

Project Title

Improving Staff Satisfaction of Perceived Workload in the ICU

Project Lead and Members

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Organisation(s) Involved

IHH Healthcare

Healthcare Family Group(s) Involved in this Project

Healthcare Administration

Applicable Specialty or Discipline

Healthcare Administrators

Project Period

Start date: Feb 2023

Completed date: Aug 2023

Aims

To improve staff satisfaction of perceived workload of ICU RNs by 10% within 6 months.

Background

Gleneagles ICU is a multi-disciplinary combination of ICU and High Dependency patients. Current workload measurement is based solely on department census. Staff to patient assignment relies heavily on the experience and competence of the shift in-charge.

Methods

See poster appended/below

Results

Post-test results shows overall improvement against the pre-test results as follows:

- Difficulty assigning staff to patients fairly reduced from 85% to 60%.
- Difficulty justifying their decisions reduced from 80% to 53.4%.
- Satisfaction with their assignments improved from 42.9% to 55.3%.
- Assignments were done fairly improved from 50% to 57.9%.

Conclusion

See poster appended/below

Project Category

Organisational Leadership

Human Resource, Staff Wellbeing

Keywords

Registered Nurses, Staff Satisfaction, Ishikawa Diagram, Nurses burnout, Acuity Trend Tool, Quality Improvement

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Improving Staff Satisfaction of Perceived Workload in the ICU



Team Members

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1. PROBLEM Statement

Registered Nurses (RNs) in the ICU have given feedback regarding overwhelming workload and unfair staff to patient assignments.

3. AIM Statement & TARGET

To improve staff satisfaction of perceived workload of ICU RNs by 10% within 6 months.

2. BACKGROUND Information

Gleneagles ICU is a multi-disciplinary combination of ICU and High Dependency patients. Current workload measurement is based solely on department census. Staff to patient assignment relies heavily on the experience and competence of the shift in-charge

4. MEASURE & INDICATOR

We conducted a pre-test to measure their dissatisfaction and collected qualitative data for some of their reasons for dissatisfaction

5. CHANGE STRATEGY

We conducted a root cause analysis using an Ishikawa diagram and narrowed down the significant causes as a lack of objective patient data, no measurement of patient acuity, no categorisation of nurses according to their competencies, and nursing burnout. We also did a literature review, of which many studies have proven effectiveness of patient classification systems and incorporating measurements of patient acuity when accounting for manpower allocation and workload distribution. In conclusion, there was a need to establish a patient acuity measurement tool.

In February 2023, PDSA cycle 1, we started using the Acuity Trend tool. After data analysis, we concluded that each RN should be given a total maximum patient acuity score of 50. We achieved 100% compliance of tool utilisation.

In PDSA cycle 2, we focused on shift in-charge RNs, reinforcing usage of the scores to distribute workload, and calculate manpower required per shift. To eliminate the need for tedious calculations, patients were categorised into 6 categories, according to their scores.

SCORING	ACUITY TREND					DATE		
	1 Stable	2 Low-acuity	3 Moderate-acuity	4 High-acuity	5 Complex patient	SCORE AM	SCORE PM	SCORE ND
1 NEUROLOGICAL STATUS	Alert and Orientated	4 hourly GCS monitoring	Hourly GCS/ BIS/ Mild dementia/ Parkinsonism	Delirious/ Restraints/ 4hourly RASS	Sedation titration/ Restless/ Agitated/ Unable to leave unattended			
2 HEMODYNAMIC STATUS	4 hourly monitoring or less	Hourly BP	More often than 1 hour monitoring/ ABP	Labile BP/ ABP/ SLED	ECMO/ Pediatric/ VABP/ CRRT			
3 ADL / ISOLATION	Independent	Minimal assistance	Moderate assistance/ Contact Precaution	Maximum assistance 2 persons/ Airborne precaution	Maximum assistance >2 persons / Pediatric			
4 HYGIENE	Independent	Minimal assistance	Twice per shift	3 to 4 times per shift	More than 5 times per shift			
5 ADMINISTERING LINES	NIBP	CVP	ABP	2 monitoring	3 or more			
6 DRAINAGE DEVICES	NIL	1 drain	2 drains	3 to 4 drains	5 or more drains			
7 NUTRITION	Independent	Minimal assistance	Enteral continuous feeding	Enteral Bolus feeding/ Maximum assistance	Hourly - 2hourly bolus/ Pediatric			
8 IV (TPN/ HYDRATION/ INTERMITTENT)	NIL	1	2 to 3	4 to 5	6 or more/ Chemotherapy			
9 CHRONOTROPES/ SEDATION/ OPI/ DIURETIC	NIL	1	2	3 or more	4 or more			
10 RESPIRATORY	Room Air	Nasal prongs	Face mask/ Home Cpap/ Suctioning 1-2 times	BiPAP/ Hi-Flow/ Home ventilator/ Tracheostomy/ 2 hourly suctioning	Invasive Ventilation/ Hourly Suctioning			
11 PROCEDURES/ WOUND DRESSING	NIL	Simple wound/ line dressing	Accompany non-ventilated for scans/ procedures/ Assist OGD/ Colonoscopy	Tracheostomy/ Bronchoscopy/ Invasive line insertion/ Complex wound dressing	Intubation/ Resuscitation/ Accompany ventilated for scans			
12 PATIENT AND FAMILY EDUCATION/ ADMISSION/ DISCHARGE PLANNING	5 to 10 minutes	15 to 30 minutes	30 minutes	45 minutes - 1hour	Extensive >1hour			
TOTAL								

6. RESULTS

Post-test results shows overall improvement against the pre-test results as follows:

- Difficulty assigning staff to patients fairly reduced from 85% to 60%.
- Difficulty justifying their decisions reduced from 80% to 53.4%.
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- Assignments were done fairly improved from 50% to 57.9%.

7. LESSONS LEARNT

This was a Quality Improvement Project (QIP). To achieve reliability and validity of the tool to better convince more institutions to adopt this tool, this project could have been implemented as a pretest-posttest research study with content validation of the tool.