

Board of Pharmacy Recommendations for Inpatient Computerized Prescriber Order Entry (CPOE)

Preface: The Board of Pharmacy receives many requests for information concerning CPOE. The following requirements have been developed by the Board to provide guidance to pharmacies and pharmacists. These recommendations do not have the force of law or rule and, therefore, are not binding on prescribing practitioners or on pharmacists and pharmacies. However, the Board strongly recommends that CPOE systems be developed with these standards in mind. The Board has received and investigated complaints involving dispensing errors that were directly related to prescriptions generated by poorly designed CPOE systems. The Board is committed to working with other interested parties to develop regulations and, if necessary, to enact legislation to address CPOE and other electronic prescribing issues.

1. At the July 30, 2013 Board Meeting, the Board interpreted **MN Statute 151.211** and **MN Statute 152.11** to require pharmacies to retain prescriptions in the original format in which they are received for the two year period required by statute. Consequently, a variance is no longer needed to utilize a CPOE system. The Board recommends that pharmacies develop policies and procedures for CPOE that take this guidance document into consideration
2. Per Minnesota law (Chapter 325L), both parties must agree to conduct electronic transactions. Whether the parties agree to conduct transactions by electronic means is determined from the context and surrounding circumstances, including the parties' conduct.
3. A policy addressing these issues should be made readily available to any pharmacist receiving an electronic order on request.
4. Maintain computer security and patient confidentiality, these safeguards should be established to prevent "outside access to patient data".
5. Only authorized prescriber's should be allowed to enter an order into a CPOE system. Allowing anyone else to enter the order reintroduces the very errors that CPOE supposedly minimizes (e.g. transcription errors). One exception would be emergency orders where a delay would affect patient safety and care.
6. Those limited emergency verbal orders from a prescriber should be electronically signed off, reviewed and documented by the prescriber in a timely manner according to the inpatient policies and procedures.
7. An electronic order entered by the prescriber must include the patient name, medical record number, date ordered, drug name, strength/dose, route of administration, directions for administration which could include duration of therapy and start and/or stop times.
8. The system should provide for verification of the identity of the name of prescriber and/or affiliation/relationship to the prescriber entering the order and the pharmacist verifying the order.
9. The authorized prescriber's electronic order is transmitted directly to the pharmacist where the order is verified and/or certified. This review should include a complete patient profile review and DUR before the order is released by the pharmacist, and before the medication is administered and dispensed to the patient. The only exception would be emergency orders whereby delay would affect patient safety and care.

10. All electronic signatures should provide the following:
 - a. Authentication. The prescriber should be the only individual that can reproduce it.
 - b. Non-repudiation. The prescriber should not be able to later state that they did not sign the prescription.
 - c. Data integrity. Only the prescriber may change a verified and certified order and any such change should retain all previous information.
 - d. These aspects of the electronic signature should be accepted, in writing, by all prescribers using the system.
11. The system should use more than simple name plus password protection security. Biometric identification is preferred; however, the use of a smart card system may be acceptable. (Similar to the ATM system)
12. The system should limit access to the patient electronic medical record on a “need to know” basis.
13. All DEA regulations must be followed.
14. Only abbreviations that have been approved through the Pharmacy and Therapeutics Committee (or equivalent) should be used.
15. The system should be designed so defaults to a dosing unit or to standard directions are handled in a way that ensures that the defaults are reviewed and approved by the prescriber.
16. The prescriber needs to be able to view the patient’s order in its complete final form and certify the order before releasing the prescription order.
17. Physical and remote access to the server being used for CPOE should be limited to only those individuals whose responsibilities require their ability to maintain the hardware or electronic configuration of the server.
18. The following information shall be reviewed by the prescriber and must be made available for the pharmacist to review.
 - a. The diagnosis of patient;
 - b. Date of birth/age, height, weight and gender of patient;
 - c. Drug allergies, non-drug allergies, and the ability to explicitly indicate “No Known Allergies” or “Allergies Unknown”;
 - d. Adverse drug reactions;
 - e. Food/drug interactions;
 - f. Lab values; and
 - g. Any current patient medications, OTC drugs, and neutraceuticals

19. The name and telephone number of the person in charge of the CPOE system should be made available to pharmacists to coordinate corrective measures in the CPOE system.
20. Pharmacist interventions that result in changes to orders need to be documented in the patient's electronic record and should be reviewed by the prescriber according to inpatient policies and procedures.
21. When the prescriber overrides or makes drug therapy changes, due to an alert, the prescriber's documentation should be available to the pharmacist.
22. CPOE policies and procedures should address the following:
 - a. Dose ranges including high-dose, low-dose, and life-time doses for antineoplastic agents;
 - b. High-risk drug alerts;
 - c. Dosages/parameters of critical care drugs; NOTE – are parameters correct?
 - d. Standing orders/order sets;
 - e. Automatic stop, hold, or discontinued orders
 - f. Investigational drugs;
 - g. Down time procedures;
 - h. Archive/record retention of original electronic order;
 - i. Allergy reaction and level of severity; and
 - j. Areas that pharmacist can edit, which includes an audit trail.
23. Discharge orders/prescriptions should follow the out-patient "CPOE Board's Recommendations".
24. Implement a Quality Assurance/Quality Improvement monitoring system with concurrent corrective measures when necessary. See **MN Rule 6800.2400, Subpart 1. J.**, which states the Pharmacist-in-charge, must ensure that staffing and operational quality assurance policies, including training, are developed, implemented, and followed for the purpose of decreasing and monitoring prescription errors. Training shall be conducted by qualified individuals on a continuing basis and with sufficient frequency to assure that employees remain familiar with operational policy requirements applicable to them. This training should be documented.
25. Recommend the system allow the prescriber simultaneously view the medication reconciliation record and the medication administration record without interrupting the ordering process.