Acuity Based patient care –Effective Rostering

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Achieving Quality

- **NABH-COP: Standard-6**

- <u>Nursing Care is provided to patients in consonance with Clinical Protocols</u>

- **Excellence- Acuity Based Nursing Rosters**

- **Nursing Excellence –NCP-4 & NCP- 6**

1. Patient's condition and Nursing Competency shall be considered for staff assignment

2. Assignment of patients is based on patient needs

- A proven strategy to **optimize patient care**

- **Complex issue**

- Matching the **Right Nurse** to the **Right Patient** At the **Right Time**

Background and significance

- Patient Classification Systems have been utilized since the 1960's without standardization or consensus (Harper & McCully, 2007).

- With a combination of increasing health costs, decreasing nurse satisfaction, lack of communication tools, and staffing shortages; acuity tools can appropriately coordinate staff with patient needs (Twigg, Duffield, Bremner, Rapley, & Finn 2011).

- Low nurse-to-patient ratios are related to lower rates of adverse patient outcomes (Harper & McCully, 2007).

- "Patient classification systems and acuity tools allow managers and administrators to predict staffing needs and more accurately control nurse-to-patient ratios" (Harper & McCully 2007)

What is a Nursing Workload Acuity Tool?

➡ Nursing Workload Acuity tool is a scoring processes measure the level of care that is expected to be needed during the next shift to support the patients currently on the Unit.

Definition

- Acuity refers to the categorization of patients based on their required **nursing intensity.**

- Acuity, defined as the individual patient need for nursing care, can inform level of care, nurse staffing, and the nurse-to-patient assignment. Nurse-generated data in the electronic health record can be mined and analyzed for decision support.

- The Acuity score measures the **future workload** that can be expected to care for the patients currently on the unit.

- At the start of a shift, nurses can use Nursing Workload Acuity scores to determine which of their assigned patients might need more of their time or attention today.

- The Nursing Workload Acuity score is not a measure of the work that was already performed today, nor is it a measure of the **severity of the patient's condition**.

How Is Nursing Workflow Affected?

- The Nursing Workload Acuity tool does not add any **new tasks to the nurse's daily work**

- Nurses will continue to provide patient care the same way they do now, and they will probably document their patients requirements in Acuity tool.

- Aside from real-time documentation, there is nothing else the nurse needs to do to manage the Nursing Workload Acuity tool.

How Are Nursing Workload Acuity Scores Used?

Nursing Workload Acuity scores allow the nurse leader to:

- make sure high acuity patients are spread out evenly across the nursing care team

- identify unusual patient care needs that might require a different level of staffing than is expected to be available for the next shift

How can Nursing Workload Acuity Scores Be Used By Individual Nurses?

➡ At the start of a shift, nurses can use Nursing Workload Acuity scores to determine which of their assigned patients might need more of their time or attention today.

How the Score Is Viewed

CAH-PALAM TIHAR ICU

ACUITY TOOL MONTHLY SUMMARY SHEET

Month: 18-Dec

No. of bed: 12 — Pl. enter number of beds in ICU to get correct occupancy

DATE From 1 To 31

3Q SN / sh	6
3Q PT/ shi	8

3Q Occupancy	66.7%
P/N Ratio	1.33

Date	Shift	No. of pati	Req. SN	No. of IC	Scheduled Nurses (Roster)	New SN	Pull-in	Pull-out	Double Duty	Absent	Actual assigned SN	Excess / Deficit	% 1:1	% 1:2	% 1:3	Shift P/N
1	M	11	8	1	6	1	0	0	0	0	4	-4	45%	36%	18%	1.38
1	E	10	5	1	4	0	0	0	2	0	5	0	20%	10%	70%	2.00
1	N	8	5	1	4	0	0	0	0	0	3	-2	25%	13%	63%	1.60
2	M	12	7	1	6	1	0	0	0	0	4	-3	33%	8%	58%	1.71
2	E	6	4	1	4	0	0	0	1	0	4	0	33%	33%	33%	1.50
2	N	7	4	1	4	0	0	0	0	0	3	-1	29%	29%	43%	1.75
3	M	8	6	1	4	0	0	0	0	0	3	-3	50%	38%	13%	1.33
3	E	7	5	1	4	0	0	0	0	0	3	-2	43%	57%	0%	1.40
3	N	8	6	1	4	0	0	0	0	1	2	-4	50%	25%	25%	1.33
4	M	8	7	1	5	0	0	0	0	0	4	-3	63%	13%	25%	1.14
4	E	8	8	1	4	0	0	0	0	0	3	-3	63%	0%	38%	1.33
4	N	7	4	1	5	0	0	0	0	0	4	0	29%	29%	43%	1.75
5	M	7	5	1	5	0	0	0	0	0	4	-1	29%	43%	29%	1.40
5	E	3	2	1	4	0	0	0	1	0	4	2	33%	33%	33%	1.50
5	N	6	4	1	4	0	0	0	0	1	2	-2	33%	33%	33%	1.50
6	M	8	5	1	5	0	0	0	0	0	4	-1	38%	0%	63%	1.60
6	E	6	4	1	4	0	0	0	1	0	4	0	50%	0%	50%	1.50
6	N	8	5	1	4	0	0	0	0	0	3	-2	25%	25%	50%	1.60
7	M	8	5	1	4	0	0	0	0	0	3	-2	25%	25%	50%	1.60

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Sheet tabs: Instruction Sheet | Patient Profile | Acuity | **Summary** | 1M | 1E | 1N | 2M | 2E | 2N | 3M | 3E | 3N | 4M | 4E | 4N | 5M | 5E

- The summary Sheet displays the number of nurses required against the actual number of nurses posted in each particular shift.

- It also summarizes the average NP ratio based on ideal and actual number of nurses posted.

How Nursing Documentation Drives The Score

- Nurse documents that patient needs based the intensity of monitoring needed.

- Documentation appears in the proper areas of the chart to support the patient's care.

- Acuity score includes a rule for Single vaso active medication, Multiple vaso active medication, IABP, Mechanical Ventilaor, BIPAP, Dialysis Etc.

- Documentation shows the patient will need assistance in the future, so points are added to the total.

- Which intern predicts the staffing requirement for the upcoming shift.

Patient classification categories

- Category 1: Self-care
- Category 2: Minimal care
- Category 3: Moderate care
- Category 4: Extensive care
- Category 5: Require one-to-one observation or continuous monitoring each shift.

Patient Acuity system (PCS)

There are different kind of PCS available, but according to **Sullivan** ,the three most used PCS as following:

- **Descriptive :-** The nurse chooses the category that best describes the patient.

- **The check list style :** The nurse checks the activity level for each patient in each category and totals the points for each patient to determine the level of care.

- **Time standard method:** Another method in which in charge nurse assigns time based on various activities that need to be completed for the patient.

Indicators to choose an acuity-based staffing

Patient needs:

 Patients' variables drive staffing needs which include not only the disease condition but also patient complexity

- Length of stay
- Functional status
- Activities of daily living
- Need for transport
- Age

Indicators to choose an acuity-based staffing

Nurse Characteristics:

- Job description
- Experience level of the staff
- Education level of the staff.
- Work ethics of the nurse
- Staff number available

Indicators to choose an acuity-based staffing

Unit and organizational factors which includes;

- workflow processes
- Personnel policies
- expectations for nursing staff
- physical layout of the floor
- existing support including nursing assistance
- stocking of supplies and other resources.

Purposes of PCS

- To provide safe and efficient patient care based on standards of care and practice.

- Determine the number and category of staff (skill mix) needed for providing quality of patient care.

- Provide data on each patient care unite that directs and support staffing in decision making.

- Assess level and sup

- Enhance staff satisfaction through stress free work environment port services required.

- Categorize patients according their needs and the time and skill needed to satisfy each category needs.

- Determine workload and nursing care requirements.

Nurse patient ratio

To identify the necessary number of staff for a 24-hour period, staffing ratios for nursing care have traditionally been determined by following formula:

HPPD x Number of patients = Hours of staff assigned/24hours .

HPPD is the hours per patient day, or the average amount of time spent providing nursing care to each patient per day; the number of patients is the number on the unit at given point in time (usually at midnight), and the hours of staff is the hours available for the 24-hour.

Patient acuity tool

Using the patient acuity tool, RNs can assess patients' risk level to help create equitable, quantifiable assignments.

	1: Stable patient	2: Moderate-risk patient	3: Complex patient	4: High-risk patient
Clinical patient characteristics				
Assessment	• Q8h VS • Alert and oriented x4	• Q4h VS • CIWA-Ar ≤8	• Q2h VS/ • Delirium/ altered mental status • CIWA-Ar >8	• Unstable VS (determined by ordered parameters)
Respiratory	• Stable on room air	• Oxygen ≤2 L via NC	• Oxygen >2 L via NC • Tracheostomy	• Oxygen via mask • Can't maintain secretions independently
Cardiac	• VS (determined by ordered parameters)	• Low-grade temp: 98.7°F-100.3°F • Pacemaker/AICD • HR >130	Change in BP Temp > 100.3°F	• Unstable rhythm • Atrial fibrillation or PE
Medications	• PO/IVPB • Blood glucose normal	• TPN/heparin infusion • Blood glucose requiring notifying provider • Blood draws from PICC • Dialysis	• CBI • 1 unit blood transfusion • Fluid bolus for BP	• >1 blood transfusion • Chemotherapy
Drainage devices	• ≤2 drains (Jackson- Pratt, hemovac, percutaneous nephrostomy, etc.)	• Chest tube to water seal • Nasogastric/ nasoduodenal tube • Continuous tube feeding	• Chest tube to suction • Drain measured q2h • Bolus tube feeding	• Drain measured q1h • Chest tube output >100 ml/2h
Pain management	• Pain well managed with with PO or I.V. meds every 4 hours	• Patient-controlled analgesia/nerve block • Nausea/vomiting	• Q2h pain management	• Uncontrolled pain with multiple pain devices (IV, IM, PO, etc.)
Nurse workload indicators				
Admit/discharge/ transfer	• Stable transfer • Routine discharge	• Discharge to outside facility	• New admission • Complex discharge • Discharge to hospice	• Complicated postop • Transfer to higher-level care
Education and/or psychosocial	• Calm, cooperative	• Anxious/slightly agitated • Education needed	• New trach/ amputee • Translator needed • Requires consistent assistance (>q1h)	• End-of-life care
Wound, ostomy, continence	• QD/BID dressing • Wound vac • One-person assist to bathroom/ bedpan	• Ostomy/rectal tube • Enema • Bowel prep • Incontinent b/b	• TID/complex dressings by RN • High-output ostomy • Multiple wound vacs	• Active drainage, change >30 min or >TID • Q1h toilet needs
ADLs & isolation	• Independent in ADLs • Standard precautions	• Assist with ADLs • Two-person assist for out of bed • Isolation (contact, enteric)	• Turns q2h • Bedrest • Respiratory isolation	• Paraplegic or quadriplegic • Total care (lifts)
Safety	• Falls risk	• Sitter 1:1	• Bed alarm without sitter • Sensory deficits (blind, deaf, etc.)	• Highly agitated 1:1 • Restraints
Patient score:	Most = 1	Two or more = 2	Any = 3	Any = 4

Benefits of Acuity based nursing

Positive clinical and operational outcomes linked to acuity-based staffing include :

- decreases in mortality, adverse outcomes & length of stay.

- Maximizes patient and nursing outcomes .

- Improves operational outcomes.

- Improves nurse & patient satisfaction.

- Improves the financial outcome of an organization.

- It is an evidence base approach to staffing needs and manpower budgeting

Conclusion

- Optimal staffing is linked to **clinical and organizational excellence**.

- Acuity-based staffing isn't just a way to **achieve better patient outcomes.**

- It's also an opportunity to demonstrate the significant value nursing contributes to patient care.

- **Rigorous evidence is emerging to support acuity based staffing as way to provide consistent, high-quality care while managing financial burden.**