparative study designs. Also included were relevant studies from an earlier review (*10*) in which searches were conducted without a date restriction, reference lists were reviewed, and ClinicalTrials.gov was searched. CDC updated the AHRQ literature search using the same search strategies as in the original review including studies published before April, 2015. Seven additional studies met inclusion criteria and were added to the review. CDC used the GRADE approach outlined in the ACIP Handbook for Developing Evidence-Based Recommendations (*47*) to rate the quality of evidence for the full body of evidence (evidence from the 2014 AHRQ review plus the update) for each clinical question. Evidence was categorized into the following types: type 1 (randomized clinical trials or overwhelming evidence from observational studies), type 2 (randomized clinical trials with important limitations, or exceptionally strong evidence from observational studies), type 3 (observational studies, or randomized clinical trials with notable limitations), or type 4 (clinical experience and observations, observational studies with important limitations, or randomized clinical trials with several major limitations). When no studies were present, evidence was considered to be insufficient. Per GRADE methods, type of evidence was categorized by study design as well as a function of limitations in study design or implementation, imprecision of estimates, variability in findings, indirectness of evidence, publication bias, magnitude of treatment effects, dose-response gradient, and constellation of plausible biases that could change effects. Results were synthesized qualitatively, highlighting new evidence identified during the update process. Meta-analysis was not attempted due to the small numbers of studies, variability in study designs and clinical heterogeneity, and methodological shortcomings of the studies. More detailed information about data sources and searches, study selection, data extraction and quality assessment, data synthesis, and update search yield and new evidence for the current review is provided in the Clinical Evidence Review (http://stacks.cdc.gov/view/cdc/38026).

## Summary of Findings for Clinical Questions

The main findings of this updated review are consistent with the findings of the 2014 AHRQ report (*14*). In summary, evidence on long-term opioid therapy for chronic pain outside of end-of-life care remains limited, with insufficient evidence to determine long-term benefits versus no opioid therapy, though evidence suggests risk for serious harms that appears to be dose-dependent. These findings supplement findings from a previous review of the effectiveness of opioids for adults with chronic noncancer pain. In this previous review, based on randomized trials predominantly ≤12 weeks in duration, opioids were found to be moderately effective for pain relief, with small benefits for functional outcomes; although estimates vary, based on uncontrolled studies, a high percentage of patients discontinued long-term opioid use because of lack of efficacy and because of adverse events (*10*).

The GRADE evidence summary with type of evidence ratings for the five clinical questions for the current evidence review are outlined (Table 1). This summary is based on studies included in the AHRQ 2014 review (35 studies) plus additional studies identified in the updated search (seven studies). Additional details on findings from the original review are provided in the full 2014 AHRQ report (*14*,*52*). Full details on the clinical evidence review findings supporting this guideline are provided in the Clinical Evidence Review (http://stacks.cdc.gov/view/cdc/38026).

### Effectiveness

For KQ1, no study of opioid therapy versus placebo, no opioid therapy, or nonopioid therapy for chronic pain evaluated long-term (≥1 year) outcomes related to pain, function, or quality of life. Most placebo-controlled randomized clinical trials were ≤6 weeks in duration. Thus, the body of evidence for KQ1 is rated as insufficient (0 studies contributing) (*14*).

### Harms

For KQ2, the body of evidence is rated as type 3 (12 studies contributing; 11 from the original review plus one new study). One fair-quality cohort study found that long-term opioid therapy is associated with increased risk for an opioid abuse or dependence diagnosis (as defined by ICD-9-CM codes) versus no opioid prescription (*22*). Rates of opioid abuse or dependence diagnosis ranged from 0.7% with lower-dose (≤36 MME) chronic therapy to 6.1% with higher-dose (≥120 MME) chronic therapy, versus 0.004% with no opioids prescribed. Ten fair-quality uncontrolled studies reported estimates of opioid abuse, addiction, and related outcomes (*55*–*65*). In primary care settings, prevalence of opioid dependence

(using DSM-IV criteria) ranged from 3% to 26% (*55*,*56*,*59*). In pain clinic settings, prevalence of addiction ranged from 2% to 14% (*57*,*58*,*60*,*61*,*63–65*).

Factors associated with increased risk for misuse included history of substance use disorder, younger age, major depression, and use of psychotropic medications (*55*,*62*). Two studies reported on the association between opioid use and risk for overdose (*66*,*67*). One large fair-quality retrospective cohort study found that recent opioid use was associated with increased risk for any overdose events and serious overdose events versus nonuse (*66*). It also found higher doses associated with increased risk. Relative to 1–19 MME/day, the adjusted hazard ratio (HR) for any overdose event (consisting of mostly nonfatal overdose) was 1.44 for 20 to 49 MME/day, 3.73 for 50–99 MME/day, and 8.87 for ≥100 MME/day. A similar pattern was observed for serious overdose. A good-quality population-based, nested case-control study also found a dose-dependent association with risk for overdose death (*67*). Relative to 1–19 MME/day, the adjusted odds ratio (OR) was 1.32 for 20–49 MME/day, 1.92 for 50–99 MME/day, 2.04 for 100–199 MME/day, and 2.88 for ≥200 MME/day.

Findings of increased fracture risk for current opioid use, versus nonuse, were mixed in two studies (*68*,*69*). Two studies found an association between opioid use and increased risk for cardiovascular events (*70*,*71*). Indirect evidence was found for endocrinologic harms (increased use of medications for erectile dysfunction or testosterone from one previously included study; laboratory-defined androgen deficiency from one newly reviewed study) (*72*,*73*). One study found that opioid dosages ≥20 MME/day were associated with increased odds of road trauma among drivers (*74*).

## Opioid Dosing Strategies

For KQ3, the body of evidence is rated as type 4 (14 studies contributing; 12 from the original review plus two new studies). For initiation and titration of opioids, the 2014 AHRQ report found insufficient evidence from three fair-quality, open-label trials to determine comparative effectiveness of ER/LA versus immediate-release opioids for titrating patients to stable pain control (*75*,*76*). One new fair-quality cohort study of Veterans Affairs patients found initiation of therapy with an ER/LA opioid associated with greater risk for nonfatal overdose than initiation with an immediate-release opioid, with risk greatest in the first 2 weeks after initiation of treatment (*77*).

For comparative effectiveness and harms of ER/LA opioids, the 2014 AHRQ report included three randomized, head-to-head trials of various ER/LA opioids that found no clear differences in 1-year outcomes related to pain or function (*78–80*) but had methodological shortcomings. A fair-quality retrospective cohort study based on national Veterans Health Administration system pharmacy data found that methadone was associated with lower overall risk for all-cause mortality versus morphine (*81*), and a fair-quality retrospective cohort study based on Oregon Medicaid data found no statistically significant differences between methadone and long-acting morphine in risk for death or overdose symptoms (*82*). However, a new observational study (*83*) found methadone associated with increased risk for overdose versus sustained-release morphine among Tennessee Medicaid patients. The observed inconsistency in study findings suggests that risks of methadone might vary in different settings as a function of different monitoring and management protocols, though more research is needed to understand factors associated with safer methadone prescribing.

For dose escalation, the 2014 AHRQ report included one fair-quality randomized trial that found no differences between more liberal dose escalation and maintenance of current doses after 12 months in pain, function, all-cause withdrawals, or withdrawals due to opioid misuse (*84*). However, the difference in opioid dosages prescribed at the end of the trial was relatively small (mean 52 MME/day with more liberal dosing versus 40 MME/day). Evidence on other comparisons related to opioid dosing strategies (ER/LA versus immediate-release opioids; immediate-release plus ER/LA opioids versus ER/LA opioids alone; scheduled continuous dosing versus as-needed dosing; or opioid rotation versus maintenance of current therapy; long-term effects of strategies for treating acute exacerbations of chronic pain) was not available or too limited to determine effects on long-term clinical outcomes. For example, evidence on the comparative effectiveness of opioid tapering or discontinuation versus maintenance, and of different opioid tapering strategies, was limited to small, poor-quality studies (*85–87*).

## Risk Assessment and Mitigation

For KQ4, the body of evidence is rated as type 3 for the accuracy of risk assessment tools and insufficient for the effectiveness of use of risk assessment tools and mitigation strategies in reducing harms (six studies contributing; four from the original review plus two new studies). The 2014 AHRQ report included four studies (*88–91*) on the accuracy of risk assessment instruments, administered prior to opioid therapy initiation, for predicting opioid abuse or misuse. Results for the Opioid Risk Tool (ORT) (*89–91*) were extremely inconsistent; evidence for other risk assessment instruments was very sparse, and studies had serious methodological shortcomings. One additional fair-quality (*92*) and one poor-quality (*93*) study identified for this update compared the predictive accuracy of the ORT, the Screener and Opioid Assessment for Patients with Pain-Revised (SOAPP-R), and the Brief Risk Interview.

For the ORT, sensitivity was 0.58 and 0.75 and specificity 0.54 and 0.86; for the SOAPP-R, sensitivity was 0.53 and 0.25 and specificity 0.62 and 0.73; and for the Brief Risk Interview, sensitivity was 0.73 and 0.83 and specificity 0.43 and 0.88. For the ORT, positive likelihood ratios ranged from noninformative (positive likelihood ratio close to 1) to moderately useful (positive likelihood ratio >5). The SOAPP-R was associated with noninformative likelihood ratios (estimates close to 1) in both studies.

No study evaluated the effectiveness of risk mitigation strategies (use of risk assessment instruments, opioid management plans, patient education, urine drug testing, use of PDMP data, use of monitoring instruments, more frequent monitoring intervals, pill counts, or use of abuse-deterrent formulations) for improving outcomes related to overdose, addiction, abuse, or misuse.

### Effects of Opioid Therapy for Acute Pain on Long-Term Use

For KQ5, the body of evidence is rated as type 3 (two new studies contributing). Two fair-quality retrospective cohort studies found opioid therapy prescribed for acute pain associated with greater likelihood of long-term use. One study evaluated opioid-naïve patients who had undergone low-risk surgery, such as cataract surgery and varicose vein stripping (*94*). Use of opioids within 7 days of surgery was associated with increased risk for use at 1 year. The other study found that among patients with a workers' compensation claim for acute low back pain, compared to patients who did not receive opioids early after injury (defined as use within 15 days following onset of pain), patients who did receive early opioids had an increased likelihood of receiving five or more opioid prescriptions 30–730 days following onset that increased with greater early exposure. Versus no early opioid use, the adjusted OR was 2.08 (95% CI = 1.55–2.78) for 1–140 MME/day and increased to 6.14 (95% confidence interval [CI] = 4.92–7.66) for ≥450 MME/day (*95*).

## Summary of the Contextual Evidence Review

### Primary Areas of Focus

Contextual evidence is complementary information that assists in translating the clinical research findings into recommendations. CDC conducted contextual evidence reviews on four topics to supplement the clinical evidence review findings:

- Effectiveness of nonpharmacologic (e.g., cognitive behavioral therapy [CBT], exercise therapy, interventional treatments, and multimodal pain treatment) and nonopioid pharmacologic treatments (e.g., acetaminophen, nonsteroidal anti-inflammatory drugs [NSAIDs], antidepressants, and anticonvulsants), including studies of any duration.
- Benefits and harms of opioid therapy (including additional studies not included in the clinical evidence review, such as studies that were not restricted to patients with chronic pain, evaluated outcomes at any duration, performed ecological analyses, or used observational study designs other than cohort and case-cohort control studies) related to specific opioids, high-dose therapy, co-prescription with other controlled substances, duration of use, special populations, and potential usefulness of risk stratification/mitigation approaches, in addition to effectiveness of treatments associated with addressing potential harms of opioid therapy (opioid use disorder).
- Clinician and patient values and preferences related to opioids and medication risks, benefits, and use.
- Resource allocation including costs and economic efficiency of opioid therapy and risk mitigation strategies.

CDC also reviewed clinical guidelines that were relevant to opioid prescribing and could inform or complement the CDC recommendations under development (e.g., guidelines on nonpharmacologic and nonopioid pharmacologic treatments and guidelines with recommendations related to specific clinician actions such as urine drug testing or opioid tapering protocols).

## Contextual Evidence Review Methods

CDC conducted a contextual evidence review to assist in developing the recommendations by providing an assessment of the balance of benefits and harms, values and preferences, and cost, consistent with the GRADE approach. Given the public health urgency for developing opioid prescribing recommendations, a rapid review was required for the contextual evidence review for the current guideline. Rapid reviews are used when there is a need to streamline the systematic review process to obtain evidence quickly (*96*). Methods used to streamline the process include limiting searches by databases, years, and languages considered, and truncating quality assessment and data abstraction protocols. CDC conducted "rapid reviews" of the contextual evidence on nonpharmacologic and nonopioid pharmacologic treatments, benefits and harms, values and preferences, and resource allocation.

Detailed information about contextual evidence data sources and searches, inclusion criteria, study selection, and

data extraction and synthesis are provided in the Contextual Evidence Review (http://stacks.cdc.gov/view/cdc/38027). In brief, CDC conducted systematic literature searches to identify original studies, systematic reviews, and clinical guidelines, depending on the topic being searched. CDC also solicited publication referrals from subject matter experts. Given the need for a rapid review process, grey literature (e.g., literature by academia, organizations, or government in the forms of reports, documents, or proceedings not published by commercial publishers) was not systematically searched. Database sources, including MEDLINE, PsycINFO, the Cochrane Central Register of Controlled Trials, and the Cochrane Database of Systematic Reviews, varied by topic. Multiple reviewers scanned study abstracts identified through the database searches and extracted relevant studies for review. CDC constructed narrative summaries and tables based on relevant articles that met inclusion criteria, which are provided in the Contextual Evidence Review (http://stacks.cdc.gov/view/cdc/38027).

Findings from the contextual reviews provide indirect evidence and should be interpreted accordingly. CDC did not formally rate the quality of evidence for the studies included in the contextual evidence review using the GRADE method. The studies that addressed benefits and harms, values and preferences, and resource allocation most often employed observational methods, used short follow-up periods, and evaluated selected samples. Therefore the strength of the evidence from these contextual review areas was considered to be low, comparable to type 3 or type 4 evidence. The quality of evidence for nonopioid pharmacologic and nonpharmacologic pain treatments was generally rated as moderate, comparable to type 2 evidence, in systematic reviews and clinical guidelines (e.g., for treatment of chronic neuropathic pain, low back pain, osteoarthritis, and fibromyalgia). Similarly, the quality of evidence on pharmacologic and psychosocial opioid use disorder treatment was generally rated as moderate, comparable to type 2 evidence, in systematic reviews and clinical guidelines.

## Summary of Findings for Contextual Areas

Full narrative reviews and tables that summarize key findings from the contextual evidence review are provided in the Contextual Evidence Review (http://stacks.cdc.gov/view/cdc/38027).

### Effectiveness of Nonpharmacologic and Nonopioid Pharmacologic Treatments

Several nonpharmacologic and nonopioid pharmacologic treatments have been shown to be effective in managing chronic pain in studies ranging in duration from 2 weeks to 6 months. For example, CBT that trains patients in behavioral techniques and helps patients modify situational factors and cognitive processes that exacerbate pain has small positive effects on disability and catastrophic thinking (*97*). Exercise therapy can help reduce pain and improve function in chronic low back pain (*98*), improve function and reduce pain in osteoarthritis of the knee (*99*) and hip (*100*), and improve well-being, fibromyalgia symptoms, and physical function in fibromyalgia (*101*). Multimodal and multidisciplinary therapies (e.g., therapies that combine exercise and related therapies with psychologically based approaches) can help reduce pain and improve function more effectively than single modalities (*102*,*103*). Nonopioid pharmacologic approaches used for pain include analgesics such as acetaminophen, NSAIDs, and cyclooxygenase 2 (COX-2) inhibitors; selected anticonvulsants; and selected antidepressants (particularly tricyclics and serotonin and norepinephrine reuptake inhibitors [SNRIs]). Multiple guidelines recommend acetaminophen as first-line pharmacotherapy for osteoarthritis (*104*–*109*) or for low back pain (*110*) but note that it should be avoided in liver failure and that dosage should be reduced in patients with hepatic insufficiency or a history of alcohol abuse (*109*). Although guidelines also recommend NSAIDs as first-line treatment for osteoarthritis or low back pain (*106*,*110*), NSAIDs and COX-2 inhibitors do have risks, including gastrointestinal bleeding or perforation as well as renal and cardiovascular risks (*111*). FDA has recently strengthened existing label warnings that NSAIDs increase risks for heart attack and stroke, including that these risks might increase with longer use or at higher doses (*112*). Several guidelines agree that first- and second-line drugs for neuropathic pain include anticonvulsants (gabapentin or pregabalin), tricyclic antidepressants, and SNRIs (*113*–*116*). Interventional approaches such as epidural injection for certain conditions (e.g., lumbar radiculopathy) can provide short-term improvement in pain (*117*–*119*). Epidural injection has been associated with rare but serious adverse events, including loss of vision, stroke, paralysis, and death (*120*).

### Benefits and Harms of Opioid Therapy

Balance between benefits and harms is a critical factor influencing the strength of clinical recommendations. In particular, CDC considered what is known from the epidemiology research about benefits and harms related to specific opioids and formulations, high dose therapy, co-prescription with other controlled substances, duration of use, special populations, and risk stratification and mitigation approaches. Additional information on benefits and harms of long-term opioid therapy from studies meeting rigorous selection criteria is provided in the clinical evidence review (e.g., see KQ2). CDC also considered the number of persons experiencing chronic pain, numbers potentially benefiting

from opioids, and numbers affected by opioid-related harms. A review of these data is presented in the background section of this document, with detailed information provided in the Contextual Evidence Review (http://stacks.cdc.gov/view/cdc/38027). Finally, CDC considered the effectiveness of treatments that addressed potential harms of opioid therapy (opioid use disorder).

Regarding specific opioids and formulations, as noted by FDA, there are serious risks of ER/LA opioids, and the indication for this class of medications is for management of pain severe enough to require daily, around-the-clock, long-term opioid treatment in patients for whom other treatment options (e.g., nonopioid analgesics or immediate-release opioids) are ineffective, not tolerated, or would be otherwise inadequate to provide sufficient management of pain (*121*). Time-scheduled opioid use was associated with substantially higher average daily opioid dosage than as-needed opioid use in one study (*122*). Methadone has been associated with disproportionate numbers of overdose deaths relative to the frequency with which it is prescribed for pain. Methadone has been found to account for as much as a third of opioid-related overdose deaths involving single or multiple drugs in states that participated in the Drug Abuse Warning Network, which was more than any opioid other than oxycodone, despite representing <2% of opioid prescriptions outside of opioid treatment programs in the United States; further, methadone was involved in twice as many single-drug deaths as any other prescription opioid (*123*).

Regarding high-dose therapy, several epidemiologic studies that were excluded from the clinical evidence review because patient samples were not restricted to patients with chronic pain also examined the association between opioid dosage and overdose risk (*23*,*24*,*124*–*126*). Consistent with the clinical evidence review, the contextual review found that opioid-related overdose risk is dose-dependent, with higher opioid dosages associated with increased overdose risk. Two of these studies (*23*,*24*), as well as the two studies in the clinical evidence review (*66*,*67*), evaluated similar MME/day dose ranges for association with overdose risk. In these four studies, compared with opioids prescribed at <20 MME/day, the odds of overdose among patients prescribed opioids for chronic nonmalignant pain were between 1.3 (*67*) and 1.9 (*24*) for dosages of 20 to <50 MME/day, between 1.9 (*67*) and 4.6 (*24*) for dosages of 50 to <100 MME/day, and between 2.0 (*67*) and 8.9 (*66*) for dosages of ≥100 MME/day. Compared with dosages of 1–<20 MME/day, absolute risk difference approximation for 50–<100 MME/day was 0.15% for fatal overdose (*24*) and 1.40% for any overdose (*66*), and for ≥100 MME/day was 0.25% for fatal overdose (*24*) and 4.04% for any overdose (*66*). A recent study of Veterans Health Administration patients with chronic pain found that patients who died of overdoses related to opioids were prescribed higher opioid dosages (mean: 98 MME/day; median: 60 MME/day) than controls (mean: 48 MME/day, median: 25 MME/day) (*127*). Finally, another recent study of overdose deaths among state residents with and without opioid prescriptions revealed that prescription opioid-related overdose mortality rates rose rapidly up to prescribed doses of 200 MME/day, after which the mortality rates continued to increase but grew more gradually (*128*). A listing of common opioid medications and their MME equivalents is provided (Table 2).

Regarding coprescription of opioids with benzodiazepines, epidemiologic studies suggest that concurrent use of benzodiazepines and opioids might put patients at greater risk for potentially fatal overdose. Three studies of fatal overdose deaths found evidence of concurrent benzodiazepine use in 31%–61% of decedents (*67*,*128*,*129*). In one of these studies (*67*), among decedents who received an opioid prescription, those whose deaths were related to opioids were more likely to have obtained opioids from multiple physicians and pharmacies than decedents whose deaths were not related to opioids.

Regarding duration of use, patients can experience tolerance and loss of effectiveness of opioids over time (*130*). Patients who do not experience clinically meaningful pain relief early in treatment (i.e., within 1 month) are unlikely to experience pain relief with longer-term use (*131*).

Regarding populations potentially at greater risk for harm, risk is greater for patients with sleep apnea or other causes of sleep-disordered breathing, patients with renal or hepatic insufficiency, older adults, pregnant women, patients with depression or other mental health conditions, and patients with alcohol or other substance use disorders. Interpretation of clinical data on the effects of opioids on sleep-disordered breathing is difficult because of the types of study designs and methods employed, and there is no clear consensus regarding association with risk for developing obstructive sleep apnea syndrome (*132*). However, opioid therapy can decrease respiratory drive, a high percentage of patients on long-term opioid therapy have been reported to have an abnormal apnea-hypopnea index (*133*), opioid therapy can worsen central sleep apnea in obstructive sleep apnea patients, and it can cause further desaturation in obstructive sleep apnea patients not on continuous positive airway pressure (CPAP) (*31*). Reduced renal or hepatic function can result in greater peak effect and longer duration of action and reduce the dose at which respiratory depression and overdose occurs (*134*). Age-related changes in patients aged ≥65 years, such as reduced renal function and medication clearance, even in the absence of renal disease (*135*), result in a smaller therapeutic window between safe dosages and dosages associated with respiratory depression and overdose. Older adults might also be at increased risk for falls and fractures related to opioids (*136*–*138*). Opioids used

in pregnancy can be associated with additional risks to both mother and fetus. Some studies have shown an association of opioid use in pregnancy with birth defects, including neural tube defects (*139*,*140*), congenital heart defects (*140*), and gastroschisis (*140*); preterm delivery (*141*), poor fetal growth (*141*), and stillbirth (*141*). Importantly, in some cases, opioid use during pregnancy leads to neonatal opioid withdrawal syndrome (*142*). Patients with mental health comorbidities and patients with histories of substance use disorders might be at higher risk than other patients for opioid use disorder (*62*,*143*,*144*). Recent analyses found that depressed patients were at higher risk for drug overdose than patients without depression, particularly at higher opioid dosages, although investigators were unable to distinguish unintentional overdose from suicide attempts (*145*). In case-control and case-cohort studies, substance abuse/dependence was more prevalent among patients experiencing overdose than among patients not experiencing overdose (12% versus 6% [*66*], 40% versus 10% [*24*], and 26% versus 9% [*23*]).

Regarding risk stratification approaches, limited evidence was found regarding benefits and harms. Potential benefits of PDMPs and urine drug testing include the ability to identify patients who might be at higher risk for opioid overdose or opioid use disorder, and help determine which patients will benefit from greater caution and increased monitoring or interventions when risk factors are present. For example, one study found that most fatal overdoses could be identified retrospectively on the basis of two pieces of information, multiple prescribers and high total daily opioid dosage, both important risk factors for overdose (*124*,*146*) that are available to prescribers in the PDMP (*124*). However, limited evaluation of PDMPs at the state level has revealed mixed effects on changes in prescribing and mortality outcomes (*28*). Potential harms of risk stratification include underestimation of risks of opioid therapy when screening tools are not adequately sensitive, as well as potential overestimation of risk, which could lead to inappropriate clinical decisions.

Regarding risk mitigation approaches, limited evidence was found regarding benefits and harms. Although no studies were found to examine prescribing of naloxone with opioid pain medication in primary care settings, naloxone distribution through community-based programs providing prevention services for substance users has been demonstrated to be associated with decreased risk for opioid overdose death at the community level (*147*).

Concerns have been raised that prescribing changes such as dose reduction might be associated with unintended negative consequences, such as patients seeking heroin or other illicitly obtained opioids (*148*) or interference with appropriate pain treatment (*149*). With the exception of a study noting an association between an abuse-deterrent formulation of OxyContin and heroin use, showing that some patients in qualitative interviews reported switching to another opioid, including heroin, for many reasons, including cost and availability as well as ease of use (*150*), CDC did not identify studies evaluating these potential outcomes.

Finally, regarding the effectiveness of opioid use disorder treatments, methadone and buprenorphine for opioid use disorder have been found to increase retention in treatment and to decrease illicit opioid use among patients with opioid use disorder involving heroin (*151*–*153*). Although findings are mixed, some studies suggest that effectiveness is enhanced when psychosocial treatments (e.g., contingency management, community reinforcement, psychotherapeutic counseling, and family therapy) are used in conjunction with medication-assisted therapy; for example, by reducing opioid misuse and increasing retention during maintenance therapy, and improving compliance after detoxification (*154*,*155*).

## Clinician and Patient Values and Preferences

Clinician and patient values and preferences can inform how benefits and harms of long-term opioid therapy are weighted and estimate the effort and resources required to effectively provide implementation support. Many physicians lack confidence in their ability to prescribe opioids safely (*156*), to predict (*157*) or detect (*158*) prescription drug abuse, and to discuss abuse with their patients (*158*). Although clinicians have reported favorable beliefs and attitudes about improvements in pain and quality of life attributed to opioids (*159*), most consider prescription drug abuse to be a "moderate" or "big" problem in their community, and large proportions are "very" concerned about opioid addiction (55%) and death (48%) (*160*). Clinicians do not consistently use practices intended to decrease the risk for misuse, such as PDMPs (*161*,*162*), urine drug testing (*163*), and opioid treatment agreements (*164*). This is likely due in part to challenges related to registering for PDMP access and logging into the PDMP (which can interrupt normal clinical workflow if data are not integrated into electronic health record systems) (*165*), competing clinical demands, perceived inadequate time to discuss the rationale for urine drug testing and to order confirmatory testing, and feeling unprepared to interpret and address results (*166*).

Many patients do not have an opinion about "opioids" or know what this term means (*167*). Most are familiar with the term "narcotics." About a third associated "narcotics" with addiction or abuse, and about half feared "addiction" from long-term "narcotic" use (*168*). Most patients taking opioids experience side effects (73% of patients taking hydrocodone for noncancer pain [*11*], 96% of patients taking opioids for chronic pain [*12*]), and side effects, rather than pain relief,

have been found to explain most of the variation in patients' preferences related to taking opioids (*12*). For example, patients taking hydrocodone for noncancer pain commonly reported side effects including dizziness, headache, fatigue, drowsiness, nausea, vomiting, and constipation (*11*). Patients with chronic pain in focus groups emphasized effectiveness of goal setting for increasing motivation and functioning (*168*). Patients taking high dosages report reliance on opioids despite ambivalence about their benefits (*169*) and regardless of pain reduction, reported problems, concerns, side effects, or perceived helpfulness (*13*).

### Resource Allocation

Resource allocation (cost) is an important consideration in understanding the feasibility of clinical recommendations. CDC searched for evidence on opioid therapy compared with other treatments; costs of misuse, abuse, and overdose from prescription opioids; and costs of specific risk mitigation strategies (e.g., urine drug testing). Yearly direct and indirect costs related to prescription opioids have been estimated (based on studies published since 2010) to be $53.4 billion for nonmedical use of prescription opioids (*170*); $55.7 billion for abuse, dependence (i.e., opioid use disorder), and misuse of prescription opioids (*171*); and $20.4 billion for direct and indirect costs related to opioid-related overdose alone (*172*). In 2012, total expenses for outpatient prescription opioids were estimated at $9.0 billion, an increase of 120% from 2002 (*173*). Although there are perceptions that opioid therapy for chronic pain is less expensive than more time-intensive nonpharmacologic management approaches, many pain treatments, including acetaminophen, NSAIDs, tricyclic antidepressants, and massage therapy, are associated with lower mean and median annual costs compared with opioid therapy (*174*). COX-2 inhibitors, SNRIs, anticonvulsants, topical analgesics, physical therapy, and CBT are also associated with lower median annual costs compared with opioid therapy (*174*). Limited information was found on costs of strategies to decrease risks associated with opioid therapy; however, urine drug testing, including screening and confirmatory tests, has been estimated to cost $211–$363 per test (*175*).

## Recommendations

The recommendations are grouped into three areas for consideration:

- Determining when to initiate or continue opioids for chronic pain.
- Opioid selection, dosage, duration, follow-up, and discontinuation.
- Assessing risk and addressing harms of opioid use.

There are 12 recommendations (Box 1). Each recommendation is followed by a rationale for the recommendation, with considerations for implementation noted. In accordance with the ACIP GRADE process, CDC based the recommendations on consideration of the clinical evidence, contextual evidence (including benefits and harms, values and preferences, resource allocation), and expert opinion. For each recommendation statement, CDC notes the recommendation category (A or B) and the type of the evidence (1, 2, 3, or 4) supporting the statement (Box 2). Expert opinion is reflected within each of the recommendation rationales. While there was not an attempt to reach consensus among experts, experts from the Core Expert Group and from the Opioid Guideline Workgroup ("experts") expressed overall, general support for all recommendations. Where differences in expert opinion emerged for detailed actions within the clinical recommendations or for implementation considerations, CDC notes the differences of opinion in the supporting rationale statements.

Category A recommendations indicate that most patients should receive the recommended course of action; category B recommendations indicate that different choices will be appropriate for different patients, requiring clinicians to help patients arrive at a decision consistent with patient values and preferences and specific clinical situations. Consistent with the ACIP (*47*) and GRADE process (*48*), category A recommendations were made, even with type 3 and 4 evidence, when there was broad agreement that the advantages of a clinical action greatly outweighed the disadvantages based on a consideration of benefits and harms, values and preferences, and resource allocation. Category B recommendations were made when there was broad agreement that the advantages and disadvantages of a clinical action were more balanced, but advantages were significant enough to warrant a recommendation. All recommendations are category A recommendations, with the exception of recommendation 10, which is rated as category B. Recommendations were associated with a range of evidence types, from type 2 to type 4.

In summary, the categorization of recommendations was based on the following assessment:

- No evidence shows a long-term benefit of opioids in pain and function versus no opioids for chronic pain with outcomes examined at least 1 year later (with most placebo-controlled randomized trials ≤6 weeks in duration).
- Extensive evidence shows the possible harms of opioids (including opioid use disorder, overdose, and motor vehicle injury).
- Extensive evidence suggests some benefits of nonpharmacologic and nonopioid pharmacologic treatments compared with long-term opioid therapy, with less harm.

**BOX 1. CDC recommendations for prescribing opioids for chronic pain outside of active cancer, palliative, and end-of-life care**

**Determining When to Initiate or Continue Opioids for Chronic Pain**

1. Nonpharmacologic therapy and nonopioid pharmacologic therapy are preferred for chronic pain. Clinicians should consider opioid therapy only if expected benefits for both pain and function are anticipated to outweigh risks to the patient. If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy, as appropriate.
2. Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with all patients, including realistic goals for pain and function, and should consider how therapy will be discontinued if benefits do not outweigh risks. Clinicians should continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs risks to patient safety.
3. Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy.

**Opioid Selection, Dosage, Duration, Follow-Up, and Discontinuation**

4. When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids.
5. When opioids are started, clinicians should prescribe the lowest effective dosage. Clinicians should use caution when prescribing opioids at any dosage, should carefully reassess evidence of individual benefits and risks when increasing dosage to ≥50 morphine milligram equivalents (MME)/day, and should avoid increasing dosage to ≥90 MME/day or carefully justify a decision to titrate dosage to ≥90 MME/day.
6. Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe the lowest effective dose of immediate-release opioids and should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids. Three days or less will often be sufficient; more than seven days will rarely be needed.
7. Clinicians should evaluate benefits and harms with patients within 1 to 4 weeks of starting opioid therapy for chronic pain or of dose escalation. Clinicians should evaluate benefits and harms of continued therapy with patients every 3 months or more frequently. If benefits do not outweigh harms of continued opioid therapy, clinicians should optimize other therapies and work with patients to taper opioids to lower dosages or to taper and discontinue opioids.

**Assessing Risk and Addressing Harms of Opioid Use**

8. Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms. Clinicians should incorporate into the management plan strategies to mitigate risk, including considering offering naloxone when factors that increase risk for opioid overdose, such as history of overdose, history of substance use disorder, higher opioid dosages (≥50 MME/day), or concurrent benzodiazepine use, are present.
9. Clinicians should review the patient's history of controlled substance prescriptions using state prescription drug monitoring program (PDMP) data to determine whether the patient is receiving opioid dosages or dangerous combinations that put him or her at high risk for overdose. Clinicians should review PDMP data when starting opioid therapy for chronic pain and periodically during opioid therapy for chronic pain, ranging from every prescription to every 3 months.
10. When prescribing opioids for chronic pain, clinicians should use urine drug testing before starting opioid therapy and consider urine drug testing at least annually to assess for prescribed medications as well as other controlled prescription drugs and illicit drugs.
11. Clinicians should avoid prescribing opioid pain medication and benzodiazepines concurrently whenever possible.
12. Clinicians should offer or arrange evidence-based treatment (usually medication-assisted treatment with buprenorphine or methadone in combination with behavioral therapies) for patients with opioid use disorder.

* All recommendations are category A (apply to all patients outside of active cancer treatment, palliative care, and end-of-life care) except recommendation 10 (designated category B, with individual decision making required); see full guideline for evidence ratings.

**BOX 2. Interpretation of recommendation categories and evidence type**

**Recommendation Categories**

Based on evidence type, balance between desirable and undesirable effects, values and preferences, and resource allocation (cost).

**Category A recommendation**: Applies to all persons; most patients should receive the recommended course of action.

**Category B recommendation**: Individual decision making needed; different choices will be appropriate for different patients. Clinicians help patients arrive at a decision consistent with patient values and preferences and specific clinical situations.

**Evidence Type**

Based on study design as well as a function of limitations in study design or implementation, imprecision of estimates, variability in findings, indirectness of evidence, publication bias, magnitude of treatment effects, dose-response gradient, and constellation of plausible biases that could change effects.

**Type 1 evidence**: Randomized clinical trials or overwhelming evidence from observational studies.

**Type 2 evidence**: Randomized clinical trials with important limitations, or exceptionally strong evidence from observational studies.

**Type 3 evidence**: Observational studies or randomized clinical trials with notable limitations.

**Type 4 evidence**: Clinical experience and observations, observational studies with important limitations, or randomized clinical trials with several major limitations.

## Determining When to Initiate or Continue Opioids for Chronic Pain

1. **Nonpharmacologic therapy and nonopioid pharmacologic therapy are preferred for chronic pain. Clinicians should consider opioid therapy only if expected benefits for both pain and function are anticipated to outweigh risks to the patient. If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy, as appropriate (recommendation category: A, evidence type: 3).**

Patients with pain should receive treatment that provides the greatest benefits relative to risks. The contextual evidence review found that many nonpharmacologic therapies, including physical therapy, weight loss for knee osteoarthritis, psychological therapies such as CBT, and certain interventional procedures can ameliorate chronic pain. There is high-quality evidence that exercise therapy (a prominent modality in physical therapy) for hip (*100*) or knee (*99*) osteoarthritis reduces pain and improves function immediately after treatment and that the improvements are sustained for at least 2–6 months. Previous guidelines have strongly recommended aerobic, aquatic, and/or resistance exercises for patients with osteoarthritis of the knee or hip (*176*). Exercise therapy also can help reduce pain and improve function in low back pain and can improve global well-being and physical function in fibromyalgia (*98*,*101*). Multimodal therapies and multidisciplinary biopsychosocial rehabilitation-combining approaches (e.g., psychological therapies with exercise) can reduce long-term pain and disability compared with usual care and compared with physical treatments (e.g., exercise) alone. Multimodal therapies are not always available or reimbursed by insurance and can be time-consuming and costly for patients. Interventional approaches such as arthrocentesis and intraarticular glucocorticoid injection for pain associated with rheumatoid arthritis (*117*) or osteoarthritis (*118*) and subacromial corticosteroid injection for rotator cuff disease (*119*) can provide short-term improvement in pain and function. Evidence is insufficient to determine the extent to which repeated glucocorticoid injection increases potential risks such as articular cartilage changes (in osteoarthritis) and sepsis (*118*). Serious adverse events are rare but have been reported with epidural injection (*120*).

Several nonopioid pharmacologic therapies (including acetaminophen, NSAIDs, and selected antidepressants and anticonvulsants) are effective for chronic pain. In particular, acetaminophen and NSAIDs can be useful for arthritis and low back pain. Selected anticonvulsants such as pregabalin and gabapentin can improve pain in diabetic neuropathy and post-herpetic neuralgia (contextual evidence review). Pregabalin, gabapentin, and carbamazepine are FDA-approved for treatment of certain neuropathic pain conditions, and pregabalin is FDA approved for fibromyalgia management. In patients with or without depression, tricyclic antidepressants and SNRIs provide effective analgesia for neuropathic pain conditions including diabetic neuropathy and post-herpetic neuralgia, often at lower dosages and with a shorter time to onset of effect than for treatment of depression (see contextual evidence review). Tricyclics and SNRIs can also relieve fibromyalgia symptoms. The SNRI duloxetine is FDA-approved for the treatment of diabetic neuropathy and fibromyalgia. Because patients with chronic pain often suffer from concurrent depression (*144*), and depression can exacerbate physical symptoms including pain (*177*), patients with co-occurring pain and depression are especially likely to benefit from antidepressant medication (see Recommendation 8). Nonopioid pharmacologic therapies

are not generally associated with substance use disorder, and the numbers of fatal overdoses associated with nonopioid medications are a fraction of those associated with opioid medications (contextual evidence review). For example, acetaminophen, NSAIDs, and opioid pain medication were involved in 881, 228, and 16,651 pharmaceutical overdose deaths in the United States in 2010 (*178*). However, nonopioid pharmacologic therapies are associated with certain risks, particularly in older patients, pregnant patients, and patients with certain co-morbidities such as cardiovascular, renal, gastrointestinal, and liver disease (see contextual evidence review). For example, acetaminophen can be hepatotoxic at dosages of >3–4 grams/day and at lower dosages in patients with chronic alcohol use or liver disease (*109*). NSAID use has been associated with gastritis, peptic ulcer disease, cardiovascular events (*111*,*112*), and fluid retention, and most NSAIDs (choline magnesium trilisate and selective COX-2 inhibitors are exceptions) interfere with platelet aggregation (*179*). Clinicians should review FDA-approved labeling including boxed warnings before initiating treatment with any pharmacologic therapy.

Although opioids can reduce pain during short-term use, the clinical evidence review found insufficient evidence to determine whether pain relief is sustained and whether function or quality of life improves with long-term opioid therapy (KQ1). While benefits for pain relief, function, and quality of life with long-term opioid use for chronic pain are uncertain, risks associated with long-term opioid use are clearer and significant. Based on the clinical evidence review, long-term opioid use for chronic pain is associated with serious risks including increased risk for opioid use disorder, overdose, myocardial infarction, and motor vehicle injury (KQ2). At a population level, more than 165,000 persons in the United States have died from opioid pain-medication-related overdoses since 1999 (see Contextual Evidence Review).

Integrated pain management requires coordination of medical, psychological, and social aspects of health care and includes primary care, mental health care, and specialist services when needed (*180*). Nonpharmacologic physical and psychological treatments such as exercise and CBT are approaches that encourage active patient participation in the care plan, address the effects of pain in the patient's life, and can result in sustained improvements in pain and function without apparent risks. Despite this, these therapies are not always or fully covered by insurance, and access and cost can be barriers for patients. For many patients, aspects of these approaches can be used even when there is limited access to specialty care. For example, previous guidelines have strongly recommended aerobic, aquatic, and/or resistance exercises for patients with osteoarthritis of the knee or hip (*176*) and maintenance of activity for patients with low back pain (*110*). A randomized trial found no difference in reduced chronic low back pain intensity, frequency or disability between patients assigned to relatively low-cost group aerobics and individual physiotherapy or muscle reconditioning sessions (*181*). Low-cost options to integrate exercise include brisk walking in public spaces or use of public recreation facilities for group exercise. CBT addresses psychosocial contributors to pain and improves function (*97*). Primary care clinicians can integrate elements of a cognitive behavioral approach into their practice by encouraging patients to take an active role in the care plan, by supporting patients in engaging in beneficial but potentially anxiety-provoking activities, such as exercise (*179*), or by providing education in relaxation techniques and coping strategies. In many locations, there are free or low-cost patient support, self-help, and educational community-based programs that can provide stress reduction and other mental health benefits. Patients with more entrenched anxiety or fear related to pain, or other significant psychological distress, can be referred for formal therapy with a mental health specialist (e.g., psychologist, psychiatrist, clinical social worker). Multimodal therapies should be considered for patients not responding to single-modality therapy, and combinations should be tailored depending on patient needs, cost, and convenience.

To guide patient-specific selection of therapy, clinicians should evaluate patients and establish or confirm the diagnosis. Detailed recommendations on diagnosis are provided in other guidelines (*110*,*179*), but evaluation should generally include a focused history, including history and characteristics of pain and potentially contributing factors (e.g., function, psychosocial stressors, sleep) and physical exam, with imaging or other diagnostic testing only if indicated (e.g., if severe or progressive neurologic deficits are present or if serious underlying conditions are suspected) (*110*,*179*). For complex pain syndromes, pain specialty consultation can be considered to assist with diagnosis as well as management. Diagnosis can help identify disease-specific interventions to reverse or ameliorate pain; for example, improving glucose control to prevent progression of diabetic neuropathy; immune-modulating agents for rheumatoid arthritis; physical or occupational therapy to address posture, muscle weakness, or repetitive occupational motions that contribute to musculoskeletal pain; or surgical intervention to relieve mechanical/compressive pain (*179*). The underlying mechanism for most pain syndromes can be categorized as neuropathic (e.g., diabetic neuropathy, postherpetic neuralgia, fibromyalgia), or nociceptive (e.g., osteoarthritis, muscular back pain). The diagnosis and pathophysiologic mechanism of pain have implications for symptomatic pain treatment with medication. For example, evidence is limited or insufficient

for improved pain or function with long-term use of opioids for several chronic pain conditions for which opioids are commonly prescribed, such as low back pain (*182*), headache (*183*), and fibromyalgia (*184*). Although NSAIDs can be used for exacerbations of nociceptive pain, other medications (e.g., tricyclics, selected anticonvulsants, or transdermal lidocaine) generally are recommended for neuropathic pain. In addition, improvement of neuropathic pain can begin weeks or longer after symptomatic treatment is initiated (*179*). Medications should be used only after assessment and determination that expected benefits outweigh risks given patient-specific factors. For example, clinicians should consider falls risk when selecting and dosing potentially sedating medications such as tricyclics, anticonvulsants, or opioids, and should weigh risks and benefits of use, dose, and duration of NSAIDs when treating older adults as well as patients with hypertension, renal insufficiency, or heart failure, or those with risk for peptic ulcer disease or cardiovascular disease. Some guidelines recommend topical NSAIDs for localized osteoarthritis (e.g., knee osteoarthritis) over oral NSAIDs in patients aged ≥75 years to minimize systemic effects (*176*).

Experts agreed that opioids should not be considered first-line or routine therapy for chronic pain (i.e., pain continuing or expected to continue >3 months or past the time of normal tissue healing) outside of active cancer, palliative, and end-of-life care, given small to moderate short-term benefits, uncertain long-term benefits, and potential for serious harms; although evidence on long-term benefits of nonopioid therapies is also limited, these therapies are also associated with short-term benefits, and risks are much lower. This does not mean that patients should be required to sequentially "fail" nonpharmacologic and nonopioid pharmacologic therapy before proceeding to opioid therapy. Rather, expected benefits specific to the clinical context should be weighed against risks before initiating therapy. In some clinical contexts (e.g., headache or fibromyalgia), expected benefits of initiating opioids are unlikely to outweigh risks regardless of previous nonpharmacologic and nonopioid pharmacologic therapies used. In other situations (e.g., serious illness in a patient with poor prognosis for return to previous level of function, contraindications to other therapies, and clinician and patient agreement that the overriding goal is patient comfort), opioids might be appropriate regardless of previous therapies used. In addition, when opioid pain medication is used, it is more likely to be effective if integrated with nonpharmacologic therapy. Nonpharmacologic approaches such as exercise and CBT should be used to reduce pain and improve function in patients with chronic pain. Nonopioid pharmacologic therapy should be used when benefits outweigh risks and should be combined with nonpharmacologic therapy to reduce pain and improve function. If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy, as appropriate, to provide greater benefits to patients in improving pain and function.

2. **Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with all patients, including realistic goals for pain and function, and should consider how opioid therapy will be discontinued if benefits do not outweigh risks. Clinicians should continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs risks to patient safety (recommendation category: A, evidence type: 4).**

The clinical evidence review found insufficient evidence to determine long-term benefits of opioid therapy for chronic pain and found an increased risk for serious harms related to long-term opioid therapy that appears to be dose-dependent. In addition, studies on currently available risk assessment instruments were sparse and showed inconsistent results (KQ4). The clinical evidence review for the current guideline considered studies with outcomes examined at ≥1 year that compared opioid use versus nonuse or placebo. Studies of opioid therapy for chronic pain that did not have a nonopioid control group have found that although many patients discontinue opioid therapy for chronic noncancer pain due to adverse effects or insufficient pain relief, there is weak evidence that patients who are able to continue opioid therapy for at least 6 months can experience clinically significant pain relief and insufficient evidence that function or quality of life improves (*185*). These findings suggest that it is very difficult for clinicians to predict whether benefits of opioids for chronic pain will outweigh risks of ongoing treatment for individual patients. Opioid therapy should not be initiated without consideration of an "exit strategy" to be used if the therapy is unsuccessful.

Experts agreed that before opioid therapy is initiated for chronic pain outside of active cancer, palliative, and end-of-life care, clinicians should determine how effectiveness will be evaluated and should establish treatment goals with patients. Because the line between acute pain and initial chronic pain is not always clear, it might be difficult for clinicians to determine when they are initiating opioids for chronic pain rather than treating acute pain. Pain lasting longer than 3 months or past the time of normal tissue healing (which could be substantially shorter than 3 months, depending on the condition) is generally no longer considered acute. However, establishing treatment goals with a patient who has already received opioid therapy for 3 months would defer this discussion well past the point of

initiation of opioid therapy for chronic pain. Clinicians often write prescriptions for long-term use in 30-day increments, and opioid prescriptions written for ≥30 days are likely to represent initiation or continuation of long-term opioid therapy. Before writing an opioid prescription for ≥30 days, clinicians should establish treatment goals with patients. Clinicians seeing new patients already receiving opioids should establish treatment goals for continued opioid therapy. Although the clinical evidence review did not find studies evaluating the effectiveness of written agreements or treatment plans (KQ4), clinicians and patients who set a plan in advance will clarify expectations regarding how opioids will be prescribed and monitored, as well as situations in which opioids will be discontinued or doses tapered (e.g., if treatment goals are not met, opioids are no longer needed, or adverse events put the patient at risk) to improve patient safety.

Experts thought that goals should include improvement in both pain relief and function (and therefore in quality of life). However, there are some clinical circumstances under which reductions in pain without improvement in physical function might be a more realistic goal (e.g., diseases typically associated with progressive functional impairment or catastrophic injuries such as spinal cord trauma). Experts noted that function can include emotional and social as well as physical dimensions. In addition, experts emphasized that mood has important interactions with pain and function. Experts agreed that clinicians may use validated instruments such as the three-item "Pain average, interference with Enjoyment of life, and interference with General activity" (PEG) Assessment Scale (*186*) to track patient outcomes. Clinically meaningful improvement has been defined as a 30% improvement in scores for both pain and function (*187*). Monitoring progress toward patient-centered functional goals (e.g., walking the dog or walking around the block, returning to part-time work, attending family sports or recreational activities) can also contribute to the assessment of functional improvement. Clinicians should use these goals in assessing benefits of opioid therapy for individual patients and in weighing benefits against risks of continued opioid therapy (see Recommendation 7, including recommended intervals for follow-up). Because depression, anxiety, and other psychological co-morbidities often coexist with and can interfere with resolution of pain, clinicians should use validated instruments to assess for these conditions (see Recommendation 8) and ensure that treatment for these conditions is optimized. If patients receiving opioid therapy for chronic pain do not experience meaningful improvements in both pain and function compared with prior to initiation of opioid therapy, clinicians should consider working with patients to taper and discontinue opioids (see Recommendation 7) and should use nonpharmacologic and nonopioid pharmacologic approaches to pain management (see Recommendation 1).

3. **Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy (recommendation category: A, evidence type: 3).**

The clinical evidence review did not find studies evaluating effectiveness of patient education or opioid treatment plans as risk-mitigation strategies (KQ4). However, the contextual evidence review found that many patients lack information about opioids and identified concerns that some clinicians miss opportunities to effectively communicate about safety. Given the substantial evidence gaps on opioids, uncertain benefits of long-term use, and potential for serious harms, patient education and discussion before starting opioid therapy are critical so that patient preferences and values can be understood and used to inform clinical decisions. Experts agreed that essential elements to communicate to patients before starting and periodically during opioid therapy include realistic expected benefits, common and serious harms, and expectations for clinician and patient responsibilities to mitigate risks of opioid therapy.

Clinicians should involve patients in decisions about whether to start or continue opioid therapy. Given potentially serious risks of long-term opioid therapy, clinicians should ensure that patients are aware of potential benefits of, harms of, and alternatives to opioids before starting or continuing opioid therapy. Clinicians are encouraged to have open and honest discussions with patients to inform mutual decisions about whether to start or continue opioid therapy. Important considerations include the following:

- Be explicit and realistic about expected benefits of opioids, explaining that while opioids can reduce pain during short-term use, there is no good evidence that opioids improve pain or function with long-term use, and that complete relief of pain is unlikely (clinical evidence review, KQ1).
- Emphasize improvement in function as a primary goal and that function can improve even when pain is still present.
- Advise patients about serious adverse effects of opioids, including potentially fatal respiratory depression and development of a potentially serious lifelong opioid use disorder that can cause distress and inability to fulfill major role obligations.
- Advise patients about common effects of opioids, such as constipation, dry mouth, nausea, vomiting, drowsiness, confusion, tolerance, physical dependence, and withdrawal symptoms when stopping opioids. To prevent constipation associated with opioid use, advise patients to increase

hydration and fiber intake and to maintain or increase physical activity. Stool softeners or laxatives might be needed.

- Discuss effects that opioids might have on ability to safely operate a vehicle, particularly when opioids are initiated, when dosages are increased, or when other central nervous system depressants, such as benzodiazepines or alcohol, are used concurrently.
- Discuss increased risks for opioid use disorder, respiratory depression, and death at higher dosages, along with the importance of taking only the amount of opioids prescribed, i.e., not taking more opioids or taking them more often.
- Review increased risks for respiratory depression when opioids are taken with benzodiazepines, other sedatives, alcohol, illicit drugs such as heroin, or other opioids.
- Discuss risks to household members and other individuals if opioids are intentionally or unintentionally shared with others for whom they are not prescribed, including the possibility that others might experience overdose at the same or at lower dosage than prescribed for the patient, and that young children are susceptible to unintentional ingestion. Discuss storage of opioids in a secure, preferably locked location and options for safe disposal of unused opioids (*188*).
- Discuss the importance of periodic reassessment to ensure that opioids are helping to meet patient goals and to allow opportunities for opioid discontinuation and consideration of additional nonpharmacologic or nonopioid pharmacologic treatment options if opioids are not effective or are harmful.
- Discuss planned use of precautions to reduce risks, including use of prescription drug monitoring program information (see Recommendation 9) and urine drug testing (see Recommendation 10). Consider including discussion of naloxone use for overdose reversal (see Recommendation 8).
- Consider whether cognitive limitations might interfere with management of opioid therapy (for older adults in particular) and, if so, determine whether a caregiver can responsibly co-manage medication therapy. Discuss the importance of reassessing safer medication use with both the patient and caregiver.

Given the possibility that benefits of opioid therapy might diminish or that risks might become more prominent over time, it is important that clinicians review expected benefits and risks of continued opioid therapy with patients periodically, at least every 3 months (see Recommendation 7).

## Opioid Selection, Dosage, Duration, Follow-Up, and Discontinuation

**4. When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids (recommendation category: A, evidence type: 4).**

ER/LA opioids include methadone, transdermal fentanyl, and extended-release versions of opioids such as oxycodone, oxymorphone, hydrocodone, and morphine. The clinical evidence review found a fair-quality study showing a higher risk for overdose among patients initiating treatment with ER/LA opioids than among those initiating treatment with immediate-release opioids (*77*). The clinical evidence review did not find evidence that continuous, time-scheduled use of ER/LA opioids is more effective or safer than intermittent use of immediate-release opioids or that time-scheduled use of ER/LA opioids reduces risks for opioid misuse or addiction (KQ3).

In 2014, the FDA modified the labeling for ER/LA opioid pain medications, noting serious risks and recommending that ER/LA opioids be reserved for "management of pain severe enough to require daily, around-the-clock, long-term opioid treatment" when "alternative treatment options (e.g., nonopioid analgesics or immediate-release opioids) are ineffective, not tolerated, or would be otherwise inadequate to provide sufficient management of pain" and not used as "as needed" pain relievers (*121*). FDA has also noted that some ER/LA opioids are only appropriate for opioid-tolerant patients, defined as patients who have received certain dosages of opioids (e.g., 60 mg daily of oral morphine, 30 mg daily of oral oxycodone, or equianalgesic dosages of other opioids) for at least 1 week (*189*). Time-scheduled opioid use can be associated with greater total average daily opioid dosage compared with intermittent, as-needed opioid use (contextual evidence review). In addition, experts indicated that there was not enough evidence to determine the safety of using immediate-release opioids for breakthrough pain when ER/LA opioids are used for chronic pain outside of active cancer pain, palliative care, or end-of-life care, and that this practice might be associated with dose escalation.

Abuse-deterrent technologies have been employed to prevent manipulation intended to defeat extended-release properties of ER/LA opioids and to prevent opioid use by unintended routes of administration, such as injection of oral opioids. As indicated in FDA guidance for industry on evaluation and labeling of abuse-deterrent opioids (*190*), although abuse-deterrent technologies are expected to make manipulation of opioids more difficult or less rewarding, they do not prevent

opioid abuse through oral intake, the most common route of opioid abuse, and can still be abused by nonoral routes. The "abuse-deterrent" label does not indicate that there is no risk for abuse. No studies were found in the clinical evidence review assessing the effectiveness of abuse-deterrent technologies as a risk mitigation strategy for deterring or preventing abuse. In addition, abuse-deterrent technologies do not prevent unintentional overdose through oral intake. Experts agreed that recommendations could not be offered at this time related to use of abuse-deterrent formulations.

In comparing different ER/LA formulations, the clinical evidence review found inconsistent results for overdose risk with methadone versus other ER/LA opioids used for chronic pain (KQ3). The contextual evidence review found that methadone has been associated with disproportionate numbers of overdose deaths relative to the frequency with which it is prescribed for chronic pain. In addition, methadone is associated with cardiac arrhythmias along with QT prolongation on the electrocardiogram, and it has complicated pharmacokinetics and pharmacodynamics, including a long and variable half-life and peak respiratory depressant effect occurring later and lasting longer than peak analgesic effect. Experts noted that the pharmacodynamics of methadone are subject to more inter-individual variability than other opioids. In regard to other ER/LA opioid formulations, experts noted that the absorption and pharmacodynamics of transdermal fentanyl are complex, with gradually increasing serum concentration during the first part of the 72-hour dosing interval, as well as variable absorption based on factors such as external heat. In addition, the dosing of transdermal fentanyl in mcg/hour, which is not typical for a drug used by outpatients, can be confusing. Experts thought that these complexities might increase the risk for fatal overdose when methadone or transdermal fentanyl is prescribed to a patient who has not used it previously or by clinicians who are not familiar with its effects.

Experts agreed that for patients not already receiving opioids, clinicians should not initiate opioid treatment with ER/LA opioids and should not prescribe ER/LA opioids for intermittent use. ER/LA opioids should be reserved for severe, continuous pain and should be considered only for patients who have received immediate-release opioids daily for at least 1 week. When changing to an ER/LA opioid for a patient previously receiving a different immediate-release opioid, clinicians should consult product labeling and reduce total daily dosage to account for incomplete opioid cross-tolerance. Clinicians should use additional caution with ER/LA opioids and consider a longer dosing interval when prescribing to patients with renal or hepatic dysfunction because decreased clearance of drugs among these patients can lead to accumulation of drugs to toxic levels and persistence in the body for longer durations. Although there might be situations in which clinicians need to prescribe immediate-release and ER/LA opioids together (e.g., transitioning patients from ER/LA opioids to immediate-release opioids by temporarily using lower dosages of both), in general, avoiding the use of immediate-release opioids in combination with ER/LA opioids is preferable, given potentially increased risk and diminishing returns of such an approach for chronic pain.

When an ER/LA opioid is prescribed, using one with predictable pharmacokinetics and pharmacodynamics is preferred to minimize unintentional overdose risk. In particular, unusual characteristics of methadone and of transdermal fentanyl make safe prescribing of these medications for pain especially challenging.

- Methadone should not be the first choice for an ER/LA opioid. Only clinicians who are familiar with methadone's unique risk profile and who are prepared to educate and closely monitor their patients, including risk assessment for QT prolongation and consideration of electrocardiographic monitoring, should consider prescribing methadone for pain. A clinical practice guideline that contains further guidance regarding methadone prescribing for pain has been published previously (*191*).
- Because dosing effects of transdermal fentanyl are often misunderstood by both clinicians and patients, only clinicians who are familiar with the dosing and absorption properties of transdermal fentanyl and are prepared to educate their patients about its use should consider prescribing it.

5. **When opioids are started, clinicians should prescribe the lowest effective dosage. Clinicians should use caution when prescribing opioids at any dosage, should carefully reassess evidence of individual benefits and risks when considering increasing dosage to ≥50 morphine milligram equivalents (MME)/day, and should avoid increasing dosage to ≥90 MME/day or carefully justify a decision to titrate dosage to ≥90 MME/day (recommendation category: A, evidence type: 3).**

Benefits of high-dose opioids for chronic pain are not established. The clinical evidence review found only one study (*84*) addressing effectiveness of dose titration for outcomes related to pain control, function, and quality of life (KQ3). This randomized trial found no difference in pain or function between a more liberal opioid dose escalation strategy and maintenance of current dosage. (These groups were prescribed average dosages of 52 and 40 MME/day, respectively, at the end of the trial.) At the same time, risks for serious harms

related to opioid therapy increase at higher opioid dosage. The clinical evidence review found that higher opioid dosages are associated with increased risks for motor vehicle injury, opioid use disorder, and overdose (KQ2). The clinical and contextual evidence reviews found that opioid overdose risk increases in a dose-response manner, that dosages of 50–<100 MME/day have been found to increase risks for opioid overdose by factors of 1.9 to 4.6 compared with dosages of 1–<20 MME/day, and that dosages ≥100 MME/day are associated with increased risks of overdose 2.0–8.9 times the risk at 1–<20 MME/day. In a national sample of Veterans Health Administration patients with chronic pain who were prescribed opioids, mean prescribed opioid dosage among patients who died from opioid overdose was 98 MME (median 60 MME) compared with mean prescribed opioid dosage of 48 MME (median 25 MME) among patients not experiencing fatal overdose (*127*).

The contextual evidence review found that although there is not a single dosage threshold below which overdose risk is eliminated, holding dosages <50 MME/day would likely reduce risk among a large proportion of patients who would experience fatal overdose at higher prescribed dosages. Experts agreed that lower dosages of opioids reduce the risk for overdose, but that a single dosage threshold for safe opioid use could not be identified. Experts noted that daily opioid dosages close to or greater than 100 MME/day are associated with significant risks, that dosages <50 MME/day are safer than dosages of 50–100 MME/day, and that dosages <20 MME/day are safer than dosages of 20–50 MME/day. One expert thought that a specific dosage at which the benefit/risk ratio of opioid therapy decreases could not be identified. Most experts agreed that, in general, increasing dosages to 50 or more MME/day increases overdose risk without necessarily adding benefits for pain control or function and that clinicians should carefully reassess evidence of individual benefits and risks when considering increasing opioid dosages to ≥50 MME/day. Most experts also agreed that opioid dosages should not be increased to ≥90 MME/day without careful justification based on diagnosis and on individualized assessment of benefits and risks.

When opioids are used for chronic pain outside of active cancer, palliative, and end-of-life care, clinicians should start opioids at the lowest possible effective dosage (the lowest starting dosage on product labeling for patients not already taking opioids and according to product labeling guidance regarding tolerance for patients already taking opioids). Clinicians should use additional caution when initiating opioids for patients aged ≥65 years and for patients with renal or hepatic insufficiency because decreased clearance of drugs in these patients can result in accumulation of drugs to toxic levels. Clinicians should use caution when increasing opioid dosages and increase dosage by the smallest practical amount because overdose risk increases with increases in opioid dosage. Although there is limited evidence to recommend specific intervals for dosage titration, a previous guideline recommended waiting at least five half-lives before increasing dosage and waiting at least a week before increasing dosage of methadone to make sure that full effects of the previous dosage are evident (*31*). Clinicians should re-evaluate patients after increasing dosage for changes in pain, function, and risk for harm (see Recommendation 7). Before increasing total opioid dosage to ≥50 MME/day, clinicians should reassess whether opioid treatment is meeting the patient's treatment goals (see Recommendation 2). If a patient's opioid dosage for all sources of opioids combined reaches or exceeds 50 MME/day, clinicians should implement additional precautions, including increased frequency of follow-up (see Recommendation 7) and considering offering naloxone and overdose prevention education to both patients and the patients' household members (see Recommendation 8). Clinicians should avoid increasing opioid dosages to ≥90 MME/day or should carefully justify a decision to increase dosage to ≥90 MME/day based on individualized assessment of benefits and risks and weighing factors such as diagnosis, incremental benefits for pain and function relative to harms as dosages approach 90 MME/day, other treatments and effectiveness, and recommendations based on consultation with pain specialists. If patients do not experience improvement in pain and function at ≥90 MME/day, or if there are escalating dosage requirements, clinicians should discuss other approaches to pain management with the patient, consider working with patients to taper opioids to a lower dosage or to taper and discontinue opioids (see Recommendation 7), and consider consulting a pain specialist. Some states require clinicians to implement clinical protocols at specific dosage levels. For example, before increasing long-term opioid therapy dosage to >120 MME/day, clinicians in Washington state must obtain consultation from a pain specialist who agrees that this is indicated and appropriate (*30*). Clinicians should be aware of rules related to MME thresholds and associated clinical protocols established by their states.

Established patients already taking high dosages of opioids, as well as patients transferring from other clinicians, might consider the possibility of opioid dosage reduction to be anxiety-provoking, and tapering opioids can be especially challenging after years on high dosages because of physical and psychological dependence. However, these patients should be offered the opportunity to re-evaluate their continued use of opioids at high dosages in light of recent evidence regarding the association of opioid dosage and overdose risk. Clinicians should explain in a nonjudgmental manner to patients already taking high opioid dosages (≥90 MME/day) that there is

now an established body of scientific evidence showing that overdose risk is increased at higher opioid dosages. Clinicians should empathically review benefits and risks of continued high-dosage opioid therapy and should offer to work with the patient to taper opioids to safer dosages. For patients who agree to taper opioids to lower dosages, clinicians should collaborate with the patient on a tapering plan (see Recommendation 7). Experts noted that patients tapering opioids after taking them for years might require very slow opioid tapers as well as pauses in the taper to allow gradual accommodation to lower opioid dosages. Clinicians should remain alert to signs of anxiety, depression, and opioid use disorder (see Recommendations 8 and 12) that might be unmasked by an opioid taper and arrange for management of these co-morbidities. For patients agreeing to taper to lower opioid dosages as well as for those remaining on high opioid dosages, clinicians should establish goals with the patient for continued opioid therapy (see Recommendation 2), maximize pain treatment with nonpharmacologic and nonopioid pharmacologic treatments as appropriate (see Recommendation 1), and consider consulting a pain specialist as needed to assist with pain management.

6. **Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe the lowest effective dose of immediate-release opioids and should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids. Three days or less will often be sufficient; more than seven days will rarely be needed (recommendation category: A, evidence type: 4).**

The clinical evidence review found that opioid use for acute pain (i.e., pain with abrupt onset and caused by an injury or other process that is not ongoing) is associated with long-term opioid use, and that a greater amount of early opioid exposure is associated with greater risk for long-term use (KQ5). Several guidelines on opioid prescribing for acute pain from emergency departments (*192–194*) and other settings (*195*,*196*) have recommended prescribing ≤3 days of opioids in most cases, whereas others have recommended ≤7 days (*197*) or <14 days (*30*). Because physical dependence on opioids is an expected physiologic response in patients exposed to opioids for more than a few days (contextual evidence review), limiting days of opioids prescribed also should minimize the need to taper opioids to prevent distressing or unpleasant withdrawal symptoms. Experts noted that more than a few days of exposure to opioids significantly increases hazards, that each day of unnecessary opioid use increases likelihood of physical dependence without adding benefit, and that prescriptions with fewer days' supply will minimize the number of pills available for unintentional or intentional diversion.

Experts agreed that when opioids are needed for acute pain, clinicians should prescribe opioids at the lowest effective dose and for no longer than the expected duration of pain severe enough to require opioids to minimize unintentional initiation of long-term opioid use. The lowest effective dose can be determined using product labeling as a starting point with calibration as needed based on the severity of pain and on other clinical factors such as renal or hepatic insufficiency (see Recommendation 8). Experts thought, based on clinical experience regarding anticipated duration of pain severe enough to require an opioid, that in most cases of acute pain not related to surgery or trauma, a ≤3 days' supply of opioids will be sufficient. For example, in one study of the course of acute low back pain (not associated with malignancies, infections, spondylarthropathies, fractures, or neurological signs) in a primary care setting, there was a large decrease in pain until the fourth day after treatment with paracetamol, with smaller decreases thereafter (*198*). Some experts thought that because some types of acute pain might require more than 3 days of opioid treatment, it would be appropriate to recommend a range of ≤3–5 days or ≤3–7 days when opioids are needed. Some experts thought that a range including 7 days was too long given the expected course of severe acute pain for most acute pain syndromes seen in primary care.

Acute pain can often be managed without opioids. It is important to evaluate the patient for reversible causes of pain, for underlying etiologies with potentially serious sequelae, and to determine appropriate treatment. When the diagnosis and severity of nontraumatic, nonsurgical acute pain are reasonably assumed to warrant the use of opioids, clinicians should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids, often 3 days or less, unless circumstances clearly warrant additional opioid therapy. More than 7 days will rarely be needed. Opioid treatment for post-surgical pain is outside the scope of this guideline but has been addressed elsewhere (*30*). Clinicians should not prescribe additional opioids to patients "just in case" pain continues longer than expected. Clinicians should re-evaluate the subset of patients who experience severe acute pain that continues longer than the expected duration to confirm or revise the initial diagnosis and to adjust management accordingly. Given longer half-lives and longer duration of effects (e.g., respiratory depression) with ER/LA opioids such as methadone, fentanyl patches, or extended release versions of opioids such as oxycodone, oxymorphone, or morphine, clinicians should not prescribe ER/LA opioids for the treatment of acute pain.

7. **Clinicians should evaluate benefits and harms with patients within 1 to 4 weeks of starting opioid therapy for chronic pain or of dose escalation. Clinicians should evaluate benefits and harms of continued therapy with patients every 3 months or more frequently. If benefits do not outweigh harms of continued opioid therapy, clinicians should optimize other therapies and work with patients to taper opioids to lower dosages or to taper and discontinue opioids (recommendation category: A, evidence type: 4).**

Although the clinical evidence review did not find studies evaluating the effectiveness of more frequent monitoring intervals (KQ4), it did find that continuing opioid therapy for 3 months substantially increases risk for opioid use disorder (KQ2); therefore, follow-up earlier than 3 months might be necessary to provide the greatest opportunity to prevent the development of opioid use disorder. In addition, risk for overdose associated with ER/LA opioids might be particularly high during the first 2 weeks of treatment (KQ3). The contextual evidence review found that patients who do not have pain relief with opioids at 1 month are unlikely to experience pain relief with opioids at 6 months. Although evidence is insufficient to determine at what point within the first 3 months of opioid therapy the risks for opioid use disorder increase, reassessment of pain and function within 1 month of initiating opioids provides an opportunity to minimize risks of long-term opioid use by discontinuing opioids among patients not receiving a clear benefit from these medications. Experts noted that risks for opioid overdose are greatest during the first 3–7 days after opioid initiation or increase in dosage, particularly when methadone or transdermal fentanyl are prescribed; that follow-up within 3 days is appropriate when initiating or increasing the dosage of methadone; and that follow-up within 1 week might be appropriate when initiating or increasing the dosage of other ER/LA opioids.

Clinicians should evaluate patients to assess benefits and harms of opioids within 1 to 4 weeks of starting long-term opioid therapy or of dose escalation. Clinicians should consider follow-up intervals within the lower end of this range when ER/LA opioids are started or increased or when total daily opioid dosage is ≥50 MME/day. Shorter follow-up intervals (within 3 days) should be strongly considered when starting or increasing the dosage of methadone. At follow up, clinicians should assess benefits in function, pain control, and quality of life using tools such as the three-item "Pain average, interference with Enjoyment of life, and interference with General activity" (PEG) Assessment Scale (*186*) and/or asking patients about progress toward functional goals that have meaning for them (see Recommendation 2). Clinicians should also ask patients about common adverse effects such as constipation and drowsiness (see Recommendation 3), as well as asking about and assessing for effects that might be early warning signs for more serious problems such as overdose (e.g., sedation or slurred speech) or opioid use disorder (e.g., craving, wanting to take opioids in greater quantities or more frequently than prescribed, or difficulty controlling use). Clinicians should ask patients about their preferences for continuing opioids, given their effects on pain and function relative to any adverse effects experienced.

Because of potential changes in the balance of benefits and risks of opioid therapy over time, clinicians should regularly reassess all patients receiving long-term opioid therapy, including patients who are new to the clinician but on long-term opioid therapy, at least every 3 months. At reassessment, clinicians should determine whether opioids continue to meet treatment goals, including sustained improvement in pain and function, whether the patient has experienced common or serious adverse events or early warning signs of serious adverse events, signs of opioid use disorder (e.g., difficulty controlling use, work or family problems related to opioid use), whether benefits of opioids continue to outweigh risks, and whether opioid dosage can be reduced or opioids can be discontinued. Ideally, these reassessments would take place in person and be conducted by the prescribing clinician. In practice contexts where virtual visits are part of standard care (e.g., in remote areas where distance or other issues make follow-up visits challenging), follow-up assessments that allow the clinician to communicate with and observe the patient through video and audio could be conducted, with in-person visits occurring at least once per year. Clinicians should re-evaluate patients who are exposed to greater risk of opioid use disorder or overdose (e.g., patients with depression or other mental health conditions, a history of substance use disorder, a history of overdose, taking ≥50 MME/day, or taking other central nervous system depressants with opioids) more frequently than every 3 months. If clinically meaningful improvements in pain and function are not sustained, if patients are taking high-risk regimens (e.g., dosages ≥50 MME/day or opioids combined with benzodiazepines) without evidence of benefit, if patients believe benefits no longer outweigh risks or if they request dosage reduction or discontinuation, or if patients experience overdose or other serious adverse events (e.g., an event leading to hospitalization or disability) or warning signs of serious adverse events, clinicians should work with patients to reduce opioid dosage or to discontinue opioids when possible. Clinicians should maximize pain treatment with nonpharmacologic and nonopioid pharmacologic treatments as appropriate (see Recommendation 1) and consider consulting a pain specialist as needed to assist with pain management.

### Considerations for Tapering Opioids

Although the clinical evidence review did not find high-quality studies comparing the effectiveness of different tapering protocols for use when opioid dosage is reduced or opioids are discontinued (KQ3), tapers reducing weekly dosage by 10%–50% of the original dosage have been recommended by other clinical guidelines (*199*), and a rapid taper over 2–3 weeks has been recommended in the case of a severe adverse event such as overdose (*30*). Experts noted that tapers slower than 10% per week (e.g., 10% per month) also might be appropriate and better tolerated than more rapid tapers, particularly when patients have been taking opioids for longer durations (e.g., for years). Opioid withdrawal during pregnancy has been associated with spontaneous abortion and premature labor.

When opioids are reduced or discontinued, a taper slow enough to minimize symptoms and signs of opioid withdrawal (e.g., drug craving, anxiety, insomnia, abdominal pain, vomiting, diarrhea, diaphoresis, mydriasis, tremor, tachycardia, or piloerection) should be used. A decrease of 10% of the original dose per week is a reasonable starting point; experts agreed that tapering plans may be individualized based on patient goals and concerns. Experts noted that at times, tapers might have to be paused and restarted again when the patient is ready and might have to be slowed once patients reach low dosages. Tapers may be considered successful as long as the patient is making progress. Once the smallest available dose is reached, the interval between doses can be extended. Opioids may be stopped when taken less frequently than once a day. More rapid tapers might be needed for patient safety under certain circumstances (e.g., for patients who have experienced overdose on their current dosage). Ultrarapid detoxification under anesthesia is associated with substantial risks, including death, and should not be used (*200*). Clinicians should access appropriate expertise if considering tapering opioids during pregnancy because of possible risk to the pregnant patient and to the fetus if the patient goes into withdrawal. Patients who are not taking opioids (including patients who are diverting all opioids they obtain) do not require tapers. Clinicians should discuss with patients undergoing tapering the increased risk for overdose on abrupt return to a previously prescribed higher dose. Primary care clinicians should collaborate with mental health providers and with other specialists as needed to optimize nonopioid pain management (see Recommendation 1), as well as psychosocial support for anxiety related to the taper. More detailed guidance on tapering, including management of withdrawal symptoms has been published previously (*30*,*201*). If a patient exhibits signs of opioid use disorder, clinicians should offer or arrange for treatment of opioid use disorder (see Recommendation 12) and consider offering naloxone for overdose prevention (see Recommendation 8).

## Assessing Risk and Addressing Harms of Opioid Use

8. **Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms. Clinicians should incorporate into the management plan strategies to mitigate risk, including considering offering naloxone when factors that increase risk for opioid overdose, such as history of overdose, history of substance use disorder, higher opioid dosages (≥50 MME/day), or concurrent benzodiazepine use, are present (recommendation category: A, evidence type: 4).**

The clinical evidence review found insufficient evidence to determine how harms of opioids differ depending on patient demographics or patient comorbidities (KQ2). However, based on the contextual evidence review and expert opinion, certain risk factors are likely to increase susceptibility to opioid-associated harms and warrant incorporation of additional strategies into the management plan to mitigate risk. Clinicians should assess these risk factors periodically, with frequency varying by risk factor and patient characteristics. For example, factors that vary more frequently over time, such as alcohol use, require more frequent follow up. In addition, clinicians should consider offering naloxone, re-evaluating patients more frequently (see Recommendation 7), and referring to pain and/or behavioral health specialists when factors that increase risk for harm, such as history of overdose, history of substance use disorder, higher dosages of opioids (≥50 MME/day), and concurrent use of benzodiazepines with opioids, are present.

### Patients with Sleep-Disordered Breathing, Including Sleep Apnea

Risk factors for sleep-disordered breathing include congestive heart failure, and obesity. Experts noted that careful monitoring and cautious dose titration should be used if opioids are prescribed for patients with mild sleep-disordered breathing. Clinicians should avoid prescribing opioids to patients with moderate or severe sleep-disordered breathing whenever possible to minimize risks for opioid overdose (contextual evidence review).

### Pregnant Women

Opioids used in pregnancy might be associated with additional risks to both mother and fetus. Some studies have shown an association of opioid use in pregnancy with stillbirth, poor fetal growth, pre-term delivery, and birth defects (contextual evidence review). Importantly, in some cases, opioid use during pregnancy leads to neonatal opioid withdrawal syndrome. Clinicians and patients together should carefully weigh risks and benefits when making decisions

about whether to initiate opioid therapy for chronic pain during pregnancy. In addition, before initiating opioid therapy for chronic pain for reproductive-age women, clinicians should discuss family planning and how long-term opioid use might affect any future pregnancy. For pregnant women already receiving opioids, clinicians should access appropriate expertise if considering tapering opioids because of possible risk to the pregnant patient and to the fetus if the patient goes into withdrawal (see Recommendation 7). For pregnant women with opioid use disorder, medication-assisted therapy with buprenorphine or methadone has been associated with improved maternal outcomes and should be offered (*202*) (see Recommendation 12). Clinicians caring for pregnant women receiving opioids for pain or receiving buprenorphine or methadone for opioid use disorder should arrange for delivery at a facility prepared to monitor, evaluate for, and treat neonatal opioid withdrawal syndrome. In instances when travel to such a facility would present an undue burden on the pregnant woman, it is appropriate to deliver locally, monitor and evaluate the newborn for neonatal opioid withdrawal syndrome, and transfer the newborn for additional treatment if needed. Neonatal toxicity and death have been reported in breast-feeding infants whose mothers are taking codeine (contextual evidence review); previous guidelines have recommended that codeine be avoided whenever possible among mothers who are breast feeding and, if used, should be limited to the lowest possible dose and to a 4-day supply (*203*).

### Patients with Renal or Hepatic Insufficiency

Clinicians should use additional caution and increased monitoring (see Recommendation 7) to minimize risks of opioids prescribed for patients with renal or hepatic insufficiency, given their decreased ability to process and excrete drugs, susceptibility to accumulation of opioids, and reduced therapeutic window between safe dosages and dosages associated with respiratory depression and overdose (contextual evidence review; see Recommendations 4, 5, and 7).

### Patients Aged ≥65 Years

Inadequate pain treatment among persons aged ≥65 years has been documented (*204*). Pain management for older patients can be challenging given increased risks of both nonopioid pharmacologic therapies (see Recommendation 1) and opioid therapy in this population. Given reduced renal function and medication clearance even in the absence of renal disease, patients aged ≥65 years might have increased susceptibility to accumulation of opioids and a smaller therapeutic window between safe dosages and dosages associated with respiratory depression and overdose (contextual evidence review). Some older adults suffer from cognitive impairment, which can increase risk for medication errors and make opioid-related confusion more dangerous. In addition, older adults are more likely than younger adults to experience co-morbid medical conditions and more likely to receive multiple medications, some of which might interact with opioids (such as benzodiazepines). Clinicians should use additional caution and increased monitoring (see Recommendations 4, 5, and 7) to minimize risks of opioids prescribed for patients aged ≥65 years. Experts suggested that clinicians educate older adults receiving opioids to avoid risky medication-related behaviors such as obtaining controlled medications from multiple prescribers and saving unused medications. Clinicians should also implement interventions to mitigate common risks of opioid therapy among older adults, such as exercise or bowel regimens to prevent constipation, risk assessment for falls, and patient monitoring for cognitive impairment.

### Patients with Mental Health Conditions

Because psychological distress frequently interferes with improvement of pain and function in patients with chronic pain, using validated instruments such as the Generalized Anxiety Disorder (GAD)-7 and the Patient Health Questionnaire (PHQ)-9 or the PHQ-4 to assess for anxiety, post-traumatic stress disorder, and/or depression (*205*), might help clinicians improve overall pain treatment outcomes. Experts noted that clinicians should use additional caution and increased monitoring (see Recommendation 7) to lessen the increased risk for opioid use disorder among patients with mental health conditions (including depression, anxiety disorders, and PTSD), as well as increased risk for drug overdose among patients with depression. Previous guidelines have noted that opioid therapy should not be initiated during acute psychiatric instability or uncontrolled suicide risk, and that clinicians should consider behavioral health specialist consultation for any patient with a history of suicide attempt or psychiatric disorder (*31*). In addition, patients with anxiety disorders and other mental health conditions are more likely to receive benzodiazepines, which can exacerbate opioid-induced respiratory depression and increase risk for overdose (see Recommendation 11). Clinicians should ensure that treatment for depression and other mental health conditions is optimized, consulting with behavioral health specialists when needed. Treatment for depression can improve pain symptoms as well as depression and might decrease overdose risk (contextual evidence review). For treatment of chronic pain in patients with depression, clinicians should strongly consider using tricyclic or SNRI antidepressants for analgesic as well as antidepressant effects if these medications are not otherwise contraindicated (see Recommendation 1).

### Patients with Substance Use Disorder

Illicit drugs and alcohol are listed as contributory factors on a substantial proportion of death certificates for opioid-related overdose deaths (contextual evidence review). Previous guidelines have recommended screening or risk assessment tools to identify patients at higher risk for misuse or abuse of opioids. However, the clinical evidence review found that currently available risk-stratification tools (e.g., Opioid Risk Tool, Screener and Opioid Assessment for Patients with Pain Version 1, SOAPP-R, and Brief Risk Interview) show insufficient accuracy for classification of patients as at low or high risk for abuse or misuse (KQ4). Clinicians should always exercise caution when considering or prescribing opioids for any patient with chronic pain outside of active cancer, palliative, and end-of-life care and should not overestimate the ability of these tools to rule out risks from long-term opioid therapy.

Clinicians should ask patients about their drug and alcohol use. Single screening questions can be used (*206*). For example, the question "How many times in the past year have you used an illegal drug or used a prescription medication for nonmedical reasons?" (with an answer of one or more considered positive) was found in a primary care setting to be 100% sensitive and 73.5% specific for the detection of a drug use disorder compared with a standardized diagnostic interview (*207*). Validated screening tools such as the Drug Abuse Screening Test (DAST) (*208*) and the Alcohol Use Disorders Identification Test (AUDIT) (*209*) can also be used. Clinicians should use PDMP data (see Recommendation 9) and drug testing (see Recommendation 10) as appropriate to assess for concurrent substance use that might place patients at higher risk for opioid use disorder and overdose. Clinicians should also provide specific counseling on increased risks for overdose when opioids are combined with other drugs or alcohol (see Recommendation 3) and ensure that patients receive effective treatment for substance use disorders when needed (see Recommendation 12).

The clinical evidence review found insufficient evidence to determine how harms of opioids differ depending on past or current substance use disorder (KQ2), although a history of substance use disorder was associated with misuse. Similarly, based on contextual evidence, patients with drug or alcohol use disorders are likely to experience greater risks for opioid use disorder and overdose than persons without these conditions. If clinicians consider opioid therapy for chronic pain outside of active cancer, palliative, and end-of-life care for patients with drug or alcohol use disorders, they should discuss increased risks for opioid use disorder and overdose with patients, carefully consider whether benefits of opioids outweigh increased risks, and incorporate strategies to mitigate risk into the management plan, such as considering offering naloxone (see Offering Naloxone to Patients When Factors That Increase Risk for Opioid-Related Harms Are Present) and increasing frequency of monitoring (see Recommendation 7) when opioids are prescribed. Because pain management in patients with substance use disorder can be complex, clinicians should consider consulting substance use disorder specialists and pain specialists regarding pain management for persons with active or recent past history of substance abuse. Experts also noted that clinicians should communicate with patients' substance use disorder treatment providers if opioids are prescribed.

### Patients with Prior Nonfatal Overdose

Although studies were not identified that directly addressed the risk for overdose among patients with prior nonfatal overdose who are prescribed opioids, based on clinical experience, experts thought that prior nonfatal overdose would substantially increase risk for future nonfatal or fatal opioid overdose. If patients experience nonfatal opioid overdose, clinicians should work with them to reduce opioid dosage and to discontinue opioids when possible (see Recommendation 7). If clinicians continue opioid therapy for chronic pain outside of active cancer, palliative, and end-of-life care in patients with prior opioid overdose, they should discuss increased risks for overdose with patients, carefully consider whether benefits of opioids outweigh substantial risks, and incorporate strategies to mitigate risk into the management plan, such as considering offering naloxone (see Offering Naloxone to Patients When Factors That Increase Risk for Opioid-Related Harms Are Present) and increasing frequency of monitoring (see Recommendation 7) when opioids are prescribed.

### Offering Naloxone to Patients When Factors That Increase Risk for Opioid-Related Harms Are Present

Naloxone is an opioid antagonist that can reverse severe respiratory depression; its administration by lay persons, such as friends and family of persons who experience opioid overdose, can save lives. Naloxone precipitates acute withdrawal among patients physically dependent on opioids. Serious adverse effects, such as pulmonary edema, cardiovascular instability, and seizures, have been reported but are rare at doses consistent with labeled use for opioid overdose (*210*). The contextual evidence review did not find any studies on effectiveness of prescribing naloxone for overdose prevention among patients prescribed opioids for chronic pain. However, there is evidence for effectiveness of naloxone provision in preventing opioid-related overdose death at the community level through community-based distribution (e.g., through overdose education and naloxone distribution programs in community service agencies) to persons at risk for overdose

(mostly due to illicit opiate use), and it is plausible that effectiveness would be observed when naloxone is provided in the clinical setting as well. Experts agreed that it is preferable not to initiate opioid treatment when factors that increase risk for opioid-related harms are present. Opinions diverged about the likelihood of naloxone being useful to patients and the circumstances under which it should be offered. However, most experts agreed that clinicians should consider offering naloxone when prescribing opioids to patients at increased risk for overdose, including patients with a history of overdose, patients with a history of substance use disorder, patients taking benzodiazepines with opioids (see Recommendation 11), patients at risk for returning to a high dose to which they are no longer tolerant (e.g., patients recently released from prison), and patients taking higher dosages of opioids (≥50 MME/day). Practices should provide education on overdose prevention and naloxone use to patients receiving naloxone prescriptions and to members of their households. Experts noted that naloxone co-prescribing can be facilitated by clinics or practices with resources to provide naloxone training and by collaborative practice models with pharmacists. Resources for prescribing naloxone in primary care settings can be found through Prescribe to Prevent at http://prescribetoprevent.org.

9. **Clinicians should review the patient's history of controlled substance prescriptions using state prescription drug monitoring program (PDMP) data to determine whether the patient is receiving opioid dosages or dangerous combinations that put him or her at high risk for overdose. Clinicians should review PDMP data when starting opioid therapy for chronic pain and periodically during opioid therapy for chronic pain, ranging from every prescription to every 3 months (recommendation category: A, evidence type: 4).**

PDMPs are state-based databases that collect information on controlled prescription drugs dispensed by pharmacies in most states and, in select states, by dispensing physicians as well. In addition, some clinicians employed by the federal government, including some clinicians in the Indian Health Care Delivery System, are not licensed in the states where they practice, and do not have access to PDMP data. Certain states require clinicians to review PDMP data prior to writing each opioid prescription (see state-level PDMP-related policies on the National Alliance for Model State Drug Laws website at http://www.namsdl.org/prescription-monitoring-programs.cfm). The clinical evidence review did not find studies evaluating the effectiveness of PDMPs on outcomes related to overdose, addiction, abuse, or misuse (KQ4). However, even though evidence is limited on the effectiveness of PDMP implementation at the state level on prescribing and mortality outcomes (*28*), the contextual evidence review found that most fatal overdoses were associated with patients receiving opioids from multiple prescribers and/or with patients receiving high total daily opioid dosages; information on both of these risk factors for overdose are available to prescribers in the PDMP. PDMP data also can be helpful when patient medication history is not otherwise available (e.g., for patients from other locales) and when patients transition care to a new clinician. The contextual evidence review also found that PDMP information could be used in a way that is harmful to patients. For example, it has been used to dismiss patients from clinician practices (*211*), which might adversely affect patient safety.

The contextual review found variation in state policies that affect timeliness of PDMP data (and therefore benefits of reviewing PDMP data) as well as time and workload for clinicians in accessing PDMP data. In states that permit delegating access to other members of the health care team, workload for prescribers can be reduced. These differences might result in a different balance of benefits to clinician workload in different states. Experts agreed that PDMPs are useful tools that should be consulted when starting a patient on opioid therapy and periodically during long-term opioid therapy. However, experts disagreed on how frequently clinicians should check the PDMP during long-term opioid therapy, given PDMP access issues and the lag time in reporting in some states. Most experts agreed that PDMP data should be reviewed every 3 months or more frequently during long-term opioid therapy. A minority of experts noted that, given the current burden of accessing PDMP data in some states and the lack of evidence surrounding the most effective interval for PDMP review to improve patient outcomes, annual review of PDMP data during long-term opioid therapy would be reasonable when factors that increase risk for opioid-related harms are not present.

Clinicians should review PDMP data for opioids and other controlled medications patients might have received from additional prescribers to determine whether a patient is receiving high total opioid dosages or dangerous combinations (e.g., opioids combined with benzodiazepines) that put him or her at high risk for overdose. Ideally, PDMP data should be reviewed before every opioid prescription. This is recommended in all states with well-functioning PDMPs and where PDMP access policies make this practicable (e.g., clinician and delegate access permitted), but it is not currently possible in states without functional PDMPs or in those that do not permit certain prescribers to access them. As vendors and practices facilitate integration of PDMP information into regular clinical workflow (e.g., data made available in electronic health records), clinicians' ease of access in reviewing PDMP data is expected to improve.

In addition, improved timeliness of PDMP data will improve their value in identifying patient risks.

If patients are found to have high opioid dosages, dangerous combinations of medications, or multiple controlled substance prescriptions written by different clinicians, several actions can be taken to augment clinicians' abilities to improve patient safety:

- Clinicians should discuss information from the PDMP with their patient and confirm that the patient is aware of the additional prescriptions. Occasionally, PDMP information can be incorrect (e.g., if the wrong name or birthdate has been entered, the patient uses a nickname or maiden name, or another person has used the patient's identity to obtain prescriptions).
- Clinicians should discuss safety concerns, including increased risk for respiratory depression and overdose, with patients found to be receiving opioids from more than one prescriber or receiving medications that increase risk when combined with opioids (e.g., benzodiazepines) and consider offering naloxone (see Recommendation 8).
- Clinicians should avoid prescribing opioids and benzodiazepines concurrently whenever possible. Clinicians should communicate with others managing the patient to discuss the patient's needs, prioritize patient goals, weigh risks of concurrent benzodiazepine and opioid exposure, and coordinate care (see Recommendation 11).
- Clinicians should calculate the total MME/day for concurrent opioid prescriptions to help assess the patient's overdose risk (see Recommendation 5). If patients are found to be receiving high total daily dosages of opioids, clinicians should discuss their safety concerns with the patient, consider tapering to a safer dosage (see Recommendations 5 and 7), and consider offering naloxone (see Recommendation 8).
- Clinicians should discuss safety concerns with other clinicians who are prescribing controlled substances for their patient. Ideally clinicians should first discuss concerns with their patient and inform him or her that they plan to coordinate care with the patient's other prescribers to improve the patient's safety.
- Clinicians should consider the possibility of a substance use disorder and discuss concerns with their patient (see Recommendation 12).
- If clinicians suspect their patient might be sharing or selling opioids and not taking them, clinicians should consider urine drug testing to assist in determining whether opioids can be discontinued without causing withdrawal (see Recommendations 7 and 10). A negative drug test for prescribed opioids might indicate the patient is not taking prescribed opioids, although clinicians should consider other possible reasons for this test result (see Recommendation 10).

Experts agreed that clinicians should not dismiss patients from their practice on the basis of PDMP information. Doing so can adversely affect patient safety, could represent patient abandonment, and could result in missed opportunities to provide potentially lifesaving information (e.g., about risks of opioids and overdose prevention) and interventions (e.g., safer prescriptions, nonopioid pain treatment [see Recommendation 1], naloxone [see Recommendation 8], and effective treatment for substance use disorder [see Recommendation 12]).

**10. When prescribing opioids for chronic pain, clinicians should use urine drug testing before starting opioid therapy and consider urine drug testing at least annually to assess for prescribed medications as well as other controlled prescription drugs and illicit drugs (recommendation category: B, evidence type: 4).**

Concurrent use of opioid pain medications with other opioid pain medications, benzodiazepines, or heroin can increase patients' risk for overdose. Urine drug tests can provide information about drug use that is not reported by the patient. In addition, urine drug tests can assist clinicians in identifying when patients are not taking opioids prescribed for them, which might in some cases indicate diversion or other clinically important issues such as difficulties with adverse effects. Urine drug tests do not provide accurate information about how much or what dose of opioids or other drugs a patient took. The clinical evidence review did not find studies evaluating the effectiveness of urine drug screening for risk mitigation during opioid prescribing for pain (KQ4). The contextual evidence review found that urine drug testing can provide useful information about patients assumed not to be using unreported drugs. Urine drug testing results can be subject to misinterpretation and might sometimes be associated with practices that might harm patients (e.g., stigmatization, inappropriate termination from care). Routine use of urine drug tests with standardized policies at the practice or clinic level might destigmatize their use. Although random drug testing also might destigmatize urine drug testing, experts thought that truly random testing was not feasible in clinical practice. Some clinics obtain a urine specimen at every visit, but only send it for testing on a random schedule. Experts noted that in addition to direct costs of urine drug testing, which often are not covered fully by insurance and can be a burden for patients, clinician time is needed to interpret, confirm, and communicate results.

Experts agreed that prior to starting opioids for chronic pain and periodically during opioid therapy, clinicians should

use urine drug testing to assess for prescribed opioids as well as other controlled substances and illicit drugs that increase risk for overdose when combined with opioids, including nonprescribed opioids, benzodiazepines, and heroin. There was some difference of opinion among experts as to whether this recommendation should apply to all patients, or whether this recommendation should entail individual decision making with different choices for different patients based on values, preferences, and clinical situations. While experts agreed that clinicians should use urine drug testing before initiating opioid therapy for chronic pain, they disagreed on how frequently urine drug testing should be conducted during long-term opioid therapy. Most experts agreed that urine drug testing at least annually for all patients was reasonable. Some experts noted that this interval might be too long in some cases and too short in others, and that the follow-up interval should be left to the discretion of the clinician. Previous guidelines have recommended more frequent urine drug testing in patients thought to be at higher risk for substance use disorder (*30*). However, experts thought that predicting risk prior to urine drug testing is challenging and that currently available tools do not allow clinicians to reliably identify patients who are at low risk for substance use disorder.

In most situations, initial urine drug testing can be performed with a relatively inexpensive immunoassay panel for commonly prescribed opioids and illicit drugs. Patients prescribed less commonly used opioids might require specific testing for those agents. The use of confirmatory testing adds substantial costs and should be based on the need to detect specific opioids that cannot be identified on standard immunoassays or on the presence of unexpected urine drug test results. Clinicians should be familiar with the drugs included in urine drug testing panels used in their practice and should understand how to interpret results for these drugs. For example, a positive "opiates" immunoassay detects morphine, which might reflect patient use of morphine, codeine, or heroin, but this immunoassay does not detect synthetic opioids (e.g., fentanyl or methadone) and might not detect semisynthetic opioids (e.g., oxycodone). However, many laboratories use an oxycodone immunoassay that detects oxycodone and oxymorphone. In some cases, positive results for specific opioids might reflect metabolites from opioids the patient is taking and might not mean the patient is taking the specific opioid for which the test was positive. For example, hydromorphone is a metabolite of hydrocodone, and oxymorphone is a metabolite of oxycodone. Detailed guidance on interpretation of urine drug test results, including which tests to order and expected results, drug detection time in urine, drug metabolism, and other considerations has been published previously (*30*). Clinicians should not test for substances for which results would not affect patient management or for which implications for patient management are unclear. For example, experts noted that there might be uncertainty about the clinical implications of a positive urine drug test for tetrahyrdocannabinol (THC). In addition, restricting confirmatory testing to situations and substances for which results can reasonably be expected to affect patient management can reduce costs of urine drug testing, given the substantial costs associated with confirmatory testing methods. Before ordering urine drug testing, clinicians should have a plan for responding to unexpected results. Clinicians should explain to patients that urine drug testing is intended to improve their safety and should also explain expected results (e.g., presence of prescribed medication and absence of drugs, including illicit drugs, not reported by the patient). Clinicians should ask patients about use of prescribed and other drugs and ask whether there might be unexpected results. This will provide an opportunity for patients to provide information about changes in their use of prescribed opioids or other drugs. Clinicians should discuss unexpected results with the local laboratory or toxicologist and with the patient. Discussion with patients prior to specific confirmatory testing can sometimes yield a candid explanation of why a particular substance is present or absent and obviate the need for expensive confirmatory testing on that visit. For example, a patient might explain that the test is negative for prescribed opioids because she felt opioids were no longer helping and discontinued them. If unexpected results are not explained, a confirmatory test using a method selective enough to differentiate specific opioids and metabolites (e.g., gas or liquid chromatography/mass spectrometry) might be warranted to clarify the situation.

Clinicians should use unexpected results to improve patient safety (e.g., change in pain management strategy [see Recommendation 1], tapering or discontinuation of opioids [see Recommendation 7], more frequent re-evaluation [see Recommendation 7], offering naloxone [see Recommendation 8], or referral for treatment for substance use disorder [see Recommendation 12], all as appropriate). If tests for prescribed opioids are repeatedly negative, confirming that the patient is not taking the prescribed opioid, clinicians can discontinue the prescription without a taper. Clinicians should not dismiss patients from care based on a urine drug test result because this could constitute patient abandonment and could have adverse consequences for patient safety, potentially including the patient obtaining opioids from alternative sources and the clinician missing opportunities to facilitate treatment for substance use disorder.

**11. Clinicians should avoid prescribing opioid pain medication and benzodiazepines concurrently**

**whenever possible (recommendation category: A, evidence type: 3).**

Benzodiazepines and opioids both cause central nervous system depression and can decrease respiratory drive. Concurrent use is likely to put patients at greater risk for potentially fatal overdose. The clinical evidence review did not address risks of benzodiazepine co-prescription among patients prescribed opioids. However, the contextual evidence review found evidence in epidemiologic series of concurrent benzodiazepine use in large proportions of opioid-related overdose deaths, and a case-cohort study found concurrent benzodiazepine prescription with opioid prescription to be associated with a near quadrupling of risk for overdose death compared with opioid prescription alone (*212*). Experts agreed that although there are circumstances when it might be appropriate to prescribe opioids to a patient receiving benzodiazepines (e.g., severe acute pain in a patient taking long-term, stable low-dose benzodiazepine therapy), clinicians should avoid prescribing opioids and benzodiazepines concurrently whenever possible. In addition, given that other central nervous system depressants (e.g., muscle relaxants, hypnotics) can potentiate central nervous system depression associated with opioids, clinicians should consider whether benefits outweigh risks of concurrent use of these drugs. Clinicians should check the PDMP for concurrent controlled medications prescribed by other clinicians (see Recommendation 9) and should consider involving pharmacists and pain specialists as part of the management team when opioids are co-prescribed with other central nervous system depressants. Because of greater risks of benzodiazepine withdrawal relative to opioid withdrawal, and because tapering opioids can be associated with anxiety, when patients receiving both benzodiazepines and opioids require tapering to reduce risk for fatal respiratory depression, it might be safer and more practical to taper opioids first (see Recommendation 7). Clinicians should taper benzodiazepines gradually if discontinued because abrupt withdrawal can be associated with rebound anxiety, hallucinations, seizures, delirium tremens, and, in rare cases, death (contextual evidence review). A commonly used tapering schedule that has been used safely and with moderate success is a reduction of the benzodiazepine dose by 25% every 1–2 weeks (*213*,*214*). CBT increases tapering success rates and might be particularly helpful for patients struggling with a benzodiazepine taper (*213*). If benzodiazepines prescribed for anxiety are tapered or discontinued, or if patients receiving opioids require treatment for anxiety, evidence-based psychotherapies (e.g., CBT) and/or specific anti-depressants or other nonbenzodiazepine medications approved for anxiety should be offered. Experts emphasized that clinicians should communicate with mental health professionals managing the patient to discuss the patient's needs, prioritize patient goals, weigh risks of concurrent benzodiazepine and opioid exposure, and coordinate care.

**12. Clinicians should offer or arrange evidence-based treatment (usually medication-assisted treatment with buprenorphine or methadone in combination with behavioral therapies) for patients with opioid use disorder (recommendation category: A, evidence type: 2).**

Opioid use disorder (previously classified as opioid abuse or opioid dependence) is defined in the *Diagnostic and Statistical Manual of Mental Disorders*, 5th edition (DSM-5) as a problematic pattern of opioid use leading to clinically significant impairment or distress, manifested by at least two defined criteria occurring within a year (http://pcssmat.org/wp-content/uploads/2014/02/5B-DSM-5-Opioid-Use-Disorder-Diagnostic-Criteria.pdf) (*20*).

The clinical evidence review found prevalence of opioid dependence (using DSM-IV diagnosis criteria) in primary care settings among patients with chronic pain on opioid therapy to be 3%–26% (KQ2). As found in the contextual evidence review and supported by moderate quality evidence, opioid agonist or partial agonist treatment with methadone maintenance therapy or buprenorphine has been shown to be more effective in preventing relapse among patients with opioid use disorder (*151*–*153*). Some studies suggest that using behavioral therapies in combination with these treatments can reduce opioid misuse and increase retention during maintenance therapy and improve compliance after detoxification (*154*,*155*); behavioral therapies are also recommended by clinical practice guidelines (*215*). The cited studies primarily evaluated patients with a history of illicit opioid use, rather than prescription opioid use for chronic pain. Recent studies among patients with prescription opioid dependence (based on DSM-IV criteria) have found maintenance therapy with buprenorphine and buprenorphine-naloxone effective in preventing relapse (*216*,*217*). Treatment need in a community is often not met by capacity to provide buprenorphine or methadone maintenance therapy (*218*), and patient cost can be a barrier to buprenorphine treatment because insurance coverage of buprenorphine for opioid use disorder is often limited (*219*). Oral or long-acting injectable formulations of naltrexone can also be used as medication-assisted treatment for opioid use disorder in nonpregnant adults, particularly for highly motivated persons (*220*,*221*). Experts agreed that clinicians prescribing opioids should identify treatment resources for opioid use disorder in the community and should work together to ensure sufficient treatment capacity for opioid use disorder at the practice level.

If clinicians suspect opioid use disorder based on patient concerns or behaviors or on findings in prescription drug monitoring program data (see Recommendation 9) or from urine drug testing (see Recommendation 10), they should discuss their concern with their patient and provide an opportunity for the patient to disclose related concerns or problems. Clinicians should assess for the presence of opioid use disorder using DSM-5 criteria (*20*). Alternatively, clinicians can arrange for a substance use disorder treatment specialist to assess for the presence of opioid use disorder. For patients meeting criteria for opioid use disorder, clinicians should offer or arrange for patients to receive evidence-based treatment, usually medication-assisted treatment with buprenorphine or methadone maintenance therapy in combination with behavioral therapies. Oral or long-acting injectable naltrexone, a long-acting opioid antagonist, can also be used in non-pregnant adults. Naltrexone blocks the effects of opioids if they are used but requires adherence to daily oral therapy or monthly injections. For pregnant women with opioid use disorder, medication-assisted therapy with buprenorphine (without naloxone) or methadone has been associated with improved maternal outcomes and should be offered (see Recommendation 8). Clinicians should also consider offering naloxone for overdose prevention to patients with opioid use disorder (see Recommendation 8). For patients with problematic opioid use that does not meet criteria for opioid use disorder, experts noted that clinicians can offer to taper and discontinue opioids (see Recommendation 7). For patients who choose to but are unable to taper, clinicians may reassess for opioid use disorder and offer opioid agonist therapy if criteria are met.

Physicians not already certified to provide buprenorphine in an office-based setting can undergo training to receive a waiver from the Substance Abuse and Mental Health Services Administration (SAMHSA) that allows them to prescribe buprenorphine to treat patients with opioid use disorder. Physicians prescribing opioids in communities without sufficient treatment capacity for opioid use disorder should strongly consider obtaining this waiver. Information about qualifications and the process to obtain a waiver are available from SAMHSA (*222*). Clinicians do not need a waiver to offer naltrexone for opioid use disorder as part of their practice.

Additional guidance has been published previously (*215*) on induction, use, and monitoring of buprenorphine treatment (see Part 5) and naltrexone treatment (see Part 6) for opioid use disorder and on goals, components of, and types of effective psychosocial treatment that are recommended in conjunction with pharmacological treatment of opioid use disorder (see Part 7). Clinicians unable to provide treatment themselves should arrange for patients with opioid use disorder to receive care from a substance use disorder treatment specialist, such as an office-based buprenorphine or naltrexone treatment provider, or from an opioid treatment program certified by SAMHSA to provide supervised medication-assisted treatment for patients with opioid use disorder. Clinicians should assist patients in finding qualified treatment providers and should arrange for patients to follow up with these providers, as well as arranging for ongoing coordination of care. Clinicians should not dismiss patients from their practice because of a substance use disorder because this can adversely affect patient safety and could represent patient abandonment. Identification of substance use disorder represents an opportunity for a clinician to initiate potentially life-saving interventions, and it is important for the clinician to collaborate with the patient regarding their safety to increase the likelihood of successful treatment. In addition, although identification of an opioid use disorder can alter the expected benefits and risks of opioid therapy for pain, patients with co-occurring pain and substance use disorder require ongoing pain management that maximizes benefits relative to risks. Clinicians should continue to use nonpharmacologic and nonopioid pharmacologic pain treatments as appropriate (see Recommendation 1) and consider consulting a pain specialist as needed to provide optimal pain management.

Resources to help with arranging for treatment include SAMHSA's buprenorphine physician locator (http://buprenorphine.samhsa.gov/bwns_locator); SAMHSA's Opioid Treatment Program Directory (http://dpt2.samhsa.gov/treatment/directory.aspx); SAMHSA's Provider Clinical Support System for Opioid Therapies (http://pcss-o.org), which offers extensive experience in the treatment of substance use disorders and specifically of opioid use disorder, as well as expertise on the interface of pain and opioid misuse; and SAMHSA's Provider's Clinical Support System for Medication-Assisted Treatment (http://pcssmat.org), which offers expert physician mentors to answer questions about assessment for and treatment of substance use disorders.

## Conclusions and Future Directions

Clinical guidelines represent one strategy for improving prescribing practices and health outcomes. Efforts are required to disseminate the guideline and achieve widespread adoption and implementation of the recommendations in clinical settings. CDC will translate this guideline into user-friendly materials for distribution and use by health systems, medical professional societies, insurers, public health departments, health information technology developers, and clinicians and engage in dissemination efforts. CDC has provided a

checklist for prescribing opioids for chronic pain (http://stacks.cdc.gov/view/cdc/38025), additional resources such as fact sheets (http://www.cdc.gov/drugoverdose/prescribing/resources.html), and will provide a mobile application to guide clinicians in implementing the recommendations. CDC will also work with partners to support clinician education on pain management options, opioid therapy, and risk mitigation strategies (e.g., urine drug testing). Activities such as development of clinical decision support in electronic health records to assist clinicians' treatment decisions at the point of care; identification of mechanisms that insurers and pharmacy benefit plan managers can use to promote safer prescribing within plans; and development of clinical quality improvement measures and initiatives to improve prescribing and patient care within health systems have promise for increasing guideline adoption and improving practice. In addition, policy initiatives that address barriers to implementation of the guidelines, such as increasing accessibility of PDMP data within and across states, e-prescribing, and availability of clinicians who can offer medication-assisted treatment for opioid use disorder, are strategies to consider to enhance implementation of the recommended practices. CDC will work with federal partners and payers to evaluate strategies such as payment reform and health care delivery models that could improve patient health and safety. For example, strategies might include strengthened coverage for nonpharmacologic treatments, appropriate urine drug testing, and medication-assisted treatment; reimbursable time for patient counseling; and payment models that improve access to interdisciplinary, coordinated care.

As highlighted in the forthcoming report on the National Pain Strategy, an overarching federal effort that outlines a comprehensive population-level health strategy for addressing pain as a public health problem, clinical guidelines complement other strategies aimed at preventing illnesses and injuries that lead to pain. A draft of the National Pain Strategy has been published previously (*180*). These strategies include strengthening the evidence base for pain prevention and treatment strategies, reducing disparities in pain treatment, improving service delivery and reimbursement, supporting professional education and training, and providing public education. It is important that overall improvements be made in developing the workforce to address pain management in general, in addition to opioid prescribing specifically. This guideline also complements other federal efforts focused on addressing the opioid overdose epidemic including prescriber training and education, improving access to treatment for opioid use disorder, safe storage and disposal programs, utilization management mechanisms, naloxone distribution programs, law enforcement and supply reduction efforts, prescription drug monitoring program improvements, and support for community coalitions and state prevention programs.

This guideline provides recommendations that are based on the best available evidence that was interpreted and informed by expert opinion. The clinical scientific evidence informing the recommendations is low in quality. To inform future guideline development, more research is necessary to fill in critical evidence gaps. The evidence reviews forming the basis of this guideline clearly illustrate that there is much yet to be learned about the effectiveness, safety, and economic efficiency of long-term opioid therapy. As highlighted by an expert panel in a recent workshop sponsored by the National Institutes of Health on the role of opioid pain medications in the treatment of chronic pain, "evidence is insufficient for every clinical decision that a provider needs to make about the use of opioids for chronic pain" (*223*). The National Institutes of Health panel recommended that research is needed to improve our understanding of which types of pain, specific diseases, and patients are most likely to be associated with benefit and harm from opioid pain medications; evaluate multidisciplinary pain interventions; estimate cost-benefit; develop and validate tools for identification of patient risk and outcomes; assess the effectiveness and harms of opioid pain medications with alternative study designs; and investigate risk identification and mitigation strategies and their effects on patient and public health outcomes. It is also important to obtain data to inform the cost feasibility and cost-effectiveness of recommended actions, such as use of nonpharmacologic therapy and urine drug testing. Research that contributes to safer and more effective pain treatment can be implemented across public health entities and federal agencies (*4*). Additional research can inform the development of future guidelines for special populations that could not be adequately addressed in this guideline, such as children and adolescents, where evidence and guidance is needed but currently lacking. CDC is committed to working with partners to identify the highest priority research areas to build the evidence base. Yet, given that chronic pain is recognized as a significant public health problem, the risks associated with long-term opioid therapy, the availability of effective nonpharmacological and nonopioid pharmacologic treatment options for pain, and the potential for improvement in the quality of health care with the implementation of recommended practices, a guideline for prescribing is warranted with the evidence that is currently available. The balance between the benefits and the risks of long-term opioid therapy for chronic pain based on both clinical and contextual evidence is strong enough to support the issuance of category A recommendations in most cases.

CDC will revisit this guideline as new evidence becomes available to determine when evidence gaps have been sufficiently closed to warrant an update of the guideline. Until this research is conducted, clinical practice guidelines will have to be based on the best available evidence and expert opinion. This guideline is intended to improve communication between clinicians and patients about the risks and benefits of opioid therapy for chronic pain, improve the safety and effectiveness of pain treatment, and reduce the risks associated with long-term opioid therapy, including opioid use disorder, overdose, and death. CDC is committed to evaluating the guideline to identify the impact of the recommendations on clinician and patient outcomes, both intended and unintended, and revising the recommendations in future updates when warranted.

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**TABLE 1. Grading of Recommendations Assessment, Development and Evaluation (GRADE) clinical evidence review ratings of the evidence for the key clinical questions regarding effectiveness and risks of long-term opioid therapy for chronic pain**

| Outcome | Studies | Limitations | Inconsistency | Imprecision | Type of evidence | Other factors | Estimates of effect/findings |
|---|---|---|---|---|---|---|---|
| **Effectiveness and comparative effectiveness (KQ1)** | | | | | | | |
| **Effectiveness of long-term opioid therapy versus placebo or no opioid therapy for long-term (≥1 year) outcomes** | | | | | | | |
| Pain, function, and quality of life | None | —[†] | — | — | Insufficient | — | No evidence |
| **Harms and adverse events (KQ2)** | | | | | | | |
| **Risks of opioids versus placebo or no opioids on opioid abuse, addiction, and related outcomes; overdose; and other harms** | | | | | | | |
| Abuse or addiction | 1 cohort study (n = 568,640) | Serious limitations | Unknown (1 study) | No imprecision | 3 | None identified | One retrospective cohort study found long-term use of prescribed opioids associated with an increased risk of abuse or dependence diagnosis versus no opioid use (adjusted OR ranged from 14.9 to 122.5, depending on dose). |
| Abuse or addiction | 10 uncontrolled studies (n = 3,780) | Very serious limitations | Very serious inconsistency | No imprecision | 4 | None identified | In primary care settings, prevalence of opioid abuse ranged from 0.6% to 8% and prevalence of dependence from 3% to 26%. In pain clinic settings, prevalence of misuse ranged from 8% to 16% and addiction from 2% to 14%. Prevalence of aberrant drug-related behaviors ranged from 6% to 37%. |
| Overdose | 1 cohort study (n = 9,940) | Serious limitations | Unknown (1 study) | Serious imprecision | 3 | None identified | Current opioid use associated with increased risk of any overdose events (adjusted HR 5.2, 95% CI = 2.1–12) and serious overdose events (adjusted HR 8.4, 95% CI = 2.5–28) versus current nonuse. |
| Fractures | 1 cohort study (n = 2,341) and 1 case–control study (n = 21,739 case patients) | Serious limitations | No inconsistency | No imprecision | 3 | None identified | Opioid use associated with increased risk of fracture in 1 cohort study (adjusted HR 1.28, 95% CI = 0.99–1.64) and 1 case-control study (adjusted OR 1.27, 95% CI = 1.21–1.33). |
| Myocardial infarction | 1 cohort study (n = 426,124) and 1 case–control study (n = 11,693 case patients) | No limitations | No inconsistency | No imprecision | 3 | None identified | Current opioid use associated with increased risk of myocardial infarction versus nonuse (adjusted OR 1.28, 95% CI = 1.19–1.37 and incidence rate ratio 2.66, 95% CI = 2.30–3.08). |
| Endocrinologic harms | 1 cross-sectional study (n = 11,327) | Serious limitations | Unknown (1 study) | No imprecision | 3 | None identified | Long-term opioid use associated with increased risk for use of medications for erectile dysfunction or testosterone replacement versus nonuse (adjusted OR 1.5, 95% CI = 1.1–1.9). |
| **How do harms vary depending on the opioid dose used?** | | | | | | | |
| Abuse or addiction | 1 cohort study (n = 568,640) | Serious limitations | Unknown (1 study) | No imprecision | 3 | None identified | One retrospective cohort study found higher doses of long-term opioid therapy associated with increased risk of opioid abuse or dependence than lower doses. Compared to no opioid prescription, the adjusted odds ratios were 15 (95% CI = 10–21) for 1 to 36 MME/day, 29 (95 % CI = 20–41) for 36 to120 MME/day, and 122 (95 % CI = 73–205) for ≥120 MME/day. |
| Overdose | 1 cohort study (n = 9,940) and 1 case–control study (n = 593 case patients in primary analysis) | Serious limitations | No inconsistency | No imprecision | 3 | Magnitude of effect, dose response relationship | Versus 1 to <20 MME/day, one cohort study found an adjusted HR for an overdose event of 1.44 (95% CI = 0.57–3.62) for 20 to <50 MME/day that increased to 8.87 (95% CI = 3.99–19.72) at ≥100 MME/day; one case-control study found an adjusted OR for an opioid-related death of 1.32 (95% CI = 0.94–1.84) for 20 to 49 MME/day that increased to 2.88 (95% CI = 1.79–4.63) at ≥200 MME/day. |
| Fractures | 1 cohort study (n = 2,341) | Serious limitations | Unknown (1 study) | Serious imprecision | 3 | None identified | Risk of fracture increased from an adjusted HR of 1.20 (95% CI = 0.92–1.56) at 1 to <20 MME/day to 2.00 (95% CI = 1.24–3.24) at ≥50 MME/day; the trend was of borderline statistical significance. |

See table footnotes on page 47.

**TABLE 1. (*Continued*) Grading of Recommendations Assessment, Development and Evaluation (GRADE) clinical evidence review ratings of the evidence for the key clinical questions regarding effectiveness and risks of long-term opioid therapy for chronic pain**

| Outcome | Studies | Limitations | Inconsistency | Imprecision | Type of evidence | Other factors | Estimates of effect/findings |
|---|---|---|---|---|---|---|---|
| Myocardial infarction | 1 cohort study (n = 426,124) | Serious limitations | Unknown (1 study) | No imprecision | 3 | None identified | Relative to a cumulative dose of 0 to 1,350 MME during a 90-day period, the incidence rate ratio for myocardial infarction for 1350 to <2700 MME was 1.21 (95% CI = 1.02–1.45), for 2,700 to <8,100 MME was 1.42 (95% CI = 1.21–1.67), for 8,100 to <18,000 MME was 1.89 (95% CI = 1.54–2.33), and for ≥18,000 MME was 1.73 (95% CI = 1.32–2.26). |
| Motor vehicle crash injuries | 1 case–control study (n = 5,300 case patients) | No limitations | Unknown (1 study) | No imprecision | 3 | None identified | No association between opioid dose and risk of motor vehicle crash injuries even though opioid doses >20 MME/day were associated with increased odds of road trauma among drivers. |
| Endocrinologic harms | 1 cross-sectional study (n = 11,327) New for update: 1 additional cross-sectional study (n=1,585) | Serious limitations | Consistent | No imprecision | 3 | None identified | Relative to 0 to <20 MME/day, the adjusted OR for ≥120 MME/day for use of medications for erectile dysfunction or testosterone replacement was 1.6 (95% CI = 1.0–2.4).<br>One new cross-sectional study found higher-dose long-term opioid therapy associated with increased risk of androgen deficiency among men receiving immediate-release opioids (adjusted OR per 10 MME/day 1.16, 95% CI = 1.09–1.23), but the dose response was very weak among men receiving ER/LA opioids. |
| **Dosing strategies (KQ3)** | | | | | | | |
| **Comparative effectiveness of different methods for initiating opioid therapy and titrating doses** | | | | | | | |
| Pain | 3 randomized trials (n = 93) | Serious limitations | Serious inconsistency | Very serious imprecision | 4 | None identified | Trials on effects of titration with immediate-release versus ER/LA opioids reported inconsistent results and had additional differences between treatment arms in dosing protocols (titrated versus fixed dosing) and doses of opioids used. |
| Overdose | New for update: 1 cohort study (n = 840,606) | Serious limitations | Unknown (1 study) | No imprecision | 4 | None identified | One new cross-sectional study found initiation of therapy with an ER/LA opioid associated with increased risk of overdose versus initiation with an immediate-release opioid (adjusted HR 2.33, 95% CI = 1.26–4.32). |
| **Comparative effectiveness of different ER/LA opioids** | | | | | | | |
| Pain and function | 3 randomized trials (n = 1,850) | Serious limitations | No inconsistency | No imprecision | 3 | None identified | No differences |
| All-cause mortality | 1 cohort study (n = 108,492)<br>New for update: 1 cohort study (n = 38,756) | Serious limitations | Serious inconsistency | No imprecision | 4 | None identified | One cohort study found methadone to be associated with lower all-cause mortality risk than sustained-release morphine in a propensity-adjusted analysis (adjusted HR 0.56, 95% CI = 0.51–0.62) and one cohort study among Tennessee Medicaid patients found methadone to be associated with higher risk of all-cause mortality than sustained-release morphine (adjusted HR 1.46, 95% CI = 1.17–1.73). |
| Abuse and related outcomes | 1 cohort study (n = 5,684) | Serious limitations | Unknown (1 study) | Serious imprecision | 4 | None identified | One cohort study found some differences between ER/LA opioids in rates of adverse outcomes related to abuse, but outcomes were nonspecific for opioid-related adverse events, precluding reliable conclusions. |
| **ER/LA versus immediate-release opioids** | | | | | | | |
| Endocrinologic harms | New for update: 1 cross-sectional study (n = 1,585) | Serious limitations | Unknown (1 study) | No imprecision | 4 | None identified | One cross-sectional study found ER/LA opioids associated with increased risk of androgen deficiency versus immediate-release opioids (adjusted OR 3.39, 95% CI = 2.39–4.77). |

See table footnotes on page 47.

**TABLE 1. (*Continued*) Grading of Recommendations Assessment, Development and Evaluation (GRADE) clinical evidence review ratings of the evidence for the key clinical questions regarding effectiveness and risks of long-term opioid therapy for chronic pain**

| Outcome | Studies | Limitations | Inconsistency | Imprecision | Type of evidence | Other factors | Estimates of effect/findings |
|---|---|---|---|---|---|---|---|
| **Dose escalation versus dose maintenance or use of dose thresholds** | | | | | | | |
| Pain, function, or withdrawal due to opioid misuse | 1 randomized trial (n = 140) | Serious limitations | Unknown (1 study) | Very serious imprecision | 3 | None identified | No difference between more liberal dose escalation versus maintenance of current doses in pain, function, or risk of withdrawal due to opioid misuse, but there was limited separation in opioid doses between groups (52 versus 40 MME/day at the end of the trial). |
| **Immediate-release versus ER/LA opioids; immediate-release plus ER/LA opioids versus ER/LA opioids alone; scheduled and continuous versus as-needed dosing of opioids; or opioid rotation versus maintenance of current therapy** | | | | | | | |
| Pain, function, quality of life, and outcomes related to abuse | None | — | — | — | Insufficient | — | No evidence |
| **Effects of decreasing or tapering opioid doses versus continuation of opioid therapy** | | | | | | | |
| Pain and function | 1 randomized trial (n = 10) | Very serious limitations | Unknown (1 study) | Very serious imprecision | 4 | None identified | Abrupt cessation of morphine was associated with increased pain and decreased function compared with continuation of morphine. |
| **Comparative effectiveness of different tapering protocols and strategies** | | | | | | | |
| Opioid abstinence | 2 nonrandomized trials (n = 150) | Very serious limitations | No inconsistency | Very serious imprecision | 4 | None identified | No clear differences between different methods for opioid discontinuation or tapering in likelihood of opioid abstinence after 3–6 months |
| **Risk assessment and risk mitigation strategies (KQ4)** | | | | | | | |
| **Diagnostic accuracy of instruments for predicting risk for opioid overdose, addiction, abuse, or misuse among patients with chronic pain being considered for long-term opioid therapy** | | | | | | | |
| Opioid risk tool | 3 studies of diagnostic accuracy (n = 496)<br>New for update: 2 studies of diagnostic accuracy (n = 320) | Serious limitations | Very serious inconsistency | Serious imprecision | 4 | None identified | Based on a cutoff score of >4 (or unspecified), five studies (two fair-quality, three poor-quality) reported sensitivity that ranged from 0.20 to 0.99 and specificity that ranged from 0.16 to 0.88. |
| Screener and Opioid Assessment for Patients with Pain, Version 1 | 2 studies of diagnostic accuracy (n = 203) | Very serious limitations | No inconsistency | Serious imprecision | 3 | None identified | Based on a cutoff score of ≥8, sensitivity was 0.68 and specificity was 0.38 in one study, for a positive likelihood ratio of 1.11 and a negative likelihood ratio of 0.83. Based on a cutoff score of >6, sensitivity was 0.73 in one study. |
| Screener and Opioid Assessment for Patients with Pain-Revised | New for update: 2 studies of diagnostic accuracy (n = 320) | Very serious limitations | No inconsistency | Serious imprecision | 3 | None identified | Based on a cutoff score of >3 or unspecified, sensitivity was 0.25 and 0.53 and specificity was 0.62 and 0.73 in two studies, for likelihood ratios close to 1. |
| Brief Risk Interview | New for update: 2 studies of diagnostic accuracy (n = 320) | Very serious limitations | No inconsistency | Serious imprecision | 3 | None identified | Based on a "high risk" assessment, sensitivity was 0.73 and 0.83 and specificity was 0.43 and 0.88 in two studies, for positive likelihood ratios of 1.28 and 7.18 and negative likelihood ratios of 0.63 and 0.19. |

See table footnotes on page 47.

**TABLE 1. (*Continued*) Grading of Recommendations Assessment, Development and Evaluation (GRADE) clinical evidence review ratings of the evidence for the key clinical questions regarding effectiveness and risks of long-term opioid therapy for chronic pain**

| Outcome | Studies | Limitations | Inconsistency | Imprecision | Type of evidence | Other factors | Estimates of effect/findings |
|---|---|---|---|---|---|---|---|
| **Effectiveness of risk prediction instruments on outcomes related to overdose, addiction, abuse, or misuse in patients with chronic pain** | | | | | | | |
| Outcomes related to abuse | None | — | — | — | Insufficient | — | No evidence |
| **Effectiveness of risk mitigation strategies, including opioid management plans, patient education, urine drug screening, use of prescription drug monitoring program data, use of monitoring instruments, more frequent monitoring intervals, pill counts, and use of abuse-deterrent formulations, on outcomes related to overdose, addiction, abuse, or misuse** | | | | | | | |
| Outcomes related to abuse | None | — | — | — | Insufficient | — | No evidence |
| **Effectiveness of risk prediction instruments on outcomes related to overdose, addiction, abuse, or misuse in patients with chronic pain** | | | | | | | |
| Outcomes related to abuse | None | — | — | — | Insufficient | — | No evidence |
| **Effectiveness of risk mitigation strategies, including opioid management plans, patient education, urine drug screening, use of prescription drug monitoring program data, use of monitoring instruments, more frequent monitoring intervals, pill counts, and use of abuse-deterrent formulations, on outcomes related to overdose, addiction, abuse, or misuse** | | | | | | | |
| Outcomes related to abuse | None | — | — | — | Insufficient | — | No evidence |
| **Comparative effectiveness of treatment strategies for managing patients with addiction to prescription opioids** | | | | | | | |
| Outcomes related to abuse | None | — | — | — | Insufficient | — | No evidence |
| **Effects of opioid therapy for acute pain on long-term use (KQ5)** | | | | | | | |
| Long-term opioid use | New for update: 2 cohort studies (n = 399,852) | Serious limitations | No inconsistency | No imprecision | 3 | None identified | One study found use of opioids within 7 days of low-risk surgery associated with increased likelihood of opioid use at 1 year (adjusted OR 1.44, 95% CI = 1.39–1.50), and one study found use of opioids within 15 days of onset of low back pain among workers with a compensation claim associated with increased risk of late opioid use (adjusted OR 2.08, 95% CI = 1.55–2.78 for 1 to 140 MME/day and OR 6.14, 95% CI = 4.92–7.66 for ≥450 MME/day). |

**Abbreviations:** CI = confidence interval; ER/LA = extended release/long-acting; HR = hazard ratio; MME = morphine milligram equivalents; OR = odds ratio.
* Ratings were made per GRADE quality assessment criteria; "no limitations" indicates that limitations assessed through the GRADE method were not identified.
† Not applicable as no evidence was available for rating.

**TABLE 2. Morphine milligram equivalent (MME) doses for commonly prescribed opioids**

| Opioid | Conversion factor* |
|---|---|
| Codeine | 0.15 |
| Fentanyl transdermal (in mcg/hr) | 2.4 |
| Hydrocodone | 1 |
| Hydromorphone | 4 |
| Methadone | |
| 1–20 mg/day | 4 |
| 21–40 mg/day | 8 |
| 41–60 mg/day | 10 |
| ≥61–80 mg/day | 12 |
| Morphine | 1 |
| Oxycodone | 1.5 |
| Oxymorphone | 3 |
| Tapentadol† | 0.4 |

**Source:** Adapted from Von Korff M, Saunders K, Ray GT, et al. Clin J Pain 2008;24:521–7 and Washington State Interagency Guideline on Prescribing Opioids for Pain (http://www.agencymeddirectors.wa.gov/Files/2015AMDGOpioidGuideline.pdf).

* Multiply the dose for each opioid by the conversion factor to determine the dose in MMEs. For example, tablets containing hydrocodone 5 mg and acetaminophen 300 mg taken four times a day would contain a total of 20 mg of hydrocodone daily, equivalent to 20 MME daily; extended-release tablets containing oxycodone 10mg and taken twice a day would contain a total of 20mg of oxycodone daily, equivalent to 30 MME daily. The following cautions should be noted: 1) All doses are in mg/day except for fentanyl, which is mcg/hr. 2) Equianalgesic dose conversions are only estimates and cannot account for individual variability in genetics and pharmacokinetics. 3) Do not use the calculated dose in MMEs to determine the doses to use when converting opioid to another; when converting opioids the new opioid is typically dosed at substantially lower than the calculated MME dose to avoid accidental overdose due to incomplete cross-tolerance and individual variability in opioid pharmacokinetics. 4) Use particular caution with methadone dose conversions because the conversion factor increases at higher doses. 5) Use particular caution with fentanyl since it is dosed in mcg/hr instead of mg/day, and its absorption is affected by heat and other factors.

† Tapentadol is a mu receptor agonist and norepinephrine reuptake inhibitor. MMEs are based on degree of mu-receptor agonist activity, but it is unknown if this drug is associated with overdose in the same dose-dependent manner as observed with medications that are solely mu receptor agonists.

Please note: An erratum has been published for this issue. To view the erratum, please click here.



## Steering Committee and Core Expert Group Members

***Steering Committee:*** *Deborah Dowell, MD, Tamara M. Haegerich, PhD; Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, CDC; Roger Chou, MD; on detail to CDC under contract.*

***Core Expert Group Members:*** *Pam Archer, MPH, Oklahoma State Department of Health; Jane Ballantyne, MD; University of Washington (retired); Amy Bohnert, PhD; University of Michigan; Bonnie Burman, ScD; Ohio Department on Aging; Roger Chou, MD; on detail to CDC under contract; Phillip Coffin, MD, San Francisco Department of Public Health; Gary Franklin, MD, MPH; Washington State Department of Labor and Industries/University of Washington; Erin Krebs, MDH; Minneapolis VA Health Care System/University of Minnesota; Mitchel Mutter, MD, Tennessee Department of Health; Lewis Nelson, MD; New York University School of Medicine; Trupti Patel, MD, Arizona Department of Health Services; Christina A. Porucznik, PhD, University of Utah; Robert "Chuck" Rich, MD, FAAFP, American Academy of Family Physicians; Joanna Starrels, MD, Albert Einstein College of Medicine of Yeshiva University; Michael Steinman, MD, Society of General Internal Medicine; Thomas Tape, MD, American College of Physicians; Judith Turner, PhD, University of Washington.*

## Stakeholder Review Group

*John Markman, MD, American Academy of Neurology; Bob Twillman, PhD, American Academy of Pain Management; Edward C. Covington, MD, American Academy of Pain Medicine; Roger F. Suchyta, MD, FAAP, American Academy of Pediatrics; Kavitha V. Neerukonda, JD, American Academy of Physical Medicine and Rehabilitation; Mark Fleury, PhD, American Cancer Society Cancer Action Network; Penney Cowan, American Chronic Pain Association; David Juurlink, BPharm, MD, PhD, American College of Medical Toxicology; Gerald "Jerry" F. Joseph, Jr, MD, American College of Obstetrics and Gynecology; Bruce Ferrell, MD, AGSF, M. Carrington Reid, MD, PhD, American Geriatrics Society; Ashley Thompson, American Hospital Association; Barry D. Dickinson, PhD, American Medical Association; Gregory Terman MD, PhD, American Pain Society; Beth Haynes, MPPA, American Society of Addiction Medicine; Asokumar Buvanendran, MD, American Society of Anesthesiologists; Robert M. Plovnick; MD, American Society of Hematology; Sanford M. Silverman, MD, American Society of Interventional Pain Physicians; Andrew Kolodny, MD, Physicians for Responsible Opioid Prescribing.*

## Opioid Guideline Workgroup

***Chair:*** *Christina Porucznik, PhD, MSPH*

***Workgroup Members:*** *Anne Burns, RPh; Penney Cowan; Chinazo Cunningham, MD, MS; Katherine Galluzzi, DO; Traci Green, PhD, MSC; Mitchell Katz, MD; Erin Krebs, MD, MPH; Gregory Terman, MD, PhD; Mark Wallace, MD. Workgroup Consultants: Roger Chou, MD; Edward Covington, MD; Diana Eppolito; Michael Greene, MD; Steven Stanos, DO.*

## Peer Reviewers

*Jeanmarie Perrone, MD, University of Pennsylvania; Matthew Bair, MD, Indiana University School of Medicine;, David Tauben, MD, University of Washington.*

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ISSN: 1057-5987 (Print)

DATE: May 14, 2016 SUBJECT: Combined Complaint Review Committee Report

SUBMITTED BY: Subbarao Inampudi, M.B., B.S., FACR, President

REQUEST FOR BOARD ACTION
MINNESOTA BOARD OF MEDICAL PRACTICE

REQUESTED ACTION:

For information only.

MOTION BY:_____SECOND:_____
( ) PASSED ( ) PASSED AMENDED ( ) LAYED OVER ( ) DEFEATED

BACKGROUND:

Dr. Inampudi will provide a report to the Board of the April 21, 2016, meeting of the Combined Complaint Review Committee Meeting.

DATE: 05/14/2016

SUBMITTED BY: Licensure Committee

SUBJECT: Physician Licensure

REQUEST FOR BOARD ACTION
MINNESOTA BOARD OF MEDICAL PRACTICE

REQUESTED ACTION:

The following physician applicants for licensure be approved subject to receipt of all verification documents.

# 1 - 264 of agenda

MOTION BY: SECOND:

( ) Passed ( ) Amended ( ) Layed Over ( ) Defeated

BACKGROUND:

See # 1 - 264 for each applicants credentials

| | | |
|---|---|---|
| COMB | = | COMBINATION of NBME,FLEX,USMLE |
| COMLEX | = | COMPREHENSIVE OSTEOPATHIC MLE |
| FLEX | = | FED. OF STATE MEDICAL BOARDS |
| LMCC | = | LICENTIATE MED CNCL OF CANADA |
| NBME | = | NATIONAL BRD OF MED. EXAMINERS |
| NBOME | = | NAT. BD OF OSTEOPATHIC EXAM. |
| STATE | = | LICENSED BY OTHER STATE |
| USMLE | = | UNITED STATES MED LIC EXAM |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 1 | | Kuwait City, KUWAIT<br>08/08/1983 | JORDAN U. of SCIENCE & TECHNOLOGY<br>Irbid, Jordan<br>M.B., B.S. 06/14/2007 | University of Arkansas<br>Little Rock, AR, USA<br>07/01/2011 to 06/30/2015<br>DARP PG 53, 2011/12 | 0-740-891-7<br>03/26/2008<br>06/23/2009<br>07/20/2010<br>USMLE1 USMLE2 USMLE3<br>236 227 199<br>ECFMG 0-740-891-7 |
| 2 | | Cario, EGYPT<br>10/21/1983 | MCMASTER U<br>Hamilton, ON Canada<br>M.D. 05/23/2008 | McMaster University<br>Hamilton, ON, Canada<br>07/01/2008 to 06/30/2014<br>ASTP Website | 109770<br>05/01/2008<br>10/01/2009<br>LMCC1 LMCC2<br>052 475 |
| 3 | | Damascus, SYRIA<br>08/25/1985 | U OF DAMASCUS<br>Damascus, Syria<br>03/24/2009 | Temple University Hospital<br>Philadelphia, PA, USA<br>06/16/2010 to 06/17/2013<br>DARP PG 198, 2010/11 | 07286404<br>10/24/2007<br>05/11/2009<br>09/21/2009<br>USMLE1 USMLE2 USMLE3<br>259 279 240<br>ECFMG 0-728-640-4 |
| 4 | | Mesa, AZ, USA<br>12/01/1979 | U OF ARIZONA<br>Tucson, AZ USA<br>M.D. 05/15/2010 | University of Oklahoma-Tulsa<br>Tulsa, OK, USA<br>07/01/2010 to 06/30/2011<br>DARP PG 740, 2010/11 | 52021862<br>06/25/2008<br>07/29/2009<br>09/20/2011<br>USMLE1 USMLE2 USMLE3<br>203 230 191 |
| 5 | | Karachi, PAKISTAN<br>07/15/1974 | AGA KHAN U MED COL<br>Karachi, Pakistan<br>M.B., B.S. 11/13/1999 | West Virginia University<br>Morgantown, WV, USA<br>07/01/2002 to 06/30/2005<br>DARP PG 637, 2002/03 | 06221089<br>03/29/2001<br>09/27/2001<br>04/30/2004<br>USMLE1 USMLE2 USMLE3<br>231 241 224<br>ECFMG 0-622-108-9<br>ABMS<br>IM (Sub) - Infectious Disease<br>10/01/2007-12/31/2017-MOC |

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|---|---|---|---|---|---|
| 6 | | Grosse Pointe, MI, USA<br>08/26/1977 | U OF MICHIGAN/ANN ARBOR<br>Ann Arbor, MI USA<br>M.D. 05/30/2003 | University of Michigan<br>Ann Arbor, MI, USA<br>06/18/2003 to 06/30/2006<br>DARP PG 859, 2003/04 | 50909506<br>06/13/2001<br>08/12/2002<br>05/20/2004<br>USMLE1 USMLE2 USMLE3<br>241 232 231<br>ABMS<br>Pediatrics- Pediatrics<br>10/24/2006-MOC |
| 7 | | Porto Alegre, BRAZIL<br>08/16/1979 | FED DE CIENCIAS MED DE PORTO<br>Porto Alegre, Brazil<br>12/13/2008 | University of Miami<br>Miami, FL, USA<br>06/24/2010 to 06/30/2013<br>DARP PG 184, 2010/11 | 07433949<br>02/12/2008<br>06/09/2009<br>12/29/2012<br>USMLE1 USMLE2 USMLE3<br>225 234 216<br>ECFMG 0-743-394-9 |
| 8 | | New York City, NY, USA<br>05/13/1983 | U OF ROCHESTER<br>Rochester, NY USA<br>M.D. 05/14/2010 | Lenox Hill Hospital<br>New York, NY, USA<br>07/01/2010 to 06/30/2011<br>DARP PG 195, 2010/11 | 51938272<br>06/28/2007<br>07/30/2008<br>05/23/2011<br>USMLE1 USMLE2 USMLE3<br>230 248 217 |
| 9 | | Karachi, PAKISTAN<br>08/26/1968 | DOW MED COL/U OF KARACHI<br>Karachi, Pakistan<br>M.B., B.S. 01/16/1993 | Muhlenerg Regional Medical<br>Plainfield, NJ, USA<br>07/01/1996 to 08/09/1998<br>DARP PG 536, 1996/97 | 0-484-465-0<br>06/08/1994<br>03/04/1997<br>12/02/1997<br>USMLE1 USMLE2 USMLE3<br>199 187 182<br>ECFMG 0-484-465-0<br>ABMS<br>IM (Sub) - Transplant Hepatology<br>11/06/2002-12/31/2016-Time Limited |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 10 | | Nagasaki, JAPAN<br>04/03/1970 | NAGASAKI U<br>Nagasaki, Japan<br>03/24/2000 | Beth Israel Medical Center<br>New York, NY, USA<br>07/01/2005 to 06/30/2008<br>DARP PG 754, 2005/06 | 0-653-019-0<br>07/12/2003<br>10/28/2003<br>03/01/2005<br>USMLE1 USMLE2 USMLE3<br>209 205 190<br>ECFMG 0-653-019-0<br>ABMS<br>IM (Sub) - Endocrinology, Diabetes and Metabolism<br>10/01/2011-12/31/2021-Time Limited |
| 11 | | Coon Rapids, MN, USA<br>10/10/1978 | DES MOINES U COLLEGE OF OSTEO MED<br>Des Moines, IA USA<br>D.O. 05/29/2010 | St. John Oakland Hospital<br>Madison Heights, MI, USA<br>07/01/2010 to 06/29/2015<br>AOA Website | 856270<br>06/20/2008<br>08/18/2009<br>10/28/2010<br>COMLEX1 COMLEX2 COMLEX3<br>615 588 795 |
| 12 | | Nagercoil, INDIA<br>12/05/1981 | MADURAI U MED COL<br>Tamil Nadu, India<br>M.B., B.S. 10/11/2006 | Caritas St. Elizabeth Medical<br>Brighton, MA, USA<br>07/01/2008 to 06/30/2011<br>DARP PG 387, 2008/09 | 0-691-297-6<br>02/02/2006<br>08/17/2006<br>12/27/2006<br>USMLE1 USMLE2 USMLE3<br>241 238 220<br>ECFMG 0-691-297-6<br>ABMS<br>IM Internal Medicine<br>01/01/2011-MOC |
| 13 | | Tyre, LEBANON<br>08/17/1979 | LEBANESE U<br>Beirut, Lebanon<br>06/18/2004 | Bronx-Lebanon Hospital<br>Bronx, NY, USA<br>04/27/2007 to 04/30/2011<br>DARP PG 381, 2007/08 | 06607154<br>12/04/2006<br>08/11/2005<br>02/15/2011<br>USMLE1 USMLE2 USMLE3<br>199 189 212<br>ECFMG 0-660-715-4 |

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|---|---|---|---|---|---|
| 14 | | Caloocan City, PHILIPPINES 01/11/1986 | U OF KANSAS SCHL OF MED Kansas City, KS USA M.D. 05/19/2013 | Regions Hospital St. Paul, MN, USA 07/01/2013 to 06/30/2016 AMA FREIDA Online | 52545720 06/08/2011 07/19/2012 04/08/2014 USMLE1 USMLE2 USMLE3 240 238 214 |
| 15 | | Aiyetoro-Gbedde, NIGERIA 02/14/1960 | U OF IBADAN Ibadan, Nigeria M.B., B.S. 06/20/1983 | University of Texas Dallas, TX, USA 07/01/1997 to 06/30/1999 DARP PG 591, 1996/97 | 05425145 06/11/1996 08/30/1995 04/19/2000 USMLE1 USMLE2 USMLE3 184 182 192 ECFMG 0-542-514-5 ABMS Pediatrics- Pediatrics 10/16/2001-MOC |
| 16 | | St. Paul, MN, USA 07/30/1974 | KANSAS CITY U of MED & BIOSCIENCES Kansas City, MO USA D.O. 05/15/2005 | William Beaumont Army Medical El Paso, TX, USA 07/01/2005 to 06/30/2008 AOA Website | 692317 06/03/2003 08/24/2004 09/15/2006 COMLEX1 COMLEX2 COMLEX3 595 566 630 ABMS Dermatology- Dermatology 07/25/2013-12/31/2023-Time Limited |
| 17 | | Murfreesboro, TN, USA 11/19/1978 | DISHNER/E TENNESSEE ST Johnson City, TN USA M.D. 05/07/2005 | Texas A&M College Temple, TX, USA 07/01/2005 to 06/30/2006 DARP PG 1045, 2005/06 | 51245249 06/04/2003 08/19/2004 06/08/2006 USMLE1 USMLE2 USMLE3 209 193 205 ABMS Ophthalmology- Ophthalmology 10/14/2012-12/31/2022-Time Limited |

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|---|---|---|---|---|---|
| 18 | | Burnsville, MN, USA<br>03/30/1985 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/10/2014 | United Family Medicine<br>St. Paul, MN, USA<br>07/01/2014 to 06/30/2017<br>AMA FREIDA Online | 52829785<br>06/18/2012<br>09/14/2013<br>11/17/2014<br>USMLE1 USMLE2 USMLE3<br>228 236 215 |
| 19 | | Milwaukee, WI, USA<br>09/26/1981 | MEDICAL COLLEGE OF WISCONSIN<br>Milwaukee, WI USA<br>M.D. 05/18/2007 | Medical College of Wisconsin<br>Milwaukee, WI, USA<br>07/01/2007 to 06/30/2011<br>DARP PG 392, 2007/08 | 51544476<br>06/09/2005<br>12/19/2006<br>10/21/2008<br>USMLE1 USMLE2 USMLE3<br>199 202 228<br>ABMS<br>Pediatrics- Pediatrics<br>10/10/2011-MOC |
| 20 | | Benson, MN, USA<br>09/23/1984 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/07/2011 | University of Michigan<br>Ann Arbor, MI, USA<br>06/20/2011 to 06/30/2016<br>DARP PG 907, 2011/12 | 52330693<br>05/21/2009<br>12/04/2010<br>04/24/2012<br>USMLE1 USMLE2 USMLE3<br>234 234 242 |
| 21 | | Providence, RI, USA<br>01/16/1965 | LOMA LINDA U<br>Loma Linda, CA USA<br>M.D. 06/19/1992 | Baystate Medical Center<br>Springfield, MN, USA<br>07/01/1993 to 06/30/1994<br>DARP PG 322,1993/94 | 3-420-776-1<br>09/05/1990<br>04/07/1992<br>03/02/1994<br>NBME1 NBME2 NBME3<br>78 76 77<br>ABMS<br>Anesthesiology-<br>Anesthesiology<br>04/14/2000-12/31/2020-MOC |
| 22 | | Benton, IL, USA<br>04/16/1973 | U OF ILLINOIS/PEORIA<br>Peoria, IL USA<br>M.D. 05/07/2006 | Indiana University Medical Center<br>Indianapolis, IN, USA<br>07/01/2006 to 06/30/2011<br>DARP PG 479, 2006/07 | 51342525<br>06/17/2004<br>07/22/2005<br>06/21/2007<br>USMLE1 USMLE2 USMLE3<br>236 226 234 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 23 | | Brainerd, MN, USA<br>06/28/1984 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/04/2013 | Hennepin County Medical Center<br>Minneapolis, MN, USA<br>06/17/2013 to 06/30/2014<br>AMA FREIDA Online | 52637394<br>05/31/2011<br>12/05/2012<br>05/02/2014<br>USMLE1 USMLE2 USMLE3<br>263 253 239 |
| 24 | | Decatur, GA, USA<br>08/16/1984 | U OF WISCONSIN/MADISON<br>Madison, WI USA<br>M.D. 05/19/2013 | Gundersen Health System<br>La Crosse, WI, USA<br>06/25/2013 to 06/24/2016<br>AMA FREIDA Online | 52536802<br>06/20/2011<br>10/13/2012<br>04/03/2014<br>USMLE1 USMLE2 USMLE3<br>225 241 243 |
| 25 | | Marietta, GA, USA<br>12/05/1986 | THOMAS JEFFERSON U<br>Philadelphia, PA USA<br>M.D. 05/30/2013 | University of Pittsburgh<br>Pittsburgh, PA, USA<br>06/24/2013 to 06/30/2016<br>AMA FREIDA Online | 5633260<br>06/21/2011<br>06/28/2012<br>03/10/2014<br>USMLE1 USMLE2 USMLE3<br>245 254 235 |
| 26 | | New Delhi, INDIA<br>11/04/1976 | DELHI U COL OF MED SCI<br>New Delhi, India<br>M.B., B.S. 09/16/2000 | St. John's Episcopal Hospital<br>Far Rockaway, NY, USA<br>06/24/2007 to 06/30/2010<br>DARP PG 382, 2007/08 | 06408090<br>08/03/2002<br>12/19/2003<br>12/07/2006<br>USMLE1 USMLE2 USMLE3<br>212 212 208<br>ECFMG 0-640-809-0<br>ABMS<br>IM Internal Medicine<br>01/01/2010-MOC |
| 27 | | Maharashtra, INDIA<br>01/01/1981 | B.J. MEDICAL COLLEGE, UNIV OF PUNE<br>Pune, India<br>M.B., B.S. 12/26/2003 | Brookdale University Hospital<br>Brooklyn, NY, USA<br>07/01/2010 to 06/30/2012<br>DARP PG 576, 2010/11 | 07434475<br>12/03/2007<br>04/24/2008<br>12/12/2009<br>USMLE1 USMLE2 USMLE3<br>235 232 189<br>ECFMG 0-743-447-5 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 28 | | Minneapolis, MN, USA<br>01/24/1984 | DES MOINES U COLLEGE OF OSTEO MED<br>Des Moines, IA USA<br>D.O. 05/28/2011 | Univ of Iowa Hospitals & Clinics<br>Iowa City, IA, USA<br>06/24/2011 to 06/30/2014<br>AOA Website | 897457<br>06/25/2009<br>10/25/2010<br>04/04/2012<br>COMLEX1 COMLEX2 COMLEX3<br>560 489 549 |
| 29 | | Minneapolis, MN, USA<br>11/11/1983 | DES MOINES U COLLEGE OF OSTEO MED<br>Des Moines, IA USA<br>D.O. 05/25/2013 | University of Minnesota<br>Minneapolis, MN, USA<br>06/24/2013 to 06/30/2016<br>AOA Website | 987231<br>06/13/2011<br>07/30/2012<br>03/28/2014<br>COMLEX1 COMLEX2 COMLEX3<br>518 529 516 |
| 30 | | Royal Oak, MI, USA<br>08/30/1983 | U OF MICHIGAN/ANN ARBOR<br>Ann Arbor, MI USA<br>M.D. 05/08/2009 | New York University<br>New York City, NY, USA<br>07/01/2009 to 06/30/2010<br>DARP PG 762, 2009/10 | 51943348<br>05/01/2007<br>06/02/2008<br>03/02/2010<br>USMLE1 USMLE2 USMLE3<br>239 261 236 |
| 31 | | Rochester, MN, USA<br>07/20/1981 | NORTHWESTERN U<br>Chicago, IL USA<br>M.D. 05/19/2011 | St. Francis<br>Evanston, IL, USA<br>06/24/2011 to 06/23/2012<br>DARP PG 214, 2011/12 | 52290343<br>06/19/2009<br>02/10/2011<br>05/22/2012<br>USMLE1 USMLE2 USMLE3<br>253 248 238 |
| 32 | | Robbinsdale, MN, USA<br>07/04/1985 | MEDICAL COLLEGE OF WISCONSIN<br>Milwaukee, WI USA<br>M.D. 05/18/2012 | Washington University School of M<br>St. Louis, MO, USA<br>07/01/2012 to 06/30/2016<br>DARP PG 624, 2012/13 | 52451457<br>06/07/2010<br>07/27/2011<br>05/09/2013<br>USMLE1 USMLE2 USMLE3<br>216 252 232 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 33 | | Milwaukee, WI, USA<br>02/25/1984 | BAYLOR COL OF MED<br>Houston, TX USA<br>M.D. 05/25/2010 | University of Pittsburgh<br>Pittsburgh, PA, USA<br>06/28/2010 to 06/27/2011<br>DARP PG 198, 2010/11 | 5208077<br>04/08/2009<br>02/19/2010<br>09/14/2010<br>USMLE1 USMLE2 USMLE3<br>221 213 212 |
| 34 | | Fergus Falls, MN, USA<br>04/21/1936 | U OF CHICAGO<br>Chicago, IL USA<br>M.D. 06/08/1962 | Blodgett Memorial Hospital<br>Grand Rapids, MI, USA<br>07/01/1962 to 06/30/1963<br>DARP PG 42, 1962 | 4301025497<br>06/10/1963<br>STATE<br>84.4<br>ABMS<br>Dermatology- Dermatology<br>09/02/1972--Time Limited |
| 35 | | Takoma Park, MD, USA<br>09/23/1962 | UNIFORMED SERVICES U<br>Bethesda, MD USA<br>M.D. 05/15/1993 | National Naval Medical Center<br>Bethesda, MD, USA<br>07/01/1993 to 06/30/1994<br>DARP PG 562, 1993/94 | 3-430-219-0<br>06/11/1991<br>09/24/1992<br>03/02/1994<br>NBME1 USMLE2 NBME3<br>81 181 78<br>ABMS<br>Anesthesiology-<br>Anesthesiology<br>04/26/2002-12/31/2022-Time Limited |
| 36 | | Marshall, MO, USA<br>01/28/1947 | CREIGHTON U<br>Omaha, NE USA<br>M.D. 05/12/1973 | Creighton University<br>Omaha, NE, USA<br>07/01/1973 to 06/30/1974<br>DARP PG 198, 1974/75 | 3-148-948-7<br>06/15/1971<br>04/10/1973<br>03/06/1974<br>NBME1 NBME2 NBME3<br>75 76 76.8<br>ABMS<br>OB & GY- Obstetrics & Gynecology<br>02/01/1981--Time Limited |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 37 | | Mishawaka, IN, USA<br>01/24/1981 | MI STATE U/COL OF OSTEO<br>East Lansing, MI USA<br>D.O. 05/02/2008 | Northshore Long Island Jewish Hos<br>Manhasset, NY, USA<br>07/01/2008 to 06/30/2014<br>AOA Website | 808161<br>06/22/2006<br>09/19/2007<br>12/18/2008<br>COMLEX1 COMLEX2 COMLEX3<br>474 614 656 |
| 38 | | Toronto, CANADA<br>12/01/1986 | NORTHWESTERN U<br>Chicago, IL USA<br>M.D. 05/24/2012 | St. Francis Hospital<br>Evanston, IL, USA<br>06/24/2012 to 06/23/2013<br>AMA FREIDA Online | 52489895<br>06/21/2010<br>09/12/2011<br>01/31/2013<br>USMLE1 USMLE2 USMLE3<br>229 251 239 |
| 39 | | La Junta, CO, USA<br>07/27/1980 | KANSAS CITY U of MED & BIOSCIENCES<br>Kansas City, MO USA<br>D.O. 05/21/2006 | Louisana State University<br>New Orleans, LA, USA<br>07/01/2006 to 06/30/2010<br>DARP PG 580, 2006/07 | 716538<br>06/08/2004<br>08/10/2005<br>07/21/2007<br>COMLEX1 COMLEX2 COMLEX3<br>463 523 402 |
| 40 | | Aurora, IL, USA<br>12/27/1963 | ROSALIND FRANKLIN U OF MEDICINE & SCI<br>North Chicago, IL USA<br>M.D. 06/11/1995 | Naval Hospital<br>Camp Pendleton, CA, USA<br>07/01/1995 to 06/30/1996<br>DARP PG 427, 1995/96 | 40197907<br>06/08/1993<br>08/31/1994<br>05/14/1996<br>USMLE1 USMLE2 USMLE3<br>202 192 195<br>ABMS<br>Emergency Medicine-Emergency Medicine<br>01/01/2014-12/31/2023-Time Limited |
| 41 | | Stevens Point, WI, USA<br>06/15/1983 | U OF WISCONSIN/MADISON<br>Madison, WI USA<br>M.D. 12/24/2010 | University of Vermont<br>Milton, VT, USA<br>06/17/2011 to 06/30/2014<br>DARP PG 163, 2011/12 | 52025467<br>06/16/2008<br>07/29/2009<br>09/13/2012<br>USMLE1 USMLE2 USMLE3<br>215 209 217 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 42 | | Augusta, GA, USA<br>07/08/1983 | CASE WESTERN RESERVE U<br>Cleveland, OH USA<br>M.D. 05/17/2009 | University of Chicago<br>Chicago, IL, USA<br>07/01/2013 to 06/30/2016<br>AMA FREIDA Online | 51966026<br>03/09/2007<br>09/15/2008<br>04/14/2010<br>USMLE1 USMLE2 USMLE3<br>254 276 244 |
| 43 | | Corpus Christi, TX, USA<br>07/26/1987 | U OF TEXAS, HLTH SCI CTR AT SAN ANTONIO<br>San Antonio, TX USA<br>M.D. 05/26/2013 | University of Texas Medical Branch<br>Galveston, TX, USA<br>06/19/2013 to 06/30/2016<br>AMA FREIDA Online | 52654332<br>06/11/2011<br>07/21/2012<br>09/07/2014<br>USMLE1 USMLE2 USMLE3<br>227 242 227 |
| 44 | | Aurora, IL, USA<br>08/23/1985 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/05/2012 | Hennepin County Medical Center<br>Minneapolis, MN, USA<br>07/01/2012 to 06/30/2013<br>DARP PG 85, 2011/12 | 52364304<br>06/08/2010<br>09/06/2011<br>05/13/2013<br>USMLE1 USMLE2 USMLE3<br>214 228 207 |
| 45 | | New Orleans, LA, USA<br>05/03/1943 | LA STATE U/NEW ORLEANS<br>New Orleans, LA USA<br>M.D. 06/07/1969 | Charity Hospital<br>New Orleans, LA, USA<br>07/01/1969 to 06/30/1970<br>DARP PG 111, 1969/70 | 20508909<br>12/03/1991<br>12/03/1991<br>FLEX FLEX2<br>79 82<br>ABMS<br>Anesthesiology-Anesthesiology<br>10/03/1974--Lifetime |
| 46 | | Pathumthani, THAILAND<br>10/06/1973 | LAKE ERIE COL OF OSTEO<br>Erie, PA USA<br>D.O. 06/11/2006 | Peninsula Hospital Center<br>Far Rockaway, NY, USA<br>07/01/2006 to 06/30/2008<br>AOA Website | 738521<br>06/08/2004<br>11/09/2005<br>06/25/2007<br>COMLEX1 COMLEX2 COMLEX3<br>505 411 316 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 47 | | Minneapolis, MN, USA<br>11/14/1982 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/04/2013 | Hennepin County Medical Center<br>Minneapolis, MN, USA<br>06/24/2013 to 06/30/2016<br>AMA FREIDA Online | 52637089<br>06/06/2011<br>12/12/2012<br>09/22/2014<br>USMLE1 USMLE2 USMLE3<br>239 221 218 |
| 48 | | Fargo, ND, USA<br>03/24/1949 | WASHINGTON U<br>St Louis, MO USA<br>M.D. 05/21/1976 | Los Angeles County<br>Los Angeles, CA, USA<br>06/24/1976 to 06/30/1980<br>DARP PG 193, 1977/78 | 31733363<br>06/11/1974<br>04/13/1976<br>03/09/1977<br>NBME1 NBME2 NBME3<br>605 555 545<br>ABMS<br>OB & GY- Obstetrics & Gynecology<br>12/01/1983--Lifetime |
| 49 | | Boston, MA, USA<br>06/04/1974 | WAYNE STATE U<br>Detroit, MI USA<br>M.D. 06/06/2000 | Baylor College of Medicine<br>Houston, TX, USA<br>06/24/2000 to 06/23/2007<br>DARP PG 944, 2000/01 | 50414135<br>06/09/1998<br>10/14/1999<br>10/13/2003<br>USMLE1 USMLE2 USMLE3<br>227 214 219<br>ABMS<br>Thoracic Surgery- Thoracic Surgery<br>06/03/2011-12/31/2021-Time Limited |
| 50 | | Houston, TX, USA<br>01/24/1981 | NY MED COL/VALHALLA<br>Valhalla, NY USA<br>M.D. 05/31/2012 | University of Minnesota<br>Minneapolis, MN, USA<br>07/01/2013 to 06/30/2017<br>AMA FREIDA Online | 52420601<br>06/11/2010<br>07/20/2011<br>12/26/2012<br>USMLE1 USMLE2 USMLE3<br>248 262 234 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 51 | | Washburn, WI, USA<br>10/01/1985 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/10/2014 | University of Minnesota<br>Minneapolis, MN, USA<br>07/01/2014 to 06/30/2016<br>AMA FREIDA Online | 52865227<br>06/04/2012<br>11/19/2013<br>06/05/2015<br>USMLE1 USMLE2 USMLE3<br>219 231 215 |
| 52 | | St. Paul, MN, USA<br>07/31/1987 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/04/2013 | Hennepin County Medical Center<br>Minneapolis, MN, USA<br>06/24/2013 to 06/30/2016<br>AMA FREIDA Online | 52636396<br>05/19/2011<br>06/22/2012<br>06/16/2014<br>USMLE1 USMLE2 USMLE3<br>212 236 240 |
| 53 | | Orlando, FL, USA<br>09/04/1986 | W VIRGINIA SCHL OF OSTEO<br>Lewisburg, WV USA<br>D.O. 05/25/2013 | Broward Health Medical Center<br>Fort Lauderdale, FL, USA<br>07/01/2013 to 06/30/2016<br>AOA Website | 998392<br>06/15/2011<br>10/26/2012<br>11/02/2013<br>COMLEX1 COMLEX2<br>COMLEX3<br>407 541 592 |
| 54 | | Edina, MN, USA<br>10/19/1982 | STATE U OF NY/BUFFALO<br>Buffalo, NY USA<br>M.D. 06/01/2011 | Henry Ford Hospital<br>Detroit, MI, USA<br>06/24/2011 to 06/30/2016<br>DARP PG 481, 2011/12 | 52202090<br>06/25/2009<br>09/15/2010<br>03/26/2012<br>USMLE1 USMLE2 USMLE3<br>232 274 237 |
| 55 | | Benin, NIGERIA<br>08/04/1979 | ST GEORGES U<br>St. George's, Grenada<br>04/13/2012 | SUNY Health Sciences Center<br>Brooklyn, NY, USA<br>07/01/2012 to 06/30/2015<br>DARP PG 194, 2012/13 | 07977416<br>05/06/2010<br>09/06/2011<br>02/06/2014<br>USMLE1 USMLE2 USMLE3<br>237 234 227<br>ECFMG 0-797-741-6 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 56 | | Ikeja, NIGERIA<br>04/08/1978 | LADOKE AKINTOLA U OF TECHNOLOGY<br>Osogbo, Nigeria<br>M.B., B.S. 12/17/2004 | Indiana University<br>Indianapolis, IN, USA<br>06/24/2011 to 06/30/2014<br>DARP PG 605, 2011/12 | 07659766<br>06/15/2010<br>10/21/2010<br>04/23/2012<br>USMLE1 USMLE2 USMLE3<br>224 209 206<br>ECFMG 0-765-976-6 |
| 57 | | Duluth, MN, USA<br>10/12/1984 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/04/2013 | Hennpin County Medical Center<br>Minneapolis, MN, USA<br>06/24/2013 to 06/30/2016<br>AMA FREIDA Online | 52637873<br>06/08/2011<br>12/19/2012<br>04/07/2014<br>USMLE1 USMLE2 USMLE3<br>234 242 246 |
| 58 | | New York City, NY, USA<br>10/06/1961 | YALE U<br>New Haven, CT USA<br>M.D. 05/25/1987 | Children's National Medical Center<br>Washington, DC, USA<br>07/01/1987 to 06/30/1990<br>DARP PG 353, 1987/88 | 3-341-385-7<br>06/11/1985<br>09/23/1986<br>05/17/1989<br>NBME1 NBME2 NBME3<br>84 81 81<br>ABMS<br>Pediatrics- Pediatrics<br>06/12/1998-MOC |
| 59 | | Minneapolis, MN, USA<br>02/12/1982 | U OF NORTH DAKOTA<br>Grand Forks, ND USA<br>M.D. 05/15/2011 | University of North Dakota<br>Grand Forks, ND, USA<br>07/01/2011 to 06/30/2016<br>DARP PG 852, 2011/12 | 52254232<br>06/22/2009<br>08/26/2010<br>05/03/2012<br>USMLE1 USMLE2 USMLE3<br>207 233 227 |
| 60 | | San Luis Potori,<br>MEXICO<br>04/17/1985 | UNIVERSIDAD AUTONOMA DE SAN LUIS POTOSI<br>San Luis Postosi, Mexico<br>04/15/2010 | Jacobi Medical Center<br>Bronx, NY, USA<br>07/01/2013 to 06/30/2016<br>AMA FREIDA Online | 08741134<br>11/26/2010<br>12/16/2011<br>10/26/2015<br>USMLE1 USMLE2 USMLE3<br>206 232 228<br>ECFMG 0-874-113-4 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 61 | | 29 Palms, CA, USA<br>10/24/1982 | U OF NORTH DAKOTA<br>Grand Forks, ND USA<br>M.D. 05/15/2011 | Wayne State University<br>Taylor, MI, USA<br>07/01/2011 to 06/30/2016<br>DARP PG 501, 2011/12 | 52254182<br>06/17/2009<br>07/12/2010<br>08/09/2011<br>USMLE1 USMLE2 USMLE3<br>244 263 226 |
| 62 | | Boonton, NJ, USA<br>08/06/1973 | U OF NORTH CAROLINA<br>Chapel Hill, NC USA<br>M.D. 05/21/2000 | The Children's Hospital Colorado<br>Aurora, CO, USA<br>06/23/2000 to 06/30/2004<br>DARP PG 826, 2000/01 | 50362656<br>06/09/1998<br>12/17/1999<br>06/25/2003<br>USMLE1 USMLE2 USMLE3<br>214 205 214<br>ABMS<br>Pediatrics- Pediatrics<br>10/19/2004-12/15/2016-MOC |
| 63 | | Caxias do Sul, BRAZIL<br>11/28/1963 | UNIVERSIDADE DO SUL<br>SCHOOL OF MEDICINE<br>Caxias do Sul, Brazil<br>12/31/1989 | University of Miami<br>Miami, FL, USA<br>06/24/1992 to 06/30/1995<br>DARP PG 206, 1991/92 | 20019550<br>12/07/1993<br>12/07/1993<br>FLEX1 FLEX2<br>81 84<br>PA PA<br>ECFMG 0-444-096-2<br>ABMS<br>IM (Sub) - Cardiovascular Disease<br>11/05/1998-12/31/2018-Time Limited |
| 64 | | Manistee, MI, USA<br>08/31/1936 | U OF CHICAGO<br>Chicago, IL USA<br>M.D. 06/11/1971 | University of Chicago<br>Chicago, IL, USA<br>06/24/1971 to 06/30/1972<br>DARP PG 304, 1971/72 | 119099<br>06/17/1969<br>04/13/1971<br>03/08/1972<br>NBME1 NBME2 NBME3<br>75 76 77.8<br>ABMS<br>Ophthalmology- Ophthalmology<br>12/03/1976--Lifetime |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 65 | | Minneapolis, MN, USA<br>01/07/1986 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/10/2014 | United Hospital<br>St. Paul, MN, USA<br>07/01/2014 to 08/11/2017<br>AMA FREIDA Online | 52829173<br>05/18/2012<br>11/01/2013<br>05/19/2015<br>USMLE1 USMLE2 USMLE3<br>240 265 245 |
| 66 | | Milwaukee, WI, USA<br>03/31/1987 | MEDICAL COLLEGE OF WISCONSIN<br>Milwaukee, WI USA<br>M.D. 05/17/2013 | Hennepin County Medical Center<br>Minneapolis, MN, USA<br>06/23/2013 to 06/30/2016<br>AMA FREIDA Online | 52616620<br>06/07/2011<br>07/30/2012<br>09/29/2014<br>USMLE1 USMLE2 USMLE3<br>207 222 225 |
| 67 | | Mexico City, MEXICO<br>07/20/1974 | HARVARD U MED SCHOOL<br>Boston, MA USA<br>M.D. 06/08/2000 | Massachusetts General Hospital<br>Boston, MA, USA<br>07/01/2000 to 06/30/2002<br>DARP PG 933, 2000/01 | 50492362<br>06/09/1998<br>10/21/1999<br>07/15/2003<br>USMLE1 USMLE2 USMLE3<br>247 257 225<br>ABMS<br>Urology- Urology<br>02/28/2011-02/28/2025-Time Limited |
| 68 | | Brookfield, WI, USA<br>01/23/1975 | U OF LOUISVILLE<br>Louisville, KY USA<br>M.D. 05/12/2007 | Indiana University<br>Indianapolis, IN, USA<br>06/24/2007 to 06/30/2010<br>DARP PG 374, 2007/08 | 51491967<br>06/16/2005<br>03/09/2007<br>07/08/2009<br>USMLE1 USMLE2 USMLE3<br>237 228 207<br>ABMS<br>IM Internal Medicine<br>01/01/2012-MOC |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 69 | | Pune, INDIA<br>06/03/1978 | B.J. MEDICAL COLLEGE, UNIV OF PUNE<br>Pune, India<br>M.B., B.S. 01/23/2002 | Stanford University<br>Palo Alto, CA, USA<br>07/01/2012 to 06/30/2013<br>DARP PG 694, 2012/13<br>University of Minnesota<br>Minneapolis, MN, USA<br>07/01/2013 to 06/30/2014<br>AMA FREIDA Online | 0-755-614-5<br>10/29/2008<br>08/10/2009<br>05/11/2010<br>USMLE1 USMLE2 USMLE3<br>202 248 221<br>ECFMG 0-755-614-5 |
| 70 | | Washington, DC, USA<br>03/03/1965 | W VIRGINIA SCHL OF OSTEO<br>Lewisburg, WV USA<br>D.O. 05/27/1995 | University of Toledo<br>Toledo, OH, USA<br>07/01/1996 to 06/30/1999<br>AOA Website | 345974<br>06/10/1993<br>03/14/1995<br>02/20/1996<br>COMLEX1 COMLEX2<br>COMLEX3<br>406 421 478<br>ABMS<br>IM Internal Medicine<br>01/01/1999-MOC |
| 71 | | Nord-Est, HAITI<br>05/23/1986 | U OF WISCONSIN/MADISON<br>Madison, WI USA<br>M.D. 05/19/2013 | Carilion Clinic<br>Roanoke, VA, USA<br>07/01/2013 to 06/30/2016<br>AMA FREIDA Online | 52536521<br>08/28/2011<br>08/02/2012<br>10/14/2013<br>USMLE1 USMLE2 USMLE3<br>215 228 203 |
| 72 | | Edina, MN, USA<br>04/10/1983 | GEORGETOWN U<br>Washington, DC USA<br>M.D. 05/22/2011 | Hennepin County Medical Center<br>Minneapolis, MN, USA<br>06/20/2011 to 06/30/2012<br>DARP PG 895, 2011/12 | 52254901<br>06/23/2009<br>07/21/2010<br>06/25/2012<br>USMLE1 USMLE2 USMLE3<br>251 254 224 |
| 73 | | Hattiesburg, MS, USA<br>06/15/1983 | U OF MISSISSIPPI<br>Jackson, MS USA<br>M.D. 05/25/2012 | Mt Sinai St. Luke's Roosevelt<br>New York, NY, USA<br>07/01/2012 to 06/30/2016<br>DARP PG 195, 2012/13 | 52364940<br>07/31/2010<br>02/09/2012<br>09/23/2014<br>USMLE1 USMLE2 USMLE3<br>196 216 216 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 74 | | Washington, MO, USA<br>01/03/1989 | U OF MO/KANSAS CITY<br>Kansas City, MO USA<br>M.D. 05/31/2013 | University of Minnesota<br>Minneapolis, MN, USA<br>06/24/2013 to 06/30/2015<br>AMA FREIDA Online | 52715521<br>05/12/2011<br>05/21/2012<br>09/23/2014<br>USMLE1 USMLE2 USMLE3<br>222 235 233 |
| 75 | | Brooklyn, NY, USA<br>03/19/1963 | STATE U OF NY/BROOKLYN<br>Brooklyn, NY USA<br>M.D. 05/16/1991 | Graduate Hospital<br>Philadelphia, PA, USA<br>06/20/1991 to 06/19/1992<br>DARP PG 221, 1991/92 | 3-406-578-9<br>06/11/1991<br>04/02/1991<br>03/04/1992<br>NBME1 NBME2 NBME3<br>79 80 78<br>ABMS<br>Physical Med. & Rehab.-<br>Physical Medicine &<br>Rehabil05/22/1996-12/31/2016-<br>MOC |
| 76 | | Lansdale, PA, USA<br>10/02/1985 | LAKE ERIE COL OF OSTEO<br>Erie, PA USA<br>D.O. 05/29/2011 | Einstein Healthcare Network<br>Philadelphia, PA, USA<br>07/01/2011 to 07/06/2016<br>AOA Website | 932390<br>05/29/2009<br>07/12/2010<br>12/21/2011<br>COMLEX1 COMLEX2<br>COMLEX3<br>543 517 430 |
| 77 | | Fort Dix, NJ, USA<br>11/07/1953 | EMORY U<br>Atlanta, GA USA<br>M.D. 06/11/1979 | Johns Hopkins Hospital<br>Baltimore, MD, USA<br>07/01/1979 to 06/30/1980<br>DARP PG 147, 1977/78 | 3-216-637-3<br>06/14/1977<br>04/10/1979<br>03/05/1980<br>NBME1 NBME2 NBME3<br>86.3 85 86.3<br>ABMS<br>IM Internal Medicine<br>01/01/1982--Lifetime |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 78 | | Dhuri, INDIA<br>10/14/1986 | NHL MED COL/GUJARAT U<br>Ahmedabad, INDIA<br>M.B., B.S. 03/24/2011 | Creighton University<br>Omaha, NE, USA<br>07/01/2013 to 06/30/2016<br>AMA FREIDA Online | 08805285<br>05/26/2011<br>06/26/2012<br>09/12/2012<br>USMLE1 USMLE2 USMLE3<br>243 250 226<br>ECFMG 08805285 |
| 79 | | Minneapolis, MN, USA<br>09/17/1984 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/07/2011 | University of Minnesota<br>Minneapolis, MN, USA<br>07/01/2011 to 10/31/2016<br>DARP PG 557, 2011/12 | 52330560<br>06/05/2009<br>12/22/2010<br>11/12/2012<br>USMLE1 USMLE2 USMLE3<br>224 221 230 |
| 80 | | Sedalia, MO, USA<br>12/02/1964 | KANSAS CITY U of MED & BIOSCIENCES<br>Kansas City, MO USA<br>D.O. 06/14/1991 | Capital Region Medical Center<br>Jefferson City, MO, USA<br>07/01/1992 to 06/30/1993<br>AOA Website | 269337<br>06/08/1989<br>03/18/1993<br>06/07/1993<br>COMLEX1 COMLEX2 COMLEX3<br>466 508 468<br>AOABPE<br>Psy. & Neur.- Psychiatry<br>09/01/1999-09/01/2019-MOC |
| 81 | | Sheffield, ENGLAND<br>06/08/1985 | LAKE ERIE COL OF OSTEO<br>Erie, PA USA<br>D.O. 05/29/2011 | Oakwood Hospital Medical Center<br>Dearborn, MI, USA<br>07/01/2011 to 06/30/2015<br>AOA Website | 932437<br>05/27/2009<br>10/26/2010<br>09/14/2012<br>COMLEX1 COMLEX2 COMLEX3<br>525 423 458 |
| 82 | | Bucaramanga, COLUMBIA<br>03/10/1985 | ST GEORGES U<br>St. George, GRENADA<br>M.D. 04/12/2013 | SUNY Upstate Medical University<br>Syracuse, NY, USA<br>07/01/2013 to 06/30/2016<br>AMA FREIDA online | 08208266<br>07/14/2011<br>08/24/2012<br>07/14/2014<br>USMLE1 USMLE2 USMLE3<br>228 247 221<br>ECFMG 08208266 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 83 | | Albany, NY, USA<br>02/07/1965 | U OF VERMONT<br>Burlington, VT USA<br>M.D. 05/21/2000 | University of Illinois<br>Rockford, IL, USA<br>07/01/2000 to 03/22/2002<br>DARP PG# 327, 2000/01 | 50340843<br>08/06/1999<br>11/18/1999<br>08/06/2002<br>USMLE1 USMLE2 USMLE3<br>216 221 236<br>ABMS<br>Family Medicine- Family Medicine<br>07/10/2004-MOC |
| 84 | | Fort Smith, AR, USA<br>04/03/1984 | U OF ARKANSAS<br>Little Rock, AR USA<br>M.D. 05/21/2011 | University of Arkansas<br>Little Rock, AR, USA<br>07/01/2011 to 06/30/2012<br>AMA FREIDA Online | 52195286<br>06/12/2009<br>08/23/2010<br>09/12/2011<br>USMLE1 USMLE2 USMLE3<br>249 242 230 |
| 85 | | New Brunswick, NJ, USA<br>06/22/1987 | WEILL CORNELL MEDICAL COLLEGE-QATAR<br>Doha, QATAR<br>04/01/2013 | University of Minnesota<br>Minneapolis, MN, USA<br>06/24/2013 to 06/30/2016<br>AMA FREIDA Online | 08145369<br>06/05/2011<br>09/02/2012<br>05/01/2014<br>USMLE1 USMLE2 USMLE3<br>229 250 236<br>ECFMG 0-814-536-9 |
| 86 | | Phoenix, AZ, USA<br>08/08/1984 | SOUTHERN ILLINOIS U<br>Springfield, IL USA<br>M.D. 05/17/2014 | University of Minnesota Medical Scl<br>Minneapolis, MN, USA<br>07/01/2014 to 06/30/2016<br>AMA FREIDA Online | 52835931<br>06/13/2012<br>07/23/2013<br>06/22/2015<br>USMLE1 USMLE2 USMLE3<br>219 248 228 |
| 87 | | St. Paul, MN, USA<br>08/11/1984 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/07/2011 | HCMC<br>Minneapolis, MN, USA<br>06/24/2011 to 06/30/2012<br>AMA FREIDA Online | 52182615<br>06/17/2009<br>11/24/2010<br>03/10/2012<br>USMLE1 USMLE2 USMLE3<br>224 229 206 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 88 | | Minneapolis, MN, USA<br>01/11/1987 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/04/2013 | University of Minnesota Masonic Ch<br>Minneapolis, MN, USA<br>06/24/2013 to 06/30/2016<br>AMA FREIDA Online | 52636677<br>06/01/2011<br>08/09/2012<br>11/06/2013<br>USMLE1 USMLE2 USMLE3<br>209 257 233 |
| 89 | | St Petersburg, RUSSIA<br>04/01/1979 | U OF VERMONT<br>Burlington, VT USA<br>M.D. 05/20/2007 | UPMC Shadyside Hospital<br>Pittsburgh, PA, USA<br>06/24/2007 to 06/30/2010<br>DARP PG# 401, 2007/08 | 5-158-965-3<br>03/04/2005<br>09/26/2006<br>05/08/2008<br>USMLE1 USMLE2 USMLE3<br>210 200 205 |
| 90 | | St. Paul, MN, USA<br>10/17/1982 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/01/2010 | University of California<br>San Francisco, CA, USA<br>06/21/2010 to 06/30/2015<br>AMA FREIDA Online | 52020989<br>06/04/2008<br>01/19/2010<br>06/23/2011<br>USMLE1 USMLE2 USMLE3<br>255 260 230 |
| 91 | | Taipei, TAIWAN<br>12/13/1959 | U OF PITTSBURGH<br>Pittsburgh, PA USA<br>M.D. 05/24/1997 | University of Iowa Hospitals and Cli<br>Iowa City, IA, USA<br>06/24/1997 to 06/30/2000<br>DARP PG# 748, 1996/97 | 40649014<br>06/14/1995<br>08/27/1996<br>05/12/1998<br>USMLE1 USMLE2 USMLE3<br>227 212 207<br>ABMS<br>Psy. & Neur. - Neurology W/<br>Spec. Qualif. In Child<br>06/18/2004-MOC |
| 92 | | Arlington, VA, USA<br>04/02/1984 | ST GEORGES U<br>Grenada, WEST INDIES<br>05/10/2013 | University of Connecticut<br>Farmington, CT, USA<br>06/28/2013 to 06/27/2016<br>AMA FREIDA Online | 08126385<br>04/08/2011<br>07/19/2012<br>05/06/2014<br>USMLE1 USMLE2 USMLE3<br>234 248 227<br>ECFMG 0-812-638-5 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 93 | | Riyadh, SAUDI ARABIA<br>11/16/1975 | IQBAL MED COL/U PUNJAB<br>Lahore, PAKISTAN<br>MB, BS 03/28/2000 | Mount Sinai School of Medicine<br>Bronx, NY, USA<br>07/01/2006 to 06/30/2009<br>DARP PG# 373, 2006/07 | 06352793<br>08/09/2002<br>10/09/2003<br>09/27/2005<br>USMLE1 USMLE2 USMLE3<br>221 204 199<br>ECFMG 0-635-279-3<br>ABMS<br>IM Internal Medicine<br>08/27/2009-12/31/2019-Time Limited |
| 94 | | Offa, NIGERIA<br>11/28/1977 | MCMASTER U<br>Hamilton, QC CANADA<br>M.D. 05/22/2009 | University of Calgary<br>Calgary, AB, CANADA<br>07/01/2009 to 06/30/2014<br>ASTP Website | 118502<br>05/00/2009<br>04/00/2012<br>LMCC1 LMCC2<br>-439 581 |
| 95 | | Aurora, IL, USA<br>10/28/1983 | INDIANA U/SCH OF MED<br>Indianapolis, IN USA<br>M.D. 05/15/2011 | Indiana University<br>Indianapolis, IN, USA<br>07/01/2011 to 06/30/2012<br>AMA FREIDA Online | 52162898<br>06/12/2008<br>11/08/2010<br>06/18/2012<br>USMLE1 USMLE2 USMLE3<br>221 229 220 |
| 96 | | Minneapolis, MN, USA<br>05/11/1986 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/04/2013 | Sanford Children's Hospital<br>Sioux Falls, SD, USA<br>07/01/2013 to 04/05/2015<br>AMA FREIDA Online | 52636693<br>06/17/2011<br>11/25/2012<br>02/06/2014<br>USMLE1 USMLE2 USMLE3<br>202 218 207 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 97 | | Fargo, ND, USA<br>08/06/1964 | U OF TENNESSEE/MEMPHIS<br>Nashville, TN USA<br>M.D. 05/11/1990 | University of Hawaii<br>Honolulu, HI, USA<br>06/25/1990 to 06/22/1991<br>DARP PG# | 3-389-572-3<br>06/14/1988<br>04/03/1990<br>03/06/1991<br>NBME1 NBME2 NBME3<br>75 82 86<br>ABMS<br>Pathology -<br>Anatomic/Pathology - Clinical<br>11/12/1999--Lifetime |
| 98 | | Fargo, ND, USA<br>03/29/1981 | U OF NORTH DAKOTA<br>Grand Forks, ND USA<br>M.D. 05/16/2010 | Sanford Medical Center<br>Fargo, ND, USA<br>07/01/2010 to 06/30/2011<br>DARP PG# 777, 2010/11 | 52052404<br>06/24/2008<br>03/11/2010<br>04/25/2011<br>USMLE1 USMLE2 USMLE3<br>242 215 220 |
| 99 | | Ft. Bragg, NC, USA<br>08/10/1983 | U OF KANSAS SCHL OF MED<br>Kansas City, KS USA<br>M.D. 05/22/2011 | University of Kansas School of Med<br>Wichita, KS, USA<br>07/01/2011 to 06/30/2016<br>AMA FREIDA Online | 523880<br>06/15/2009<br>07/29/2010<br>06/05/2012<br>USMLE1 USMLE2 USMLE3<br>248 241 221 |
| 100 | | Green Bay, WI, USA<br>10/20/1986 | U OF NEBRASKA/OMAHA<br>Omaha, NE USA<br>M.D. 05/17/2014 | University of Minnesota<br>Minneapolis, MN, USA<br>07/01/2014 to 06/30/2016<br>AMA FREIDA Online | 52765211<br>06/13/2012<br>07/22/2013<br>06/25/2015<br>USMLE1 USMLE2 USMLE3<br>215 219 220 |
| 101 | | Bryn Mawr, PA, USA<br>01/06/1980 | THOMAS JEFFERSON U<br>Philadelphia, PA USA<br>M.D. 05/29/2009 | West Virginia University<br>Morgantown, VA, USA<br>07/01/2009 to 06/30/2010<br>DARP PG# 732, 2009/10 | 51926475<br>06/18/2007<br>02/25/2009<br>05/05/2010<br>USMLE1 USMLE2 USMLE3<br>254 225 227 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 102 | | Rajkot, INDIA<br>12/16/1983 | NHL MED COL/GUJARAT U<br>Ahmedabad, INDIA<br>MB, BS 05/27/2007 | North Shore Medical Center<br>Salem, MA, USA<br>06/29/2009 to 06/24/2013<br>DARP PG# 396, 2009/10 | 07136393<br>12/19/2006<br>09/24/2007<br>02/28/2011<br>USMLE1 USMLE2 USMLE3<br>197 194 211<br>ECFMG 0-713-639-3 |
| 103 | | Beirut, LEBANON<br>03/06/1981 | AMERICAN U OF BEIRUT<br>Beirut, LEBANON<br>06/09/2006 | Henry Ford Hospital<br>Detroit, MI, USA<br>06/21/2009 to 06/30/2014<br>DARP PG# 723, 2009/10 | 06987325<br>05/11/2006<br>02/07/2008<br>05/11/2010<br>USMLE1 USMLE2 USMLE3<br>239 267 229<br>ECFMG 0-698-732-5 |
| 104 | | Inglewood, CA, USA<br>10/29/1952 | U OF SOUTHERN CALIFORNIA<br>Los Angeles, CA USA<br>M.D. 06/07/1979 | Huntington Memorial Hospital<br>Pasadena, CA, USA<br>06/25/1979 to 06/30/1982<br>DARP PG# 167, 1979/80 | 3/220-992-6<br>06/14/1977<br>09/26/1978<br>03/05/1980<br>NBME1 NBME2 NBME3<br>84 85 80.3<br>ABMS<br>IM Internal Medicine<br>09/15/1982--Lifetime |
| 105 | | Lalitpur, NEPAL<br>11/15/1985 | U OF COLORADO<br>Denver, CO USA<br>M.D. 05/24/2013 | University of Minnesota<br>Minneapolis, MN, USA<br>06/24/2013 to 06/30/2016<br>AMA FREIDA Online | 52624251<br>04/11/2011<br>07/25/2012<br>09/20/2014<br>USMLE1 USMLE2 USMLE3<br>221 239 217 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 106 | | Eau Claire, WI, USA<br>03/19/1969 | U OSTEO MED/DES MOINES<br>Des Moines, IA USA<br>D.O. 06/02/1995 | Metro Health<br>Wyoming, MI, USA<br>07/01/1995 to 07/08/1999<br>AOA Website | 340382<br>06/10/1993<br>03/14/1995<br>02/20/1996<br>COMLEX1 COMLEX2<br>COMLEX3<br>689 640 684<br>AOABPE<br>OB & GY (AOA) - Obstetrics & Gynecology<br>05/19/2002--Lifetime |
| 107 | | Rapid City, SD, USA<br>11/28/1981 | UNIFORMED SERVICES U<br>Bethesda, MD USA<br>M.D. 05/30/2011 | San Antonio Health Education<br>San Antonio, TX, USA<br>07/01/2011 to 06/30/2016<br>AMA FREIDA Online | 52286630<br>06/19/2009<br>08/06/2010<br>10/03/2011<br>USMLE1 USMLE2 USMLE3<br>256 265 231 |
| 108 | | Pune, INDIA<br>11/06/1965 | LTM MED COL/U OF BOMBAY<br>Mumbai, INDIA<br>M.B., B.S. 01/31/1989 | Brookdale University Hospital<br>Brooklyn, NY, USA<br>07/01/1994 to 06/30/1996<br>DARP PG# 712, 1994/95 | 05052980<br>09/21/1993<br>09/08/1993<br>06/27/1995<br>USMLE1 USMLE2 USMLE3<br>189 174 178<br>ECFMG 0-505-298-0<br>ABMS<br>Psy. & Neur.- Psychiatry<br>10/01/1999-12/31/2019-Time Limited |
| 109 | | Pakistan, PAKISTAN<br>08/29/1968 | RAWALPINDI MED COL<br>Rawalpindi, PAKISTAN<br>MB, BS 05/10/1994 | St. Anthony Hospital<br>Oklahoma City, OK, USA<br>07/01/2008 to 06/30/2011<br>DARP PG# 196, 2008/09 | 771867<br>06/07/2005<br>09/20/2006<br>10/10/2007<br>NBOME1 NBOME2 NBOME3<br>520 422 518<br>ECFMG 0-577-635-6 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 110 | | Seoul, KOREA<br>07/24/1987 | MI STATE U/COL HUMAN MED<br>East Lansing, MI USA<br>M.D. 05/03/2013 | University of Minnesota<br>Minneapolis, MN, USA<br>06/24/2013 to 06/30/2016<br>AMA FREIDA Online | 52680428<br>06/17/2011<br>07/23/2012<br>07/15/2014<br>USMLE1 USMLE2 USMLE3<br>215 249 234 |
| 111 | | Sheboygan, WI, USA<br>07/10/1983 | MEDICAL COLLEGE OF WISCONSIN<br>Milwaukee, WI USA<br>M.D. 06/18/2010 | Broadlawns Medical Center<br>Des Moines, IA, USA<br>07/01/2010 to 06/30/2011<br>DARP PG# 772, 2010/11 | 52151024<br>06/19/2008<br>04/14/2010<br>03/29/2011<br>USMLE1 USMLE2 USMLE3<br>206 207 197 |
| 112 | | Bijapur, INDIA<br>01/13/1985 | CHARLES U/HRADEC KRALOVE<br>Hradec Kralove, CZECH REPUBLIC<br>M.U.Dr. 06/11/2010 | Steward Carney Hospital<br>Boston, MA, USA<br>07/08/2013 to 07/07/2016<br>AMA FREIDA Online | 08074890<br>09/15/2011<br>08/28/2012<br>08/19/2015<br>USMLE1 USMLE2 USMLE3<br>232 212 201<br>ECFMG 0-807-489-0 |
| 113 | | Hyderabad, INDIA<br>05/05/1986 | WINDSOR U SCHOOL OF MEDICINE<br>Basseterre, SAINT KITTS AND NEVIS<br>09/01/2007 | Doctor's Hospital of Michigan<br>Pontiac, MI, USA<br>07/01/2013 to 06/30/2016<br>AMA FREIDA Online | 07655525<br>07/13/2010<br>05/12/2011<br>12/07/2011<br>USMLE1 USMLE2 USMLE3<br>205 223 219<br>ECFMG 0-765-552-5 |
| 114 | | Hollywood, FL, USA<br>02/21/1973 | GEORGE WASHINGTON U<br>Washington, DC USA<br>M.D. 05/19/2002 | Monteifore Medical Center<br>Bronx, NY, USA<br>07/01/2002 to 06/30/2005<br>DARP PG# 411, 2002/03 | 50556950<br>06/14/1999<br>03/19/2002<br>02/17/2005<br>USMLE1 USMLE2 USMLE3<br>208 191 202<br>ABMS<br>IM Internal Medicine<br>08/23/2005-12/31/2015-MOC |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 115 | | Wichita, KS, USA<br>10/23/1984 | U OF KANSAS SCHL OF MED<br>Kansas City, KS USA<br>M.D. 05/22/2011 | Hennepin County Medical Center<br>Minneapolis, MN, USA<br>06/24/2011 to 06/30/2016<br>AMA FREIDA Online | 52224144<br>06/11/2009<br>09/24/2010<br>07/20/2012<br>USMLE1 USMLE2 USMLE3<br>224 246 239 |
| 116 | | Ghotki, PAKISTAN<br>04/03/1984 | SINDH MED COL/U KARACHI<br>Karachi, PAKISTAN<br>MB, BS 05/16/2009 | Brooklyn Hospital Center<br>Brooklyn, NY, USA<br>07/01/2013 to 06/30/2016<br>AMA FREIDA Online | 078/21911<br>12/30/2009<br>03/30/2011<br>09/09/2012<br>USMLE1 USMLE2 USMLE3<br>210 226 205<br>ECFMG 0-782-191-1 |
| 117 | | Chennai, INDIA<br>05/16/1981 | I.R.T. PERUNDURAI MEDICAL COLLEGE<br>Perundurai, INDIA<br>MB, BS 06/29/2005 | University of New Mexico<br>Albuquerque, NM, USA<br>08/01/2010 to 07/31/2013<br>DARP PG# 237, 2010/11 | 07392517<br>02/12/2008<br>08/11/2008<br>06/03/2009<br>USMLE1 USMLE2 USMLE3<br>239 232 208<br>ECFMG 0-739-251-7 |
| 118 | | Morang, NEPAL<br>05/30/1985 | KATHMANDU MEDICAL COLLEGE<br>Kathmandu, NEPAL<br>M.B., B.S. 12/10/2010 | Brooklyn Hospital Center<br>Brooklyn, NY, USA<br>07/01/2013 to 06/30/2016<br>AMA FREIDA Online | 08275729<br>11/29/2011<br>07/30/2012<br>02/08/2013<br>USMLE1 USMLE2 USMLE3<br>234 216 207<br>ECFMG 0-827-572-9 |
| 119 | | Sturgeon Bay, WI, USA<br>07/11/1985 | U OF WISCONSIN/MADISON<br>Madison, WI USA<br>M.D. 05/18/2014 | United Hospital<br>St. Paul, MN, USA<br>07/01/2014 to 06/30/2016<br>AMA FREIDA Online | 52843257<br>06/29/2012<br>12/23/2013<br>05/15/2015<br>USMLE1 USMLE2 USMLE3<br>234 253 239 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 120 | | Dhahran, SAUDI ARABIA<br>04/13/1980 | ROSS U/U OF DOMINICA<br>Roseau, DOMINICA<br>04/30/2010 | Louisana State University Medical C<br>New Orleans, LA, USA<br>07/01/2010 to 06/30/2014<br>AMA FREIDA Online | 07443716<br>01/22/2008<br>08/08/2009<br>05/23/2011<br>USMLE1 USMLE2 USMLE3<br>226 212 192<br>ECFMG 0-744-371-6 |
| 121 | | Charlotte, NC, USA<br>08/19/1984 | U OF NORTH CAROLINA<br>Chapel Hill, NC USA<br>M.D. 05/09/2010 | University of Maryland Medical Cen<br>Baltimore, MD, USA<br>07/01/2010 to 06/30/2011<br>AMA FREIDA Online | 52042108<br>06/27/2008<br>10/15/2009<br>05/18/2011<br>USMLE1 USMLE2 USMLE3<br>233 260 225 |
| 122 | | New Orleans, LA, USA<br>10/24/1978 | LA STATE U/NEW ORLEANS<br>New Orleans, LA USA<br>M.D. 05/15/2004 | Baylor Medical Center at Garland<br>Garland, TX, USA<br>06/30/2004 to 07/20/2007<br>DARP PG# 603, 2004/05 | 5-092-702-9<br>03/26/2002<br>09/17/2003<br>04/26/2006<br>USMLE1 USMLE2 USMLE3<br>186 197 205<br>ABMS<br>Family Medicine- Family Medicine<br>12/07/2007-12/31/2017-Time Limited |
| 123 | | Minneapolis, MN, USA<br>11/29/1987 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/10/2014 | United Hospital<br>St. Paul, MN, USA<br>07/01/2014 to 06/30/2016<br>AMA FREIDA Online | 52830403<br>06/07/2012<br>12/09/2013<br>03/24/2015<br>USMLE1 USMLE2 USMLE3<br>210 236 224 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 124 | | Boston, MA, USA<br>11/18/1967 | NORTHWESTERN U<br>Chicago, IL USA<br>M.D. 06/04/1993 | Christ Hospital and Medical Center<br>Oak Lawn, IL, USA<br>06/28/1993 to 06/27/1996<br>DARP PG 232, 1993/94 | 3-431-051-6<br>06/11/1991<br>09/24/1992<br>03/02/1994<br>NBME1 USMLE2 NBME3<br>83 214 84<br>ABMS<br>Emergency Medicine-<br>Emergency Medicine<br>06/17/1998-12/31/2017-Time Limited |
| 125 | | Grants Pass, OR, USA<br>05/18/1980 | DES MOINES U COLLEGE OF OSTEO MED<br>Des Moines, IA USA<br>D.O. 05/29/2010 | Doctor's Hospital OhioHealth<br>Columbus, OH, USA<br>07/01/2010 to 06/30/2011<br>AOA Website | 860989<br>07/14/2008<br>12/08/2009<br>02/25/2011<br>COMLEX1 COMLEX2<br>COMLEX3<br>555 508 654 |
| 126 | | Hibbing, MN, USA<br>12/12/1984 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/05/2012 | Presence Resurrection Medical Cer<br>Chicago, IL, USA<br>06/20/2012 to 06/20/2015<br>AMA FREIDA Online | 52364023<br>07/02/2010<br>09/28/2011<br>12/17/2013<br>USMLE1 USMLE2 USMLE3<br>208 223 225 |
| 127 | | St. Louis Park, MN, USA<br>02/24/1982 | U OF IOWA/COL OF MED<br>Iowa City, IA USA<br>M.D. 05/16/2008 | UPMC Medical Education<br>Pittsburgh, PA, USA<br>06/22/2008 to 06/30/2011<br>DARP PG# 612, 2008/09 | 51787513<br>06/06/2006<br>07/06/2007<br>03/12/2009<br>USMLE1 USMLE2 USMLE3<br>208 232 207 |
| 128 | | Buea, CAMEROON<br>02/13/1984 | ST. MATTHEW'S UNIVERSITY<br>Grand Cayman, CAYMAN ISLANDS<br>05/01/2010 | St. Mary and Elizabeth Medical Cen<br>Chicago, IL, USA<br>07/13/2010 to 07/12/2013<br>AMA FREIDA Online | 07448749<br>04/07/2008<br>09/23/2009<br>11/24/2012<br>USMLE1 USMLE2 USMLE3<br>196 184 204<br>ECFMG 0-744-874-9 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 129 | | La Crosse, WI, USA<br>08/05/1981 | SABA U<br>Netherlands, NETHERLAND ANTILLES<br>M.D. 01/05/2007 | Saint Elizabeth Health Center<br>Youngstown, OH, USA<br>07/01/2007 to 06/30/2012<br>DARP PG# 694, 2007/08 | 06756050<br>02/28/2005<br>03/29/2006<br>10/26/2009<br>USMLE1 USMLE2 USMLE3<br>224 209 211<br>ECFMG 0-675-605-0 |
| 130 | | Green Bay, WI, USA<br>11/07/1983 | U OF WISCONSIN/MADISON<br>Madison, WI USA<br>M.D. 05/16/2010 | Wheaton Franciscan St Joseph<br>Milwaukee, WI, USA<br>06/23/2010 to 06/22/2011<br>AMA FREIDA Online | 52054772<br>06/18/2008<br>08/28/2009<br>12/22/2010<br>USMLE1 USMLE2 USMLE3<br>217 211 213 |
| 131 | | Minneapolis, MN, USA<br>12/02/1983 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/05/2012 | University of Minnesota<br>Minneapolis, MN, USA<br>06/10/2012 to 06/11/2016<br>AMA FREIDA Online | 52505484<br>06/02/2010<br>10/26/2011<br>05/01/2013<br>USMLE1 USMLE2 USMLE3<br>203 223 214 |
| 132 | | Asuncion, PARAQUAY<br>12/15/1976 | NATL U OF ASUNCION<br>Asuncion, PARAQUAY<br>02/20/2004 | University of Mississippi<br>Jackson, MS, USA<br>10/01/2014 to 09/30/2016<br>AMA FREIDA Online | 07078421<br>01/30/2007<br>05/13/2010<br>08/16/2011<br>USMLE1 USMLE2 USMLE3<br>202 226 202<br>ECFMG 0-707-842-1 |
| 133 | | Albert Lea, MN, USA<br>10/12/1961 | U OF IOWA/COL OF MED<br>Iowa City, IA USA<br>M.D. 05/12/1995 | North Colorado Medical Center<br>Greeley, CO, USA<br>07/01/1995 to 06/30/1998<br>DARP PG# 137, 1995/96 | 40169989<br>06/08/1993<br>03/01/1995<br>05/01/1996<br>USMLE1 USMLE2 USMLE3<br>182 188 208<br>ABMS<br>Family Medicine- Family Medicine<br>07/10/1998-MOC |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 134 | | Taiwan, TAIWAN<br>04/14/1972 | U OF SYDNEY<br>Sydney, AUSTRALIA<br>M.B., B.S. 04/23/1999 | John Hopkins Bayview Medical Cer<br>Baltimore, MD, USA<br>07/01/2001 to 06/30/2004<br>DARP PG# 322, 2001/02 | 06095905<br>07/03/2000<br>12/28/1999<br>06/28/2002<br>USMLE1 USMLE2 USMLE3<br>237 231 212<br>ECFMG 0-609-590-5<br>ABMS<br>IM (Sub) - Medical Oncology<br>11/13/2007-12/31/2017-Time Limited |
| 135 | | Wadena, MN, USA<br>04/05/1956 | U OF TEXAS/HOUSTON<br>Houston, TX USA<br>M.D. 05/31/1986 | The University of Texas Health Scie<br>Houston, TX, USA<br>07/01/1986 to 06/30/1989<br>DARP PG# 173, 1986/87 | 33206582<br>06/10/1986<br>06/10/1986<br>FLEX1 FLEX2<br>79 81<br>ABMS<br>IM Internal Medicine<br>04/26/2012-12/31/2022-Time Limited |
| 136 | | Baltimore, MD, USA<br>06/07/1983 | OHIO STATE U<br>Columbus, OH USA<br>M.D. 06/14/2009 | Phoenix Children's Hospital<br>Phoenix, AZ, USA<br>06/23/2009 to 06/30/2012<br>DARP PG# 418, 2009/10 | 51934602<br>06/02/2007<br>08/02/2008<br>09/15/2010<br>USMLE1 USMLE2 USMLE3<br>219 245 225 |
| 137 | | Forest Hills, NY, USA<br>07/26/1987 | NORTHEASTERN OHIO U<br>Rootstown, OH USA<br>M.D. 05/21/2011 | University of Minnesota<br>Minneapolis, MN, USA<br>07/01/2011 to 06/30/2016<br>DARP PG# 847, 2011/12 | 52326451<br>06/30/2009<br>10/04/2010<br>03/28/2013<br>USMLE1 USMLE2 USMLE3<br>241 262 235 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 138 | | Milwaukee, WI, USA<br>01/02/1985 | U OF WISCONSIN/MADISON<br>Madison, WI USA<br>M.D. 05/19/2013 | University of Minnesota<br>Minneapolis, MN, USA<br>06/24/2013 to 06/30/2016<br>AMA FREIDA Online | 52536257<br>06/22/2011<br>07/30/2012<br>11/25/2013<br>USMLE1 USMLE2 USMLE3<br>211 219 230 |
| 139 | | Guayama, PUERTO RICO<br>01/16/1983 | U OF CENTRAL DEL CARIBE<br>Bayamon, PR<br>M.D. 06/02/2012 | Mayo Clinic<br>Rochester, MN, USA<br>06/29/2013 to 06/30/2016<br>AMA FREIDA Online | 52507159<br>07/17/2010<br>08/02/2011<br>10/15/2012<br>USMLE1 USMLE2 USMLE3<br>219 230 218 |
| 140 | | Morristown, NJ, USA<br>01/12/1985 | U OF ILLINOIS/CHICAGO<br>Chicago, IL USA<br>M.D. 05/12/2013 | HCMC<br>Minneapolis, MN, USA<br>06/17/2013 to 06/30/2014<br>AMA FREIDA Online | 52681947<br>06/02/2011<br>10/17/2012<br>06/11/2014<br>USMLE1 USMLE2 USMLE3<br>268 266 245 |
| 141 | | Springfield, MO, USA<br>08/11/1981 | U OF MISSOURI/COLUMBIA<br>Columbia, MO USA<br>M.D. 05/16/2008 | Emory University<br>Atlanta, GA, USA<br>07/01/2008 to 06/30/2011<br>DARP PG# 708, 2008/09 | 51812287<br>06/03/2006<br>02/06/2008<br>09/29/2009<br>USMLE1 USMLE2 USMLE3<br>249 260 230 |
| 142 | | Menomonee Falls, WI, USA<br>06/04/1984 | U OF WISCONSIN/MADISON<br>Madison, WI USA<br>M.D. 05/15/2011 | Medical College of Wisconsin<br>Milwaukee, WI, USA<br>07/01/2011 to 06/30/2016<br>AMA FREIDA Online | 52170404<br>06/24/2009<br>07/28/2010<br>04/23/2012<br>USMLE1 USMLE2 USMLE3<br>213 260 227 |
| 143 | | Orlando, FL, USA<br>03/08/1980 | U OF FLORIDA<br>Gainesville, FL USA<br>M.D. 05/21/2005 | University of Michigan<br>Ann Arbor, MI, USA<br>06/19/2005 to 06/30/2006<br>DARP PG# | 51212173<br>06/26/2003<br>12/16/2004<br>02/22/2008<br>USMLE1 USMLE2 USMLE3<br>244 236 227 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 144 | | Erie, PA, USA<br>11/15/1983 | LAKE ERIE COL OF OSTEO<br>Erie, PA USA<br>D.O. 06/02/2013 | Lutheran General Hospital<br>Park Ridge, IL, USA<br>06/25/2013 to 07/26/2016<br>AMA FREIDA Online | 676689<br>05/31/2011<br>08/01/2012<br>11/01/2014<br>COMLEX1 COMLEX2 COMLEX3<br>478 527 527 |
| 145 | | Philadelphia, PA, USA<br>12/07/1970 | WESTERN UNIVERSITY OF HEALTH SCIENCES<br>Pomona, CA USA<br>D.O. 05/16/2003 | University of Illinois<br>Rockford, IL, USA<br>07/01/2003 to 06/30/2004<br>DARP PG# 544, 2003/04 | 635413<br>06/05/2001<br>08/27/2002<br>06/15/2004<br>COMLEX1 COMLEX2 COMLEX3<br>464 438 468<br>ABMS<br>Pediatrics- Pediatrics<br>10/12/2009-12/31/2016-Time Limited |
| 146 | | Harbour City, CA, USA<br>09/24/1961 | MI STATE U/COL HUMAN MED<br>East Lansing, MI USA<br>M.D. 05/05/1995 | Kalamazoo Center for Medical Stud<br>Kalamazoo, MI, USA<br>06/26/1995 to 06/25/1996<br>DARP PG# 207, 1995/96 | 40206492<br>06/08/1993<br>08/31/1994<br>05/14/1996<br>USMLE1 USMLE2 USMLE3<br>199 205 218<br>ABMS<br>Family Medicine- Family Medicine<br>07/10/1998-MOC |
| 147 | | Englewood, NJ, USA<br>10/19/1983 | NEW JERSEY MED SCHOOL<br>Newark, NJ USA<br>M.D. 05/26/2010 | UMDNJ-New Jersey Medical<br>Newark, NJ, USA<br>07/01/2010 to 06/30/2011<br>DARP PG# 194, 2010/11 | 52044443<br>05/14/2008<br>12/30/2009<br>09/22/2010<br>USMLE1 USMLE2 USMLE3<br>254 263 253 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 148 | | Adana, TURKEY<br>01/20/1980 | ANKARA U<br>Ankara, TURKEY<br>06/30/2004 | Detroit Medical Center<br>Detroit, MI, USA<br>07/01/2010 to 06/30/2014<br>DARP PG# 385, 2010/11 | 06699342<br>12/24/2004<br>06/16/2005<br>12/10/2009<br>USMLE1 USMLE2 USMLE3<br>242 236 231<br>ECFMG 0-669-934-2 |
| 149 | | Warner Robbins, GA, USA<br>06/24/1975 | U OF TENNESSEE/MEMPHIS<br>Memphis, TN USA<br>M.D. 05/27/2011 | Jewish Hospital of Cincinnati<br>Cincinnati, OH, USA<br>06/28/2011 to 06/27/2012<br>AMA FREIDA Online | 51369858<br>08/06/2004<br>08/16/2010<br>03/13/2012<br>USMLE1 USMLE2 USMLE3<br>205 205 225 |
| 150 | | Hammond, IN, USA<br>02/18/1970 | CHICAGO COL OF OSTEO MED<br>Downers Grove, IL USA<br>D.O. 06/07/1998 | West Suburban Medical Center<br>Oak Park, IL, USA<br>07/01/1998 to 06/30/2001<br>DARP PG# 471, 1998/99 | 403263<br>06/04/1996<br>03/24/1998<br>02/09/1999<br>COMLEX1 COMLEX2<br>COMLEX3<br>571 460 448<br>ABMS<br>Family Medicine- Family Medicine-<br>07/13/2001-12/31/2018-Time Limited |
| 151 | | Karachi, PAKISTAN<br>04/28/1972 | SINDH MED COL/U KARACHI<br>Karachi, PAKISTAN<br>MB, BS 12/05/1995 | Kingsbrook Jewish Medical Center<br>Brooklyn, MN, USA<br>07/01/1998 to 06/30/1999<br>DARP PG# 436, 1998/99 | 05043633<br>09/21/1993<br>03/01/1995<br>12/03/1996<br>USMLE1 USMLE2 USMLE3<br>195 196 177<br>ECFMG 0-504-363-3<br>ABMS<br>IM Internal Medicine<br>08/21/2001-12/31/2021-Time Limited |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 152 | | Las Vegas, NV, USA<br>09/24/1977 | U OF ARIZONA<br>Phoenix, AZ USA<br>M.D. 05/04/2012 | Maricopa Medical Center<br>Phoenix, AZ, USA<br>06/18/2012 to 06/30/2013<br>AMA FREIDA Online | 52380680<br>07/01/2010<br>09/09/2011<br>06/06/2013<br>USMLE1 USMLE2 USMLE3<br>197 211 208 |
| 153 | | Hong Kong, HONG KONG<br>05/16/1985 | AMERICA U OF THE CARIBBEAN, ST MAARTEN<br>Cupecoy, SINT MAARTEN<br>06/02/2012 | Creighton University<br>Omaha, NE, USA<br>07/01/2013 to 06/30/2016<br>AMA FREIDA Online | 08780611<br>07/22/2010<br>10/18/2011<br>09/10/2012<br>USMLE1 USMLE2 USMLE3<br>215 201 200<br>ECFMG 0-878-061-1 |
| 154 | | Sante Fe, NM, USA<br>09/15/1982 | TULANE U<br>New Orleans, LA USA<br>M.D. 05/18/2013 | Hennepin County Medical Center<br>Minneapolis, MN, USA<br>06/24/2013 to 10/20/2015<br>AMA FREIDA Online | 52559713<br>04/25/2011<br>07/05/2012<br>06/06/2014<br>USMLE1 USMLE2 USMLE3<br>232 221 206 |
| 155 | | Ottawa, ON, CANADA<br>06/29/1983 | U OF OTTAWA<br>Ottawa, ON CANADA<br>M.D. 05/10/2010 | University of Western Ontario<br>Landon, ON, CANADA<br>07/01/2010 to 06/30/2013<br>ASTP Website | 08709198<br>07/28/2010<br>07/02/2011<br>04/14/2014<br>USMLE1 USMLE2 USMLE3<br>200 224 209 |
| 156 | | Manchester, CT, USA<br>12/07/1984 | BEN GURION U OF NEGEV<br>Beer-Sheva, ISRAEL<br>05/17/2012 | Saint Francis Hospital and Medical<br>Hartford, CT, USA<br>06/22/2012 to 06/27/2016<br>AMA FREIDA Online | 08709198<br>07/28/2010<br>07/02/2011<br>04/14/2014<br>USMLE1 USMLE2 USMLE3<br>200 224 209<br>ECFMG 0-870-919-8 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 157 | | Koppal, INDIA<br>10/01/1970 | JN MED COL/KARNATAK U<br>Belgaum, India<br>Belgaum, INDIA<br>MB, BS 02/17/1997 | Sinai Grace Hospital<br>Detroit, MI, USA<br>07/01/2001 to 06/30/2002<br>DARP PG# 996, 2001/02 | 05630090<br>10/15/1996<br>08/26/1997<br>12/01/1998<br>USMLE1 USMLE2 USMLE3<br>193 184 203<br>ECFMG 0-563-009-0<br>ABMS<br>Psy. & Neur.- Neurology<br>01/19/2007-12/31/2017-Time Limited |
| 158 | | Singapore, SINGAPORE<br>05/25/1987 | ST GEORGES U<br>Grenada, WEST INDIES<br>04/12/2013 | Marshfield Clinic/Ministry St Joseph<br>Marshfield, WI, USA<br>07/01/2013 to 06/30/2016<br>AMA FREIDA Online | 08188153<br>07/15/2011<br>08/18/2012<br>04/03/2014<br>USMLE1 USMLE2 USMLE3<br>229 243 217<br>ECFMG 0-818-815-3 |
| 159 | | Smolensk, RUSSIA<br>06/24/1973 | I.M. SECHENOV MED ACAD.<br>Moscow, RUSSIA<br>06/20/1997 | University of Illinois<br>Chicago, IL, USA<br>07/01/2001 to 06/30/2006<br>DARP PG# 688, 2001/02 | 05534151<br>06/11/1996<br>08/26/1997<br>08/31/2004<br>USMLE1 USMLE2 USMLE3<br>195 180 213<br>ECFMG 0-553-415-1 |
| 160 | | Detroit Lakes, MN, USA<br>03/11/1984 | CREIGHTON U<br>Omaha, NE USA<br>M.D. 05/15/2010 | University of South Dakota<br>Sioux Falls, SD, USA<br>06/21/2010 to 06/20/2011<br>DARP PG# 779, 2010/11 | 52068525<br>06/10/2008<br>11/09/2009<br>03/29/2011<br>USMLE1 USMLE2 USMLE3<br>260 259 255 |
| 161 | | Honolulu, HI, USA<br>11/18/1984 | CREIGHTON U<br>Omaha, NE USA<br>M.D. 05/15/2010 | The University of South Dakota<br>Sioux Falls, SD, USA<br>06/21/2010 to 06/20/2011<br>DARP PG# 778, 2010/11 | 52086675<br>06/05/2008<br>01/27/2010<br>04/06/2011<br>USMLE1 USMLE2 USMLE3<br>256 262 251 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 162 | | Sydney, AUSTRALIA<br>04/09/1981 | U OF QUEENSLAND<br>Herston, AUSTRALIA<br>MB, BS 12/14/2007 | University of Arizona<br>Tucson, AZ, USA<br>07/01/2013 to 06/30/2016<br>AMA FREIDA Online | 08050593<br>07/05/2011<br>08/15/2011<br>05/01/2012<br>USMLE1 USMLE2 USMLE3<br>236 267 240<br>ECFMG 0-805-059-3 |
| 163 | | Brookings, SD, USA<br>02/21/1982 | U OF SOUTH DAKOTA<br>Vermillion, SD USA<br>M.D. 12/14/2012 | University of Minnesota<br>Minneapolis, MN, USA<br>06/24/2013 to 06/30/2016<br>AMA FREIDA Online | 52352358<br>09/17/2010<br>03/26/2012<br>09/15/2014<br>USMLE1 USMLE2 USMLE3<br>208 224 213 |
| 164 | | Traverse City, MI, USA<br>04/21/1987 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/04/2013 | University of Minnesota<br>Minneapolis, MN, USA<br>06/29/2013 to 06/30/2016<br>AMA FREIDA Online | 52637485<br>05/19/2011<br>08/29/2012<br>04/07/2014<br>USMLE1 USMLE2 USMLE3<br>210 232 202 |
| 165 | | Ho Chi Minh City,<br>VIETNAM<br>08/01/1979 | ST GEORGES U<br>St. George's, GRENADA<br>05/18/2007 | University of Buffalo<br>Buffalo, NY, USA<br>06/24/2007 to 06/30/2012<br>DARP PG# 347, 2007/08 | 06791180<br>07/21/2005<br>08/16/2006<br>06/09/2009<br>USMLE1 USMLE2 USMLE3<br>235 228 196<br>ECFMG 0-679-118-0 |
| 166 | | Cork, IRELAND<br>12/11/1985 | BAYLOR COL OF MED<br>Houston, TX USA<br>M.D. 05/22/2012 | University of Minnesota<br>Minneapolis, MN, USA<br>06/12/2012 to 06/30/2016<br>AMA FREIDA Online | 52260809<br>03/14/2010<br>10/21/2011<br>09/04/2013<br>USMLE1 USMLE2 USMLE3<br>249 244 239 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 167 | | St. Cloud, MN, USA<br>07/25/1986 | KANSAS CITY U of MED & BIOSCIENCES<br>Kansas City, MO USA<br>D.O. 05/17/2014 | United Hospital<br>St. Paul, MN, USA<br>07/01/2014 to 06/30/2016<br>AMA FREIDA Online | 120900<br>06/12/2012<br>07/12/2013<br>04/06/2015<br>COMLEX1 COMLEX2 COMLEX3<br>576 663 853 |
| 168 | | Minneapolis, MN, USA<br>08/19/1983 | KIRKSVILLE COL OF OSTEO<br>Kirksville, MO USA<br>D.O. 05/18/2013 | University of Iowa<br>Iowa City, IA, USA<br>06/24/2013 to 06/30/2016<br>AMA FREIDA Online | 984683<br>06/15/2011<br>06/27/2012<br>06/19/2014<br>COMLEX1 COMLEX2 COMLEX3<br>626 555 621 |
| 169 | | Omaha, NE, USA<br>02/08/1977 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/02/2009 | HCMC<br>Minneapolis, MN, USA<br>06/15/2009 to 06/30/2010<br>DARP PG 749, 2009/10 | 51958262<br>05/24/2007<br>12/12/2008<br>12/28/2009<br>USMLE1 USMLE2 USMLE3<br>235 264 245 |
| 170 | | Santo Domingo, DOMINICAN REPUBLIC<br>05/23/1961 | U CENTRAL DEL ESTE<br>San Pedro Macoris, Dominican Republic<br>07/18/1985 | Thomas Jefferson University<br>Phildelphia, PA, USA<br>07/01/1992 to 06/30/1993<br>DARP PG 464, 1991/92<br>Albert Einstein College of Medicine<br>Bronx, NY, USA<br>07/01/1993 to 07/01/1997<br>DARP PG 511, 1993/94 | 22235675<br>12/03/1991<br>06/15/1993<br>FLEX FLEX2<br>76 77<br>PA PA<br>ECFMG 2-223-567-5<br>ABMS<br>Psy. & Neur.- Psychiatry<br>04/10/2000-02/14/2011-MOC |
| 171 | | Santo Domingo, DOMINICAN REPUBLIC<br>12/29/1986 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/04/2013 | New York Presbyterian<br>New York, NY, USA<br>06/14/2013 to 06/14/2016<br>AMA FREIDA Online | 52637667<br>06/09/2011<br>09/14/2012<br>09/29/2014<br>USMLE1 USMLE2 USMLE3<br>234 248 223 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 172 | | Onitsha, NIGERIA<br>08/21/1973 | U OF IBADAN<br>Ibadan, NIGERIA<br>M.B., B.S. 05/12/2000 | Case Western Reserve University<br>Cleveland, OH, USA<br>06/23/2011 to 06/22/2014<br>DARP PG 227, 2011/12 | 06898142<br>05/11/2006<br>03/20/2007<br>01/15/2010<br>USMLE1 USMLE2 USMLE3<br>184 198 198<br>ECFMG 06898142 |
| 173 | | Jos, NIGERIA<br>04/30/1975 | U OF IBADAN<br>Ibadan, NIGERIA<br>M.B., B.S. 05/12/2000 | St. Vincent Charity Medical Center<br>Cleveland, OH, USA<br>06/23/2012 to 06/22/2015<br>DARP PG 197, 2012/13 | 06976476<br>05/11/2006<br>03/21/2007<br>01/15/2010<br>USMLE1 USMLE2 USMLE3<br>203 209 197<br>ECFMG 06976476 |
| 174 | | Newark, DE, USA<br>05/30/1986 | MEDICAL COLLEGE OF WISCONSIN<br>Milwaukee, WI USA<br>M.D. 05/17/2013 | Grand Rapids Medical Education<br>Grand Rapids, MI, USA<br>07/01/2013 to 06/30/2016<br>AMA FREIDA Online | 52617602<br>06/11/2011<br>07/28/2012<br>11/20/2013<br>USMLE1 USMLE2 USMLE3<br>226 249 227 |
| 175 | | Salamanca, SPAIN<br>03/30/1987 | U OF MARYLAND<br>Baltimore, MD USA<br>M.D. 05/17/2013 | HCMC<br>Minneapolis, MN, USA<br>06/24/2013 to 06/30/2016<br>AMA FREIDA Online | 52635661<br>05/27/2011<br>07/28/2012<br>08/19/2014<br>USMLE1 USMLE2 USMLE3<br>196 229 226 |
| 176 | | Ludhiana, INDIA<br>02/07/1983 | DAYANAND MED COL/PUNJAB<br>Punjab, INDIA<br>M.B., B.S. 12/31/2006 | Detroit Medical Center/Wayne State<br>Detroit, MI, USA<br>07/01/2009 to 06/30/2012<br>DARP PG 397, 2009/10 | 07257900<br>03/21/2007<br>08/13/2007<br>12/17/2007<br>USMLE1 USMLE2 USMLE3<br>237 245 200<br>ECFMG 07257900 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 177 | | Al-Khobar, SAUDI ARABIA<br>12/23/1986 | ST GEORGES U<br>St. George, GRENADA<br>05/11/2012 | University of Mississippi<br>Jackson, MS, USA<br>07/01/2012 to 06/30/2016<br>DARP PG 382, 2012/13 | 08744278<br>07/14/2010<br>08/22/2011<br>05/18/2015<br>USMLE1 USMLE2 USMLE3<br>249 264 246<br>ECFMG 0874278 |
| 178 | | Phoenix, AZ, USA<br>07/01/1985 | U OF ARIZONA<br>Phoenix, AZ USA<br>M.D. 05/12/2012 | Mayo Clinic Arizona<br>Phoenix, AZ, USA<br>06/30/2012 to 06/28/2013<br>DARP PG 549, 2012/13 | 52380615<br>06/24/2010<br>08/02/2011<br>04/24/2013<br>USMLE1 USMLE2 USMLE3<br>250 263 241 |
| 179 | | Dar-es-salaam, TANZANIA<br>05/11/1985 | U OF ARIZONA<br>Phoenix, AZ USA<br>M.D. 05/11/2013 | Mayo Clinic Arizona<br>Scottsdale, AZ, USA<br>06/29/2013 to 06/30/2016<br>AMA FREIDA Online | 52613312<br>06/20/2011<br>08/02/2012<br>04/14/2014<br>USMLE1 USMLE2 USMLE3<br>215 244 219 |
| 180 | | Fort Wayne, IN, USA<br>03/24/1982 | U OF TOLEDO COLLEGE OF MEDICINE<br>Toledo, OH USA<br>M.D. 06/03/2011 | University of Michigan Health<br>Ann Arbor, MI, USA<br>06/18/2011 to 06/30/2015<br>DARP PG 58, 2011/12 | 52292406<br>07/01/2009<br>07/30/2010<br>09/22/2014<br>USMLE1 USMLE2 USMLE3<br>224 262 218 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 181 | | Santa Tecla, EL SALVADOR<br>05/06/1968 | NATL U OF EL SALVADOR<br>San Salvador, EL SALVADOR<br>07/29/1994 | John H. Stroger Jr. Hopsital<br>Chicago, IL, USA<br>09/03/2004 to 09/12/2007<br>DARP PG 670, 2004/05 | 06037212<br>10/25/2002<br>03/02/1999<br>03/01/2006<br>USMLE1 USMLE2 USMLE3<br>214 223 222<br>ECFMG 06037212<br>ABMS<br>IM Internal Medicine<br>08/30/2007-12/31/2017-Time Limited<br>ABMS<br>IM (Sub) - Geriatric Medicine<br>11/17/2008-12/31/2018-Time Limited |
| 182 | | Guadalajara, MEXICO<br>10/14/1983 | U OF ILLINOIS/ROCKFORD<br>Rockford, IL USA<br>M.D. 05/09/2010 | Mount Carmel Health<br>Columbus, OH, USA<br>07/01/2010 to 06/30/2011<br>DARP PG 739, 2010/11 | 52003829<br>06/12/2008<br>07/16/2009<br>11/05/2012<br>USMLE1 USMLE2 USMLE3<br>214 204 199 |
| 183 | | San Juan, PR,<br>PUERTO RICO<br>01/23/1973 | U OF CENTRAL DEL CARIBE<br>Bayamon, PR PUERTO RICO<br>M.D. 06/08/2003 | University of Puerto Rico<br>San Juan, PR, PUERTO RICO<br>07/01/2003 to 06/30/2008<br>DARP PG 766, 2003/04 | 50983444<br>07/19/2001<br>08/02/2002<br>03/23/2006<br>USMLE1 USMLE2 USMLE3<br>340 232 200<br>ABMS<br>Orthopaedic Surgery-Orthopaedic Surgery<br>07/24/2014-12/31/2024-Time Limited |
| 184 | | Appleton, WI, USA<br>03/04/1986 | U OF ROCHESTER<br>Rochester, NY USA<br>M.D. 05/18/2012 | University of Minnesota<br>Minneapolis, MN, USA<br>06/10/2012 to 06/11/2016<br>DARP PG 382, 2012/13 | 52426608<br>06/21/2010<br>10/06/2011<br>06/05/2013<br>USMLE1 USMLE2 USMLE3<br>236 259 235 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 185 | | Boise, ID, USA<br>01/30/1987 | CREIGHTON U<br>Omaha, NE USA<br>M.D. 05/18/2013 | Mayo Clinic Arizona<br>Phoenix, AZ, USA<br>06/29/2013 to 06/30/2016<br>AMA FREIDA Online | 52578663<br>06/01/2011<br>08/21/2012<br>04/07/2014<br>USMLE1 USMLE2 USMLE3<br>224 239 237 |
| 186 | | Syracuse, NY, USA<br>04/20/1984 | NORTHEASTERN OHIO U<br>Rootstown, OH USA<br>M.D. 05/21/2011 | Riverside Methodist<br>Columbus, OH, USA<br>06/22/2011 to 06/21/2012<br>DARP PG 852, 2011/12 | 52326964<br>06/30/2009<br>08/18/2010<br>05/19/2014<br>USMLE1 USMLE2 USMLE3<br>211 224 205 |
| 187 | | Minneapolis, MN, USA<br>04/02/1983 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/02/2009 | University of Wisconsin Hospitals<br>Madison, WI, USA<br>06/24/2009 to 06/23/2014<br>DARP PG 765, 2009/10 | 51954311<br>06/12/2007<br>02/17/2009<br>09/22/2010<br>USMLE1 USMLE2 USMLE3<br>236 236 204 |
| 188 | | Madison, WI, USA<br>06/21/1968 | HARVARD U MED SCHOOL<br>Boston, MA USA<br>M.D. 06/10/2004 | Mt. Auburn Hospital<br>Cambridge, MA, USA<br>06/23/2004 to 06/22/2005<br>DARP PG 673, 2004/05 | 51077386<br>06/20/2002<br>12/18/2003<br>07/22/2005<br>USMLE1 USMLE2 USMLE3<br>233 232 225<br>ABMS<br>Radiology- Diagnostic Radiology<br>11/09/2009-12/31/2019-Time Limited |
| 189 | | Minot, ND, USA<br>03/13/1980 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/03/2013 | Gundersen Health System<br>La Crosse, WI, USA<br>06/25/2013 to 06/24/2016<br>AMA FRIEDA Online | 52636719<br>05/19/2011<br>12/20/2012<br>05/21/2014<br>USMLE1 USMLE2 USMLE3<br>227 232 246 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 190 | | Springfield, MO, USA<br>03/28/1985 | U OF MISSOURI/COLUMBIA<br>Columbia, MO USA<br>M.D. 05/11/2012 | University of Kentucky<br>Lexington, KY, USA<br>07/01/2012 to 06/30/2016<br>DARP PG 380, 2012/13 | 52506276<br>05/28/2010<br>10/21/2011<br>02/21/2013<br>USMLE1 USMLE2 USMLE3<br>236 252 227 |
| 191 | | Sioux Falls, SD, USA<br>12/18/1984 | U OF SOUTH DAKOTA<br>Sioux Falls, SD USA<br>M.D. 05/06/2011 | University of Nebraska<br>Omaha, NE, USA<br>07/01/2011 to 06/30/2015<br>DARP PG 549, 2011/12 | 52221629<br>06/17/2009<br>08/25/2010<br>10/12/2011<br>USMLE1 USMLE2 USMLE3<br>200 223 205 |
| 192 | | Castries, SAINT LUCIA<br>06/05/1979 | NEW YORK U<br>New York, NY USA<br>M.D. 05/13/2004 | New York Presbyterian<br>New York, NY, USA<br>06/21/2004 to 06/30/2007<br>DARP PG 680, 2004/05 | 51001956<br>06/12/2002<br>01/27/2004<br>05/16/2006<br>USMLE1 USMLE2 USMLE3<br>203 203 211 |
| 193 | | Rapid City, SD, USA<br>08/03/1982 | U OF SOUTH DAKOTA<br>Sioux Falls, SD USA<br>M.D. 05/07/2010 | University of South Dakota<br>Sioux Falls, SD, USA<br>06/21/2010 to 06/30/2014<br>DARP PG 479, 2010/11 | 52021532<br>06/14/2008<br>08/28/2009<br>11/12/2010<br>USMLE1 USMLE2 USMLE3<br>225 241 213 |
| 194 | | West Chester, PA, USA<br>05/27/1985 | TEMPLE U<br>Philadelphia, PA USA<br>M.D. 05/17/2013 | Cooper University Hospital<br>Camden, NJ, USA<br>06/17/2013 to 06/30/2016<br>AMA FREIDA Online | 52571106<br>05/06/2011<br>10/26/2012<br>09/16/2014<br>USMLE1 USMLE2 USMLE3<br>229 249 238 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 195 | | St. Paul, MN, USA<br>02/27/1980 | ROSALIND FRANKLIN U OF MEDICINE & SCI<br>North Chicago, IL USA<br>M.D. 06/04/2010 | Cleveland Clinic<br>Cleveland, OH, USA<br>07/01/2010 to 06/30/2015<br>DARP PG 449, 2010/11 | 51873719<br>06/14/2007<br>08/30/2008<br>10/12/2011<br>USMLE1 USMLE2 USMLE3<br>236 243 203 |
| 196 | | Minneapolis, MN, USA<br>03/22/1983 | U OF NORTH DAKOTA<br>Grand Forks, ND USA<br>M.D. 05/13/2012 | HCMC<br>Minneapolis, MN, USA<br>06/22/2012 to 06/30/2013<br>AMA FREIDA Online | 52464393<br>06/23/2010<br>12/29/2011<br>03/04/2013<br>USMLE1 USMLE2 USMLE3<br>245 260 242 |
| 197 | | Boston, MA, USA<br>04/22/1984 | AMERICAN U OF ANTIGUA<br>Coolidge, Antigua and Barbuda<br>12/03/2010 | Mayo Clinic<br>Rochester, MN, USA<br>06/25/2011 to 06/22/2012<br>AMA FREIDA Online<br><br>Mayo Clinic<br>Rochester, MN, USA<br>07/01/2014 to 06/30/2015<br>AMA FREIDA Online | 0-767-638-0<br>11/20/2008<br>08/11/2010<br>04/27/2015<br>USMLE1 USMLE2 USMLE3<br>228 234 213<br>ECFMG 0-767-638-0 |
| 198 | | Elmhurst, IL, USA<br>04/26/1983 | RUSH MED COL<br>Chicago, IL USA<br>M.D. 06/12/2010 | University of Michigan<br>Ann Arbor, MI, USA<br>07/01/2010 to 06/30/2015<br>DARP PG 416, 2010/11 | 52054350<br>06/17/2008<br>11/22/2009<br>05/11/2011<br>USMLE1 USMLE2 USMLE3<br>245 242 234 |
| 199 | | Downers Grove, IL, USA<br>03/13/1984 | U OF WISCONSIN/MADISON<br>Madison, WI USA<br>M.D. 05/20/2012 | University of Kansas<br>Kansas City, KS, USA<br>07/01/2012 to 06/30/2016<br>DARP PG 380, 2012/13 | 52438108<br>06/28/2010<br>09/06/2011<br>07/15/2013<br>USMLE1 USMLE2 USMLE3<br>215 237 218 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 200 | | Grantsburg, WI, USA<br>02/17/1987 | DES MOINES U COLLEGE OF OSTEO MED<br>Des Moines, IA USA<br>D.O. 05/24/2014 | University of Minnesota<br>Minneapolis, MN, USA<br>06/01/2014 to 06/30/2017<br>AMA FREIDA Online | 108618<br>06/27/2012<br>06/27/2013<br>12/23/2014<br>COMLEX1 COMLEX2 COMLEX3<br>519 672 712 |
| 201 | | Minneapolis, MN, USA<br>06/21/1984 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/04/2013 | University of Illinois<br>Peoria, IL, USA<br>07/01/2013 to 06/30/2016<br>AMA FREIDA Online | 52693579<br>06/30/2011<br>11/02/2012<br>06/24/2015<br>USMLE1 USMLE2 USMLE3<br>232 234 214 |
| 202 | | Tehran, IRAN<br>06/27/1978 | TEHRAN U OF MED SCI & HLTH SERVICES<br>Tehran, IRAN<br>05/05/2004 | University of Minnesota<br>Minneapolis, MN, USA<br>08/20/2012 to 08/19/2016<br>DARP PG 576, 2012/13 | 07410848<br>03/19/2009<br>08/19/2010<br>02/29/2012<br>USMLE1 USMLE2 USMLE3<br>218 248 220<br>ECFMG 07410848 |
| 203 | | St. Paul, MN, USA<br>06/17/1979 | GEORGE WASHINGTON U<br>Washington, DC USA<br>M.D. 05/15/2011 | University of Texas Medical Branch<br>Galveston, TX, USA<br>06/20/2012 to 06/30/2016<br>DARP PG 59, 2012/13 | 52284593<br>06/15/2009<br>11/29/2010<br>01/15/2013<br>USMLE1 USMLE2 USMLE3<br>235 240 214 |
| 204 | | Robbinsdale, MI, USA<br>10/20/1987 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/04/2013 | HCMC<br>Minneapolis, MN, USA<br>06/24/2013 to 06/30/2016<br>AMA FREIDA Online | 52637121<br>06/11/2011<br>07/21/2012<br>11/25/2014<br>USMLE1 USMLE2 USMLE3<br>206 237 223 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 205 | | Chhota-Udepur, INDIA<br>09/02/1964 | BARODA U<br>Baroda, INDIA<br>M.B., B.S. 08/29/1989 | Easton Hospital<br>Easton, MN, USA<br>02/14/1996 to 06/30/1999<br>DARP PG 860, 1996/97 | 05119813<br>06/14/1995<br>03/01/1995<br>05/12/1998<br>USMLE1 USMLE2 USMLE3<br>181 180 196<br>ECFMG 05119813<br>ABMS<br>Surgery (AOA) -<br>Surgery-General<br>10/26/2004-12/31/2025-Time Limited |
| 206 | | Janzour, LIBYA<br>04/15/1972 | U OF AL-FATEH<br>Tripoli, LIBYA<br>B.M., B.Ch. 04/22/1997 | St. Vincent Hospital<br>Worcester, MA, USA<br>07/01/2010 to 06/30/2011<br>DARP PG 189, 2010/11<br>Tufts Medical Center<br>Boston, MA, USA<br>07/01/2011 to 06/30/2012<br>DARP PG 399, 2011/12 | 07651920<br>01/15/2009<br>09/23/2009<br>04/06/2010<br>USMLE1 USMLE2 USMLE3<br>247 249 196<br>ECFMG 07651920 |
| 207 | | Beijing, CHINA<br>09/11/1982 | PEKING UNION MED COL<br>Beijing, CHINA<br>M.B. 07/12/2007 | Medical College of Wisconsin<br>Milwaukee, WI, USA<br>07/01/2011 to 06/30/2015<br>DARP PG 64, 2011/12 | 07691389<br>02/04/2009<br>12/10/2009<br>01/26/2011<br>USMLE1 USMLE2 USMLE3<br>235 245 224<br>ECFMG 07691389 |
| 208 | | Fargo, ND, USA<br>09/16/1984 | DES MOINES U COLLEGE OF OSTEO MED<br>Des Moines, IA USA<br>D.O. 05/26/2012 | Lakeland Medical Center<br>St. Joseph, MI, USA<br>07/01/2012 to 06/30/2016<br>AOIA Website | 945440<br>06/18/2010<br>08/01/2011<br>05/13/2013<br>COMLEX1 COMLEX2 COMLEX3<br>455 494 596 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 209 | | Ludhiana, INDIA<br>01/02/1984 | TOURO U. COLL OF OSTEO.<br>Vallejo, CA USA<br>D.O. 06/06/2011 | Community General Osteopathic<br>Harrisburg, PA, USA<br>07/01/2011 to 06/30/2016<br>AOIA Website | 928430<br>07/21/2009<br>06/28/2010<br>04/16/2012<br>COMLEX1 COMLEX2<br>COMLEX3<br>617 545 397 |
| 210 | | Park Rapids, MN, USA<br>11/24/1987 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/04/2013 | University of Minnesota<br>Minneapolis, MN, USA<br>06/24/2013 to 06/30/2016<br>AMA FREIDA Online | 52693371<br>07/30/2011<br>12/22/2012<br>03/01/2014<br>USMLE1 USMLE2 USMLE3<br>227 243 245 |
| 211 | | New Albany, MS, USA<br>06/03/1986 | U OF MISSISSIPPI<br>Jackson, MS USA<br>M.D. 05/25/2012 | Univ of MS Medical Center<br>Jackson, MS, USA<br>07/01/2012 to 06/30/2016<br>DARP PG 54, 2012/13 | 52365533<br>08/26/2010<br>08/30/2011<br>01/21/2013<br>USMLE1 USMLE2 USMLE3<br>203 201 207 |
| 212 | | Istanbul, TURKEY<br>10/18/1964 | MARMARA U<br>Istanbul, TURKEY<br>01/31/1991 | Washington Hospital Center<br>Washington, DC, USA<br>07/01/1993 to 06/30/1996<br>DARP PG 559, 1993/94 | 20055232<br>12/07/1993<br>12/07/1993<br>FLEX FLEX2<br>79 75<br>PA PA<br>ECFMG 04587556<br>ABMS<br>Thoracic and Cardiac Surgery<br>01/01/2014-12/31/2014-Time Limited<br>ABMS<br>Surgery- Surgery<br>12/12/2013-12/31/2014-Time Limited |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 213 | | Waterloo, IA, USA<br>06/24/1980 | U OF IOWA/COL OF MED<br>Iowa City, IA USA<br>M.D. 05/15/2009 | University of Iowa<br>Iowa City, IA, USA<br>07/01/2009 to 06/30/2013<br>DARP PG 548, 2009/10 | 5-178-855-2<br>06/09/2006<br>09/09/2008<br>10/20/2010<br>USMLE1 USMLE2 USMLE3<br>230 257 248 |
| 214 | | Downey, CA, USA<br>04/25/1982 | NY MED COL/VALHALLA<br>Valhalla, NY USA<br>M.D. 05/27/2009 | University of California Irvine<br>Orange, CA, USA<br>06/24/2009 to 06/30/2012<br>DARP PG 613, 2009/10 | 51875995<br>06/14/2007<br>08/27/2008<br>02/22/2010<br>USMLE1 USMLE2 USMLE3<br>223 260 226 |
| 215 | | Minneapolis, MN, USA<br>09/10/1981 | NY MED COL/VALHALLA<br>Valhalla, NY USA<br>M.D. 05/27/2009 | LA County- Harbor- UCLA<br>Torrance, CA, USA<br>06/24/2009 to 06/23/2010<br>DARP PG 745, 2009/10 | 51954964<br>06/14/2007<br>12/29/2008<br>02/22/2010<br>USMLE1 USMLE2 USMLE3<br>234 240 233 |
| 216 | | Edina, MN, USA<br>09/16/1983 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/05/2012 | University of Minnesota<br>Minneapolis, MN, USA<br>06/18/2012 to 06/30/2016<br>DARP PG 343, 2012/13 | 52363462<br>06/08/2010<br>06/20/2011<br>03/25/2013<br>USMLE1 USMLE2 USMLE3<br>209 226 224 |
| 217 | | Ashland, WI, USA<br>11/26/1984 | MI STATE U/COL HUMAN MED<br>East Lansing, MI USA<br>M.D. 05/04/2012 | University of Minnesota<br>Minneapolis, MN, USA<br>06/24/2012 to 06/30/2015<br>DARP PG 192, 2012/13 | 52462165<br>06/25/2010<br>09/29/2011<br>05/13/2014<br>USMLE1 USMLE2 USMLE3<br>198 234 226 |
| 218 | | New Prague, MN, USA<br>07/30/1981 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/01/2010 | Henry Ford Hospital<br>Detroit, MI, USA<br>06/24/2011 to 06/30/2016<br>DARP PG 481, 2011/12 | 52003738<br>06/10/2008<br>07/07/2009<br>12/20/2012<br>USMLE1 USMLE2 USMLE3<br>225 228 206 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 219 | | Concord, NC, USA<br>06/29/1972 | FLINDERS U S AUSTRALIA<br>Adelaide, AUSTRALIA<br>M.B., B.S. 12/18/2002 | Mayo Clinic<br>Rochester, MN, USA<br>07/01/2006 to 06/29/2007<br>DARP PG 369, 2006/07<br>Mayo Clinic<br>Rochester, MN, USA<br>06/30/2007 to 06/25/2010<br>DARP PG 185, 2007/08 | 06825640<br>07/22/2005<br>12/08/2005<br>05/08/2008<br>USMLE1 USMLE2 USMLE3<br>245 263 228<br>ECFMG 06825640 |
| 220 | | Cedar Rapids, IA, USA<br>12/08/1967 | BAYLOR COL OF MED<br>Houston, TX USA<br>M.D. 06/02/1997 | University of Washington<br>Seattle, WA, USA<br>06/25/1997 to 06/24/1998<br>DARP PG 865, 1996/97 | 40709271<br>06/10/1997<br>03/04/1997<br>05/12/1998<br>USMLE1 USMLE2 USMLE3<br>217 211 214<br>ABMS<br>Orthopaedic Surgery-<br>Orthopaedic Surgery<br>07/21/2005-12/31/2025-MOC |
| 221 | | Red Bank, NJ, USA<br>09/10/1984 | NEW JERSEY MED SCHOOL<br>Newark, NJ USA<br>M.D. 05/26/2010 | Our Lady of the Lake Regional<br>Baton Rouge, LA, USA<br>07/01/2010 to 06/30/2012<br>DARP PG 525, 2010/11 | 52061348<br>05/15/2008<br>01/28/2010<br>06/13/2011<br>USMLE1 USMLE2 USMLE3<br>257 232 233 |
| 222 | | Marshfield, WI, USA<br>09/05/1985 | U OF WISCONSIN/MADISON<br>Madison, WI USA<br>M.D. 05/20/2012 | University of Michigan<br>Ann Arbor, MI, USA<br>07/01/2012 to 06/30/2016<br>DARP PG 100, 2012/13 | 52439205<br>06/25/2010<br>12/05/2011<br>09/22/2014<br>USMLE1 USMLE2 USMLE3<br>247 256 236 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 223 | | Watertown, SD, USA<br>05/20/1975 | U OF SOUTH DAKOTA<br>Sioux Falls, SD USA<br>M.D. 05/11/2002 | Creighton University<br>Omaha, NE, USA<br>07/01/2002 to 06/30/2006<br>DARP PG 709, 2002/03 | 50786045<br>06/20/2000<br>08/30/2001<br>07/01/2003<br>USMLE1 USMLE2 USMLE3<br>196 212 215<br>ABMS<br>OB & GY- Obstetrics & Gynecology<br>12/12/2008-12/31/2016-MOC |
| 224 | | Hancock, MI, USA<br>10/13/1982 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/02/2009 | St. Joseph Mercy Hospital<br>Ann Arbor, MI, USA<br>06/22/2009 to 06/30/2014<br>DARP PG 723, 2009/10 | 51985372<br>07/06/2007<br>07/24/2008<br>05/15/2010<br>USMLE1 USMLE2 USMLE3<br>200 243 210 |
| 225 | | Rapid City, SD, USA<br>09/20/1984 | A.T. STILL U SCH OF OSTEO MEDICINE<br>Mesa, AZ USA<br>D.O. 06/03/2011 | Penn State Milton S. Hershey<br>Hershey, PA, USA<br>07/01/2011 to 06/30/2012<br>AOIA Website | 927321<br>06/26/2009<br>08/23/2010<br>03/26/2013<br>COMLEX1 COMLEX2 COMLEX3<br>531 576 639 |
| 226 | | Minneapolis, MN, USA<br>01/19/1980 | CREIGHTON U<br>Omaha, NE USA<br>M.D. 05/10/2008 | Indiana University<br>Indianapolis, IN, USA<br>07/01/2008 to 06/30/2011<br>DARP PG 272, 2008/09 | 51682060<br>06/02/2006<br>02/06/2008<br>04/27/2009<br>USMLE1 USMLE2 USMLE3<br>247 258 235 |
| 227 | | Sioux City, SD, USA<br>02/03/1985 | U OF SOUTH DAKOTA<br>Vermillion, SD USA<br>M.D. 05/06/2011 | University of South Dakota<br>Sioux Falls, SD, USA<br>06/17/2011 to 06/30/2015<br>DARP PG 553, 2011/12 | 52221686<br>05/29/2009<br>07/24/2010<br>07/19/2011<br>USMLE1 USMLE2 USMLE3<br>210 234 187 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 228 | | Madison, WI, USA<br>07/07/1984 | U OF WISCONSIN/MADISON<br>Madison, WI USA<br>M.D. 05/15/2011 | Hospital for Special Surgery<br>New York, NY, USA<br>06/13/2011 to 06/13/2016<br>DARP PG 483, 2011/16 | 52170370<br>06/24/2009<br>12/22/2010<br>05/10/2012<br>USMLE1 USMLE2 USMLE3<br>248 252 233 |
| 229 | | Brainerd, MN, USA<br>07/28/1986 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/05/2012 | University of Minnesota<br>Minneapolis, MN, USA<br>06/10/2012 to 06/30/2016<br>DARP PG 382, 2012/13 | 52364049<br>06/03/2010<br>12/20/2011<br>06/21/2013<br>USMLE1 USMLE2 USMLE3<br>228 246 225 |
| 230 | | Omaha, NE, USA<br>07/08/1974 | CREIGHTON U<br>Omaha, NE USA<br>M.D. 05/17/2003 | Fort Wayne Medical Education<br>Fort Wayne, IN, USA<br>07/01/2003 to 06/30/2006<br>DARP PG 760, 2003/04 | 50950609<br>06/06/2001<br>02/21/2003<br>04/29/2004<br>USMLE1 USMLE2 USMLE3<br>247 223 198 |
| 231 | | Burnsville, MN, USA<br>07/14/1986 | DES MOINES U COLLEGE OF OSTEO MED<br>Des Moines, IA USA<br>D.O. 05/25/2013 | University of Iowa<br>Iowa City, MN, USA<br>07/01/2013 to 06/30/2016<br>AMA FREIDA Online | 990200<br>06/17/2011<br>08/27/2012<br>03/26/2015<br>COMLEX1 COMLEX2 COMLEX3<br>534 707 730 |
| 232 | | Beijing, CHINA<br>01/12/1983 | U OF PITTSBURGH<br>Pittsburgh, PA USA<br>M.D. 05/28/2011 | Cleveland Clinic<br>Cleveland, OH, USA<br>07/01/2011 to 06/30/2016<br>DARP PG 875, 2011/12 | 52032463<br>05/28/2008<br>07/22/2010<br>12/06/2012<br>USMLE1 USMLE2 USMLE3<br>214 238 211 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 233 | | Maplewood, MN, USA<br>04/20/1986 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/04/2013 | University of Pittsburgh<br>Pittsburgh, PA, USA<br>06/24/2013 to 06/30/2016<br>AMA FRIEDA Online | 52693363<br>06/14/2011<br>09/04/2012<br>01/27/2014<br>USMLE1 USMLE2 USMLE3<br>219 250 225 |
| 234 | | Huron, SD, USA<br>11/13/1978 | UNIFORMED SERVICES U<br>Bethesda, MD USA<br>M.D. 05/21/2005 | Brooke Army Medical Center<br>San Antonio, TX, USA<br>07/01/2005 to 06/30/2006<br>DARP PG 1066, 2005/06<br><br>Keesler Medical Center<br>Biloxi, MS, USA<br>07/01/2005 to 10/15/2005<br>DARP PG 1039, 2005/06 | 51279529<br>06/14/2003<br>09/25/2004<br>12/19/2005<br>USMLE1 USMLE2 USMLE3<br>213 227 210<br>ABMS<br>Ophthalmology- Ophthalmology<br>06/09/2013-12/31/2023-Time Limited |
| 235 | | Alice, TX, USA<br>12/31/1980 | U OF TEXAS, HLTH SCI CTR AT SAN ANTONIO<br>San Antonio, TX USA<br>M.D. 05/19/2007 | Mayo Clinic<br>Rochester, MN, USA<br>06/30/2007 to 06/27/2008<br>DARP PG 588, 2007/08 | 51620623<br>06/09/2005<br>07/25/2006<br>11/06/2007<br>USMLE1 USMLE2 USMLE3<br>246 239 209 |
| 236 | | Hot Springs, SD, USA<br>07/15/1959 | U OF SOUTH DAKOTA<br>Sioux Falls, SD USA<br>M.D. 05/17/1986 | University of Utah<br>Odgen, UT, USA<br>07/01/1986 to 06/30/1989<br>DARP PG 149, 1986/87 | 33261280<br>06/12/1984<br>09/18/1985<br>03/04/1987<br>NBME1 NBME2 NBME3<br>470 487 630<br>ABMS<br>Family Medicine- Family Medicine<br>07/14/1989-12/31/2017-Time Limited |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 237 | | Cleveland, OH, USA<br>07/25/1949 | U OF CHICAGO<br>Chicago, IL USA<br>M.D. 06/13/1975 | University of Chicago Hospitals<br>Chicago, IL, USA<br>06/26/1975 to 06/25/1976<br>DARP PG 140, 1974/75 | 150534<br>06/12/1973<br>04/08/1975<br>03/10/1976<br>NBME1 NBME2 NBME3<br>610 625 605<br>ABMS<br>Anesthesiology-<br>Anesthesiology<br>10/03/1980--Lifetime |
| 238 | | Plano, TX, USA<br>09/12/1984 | CREIGHTON U<br>Omaha, NE USA<br>M.D. 05/14/2011 | Creighton University<br>Omaha, NE, USA<br>07/01/2011 to 06/30/2016<br>DARP PG 848, 2011/12 | 52208337<br>06/05/2009<br>10/21/2010<br>09/26/2012<br>USMLE1 USMLE2 USMLE3<br>238 251 234 |
| 239 | | Scottsdale, AZ, USA<br>02/09/1985 | U OF SOUTHERN CALIFORNIA<br>Los Angeles, CA USA<br>M.D. 05/11/2012 | St. Joseph's Hospital<br>Phoenix, AZ, USA<br>07/01/2012 to 06/30/2013<br>AMA FREIDA Online | 52324738<br>06/11/2009<br>11/19/2010<br>06/10/2013<br>USMLE1 USMLE2 USMLE3<br>240 252 225 |
| 240 | | Waterville, ME, USA<br>07/20/1985 | U OF TEXAS/HOUSTON<br>Houston, TX USA<br>M.D. 05/27/2011 | University of Texas at Houston<br>Houston, TX, USA<br>08/01/2011 to 07/31/2012<br>DARP PG 233, 2011/12 | 52336849<br>07/23/2009<br>05/19/2011<br>08/17/2013<br>USMLE1 USMLE2 USMLE3<br>236 204 211 |
| 241 | | Sioux Falls, SD, USA<br>09/05/1981 | U OF SOUTH DAKOTA<br>Vermillion, SD USA<br>M.D. 05/06/2011 | University of Iowa Hospitals<br>Iowa City, IA, USA<br>06/24/2011 to 06/30/2014<br>DARP PG 111, 2011/12 | 52221421<br>06/16/2009<br>09/16/2010<br>04/17/2012<br>USMLE1 USMLE2 USMLE3<br>223 253 239 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 242 | | Honolulu, HI, USA<br>06/21/1974 | UNIFORMED SERVICES U<br>Bethesda, MD USA<br>M.D. 05/21/2005 | Tripler Army Medical Center<br>Honolulu, HI, USA<br>07/01/2005 to 06/30/2006<br>DARP PG 1061, 2005/06 | 51284131<br>06/19/2003<br>09/13/2004<br>04/06/2006<br>USMLE1 USMLE2 USMLE3<br>223 224 220<br>ABMS<br>Dermatology- Dermatology<br>08/07/2009-12/31/2019-Time Limited |
| 243 | | Wichita, KS, USA<br>04/20/1981 | U OF KANSAS SCHL OF MED<br>Wichita, KS USA<br>M.D. 05/12/2012 | University of Kansas Wichita<br>Wichita, KS, USA<br>07/01/2012 to 06/30/2016<br>DARP PG 380, 2012/13 | 52474657<br>05/28/2010<br>07/21/2011<br>06/03/2013<br>USMLE1 USMLE2 USMLE3<br>227 241 227 |
| 244 | | Fort Collins, CO, USA<br>08/29/1977 | ST U OF NY/STONY BROOK<br>Stony Brook, NY USA<br>M.D. 05/25/2011 | University at Buffalo<br>Buffalo, NY, USA<br>06/20/2011 to 06/30/2016<br>DARP PG 502, 2011/12 | 52331287<br>06/19/2009<br>08/27/2010<br>11/07/2011<br>USMLE1 USMLE2 USMLE3<br>224 225 196 |
| 245 | | Omaha, NE, USA<br>03/18/1983 | U OF CINCINNATI<br>Cincinnati, OH USA<br>M.D. 06/07/2013 | University of Vermont<br>Burlington, VT, USA<br>06/23/2013 to 06/30/2016<br>AMA FREIDA Online | 52577020<br>06/22/2011<br>11/01/2012<br>08/12/2014<br>USMLE1 USMLE2 USMLE3<br>206 240 221 |
| 246 | | Krakow, POLAND<br>04/23/1983 | LAKE ERIE COLLEGE OF OSTEOPATHIC MED<br>Bradenton, FL USA<br>D.O. 06/06/2010 | Metropolitan Health Hospital<br>Wyoming, MI, USA<br>07/01/2010 to 06/30/2011<br>AOIA Website | 888422<br>05/15/2008<br>06/29/2009<br>10/28/2010<br>COMLEX1 COMLEX2 COMLEX3<br>509 576 531 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 247 | | Hermosillo, MEXICO<br>01/20/1967 | U OF ARIZONA<br>Tucson, AZ USA<br>M.D. 05/11/2002 | Maricopa Medical Center<br>Phoenix, AZ, USA<br>06/22/2002 to 06/30/2005<br>DARP PG 497, 2002/03 | 50821784<br>06/19/2000<br>11/21/2001<br>11/05/2003<br>USMLE1 USMLE2 USMLE3<br>208 202 210 |
| 248 | | Mexico City, MEXICO<br>02/21/1987 | U NATL AUTON/MEXICO CITY<br>Mexico City, MEXICO<br>03/24/2011 | Texas Tech University<br>Odessa, TX, USA<br>07/01/2013 to 06/30/2016<br>AMA FREIDA Online | 07952435<br>02/09/2011<br>07/28/2011<br>02/08/2013<br>USMLE1 USMLE2 USMLE3<br>228 221 212<br>ECFMG 07952435 |
| 249 | | Gulfport, MS, USA<br>05/26/1985 | U OF MISSISSIPPI<br>Jackson, MS USA<br>M.D. 05/27/2011 | University of Cincinnati<br>Cincinnati, MN, USA<br>07/01/2011 to 06/30/2015<br>DARP PG 117, 2011/12 | 52222536<br>05/29/2009<br>06/15/2010<br>10/07/2013<br>USMLE1 USMLE2 USMLE3<br>260 258 236 |
| 250 | | Cedar Rapids, IA, USA<br>07/28/1984 | U OF IOWA/COL OF MED<br>Iowa City, IA USA<br>M.D. 05/13/2011 | Tuscon Medical Center<br>Tuscon, AZ, USA<br>07/01/2011 to 06/30/2012<br>DARP PG 891, 2011/12 | 52300480<br>06/11/2009<br>12/21/2010<br>11/17/2011<br>USMLE1 USMLE2 USMLE3<br>242 244 230 |
| 251 | | St. Paul, MN, USA<br>04/07/1979 | YALE U<br>New Haven, CT USA<br>M.D. 05/24/2010 | University of Maryland<br>Baltimore, MD, USA<br>06/01/2010 to 06/30/2013<br>DARP PG 188, 2010/11 | 52159761<br>05/24/2008<br>11/11/2009<br>01/27/2014<br>USMLE1 USMLE2 USMLE3<br>254 256 245 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 252 | | Hyannis, MA, USA<br>08/04/1987 | U NEW ENGLND/COL OSTEO<br>Biddeford, ME USA<br>D.O. 05/18/2013 | Palms West Hospital<br>Loxahatchee, FL, USA<br>07/01/2013 to 06/30/2016<br>AOIA Website | 713164<br>06/24/2011<br>08/27/2012<br>08/17/2013<br>COMLEX1 COMLEX2<br>COMLEX3<br>463 423 495 |
| 253 | | Montreal, QB, CANADA<br>09/09/1960 | U OF MONTREAL<br>Montreal, QC CANADA<br>M.D. 05/28/1992 | Mayo Clinic<br>Rochester, MN, USA<br>06/27/1992 to 06/25/1993<br>DARP PG 212, 1992/93 | 22103436<br>12/01/1992<br>12/01/1992<br>FLEX FLEX2<br>82 85<br>MN MN<br>ABMS<br>Physical Med. & Rehab.-<br>Physical Medicine &<br>Rehabil07/01/2007-12/31/2017-<br>Time Limited |
| 254 | | Zhengzhou, CHINA<br>10/19/1973 | HENAN MEDICAL UNIVERSITY<br>Henan, CHINA<br>M.B. 06/30/1996 | Metropolitan Hospital Center<br>New York, NY, USA<br>07/01/2013 to 06/30/2016<br>AMA FREIDA Online | 08720542<br>10/30/2010<br>08/01/2011<br>06/18/2012<br>USMLE1 USMLE2 USMLE3<br>233 221 228<br>ECFMG 08720542 |
| 255 | | Salt Lake City, UT, USA<br>07/10/1982 | DES MOINES U COLLEGE OF<br>OSTEO MED<br>Des Moines, IA USA<br>D.O. 05/25/2013 | University of Utah<br>Salt Lake City, UT, USA<br>07/01/2013 to 06/30/2016<br>AMA FREIDA Online | 990336<br>07/11/2011<br>10/26/2012<br>12/19/2013<br>COMLEX1 COMLEX2<br>COMLEX3<br>690 693 589 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 256 | | Omaha, NE, USA<br>01/15/1978 | U OF NEBRASKA/OMAHA<br>Omaha, NE USA<br>M.D. 05/13/2005 | University of Nebraska<br>Omaha, NE, USA<br>07/01/2005 to 06/30/2012<br>DARP PG 1039, 2005/06 | 5-127-648-3<br>06/24/2003<br>03/03/2005<br>08/23/2007<br>USMLE1 USMLE2 USMLE3<br>233 232 217 |
| 257 | | Hutchinson, KS, USA<br>06/17/1982 | U OF KANSAS SCHL OF MED<br>Kansas City, KS USA<br>M.D. 05/17/2009 | University of Kansas<br>Wichita, KS, USA<br>07/01/2009 to 06/30/2010<br>DARP PG 394, 2009/10 | 51863975<br>06/07/2007<br>07/25/2008<br>03/25/2010<br>USMLE1 USMLE2 USMLE3<br>239 242 222 |
| 258 | | Bloomington, MN, USA<br>07/15/1985 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/05/2012 | UC San Francisco<br>San Francisco, CA, USA<br>06/21/2012 to 06/30/2015<br>DARP PG 184, 2012/13 | 52363918<br>06/10/2010<br>12/22/2011<br>10/21/2013<br>USMLE1 USMLE2 USMLE3<br>247 254 250 |
| 259 | | El Centro, CA, USA<br>09/09/1977 | UNIFORMED SERVICES U<br>Bethesda, MD USA<br>M.D. 05/20/2006 | Malcolm Grow Medical Center<br>Andrews AFB, MD, USA<br>07/01/2006 to 06/30/2009<br>DARP PG 282, 2006/07 | 51349827<br>06/08/2004<br>08/29/2005<br>03/28/2007<br>USMLE1 USMLE2 USMLE3<br>206 200 221 |
| 260 | | Omaha, NE, USA<br>12/23/1979 | UNIFORMED SERVICES U<br>Bethesda, MD USA<br>M.D. 05/20/2006 | National Capital Consortium<br>Fort Belvoir, VA, USA<br>07/01/2006 to 06/30/2009<br>DARP PG 296, 2006/07 | 51393197<br>06/08/2004<br>08/29/2005<br>03/28/2007<br>USMLE1 USMLE2 USMLE3<br>202 217 217 |
| 261 | | Calcutta, INDIA<br>07/14/1984 | U OF MINNESOTA<br>Minneapolis, MN USA<br>M.D. 05/05/2012 | University of Minnesota<br>Minneapolis, MN, USA<br>06/10/2012 to 06/11/2016<br>AMA FREIDA Online | 52505591<br>06/08/2010<br>10/31/2011<br>07/11/2013<br>USMLE1 USMLE2 USMLE3<br>204 232 206 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | US/CANADIAN TRAINING | EXAM-ID # DATES EXAM/COMB. SCORES |
|---|---|---|---|---|---|
| 262 | | Greensburg, PA, USA<br>08/28/1985 | LAKE ERIE COL OF OSTEO<br>Erie, PA USA<br>D.O. 06/02/2013 | United Hospital Center<br>Bridgeport, WV, USA<br>07/01/2013 to 06/30/2016<br>AOIA Website | 679710<br>05/27/2011<br>06/27/2012<br>01/20/2014<br>COMLEX1 COMLEX2 COMLEX3<br>559 597 581 |
| 263 | | Los Angeles, CA, USA<br>03/10/1976 | U OF CA/IRVINE<br>Irvine, CA USA<br>M.D. 06/15/2002 | UCSF Fresno<br>Fresno, CA, USA<br>06/24/2002 to 06/22/2003<br>DARP PG 612, 2002/03 | 50810860<br>06/30/2000<br>02/27/2002<br>05/30/2003<br>USMLE1 USMLE2 USMLE3<br>203 176 188 |
| 264 | | Salt Lake City, UH, USA<br>02/04/1952 | U OF UTAH/SCH OF MED<br>Salt Lake City, UT USA<br>M.D. 06/13/1981 | St. Luke's Roosevelt<br>New York, MN, USA<br>06/01/1981 to 06/30/1985<br>DARP PG 161, 2982/83 | 32528663<br>06/10/1980<br>04/07/1981<br>03/10/1982<br>NBME1 NBME2 NBME3<br>450 415 405<br>ABMS<br>OB & GY- Obstetrics & Gynecology<br>12/09/1988-12/31/2016-Time Limited |

DATE: 05/14/2016

SUBMITTED BY: Licensure Committee

SUBJECT: Physician Emeritus Registration

REQUEST FOR BOARD ACTION
MINNESOTA BOARD OF MEDICAL PRACTICE

REQUESTED ACTION:

The following physican applicants be approved for Emeritus registration.

# 265 - 265 of agenda

MOTION BY: SECOND:

( ) Passed ( ) Amended ( ) Layed Over ( ) Defeated

BACKGROUND:

See # 265 - 265 for each applicants credentials

| NO | NAME AND ADDRESS | LICENSE NUMBER | RETIREMENT DATE | RECOMMENDED BY |
|---|---|---|---|---|
| 265 | | 25013 | December 31, 2015 | Licensure Committee |

DATE: 05/14/2016

SUBMITTED BY: AP Advisory Council

SUBJECT: Acupuncture Licensure

REQUEST FOR BOARD ACTION
MINNESOTA BOARD OF MEDICAL PRACTICE

REQUESTED ACTION:

The following acupuncture applicants for licensure be approved subject to receipt of all verification documents.

# 266 - 276 of agenda

MOTION BY: SECOND:

( ) Passed ( ) Amended ( ) Layed Over ( ) Defeated

BACKGROUND:

See # 266 - 276 for each applicants credentials

GENAP = GENERAL REGISTRATION
RECIAP = RECIPROCITY REGISTRATION
RANAP = TRANSITIONAL REGISTRATION

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | BASIS | CERTIFICATE NO |
|---|---|---|---|---|---|
| 266 | | West Palm Beach, FL, USA<br>12/28/1958 | MN College of AP & OM<br>Bloomington, MN USA<br>M.OM 12/16/2006 | APRE | 29869 |
| 267 | | Gansu, P.R. CHINA<br>12/11/1968 | Shandong U Of TCM<br>Jinan, CHINA<br>M.OM 07/01/2012 | APGR | 154190 |
| 268 | | Red Wing, MN, USA<br>09/04/1985 | Coll of Health & Wellness at NW Health U<br>Bloomington, MN USA<br>M.AC 12/19/2015 | APGR | 163324 |
| 269 | | Libertyville, IL, USA<br>09/02/1980 | Hawaii College of OM<br>Hilo, HI USA<br>M.OM 04/22/2012 | APRE | 150773 |
| 270 | | Monticello, IA, USA<br>02/16/1964 | Coll of Health & Wellness at NW Health U<br>Bloomington, MN USA<br>M.OM 12/19/2015 | APGR | 163358 |
| 271 | | Wichita Falls, TX, USA<br>07/07/1973 | Coll of Health & Wellness at NW Health U<br>Bloomington, MN<br>M.OM 12/19/2015 | APGR | 162968 |
| 272 | | Santa Barbara, CA, USA<br>12/29/1976 | Oregon Col of Oriental Med<br>Portland, OR USA<br>M.OM 08/27/2011 | APRE | 150022 |
| 273 | | Phuoc Tinh, VIETNAM<br>09/14/1979 | AAAOM<br>Roseville, MN<br>M.OM 09/01/2015 | APGR | 164593 |
| 274 | | Minneapolis, MN, USA<br>10/04/1974 | Coll of Health & Wellness at NW Health U<br>Bloomington, MN<br>M.OM 12/19/2015 | APGR | 163345 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | BASIS | CERTIFICATE NO |
|---|---|---|---|---|---|
| 275 | | Wuhan, Hubei, CHINA<br>10/28/1983 | HuBei College of TCM<br>Wuhan, CHINA<br>M.OM 06/01/2006 | APGR | 132679 |
| 276 | | Edina, MN, USA<br>01/31/1972 | AAAOM<br>Roseville, MN USA<br>M.OM 02/28/2014 | APGR | 156852 |

DATE: 05/14/2016

SUBMITTED BY: AT Advisory Council

SUBJECT: Athletic Trainer Registration

REQUEST FOR BOARD ACTION
MINNESOTA BOARD OF MEDICAL PRACTICE

REQUESTED ACTION:

The following athletic trainer applicants be approved subject to receipt of all verification documents.

# 277 - 286 of agenda

MOTION BY: SECOND:

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( ) Passed ( ) Amended ( ) Layed Over ( ) Defeated

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BACKGROUND:

See # 277 - 286 for each applicants credentials

NATAEQ = EQUIVALENCY REGISTRATION
NATAGR = GENERAL REGISTRATION
NATARE = RECIPROCITY REGISTRATION
NATATR = TRANSITIONAL REGISTRATION
CATAEQ = CANADIAN EXAM

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | BASIS | CERTIFICATE NO |
|---|---|---|---|---|---|
| 277 | | Moose Lake, MN, USA<br>09/20/1988 | SD State U<br>Brookings, SD USA<br>NATA Approved NATA Approved<br>05/09/2015 | NATARE | 2000021429 |
| 278 | | Minneapolis, MN, USA<br>05/09/1988 | U Of Minnesota/Duluth<br>Duluth, MN<br>NATA Approved NATA Approved<br>12/20/2013 | NATAGR | 2000015752 |
| 279 | | Andrews AFB, MD, USA<br>02/25/1991 | University of Idaho<br>Moscow, ID<br>NATA Approved NATA Approved<br>05/15/2015 | NATAGR | 2000022927 |
| 280 | | Fridley, MN, USA<br>10/28/1992 | Bethel University<br>Arden Hills, MN USA<br>NATA Approved NATA Approved<br>05/23/2015 | NATAGR | 2000022213 |
| 281 | | Duluth, MN, USA<br>07/06/1993 | Bethel University<br>St. Paul, MN<br>NATA Approved NATA Approved<br>05/23/2015 | NATAGR | 2000022195 |
| 282 | | Harvey, IL, USA<br>09/27/1974 | Boston U<br>Boston, MA USA<br>NATA Approved NATA Approved<br>05/18/1997 | NATARE | 059702462 |
| 283 | | West Chester, MA, USA<br>11/07/1991 | Moorhead State<br>Moorhead, MN USA<br>NATA Approved NATA Approved<br>05/15/2015 | NATAGR | 2000021572 |
| 284 | | San Diego, CA, USA<br>03/25/1993 | Bethel University<br>St. Paul, MN<br>NATA Approved NATA Approved<br>05/23/2015 | NATAGR | 200022829 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | BASIS | CERTIFICATE NO |
|---|---|---|---|---|---|
| 285 | | Burbank, CA, USA<br>11/02/1989 | Bethel University<br>St. Paul, MN<br>NATA Approved NATA Approved<br>05/01/2012 | NATARE | 2000011090 |
| 286 | | Robbinsdale, MN, USA<br>05/31/1992 | Bethel University<br>St. Paul, MN USA<br>NATA Approved NATA Approved<br>05/23/2015 | NATAGR | 2000022510 |

DATE: 05/14/2016

SUBMITTED BY: PA Advisory Council

SUBJECT: Physician Assistant Licensure

REQUEST FOR BOARD ACTION
MINNESOTA BOARD OF MEDICAL PRACTICE

REQUESTED ACTION:

The following physician assistant applications for licensure be approved subject to receipt of all verification documents.

# 287 - 336 of agenda

MOTION BY: SECOND:

( ) Passed ( ) Amended ( ) Layed Over ( ) Defeated

BACKGROUND:

See # 287 - 336 for each applicants credentials

NCCPA = NATL COMMISSION ON THE CERTIFICATION OF PA
OTHERPA = OTHER

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | BASIS | CERTIFICATE NO |
|---|---|---|---|---|---|
| 287 | | Jamestown, ND, USA<br>07/15/1982 | College of Hlth Sciences<br>Roanoke, VA USA<br>MSPA 12/11/2015 | NCCPA | 1131396 |
| 288 | | Marshalltown, IA, USA<br>06/30/1991 | St. Catherine's University<br>St. Paul, MN USA<br>MSPA 12/22/2015 | NCCPA | 1129177 |
| 289 | | Houston, TX, USA<br>04/16/1982 | St. Catherine's University<br>St. Paul, MN USA<br>MSPA 12/22/2015 | NCCPA | 1129188 |
| 290 | | Burnsville, MN, USA<br>05/19/1991 | UNIVERSITY OF TENNESSEE<br>Memphis, TN USA<br>MSPA 12/01/2015 | NCCPA | 1131692 |
| 291 | | Maplewood, MN, USA<br>04/01/1987 | St. Catherine's University<br>St. Paul, MN USA<br>MSPA 01/29/2016 | NCCPA | 1129191 |
| 292 | | Naperville, IL, USA<br>11/13/1990 | U Of Nebraska/Omaha<br>Omaha, NE USA<br>MSPA 12/18/2015 | NCCPA | 1132468 |
| 293 | | Youngstown, OH, USA<br>05/01/1990 | OHIO DOMINICAN UNIVERSITY<br>Columbus, OH USA<br>MSPA 12/12/2015 | NCCPA | 1124439 |
| 294 | | Minneapolis, MN, USA<br>04/06/1988 | Hofstra University, Hempstead<br>Hempstead, NY USA<br>MSPA 12/18/2015 | NCCPA | 1125425 |
| 295 | | Maplewood, MN, USA<br>03/27/1990 | Tuoro Univ<br>Henderson, NV USA<br>MSPA 11/09/2015 | NCCPA | 1131183 |
| 296 | | Grand Forks, ND, USA<br>09/02/1987 | Augsburg College<br>Minneapolis, MN USA<br>MSPA 12/18/2015 | NCCPA | 1132613 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | BASIS | CERTIFICATE NO |
|---|---|---|---|---|---|
| 297 | | Wichita Falls, TX, USA<br>06/15/1984 | Emory U<br>Atlanta, GA USA<br>MSPA 12/18/2015 | NCCPA | 1132232 |
| 298 | | Tuscon, AZ, USA<br>11/30/1988 | St. Catherine's University<br>St. Paul, MN USA<br>MSPA 12/22/2015 | NCCPA | 1129206 |
| 299 | | Minneapolis, MN, USA<br>10/11/1979 | U Of Wisconsin, Madison, USA<br>Madison, WI USA<br>MSPA 05/15/2009 | NCCPA | 1082567 |
| 300 | | St. Louis, MO, USA<br>07/22/1966 | St. Louis University<br>St. Louis, MO USA<br>MSPA 06/01/2011 | NCCPA | 1096609 |
| 301 | | Ann Arbor, MI, USA<br>02/27/1991 | Drexel College<br>Philadelphia, PA USA<br>MSPA 12/12/2015 | NCCPA | 1132643 |
| 302 | | Burnsville, MN, USA<br>01/10/1988 | MCPHS University, Boston, MA<br>Boston, MA USA<br>MSPA 12/15/2015 | NCCPA | 1132053 |
| 303 | | Mankato, MN, USA<br>11/07/1989 | Augsburg College<br>Minneapolis, MN USA<br>MSPA 12/18/2015 | NCCPA | 1132604 |
| 304 | | St. Cloud, MN, USA<br>02/09/1990 | St. Catherine's University<br>St. Paul, MN USA<br>MSPA 12/22/2015 | NCCPA | 1129208 |
| 305 | | St. Paul, MN, USA<br>02/09/1991 | St. Catherine's University<br>St. Paul, MN USA<br>MSPA 12/22/2015 | NCCPA | 1129227 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | BASIS | CERTIFICATE NO |
|---|---|---|---|---|---|
| 306 | | Dubuque, IA, USA<br>04/03/1978 | U Of Nebraska/Omaha<br>Omaha, NE USA<br>MSPA 12/17/2004 | NCCPA | 1051450 |
| 307 | | Wichita, KS, USA<br>09/13/1984 | Augsburg College<br>Minneapolis, MN USA<br>MSPA 12/18/2015 | NCCPA | 1132612 |
| 308 | | St. Paul, MN, USA<br>05/12/1985 | Shenandoah U<br>Winchester, VA USA<br>MSPA 12/19/2015 | NCCPA | 1131589 |
| 309 | | Xiengkhouang, LAOS<br>04/06/1968 | Marywood U<br>Scranton, PA USA<br>MSPA 08/25/2009 | NCCPA | 1088778 |
| 310 | | Brookings, SD, USA<br>07/09/1982 | Augsburg College<br>Minneapolis, MN USA<br>MSPA 12/18/2015 | NCCPA | 1132615 |
| 311 | | La Crosse, WI, USA<br>03/01/1989 | Carroll U<br>Waukesha, WI USA<br>MSPA 05/12/2013 | NCCPA | 1111543 |
| 312 | | Midland, MI, USA<br>05/13/1985 | St. Catherine's University<br>St. Paul, MN USA<br>MSPA 12/22/2015 | NCCPA | 1129255 |
| 313 | | St. Cloud, MN, USA<br>01/24/1980 | U Of Nebraska/Omaha<br>Omaha, NE USA<br>MSPA 12/19/2014 | NCCPA | 1125503 |
| 314 | | St. Louis, MO, USA<br>03/11/1991 | Butler U<br>Indianapolis, IN USA<br>MSPA 05/10/2014 | NCCPA | 1119169 |
| 315 | | Robbinsdale, MN, USA<br>07/07/1987 | Augsburg College<br>Minneapolis, MN USA<br>MSPA 12/18/2015 | NCCPA | 1132619 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | BASIS | CERTIFICATE NO |
|---|---|---|---|---|---|
| 316 | | Madison, WI, USA<br>06/11/1988 | Augsburg College<br>Minneapolis, MN USA<br>MSPA 12/18/2015 | NCCPA | 1132620 |
| 317 | | Pierre, SD, USA<br>07/15/1989 | U Of South Dakota<br>Vermillon, SD USA<br>MSPA 08/22/2014 | NCCPA | 1121750 |
| 318 | | Watertown, SD, USA<br>06/04/1971 | U Of Iowa/Iowa City<br>Iowa City, IA USA<br>MSPA 07/30/1999 | NCCPA | 1043866 |
| 319 | | Viertiore, LAOS<br>02/13/1976 | Medex NW Univ. of Washington<br>Seattle, WA USA<br>MSPA 10/01/2010 | NCCPA | 1095441 |
| 320 | | Minneapolis, MN, USA<br>05/08/1990 | St. Catherine's University<br>St. Paul, MN USA<br>MSPA 12/22/2015 | NCCPA | 1129276 |
| 321 | | Brainerd, MN, USA<br>12/19/1985 | St. Catherine's University<br>St. Paul, MN USA<br>MSPA 12/22/2015 | NCCPA | 1129281 |
| 322 | | St. Cloud, MN, USA<br>01/03/1984 | Augsburg College<br>Minneapolis, MN USA<br>MSPA 12/18/2015 | NCCPA | 1132625 |
| 323 | | Bismark, ND, USA<br>04/04/1990 | St. Catherine's University<br>St. Paul, MN USA<br>MSPA 12/22/2015 | NCCPA | 1129293 |
| 324 | | Rochester, MN, USA<br>01/11/1988 | St. Catherine's University<br>St. Paul, MN USA<br>MSPA 12/22/2015 | NCCPA | 1129300 |
| 325 | | Elmhurst, IL, USA<br>09/05/1989 | St. Catherine's University<br>St. Paul, MN USA<br>MSPA 12/22/2015 | NCCPA | 1129304 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | BASIS | CERTIFICATE NO |
|---|---|---|---|---|---|
| 326 | | Colorado Springs, CO, USA<br>02/17/1988 | Emory U<br>Atlanta, GA USA<br>MSPA 12/21/2013 | NCCPA | 1116141 |
| 327 | | Minneapolis, MN, USA<br>09/28/1990 | St. Catherine's University<br>St. Paul, MN USA<br>MSPA 12/22/2015 | NCCPA | 1129308 |
| 328 | | St. Louis Park, MN, USA<br>02/22/1987 | NOVA Southeast U<br>Fort Myers, FL USA<br>MSPA 08/24/2013 | NCCPA | 1113733 |
| 329 | | Winona, MN, USA<br>10/06/1983 | U of Nebraska IPAP<br>Omaha, NE<br>MSPA 12/18/2015 | NCCPA | 1133053 |
| 330 | | Taiyuan, China<br>03/04/1972 | U Of Washington<br>Seattle, WA USA<br>MSPA 08/25/2011 | NCCPA | 1102449 |
| 331 | | Milwaukee, WI, USA<br>05/24/1952 | Albany Med Col/Union U<br>Albany, NY USA<br>PA Cert 08/25/1989 | NCCPA | 1020377 |
| 332 | | Waterloo, IA, USA<br>10/23/1988 | St. Catherine's University<br>St. Paul, MN USA<br>MSPA 12/22/2015 | NCCPA | 1129330 |
| 333 | | Rochester, MN, USA<br>04/02/1991 | St. Catherine's University<br>St. Paul, MN USA<br>MSPA 12/22/2015 | NCCPA | 1129335 |
| 334 | | Haapsalu, ESTONIA<br>03/29/1982 | Barry U<br>Miami, FL USA<br>MSPA 12/12/2015 | NCCPA | 1132557 |

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | BASIS | CERTIFICATE NO |
|---|---|---|---|---|---|
| 335 | | Oklahoma City, OK, USA<br>11/26/1980 | U Of Oklahoma<br>Oklahoma, OK USA<br>MSPA 11/30/2012 | NCCPA | 1109040 |
| 336 | | Anderson, ID, USA<br>09/09/1977 | De Sales University<br>Center Valley, PA USA<br>MSPA 09/01/2008 | NCCPA | 1091663 |

DATE: 05/14/2016

SUBMITTED BY: RT Advisory Council

SUBJECT: Respiratory Therapist Licensure

REQUEST FOR BOARD ACTION
MINNESOTA BOARD OF MEDICAL PRACTICE

REQUESTED ACTION:

The following respiratory therapist applicants for licensure be approved subject to receipt of all verification documents.

# 337 - 343 of agenda

MOTION BY: SECOND:

( ) Passed ( ) Amended ( ) Layed Over ( ) Defeated

BACKGROUND:

See # 337 - 343 for each applicants credentials

NBRCGR = GENERAL REGISTRATION
NBRCRE = RECIPROCITY REGISTRATION

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | BASIS | CERTIFICATE NO |
|---|---|---|---|---|---|
| 337 | | Mogadishu, SOMALIA<br>01/01/1986 | Southern Maine Comm Coll<br>South Portland, ME<br>AS 12/14/2013 | NBRCGR | 153453 |
| 338 | | St. Paul, MN, USA<br>02/26/1969 | St. Paul College<br>St. Paul, MN USA<br>AAS 06/15/1997 | NBRCRE | 74339 |
| 339 | | Seoul, SOUTH KOREA<br>05/20/1969 | S. Plaines Coll<br>Lubbock, TX<br>AAS 05/01/1993 | NBRCRE | 53552 |
| 340 | | Ashland, WI, USA<br>05/19/1956 | Madison Area Tech Col<br>Madison, WI<br>AS 05/16/1986 | NBRCRE | 33231 |
| 341 | | Eschenbach,<br>GERMANY<br>02/10/1979 | W Kentucky Comm Coll<br>Paducah, KY<br>AS 05/15/2004 | NBRCRE | xxxxx4357 |
| 342 | | St. Paul, MN, USA<br>08/31/1953 | College St Catherines<br>Minneapolis, MN<br>AS 06/08/1974 | NBRCGR | 13055 |
| 343 | | St. Charles, IL, USA<br>05/09/1985 | Miller Motte Tech Coll<br>Clarksville, TN USA<br>AS 06/01/2015 | NBRCRE | 151823 |

DATE: 05/14/2016

SUBMITTED BY: ND Advisory Council

SUBJECT: Naturopathic Registration

REQUEST FOR BOARD ACTION
MINNESOTA BOARD OF MEDICAL PRACTICE

REQUESTED ACTION:

The following naturopathic doctor applicants be approved subject to receipt of all verification documents.

# 344 - 345 of agenda

MOTION BY: SECOND:

( ) Passed ( ) Amended ( ) Layed Over ( ) Defeated

BACKGROUND:

See # 344 - 345 for each applicants credentials

NPLEXGR = GENERAL REGISTRATION
NPLEXER = RECIPROCITY REGISTRATION
ST/PROV = STATE/PROVINCIAL REGISTRATION

| NO | NAME AND ADDRESS | PLACE and DATE of BIRTH | UNIVERSITY and DATE of DEGREE | BASIS | EXAM SCORES |
|---|---|---|---|---|---|
| 344 | | Kalamazoo, MI, USA<br>02/21/1982 | Nat'l U of Health Sciences<br>Lombard, IL USA<br>ND 12/11/2014 | NPLEXGR | NPLEX1; 02/01/2013; passed; IL<br>NPLEX2; 02/01/2015; passed; IL |
| 345 | | Bemidji, MN, USA<br>08/10/1981 | Bastyr University<br>Kenmore, WA USA<br>ND 06/20/2015 | NPLEXGR | NPLEX1; 02/01/2013; passed; WA<br>NPLEX2; 02/01/2016; passed; WA |

DATE: May 14, 2016 SUBJECT: Licensure Committee Meeting Minutes

SUBMITTED BY: Licensure Committee

REQUEST FOR BOARD ACTION
MINNESOTA BOARD OF MEDICAL PRACTICE

REQUESTED ACTION:

Approve the actions of the Licensure Committee.

MOTION BY: SECOND:

( ) PASSED ( ) PASSED AMENDED ( ) LAYED OVER ( ) DEFEATED

BACKGROUND:

See attached Minutes.

**LICENSURE COMMITTEE MEETING**
**Minnesota Board of Medical Practice**
**University Park Plaza, 2829 University Avenue SE, Suite 500**
**Minneapolis, MN 55414-3246**

**April 21, 2016**

**FINAL MINUTES**

Of a meeting of the Licensure Committee ("Committee") of the Board of Medical Practice held Thursday, April 21, 2016 at 5:30 p.m. in the fifth floor conference room.

Committee Members Present: Patricia J. Lindholm, M.D., FAAFP; Mark A. Eggen, M.D.; and Sarah L. Evenson, J.D., M.B.A.

Others Present: Molly Schwanz; Paul Luecke; and Ruth Martinez, Board staff; and Greg Schaefer, Assistant Attorney General

## ADMINISTRATIVE ISSUES:

- **Meeting Dates:** The Committee will meet on the following dates, in 2016, at 5:30 p.m.:
  - June 16, 2016
  - August 18, 2016
  - October 20, 2016
  - December 15, 2016

- **Physicians Requesting Resigned/Inactive Status:** The Committee approved the list of 28 requests for resignation/inactive status.

## APPLICATION REVIEW:

- **REDACTED:** The Committee reviewed REDACTED application and agreed to formally refer REDACTED to HPSP. Additionally, the Committee recommended approval of an unrestricted license and issuance of a temporary permit.

## ADVISORY COUNCIL APPOINTMENTS:

- **Physician Assistant Advisory Council Appointment:** The Committee agreed to recommend the appointment of Britta Reierson, M.D. to the Board in May, 2016
- **Respiratory Care Advisory Council Appointment:** The Committee agreed to recommend the appointment of Jennifer Doyle to the Board in May, 2016.

**OTHER BUSINESS:**

- **The Committee Approved the Following Motion (by Sarah Evenson):**
  The Licensure Committee recommends that the Board delegate authority to Board staff to issue credentials to applicants who satisfactorily demonstrate that they have met all minimum requirements for licensure/registration. Board staff will provide comprehensive reports to the Board regarding credentials issued.

DATE: May 14, 2016

SUBJECT: Physician Assistant Advisory Council Appointments

SUBMITTED BY: Licensure Committee

REQUEST FOR BOARD ACTION
MINNESOTA BOARD OF MEDICAL PRACTICE

REQUESTED ACTION:

Appoint the following person to four year term on the Physician Assistant Advisory Council with term ending January, 2019:

Physician Member
- Britta Reierson, M.D.

MOTION BY: SECOND:

( ) PASSED ( ) PASSED AMENDED ( ) LAYED OVER ( ) DEFEATED

BACKGROUND:

Physician Assistant Advisory Council members are appointed to four year terms (Minn. Stat. §147A.27). The Board shall appoint a replacement to fill the vacancy created when the Council member's terms expire. The following Council member's term expired in January, 2015:

| Council Member | Position |
|---|---|
| Richard Gebhart, M.D. | Physician Member |

One application has been received for the physician member. An application has been received from the following:
- Britta Reierson, M.D.

The Licensure Committee is recommending Britta Reierson, M.D. for appointment to the Council.

See attached application

*Current Council Member

*STATE OF MINNESOTA*

# OPEN APPOINTMENTS APPLICATION FOR SERVICE ON STATE AGENCIES, BOARDS, COUNCILS, COMMISSIONS or TASK FORCES

*All information on this form is available to the public upon request.*

## *Part I - Tell us about the Position to which you are applying*

*Required Information (MN Stat § 15.0597 Subd. 5.)*

**Agency: Physician Assistant Advisory Council**

**Position Sought: __Member____**

*By request, this application will be made available in alternative format (for example, braille, large print, audio tape, or computer disk.)*

## *Part II –Tell us about Yourself*

*Required Information (MN Stat § 15.0597 Subd. 5.)*

**Applicant Name:** **Britta Reierson**

**Preferred Phone:** _

**E-MAIL:** _____ _____

**County:** ___ _____

**Preferred Mailing Address:** _____ _
(Preferred Mailing Address)

**MN House of Rep Dist: 33A_**

(City) ___ (State) (Zip)

**US House of Rep Dist:_ 3**

**Have you ever been convicted of a felony:**
**Yes ____ No ___X___**

**Did the Appointing Authority suggest you submit your application? Yes _____ No ___X___**

***Please attach a cover letter, current resume, or other information that you feel would be helpful to the Appointing Authority.***

## Part III: OPTIONAL STATISTICAL INFORMATION

The following information is optional and voluntary *(MN Stat §15.0597 Subd. 5.)*.
Information is collected for, and compiled in, the annual report on the open appointments process pursuant to *MN Stat* §15.0597 Subd. 7.

**Sex:**
Female __X_
Male _____

**Age:** _____

**Disability:**
Yes _____
No __X___

**Political Party:**
_____ Democratic-Farmer-Labor
_____ Independence
_____ Republican
_____ No Party Preference
_____ Other ____

**Hispanic, Latino, or Spanish origin?**
_____ Yes
__X___ No

**Race:**
*(As listed on United State Census 2010)*
*(Pick as many as apply)*

_____ American Indian or Alaska Native
_____ African American or Black
__X___ White or Caucasian
__Asian Pacific Islander
___ Other Race _____
___

## Part IV: Signature and Submittal Instructions

I swear that, to the best of my knowledge, the above information is correct and that I satisfy all legally prescribed qualifications for the position sought. (*If another person or group is nominating the applicant, the applicant's signature indicates consent to nomination.)

_____ **Britta Reierson**_____
(Signature of Applicant)

**3/14/2016**
(Date)
*3/14/2016 2:52:06 PM*

**MAIL OR SUBMIT IN PERSON:**
Office of the Secretary of State
Open Appointments
180 State Office Building
100 Rev Dr Martin Luther King Jr Blvd
St. Paul, MN 55155-1299

**Questions:**

**Phone:** (651) 556-0643
**Email:**
open.appointments@state.mn.us

Applicants will not receive an acknowledgement of submitted applications; the appointing authority will notify you if an interview is desired.

**FOR OFFICE USE:**
Sub by AA: BMP
AA:_____
Trans Date: 3-16-16

Rev.09-2011

DATE: May 14, 2016

SUBJECT: Respiratory Care Advisory Council Appointments

SUBMITTED BY: Licensure Committee

REQUEST FOR BOARD ACTION
MINNESOTA BOARD OF MEDICAL PRACTICE

REQUESTED ACTION:

Appoint the following persons to four year terms on the Respiratory Care Advisory Council with term ending January, 2020:

Public Member
- Jennifer Doyle

MOTION BY: SECOND:

( ) PASSED ( ) PASSED AMENDED ( ) LAYED OVER ( ) DEFEATED

BACKGROUND:

Respiratory Care Advisory Council members are appointed to four year terms (Minn. Stat. §147C.35). The Board shall appoint a replacement to fill the vacancy created when the Council member's terms expire. The following Council member's term expired in January, 2016:

| Council Member | Position |
|---|---|
| Lois Chambers | Public Member |

One application has been received for the public member. An application has been received from the following:
- Jennifer Doyle

The Licensure Committee is recommending Jennifer Doyle for appointment to the Council

See attached applications

*Current Council Member

*STATE OF MINNESOTA*

# OPEN APPOINTMENTS APPLICATION FOR SERVICE ON STATE AGENCIES, BOARDS, COUNCILS, COMMISSIONS or TASK FORCES

*All information on this form is available to the public upon request.*

## *Part I - Tell us about the Position to which you are applying*

*Required Information (MN Stat § 15.0597 Subd. 5.)*

**Agency: Respiratory Care Advisory Council**

**Position Sought: __Public Member____**

*By request, this application will be made available in alternative format (for example, braille, large print, audio tape, or computer disk.)*

## *Part II –Tell us about Yourself*

*Required Information (MN Stat § 15.0597 Subd. 5.)*

**Applicant Name:** **Jennifer Doyle**

**Preferred Mailing Address:** _____
(Preferred Mailing Address)

_____ ____ ___
(City) (State) (Zip)

**Preferred Phone:**

**E-MAIL:** ____ ____

**County:** ____ _____

**MN House of Rep Dist: 49A_**

**US House of Rep Dist:_ 3**

**Have you ever been convicted of a felony:**
**Yes ____ No __X__**

**Did the Appointing Authority suggest you submit your application? Yes __X____ No _____**

***Please attach a cover letter, current resume, or other information that you feel would be helpful to the Appointing Authority.***

## Part III: OPTIONAL STATISTICAL INFORMATION

The following information is optional and voluntary *(MN Stat §15.0597 Subd. 5.).*
Information is collected for, and compiled in, the annual report on the open appointments process pursuant to *MN Stat* §15.0597 Subd. 7.

**Sex:**
Female __X_
Male _____

**Age:** ___48___

**Disability:**
Yes _____
No __X___

**Political Party:**
__X___ Democratic-Farmer-Labor
_____ Independence
_____ Republican
_____ No Party Preference
_____ Other ____

**Hispanic, Latino, or Spanish origin?**
_____ Yes
__X___ No

**Race:**
*(As listed on United State Census 2010)*
*(Pick as many as apply)*

_____ American Indian or Alaska Native
_____ African American or Black
__X___ White or Caucasian
__Asian Pacific Islander
___ Other Race _____
___

## Part IV: Signature and Submittal Instructions

I swear that, to the best of my knowledge, the above information is correct and that I satisfy all legally prescribed qualifications for the position sought. (*If another person or group is nominating the applicant, the applicant's signature indicates consent to nomination.)

_____ **Jennifer Kay Doyle**_____
(Signature of Applicant)

**4-Mar-16**
(Date)
*3/4/2016 3:22:50 PM*

**MAIL OR SUBMIT IN PERSON:**
Office of the Secretary of State
Open Appointments
180 State Office Building
100 Rev Dr Martin Luther King Jr Blvd
St. Paul, MN 55155-1299

**Questions:**

**Phone:** (651) 556-0643
**Email:**
open.appointments@state.mn.us

Applicants will not receive an acknowledgement of submitted applications; the appointing authority will notify you if an interview is desired.

**FOR OFFICE USE:**
Sub by AA: BMP
AA:_____
Trans Date: 3-9-16

Rev.09-2011

DATE: May 14, 2016 SUBJECT: Issuance of Credentials

SUBMITTED BY: Licensure Committee

REQUEST FOR BOARD ACTION
MINNESOTA BOARD OF MEDICAL PRACTICE

REQUESTED ACTION:

The Licensure Committee and the Policy & Planning Committee recommend that the Board delegate authority to Board staff to issue credentials to applicants who satisfactorily demonstrate that they have met all minimum requirements for licensure/registration and have no adverse or questionable conduct to consider.

MOTION BY: SECOND:

( ) PASSED ( ) PASSED AMENDED ( ) LAYED OVER ( ) DEFEATED

BACKGROUND:

At the April 21, 2016, Licensure Committee Meeting, a motion passed to recommend that the Board delegate authority to Board staff to issue credentials to applicants who satisfactorily demonstrate that they have met all minimum requirements for licensure/registration. A similar motion was considered and passed by the Policy & Planning Committee on December 15, 2015. Board staff will provide comprehensive reports to the Board regarding credentials issued.

**MINNESOTA BOARD OF MEDICAL PRACTICE**
**POLICY & PLANNING COMMITTEE MINUTES**
**December 8, 2015**

*The Committee, chaired by V. John Ella, J.D., and attended by Dr. Eduardo T. Fernandes and Allen G. Rasmussen, M.A., met at 4:30 p.m. at the Board offices in Conference Room A. Also in attendance were Board members Subbarao Inampudi, M.B., B. S., FACR, and Jon V. Thomas, M.D. The Committee was assisted by Board staff, Ruth Martinez, Elizabeth Huntley and Molly Schwanz. The Committee considered the following items:*

**1. In the Matter of the Name on License:** The Committee considered naming conventions and the impact on accurate identification of regulated professionals and exchange of credentialing data with other entities.

Mr. Rasmussen made a motion for the Policy & Planning Committee to recommend that licenses be issued in the applicant's full name. Mr. Ella made a friendly amendment, which was accepted, that the license should be issued in the applicant's full legal name. The motion passed unanimously.

**2. In the Matter of Delegation to Staff to Issue License/Registration:** The Committee considered how the Board processes applications for licensure/registration and considered whether to delegate Board staff to issue credentials to applicants who have been determined to meet requirements, without requiring full Board action. The Committee was advised of the Board's current application process, the process for issuance of credentials by Minnesota Board of Nursing staff and similar processes undertaken by other state regulatory agencies. The Committee discussed the need for review by the full Board of the written procedures for processing applications for licensure/registration at the time the Board considers the question.

Dr. Fernandes made a motion, seconded by Mr. Rasmussen, for the Policy & Planning Committee to recommend to the Board that it delegate authority to issue credentials when the credential is not subject to disciplinary action. The motion passed unanimously.

**3. In the Matter of Extension for Completion of Exam Based on Health Condition:** The Committee considered current statutory language that allows the Board to grant an extension to the time period and to the number of attempts permitted to pass the USMLE (licensing examination). The Committee considered whether such an extension based on a medical illness should be applied to completion of other qualifying licensing exams.

Mr. Rasmussen made a motion, seconded by Dr. Fernandes, for the Policy & Planning Committee to recommend that the Medical Practice Act be amended to expand application of an extension of the time period and to the attempts permitted to pass any qualifying licensing examination, based on a medical illness. The motion passed unanimously.

**4. In the Matter of Potential Changes to the Medical Practice Act:** In follow up to a partial review at the August 27, 2015 Policy & Planning Committee, of a list of suggested modifications by Board committees to the Medical Practice Act, the Committee recommended that Board staff develop a working document of proposed revisions, along with rationale for, or against, revisions, for periodic consideration and feedback by Board committees. The full Board may be asked to authorize incremental housekeeping changes or substantial modifications to the Medical Practice Act as the work proceeds.

**5. In the Matter of Broadening Acceptance of Accredited Clinical Training from Other Countries:** The Committee considered whether to expand its acceptance of post-graduate clinical medical training completed in other countries and decided that currently approved accredited clinical training is the appropriate requirement for licensure.

**6. In the Matter of Recommending FSMB Resolutions:** The Committee did not recommend any specific resolutions to be brought to the Federation of State Medical Boards annual meeting in April 2015.

The meeting adjourned at 7:00 p.m.

DATE: May 14, 2016 SUBJECT: Executive Director's Report

SUBMITTED BY: Ruth M. Martinez, M.A., Executive Director

REQUEST FOR BOARD ACTION
MINNESOTA BOARD OF MEDICAL PRACTICE

REQUESTED ACTION:

For information only.

MOTION BY: SECOND:
( ) PASSED ( ) PASSED AMENDED ( ) LAYED OVER ( ) DEFEATED

BACKGROUND:

Attached is the Executive Director's Report of activities since the last board meeting.

# EXECUTIVE DIRECTOR'S REPORT

## External Stakeholder Groups/Outreach

State Opioid Oversight Project (SOOP)
The Board continues to participate on the SOOP Work Group, which convenes monthly. The group is currently seeking a Substance Abuse and Mental Health Services Administration (SAMHSA) technical assistance project grant to expand medication-assisted treatment (MAT) in rural areas and tribal communities. The project is currently seeking potential community partners to pilot the project. The focus of the grant project is toward abstinence from alcohol, illicit drugs, and non-prescribed medications, with the ability to utilize and develop screening tools, integrate the plan into primary care, and offer an array of MAT services.

Interstate Collaboration in Healthcare
The Board continues to participate on weekly conference calls with the Interstate Collaboration in Healthcare group. In particular, the Board has presented on progress of the Interstate Medical Licensure Compact Commission toward issuance of licenses through the Compact.

National Governors' Association (NGA) Health Care Workforce Technical Assistance Program
The Core Team of the NGA Health Care Workforce Technical Assistance Program, of which the tri-regulatory Boards of Medical Practice, Nursing and Pharmacy are members, continued its efforts toward development of a consensus framework for evaluating scope-of-practice proposals by the legislature.

Immigrant International Medical Graduate Stakeholder Advisory Group
Board representatives Molly Schwanz and Ruth Martinez hosted meetings of the Licensure Study work group, and participated in meetings of the alternative pathways and larger stakeholder group.

Office of Administrative Hearings Presentation: Charles Reznikoff, M.D.
Board and AGO staff were invited by Chief Administrative Law Judge Tammy Pust to attend Dr. Reznikoff's presentation on opioid use. Following the presentation, Dr. Reznikoff was invited to present at an upcoming meeting of the Board of Medical Practice.

Metro Minnesota Council on Graduate Medical Education (MMCGME)
On March 22, 2016, MMCGME Director Troy Taubenheim and his fellow representatives met with Board staff to discuss opportunities for sharing licensing data to enhance planning for graduate medical education.

One Health MN Antibiotic Stewardship
The group continued to meet to develop a strategic plan for future activities. Once the plan is finalized, a copy will be distributed.

## Presentations/Meetings/Collaborative Initiatives

Board of Medical Practice/Office of Health Facility Complaints
On March 16, 2016, Board staff met with representatives from the MN Dept. of Health, Office of Health Facility Complaints to continue discussions regarding sharing of information, report updates and other relevant issues.

Interstate Medical Licensure Compact (IMLC) Commission Meeting
On March 31 – April 1, 2016, Minnesota hosted the third meeting of the IMLC Commission at the Stassen Building in St. Paul, Minnesota. The meeting was open to the public. Meeting minutes and notices of upcoming meetings and rules hearings are posted on the Board's website. The next meeting of the Commission will be in Salt Lake City, UT on June 24, 2016. The IMLC Commission is preparing to pilot issuance of licenses and will review a proposed plan at the June meeting.

MN Physician Publishing
A joint article by the Boards of Medical Practice, Nursing and Pharmacy, entitled *The Minnesota Tri-Regulator Collaborative: Protecting patient safety*, was published in the April 2016 issue of Minnesota Physician.

MN Psychiatric Association
Board staff was invited to present at the annual meeting of the Minnesota Psychiatric Association on the topic of ethical issues in mental health. The Board presented on *Partnering for Success in the Physician – Patient Relationship: Setting clear expectations, establishing treatment goals, and enforcing professional boundaries*, and participated on a panel with other keynote presenters. The meeting was held at the American Swedish Institute in Minneapolis.

Federation of State Medical Boards (FSMB) Annual Meeting
Board members and staff attended the FSMB Annual Meeting in San Diego, CA. Minnesota hosted a Welcome Reception which was well-attended. Our thanks to Office Manager Lois Kauppila for planning a successful event and to Terry Statton for contracting with the Board to provide Minnesota honey samples as a give-away for attendees. We are very proud of our current Board member Mark Eggen, M.D., and former Board member Gregory Snyder, M.D., who campaigned for elected office. Congratulations to Dr. Snyder on his election as Chair-Elect of the FSMB Board of Directors. Several current and former Board members participated throughout the week in presentations and facilitated discussions. The Minnesota Boards of Medical Practice and Nursing also participated in a presentation on *Interprofessional Collaboration and Regulation*.

Inaugural Minnesota Tri-Regulatory Symposium
The Boards of Medical Practice, Nursing and Pharmacy are finalizing plans to host the first Minnesota Tri-Regulatory Symposium on June 1, 2016, at the Commons Hotel in Minneapolis. The Symposium is modeled after two symposia convened by the national collaborative of the Federation of State Medical Boards (FSMB), National Association of Boards of Pharmacy (NABP), and the National Council of State Boards of Nursing (NCSBN). Speakers include Doris Gundersen, M.D., Medical Director of the Colorado Physician Health Program, and Barbara Brandt, Ph.D, Director of the University of Minnesota Center for Interprofessional Practice and Education. Panelists include the Chief Executive Officers of the FSMB, NABP and NCSBN, and the Officers of the Minnesota Boards of Medical Practice, Nursing and Pharmacy. Invited guests include Governor Dayton, key legislators, and members and staff of Minnesota's Medical, Nursing and Pharmacy Boards. The agenda has been distributed. **Please plan to attend and R.S.V.P. to Cheryl Johnston.**

**Other Activities**

- Staff performance evaluations were completed in April 2016.
- Mary DelaHunt, Licensure Specialist, joined our team on March 29, 2016. Vicki Chelgren, Licensure Specialist, retired on April 1, 2016.
- An overview of the process for conducting criminal background checks (CBC) was provided to Board staff by CBC Program Director Sean McCarthy.
- Despite some technical difficulties, a link to the MN Prescription Monitoring Program registration site was successfully implemented into the Board's on-line renewal processes for physicians and physician assistants.
- On April 21, 2016, the Combined CRCs met, along with medical coordinators Board staff, and AGO staff, to discuss internal processes and procedures.
- Board staff participated in testing of a new open appointments application at the Secretary of State's office.

**Legislation**

Board staff continues to participate in the 2016 legislative process to advance or monitor progress of several bills, including the following:

- SF 454/HF 1036: Physician assistant housekeeping modifications; temporary suspension process alignment; and traditional midwifery statute modifications.
  - On May 4, 2016, representatives of the health licensing boards testified before a conference committee (Rep. David Baker, Rep. Tara Mack, Rep. Debra Hilstrom, Sen. Chris Eaton, Sen. Mary Kiffmeyer, and Sen. Melissa Wicklund). Language proposed by the boards, or language on which the board has taken a neutral position, was approved by the conference committee. The conference committee's report will be presented to the House and Senate for final approval of the bills.
- SF 2341/HF 2445: Osteopathic physician housekeeping modifications.
  - On May 2, the bill was passed unanimously by the House.
  - On May 4, the bill was presented on the Senate floor and referred to Rules and Administration for comparison with the House bill HF 2445.
- SF 1440/HF 1652: Expansion of access to prescription monitoring program data.
- SF 37/HF 978: Authorizes licensing of genetic counselors under the jurisdiction of the Board of Medical Practice. The bill, introduced during the 2015 legislative session, is moving successfully through House and Senate committees during the 2016 session. The Policy & Planning Committee recommended that the Board take a neutral position on the bill, which it did at its meeting on March 12, 2016.
- SF 2609/HF 3038: Modifying the MN Athletic Trainers Act; moving from registration to licensure; expanding scope of practice for athletic trainers.
  - Board staff met with legislative authors and with MN Athletic Trainers Association representatives to learn more about the bill and to offer suggestions on how to interact with the Board on legislation that may impact existing statutes or rules.
  - Revisions include removal of the requirement for athletic trainers to establish a protocol with a physician; modifies reference to "athlete" and replaces with "patient" and authorizes patient care; and allows athletic trainers to "provide patient care under the direction of, on the prescription of, or in collaboration with" a person from "any licensed health profession..."
  - The bill is unlikely to advance during the 2016 legislative session but is likely to be reintroduced during the 2017 session.
  - The bill's most significant opponent is the MN Physical Therapy Association.
- A draft bill requiring expanded insurance coverage for acupuncture services and mandating continuing education for certain health professionals.

DATE: May 14, 2016 SUBJECT: Federation of State Medical Boards Annual Meeting Review

SUBMITTED BY: Ruth M. Martinez, M.A., Executive Director

REQUEST FOR BOARD ACTION
MINNESOTA BOARD OF MEDICAL PRACTICE

REQUESTED ACTION:

Discussion.

MOTION BY: SECOND:

( ) PASSED ( ) PASSED AMENDED ( ) LAYED OVER ( ) DEFEATED

BACKGROUND:

Board members may wish to discuss the Minnesota Welcome Reception and topics addressed at the annual meeting of the Federation of State Medical Boards (FSMB). If there is feedback or suggestions for future meetings which the Board members would like communicated to the FSMB staff, they may also be discussed.

Board members are encouraged to complete the post-meeting survey distributed by the FSMB.

DATE: May 14, 2016 SUBJECT: Corrective or other Actions

SUBMITTED BY: Complaint Review Committees

REQUEST FOR BOARD ACTION
MINNESOTA BOARD OF MEDICAL PRACTICE

REQUESTED ACTION:

MOTION BY: SECOND:

( ) PASSED ( ) PASSED AMENDED ( ) LAYED OVER ( ) DEFEATED

BACKGROUND:

For your information only, attached are copies of Corrective or other Actions that were implemented between March 1, 2016, and April 30, 2016.

# MINNESOTA BOARD OF MEDICAL PRACTICE

*University Park Plaza • 2829 University Avenue SE Suite 500 • Minneapolis, MN 55414-3246*
*Telephone (612) 617-2130 • Fax (612) 617-2166 • www.bmp.state.mn.us*
*MN Relay Service for Hearing Impaired (800) 627-3529*


**PUBLIC DOCUMENT**

**TRUE AND EXACT COPY OF ORIGINAL**

March 17, 2016

Thomas A Niebeling, M.D.
17599 Kenwood Trail
One Paramount Plaza
Lakeville, MN 55044

RE: Agreement for Corrective Action, Dated January 8, 2015

Dear Dr. Niebeling:

The Complaint Review Committee of the Minnesota Board of Medical Practice has reviewed your Agreement for Corrective Action and documentation in support of satisfaction of the terms contained therein. The Committee concluded that the Agreement has been satisfied.

Thank you for your cooperation.

Sincerely,

Ruth M. Martinez
Executive Director




AN EQUAL OPPORTUNITY EMPLOYER
PRINTED ON RECYCLED PAPER

TRUE AND EXACT
COPY OF ORIGINAL

**BEFORE THE MINNESOTA**

**BOARD OF MEDICAL PRACTICE**

In the Matter of the
Medical License of
Timothy E.M. Beyer, D.O.
Year of Birth: 1954
License Number: 46,523

**ORDER OF REMOVAL
OF STAYED SUSPENSION**

1. The Minnesota Board of Medical Practice ("Board") is authorized pursuant to Minn. Stat. §§ 147.001 through 147.37 to license, regulate, and discipline persons who apply for, petition, or hold licenses to practice medicine and surgery in the State of Minnesota and is further authorized pursuant to Minn. Stat. §§ 214.10 and 214.103 to review complaints against physicians, to investigate such complaints, and to initiate appropriate disciplinary action.

2. Timothy E.M. Beyer, D.O. ("Respondent") has been and now is subject to the jurisdiction of the Board from which he holds a license to practice medicine and surgery in the State of Minnesota.

3. On May 10, 2014, the Board issued a Stipulation and Order ("2014 Order") suspending Respondent's license and staying the suspension contingent upon his compliance with certain terms and conditions including, but not limited to, successfully completing coursework approved in advance by the Board's Complaint Review Committee ("Committee"), or its designee, within one year of the date of the 2014 Order. The required coursework included: (1) chemical dependency awareness; (2) medical records management; and (3) professional boundaries.

4. The 2014 Order expressly states that the Committee is authorized to issue an Order of Removal of Stayed Suspension if it has probable cause to believe that Respondent has

failed to comply with any of the requirements for staying the suspension of his license as outlined in the 2014 Order. A copy of the 2014 Order is attached as Exhibit A.

5. The Committee has probable cause to believe that Respondent failed to successfully complete the required coursework within one year of the date of the 2014 Order.

NOW THEREFORE, pursuant to the above recitals, the Board issues the following:

**ORDER**

1. IT IS HEREBY ORDERED that the stay of suspension set forth in the Stipulation and Order, dated May 10, 2014, is **REMOVED**, and Respondent's license to practice medicine and surgery in the State of Minnesota is **SUSPENDED** immediately.

2. IT IS FURTHER ORDERED that Respondent's license to practice medicine and surgery in the State of Minnesota shall remain suspended until the Board makes a final determination in this matter. During the period of suspension, Respondent shall not in any manner practice medicine and surgery in the State of Minnesota.

3. IT IS FURTHER ORDERED that Respondent's violation of this Order shall provide grounds for further disciplinary action pursuant to Minn. Stat. § 147.091.

4. IT IS FURTHER ORDERED that the terms of this Order are adopted and implemented this 30th day of March, 2016.

MINNESOTA BOARD OF
MEDICAL PRACTICE
COMPLAINT REVIEW COMMITTEE

By: Gerald T. Kaplan

**BEFORE THE MINNESOTA**

**BOARD OF MEDICAL PRACTICE**

In the Matter of the
Medical License of
Timothy E. M. Beyer, D.O.
Year of Birth: 1954
License Number: 46,523

**STIPULATION AND ORDER**

IT IS HEREBY STIPULATED AND AGREED, by and between Timothy E. M. Beyer, D.O. ("Respondent"), and the Complaint Review Committee ("Committee") of the Minnesota Board of Medical Practice ("Board") as follows:

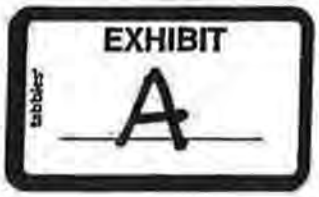
1. During all times herein, Respondent has been and now is subject to the jurisdiction of the Board from which he holds a license to practice medicine and surgery in the State of Minnesota.

2. Respondent has been advised by Board representatives that he may choose to be represented by legal counsel in this matter. Respondent was represented by Jennifer Speas, Speas Law Firm, 310 Fourth Ave. S., suite 1050, Minneapolis, Minnesota 55415. The Committee was represented by Jennifer R. Coates, Assistant Attorney General, 1400 Bremer Tower, 445 Minnesota Street, St. Paul, Minnesota 55101, (651) 757-1338.

**FACTS**

3. For the purpose of this Stipulation, the Board may consider the following facts as true:

a. Respondent was licensed by the Board to practice medicine and surgery in the State of Minnesota on May 15, 2004. Respondent is board-certified in psychiatry by the American Osteopathic Association (AOA), with a sub-specialty in pediatric psychiatry.



b. On or about May 27, 2009, Respondent self-reported to the Health Professionals Services Program ("HPSP"), St. Paul, Minnesota, due to his history of depression and attention deficit hyperactivity disorder, inattentive subtype ("ADHD"). On September 3, 2009, Respondent entered into a Participation Agreement and Monitoring Plan with HPSP for monitoring of his illness. Under the terms of the monitoring plan, Respondent was required, in part, to identify a primary care treating physician to coordinate his overall health care and manage his use of all prescription medications, except those prescribed by his psychiatrist; meet with a therapist specializing in the treatment of ADHD at least twice per month; and obtain a work site monitor to address his overall work performance, including recordkeeping, punctuality, and professional demeanor to patients, colleagues, and other staff.

c. On July 26, 2011, HPSP notified the Board that Respondent had not been managing his illness appropriately and was delinquent in his recordkeeping. The Board initiated an investigation by the Attorney General's Office into Respondent's overall practice, documentation practices and procedures, and current health status.

d. In August 2011, and September 2011, the Board received complaints alleging that Respondent was delinquent in his recordkeeping, inappropriately prescribing controlled substances, and exhibiting unprofessional behavior while on duty at his practice.

e. A review of Respondent's compliance with his HPSP monitoring plan revealed that, in April 2011, HPSP received a report from Respondent's work site monitor regarding an increase in concerns regarding Respondent practice, including a significant number of delinquent patient charts and difficult interactions with colleagues and staff. In July 2011, HPSP was advised that Respondent had resigned from his practice due to job performance concerns, recordkeeping, and personal concerns. In August 2011, HPSP notified the Board that

Respondent had not contacted HPSP or his treating professionals following his departure from his practice. In March 2012, HPSP notified the Board that Respondent was out of compliance with his HPSP monitoring plan, since he had not met with his psychiatrist or therapist since October 2011, and failed to submit his quarterly participant update form.

f. A review of Respondent's practice revealed the following concerns:

(1) Respondent engaged in substandard recordkeeping by (a) failing to document his clinical notations of patient visits, including failing to complete a significant number of progress notes and charting in a timely manner, (b) failing to accurately record patient care and prescriptions in his clinic files and failing to record his handwritten notes in a legible manner, (c) suggesting that he had completed his dictations, although the records remained incomplete, and (d) failing to secure patient privacy by leaving a personal travel bag containing patient records in a hospital public restroom.

(2) Respondent engaged in substandard prescribing practices by (a) overprescribing stimulants for the treatment of ADHD, (b) occasionally prescribing for non-patients and failing to establish a patient record or document the prescriptions, (c) failing to write the dosage of the medication on the prescription, (d) failing to promptly respond to local pharmacists who contacted Respondent for clarification of his handwriting or concerns regarding the type or dosages of prescribed medications, (e) failing to keep medication flow sheets current for his patients, (f) prescribing methadone without using proper prescribing protocols for methadone, and (g) failing to properly consider a health risk while prescribing a stimulant.

(3) Respondent demonstrated a lack of competence regarding patient safety concerns by (a) prescribing a stimulant for an adolescent male patient with a heart condition without considering the consequences, which resulted in a subsequent hospital

admission by the patient's pediatrician, (b) writing routine orders for patients prior to any face-to-face examination or assessment, (c) occasionally re-writing orders multiple times per day making it difficult for staff to follow his treatment plan, (d) prescribing diabetes medication for a non-diabetic adult male without documenting the alternative use of the medication in the patient's medical record, and (e) occasionally failing to perform an examination or assessment of his patients within a 24-hour timeframe.

(4) Respondent exhibited impairment and mental health concerns by (a) failing to manage his adult ADHD condition and failing to cooperate with his HPSP monitoring, (b) failing to maintain his own personal wellness program, including appearing tired or disheveled and falling asleep in meetings or while completing his recordkeeping, (c) exhibiting labile mood swings toward staff members.

(5) Respondent demonstrated a breach of professional boundaries with his patients by giving cash to a patient, and having telephone contact and providing consultations with patients and non-patients after his departure from his employment.

g. On July 26, 2012, Respondent met with the Complaint Review Committee and confirmed his departure from practice in July 2011, but denied any allegations of poor patient care or delinquent recordkeeping. Respondent confirmed his history of depression and ADHD, and reported a willingness to participate with HPSP for monitoring of his illness.

STATUTES

4. The Committee views Respondent's practice as inappropriate in such a way as to require Board action under Minn. Stat. section 147.091, subd. 1(g) (unethical conduct), (k) (unprofessional conduct), (l) (inability to practice due to illness), and (o) (failure to maintain adequate medical records) (2012), and Respondent agrees that the conduct cited above

constitutes a reasonable basis in law and fact to justify the disciplinary action under these statutes.

## REMEDY

5. Upon this Stipulation and all of the files, records, and proceedings herein, and without any further notice or hearing herein, Respondent does hereby consent that until further order of the Board, made after notice and hearing upon application by Respondent or upon the Board's own motion, the Board may make and enter an Order **SUSPENDING** Respondent's license to practice medicine and surgery in the State of Minnesota. The suspension is **STAYED** contingent upon Respondent's compliance with the following terms and conditions:

a. Respondent shall participate in the Health Professionals Services Program (HPSP) and comply fully with all terms and conditions of his HPSP Participation Agreement and Monitoring Plan, including any modifications resulting from this Stipulation and Order. Respondent shall sign releases allowing HPSP to provide a copy of his Monitoring Plan and all compliance and treatment data to the Board. Failure to comply with the HPSP Monitoring Plan, including any modifications, shall constitute a violation of this Order.

b. Respondent shall obtain a primary care treating physician, approved in advance by the Committee or its designee, to monitor and/or manage all medical or other care provided to Respondent by all health professionals. Respondent shall provide all necessary records releases to enable Respondent's health care professionals to communicate with the primary care treating physician pursuant to this paragraph. The primary care treating physician shall provide quarterly reports to the Board summarizing medical or other care provided to Respondent, as well as addressing Respondent's progress under any terms of this Stipulation and

Order relating to Respondent's health status and recovery. Respondent is responsible for ensuring timely submission of all required reports.

c. Respondent shall obtain a treating psychiatrist, approved in advance by the Committee. The treating psychiatrist shall provide quarterly reports to the Board. Respondent is responsible for ensuring timely submission of all required reports.

d. Respondent shall engage in individual therapy as recommended by his treating psychiatrist. The treating psychiatrist shall provide quarterly reports to the Board, or its designee. Respondent is responsible for ensuring timely submission of all required reports.

e. Respondent shall successfully complete the following coursework, approved in advance by the Complaint Review Committee or its designee, within one year of the date of this Order:

1) Chemical dependency awareness.

2) Medical records management.

3) Professional boundaries.

Successful completion shall be determined by the Board or its designee.

f. Respondent shall be subject to random chart audits of his practice throughout the duration of this Order.

g. Respondent shall maintain a daily log of all controlled substance prescriptions, including the patient name, medication, reason for the medication, quantity, dosage, and authorized refills. The log shall be available for monthly review by Respondent's supervising physician and for quarterly review by his designated Board member.

h. Respondent shall practice in a group setting, approved in advance by the Committee.

i. Respondent shall obtain an on-site supervising physician, approved in advance by the Board or its designee. The supervising physician shall review a random sampling of Respondent's patient charts and Respondent's prescription log, and provide quarterly reports to the Board. Respondent is responsible for ensuring timely submission of all required reports.

j. Respondent shall meet on a quarterly basis with a designated Board member. Such meetings shall take place at a time mutually convenient to Respondent and the designated Board member. It shall be Respondent's obligation to contact the designated Board member to arrange each of the meetings. The purpose of such meetings shall be to review Respondent's prescription log and Respondent's progress under the terms and conditions of this Stipulation and Order.

k. Respondent shall pay a civil penalty in the amount of $5,000.00 prior to petitioning for reinstatement of an unconditional license.

l. Respondent may petition for reinstatement of an unconditional license upon submission of satisfactory evidence of three years of documented, uninterrupted compliance and stable mental health, and completion of the terms and conditions of this Order. Upon hearing Respondent's petition, the Committee may recommend that the Board continue, modify, or remove the suspension or impose conditions and restrictions as deemed necessary. Within 90 days of petitioning, Respondent must complete a neuropsychological evaluation at a place designated by the Committee. Respondent shall sign a waiver for the Board to receive all medical records and assessments from that evaluation.

6. Within ten days of signing the Stipulation to this Order, Respondent shall provide the Board with a list of all hospitals and skilled nursing facilities at which Respondent currently has medical privileges, a list of all states in which Respondent is licensed or has applied for

licensure, and the addresses and telephone numbers of Respondent's residences and all work sites. Within seven days of any change, Respondent shall provide the Board with the new address and telephone information. The information shall be sent to Robert A. Leach, Minnesota Board of Medical Practice, University Park Plaza, 2829 University Avenue S.E., Suite 500, Minneapolis, Minnesota 55414-3246.

7. In the event Respondent resides or practices outside the State of Minnesota, Respondent shall promptly notify the Board in writing of the location of his residence and all work sites. Periods of residency or practice outside of Minnesota will not be credited toward any period of Respondent's suspended, limited, or conditioned license in Minnesota unless Respondent demonstrates that practice in another state conforms completely with Respondent's Minnesota license to practice medicine.

8. If the Committee has probable cause to believe that Respondent has failed to comply with any of the requirements for staying the suspension of his license as set forth in paragraph 5 above, or has failed to comply with a Health Professionals Services Program Participation Agreement and Monitoring Plan, if applicable, and/or is subject to a positive biological fluid screen, the Committee may remove the stay of suspension and suspend Respondent's license pursuant to the procedures outlined below:

a. The removal of the stayed suspension shall take effect upon service of an Order of Removal of Stayed Suspension ("Order of Removal"). Respondent agrees that the Committee is authorized to issue an Order of Removal, which shall remain in effect and shall have the full force and effect of an order of the Board until the Board makes a final determination pursuant to the procedures outlines in paragraph 9 below, or until the complaint is dismissed and the order is rescinded by the Committee. The Order of Removal shall confirm the

Committee has probable cause to believe Respondent has failed to comply with or has violated one or more of the requirements for staying the suspension of Respondent's license.

b. Respondent further agrees an Order of Removal issued pursuant to this paragraph shall be deemed a public document under the Minnesota Government Data Practices Act. Respondent waives any right to a hearing before removal of the stayed suspension.

c. The Committee shall schedule a hearing before the Board pursuant to paragraph 9 below to be held within 60 days of service of the Order of Removal.

9. If the Committee issues an Order of Removal pursuant to paragraph 8 above, the following shall apply:

a. The Committee shall mail Respondent a notice of the violation alleged by the Committee and of the time and place of the hearing referred to in paragraph 8.c. above. Respondent shall submit a response to the allegations at least three days prior to the hearing. If Respondent does not submit a timely response to the Board, the allegations may be deemed admitted.

b. At a hearing before the Board, the Committee and Respondent may submit affidavits made on personal knowledge and argument based on the record in support of their positions. The evidentiary record before the Board shall be limited to such affidavits and this Stipulation and Order. Respondent waives a hearing before an administrative law judge and waives discovery, cross-examination of witnesses, and other procedures governing administrative hearings or civil trials.

c. At the hearing, the Board will determine whether to impose additional disciplinary action, including additional conditions or limitations on Respondent's practice, or revocation of Respondent's license.

d. The Committee, at its discretion, may schedule a conference with Respondent prior to the hearing before the Board to discuss the allegations and to attempt to resolve the allegations through agreement.

10. In the event the Board in its discretion does not approve this settlement, this Stipulation is withdrawn and shall be of no evidentiary value and shall not be relied upon nor introduced in any disciplinary action by either party hereto except that Respondent agrees that should the Board reject this Stipulation and if this case proceeds to hearing, Respondent will assert no claim that the Board was prejudiced by its review and discussion of this Stipulation or of any records relating hereto.

11. Respondent waives any further hearings on this matter before the Board to which Respondent may be entitled by Minnesota or United States constitutions, statutes, or rules and agrees that the Order to be entered pursuant to the Stipulation shall be the final Order herein.

12. Respondent hereby acknowledges that he has read and understands this Stipulation and that he has voluntarily entered into the Stipulation without threat or promise by the Board or any of its members, employees, or agents. This Stipulation contains the entire agreement between the parties, there being no other agreement of any kind, verbal or otherwise, which varies the terms of this Stipulation.

Dated: 04/21/2014

Timothy E. M. Beyer, D.O.
Respondent

Dated: 05/10/2014

For the Committee

**ORDER**

Upon consideration of this Stipulation and all the files, records, and proceedings herein,

IT IS HEREBY ORDERED that the terms of this Stipulation are adopted and implemented by the Board this 10th day of May, 2014.

MINNESOTA BOARD OF
MEDICAL PRACTICE

By: _____

## AFFIDAVIT OF SERVICE BY U.S. MAIL

**Re: In the Matter of Timothy E.M. Beyer, D.O.**
**License Number: 46523**

STATE OF MINNESOTA )
) ss.
COUNTY OF RAMSEY )

SANDRA D. HOWARD, being first duly sworn, deposes and says:

That at the City of St. Paul, County of Ramsey and State of Minnesota, on the 31st day of March, 2016, she served the attached **ORDER OF REMOVAL OF STAYED SUSPENSION AND NOTICE OF REMOVAL OF STAY OF SUSPENSION, IMPOSITION OF SUSPENSION, AND HEARING** upon respondent by depositing in the United States mail at said city and state, a true and correct copy thereof, properly enveloped, with first-class postage prepaid, and addressed to:

Timothy E.M. Beyer, D.O.
1809 Marion Road S.E.
Rochester, Minnesota 55904

SANDRA D. HOWARD

Subscribed and sworn to before me on
this 31st day of March 2016.

Notary Public

KRISTINE LEE FENTON
NOTARY PUBLIC - MINNESOTA
My Commission Expires
January 31, 2020

TRUE AND EXACT
COPY OF ORIGINAL

**BEFORE THE MINNESOTA**
**BOARD OF MEDICAL PRACTICE**

**COMPLAINT REVIEW COMMITTEE**

In the Matter of the
Medical License of
Dr. Viorel Guter
Year of Birth: 1959
License Number: 49,529

**AGREEMENT FOR**
**CORRECTIVE ACTION**

This Agreement is entered into by and between Dr. Viorel Guter ("Respondent"), and the Complaint Review Committee ("Committee") of the Minnesota Board of Medical Practice ("Board") pursuant to the authority of Minn. Stat. § 214.103, subd. 6(a) (2014). Respondent has been advised by Board representatives that Respondent may choose to be represented by legal counsel in this matter. Respondent has chosen to be represented by Mark R. Whitmore, Bassford Remele, 33 South Sixth Street, Suite 3800, Minneapolis, Minnesota 55402, telephone (612) 333-3000. The Board was represented by Brian L. Williams, Assistant Attorney General, 1400 Bremer Tower, 445 Minnesota Street, St. Paul, Minnesota 55101, (651) 296-7575. Respondent and the Committee hereby agree as follows:

**FACTS**

1. This Agreement is based upon the following facts:

a. Respondent was licensed by the Board to practice medicine and surgery in the State of Minnesota on May 12, 2007. Respondent is board-certified in family medicine.

b. In July 2013, the Board received a complaint alleging that Respondent failed to provide appropriate care for a patient presenting to an urgent care clinic with complaints of dizziness and a history of a recent fall during an organized recreational game and vertebral fractures.

Successful completion shall be determined by the Board or its designee.

b. Following successful completion of the above-referenced coursework and within one year of the date of this Agreement, Respondent shall write and submit a paper, for review and approval by the Committee or its designee, discussing what he has learned from the required coursework and how he has implemented the knowledge into his practice.

4. This Agreement shall become effective upon execution by the Committee and shall remain in effect until Respondent successfully completes the terms of the Agreement. Successful completion shall be determined by the Committee.

5. Upon Respondent's satisfactory completion of the Agreement, the Committee agrees to issue a letter of satisfaction to Respondent and dismiss the complaint(s) referred to in paragraph 1. Respondent agrees that the Committee shall determine satisfactory completion. Respondent understands and further agrees that if, after dismissal, the Committee receives additional complaints similar to the information in paragraph 1, the Committee may reopen the dismissed complaint(s).

6. If Respondent fails to complete the corrective action satisfactorily or if the Committee receives additional complaints similar to the allegations described in paragraph 1, the Committee may, in its discretion, reopen the investigation and proceed according to Minn. Stat. chs. 147, 214, and 14. Failure to complete corrective action satisfactorily constitutes failure to cooperate under Minnesota Statutes section 147.131. In any subsequent proceeding, the Committee may use as proof of the allegations of paragraphs 1 and 2 Respondent's agreements herein.

7. Respondent understands that this Agreement does not constitute disciplinary action. Respondent further understands and acknowledges that this Agreement and any letter of satisfaction are classified as public data.

8. Respondent hereby acknowledges having read and understood this Agreement and having voluntarily entered into it. This Agreement contains the entire agreement between the Committee and Respondent, there being no other agreement of any kind, verbal or otherwise, which varies the terms of this Agreement.

Dated: 4/5/2016

Viorel Guter

DR. VIOREL GUTER
Respondent

Dated: 4/12/16

FOR THE COMMITTEE

## AFFIDAVIT OF SERVICE BY U.S. MAIL

**Re: In the Matter of the Medical License of Dr. Viorel Guter**
**License No. 49, 529**

STATE OF MINNESOTA )
) ss.
COUNTY OF RAMSEY )

SANDRA SYLVESTER, being first duly sworn, deposes and says:

That at the City of St. Paul, County of Ramsey and State of Minnesota, on April 12, 2016, she caused to be served the attached AGREEMENT FOR CORRECTIVE ACTION, by depositing the same in the United States mail at said city and state, a true and correct copy thereof, properly enveloped with prepaid first class postage, and addressed to:

Mark Whitmore, Esq.
Bassford Remele
33 South Sixth Street, Suite 3800
Minneapolis, MN 55402

SANDRA SYLVESTER

Subscribed and sworn to before me on
April 12, 2016.

NOTARY PUBLIC

DEBRA STRAFACCIA LECUYER
Notary Public
Minnesota
My Commission Expires January 31, 2020

# MINNESOTA BOARD OF MEDICAL PRACTICE

*University Park Plaza • 2829 University Avenue SE Suite 500 • Minneapolis, MN 55414-3246*
*Telephone (612) 617-2130 • Fax (612) 617-2166 • www.bmp.state.mn.us*
*MN Relay Service for Hearing Impaired (800) 627-3529*


**PUBLIC DOCUMENT**

**TRUE AND EXACT COPY OF ORIGINAL**

April 18, 2016

Susan Mavis Goltz, M.D.
St. Luke's Obstetrics and Gynecology
1000 E 1st Street - Suite LL
Duluth, MN 55805

RE: Agreement for Corrective Action, Dated November 9, 2015

Dear Dr. Goltz:

The Complaint Review Committee of the Minnesota Board of Medical Practice has reviewed your Agreement for Corrective Action and documentation in support of satisfaction of the terms contained therein. The Committee concluded that the Agreement has been satisfied.

Thank you for your cooperation.

Sincerely,

Ruth M. Martinez
Executive Director



AN EQUAL OPPORTUNITY EMPLOYER
PRINTED ON RECYCLED PAPER

DATE: May 14, 2016 SUBJECT: New Business

SUBMITTED BY: Subbarao Inampudi, M.D., B.S., FACR, Board President

REQUEST FOR BOARD ACTION
MINNESOTA BOARD OF MEDICAL PRACTICE

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REQUESTED ACTION:

MOTION BY: SECOND:

( ) PASSED ( ) PASSED AMENDED ( ) LAYED OVER ( ) DEFEATED

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BACKGROUND:

New business to be discussed?