

# Nursing Skills Mix Report

## 2 December 2019

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Agenda Item No: 8.2

## Trust Board Report

<b>Meeting Date:</b>	2 December 2019
<b>Title:</b>	Nursing Skill mix review
<b>Executive Summary:</b>	<p>This paper provides:</p> <ul style="list-style-type: none"> <li>the outcome from the biannual adult inpatient, adult acute assessment unit and paediatric inpatient skill mix review</li> <li>assurance that the Trust is compliant with specific section of the NHSI Workforce Safeguards guidance as the process has included using a validated acuity tool and triangulation approach with professional judgement and nurse sensitive indicators.</li> <li>the outcome of the annual operating theatre review</li> </ul> <p><b>Biannual review</b></p> <p>Division 1:</p> <ul style="list-style-type: none"> <li>change of establishments is proposed for Cardiology ward and Cardiothoracic ward and this change is to add a nursing associate role to the ward establishment. This change does not have any financial impact.</li> <li>the professional judgement completed by the Matron and Head of Midwifery find the gynaecology ward establishment and skill mix to be acceptable for the 26 inpatient beds. The issue is the use of the overnight emergency assessment beds, there is further work currently in progress by the Directorate to decide where and how these patients are best cared for, and once this decision is made a final nursing establishment can be agreed.</li> </ul> <p>Division 2:</p> <ul style="list-style-type: none"> <li>there are recommendations to amend budgeted establishment and skill mix in Acute Stroke Unit (ASU), Deanesly ward, Ward 2, Neuro Rehabilitation ward, Acute Medical unit (AMU) and Fair oak. The changes to ASU are not supported at this time as a further service review is in progress. The recommended change to Deanesly is supported by the Chief Nurse however it will require £93,788 additional funding, the Division will incorporate this into business planning phase of budget setting. The proposed changes to Ward 2, Neuro Rehabilitation ward and Fair oak are minor and the changes will be cost neutral. The recommended change to AMU is supported by the Chief Nurse however it will require £44,185 additional funding, the Division will incorporate this into the business planning phase of budget setting</li> </ul> <p><b>Theatre review</b></p> <p>The workforce review of the theatres has looked to establish that all current work being undertaken is in line with quality and safety standards as outlined by Association of Perioperative Practice (AfPP). The review has highlighted that in majority of theatres compliance with AfPP guidance is already in place however additional staff are required in certain theatres to support to changes in practice and compliance with AfPP guidance. Additional resource is required for:</p> <ul style="list-style-type: none"> <li>General surgery, head and neck, beynon and trauma/orthopaedics theatres at a cost of £85,000, the directorate have £37,700 from a defunct post to contribute the remainder of £47,300 will be incorporated in future business cases that are planned to be presented.</li> <li>Cardiac theatre at a cost of £17,019 which will be funded from within the Division</li> </ul>

	<ul style="list-style-type: none"> <li>Ophthalmology theatre (NX) at a cost of £40,324, however part of this cost can be offset by stopping the current on-call process (£32,000) leaving £8,324 which will be put forward as a business case by the Division</li> </ul>
<b>Action requested:</b>	<b>Receive and note</b>
<b>For the attention of the Board</b>	
<b>Assure</b>	<p>The Trust has undertaken a skill mix review of:</p> <ul style="list-style-type: none"> <li>adult inpatient wards, adult acute assessment units and paediatric inpatient ward utilising Safer Nursing Care Tool, which is evidence based acuity/dependency tool. The review also used the triangulation approach as recommended by NHSI Developing Workforce Safeguards document</li> <li>theatres</li> </ul>
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<b>Links to Trust Strategic Objectives</b>	<ol style="list-style-type: none"> <li>Create a culture of compassion, safety and quality</li> <li>Proactively seek opportunities to develop our services</li> <li>To have an effective and well integrated local health and care system that operates efficiently</li> <li>Attract, retain and develop our staff, and improve employee engagement</li> <li>Maintain financial health – Appropriate investment to patient services</li> <li>Be in the top 25% of all key performance indicators</li> </ol>
<b>Resource Implications:</b>	<p><b>Revenue:</b> £209,316  <b>Capital:</b> none  <b>Workforce:</b> revised workforce numbers will require recruitment  <b>Funding Source:</b> cost pressure</p>
<b>CQC Domains</b>	<p><b>Safe:</b> patients, staff and the public are protected from abuse and avoidable harm.  <b>Effective:</b> care, treatment and support achieves good outcomes, helping people maintain quality of life and is based on the best available evidence.  <b>Caring:</b> staff involve and treat everyone with compassion, kindness, dignity and respect.  <b>Responsive:</b> services are organised so that they meet people's needs.  <b>Well-led:</b> the leadership, management and governance of the organisation make sure it's providing high-quality care that's based around individual needs, that it encourages learning and innovation, and that it promotes an open and fair culture.</p>
<b>Public or Private:</b>	<b>Public</b>
<b>Other formal bodies involved:</b>	<b>Trust Management Committee</b>
<b>References</b>	<ol style="list-style-type: none"> <li>'Hard Truths' Commitments NHS England <a href="http://www.england.nhs.uk/2014/04/01/hard-truths/">http://www.england.nhs.uk/2014/04/01/hard-truths/</a> April 2014</li> <li>Supporting NHS providers to deliver the right staff, with the right skills, in the right place at the right time - Safe sustainable and productive staffing. National Quality Board, July 2016 <a href="http://www.england.nhs.uk">http://www.england.nhs.uk</a></li> <li>Griffiths P, Ball J, Murrells T, Jones S, Rafferty AM (2016b) Registered nurse, health care support worker, medical staffing levels and mortality in English hospital Trusts a cross sectional study. BMJ open 5:e008751</li> <li>NHS England (2014) Five Year Forward <a href="http://www.england.nhs.uk/ourwork/futurenhs">http://www.england.nhs.uk/ourwork/futurenhs</a></li> <li>NHS England (2016) Leading Change, Adding value: A framework for nursing, midwifery and care staff <a href="http://www.england.nhs.uk/ourwork/leading-change">http://www.england.nhs.uk/ourwork/leading-change</a></li> <li>NICE (2013) Safe staffing for nursing in adult inpatient wards in acute hospitals. <a href="http://www.nice.org.uk/guidance/SG1">http://www.nice.org.uk/guidance/SG1</a></li> <li>NQB (2016) How to ensure the right people, with the right skills, are in the</li> </ol>

	<p>right place at the right time: A guide to nursing, midwifery and care staffing capacity and capability <a href="http://www.england.nhs.uk/ourwork/part-rel/nqb">http://www.england.nhs.uk/ourwork/part-rel/nqb</a></p> <p>h. The Safer Nursing Care Tool The Shelford Group – 2013 <a href="http://shelfordgroup.org/resource/chief-nurses/safer-nursing-care-tool">http://shelfordgroup.org/resource/chief-nurses/safer-nursing-care-tool</a> <a href="http://shelfordgroup.org/library/documents/SNCT A4 pdf">http://shelfordgroup.org/library/documents/SNCT A4 pdf</a></p> <p>i. Developing Workforce Safeguards – 2018 NHSI</p>
<b>NHS Constitution</b>	<p>In determining this matter, the Board should have regard to the Core principles contained in the Constitution of:</p> <ul style="list-style-type: none"> <li>• Equality of treatment and access to services</li> <li>• High standards of excellence and professionalism</li> <li>• Service user preferences</li> <li>• Cross community working</li> <li>• Best Value</li> <li>• Accountability through local influence and scrutiny</li> </ul>

## 1. Introduction

To deliver safe quality patient care it is essential wards have optimal nurse staffing levels. It has been acknowledged that one of the contributory factors linking failures in care and patient safety were inadequate staffing levels (Francis 2013). In July 2016 the National Quality Board published 'Supporting NHS providers to deliver the right staff with the right skills, in the right place at the right time: Safe, sustainable and productive staffing. This safe staffing improvement resource provided updated expectations for nursing and midwifery care staffing. The Developing Workforce Safeguards published by *NHS Improvement* in October 2018 will assess Trusts compliance with a more triangulated approach to staffing planning in accordance with the National Quality Board guidance for all clinical staff. This document recommends a combination of evidence-based tools with professional judgement and outcomes to ensure the right staff, with the right skill are in the right place and time.

To demonstrate the Trust's commitment to the above requirement of a twice yearly adult inpatient, acute assessment units and paediatric inpatient skill mix review is completed.

The Royal Wolverhampton NHS Trust (RWT) uses the 'Safer Nursing Care Tool' (SNCT). The SNCT is a simple-to-use, evidence based digital tool that calculates nurse staffing requirements based on the acuity and dependency of the patients on a ward and it is linked to nurse sensitive outcome indicators.

The SNCT, which was developed by Professor Dame Hilary Chapman and Katherine Fenton OBE, has been rigorously validated using a substantial database over a number of years and is now widely used by NHS trusts. The development of the SNCT has been supported and endorsed for use by NHS England and NHS Improvement. The SNCT now includes staff multipliers for acute assessment units, acute inpatient and children and young people's wards, and will be shortly releasing one for emergency departments.

This tool enables the measurement of both acuity and dependency which can be applied to patients whose care can be delivered within acute adult, paediatric or acute assessment units (appendix 1). A multiplier for calculating establishments will suggest nursing whole time equivalents (WTE) required to provide a safe and appropriate standard of care for each of the five levels of acuity and dependency identified by SNCT. Also measured are Nurse Sensitive Indicators (NSIs); these are quality indicators, can be influenced by nursing establishments and skill mix (appendix 2).

Acuity and dependency data is collected twice a year (January and June) for one month from:

- Twenty eight adult inpatient ward areas
- Two acute assessment units
- One Paediatric inpatient ward

## 2. Results

### 2.1 Occupancy, acuity and dependency

The data in Table 1 below summarises that 21465 acuity scores were attributed at 3pm daily. 33.2% of patients were scored 0 or 1a and the highest proportion of patients 62.7% were scored as level 1b (stable but have a higher dependency on nursing support).

In comparison to January 2019 it can be seen that there were a higher number of scores captured in June, this was because there was missing data in January 2019 and additional in-house training on how to use the SNCT has been provided to Senior Sister/Charge Nurse and at least two other appointed registered nurses per ward in preparation for the January 2019 data capture.

There however remain ongoing challenges with some accuracy and consistency of the acuity data capture, hence representatives from The Shelford group have been invited to provide a bespoke training session at the end of September and this will provide expertise in house to complete further training to acuity data capturers.

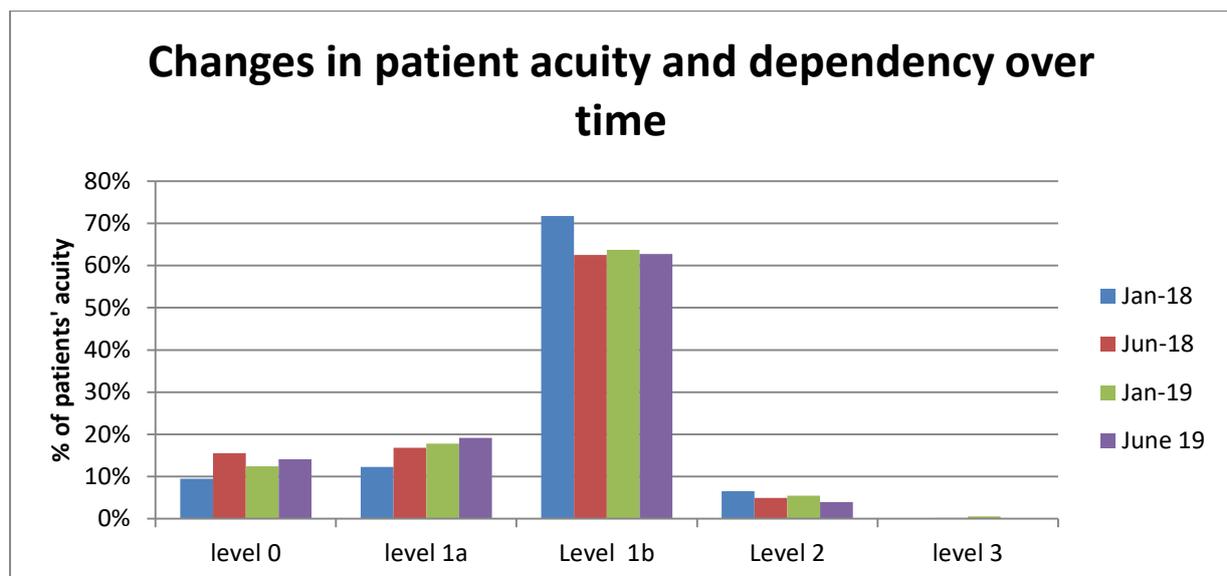
Compared to January 2019 the percentage of level 0 patients and level 1A patients has increased with a consequent decrease in the number of level 1b and 2 patients.

	Jan 2018	June 2018	January 2019	June 2019
<b>No of scores</b>	<b>16,675</b>	<b>17,148</b>	<b>19,407</b>	<b>21,465</b>
<b>Level 0</b>	<b>9.45%</b>	<b>15.5%</b>	<b>12.4%</b>	<b>14.1%</b>
<b>Level 1a</b>	<b>12.29%</b>	<b>16.85</b>	<b>17.8%</b>	<b>19.1%</b>
<b>Level 1b</b>	<b>71.75%</b>	<b>62.5%</b>	<b>63.7%</b>	<b>62.7%</b>
<b>Level 2</b>	<b>6.49%</b>	<b>4.9</b>	<b>5.5%</b>	<b>3.97</b>
<b>Level 3</b>	<b>0.02%</b>	<b>0.2%</b>	<b>0.56%</b>	<b>0.01%</b>

**Table 1. RWT wards: patient dependency and acuity and occupancy**

Chart 1 below shows the changes in patient acuity over time

**Chart 1.**



## 2.2 Establishments

Applying the multipliers to the data collected the differential between funded establishments and suggested establishments are calculated. This model is based on establishment and not actual nurses in post. These are presented graphically to demonstrate the overall pattern of 'over' and 'under' established wards as whole time equivalents (w.t.e) and percentages (%). Charts 2 (w.t.e) and Chart 3 (%) demonstrate the difference between funded and suggested establishments using the SNCT. It is however accepted that being within 10% of the SNCT multiplier suggested w.t.e is within limits.

Chart 2

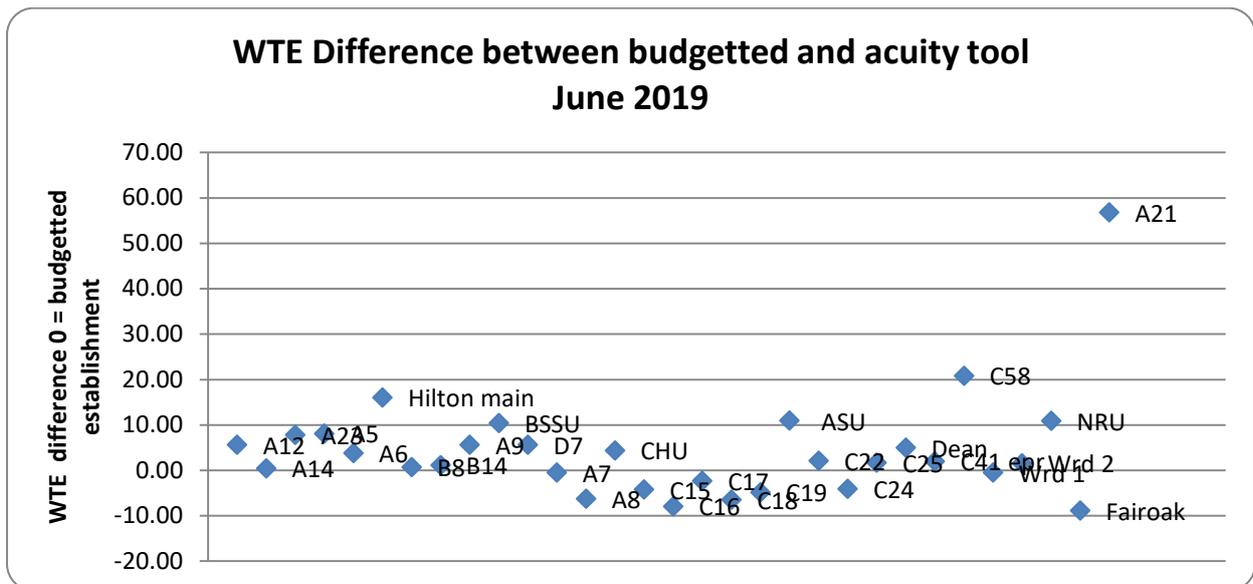
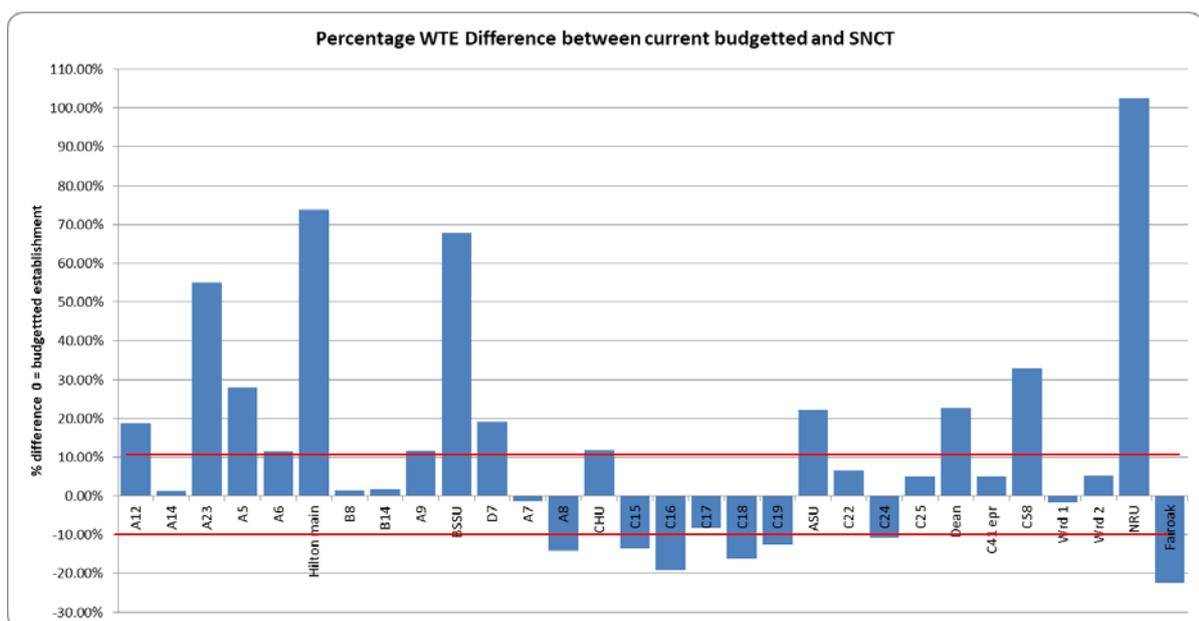


Chart 3



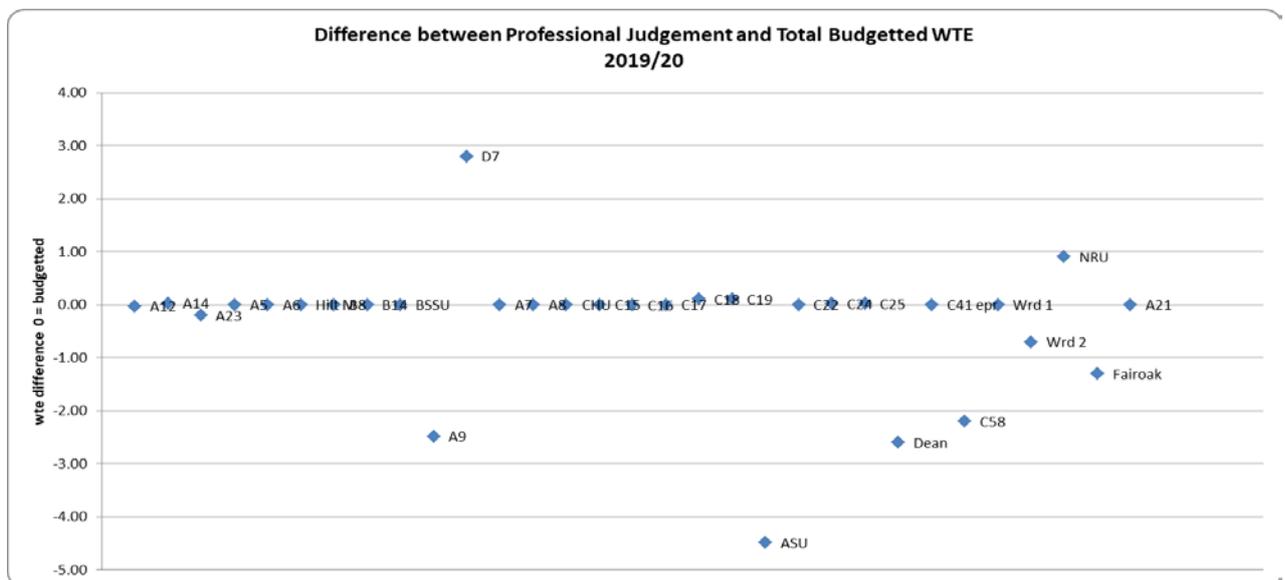
In undertaking a skill mix review it is essential that the acuity/dependency data is triangulated against professional judgement and nurse sensitive indicators.

The application of professional judgement ensures specific local needs are included:

- Ward layout/facilities: the configuration of wards and facilities affect the nursing time available to deliver care to patients, and this can be reflected in staffing establishments through professional judgement. For example, wards with a high proportion of single rooms might make adequate surveillance of vulnerable patients more difficult
- Escort duties: consideration needs to be given if this role is likely to affect the numbers of staff required. A local data collection and analysis exercise is undertaken to determine a percentage to be added to the establishment to ensure staffing remains responsive to daily patient care needs if this is considered to have a significant impact on the ward activity
- Shift patterns: the type of shift patterns (long day versus short day) in use may affect the overall establishment required to ensure shift-to-shift staffing levels. These are monitored to understand the impact and effect on staff and patients

Chart 4 (w.t.e) and Chart 5 (%) demonstrates the difference between funded and suggested establishment using professional judgement

**Chart 4**



**Chart 5**

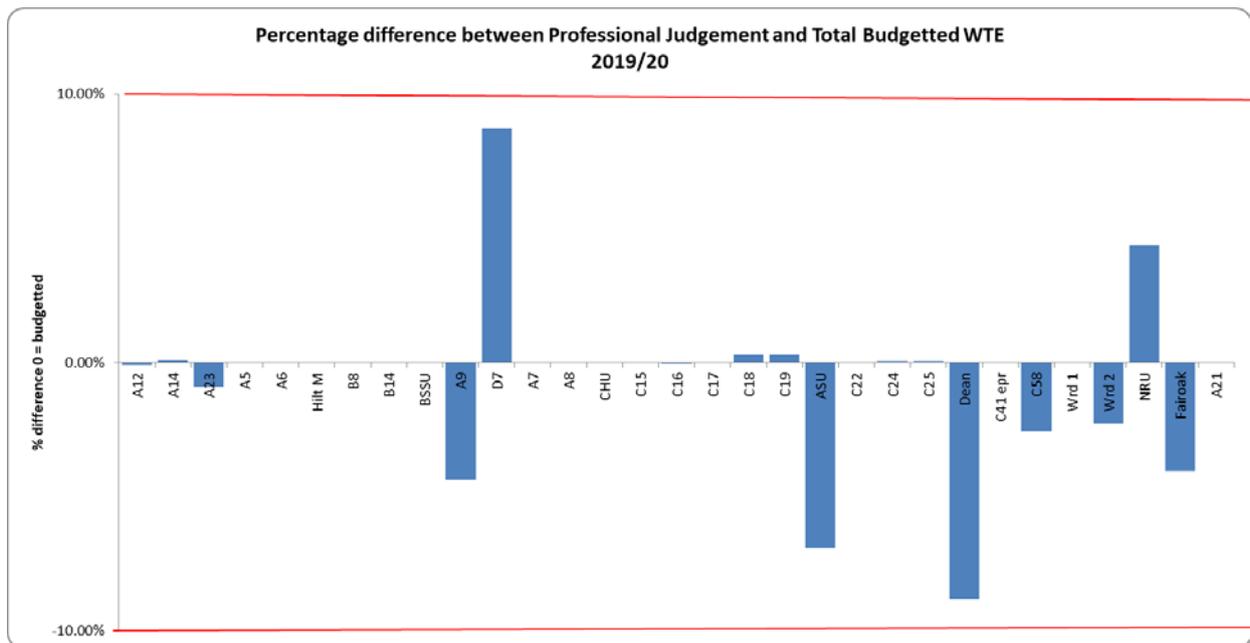
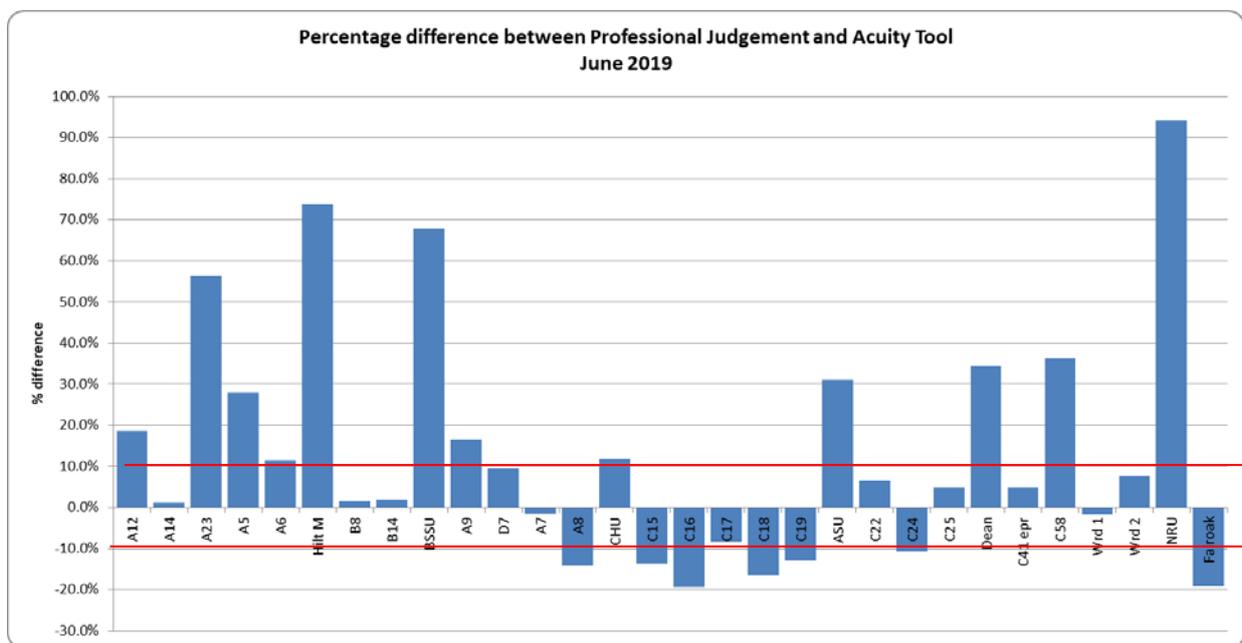


Chart 6 (%) demonstrates the percentage difference between professional judgement suggested establishment and SNCT suggested establishment

**Chart 6**



**Analysis**

It is essential that decisions to change to staffing requirements is based on an over time with thematic analysis rather than a one point measure unless that one measure is significant and supported by triangulation evidence.

In Chart 3 it can be seen there are 10 wards considered 'over' established or above 10% of the SNCT suggested w.t.e.

Those wards considered to be 'over' established or above 10% of the SNCT suggested w.t.e are:

- A12, A23, A5, Hilton Main, BSSU, D7, A7, CHU, ASU, Deanesly, AMU and NRU

But when comparing professional judgement to the budgeted establishment (chart 5) there are only 2 of these wards who appear to be over established:

- D7 and NRU

#### **Hilton Main** (elective orthopaedics – Cannock)

In reviewing the nursing requirement for Hilton Main the Head of Nursing for Division 1 proposes to maintain the current budgeted establishment. Recognition has been given to the low occupancy on this ward but with the anticipated increase in activity on the Cannock site and the logistical layout of this ward, it was deemed unsafe to reduce the workforce at this time. The nurse sensitive indicators results are: **Falls** – 2 in month and 4.93/1000 occupied bed days (obd) which is higher than Trust average of 3.38. **Pressure ulcers** – 0; **Medication incidents** -0. The maintenance in establishment is supported by the Chief Nurse

#### **A5** (Trauma/Orthopaedics – NX)

The review of the SNCT data (chart 3) shows a significant variance between the SNCT required establishment and the current budgeted establishment, in comparison there is no variance between the professional judgement and current establishment (chart 5). The Matron and Head of Nursing for Division 1 are still recruiting to the registered nurse vacancies to enable the increase in the number of beds from 22 to 27 and are confident that the budgeted skill mix is still required. The Directorate are considering changes to the patient mix on the wards and may decide to create one trauma ward and one ortho-geriatric ward. If this model is adopted then changes will be made to the skill mix review. The nurse sensitive indicator results are: **Falls** – 2 in month and 2.44/1000obd; **Pressure ulcer** – 0 in month; **Medication errors** – 0. The Chief Nurse supports maintaining the establishment to allow the opening of the additional beds as soon as recruitment is completed.

#### **Beynon Short Stay ward** (short stay general surgery – NX)

Reviewing the acuity data captured at 15.00 daily (chart 3) a potential 'over' establishment is demonstrated. However, the professional judgement undertaken by Senior Sister and Matron (chart 5) does not reflect an 'over' establishment. The Senior Sister, Matron and Head of Nursing whilst completing the professional judgement have taken into account that at 15.00 there are consistently a number of empty beds which are booked for patients still in theatre but that there is a peak in activity early morning and late afternoon which is not necessarily reflected in the acuity data capture and also by the nature of ward speciality the nurses are off ward for a considerable time to escort patients to and from theatre. Nurse sensitive indicator results are: **Falls** – 2 in month and 4.51/1000obd which is higher than Trust average; **Pressure ulcers** – 0; **Medication errors** – 1 in month and 2.26/1000obd which is lower than the Trust average of 2.3/1000obd. The Head of Nursing proposes to reduce maintain the budgeted establishment, and additional acuity data capture earlier in the day will be considered. The maintenance of establishment is supported by the Chief Nurse whilst further acuity work is undertaken.

#### **A23** (Head and Neck – NX)

In chart 3 this ward is showing as over established this is based purely on the acuity data captured on the inpatients, however in comparison the professional judgement toolkit (chart 5) the ward is not showing as over established. The professional judgement has taken into account both, the 2 procedure rooms which are housed within the ward, these rooms accommodates emergency attendances and the requirement for registered nurses to escort patients with tracheostomies to off ward investigations. The Head and Neck Directorate are developing a business case which considers

moving the ward closer to the Critical Care unit. The nurse sensitive indicators are: **Falls** – 0 in month; **Pressure ulcer** – 1 in month and 2.39/1000obd which is higher than the Trust average of 1.77/1000obd; **Medication error** – 1 in month and 2.39/1000obd. The Chief Nurse supports the maintained establishment.

#### **D7** (Gynaecology – NX)

In reviewing the acuity data (chart3) it would suggest that the ward is 'over' established, however the acuity data is based on 26 beds, it does not include the emergency gynaecology patients that attend this ward out of hours and overnight, as it then also provides 4 additional beds for the assessment of these patients. The professional judgement completed by the Matron and Head of Midwifery find the ward establishment and skill mix to be acceptable for the 26 inpatient beds, the issue is the overnight emergency assessment beds, there is further work currently in progress by the Directorate to decide where and how these patients are best cared for. Once this decision has been made a revised skill mix will be proposed. The nurse sensitive indicators are: **Falls** – 0 in month; **Pressure ulcer** -0 in month; **Medication error** – 0 in month. The Chief Nurse agrees the establishment and skill mix for the 26 inpatient beds is correct but that the Division and Directorate need to decide where and how these emergency patients are assessed and cared for before a final nursing establishment can be agreed.

#### **B8** (Cardiology – NX)

In reviewing both the acuity and the professional judgement data, the Head of Nursing is confident that the whole time equivalent (wte) is correct however it is considered appropriate to change the skill mix so the proposal is to reduce 1.0 band 5 and replace with 1.0 band 4 nursing associate. The nurse sensitive indicators are: **Falls** – 2 in month and 1.95/1000obd which is lower than the Trust average of 3.38/1000obd; **Pressure ulcer** -0 in month; **Medication error** – 1 in month and 0.97/1000obd which is lower than the Trust average of 2.3/1000obd. The Chief Nurse supports this change to the skill mix.

#### **B14** (Cardiothoracic – NX)

In reviewing both the acuity and the professional judgement data, the Head of Nursing is confident that the whole time equivalent (wte) is correct however it is considered appropriate to change the skill mix so the proposal is to reduce 1.0 band 5 and replace with 1.0 band 4 nursing associate. The nurse sensitive indicators are: **Falls** – 0 in month; **Pressure ulcer** -0 in month; **Medication error** – 0 in month. The Chief Nurse supports this change to the skill mix

#### **A9** (Surgical Evaluation unit – NX)

This was the first review of SEU using the SNCT for assessment wards and hence no changes are proposed as it is recommended by The Shelford group that at least 2 reviews are completed before any change to establishment or skill mix should be considered. There is a business case in the development stage within the Directorate which will consider how the increase in surgical emergency activity is best accommodated and what resource will be required. The nurse sensitive indicators are: **Falls** – 1 in month and 0.99/1000 occupied bed days; **Pressure ulcer** – 2 in month and 1.98/1000 obd; **Medication error** – 1 in month and 0.99/1000obd. The Chief Nurse supports the decision to maintain current establishment and skill mix.

#### **NRU** (Neuro Rehabilitation – West Park)

Both the SNCT and professional judgement review (charts 3 and 5) suggest that NRU is potentially over established. The Matron and Head of Nursing for Division 2 propose to reduce the establishment by 0.8 band 2 health care assistant hours. This revision to NRU still ensures that there are sufficient registered nurses available 24/7. The nurse sensitive indicators are: **Falls** – 2 in month and 5.90/1000 occupied bed days (obd) which is higher than Trust average of 3.38, **Pressure ulcers** -0;

**Medication incidents** – 1 in month and 2.95/1000obd which is higher than the Trust average of 2.3/1000obd. The change in establishment is supported by the Chief Nurse.

**A8 (Care of Elderly – NX), C15 (Diabetes – NX), C16 (Diabetes – NX); C18 (Respiratory); C19 (Respiratory) and Fair oak (Rehabilitation – Cannock Chase)**

The SNCT data on these 6 wards (chart 3) shows them to be 'under' established as they are over the 10% tolerance, therefore suggesting that an increase in establishment may be required. The professional judgement completed by Senior Sister and Matron (chart 5) shows all wards except Fair oak to be within 10% tolerance, therefore suggesting that the current establishment is correct. The Head of Nursing Division 2 proposes that no alteration is made to A8; C15; C16; C18 or C19, further work is in progress in regards to Fair oak ward as there is a concern re the number of registered nurses on a night which is resulting in a 1 registered nurse: 13 patient ratio. The Chief Nurse has requested a decision be made by the Directorate and Division in regards to Fair oak ward skill mix/establishment and any cost implications.

**Deanesly (Oncology – NX)**

The professional judgement review (chart 5) suggests that additional staff are required, the ratio of registered nurse to neutropenic patient is required at a 1:2 this is to ensure the administration of antibiotics are timely, the ward has also seen an increase in the number of controlled drug administration required due to the nature of the patients. The nurse sensitive indicators are: **Falls** – 1 in month and 2.19/1000obd; **Pressure ulcers** – 0 in month; **Medication incidents** – 0 in month. The Matron and Head of Nursing propose an increase of 2.6 registered nurses; this will require financial investment of £93,788 the Division will take this forward as part of business planning and budget setting for next year. This change in establishment is supported by the Chief Nurse to ensure patient safety.

**ASU (Stroke unit – NX)**

The SNCT data in chart 3 shows them to be 'over' established however the professional judgement review (chart 5) suggests that additional staff are required. The Matron and Head of Nursing are completing a service review and propose to defer a decision on any changes to the skill mix or establishment until this is completed. The nurse sensitive indicators are: **Falls** – 3 in month and 2.84/1000obd; **Pressure ulcers** – 0 in month; **Medication incidents** – 2 in month and 1.89/1000obd which is lower than the Trust average of 2.3/1000obd. The Chief Nurse supports the decision to wait for the completion of the review before agreeing the skill mix and establishment.

**A7 (Care of Elderly); Clinical Haematology Unit; C24 and C25 (Renal –NX)**

The professional judgement for these wards agreed that the establishment numbers were correct but they have been particularly challenged by the number of band 5 vacancies and the consistent difficulty to recruit to these posts. The Head of Nursing proposes that no change is made to the current establishments and this is supported by the Chief Nurse.

**C58 (Acute Medical Unit - NX)**

The professional judgement (chart 5) identifies a shortfall in staffing numbers, the acuity assessment tool has been used for the first time and shows a potential 'over' staffing position. The Shelford group advice that more than one acuity data capture period should be used before significant changes are made to skill mix or establishments. The Matron and Head of Nursing had proposed previously a change to the establishment of an increase of 1.0wte band 6, reduction of 2.2wte band 5 and increase of 2.9wte band 2 and feel professionally that this is still required; this will require financial investment of £44,185 the Division will take this forward as part of business planning and budget setting for next year. The Chief Nurse agrees that professionally the changes will ensure patient safety.

## Ward 2 (Rehabilitation- West Park)

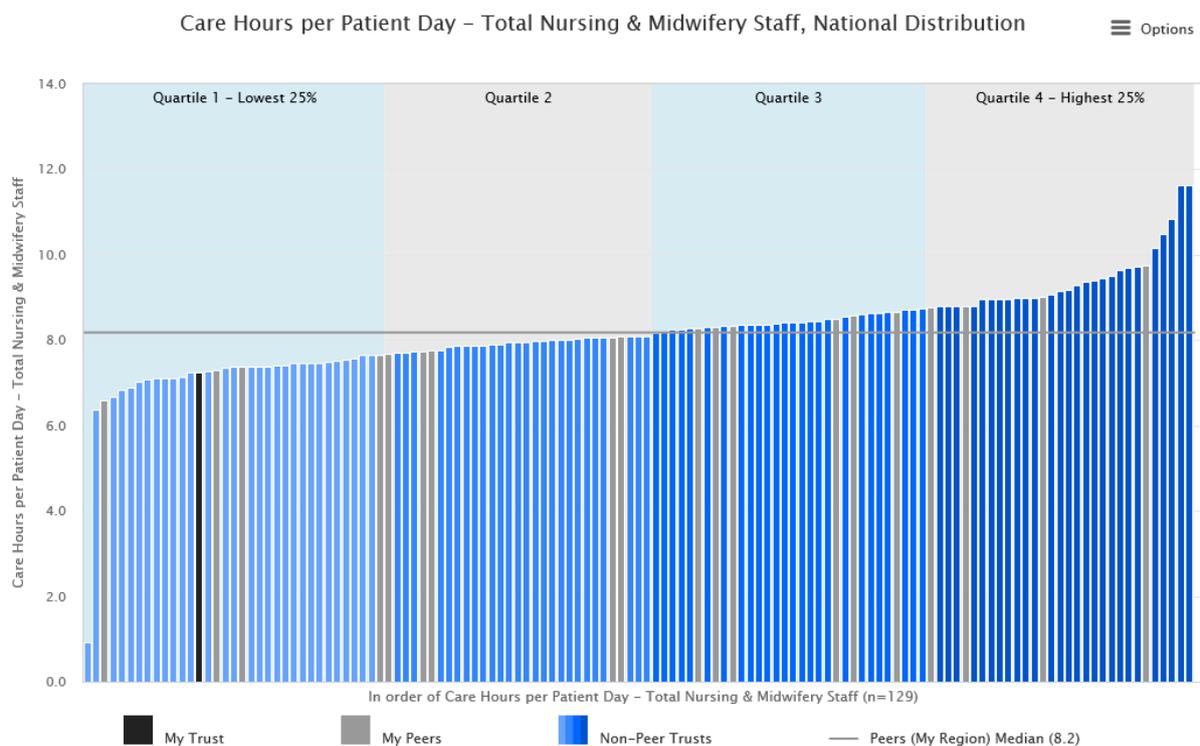
The professional judgement (chart 5) identifies a shortfall in staffing numbers (0.1 band 5 and 0.6 band 2). The Matron and Head of Nursing had considered making this change to establishment in phase 1 of the skill mix review but had wanted to wait to review phase 2 data and are confident that the change is required. The change in budgeted establishment is cost neutral as funding can be realigned from the NRU establishment reduction. The nurse sensitive indicators are: **Falls** – 0 in month; **Pressure ulcers** – 0 in month; **Medication incidents** – 1 in month and 1.65/1000obd which is lower than the Trust average of 2.3/1000obd.

### Nurse Sensitive indicators and Care Hours per Patient Day (CHPPD).

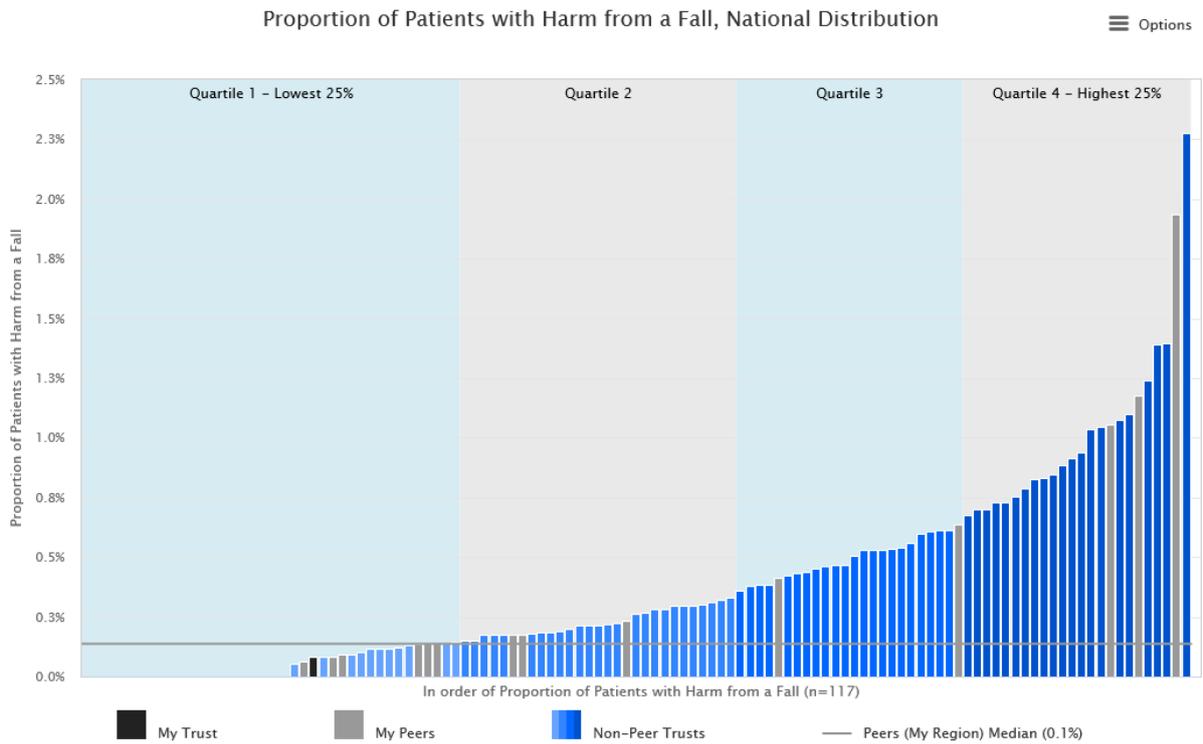
An additional part of the skill mix review has been to use data available on the Model hospital to benchmark the Trust position with CHPPD (chart 7) and nurse sensitive indicators (chart 8 and 9).

Chart 7 shows the position of the Trust CHPPD with peers, the Trust value is 7.1 against a national value of 7.9

### Chart 7

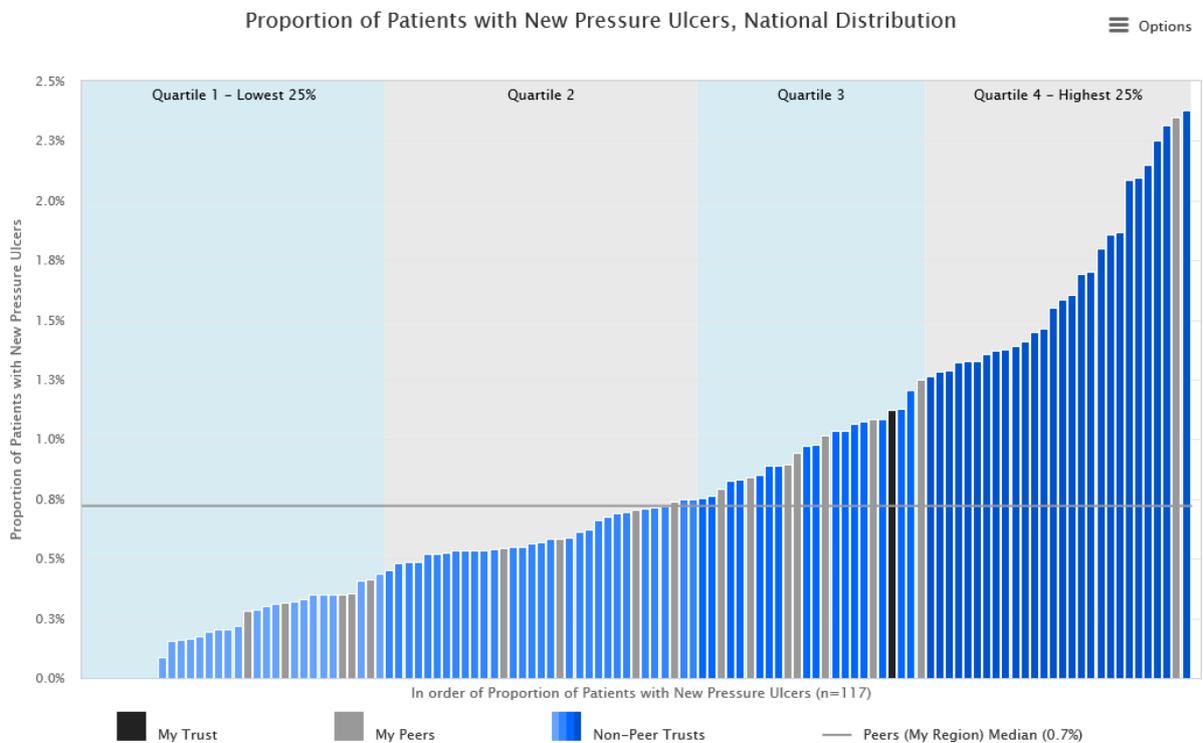


### Chart 8



Falls with harm the Trust value is 0.1% against a national value of 0.3%

### Chart 9



New Pressure Ulcer - the Trust value is 1.1% against a national median of 0.7%

### **3.0 Annual operating theatre skill mix review**

The Critical Care directorate team and Head of Nursing Division 1 have reviewed the current establishments and skill mix assigned to the Theatres areas and compared them against the Association of Perioperative Practice (AfPP) standards.

There are a total of 32 Theatres across the New Cross and Cannock sites (25 in New Cross and 7 in Cannock).

This review involved assessing the fortnightly rotas, the total sessions for each specialty currently provided per week and broke down which teams supply each of the sessions. Each session per specialty team has then been broken down into numbers of grades and staff required. This also included the anaesthetic medical staff for future references.

The work identified specific lists where additional staff may be required. Examples of this are:

- large colorectal cases
- certain breast cases
- paediatric lists where standards are that 2 Anaesthetic Practitioners are required instead of the usual 1
- lists involving laser equipment where safety standards require there is an extra staff member to operate and supervise the laser at all times.
- lists which require additional Theatre Support Assistants (TSA) support such as T&O lists where additional equipment is usually required.
- the longer Head and Neck session that runs on a Tuesday has also been factored in, this session spans 20 hours and thus has 2 teams working 10 hour shifts to support.
- CEPOD sessions are 12 hours each and there are 14 sessions in total.
- thoracic cases where 2 scrub practitioners are required per case
- paediatric lists where standards are that 2 Anaesthetic/recovery practitioners are required instead of the usual 1 at all times.
- cardiothoracic lists require additional TSA support because blood products and blood gases have to be collected frequently.
- cardiothoracic and ophthalmology theatre at New cross requires the provision for emergency cases that occur out of hours and at weekends. This provision is covered with an on call team.

An uplift of 16.8% has been applied to all teams as the theatre staff do not work bank holidays. This uplift increases to 20% in line with other Trust departments for the emergency lists only where the staff is expected to cover the service 7 days a week.

It is clear that historically changes may have been made to sessions as described above without additional resource for Theatres being factored into business cases. The result of which has been addressed over the last 2 years with the current Matron.

### **3.1 Recent changes**

The last year has seen changes to the obstetric lists, previously emergency obstetric lists at night were supported by either the beynon team or the general surgery team. This has now changed to offer consistency with approaches and staff and so the beynon team now take all out of hour's emergency cases and are supported by a designated band 6 registered nurse. The day and night teams for Maternity emergencies now also have a recovery practitioner separate to the elective list which was previously not the case.

A new hot gall bladder list is now up and running and has been taken into account within the General Surgery specialty sessions.

### **3.2 Planned future changes**

The Orthopaedic Theatres at Cannock currently support 54 sessions. The Deputy Chief Operating Officer has requested that these sessions are increased to 60 sessions from September 2019 and 65 from December 2019. This area has thus been over recruiting so that this increase in sessions can commence and is on track to do so from September. The business case to support all of these

additional sessions is going through Trust approval processes but it was agreed to commence recruitment in advance due to the income these theatres are currently generating.

There are new innovations and procedures being developed within the cardiothoracic directorate which include Robotic Thoracic surgery and Laser surgery.

A plan is being worked up to provide a designated paediatric theatre.

### **3.3 Assurance regarding safety**

All sessions are covered with a workforce that fully meets AfPP staffing guidance which is as follows:

- Minimum for emergency and elective cases of 1 unqualified and 3 qualified (comprising of a Recovery Practitioner, a Scrub Practitioner and an Anaesthetic Practitioner).
- Any elective cases with more than 1 patient on the list also requires an additional scrub practitioner.

### **3.4 Summary**

The workforce review of the Theatres has shown that in most cases all current work being undertaken is in line with quality and safety standards as outlines by AfPP, this includes an additional anaesthetic practitioner for paediatric cases.

As a result of this review it has become apparent there are some owed sessions to General Surgery and Urology with no current resource to supply. This is currently being investigated by the finance team and the directorate are working up the detail on how to deliver these sessions to present to division.

From a budgetary perspective the workforce review of:

- general surgery, head and neck; beynon and trauma/orthopaedics theatres has shown that there is a monetary shortfall of £85,000 but there is scope to transfer £37,700 from a defunct post within the directorate leaving a cost of £47,300. This funding will be requested as part of future business cases as this workforce is required to support change in theatre practices; best practice and AfPP guidance.
- cardiac theatres has shown that there is a monetary shortfall of £17,019 to ensure AfPP guidance is met, this will be funded from within the Division
- ophthalmology theatre (NX) has shown a monetary shortfall of £40,324, however part of this cost can be offset by stopping the current on-call process (£32,000) leaving £8,324 which will be put forward as a business case to support the changes in practice and AfPP guidance
- Ophthalmology centre -Cannock has shown that there is a monetary shortfall of £30,079 if all sessions were utilised, however because there are vacant theatre sessions this shortfall in money is not required until the theatre sessions require staffing and this request will form part of a business case in the future.

## **Appendix 1**

### **Levels of acuity and dependency**

#### **Level 0: Patient requires hospitalisation. Needs met by provision of normal ward cares.**

- 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

#### **Level 1a: Acutely ill patients requiring intervention or those who are UNSTABLE with a GREATER POTENTIAL to deteriorate**

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

#### **Level 1b: Patients who are in a STABLE condition but are dependent on nursing care to meet most or all of the activities of daily living.**

- 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 owing 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

**Level 2: 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 /**

- 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 unit

**Level 3: Patients needing advanced respiratory support and / or therapeutic support of multiple organs.**

- 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

## **Appendix 2**

### **Nurse Sensitive Indicators**

#### Formal complaints

Registered complaints about nursing/midwifery care/staff in the following three areas:

- Communication
- Clinical care
- Attitude

#### Medication Errors

Actual medication errors where nursing was the primary cause

#### Infection

Incidence rates of MRSA bacteraemia and Clostridium Difficile

#### Slips, trips and falls

Number of slips, trips and falls

#### Pressure Ulcers

Prevalence of pressure ulcers developed in hospital