

# Development of Structured Inter-shift Nursing Handover Process in Acute Medical Wards

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## Introduction

Inter-shift nursing handover is defined as “the transfer of professional responsibility and accountability for some or all aspect of patients”. With an increasingly bed occupancy rate and high patient care acuity, it is being recognised that ineffective inter-shift handovers can be hazardous towards patient care.

Structured inter-shift nursing handover process seeks to identify practice gaps and process waste; enhance patient safety and service delivery; and improve staff satisfaction and productivity.

## Assessment of problem

Various problems were identified through an observation study. The findings were:

- ❖ Discrepancy in nursing handover process (refer Table 1);
- ❖ Repetitive information handover results in non value time spent (refer Table 2);
- ❖ Lapses and inconsistency in bedside safety checks;
- ❖ Lack of meaningful interaction between nurses and patients.

**Table 1: Summary of the Handover Process in different wards**

Wards	Greet Patient	Safety Check	Documentation Handover	System Handover	Pre-Check	Within 5mins/Patient	EN Take Report
L5	✓	✓	✓	✓	✓	✗	✗
L7	✗	✗	✓	✓	✓	✓	✓
L8	✓	✗	✓	✓	✓	✗	✗
L9	✗	✗	✓	✗	✗	✗	✓
L10	✗	✓	✓	✓	✓	✗	✓
L11	✗	✗	✓	✓	✗	✓	✓
L12	✓	✗	✗	✓	✗	✗	✗
L13	✓	✗	✓	✓	✓	✗	✗
✓	Standard Practice Met			✗	Standard Practice Not Met		

**Table 2: Productivity Value**

Time spent/staff/patient	8 mins/patient
Time spent/3staff/6patients (cubicle)	24 mins x 6 = 144 mins = 2.4 hours
Time spent for 6 teams/shift/ward (ward/shift)	2.4 hours x 6 = 14.4 hours
Time spent for 6 teams/3 shifts (whole ward)	14.4 hours x 3 = 43.2 hours
Time spent for 6 teams/3 shifts/year (per ward)	43.2 hours x 365 = 15,768 hours (9.5 FTE)

## Strategy for change

Structured nursing handover process was developed:

- ❖ IDRTr: Identification, Diagnosis, Risk, Treatment and Response as communication tool (refer Table 3)
- ❖ Mandatory bedside safety checks;
- ❖ Meaningful interaction with patients, e.g. introduction of incoming shift nursing team to patients

Content	Presentation
<b>I:</b> Identifier	<b>Address the patient</b>
<b>D:</b> Diagnosis	<b>Latest clinical diagnosis</b>
<b>R:</b> Risk <b>Tr:</b> Treatment & Response	<p><b>Overview of patients' condition:</b> Summary of the 24 hours' condition &amp; overnight event</p> <ul style="list-style-type: none"> <li>▪ Vital signs</li> <li>▪ Overnight events</li> <li>▪ Intake and Output</li> </ul> <p><b>Subspecialty (P. R. S)</b></p> <ul style="list-style-type: none"> <li>❖ <b>Patients' problem list (Nursing Kardex)</b> <ul style="list-style-type: none"> <li>▪ GM patients: eg. Pain, Pressure Ulcer</li> <li>▪ GS patients: eg. Wound site, Circulation, Drain</li> </ul> </li> <li>❖ <b>Recommendation / Review</b> <ul style="list-style-type: none"> <li>▪ Recommendation: Refer PT, OT, Dietitian</li> <li>▪ Review: Tubes, Medication, HC, Para</li> </ul> </li> <li>❖ <b>Social Issues</b></li> </ul>

This project took place in an acute medical setting over a period of 6 months from September 2015 to March 2016.

The phases include:

- ❖ Process mapping and review data for problem worth solving;
- ❖ Develop mission statement; identify main cause and intervention through brainstorming sessions;
- ❖ Rapid improvement experiment for a week to gather feedback;
- ❖ Implement intervention and continuous improvement through PDSA cycles;
- ❖ Develop audit to monitor compliance and behaviour change

## Measurement

Pre-and post-implementation data were collected in 4 acute medical wards using 3 domains; patient safety, staff productivity and patient satisfaction:

No	Impact	Measures	Before Change	After Change	Difference
1	Improved patient safety	Clinical incidents of tube/drainage dislodgement	16	6	↓ 62.5
2	Improved productivity	Time saving per moderate to complex case handover	8mins (9.5 FTE)	5mins (4.4 FTE)	↓ 3mins (5.1 FTE)
3	Improved service quality	Patient satisfaction survey	70.7%	82.0%	↑ 11.3%

## Effects of changes

- ❖ Improved patient safety by reducing clinical incidents;
- ❖ Staff was able to complete handover and be punctual for ad-hoc training sessions;
- ❖ Patients commended nurses' effort for the interactive communication

## Message for others

It is evident that inter-shift nursing handover must be structured. It promotes a better opportunity to improve service delivery, patient safety and time saving.