Queue Management System in Blood Taking Station of Specialists Out-Patient Department
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Introduction
Queuing is common in clinics, from booking of appointment to dispensing. Blood Taking Station in PYNEH SOPD is not the exceptional, and often challenged by clients queuing for several specified services, like blood sampling, dressing, injection, etc. In order to improve services efficiency and patient notification, a well-planned and structured queue management system (QMS) is implemented.

Objectives
An electronic QMS was introduced in Blood Taking Station in SOPD, PYNEH in early 2015 to facilitate the queuing process, and to improve the experience of both patient and staff.

Methodology
The QMS was aimed at replacing tasks currently done manually such as issuing number tags, announcing queuing numbers for different procedures, answering patient enquiries regarding current tag number serving and number of patients waiting for blood taking. A self-developed survey tool was used to collect data in 4 areas among staff, includes: Total attendance for blood sampling, Number of announcements, Number of episodes in answering patients’ waiting time & Number of episodes for staff leaving their seats to direct patient for blood sampling. 1 week pre and 1 week post survey were conducted before and after implementation of the QMS. Results were listed below:

<table>
<thead>
<tr>
<th></th>
<th>Period</th>
<th>Total</th>
<th>Attendance for blood sampling</th>
<th>Number of announcements</th>
<th>Number of episodes in answering patients’ waiting time</th>
<th>Number of episodes for staff leaving their seats to direct patient for blood sampling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>2479</td>
<td>498 (20%)</td>
<td>360 (15.3%)</td>
<td>66 (2.7%)</td>
<td>302 (11.9%)</td>
<td></td>
</tr>
<tr>
<td>Post</td>
<td>2532</td>
<td>0 (0%)</td>
<td>74 (2.9%)</td>
<td>74 (2.9%)</td>
<td>302 (11.9%)</td>
<td></td>
</tr>
</tbody>
</table>

As the post-survey was done shortly after implementation of the QMS, no significant improvement in decreasing the episodes in answering patients’ waiting time and episodes for staff leaving their seats to direct patient for blood sampling were expected. However, manpower was definitely saved in making announcements to direct patient into the blood taking stations orderly.

Result
Transparency of waiting time was highly communicated among staff and patients. Data regarding waiting time can be retrieved in a more convenient and accurate way, which leads to accurate interpretation and solving of bottleneck time slot and better utilization of resources. It is expected the use of QMS can be further generated in other clinical areas in the future for better patient and staff satisfaction, monitoring and evaluation of service performance.