

Safer Nursing Care Tool

Implementation
Resource Pack



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*The Shelford Group is an organisation comprising the Chief Executives of ten of the leading NHS multi-specialty academic healthcare organisations in England.

The Chief Nurses of each of these NHS Trusts belong to a Sub-Group of the organisation and they meet every two months to share best-practice, benchmark and work towards improving standards in nursing.

Acknowledgements

Executive National Leads

Professor Katherine Fenton OBE, Chief Nurse, University College London Hospitals NHS Foundation Trust and Professor Hilary Chapman CBE, Chief Nurse, Sheffield Teaching Hospitals NHS Foundation Trust

National Lead Nurses on behalf of Executive Leads:

Ann Casey, Senior Nurse N&M Establishments, University College London Hospitals NHS Foundation Trust, Christine Bryer, Senior Nurse, Sheffield Teaching Hospitals NHS Foundation Trust and Sue Smith, Director of Nursing, Patient Safety & Quality, North Tees and Hartlepool NHS Foundation Trust.

Validation of tool and development of multipliers

Dr Keith Hurst, Independent Researcher/Analyst; Editor, International Journal of Health Care Quality Assurance

Department of Health Support for original version of tool: Ros Moore, then Nursing Officer DH England & Wales

Pilot sites

- University Hospital Southampton NHS Foundation Trust
- Barts Health NHS Trust
- University Hospitals Coventry and Warwickshire NHS Trust
- Guy's and St Thomas' Hospital NHS Foundation Trust
- Hammersmith Hospitals NHS Trust
- Kings College Hospital NHS Foundation Trust
- University Hospitals of Leicester NHS Trust
- Oxford University Hospitals NHS Trust
- University College London Hospitals NHS Foundation Trust.

Field Test Sites original version

- NHS Scotland
- Newham University Hospital NHS Trust
- Sheffield Teaching Hospitals NHS Foundation Trust
- Whipps Cross University Hospital NHS Trust
- Winchester & Eastleigh Healthcare NHS Trust.

Updating Sites

The Shelford group of Hospitals* consisting of the following:

- Cambridge University Hospitals NHS Foundation Trust
 - Central Manchester University Hospitals NHS Foundation Trust
 - Guy's and St Thomas' Hospital NHS Foundation Trust
 - Imperial College Healthcare NHS Trust
 - King's College Hospital NHS Foundation Trust
 - The Newcastle-upon-Tyne Hospitals NHS Foundation Trust
 - Oxford University Hospitals NHS Trust
 - Sheffield Teaching Hospitals NHS Foundation Trust
 - University College London Hospitals NHS Foundation Trust
 - University Hospitals Birmingham NHS Foundation Trust
- and AUKUH hospitals.
- Ashford and St. Peter's Hospitals NHS Foundation Trust
 - Whipps Cross Hospital, London, part of Barts Health NHS Trust

1. Setting the context for using the Safer Nursing Care Tool

Background and description

Ensuring we have the right staff, with the right skills in the right place is Action Area 5 within Compassion in Practice (NHSCB 2012). This emphasises the need for developing evidence-based, patient need-driven staffing levels in all care settings. The strategy also advocates that there is a twice yearly public Board level discussion to ratify and agree nurse staffing levels.

The Safer Nursing Care Tool (SNCT) is one method that can be used to assist Chief Nurses to determine optimal nurse staffing levels.

The SNCT is:

- An evidence based tool that enables nurses to assess patient acuity and dependency, incorporating a staffing multiplier to ensure that nursing establishments reflect patient needs in acuity/dependency terms.
- Appropriate for use in any acute hospital within the UK (although further work is underway to refine the tool for use in particular clinical environments, see section on ongoing development of the tool)
- Used in conjunction with Nurse Sensitive Indicators (NSI) such as patient falls, and pressure ulcer incidence, which can be linked to staffing
- Able to support benchmarking activity in organisations when used across Trusts. This will assist in facilitating consistent nurse-to-patient ratios in line with agreed standards across similar care settings in England.

Developing and validating the tool

The tool was validated by Dr. K. Hurst, (then based at the University of Leeds). This included recalibrating the tool using the 'Leeds Acuity-Quality' database, which at that time included 1,000 best practice wards (those achieving a pre-determined quality rating) and some 119,000 nursing interventions delivered to almost 2,800 patients in 14 care groups over two years.

The SNCT tool was tested in Teaching and District General Hospitals in England and across NHS Scotland, to confirm that the tool was easy to use.

In 2012 the Shelford Chief Nurses Group commissioned an expert working group including Dr. Keith Hurst to review the tool, its definitions and multipliers to ensure the SNCT is still current and applicable. A full review was undertaken taking into consideration changes such as:

- The ageing population's impact on inpatient dependency and acuity;
- Rapid throughput and shorter patient-stays;
- Decreasing Registered Nurse direct-care time and the corresponding rise in support worker direct care time.
- New roles and support staff; e.g., Band 4 Nursing Assistants* and Band 1-3 housekeepers

This required that the dual scoring exercise was repeated. 40,000 dual assessments were undertaken in October 2012 using the Leeds Dependency tool and Safer Nursing Care Tool to update the staffing Multipliers.

Using the tool in conjunction with other methods to increase assurance

Nursing workload and the ability to provide good care is influenced by many variables including patient acuity and dependency and other issues known to influence nursing workload more locally; e.g.:

- The clinical model
- The labour market
- Staff capacity and capability, seniority and confidence
- Organisational factors; i.e., support roles, support external to the ward, ward layout
- Senior Sister/Charge Nurse supervisory time and leadership capability

No national workforce tool can incorporate all factors and so combining methods (triangulation) is recommended to arrive at optimal staffing levels. This should include quantitative assessments such as those encapsulated in the SNCT and other more qualitative and professional judgement methods to increase confidence in recommended staffing levels and provide balanced assurance.

The Royal College of Nursing report (RCN 2010) also advocates triangulating different methods for calculating nurse staffing levels. Appendix 1 summarises other methods available to help determine nurse establishments, which can be used for triangulation purposes.

Are we getting the results we want? Monitoring Nurse Sensitive Indicators

Links between patient acuity and dependency, workload, staffing and quality have been established in recent years. Evidence in the literature links low staffing levels and skill mix ratios to adverse patient outcomes (Rafferty et al. 2007; NPSA 2009).

Monitoring Nurse Sensitive Indicators (NSIs) such as infection rates, complaints, pressure ulcers and falls is therefore recommended to ensure that staffing levels determined in the ways described above, deliver the patient outcomes that we aim to achieve. Within the SNCT these data are converted into a rate per 1,000 occupied bed days thus allowing consistent comparison across wards and Trusts help to ensure optimum staffing levels.

If the NSIs are adverse then staffing levels require prompt review to test if the initial recommendations remain appropriate. It is important to exclude factors that may compromise workforce numbers, such as high turnover, sickness, leave or unfilled vacancies.

Alternatively, there may be other factors that compromise workforce efficacy including competence, inadequate leadership, poor morale and poor compliance with good practice all of which will require redress through other action.

Ongoing development of the tool

The adult, generic Safer Nursing Care Tool is not validated for use in Acute Medical Unit/Medical admission wards. The model is currently being developed for use in these areas and will be released when available.

The tool is also being further developed to better reflect the complexities of caring for older people in acute care wards; this version is almost ready for use.

Additionally, work has been commissioned and is in progress to develop a similar tool for use in Accident and Emergency Departments.

Dr Ruth May, Regional Chief Nurse, NHS England, (Midlands and East) leads the implementation of Action Area 5 and learning from the experience in NHS Scotland, work is underway to develop SNCT for use in other care settings - Community, Mental Health and Learning Disabilities in the first instance.

Shelford Chief Nurse Group

May 2013

Appendix 1: Methods available to calculate staffing requirements Hurst (2003)

The Professional Judgment model (Telford method)

Simple to use and takes into account clinical staff views but is seen to be subjective, has no evidence-base and is not sensitive to workload intensity.

Staff to Bed ratio

Simple to use, allows benchmarking but assumes that base staffing levels are accurate and reflect patient need and is insensitive to changes in workload.

Activity Monitoring (GRASP/Birthrate+)

Uses care plans/care pathways and related nursing time but is task oriented, can be time consuming (to gather data/undertake workload studies) and may require support from commercial systems

Nursing hours per patient day (NHPPD)

This method is widely used in the USA and Australia. It calculates the number of nurses and nursing assistants required in relation to activity levels.

Regression Methods (Teamwork)

Commercial systems are available and have been useful where workload predictions are possible, but is not easily understood by nurses and there is an underlying assumption that all wards are efficient and effective.

All of the above, used in combination, provide evidence to ensure that staffing levels and patient outcomes are correlated.

Bibliography

- Ball, J.A & Washbrook, M. (1996) *Birthrate Plus: A Framework for Workforce Planning and Decision-making for Midwifery Services*. Cheshire. Book of Midwives
- Department of Health (2013) *The Cavendish Review : An Independent Review into Healthcare Assistants and Support Workers in the NHS and social care settings*. London: DH
- Department of Health and Human Services (2011) *Safe Staffing - User Manual Nursing Hours per patient day Model*. Tasmania: Department of Health and Human Services
- Department of Health (2000) *Comprehensive Critical Care: A Review of Adult Critical Care Services*. London: DH
- Hurst, K. (2005) *Developing and Validating the AUKUH's WP&D System*. Commissioned by AUKUH Directors of Nursing.
- Scott, C. (2003) *Setting Safe Nurse Staffing Levels*. London: RCN
- Smith, S. Casey, A. Hurst, K. Fenton, K. Scholefield, H.A. (2009) *Developing, testing and applying instruments for measuring rising dependency-acuity's impact on ward staffing and quality*. International Journal of Health Care Quality Assurance. 22, (1), pp 30-39

2. Introduction to the Tool

The Safer Nursing Care Tool has been developed to help NHS Hospital staff measure patient acuity and/or dependency to inform evidence-based decision making on staffing and workforce. The tool, when allied to NSIs, will also offer nurses a reliable method against which to deliver evidence-based workforce plans to support existing services or the development of new services. This booklet offers brief guidance for people using the tool in practice.

It includes:

- A brief overview of the tool
- How acuity and/or dependency are measured
- How to ensure that accurate data are collected
- What Nurse Sensitive Indicators will be allied to acuity and/or dependency measurement
- How to use nursing multipliers to support professional judgement
- What can be learned from the pilot sites and Frequently Asked Questions (FAQ)
- How to get help or support if needed.



3. A Brief Overview of the Tool

The Safer Nursing Care Tool (SNCT) is based on the critical care patient classification (*Comprehensive Critical Care, DH 2000*). These classifications have been adapted to support measurement across a range of wards/specialties. The full SNCT is outlined below.

Safer Nursing Care Tool (SNCT)

| Levels of Care | Descriptor |
|---|--|
| <p>Level 0 (Multiplier =0.99*) Patient requires hospitalisation Needs met by provision of normal ward cares.</p> | <p>Care requirements may include the following</p> <ul style="list-style-type: none"> • Elective medical or surgical admission • May have underlying medical condition requiring on-going treatment • Patients awaiting discharge • Post-operative / post-procedure care - observations recorded half hourly initially then 4-hourly • Regular observations 2 - 4 hourly • Early Warning Score is within normal threshold. • ECG monitoring • Fluid management • Oxygen therapy less than 35% • Patient controlled analgesia • Nerve block • Single chest drain • Confused patients not at risk • Patients requiring assistance with some activities of daily living, require the assistance of one person to mobilise, or experiences occasional incontinence |
| <p>Level 1a (Multiplier =1.39*) Acutely ill patients requiring intervention or those who are UNSTABLE with a GREATER POTENTIAL to deteriorate.</p> | <p>Care requirements may include the following</p> <ul style="list-style-type: none"> • Increased level of observations and therapeutic interventions • Early Warning Score - trigger point reached and requiring escalation. • Post-operative care following complex surgery • Emergency admissions requiring immediate therapeutic intervention. • Instability requiring continual observation/invasive monitoring • Oxygen therapy greater than 35% +/- chest physiotherapy 2-6 hourly • Arterial blood gas analysis - intermittent • Post 24 hours following insertion of tracheostomy, central lines, epidural or multiple chest or extra ventricular drains • Severe infection or sepsis |

| Levels of Care | Descriptor |
|--|--|
| <p>Level 1b (Multiplier = 1.72*)</p> <p>Patients who are in a STABLE condition but are dependant on nursing care to meet most or all of the activities of daily living.</p> | <p>Care requirements may include the following</p> <ul style="list-style-type: none"> • Complex wound management requiring more than one nurse or takes more than one hour to complete. • VAC therapy where ward-based nurses undertake the treatment • Patients with spinal instability/spinal cord injury • Mobility or repositioning difficulties requiring the assistance of two people • Complex Intravenous Drug Regimes - (including those requiring prolonged preparatory/administration/post-administration care) • Patient and/or carers requiring enhanced psychological support due to poor disease prognosis or clinical outcome • Patients on End of Life Care Pathway • Confused patients who are at risk or requiring constant supervision • Requires assistance with most or all activities of daily living • Potential for self-harm and requires constant observation • Facilitating a complex discharge where this is the responsibility of the ward-based nurse |
| <p>Level 2 (Multiplier = 1.97*)</p> <p>May be managed within clearly identified, designated beds, resources with the required expertise and staffing level OR may require transfer to a dedicated Level 2 facility/unit</p> | <ul style="list-style-type: none"> • Deteriorating/compromised single organ system • Post operative optimisation (pre-op invasive monitoring)/extended post-op care. • Patients requiring non-invasive ventilation/respiratory support; CPAP/BiPAP in acute respiratory failure • First 24 hours following tracheostomy insertion • Requires a range of therapeutic interventions including: • Greater than 50% oxygen continuously • Continuous cardiac monitoring and invasive pressure monitoring • Drug Infusions requiring more intensive monitoring e.g. vasoactive drugs (amiodarone, inotropes, gtn) or potassium, magnesium • Pain management - intrathecal analgesia • CNS depression of airway and protective reflexes • Invasive neurological monitoring |
| <p>Level 3 (Multiplier = 5.96*)</p> <p>Patients needing advanced respiratory support and/or therapeutic support of multiple organs.</p> | <ul style="list-style-type: none"> • Monitoring and supportive therapy for compromised/collapse of two or more organ/systems • Respiratory or CNS depression/compromise requires mechanical/invasive ventilation • Invasive monitoring, vasoactive drugs, treatment of hypovolaemia/haemorrhage/sepsis or neuro protection |

* this multiplier allows a 22% uplift for annual leave/study leave etc.
Software is being developed that will allow this to be adjusted and will be added to this site when available.

4. How is acuity and dependency measured?

Trust staff collect data at the same time to enable benchmarking across participating organisations. Acuity and dependency measurement currently takes place at least twice yearly (January and June). Over time, it is anticipated that this acuity and dependency measurement will identify seasonal trends in response to changing demographics and healthcare needs. Ultimately, this evidence base will support workforce plans for nursing that should accurately predict and enable resources to be identified to support nursing establishments that meet patient and service needs.

Acuity and dependency measurement must be consistent. It is essential to ensure that all relevant data are collected during the same period. Data should be collected on every patient on participating wards/units at 1500 hrs, daily Monday to Friday for 20 days as a minimum. Quality control is fundamental to ensuring a robust approach to data collection. (How to ensure that accurate, quality controlled data are collected is outlined in section 6.) This will allow nursing staff to understand not only the levels of patients on wards, but also enable this information to be allied to other key data including:

Nurse Sensitive Indicators are quality indicators linked to nursing care. They inform nurses of good and poor patient outcomes, enabling good practice to be shared poor practice to be rectified. (See section 7)

Patient Flow information is collected to enable nurses responsible for nursing workforce reviews to consider issues such as throughput, including numbers of admissions, discharges, transfers, ward attenders, deaths and transfers away from the ward/department, occupancy and staffing levels. The multipliers take account of normal levels of patient flow, however when there is a high throughput of patients, an additional staffing uplift may be considered appropriate - see example in FAQ section 11.

Nurse Sensitive Indicators and patient flow allied to acuity and dependency support professional judgement and enable agreement of nursing establishment appropriate to meet the needs of each department.

The data collection tool used is included as part of this resource pack for use by for use by Trust staff. A screen shot of a sample database is also included. Trust staff may may prefer to work with their IT department to develop an electronic version of the provided tool and database.

5. Example Data Collection Tools

Ward Date

| Bed No | Level | Comment | Bed No | Level | Comment |
|--------|-------|---------|--------|-------|---------|
| 1 | | | 15 | | |
| 2 | | | 16 | | |
| 3 | | | 17 | | |
| 4 | | | 18 | | |
| 5 | | | 19 | | |
| 6 | | | 20 | | |
| 7 | | | 21 | | |
| 8 | | | 22 | | |
| 9 | | | 23 | | |
| 10 | | | 24 | | |
| 11 | | | 25 | | |
| 12 | | | 26 | | |
| 13 | | | 27 | | |
| 14 | | | 28 | | |

Patient Flow

| | | | |
|-----------------|--|------------------|--|
| Admissions | | Discharges | |
| Transfer In | | Transfer out | |
| Deaths | | Ward attender | |
| Escorts on site | | Escorts off site | |

RMN specials:

Completed by

Name Signature

Verified by Signature

Question 1: Ward Name

Question 2: Date

| | | | | |
|---|---|---|---|---|
| D | D | M | M | Y |
|---|---|---|---|---|

Question 3: Acuity Score

| Bay | Bed | 0 | 1a | 1b | 2 | 3 |
|------|-----|---|----|----|---|---|
| 1 | 1 | | | | | |
| 1 | 2 | | | | | |
| 1 | 3 | | | | | |
| 1 | 4 | | | | | |
| 1 | 5 | | | | | |
| 1 | 6 | | | | | |
| 2 | 1 | | | | | |
| 2 | 2 | | | | | |
| 2 | 3 | | | | | |
| 2 | 4 | | | | | |
| 2 | 5 | | | | | |
| 2 | 6 | | | | | |
| 3 | 1 | | | | | |
| 3 | 2 | | | | | |
| 3 | 3 | | | | | |
| 3 | 4 | | | | | |
| 3 | 5 | | | | | |
| 3 | 6 | | | | | |
| 4 | 1 | | | | | |
| 4 | 2 | | | | | |
| 4 | 3 | | | | | |
| 4 | 4 | | | | | |
| 4 | 5 | | | | | |
| 4 | 6 | | | | | |
| Room | 1 | | | | | |
| Room | 2 | | | | | |
| Room | 3 | | | | | |
| Room | 4 | | | | | |

Question 4: Patient Flow

Please complete for the previous 24 hours 15.00 - 15.00

Admissions

Discharges

Transfers in

Transfers out

Ward attenders

Deaths

Escorts on site

Escorts off site

Question 5: Staffing Please complete for the previous night, current morning and evening shift

| | Registered | Registered Bank / Agency | Unregistered Bank / Agency | Unregistered |
|----------|----------------------|--------------------------|----------------------------|----------------------|
| 5 hour | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 6 hour | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 7.5 hour | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 10 hour | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 12 hour | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Other | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |

Question 6: Completed by

Name

Signature

Example of a database screen

Date

Division

Ward

A&D level

| | |
|----|--|
| 0 | |
| 1A | |
| 1B | |
| 2 | |
| 3 | |

Patient flow information

| Admissions | | Discharges | | Category of staff | Early/Day | Late | Night |
|----------------|--|------------------|--|-------------------|-----------|------|-------|
| Transfers in | | Transfers out | | Permanent RN | | | |
| Ward attender | | Deaths | | Permanent NA | | | |
| Escort on site | | Escorts off site | | Agency RN | | | |
| Comments | | | | Agency NA | | | |
| | | | | Bank RN | | | |
| | | | | Bank HCA | | | |
| | | | | RMN Special | | | |

Data collected by:

Verified by:

SUBMIT

6. How do I ensure that accurate data are collected?

Red Rules

Quality control is the key to successful data collection. These simple steps will ensure a consistent approach across participating wards:

- 1** Nominate somebody to quality control the data collection. This may be a Practice Facilitator, a member of your Critical Care Outreach Team or a senior member of the corporate nursing team.
- 2** Identify no more than three leaders per ward to complete the scoring daily for the duration of the data collection period.
- 3** The three leaders should include the Sisters/Charge Nurses. If no Sister/Charge Nurse is available, a nominated member of staff should be agreed with the Senior Nurse for the Directorate.
- 4** The data collection should take place at least twice per year in January and June
- 5** Data should be recorded on every patient from Monday until Friday for a total of 20 days as a minimum.
- 6** Acuity and dependency data should be collected for each patient in each bed at 1500hrs, as part of a bed to bed ward round review.
- 7** Where paper based data collection is utilised, data collection forms should be stored in a folder on the ward/unit to await collection/ input to the electronic system.
- 8** Patient flow data should be collected for the 24-hour period leading to the data collection time; e.g., All admissions/discharges between 1500hrs that day and 1500hrs the previous day.
- 9** Nurse Sensitive Indicator data can be collected retrospectively by a senior nurse or directly pulled from the electronic incident reporting system.
- 10** Data sheets should be collected weekly from participating wards/ departments where central data entry management systems are in place.
- 11** Data should be entered onto the database as speedily as possible after collection or where this is completed electronically follow your local policy based on these principles.
- 12** Feedback results to Sisters and Charge Nurses, Matrons , Directors of Nursing and operational management teams as soon as possible.

7. What nurse sensitive indicators are allied to acuity and dependency?

Nurse Sensitive Indicators (NSIs) refer to quality indicators that can be linked to nurse staffing issues, including leadership, establishment levels, skill-mix and training and development of staff. This information can be used to further support ward staffing requirements identified through acuity and dependency measurement. The NSIs used within this project have been identified as service quality indicators with specific sensitivity to nursing intervention or lack of.

Official Complaints

Official complaints about nursing/midwifery/care staff received (per 1,000 occupied bed days) identifying the 3 areas of:

- Communication
- Clinical Care
- Attitude

Drug Errors

- Actual drug errors where nursing was the primary cause, not including near misses per 1,000 occupied bed days.

Infection

- Incidence rates of MRSA bacteraemia per 1,000 occupied bed days and *Clostridium Difficile* per 1,000 occupied bed days.

Slips, Trips & Falls

- Number of slips, trips or falls per 1,000 occupied bed days caused primarily by nursing error.

Pressure Ulcers

- Incidence of hospital acquired pressure ulcers per 1,000 occupied bed days.

Nutrition

- Number of patients having had nutritional screening per 1,000 occupied bed days.
- Percentage of wards that have implemented protected meal times policy within the Trust.

8. How to use the multipliers

Multipliers can be used to set nursing establishments allied to acuity and dependency measurement. The multipliers agreed for each level of patients on in-patient wards are:

Level 0 0.99* WTE nurse per bed

Level 1a 1.39* WTE nurse per bed

Level 1b 1.72* WTE nurse per bed

Level 2 1.97* WTE nurse per bed

Level 3 5.96* WTE nurse per bed

* this includes a 22% uplift for annual leave, study leave etc.

For example, if a 28-bedded ward has 12 patients at Level 0, 7 patients at Level 1a, 8 patients at Level 1b, and 1 patient at Level 2, a total of 37.34 WTE nursing staff would be required.

Sum

12 patients at Level 0 = $0.99 \times 12 = 11.88$

7 patients at Level 1a = $1.39 \times 7 = 9.73$

8 patients at Level 1b = $1.72 \times 8 = 13.76$

1 patient at Level 2 = $1.97 \times 1 = 1.97$

Total = 37.34 WTE

This figure is a baseline against which to set nurse staffing levels. Two 28-bedded wards may have different activity. One may have few admissions, discharges or ward attenders whereas another may have many. Professional judgement is required to ensure that establishments are adjusted appropriately under these circumstances (See example in section 11).

Based on 130,000 Ward Sister/Charge Nurse activities observed in 1,414 wards, 20% of their shift is spent on managerial/administration/coordinating work, and this time is incorporated into the multipliers. In theory this equates to 1 day per week. However, some managers allow a higher percentage and therefore adjustment may be required to the total establishment to ensure this reflects the locally agreed allowance for Senior Sister/Charge Nurse supervisory time.

Nurse Sensitive Indicators can also be used at this stage to ascertain the impact of acuity, dependency and activity on quality outcomes.

9. Occupancy

Occupancy is calculated by obtaining the number of available bed days and the number of bed days used (the latter is calculated by adding together the total beds assigned an acuity/dependency score and are therefore occupied) as follows:

$$\frac{\text{Number of bed days used} \times 100}{\text{Number of beds available}}$$

For example if a ward has 420 bed days available and 400 bed days are used, the occupancy rate calculation is: $400 \times 100 = 40,000$ divided by $420 = 95\%$ occupancy

10. Top tips from the pilot and field test sites

This section aims to provide useful tips to support successful implementation of SNCT scoring in your Trust.

Preparation

It is essential that staff are prepared and trained to undertake the acuity and dependency scoring.

Communication

Meet with Sisters/Charge Nurses to explain the process and reasons for measuring acuity and dependency. If they do not understand the reasons, they may be suspicious and reluctant to participate.

Ensure that the Executive Board, General Managers and Clinical Directors are engaged and understand the potential implications of implementing this tool across the organisation.

Quality Control

Quality control by trained individual(s) at a corporate level will ensure that the tool is applied consistently across all wards/units.

Data Input

Data input can be time consuming. Input from the Information Technology (IT) department with a nominated contact person may be able to support this aspect of the project.

Feedback

Ward staff welcome timely feedback on the levels of acuity/dependency within their area.

11. Frequently asked questions

- Q If I have had a Level 1b patient in my bed for the last 18 hours and a Level 0 patient has just been admitted to that bed, do I score at Level 0 or Level 1b?**
- A Score for the patient that has occupied the bed for the longest time within the last 24 hours; in this case at Level 1b.
- Q When looking at activity, do I include potential discharges?**
- A No you should include actual activity not predicted or potential activity.
- Q I have just measured acuity for the second time and there is a big change in acuity. How can these data be used as evidence to show that we need more staff?**
- A This may be an anomaly. It is not advised that these data are used to show trends until it has been collected a number of times. Pilot site staff have been collecting acuity data since 2005 and may be willing to share their findings with you to enable comparisons to be made. It is also important that data are triangulated with other outcomes.
- Q How do I score empty beds?**
- A These are not given a score unless the patient has only just gone home.
- Q How do I score a patient whose dependency has changed in the last 24 hours?**
- A Score a patient at the highest level they have been in the previous 24 hours. Do not score them predicatively. i.e. if he/she is in theatre then score them as they were before they went for surgery.
- Q How do I score if there is a patient in the bed waiting to go home and another waiting to go into it?**
- A Score the patient still in the bed as you cannot predict what the other patient will be like.
- Q I have a lot of ward attenders who return for dressing changes - how should I capture this?**
- A The multipliers allow for a normal level of activity. Where the ward activity exceeds this, professional judgement needs to be applied. A simple way of calculating this would be - if there were 12 patients attending the ward each day and the dressing takes 1 hour of nursing time to complete this would require the following equation (assuming that the patient is Level 0)
- No. of patients x 1 hour ÷ 24 (to calculate the number per day) x 0.99 =
- Therefore $12 \times 1 \div 24 = 0.5 \times 0.99 = 0.49$ WTE

12. Who can I contact if I need help?

London and the South of England

Ann Casey
Senior Nurse N&M Establishments
University College London Hospitals
NHS Foundation Trust
Tel: 020 344 72412
Email: ann.casey@uclh.nhs.uk

North of England and Scotland

Christine Bryer
Senior Nurse
Sheffield Teaching Hospitals
NHS Foundation Trust
Tel: 0114 305 2158
Email: christine.bryer@sth.nhs.uk

The Shelford Group is an organisation comprising the Chief Executives of ten of the leading NHS multi-specialty academic healthcare organisations in England (these are listed below). The Chief Nurses of each of these NHS Trusts belong to a Sub-Group of the organisation and they meet every two months to share best-practice, benchmark and work towards improving standards in nursing.

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- Central Manchester University Hospitals NHS Foundation Trust
- Guy's and St Thomas' NHS Foundation Trust
- Imperial College Healthcare NHS Trust
- King's College Hospital NHS Foundation Trust
- The Newcastle upon Tyne Hospitals NHS Foundation Trust
- Oxford University Hospitals NHS Trust
- Sheffield Teaching Hospitals NHS Foundation Trust
- University College London Hospitals NHS Foundation Trust
- University Hospitals Birmingham NHS Foundation Trust

13. References

Hurst, K. (2003) *Selecting and Applying Methods for Estimating the Size and Mix of Nursing Teams - A Systematic Review* commissioned by the Department of Health. Leeds: Nuffield Institute for Health.

National Patient Safety Agency (2009) *Quarterly data summary. Issue 13: Learning from reporting - staffing. How do staffing issues impact on patient safety?* London. NPSA

NHS Commissioning Board (2012) *Compassion in Practice, Nursing, Midwifery and Care Staff. Our Vision and Strategy.* Leeds: NHSCB

Rafferty, A.M. Clarke SP, Coles J, Ball J, James P, McKee M, Aiken LH (2007) *Outcomes of variation in hospital nurse staffing in English hospitals: a cross sectional analysis of survey data and discharge records.* International Journal of Nursing Studies, 44,(2), pp 175-182

RCN (2010) *Guidance on safe nurse staffing levels in the UK.* London: Royal College of Nursing

Department of Health (2000) *Comprehensive Critical Care: A Review of Adult Critical Care Services.* London: DH

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