

CSF

STAFFING OF DISMISSAL TEAMS

422 - 68

AUTHOR: P. GONZALEZ

BACKGROUND

At the request of the Housekeeping Department and Administration, the Systems Engineering Department conducted a study to determine the proper staffing level of the dismissal teams. A problem seemed to exist with the number of units dismissed at certain periods of the day which made it impossible for the dismissal teams to properly discharge-clean all the units during those periods.

PURPOSE

The purpose of this report is to discuss the findings of the study and make proper recommendations.

SUMMARY

1. Time standards were developed for discharge-cleaning of rooms:
 - a. Fifty (50) man-minutes for regular rooms.
 - b. Fifty-six (56) man-minutes for emergency rooms.
2. Number of rooms discharge-cleaned per day were obtained; thus proper staffing levels were determined and compared by the hour of the day with the present staffing level.
3. For the period of 12 noon through 4:00 p.m. an additional dismissal team is needed in order to maintain the quality standard required by Foote Memorial Hospital.
4. Patient transfers were analyzed and time and cost analysis were made comparing Nursing personnel time versus Housekeeping personnel time for discharge-cleaning and furniture moving.
 - a. It is cheaper to move furniture during a transfer than to discharge-clean the room.
 - b. Before a decision is made to move furniture on all transfers within one unit, other factors -- described in the report proper -- should be considered.
5. Calls for emergency discharge-cleaning were analyzed and it was determined that Housekeeping personnel responds rapidly and that the majority of the rooms discharge-cleaned are occupied within one hour after the room is completed.
6. Since emergency calls tend to disrupt the work flow and require more time than regular rooms, it is recommended that a criteria for emergency calls be established and that communications between Admitting and Housekeeping be revamped by having Admitting call the Housekeeping supervisors instead of the dismissal teams for emergency rooms.
7. Housekeeping supervisors should schedule the dismissal team by assigning the rooms that have to be discharge-cleaned instead of letting the teams schedule their own work.

THE STUDY

Standards

The first step of the study was to determine the proper man-hours required to discharge-clean one patient room.

The Housekeeping Methodology Manual (HM-4) was used to determine the average time to discharge-clean a room. This time was determined to be 46 man-minutes. However, in order to arrive at a time standard exclusively for Foote Hospital, time studies were made of several discharge cleaning operations. The time standard arrived at through these time studies was determined to be 50 man-minutes per unit including normal traveling time but exclusive of personal allowances.

Normal traveling time is the time it takes a team to travel from one completed room to the next room in their schedule. Two factors were not considered in the time studies: time to answer calls, and abnormal traveling time due to emergency calls.

Standard data was used to estimate the times for these two factors. The time to answer a call was estimated at one (1) man-minute per call. The abnormal traveling time was estimated at five (5) man-minutes per emergency call.

Number of Dismissals

A previous survey (Traffic Survey, August 1967) shows that an average of 30 discharges and 13 transfers occur per day. This is a total of 43 rooms that have to be discharge-cleaned each day.

The daily Housekeeping records showed that an average of 31 discharges and 9 transfers -- for a total of 40 rooms -- were discharge-cleaned per day for the period of 1/29/68 through 2/6/68. Rooms discharged or transferred before 10:00 a.m. or after 6:00 p.m. have to be discharge cleaned by nursing personnel if the room is required for an incoming patient. It is estimated that three rooms per day (the difference between the 43 rooms determined by the previous survey and the 40 discharge-cleaned during the period under consideration) are either discharge-cleaned by nursing personnel, or the patient's furniture and belongings are transferred to another room by nursing personnel.

Patient Transfers

A fifteen day survey (11/20/67 through 11/25/67 and 11/27/67 through 12/5/67) taken by nursing personnel on 2 Main shows the following results:

- A. To transfer a patient within a unit, moving only the patient and his personal belongings, requires an average of 11 man-minutes of professional time (R.N., L.P.N.) and 6 man-minutes of semi-professional (N.S.) time for a total of 17 man-minutes not including the W.S. time.
- B. To transfer a patient within a unit moving the patient, his belongings and all the furniture, requires an average of 15 man-minutes of professional time and 15 man-minutes of semi-professional time for a total of 30 man-minutes not including the W.S. time.

The purpose of transferring all furniture is to eliminate the need for discharge-cleaning of the room.

From the above data it can be seen that it takes 13 man-minutes longer of nursing time to move furniture and save 50 man-minutes of discharge-cleaning time.

Economically speaking, the costs involved are as follows:

Nursing personnel cost for moving patient only	- \$.67
Nursing personnel cost for moving patient and furniture	- \$1.12
Housekeeping personnel cost for discharge-cleaning one room	- \$1.29

The above figures do not include W.S. time, or any overhead and fringe benefit costs.

If the patient is transferred, but the furniture remains in the room, the total cost is then \$1.96 (\$.67 + \$1.29) as compared with \$1.12 for moving the furniture as well as the patient.

Of the transfers that take place, 38% or 5 per day occur within the same unit. This means that of the 13 transfers that take place on an average day, 5 could be eliminated from the Housekeeping duties by moving the furniture and thus saving that department a total of 2.5 man-hours per day at the expense of 1.1 man-hours of nursing personnel time.

Although it is obviously cheaper to move the furniture when the patient is transferred, other factors should be considered when making a decision as to whether or not to move the furniture:

1. Moving furniture is extremely cumbersome and difficult for some nurses; therefore,
2. A certain danger exists because of the possibility of back strain or injury to the employees.
3. Moving of furniture causes noise.
4. There is the possibility of injuring the patient.
5. unless the equipment is mounted on casters, the possibility of breakage or undue strain of the equipment exists.

ANALYSIS AND CONCLUSIONS

Total number of rooms

Table I and Figure I (Appendix) show a breakdown of the rooms discharge-cleaned by the hour of the day. The data has been divided into regular discharges and emergency discharges.

Regular discharges are those units which the dismissal team cleans as they make their regular rounds. Emergency discharges are those rooms for which the dismissal team is specifically called by Admitting.

It can be seen that the peak period occurs between 1:00 p.m. and 4:00 p.m.

With the number of discharged units requiring cleaning and the time standard for the cleaning operation, Table II and Figure II were constructed in order to compare available manpower with the required manpower to complete the units.

Of the 9.4 additional man-hours required per day, 8.2 occur during a four hour period (12 noon through 4:00 p.m.). It is obvious then, that either an additional dismissal team has to be provided during that four-hour period, or the level of cleanliness of discharge units declines, as it must presently be the case.

An average of 40 rooms per day were discharge-cleaned during the period surveyed. This would have required a total of 34.4 hours per day and only 25 man-hours were available; therefore, a study was conducted of the actual times that the dismissal teams required to clean the units. It was found that the times raised from 28 man-minutes to 60 man-minutes per room and averaged at 40 man-minutes. It can be surmised that the quality of cleanliness was at a level less than standard since the units were cleaned at less than standard times.

Emergency Calls

Since emergency rooms tend to disrupt the smooth flow of work, and these constitute 30% of the rooms cleaned, it was decided to analyze the nature of the emergency calls and the time intervals between calls and patient occupancy.

During the period of seven days, Housekeeping Department personnel monitored emergency calls. Thirty-two emergency calls were monitored but only nineteen of these provided enough data for an analysis.

Table III Appendix shows the results of the time intervals between the time the call came through and the time the unit was completed; the time the unit was completed and the room occupied; the time the call came through and the room occupied.

The average time for completing a unit after the call came through was 28 minutes (56 man-minutes); the average time for the patient to occupy the room after it was completed was 44 minutes.

Sixty-nine per cent of the rooms were completed within 1/2 hour from the time the call was placed and 95% were completed within the hour. This means fast response from the dismissal teams.

Fifty-three percent (53%) of the rooms were occupied within 1/2 hour after the room was completed and 79% were occupied within the hour. This seems a fairly good percentage for fast occupancy. However, a criteria should be established to determine what constitutes an emergency room and what lead time should be given to the Housekeeping Department for discharge-cleaning an emergency room.

Communications

The present system of communications between admitting and Housekeeping should be modified. Presently Admitting pages the dismissal team directly and tells them which emergency rooms have to be discharge-cleaned. It is recommended

that these calls--as well as any requests from nursing personnel--be routed through the Housekeeping Supervisors in order to preserve the normal chain of command. It is also recommended that the Housekeeper Supervisors make periodic rounds of the nursing units in order to determine which rooms have to be discharge-cleaned. With this information, the supervisor can assign the teams to specific units; thus the supervisor always knows the exact location of the teams, the status of the work, and better all around communications will exist.

Recommendations for Staffing

As mentioned before, in order to discharge-clean one patient room at the quality standards set for Foote Hospital, it is necessary to allocate 50 man-minutes of maid time.

For the period of 12 noon through 4:00 p.m. it is necessary to add approximately 8 man-hours or an additional team. This can be achieved one of two ways:

1. Ideally, hire two part-time employees to work only between 12 and 4 p.m.
2. If the above is not possible, and the set quality standard is denied, it will be necessary to hire two full time employees to discharge-clean rooms approximately four hours per day and assigned to project work the other four hours.

Transferring of furniture by nursing personnel would help Housekeeping but would not eliminate the problem especially if the transfers occur before noon or after 4:00 p.m.

Other possibilities exist such as discharge-cleaning of rooms by the regular maids assigned to each unit or floor; however, this alternative might create some problems since the present workloads are satisfactory and thus the regular maids might have to let some of her regular work go.

APPENDIX

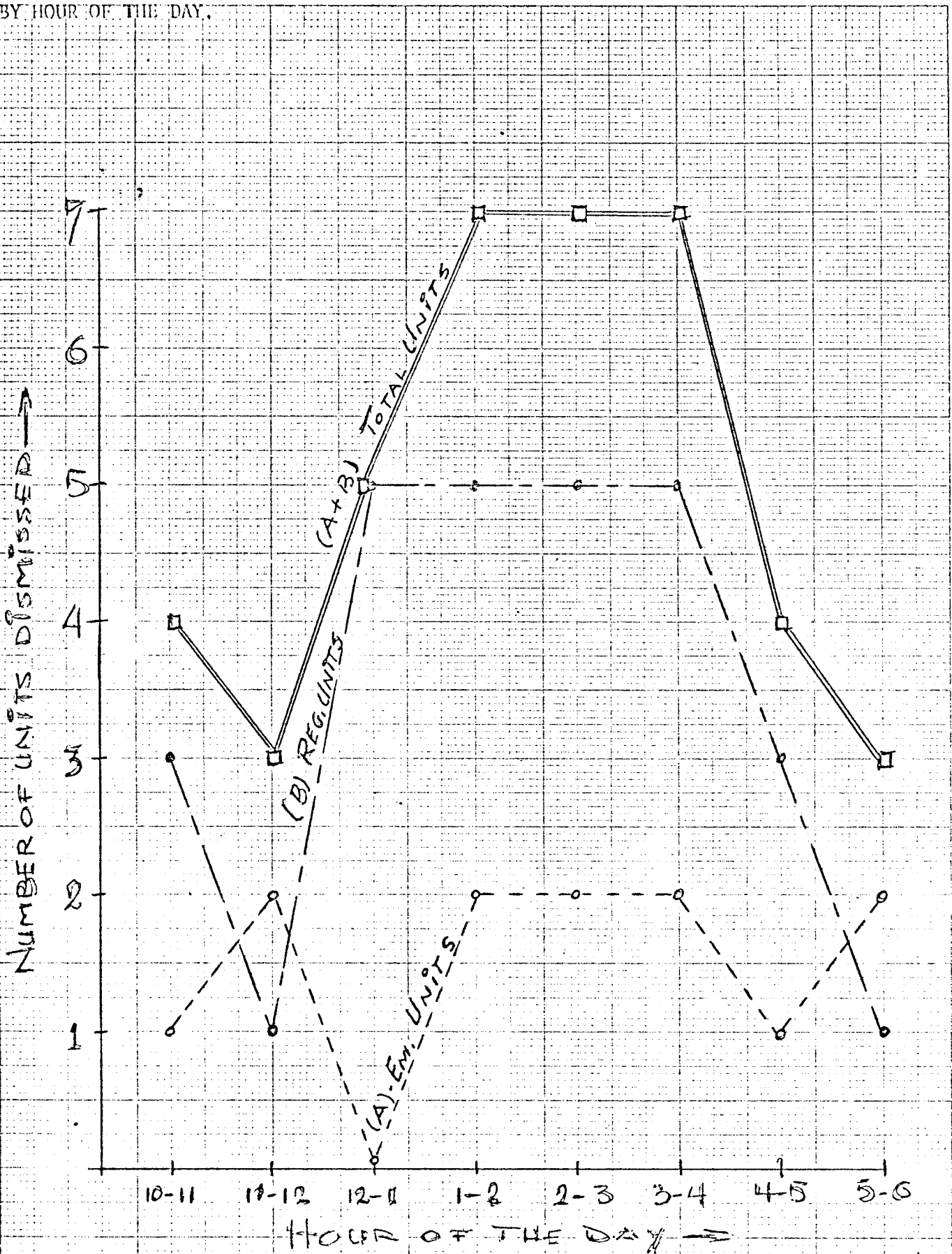
TABLE -- 1

Comparison of regular versus emergency dismissal units completed per day, by the hour of the day.

HOUR OF THE DAY	(A) EMERGENCY UNITS	(B) REGULAR UNITS	(A+B) TOTAL UNITS	PERCENT OF EMERGENCY UNITS
10-11 AM	1	3	4	25%
11-12 Noon	2	1	3	66%
12-1 PM	0	5	5	0
1-2 PM	2	5	7	29%
2-3 PM	2	5	7	29%
3-4 PM	2	5	7	29%
4-5 PM	1	3	4	25%
5-6 PM	2	1	3	66%
TOTAL	12	28	40	30%

SOURCE: Housekeeping Dept. Data
TABULATED BY: P.G.
DATE: February 23, 1968

GRAPHICAL COMPARISON OF REGULAR, EMERGENCY AND TOTAL DISMISSAL UNITS COMPLETED PER DAY, BY HOUR OF THE DAY.



SOURCE: TABLE 1

DRAWN BY: P. G.

DATE: FEBRUARY 23, 1968

EUGENE DIETZGEN CO.
MADE IN U. S. A.

100% RECYCLED PAPER
50% POST CONSUMER WASTE

TABLE - 2

COMPARISON OF AVAILABLE VERSUS REQUIRED MANPOWER FOR DISCHARGE CLEANING
PATIENT ROOMS PER DAY

HOUR OF THE DAY	(A) NO. OF UNITS DISMISSED*		(B) EXISTING MAN-HOURS	(C) REQUIRED MAN-HOURS**	(C-B) ADDITIONAL MAN-HOURS RQD
	Emer.	Reg.			
10-11 AM	1	3	3.5	3.4	--0.1
11-12 NOON	2	1	2.5	2.7	+0.2
12-01 PM	0	5	3.0	4.2	+1.2
01-02 PM	2	5	4.0	6.0	+2.0
02-03 PM	2	5	3.5	6.0	+2.5
03-04 PM	2	5	3.5	6.0	+2.5
04-05 PM	1	3	3.0	3.4	+0.4
05-06 PM	2	1	2.0	2.7	+0.7
TOTAL	12	28	25.0	34.4	9.4

*Data obtained from a nine-day sample 1/24/68 through 2/6/68.

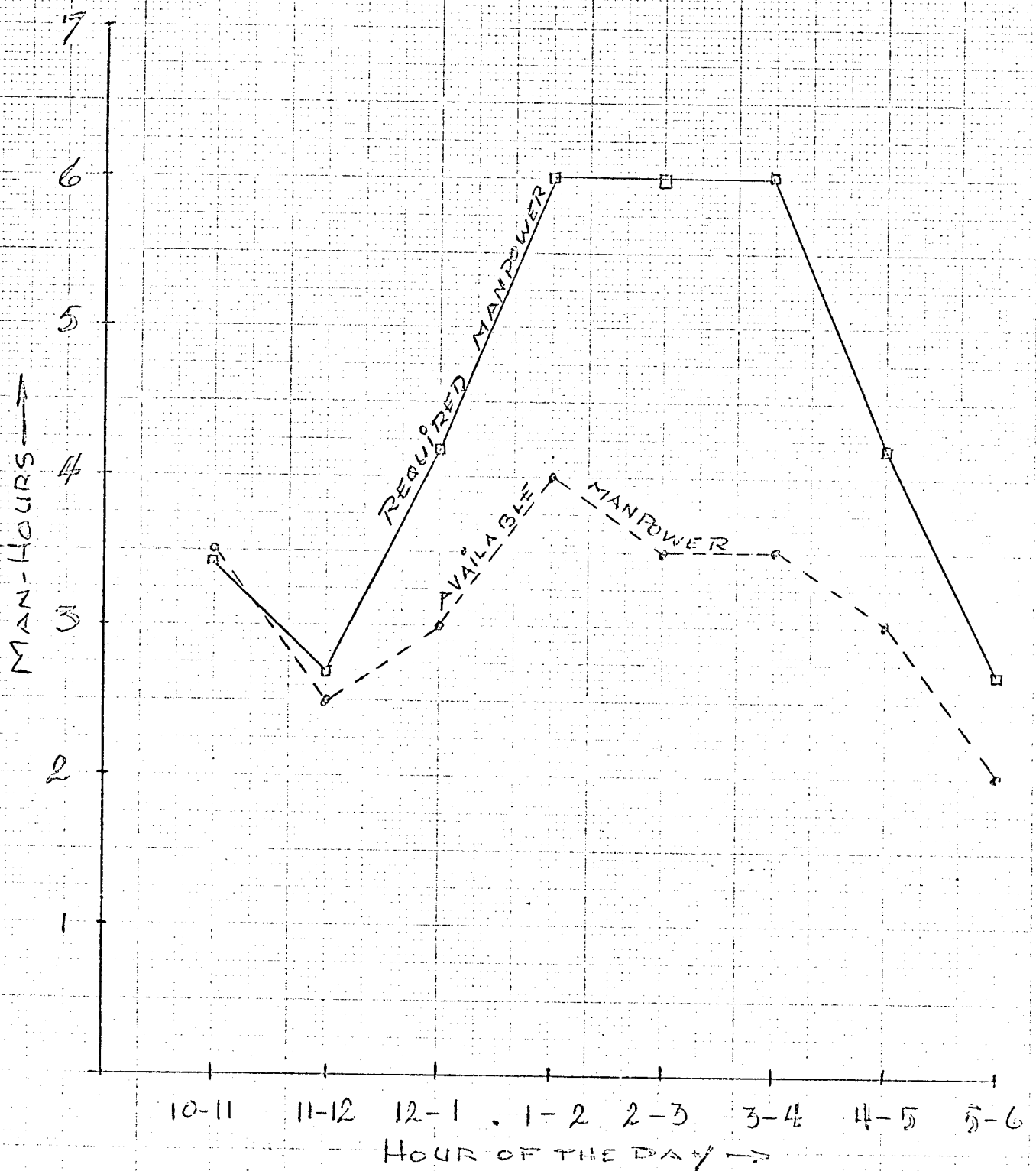
**Required man-hours obtained by adding the results of the following multiplications:

No. of emergency units discharge - cleaned X 0.935

No. of regular units discharge - cleaned X 0.835

SOURCE: Housekeeping Dept. Data
 TABULATED BY: P.G.
 DATE: April 26, 1968

GRAPHICAL COMPARISON OF AVAILABLE VERSUS REQUIRED MANPOWER FOR DISCHARGE CLEANING PATIENT ROOMS PER DAY



EUGENE DUFFISON CO.
MADE IN U.S.A.

SOURCE: TABLE 2
 DRAWN BY: P.G.
 DATE: March 1, 1968

TABLE - 3

DISTRIBUTION OF TIMES ELAPSED FOR THE FOLLOWING INTERVALS:

- A. Between the time Admitting called Housekeeping to discharge-clean a room, and the time that room was completed.
- B. Between the time the room was completed and the time the patient occupied the room.
- C. Between the time Admitting called and the time the room was occupied.

TIME ELAPSED	A		B		C	
	RMS.	%	RMS.	%	RMS.	%
FROM 0 TO 30 MIN.	13	69%	10	53%	5	26%
" 31 " 60 "	5	26%	5	26%	5	26%
" 61 " 90 "	1	5%	1	5%	5	26%
" 91 " 120 "	0	--	1	5%	1	5%
" 121 " OVER	0	--	2	11%	3	17%
AVERAGE TIME	28 MIN.		44 MIN.		72 MIN.	

SOURCE: 19 rooms surveyed by
Housekeeping

TABULATED BY: P.G.

DATE: April 26, 1968