SDA Optimisation eliminating the “need” for House Officer deployment on Surgery Day

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Background

The Same Day Admission (SDA) ward performs pre-op checks for all SDA and Day Surgery (DS) patients. On an average, SDA ward may see up to 25-30 patients, amounting to 75% of the average daily surgery load. The efficiency of preparing patients prior to surgery will prevent delays to the Operating Theatre schedule. Currently, the pre-op assessment requires an average of more than 60min per patient. Streamlining the processes in SDA will optimise clinical manpower deployment and improve patient experience.

Current State

Process flow of pre-op SDA / DS patients:

1. Patient turns up at S02/S03 for registration
2. Patient will be called to waiting area pending pre op assessment
3. SDA Nurse calls patient to consult room to perform assessment
4. SDA Nurse calls for discipline HO
5. Patient exits consult room, awaits for HO at waiting area
6. HO arrives, nurse calls patient into consult room for assessment
7. HO assesses patient, then creates OT chit
8. SDA Nurse informs OT Nurse to fetch patient
9. OT Nurse fetches patient for Op

Average Total Process Time: 85min

Root Cause Analysis

The current process flow had various interdependences resulting in unnecessary delays and inefficiencies. Process 4, 5, 6 and 7 circled in red below are the critical “delay points”

Key Delay Factors:
1. Long Wait for HO’s arrival at SDA
   - HO is preoccupied with ward rounds and/or other clinical duties.
2. Bottleneck at HO’s Assessment
   - HO’s assessment can only be done after Nurse’s assessment.
   - There is only 1 HO to assess multiple patients on the same day.
3. Overhead in OT Chit Creation by HO

Goals / Targets

To reduce average total pre-op assessment time by 50% from 62min to less than 30min within 2 months.

Interventions / Initiatives

PDSA-1
1. Elimination of HO Assessment on Surgery Day
   a. Implement the SDA pre-clerk note for primary surgical team to put up (within 72hrs) prior to the surgery.
   b. Implement an SDA checklist where SDA nurses could make reference to the pre-clerk note to assess patient.
2. Elimination of OT Chit Creation by HO
   a. Develop an excel computation system to auto-populate barcodes replacing OT chits.

PDSA-2
3. Retiteration of new processes to all stakeholders

Implementation Plan

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<thead>
<tr>
<th>S/N</th>
<th>Implementation Plan</th>
<th>Timeline</th>
<th>Implemented by:</th>
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<tbody>
<tr>
<td>1</td>
<td>Design and implementation of the SDA pre-clerk checklist</td>
<td>08 Oct – 26 Oct 19</td>
<td>Dr Chua Hui Wen</td>
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<tr>
<td>2</td>
<td>Design and implementation of the Nursing SDA checklist</td>
<td>15 Oct – 26 Oct 19</td>
<td>NC Nazeemah</td>
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<td>3</td>
<td>Design and implementation of the barcoded charge form system</td>
<td>05 Nov – 09 Nov 19</td>
<td>Aven Ng</td>
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<td>4</td>
<td>Seeking endorsement and approval from all stakeholders</td>
<td>12 Nov – 23 Nov 19</td>
<td>A/Prof Chew Min Hoe</td>
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<tr>
<td>5</td>
<td>Implementation of PDSA-1</td>
<td>3 Dec 19</td>
<td>All</td>
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<tr>
<td>6</td>
<td>Implementation of PDSA-2</td>
<td>14 Jan 19</td>
<td>All</td>
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Results / Follow up

Initial rollout did not attain 100% awareness of new processes by staff, hence the results showed less than 20% reduction in total pre-op assessment time. After PDSA-2 was implemented, there was significant improvement of more than 65% reduction in total pre-op assessment time.

With the elimination of HO assessment on surgery day, the clinician manpower requirement is streamlined and the respective surgical teams can better redeploy their limited HO resources to fulfill other clinical duties.