This work-study was carried out to find the difference between assigning Nurses as per bed occupancy rate and as per physical dependency of the patients, and to compare the both with the standard norms (Nurse-Patient ratio) of International Council of Nursing (ICN).

Prior to this study six weeks observation work-study was conducted to find out the actual Nursing hours needed for totally dependent patients, partially dependent cases and independent in 24 hours in each ward. Accordingly Nursing Supervisors were assigned to observe the actual time spent by Nurses with each patient, the number of totally dependent / dependent and self cared cases were equally divided among the shift Nurses in these wards. Continuous observation method was adopted round the clock by the observer Nursing supervisors to find out actual time spent by the Nurses with each patient doing Nursing job. This study excluded the transportation job of Nurses, like carrying patients to different departments for diagnostic and therapeutic procedures or taking blood samples to different laboratories and collecting supplies from the department. As according to current health research it is not productive or cost effective to use highly skilled professional Nurses to perform low skilled duties. Therefore, such job was assigned to the ward attendants.

On the basis of this information (Actual Nursing hours needed per patient and bed occupancy rate) the comparative study was conducted. Efforts have also been made to study the complexity of procedures, type of patients admitted in these wards. Their length of stay and quantum of services required.

This study will provide conceptual framework for orderly presentation of information regarding Nursing staff requirement as per bed occupancy rate and as per physical dependency of patients.

**Objectives**

1. To determine the number of Nurses required for Multidisciplinary wards.  
2. To differentiate the required number of Nurses for multidisciplinary wards with standard norms of International Nurses Council (ICN).  
3. To compare the standard norms with the number of Nurses needed as per bed occupancy rate.  
4. To determine the number of Nurses needed as per required Nursing hours per patient for 24 hours in these wards and compare the standard norms and bed occupancy rate with required Nursing hours.

**Target**

(Though the author selected four pilot wards with multidisciplinary department with the bed capacity of 25 beds in each, we have taken only one ward due to the space constraints here).

M1 = Internal Medicine, Gen. Medicine, Gastroenterology, Cardiology.  
Nsg. Supervisor - 1  
Shift Ward Inch. - 3  
Shift Nurses - 12  
Ward Attendant - 1

**Methodology**

This study is based on the information obtained from Hospital Information System (HIS) for one year regarding bed occupancy rate, average length of stay and efficiency grade of each inpatient area. The study considered the norms (Nurse patient ratio) suggested by international Nursing Council and also Nursing hours needed per patient per 24 hours of these multidisciplinary wards.

**Ward MI**

<table>
<thead>
<tr>
<th>Allotted No. of beds</th>
<th>25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bed occupancy rate</td>
<td>22.95</td>
</tr>
<tr>
<td>Average stay days</td>
<td>5.1</td>
</tr>
<tr>
<td>Nurse patient ratio (ICN)</td>
<td>1.5 Per shift</td>
</tr>
<tr>
<td>Required Nursing Hours</td>
<td>3.4 hour per patient 24 hours</td>
</tr>
<tr>
<td>Efficiency grade</td>
<td>91%</td>
</tr>
</tbody>
</table>

1. Requisite No. of Nurses as per allotted bed $ \times 3 \text{ shifts} /$

Nurse patient ratio $25 \times 3 = 15$

2. Requisite No. of Nurses as per bed occupancy rate

Nurse patient ratio $22.95 \times 3 = 13.77$

$\frac{13.77}{5} = 14 \text{ Nurses}$

3. Requisite No. of Nurses as per required Nursing hours per patient for 24 hours $\times$ No. of allotted beds

$3.4 \text{ hours} \times 25 = 85.0 \text{ Nursing hours} \times 10.5 \text{ Nurses}$

**MI**

This inpatient area houses Internal medicine, General medicine, Cardiology and Gastroenterology. The bed occupancy rate was 22.95 beds occupied out of 25 (92%) and average length of stay 5.1 days. The manpower requirement was calculated as per bed occupancy rate (B.O.R.) as per Nurse patient ratio given by International...
it is important that a hospital should recruit one clerk cum administrative Nurse for each ward who will look after that job.

References:

Reader’s View

This letter was written by Ms. TK Adranvala, the great Nurse leader whom we lost on 29th November 2000, to Mr. A B Kulkarni, former Vice President, TNAI. This is being reproduced in her own handwriting. Her clarity of thoughts and concern are evident from this letter written on a post card.

Dear Mr. Kulkarni,

I am sorry for the delay in replying to your letter of 15th May 2002. I am living here in the home of a friend and do not have any documents with me. This house has no connection with our home in Lomdalia but you may contact Mr. Kulkarni.

I am sorry that I shall not be able to meet you. I am alone here and not able to converse with anyone without my wife.

Sincerely yours,

Mrs. Arvind Kulkarni

15, Fakrul Alam

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