Developing a system wide hospital tool to inform hospital escalation status

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Introduction

A demand escalation plan enables a hospital to respond in a systematic and controlled way when unexpected increases in activity occur, which threaten to exceed hospital capacity and diminish quality of patient care.

It is designed to mitigate the risk of further escalation and return the system to safer levels. Timely key patient flow data which is available to hospital managers who are managing the system is essential to this process.

This plan was developed to support and maintain high standards of patient safety, patient experience and performance against key performance targets including waiting times, in UL Hospitals Group.

To support this plan the Capacity and Demand Dashboard was developed as an objective visual tool which can enable the hospital group to continually balance and meet these demands. It can provide daily escalation statuses at intervals which initiates appropriate organisational responses.

Aims

The establishment and implementation of an effective demand management and escalation plan and associated dashboard which contributes towards the following:

• Improved patient safety and experience
• Improved communication
• Improved patient flow through the system
• More effective use of resources to meet the organisations trends in capacity and demand
• Consistent approach in defining escalation status

Methods

A capacity and demand dashboard was developed in Microsoft Excel (2010) with input from bed management, clinicians and hospital management.

The dashboard utilises key service data such as current bed capacity, demand, pending capacity etc. which can be inputted at agreed intervals.

Through a series of formulae the bed balance in the directorates is automatically calculated and assigns the escalation status for the hospital.

This dashboard tool was piloted in a one week period from 18/5/2015 to 24/5/2015. During this period it was utilised in two core management meetings in the morning and afternoon.

Structured feedback on the pilot centred around the role of the dashboard, what they liked about it, what could be improved and the appropriateness of current response actions.

Results: Tools

The dashboard

It provides information on:
• The current bed capacity in both Medical and Peri-operative beds
• The current demand (planned and unplanned) for those beds and where these patients are e.g. on ward trolleys, in ED etc.
• Pending capacity
• The operational status of AMU and SAU and availability of ICU or HDU beds
• The free capacity in the other hospitals in the hospital group which provide options for transfer

Figure 1. Screenshot of the morning Capacity and Demand Dashboard

This data is used to calculate bed balance in the directorates which informs the escalation status for the hospital group. The calculations were tailored to reflect known patterns of capacity and demand.

The escalation status

Triggers for Escalation Levels

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GREEN</td>
<td>Celebrate Normal Working</td>
</tr>
<tr>
<td>AMBER 1</td>
<td>Monitor &amp; Communicate</td>
</tr>
<tr>
<td>AMBER 2</td>
<td>Act Implement action cards</td>
</tr>
<tr>
<td>RED</td>
<td>Executive or Cell Leaders meeting</td>
</tr>
</tbody>
</table>

Figure 2. The escalation status trigger levels

The escalation status is based on a formula which evaluates key capacity elements and reflects the level of risk to patient safety and the extent to which patient experience may be compromised.

Key staff members have action cards with corresponding actions for each of the escalation status levels.

Results: Pilot

The pilot

Responses from stakeholders who were involved in the pilot were reflected in the following themes;

• Escalation thresholds and differing dashboard calculations for different parts of the day were appropriate
• An objective measure of escalation status that factored in different parts of the hospital system was useful
• Key information that was timely and meaningful was communicated clearly by the dashboard
• Seeing the escalation status increased morale and may have positively influenced behaviour
• Action cards needed revision to match levels
• Some respondents spoke about how it might be useful to have the dashboard converted into mobile phone app.

Conclusions

Dashboards have been utilised to depict demand in other hospital settings. The unique aspect of this pilot project was the interaction of the dashboard and the escalation plan.

The dashboard and associated escalation plan allows the following;

• Early identification of capacity problems
• Proactive rather than reactive response
• Concise and clear actions
• Defined responsibilities
• Transparency of UL Hospitals Group service delivery system
• Promotion of the effective utilisation of resources

References


Acknowledgements

Thanks to the bed management team in UL Hospitals Group and those who participated and provided feedback during and after the pilot.

This project was supported by Professor Colette Cowan (CEO ULHG) and Dr Mai Mannix (Director of Public Health DPH Mid-West).

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