Combating High In-Patient Bed Occupancy through Re-engineering with Expansion of Day Ward Services

Renal Unit

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Introduction

- High bed occupancy rate of over 110% in M&G wards / PMH was frequently observed and became a ‘norm’.

- In 2015, it was found that over 80% of admission in renal ward were clinical cases that included IPD patients who might require 20-30 hourly cycles” IPD treatment throughout day and night and required staying in ward as in-patient.

- This group of patients was considered suitable to be cared in the day care setting with careful selection and treatment modification.

Objectives

- To reduce admission by switching clinical cases admitted for Intermittent Peritoneal Dialysis (IPD) to day care setting, to release in-patient overnight beds and ease the upsurge of in-patient bed situation.
Addition of medical supplies and consumables

• Forms / documents

• Patient selection criteria
• Treatment protocol
• Emergency Management

• Addition of IPD machine
• Extra equipment

• Adjustment of manpower & staffing schedule

Usual in-patient IPD treatment: 20-30 hourly cycles, twice weekly

Day IPD treatment: 8-10 hourly cycles, thrice weekly
After expanding the day services for IPD cases since 1 Jan 2016, a total of 710 and 757 sessions of day IPD were performed in P1 day ward / PMH in the year of 2016 and 2017 respectively.

This resulted in reduction of 473 (35%) and 504 (34%) IPD admissions to P3 in-patient renal ward in these two years.
## Result & Outcome (2)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total no. of in-patient admission (P3 in-patient renal ward)</th>
<th>No. of ‘clinical’ in-patient admission (%)</th>
<th>Proportion of clinical admission (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>1,404</td>
<td>1,165 (83%)</td>
<td>‘clinical’ admission 83%</td>
</tr>
<tr>
<td>2016</td>
<td>1,517</td>
<td>880 (58%)</td>
<td>‘clinical’ admission 58%</td>
</tr>
<tr>
<td>2017</td>
<td>1,844</td>
<td>959 (52%)</td>
<td>‘clinical’ admission 52%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Average occupancy rates (December)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>129%</td>
</tr>
<tr>
<td>2016</td>
<td>110%</td>
</tr>
<tr>
<td>2017</td>
<td>112.5%</td>
</tr>
</tbody>
</table>

- Although the total number of in-patient admissions increased from 1,404 in 2015 to 1,517 in 2016 to 1,844 in 2017, the proportion of clinical admissions was decreased from 83% to 58% to 52% respectively.
- The average occupancy rates in renal ward were improved.

## Conclusion

Smartly expanding Day Ward services and switching suitable clinical service to Day Ward could help combating high bed-surge situation in in-patient renal ward.