

DEPARTMENT Cambridge State Hospital

Date: March 6, 1974

TO : Wesley G. Restad  
Assistant Commissioner  
Residential Services Bureau

FROM : Veronika M. Gailitis, M.D.  
Acting Chief of Health Services  
Cambridge State Hospital

SUBJECT: Use of Tranquilizing and Sedating Medications at Cambridge State Hospital

In your memo dated November 20, 1973 directed to Cal Herbert and Dave Buelow you report the results of a survey taken by Dennis Boland on the use of tranquilizers and sedating medications in the state hospitals. Cambridge State Hospital, according to that survey, is reported to have 75% of its patients on tranquilizers.

Although hard data was not immediately available, we felt that that figure was incorrect and did not represent a true picture of tranquilizer/sedative use here. Furthermore, we are in total agreement with Mr. Boland and can only repeat what he had said in his report that the sampling technique used did not produce a truly representative sample and that the sample size was inadequate.

I felt it necessary to determine, at least for this hospital, an accurate figure of the number of patients who receive tranquilizing and/or sedating medications. To accomplish that goal I appointed a committee composed of Mr. Harry Argetsinger, Hospital Pharmacist, Dr. John Fordice, Consultant in Clinical Pharmacy, Dr. Virginia Mandac, Staff Physician, and Mr. Frederick Rudie, Psychologist II. Their final report has taken the form of this memo.

#### METHODS

On Wednesday, January 23, 1974 the medications of every patient in the hospital were reported to the committee on forms designed especially for this study. The data was collected by registered nurses or under their direct supervision. Instructions in the use of the forms was provided. (See attached form and instruction sheet.)

Data was collected on 725 patients in the hospital and 6 patients on TMT at Rochester.

The amount of time required for each nurse to fill out the forms in her area was recorded.

Instruction #7 takes into account multiple indications for use for several drugs. For the drugs of this category commonly used in this hospital, we asked that the reason why this drug was used in this patient be recorded on the data collection form.

The forms were distributed to the various living units from the Pharmacy and the completed forms were turned into the Pharmacy. On the day of the data collection several committee members made themselves available for

"trouble shooting" and in busy living units the data was collected by a committee member.

When all the forms had been returned they were coded for the following classes:

1. Patients receiving major tranquilizers  
(e.g., Thorazine, Mellaril, Prolixin, Trilafon, Sparine, Haldol, Stelazine, Navane, Taractan, Quide, Serentil)
2. Patients receiving minor tranquilizers  
(e.g., Librium, Valium, Vistaril/Atarax, Sinequan)
3. Patients receiving a combination of both a major and a minor tranquilizer
4. Patients receiving barbiturates as anti-convulsants  
(e.g., Phenobarbital, Sodium Amytal, Meberal)
5. Patients receiving hypnotics and/or sedatives  
(e.g., Chloral Hydrate, Noludar, Quaalude, Secobarbital, Amobarbital, Dalmane, Benadryl)
6. Patients receiving no medications

Totals for each of the above classes for the various living units and the hospital as a whole were tabulated.

#### RESULTS

The attached form entitled "Use of Tranquilizing and Sedating Medications at Cambridge State Hospital" gives the results of this survey for each major class of drugs in the various living units of the hospital. The pertinent totals are as follows:

<u>Category</u>	<u>Total Number</u>	<u>Percentage of Hospital Population</u>	<u>Percentage Range in Various Living Units</u>
1. Patients receiving Major Tranquilizers	196	26.8%	0 - 51.6%
2. Patients receiving Minor Tranquilizers	44	6.0%	0 - 22.2%
3. Patients receiving both Major and Minor Tranquilizers	57	7.8%	0 - 37.0%
4. Total number of patients receiving tranquilizers	297	40.6%	--
5. Patients receiving Barbiturates as Anticonvulsants	303	41.5%	12.5 - 64.7%

6. Patients receiving hypnotics and/or sedatives	83	11.4%	0 - 30.4%
7. Patients receiving no medications	73	10.0%	0 - 31.4%

The single most important figure on that form is the total percentage of patients who are receiving tranquilizers: 40.6%.

The data presented showing totals and percentages in each living unit for each major drug classification can be best interpreted when compared to the data presented on the sheet entitled "Patient Characteristics by Living Units - Cambridge State Hospital".

An average of 4.5 to 5 minutes was required by the nurses to fill out the form for an individual patient. Assuming 730 patients, the total amount of nursing time required for this survey was 55 to 61 hours.

#### SUMMARY

*When was this done?  
Oct. - Nov. 1973*

The purpose of this study was to determine the number and percentage of Cambridge State Hospital residents who were taking tranquilizing and/or sedating medications and in reporting the results to indicate our concern about Central Office obtaining and reporting statistics which are likely to be erroneous as for example was done by reporting that 75% of Cambridge State Hospital residents take tranquilizing and/or sedating drugs, a figure obtained by drawing a random sample of ten from a patient population of 750. This study did not rely upon a sampling technique and included all the patients in the hospital. No inferences as to the accuracy or quality of the sampling technique need be made; this data represents all the patients on the campus and therefore is a true picture of drug usage at this hospital.

The results of this study show that 40.6% of the patients at this hospital receive tranquilizing medications; this is to be contrasted to the previously reported 75%.

As can be seen, the use of various different categories of drugs in various living units covers a wide range. In Infirmary East, where the patients are mentally retarded, physically handicapped, bedridden, total care children and adolescents, the only major category of drugs used is Barbiturates as anticonvulsants. This is to be contrasted with living units such as Cottage 8, as an example, where the residents (males and females less than 21 years old, ambulant, perhaps lacking in self care and occupational skills having little or no understandable speech) may manifest a wide variety of unacceptable behaviors, and where more than 50% of the residents receive a major tranquilizer and another 25% receive a combination of a major and minor tranquilizer.

The total amount of time this study required obviously is greater than the 55 to 61 hours needed by the nurses to collect the data; planning occupied probably 1 to 2 hours of total committee time and about 10 hours for form design and instruction sheet preparation; tabulation and coding took about

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4 to 6 hours of one person's time and the report took approximately 3 to 5 hours to write. A repeat of this study would require only the time necessary for data collection and a maximum of ten hours for coding and tabulation.

#### RECOMMENDATIONS

The results of this study and our experience with it lead us to make these recommendations:

1. That the results of the previous study be disregarded because of obvious inaccuracy due to the method used, and
2. That a study conducted in the manner we have done at Cambridge be conducted at each state hospital to arrive at accurate figures about drug use.

VG:cr

cc: Committee Members  
Medical Staff, CSH  
Marie Kapsner, R.N.  
Mr. John Stocking  
Mr. Norbert Johnson  
Mr. Dale Offerman  
Dr. Ronald C. Young  
Mrs. Vera J. Likins  
Dennis Boland  
Utilization Review Committee, CSH

USE OF TRANQUILIZER AND SEDATIVE MEDICATIONS AT CAMBRIDGE STATE HOSPITAL

UNIT	UNIT I			UNIT II & III			UNIT IV			UNIT V			UNIT VI		MHTS			
	Inf E	McB E	McB W	Del N	Del S	8 NWY	8 SE	Inf S	E Bos	E Bos W	9	12	11 EN	11SWY		1	3	4
Cottage - Ward	17	59	54	16	16	46	31	20	64	63	39	30	36	44	35	38	35	82
Total Patients	M	L	L	M	M	M	M	M	B	B	M	M	B	L	G	G	G	G
M.D. **																		
Major Tranquilizers	1	5	4	4	2	14	16		8	10	17	13	9	21	13	15	14	35
	1.7%	9.3%	18.8%	12.5%	12.5%	30.4%	51.6%		12.5%	15.9%	43.6%	43.3%	25.0%	47.7%	37.1%	39.5%	40.0%	42.7%
Minor Tranquilizers	3	4		2					5	6	3		8	7	2			4
	5.1%	7.4%		12.5%					7.8%	9.5%	7.7%		22.2%	15.9%	5.7%			4.9%
Major and Minor Tranquilizers Used Together					1	17	8			1	7	4	2	8			4	5
					6.3%	37.0%	25.8%			1.6%	17.9%	13.3%	5.6%	18.8%			11.4%	6.1%
Barbiturates as Anticonvulsants	11	34	22	4	2	10	13	9	36	32	10	9	18	22	16	13	16	26
	64.7%	57.6%	40.7%	25.0%	12.5%	21.7%	41.9%	45.0%	56.3%	50.8%	25.6%	30.0%	50.0%	50.0%	45.7%	34.2%	45.7%	31.7%
Hypnotics Sedatives	1	3	3	3	1	14	10	1	7	10	11	1	3	9	1	3	1	4
	1.7%	5.6%	18.8%	6.3%	6.3%	30.4%	32.3%	5.0%	11.0%	15.9%	28.2%	3.3%	8.3%	20.5%	2.9%	7.9%	2.9%	4.9%
No Medications	4	6	4	2	2	1				2	2	4	1	2	11	9	7	18
	6.8%	11.1%	2.5%	12.5%	12.5%	21.7%				3.2%	5.1%	13.3%	2.8%	4.5%	31.4%	23.7%	20.0%	22.0%

Totals  
 Major Tranquilizers Alone 196 26.8%  
 Minor Tranquilizers Alone 44 6.0%  
 Major and Minor Tranquilizers Used Together 57 7.8%  
 Barbiturates as Anticonvulsants 303 41.5%  
 Hypnotics and Sedatives 83 11.4%  
 Patients Taking No Medications 73 10.0%

\*\*B - Dr. Boody  
 G - Dr. Gaillitis  
 L - Dr. Lee  
 M - Dr. Mandac

\*\*Tranquilizers\*\* 297 40.6%

PATIENT CHARACTERISTICS BY LIVING UNITS  
CAMBRIDGE STATE HOSPITAL

UNIT I - Child Activation Program  
(McBroom Hall and Infirmary East)

. . . mentally retarded boys and girls, many with physical handicaps; Infirmary East residents bedridden, total care patients . . .

UNIT II & III - Child Development and Teenage Program  
(Dellwoods and Cottage 8)

. . . males and females, less than 21 years old, mentally retarded, ambulant, perhaps lacking in self care and occupational skills, may have little or no understandable speech, and may manifest a wide variety of unacceptable behaviors . . .

UNIT IV - Adult Activation Program  
(Boswell Hall and Infirmary South)

. . . residents requiring a greater amount of attention and care because of their limited physical function and ability - they are physically handicapped with neurological deficits; because of their deficits in motor abilities and ambulation, they require assistance in proper positioning, transferring, and exercising to prevent further deformities and loss of function . . .

UNIT V - Adult Motivation Program  
(Cottages 9, 11 and 12)

. . . residents of both sexes, ambulatory and semi-ambulatory, many requiring additional self help and social skills, may display maladaptive behavior and exhibit exacerbating emotional problems . . .

UNIT VI - Adult Social Achievement Program  
(Cottages 1, 3, and 4)

. . . "higher functioning residents", in an environment allowing for the total development of the resident to bring about as much normalization as possible . . .

M.H.T.S. - Mental Health Treatment Service  
(Cottage 14)

. . . mentally retarded males and females of various ages in a program where emphasis is on the reduction or elimination of behaviors which may not be accepted by society and which hinder an individual's return to home or the community . . .



DATE: 1-16-64

Minnesota State Hospital

Nursing Areas

R. N. Japsner, R.N.  
Director of Nurses

Tranquillizer Survey

As a result of a memo from DPW regarding the use of drugs in the state hospital system, a committee (Mr. Rudie, Dr. Fordice, Dr. Mandas, and Mrs. Japsner) was appointed to determine the number of people taking tranquilizing medication at the State Hospital. The committee has developed a form for the collection of data and instructions for the use of that form follow.

Your cooperation is greatly appreciated.

INSTRUCTIONS

Forms will be collected on all patients in each nursing area.

Forms will be collected on one day across the entire campus. That day will be \_\_\_\_\_.

If a patient is not receiving any medication, fill in the top of the form (medication data) only and write "NONE" across the bottom.

Data should be collected from the Kardex. The Kardex should be verified against the Physician's Order Sheet in the patient's chart prior to the collection of the data.

INSTRUCTIONS FOR USE OF TRANQUILLIZER SURVEY FORM

1. Patient Name, Hospital Number, Age, Weight, Cottage, and Ward - Fill in the blanks appropriately.
2. Sex and Physician - Circle the appropriate response.
3. Diagnosis - Indicate the patient's major diagnosis; include the degree of mental retardation.
4. Drugs - List the name of all drugs the patient is receiving.
5. Dose - How much of the drug is the patient receiving each time he gets a dose, e.g., 50 mg, 200 mg, 1 mg, etc.
6. Frequency - How often does the patient receive the dose listed above, e.g., once a day, every 4 hours, three times a day, etc. Include here if the drug is ordered "prn".
7. Indication - From the drugs listed below which have more than one valid indication, indicate the reason why the drug is being used in this patient. (This column must be completed for these specified drugs only.) Use the terminology quoted here. If it is not clear why the drug is being used, place a question mark (?) in the "Indication" column and we will check with the physician. It is possible that in some cases these drugs may be used for more than one reason; if so, indicate both indications for use.

(over)

Nursing Areas

Valium  
Diazepam  
Morphine  
Vistaril  
Barbiturates  
Phenobarbital  
Mefenorex  
Seduxon Amytal  
Secobarbital  
Quaalude  
Meksidin  
Dalmane  
Chloral Hydrate  
Seduxon

Indication for Use Terminology

Muscle Relaxant  
Anticonvulsant  
Nausea/Vomiting  
Tranquilization  
Hypnotic (Sleep)  
Sedation  
Dermatology Problems  
Status Epilepticus  
Other

- For "prn's" given on an occasional basis indicate the number of times the prn was given in November 1973, December 1973, and January 1974. List on the back of the sheet and identify clearly.
- Use the back of the sheet if more space is needed.

Name