Meeting:	**Brighton and Sussex University Hospitals NHS Trust** **Board of Directors**
Date:	**29th March 2016**
Board Sponsor:	**Sherree Fagge Chief Nurse**
Paper Author:	**Chief Nurse and Deputy Chief Nurse (Workforce & Efficiencies)**
Subject:	**Safer Nursing Staffing levels**

Executive summary

This report, alongside the monthly reports on Safer Staffing, form part of the Chief Nurse's assurance to the Board that our commitments to Safe Staffing are being delivered through our leadership and with the support of our internal processes and governance arrangements. The Chief Nurse provides a detailed report on the nursing workforce to the Board every 6 months.

This report builds on the previous reviews of the nursing workforce reported to the Board in September 2013, when the Board approved prioritised investment in nursing; and the report to the Board in April 2014, which described the requirements in relation to nurse staffing and the publication of nurse to patient ratios which followed the Francis Inquiry and Government response to the Francis Inquiry, *Hard Truths.*

This report focuses on national guidance for nursing and midwifery staffing and the current position of the Trust. Staffing is reviewed by each Clinical Directorate and speciality and where there is no national guidance, the NICE standards have been used – *Safe staffing for nursing in adult inpatient wards (2015).*

The Board is asked to note that the national guidance is aspirational, rather than an index of safe staffing and high quality care. The guidance also uses different parameters for calculating staff which inflates the staffing requirements and cannot be universally applied in every setting.

Further work will be undertaken where there is a variance between current establishment and national guidance and the outcome of this work will be reported to the Board in the next 6 monthly report. This will take into account the acuity and dependency of patients. The Board is also asked to note that there are discussions taking place locally and nationally regarding the number of nurses in training and an acceptance that numbers need to increase.

The Board is asked to note that in addition to staffing levels high quality patient care depends on a range of factors, including leadership, culture, team working, environment and training & development

Links to corporate objectives	Safe staffing levels support the Trust objectives of: ***excellent outcomes; great experience; empowered skilled staff; and high productivity***
Identified risks	Safe staffing levels are key to ensuring patient safety and high

and risk management actions	quality patient experience.
Resource implications	As reported to the Board of Directors any shortfalls in staffing levels will be addressed, through the development of business cases.
Report history	Previous reports on nurse staffing have been made to the Board of Directors monthly since April 2014.
Appendices	Appendix 1 – NHS Choices version of BSUH Safer Nurse Staffing: February 2016 Appendix 2 – Monthly monitoring of Nursing & Midwifery workforce

Action required by the Board

The Board of Directors is asked to note the six-monthly report on safer nurse staffing levels; the current position of the Trust, including its position in respect of national guidance; and the further work planned.

Report to the Board of Directors, 29th March 2016
Nursing & Midwifery Workforce

1. Introduction

This report details a review of National Nursing & Midwifery Staffing guidance benchmarked against current staffing at BSUH. The report provides the Board with an overview of Nursing and Midwifery staffing levels in inpatient areas as outlined in the Nurse Staffing Guide "How to ensure the right people, with the right skills, are in the right place, at the right time" (National Quality Board and NHS Commissioning Board).

The external driver for this review process was the expectation set by the National Quality Board that all hospital trusts should review their nursing & midwifery establishments twice annually and report the findings to a public trust board. The National Quality Board report has a number of other recommendations, outlines the importance of ensuring that staffing is appropriate and refers to multiple studies that link low staffing levels to poorer patient outcomes and increased mortality rates. Professor Sir Bruce Keogh's (2013) review of 14 hospitals with elevated mortality rates also found a positive correlation between inpatient to staff ratios and higher hospital standardised mortality ratios.

Determining staffing requirements is complex and determining the number is only one part of the process. The skill mix of the staff is vital and the Keogh report refers to evidence that suggests that where there are lower levels of registered nurses there are higher rates of errors in care. High quality care depends on a range of other factors including leadership, culture, team working, environment and training & development.

In addition to baseline establishments each area requires an additional uplift to cover some absences such as annual leave and training as well as some provision for sickness. If this is not realistic it is very difficult to have robust budgetary control and to be able to hold relevant staff to account for managing their resources.

This report will review the 11 relevant Clinical Directorates:

Table 1: clinical directorates

Directorate	National Guidance
Abdominal medicine & surgery	No specific National Guidance
Acute floor	Emergency Department Intensive Care Unit
Cancer	Guidance
Cardiovascular	Cardiac Renal
Children's	Children's Neonatal
Head & Neck	No specific National Guidance
Musculoskeletal	No specific National Guidance
Neurosciences & Stroke	Stroke Rehabilitation
Perioperative	Perioperative
Speciality Medicine	Dementia and Alzheimer's

Directorate	National Guidance
	Older people General medicine Respiratory HIV
Women's	Birthrate plus – 2014, Safer Childbirth Minimum Standards for the Organisation and Delivery Care in Labour - 2007 Staffing Obstetric theatres 2009 Staffing In Maternity Units The Kings Fund - 2011 NICE Safe Midwifery Staffing - 2015

Appropriate staffing can be monitored in several ways, safer staffing filled and unfilled shifts, acuity and dependency, bank and agency usage, vacancies, turnover, sickness levels, overtime, patient feedback, patient voice, friends and family test, falls, pressure ulcers, medication errors, complaints, staff feedback on missed breaks, attendance at mandatory training and number of appraisals completed.

2. Abdominal Medicine and Surgery, Head and Neck and Musculoskeletal

There is no national specific guidance for these clinical areas so Safe staffing for nursing in adult inpatient wards in acute hospitals (NICE 2015) has been used as guidance.

There is no single nursing staff-to-patient ratio that can be applied across all acute adult inpatient wards. There is evidence of increased harm associated with a registered nurse caring for more than 8 patients during the day shifts. This excludes the nurse in charge. In many cases patients' nursing needs will require registered nurses to care for fewer than 8 patients. BSUH increased the Nursing & Midwifery establishments in 2013 and all the planned nurse to patient ratios are below 1 to 8. Some of the ratios are determined by the size of the ward which require a minimum of two trained nurses on duty at all times.

Table 2: Nurse to patient ratio for wards not included in specialist national guidance

Ward/ Department	Directorate	Site	Beds	Planned trained staff/ Planed support staff		Planned Ratio - Nurse to Patient		Planned trained staff/ Planed support staff		Planned Ratio - Nurse to Patient	
Horsted Keynes	Women's	PRH	12	2	1	1 :	6.0	2	1	1 :	6.0
Level 11 Gynae Ward	Women's	RSCH	9	2	1	1 :	4.5	2	1	1 :	4.5
AMU	Acute Floor	RSCH	36	9	7	1 :	4.0	8	4	1 :	5.1
Balcombe Ward	Acute Floor	PRH	27	5	4	1 :	5.4	4	2	1 :	6.8
Pyecombe Ward	Acute Floor	PRH	27	5	5	1 :	5.4	5	2	1 :	6.8
Plumpton (HWP)	Specialty Medicine	PRH	9	2	1	1 :	4.5	2	1	1 :	4.5

Ansty - Urology	Abdominal Surgery & Medicine	PRH	20	6	3	1 :	3.5	3	2	1 :	7.0
Pickford	Head & Neck	RSCH	9	3	1	1 :	5.6	2	0	1 :	5.7
L9A	Abdominal Surgery & Medicine	RSCH	58	18	6	1 :	3.2	10	2	1 :	5.8
Haem-Oncology Ward	Cancer	RSCH	10	3	1	1 :	3.3	2	1	1 :	5.0
Howard 1 Ward	Cancer	RSCH	9	3	1	1 :	3.0	2	0	1 :	4.5
L8 Tower	Cardiovascular	RSCH	37	8	4	1 :	4.6	5	4	1 :	7.4
Albourne ward	Neurosciences & Stroke	PRH	15	3	1	1:	5.0	3	1	1 :	5.0
L8 AE - Trauma	Musculo-skeletal	RSCH	24	5	4	1:	4.8	3	3	1 :	8.0
Newick	Musculo-skeletal	PRH	27	6.0	2	1:	5.4	4	1	1 :	6.8
Twineham ward	Musculo-skeletal	PRH	43	8	6	1:	5.4	6	6	1 :	7.2
Bailey Ward	Specialty Medicine	RSCH	15	3	3	1 :	5.3	2	2	1 :	7.5
Bristol Ward	Specialty Medicine	RSCH	19	3	3	1 :	6.3	3	2	1 :	6.3
Chichester Ward	Specialty Medicine	RSCH	21	4	3	1 :	5.3	3	3	1 :	7.0
Egremont/Catherine James	Specialty Medicine	RSCH	25	5	4	1 :	5.0	4	2	1 :	6.3
Emerald	Specialty Medicine	RSCH	15	4	4	1 :	3.8	3	3	1 :	5.0
Hurstpierpoint Ward	Specialty Medicine	PRH	23	4	4	1 :	5.8	3	3	1 :	7.7
Jowers Ward	Specialty Medicine	RSCH	14	2	3	1 :	7.0	2	2	1 :	7.0
Vallance Ward	Specialty Medicine	RSCH	19	3	3	1 :	6.3	3	2	1 :	6.3
CIS Howard 2 & Grant Wards	Specialty Medicine	RSCH	17	4	3	1 :	4.3	4	2	1 :	4.3
Overton	Specialty Medicine	RSCH	12	2	2	1:	6.0	2	2	1:	6.0

Summary: None of the above wards have a planned ratio higher than 1 to 8.

3. Acute floor

Critical Care

Critical care services in the Acute Directorate are provided by the critical care units at PRH and RSCH. (The cardiac high dependency unit at RSCH is part of the Cardio-vascular Directorate and the children's high dependency and neonatal unit part of the Children's Directorate – these will be discussed later in the report). The Acute Directorate units are members of the South East Coast Critical Care Network. The Network aims to ensure the highest standard of adult critical care services across the South East, in line with the recommendations in Comprehensive critical care (DOH, 2000).

The Intensive Care Society's Classification of Critical Care Patients and the following levels are applied at BSUH in our Units at RSCH and PRH:

Classification of comprehensive critical care:

Level 0	Patients whose needs can be met through normal ward care in acute hospital
Level 1	Patients at risk of their condition deteriorating, or who have recently relocated from higher levels of care, whose needs can be met on an acute ward with additional advice and support from the critical care team
Level 2	Patients requiring more detailed observation or intervention, including support for a single failing organ system or post-operative care and those 'stepping down' from higher levels of care
Level 3	Patients requiring advanced respiratory support alone or support of at least two organ systems. This level includes all complex patients requiring support for multi-organ failure

Level 1 Patients should receive care in a designated area agreed by the critical care team. There may be a need to co-locate level 1 & 2 patients as their needs may fluctuate. To be effective, this designated area should have a workforce capable of delivering level 2 care.

Critical Care Units

The RSCH critical care unit is located in two areas on Level 7 and Level 5 in the Thomas Kemp Tower. In June 2015 the neuroscience intensive care unit was relocated to RSCH as part of the site reconfiguration. The Level 7 unit has 16 level 3 beds. The Level 5 Unit has 7 level 3 beds and 8 level 2 beds. This is the maximum capacity. Both floors use the beds flexibly dependant on the patient acuity and staffing levels. The neurosurgical patients are currently cared for on the Level 5 unit which is closer to theatres and CT scanners. The RSCH unit cares for a wide variety of critical care patients which include acute renal management, respiratory failure, post vascular, neuro and cardiac surgery, invasive neurological monitoring, trauma, general medical and surgical, planned and emergency admissions. The PRH unit supports a variety of specialties, from elective surgery to acute medicine. The PRH critical care unit has 12 bed spaces funded for 3 level 3 and 9 level 2 beds, currently 8 are open and staffed.

Nurse Staffing Levels

Recruiting and retaining permanent staff to the two critical care units at BSUH is a significant challenge, and the units use bank and agency staff when necessary. The actions taken to secure the right workforce and the best possible ways of working are described in more detail below.

To ensure that Level 3 patients receive care with a nursing ratio of 1:1, the guidelines from the Intensive Care Society and the RCN require a staffing ratio of at least 6.3 WTEs for each Level 3 bed. This includes an allowance for annual leave and adequate study leave but excludes any allowance for sickness or maternity leave, if this is to be taken into account the ratio ideally needs to be increased to 7.0 WTE for each Level 3 bed or equivalent. In addition the guidelines and recommendations advise there should be supernumerary shift leaders for units over 6 beds. For units over 31 beds with difficult geography extra supernumerary shift leader support is necessary.

There needs to be a minimum of one clinical band 7 per two level 3 beds (or equivalent). The percentage of trained staff with a post registration qualification in

Critical Care must be a minimum of 50% of the total trained operational staff. At RSCH the percentage with post registration is 60.5%, at PRH is 78.5% and critical care outreach team (CCOT) 92.3%. These percentages are for our staff in post and do not include the vacancy factors.. Overall including the critical care outreach team the percentage is 66.1%. The % of trained WTE critical care nurses is good, however we need to keep training and retaining staff to prepare for the 3Ts development.

The Department of Health has recommended a move away from the use of rigid ratios to determine nurse staffing for patients requiring Level 2 and Level 3 care in favour of the use of more flexible systems for assessing nursing workload, on the basis that beds should be staffed flexibly according to the workload generated by individual patients. The total operational qualified nurse establishment for maximum capacity should therefore be 189 WTE for RSCH and 53.55 WTE for PRH critical care units. On top of these numbers the units have a requirement for a practice educator, data, technology and IT teams.

Within the 3Ts programme for critical care there are plans to provide a 55 bedded critical care unit. To open this, the nursing establishment would need to increase further to 340.2 operational WTE at RSCH.

The current establishments of the two critical care units at BSUH ideally should be 242.55 operational WTEs and currently sits at 203.01 WTE in total, including the supernumerary roles.

Over the last year both units have continued to use bank and agency staff to open beds when demand occurs, and it is a constant challenge to keep staffing costs with budget. To cover for vacancies, sickness and maternity leave.

The funded establishment and staff in post at RSCH and PRH is detailed below:

Table 3: Current Workforce Profile

Band	7	6	5	3	2	TOTAL
RSCH Funded	14.87	67.26	67.26	0	18.89	149.39
RSCH In post	17.71	47.40	68.55	6.14	9.00	
Vacancies	**+2.84**	**-19.86**	**+1.29**	**+6.14**	**-9.89**	**-17.4**
PRH Funded	7.06	20.69	25.87	0	5.17	53.62
PRH In Post	5.00	19.00	12.84	0	3.68	
Vacancies	**-2.06**	**-1.69**	**-13.03**	**0**	**-1.49**	**18.27 – *10.4 = -7.87**

*10.4 taken off as beds not open

	Funded Trained	Guidance	Variance
RSCH	149.39 wte	189 wte	39.61 wte
PRH	53.62 wte	53.55 wte	-0.07 wte

Based on the recommended guidelines both units are short of WTE to reach the 6.3 WTE per level 3 bed, however this guidance uses an uplift of 25% and BSUH uses 21%.

RSCH WTE was reduced when the unit was templated during business planning using staff required per shift using a WTE per L3 bed of 5.2 WTE. There was an increase in July 2015 as the neuro unit relocated onto the RSCH site.

PRH WTE was increased in July 2015 as 4 new L2 beds became available. These new posts have not been recruited into yet as the activity has not commenced yet and there may be further planned redeployments from the RSCH site of neuro staff who would prefer to work at PRH.

There are significant differences in the nursing vacancy rates by pay band and by site. The vacancy factor of the Senior Staff Nurses (Band 6) is high at the RSCH Unit, compared to the PRH Unit. There is a national shortage of critical care trained nurses. The Trust's critical care units, together with the Cardiac High Dependency Unit are all competing for the same group of people from a limited pool. Each unit faces significant challenges in recruiting and retaining qualified nursing staff. The Trust's critical care staffing requirements have doubled over the past 10 years. Many of the new staff have to be attracted from units in London.

The critical care units have no problem in recruiting junior staff at Band 5; the middle grades in Band 6 are the hardest to recruit and retain. Therefore the unit at RSCH has over recruited to Band 7 and Band 5 to cover the short fall at Band 6. The Units are very successful at "growing our own" Band 6s but have difficulty in retaining them. Ongoing work is occurring to secure the funding to commence developing Advance Nurse Practitioners to offer to the staff more opportunity for career progression and improve retention of qualified critical care nurses.

Sickness and Absence

Both units have challenges with sickness and absence. At RSCH there is currently a high rate of maternity leave with 14.3 WTE pregnant. Since site reconfiguration in June 2015 the sickness rates on both sites have increased, sickness varies between 4 and 10%.

RSCH Recruitment

- Four Band 5s started on the 8th February 2016
- Seven international nurses started on the 22nd February 2016
- Six Band 5s starting in April 2016
- Planned Band 5 intakes in September 2016, January 2017, April 2017 and September 2017.
- 11 Band 6 interviews
- Sourcing Neuro experienced bank and continental nurses.
- More Practice Education support

The units have introduced a successful new way of interviewing for staff including a maths test, group work, simulation exercise and a formal interview.

The relocation of Neurosurgical Services to RSCH

The Neurosurgical critical care unit relocated from HWP to RSCH on the 20th June 2015.

Workforce

Following the relocation of neurosurgery to RSCH nearly 19 WTE staff left neuro ICU, reflecting the change of location and environment. Some are working in different locations within the Trust and others have left the organisation. Sickness levels peaked at 25.6% and turnover at 22.5% in September 2015.

A number of action have been taken to help to integrate the neuro nurses into the RSCH team, to ensure skills and knowledge are shared, to ensure good practice education and to strive for safe quality care.

- The neuro and general nursing rotas have been joined together.
- There is now a single shift leader on Level 5 rather than two.
- As nursing numbers allow, there is a supernumerary senior nurse with neuro skills available as a neuro expert 24/7, to support and coach the bedside nurses in caring for the neurosurgical critically ill.
- Twice weekly multidisciplinary bedside teaching sessions, one neuro and one general, led by the critical care nurse consultant.
- Weekly staff meetings introduced
- Three monthly rotations for the nurses currently without neuro skills so they can learn to care for the neurosurgical patients and complete competency booklets to record learning.
- Secondment of previous neuro practice educator to support for one day a week.
- Neurosurgical Senior Band 6 to work non clinically to support the neuro education.
- An optional rotation for the neuro nurses to the general side to gain broader experience and support team working
- Work commenced with the Values & Behaviour coach to arrange team building strategies.

Emergency Department

BSUH has three Emergency departments; RSCH, PRH and Children's.

Staff requirements for Emergency Department are calculated using '*NICE guidance for staffing emergency departments',* taking into account RSCH ED is a major trauma centre.

NICE recommend that there is one registered nurse to one cubicle for triage, one registered nurse to 4 cubicles for minors and majors, one registered nurse to 2 cubicles in resus.

RSCH number of cubicles;

- Ambulance triage /Cohort area - 1 triage cubicle
- Resus – 5 cubicles
- Majors 2A – 14 cubicles
- Majors 2B – 12 cubicles
    - (2A and 2B run as two areas due to the geography of the department)
- UCC – 8 rooms and a waiting room
- SSW/CDU – 13 bed spaces- 7 female, 6 male

Table 4: nurse staffing requirements RSCH ED

Area	Staff required	Comments
Shift leader	1 Band 7	NICE Recommendation
Ambulance triage/ cohort (2^{nd} amb triage nurse)	1 band 6 1 band 5	NICE recommendation 2^{nd} triage nurse (essential to meet turnaround

		times)Acts as cohort nurse when necessary to release crews
Resus – 5 cubicles	2 band 6 1 band 5	NICE recommendation Ratio 1:2/1:2/1:1
Majors 2A – 14 cubicles	1 band 6 coordinator 4 band 5 nurses 2 HCA's	Often very high acuity and resus step down. Ratio 1:4/1:4/1:4/1:2
Majors 2B – 12 cubicles	1 band 6 coordinator 3 band 5 nurses 1 HCA	As above Ratio 1:4
UCC – 8 rooms	1 band 6 coordinator 1 band 6 Triage Nurse 1 band 5 treatment nurse 1 HCA	Vital to have a coordinator to manage flow in this very busy area. ENP's present as well -to manage own workload
SSW/CDU – 13 beds	1 band 6 1 band 5 2 HCA's	Ratio 1:6 / 1: 7
Total per shift	20 trained and 6 HCAs	
Additional staff	Band 7 Management nurse Band 7 Practice educator Band 7 resus/trauma lead nurse	

This would require 20 trained staff and 6 HCAs per shift 24/7.

This number is essential to;

- Staff all cubicles safely
- To manage a safe and efficient minors and primary care flow
- To meet ambulance turnaround times
- To manage a safe cohort area

Current staffing funded template

Day – 17 trained band 6 HCAs
Night – 16 trained band 5 HCAs

Current template worked but not funded; (authorised by Chief Executive)

Additional two staff - cohort nurse and triage UCC

Day – 19 trained band 6 HCAs
Night – 18 trained band 5 HCAs

Additional staff required to meet NICE recommendations;

18.2 trained staff and 2.6 HCAs

Princess Royal Emergency Department

PRH number of cubicles;

- Ambulance triage - 1 triage cubicle
- Resus – 3 cubicles
- Cubicles – 10 cubicles
- CDU – 6 bed spaces

Additional rooms; children's, gynae, quiet room

Table 5: nurse staffing requirements PRH ED

Area	Staff required	Comments
Shift leader	1 Band 7	NICE Recommendation
Ambulance triage	1 band 6	NICE recommendation 2nd triage nurse (essential to meet turnaround times)
Resus - 3	1 band 6 1 band 5	NICE recommendation Ratio 1:2/1:2/1:1
Cubicles - 10	1 band 6 1 band 5 1 HCA's	Ratio 1:4/1:4/1:4/1:2
CDU – 6 beds	1 band 5 1 HCA's	Ratio 1:6
Total per shift	7 trained and 2 HCAs	
Additional staff	Band 7 Management nurse	

Current staffing funded template

Day – 7 trained band 2 HCAs
Night – 5 trained band 2 HCAs

Current template worked but not funded; (authorised by Chief Executive)

Additional one staff night (Alert support)

Day – 7 trained band 2 HCAs
Night – 6 trained band 2 HCAs

Additional staff required to meet NICE recommendations;

Additional two staff at night, however the activity reduces significantly after 01.00 and does not often pick up until after 11.00am so a twilight shift should be considered to reflect activity.

Day - 7 trained band 2 HCAs and twilight start midday
Night – 7 trained band 2 HCAs and twilight finish a round 01.00hrs.

Summary

Emergency Department RSCH; 18.2 wte trained staff and 2.6 HCAs
Emergency Department PRH; 7.8 wte trained
ICU – 39.54 wte variance

4. Cancer

National workforce guidance

- Haematology, peer review requirement, level 2 & 3, pre transplant, 1:3. Improving Outcomes in Haematological Cancers. National Institute for Clinical Excellence 2003.

- Facilities for the Treatment of Adults with Haematological Malignancies – 'Levels of Care' BCSH Haemato-Oncology Task Force 2009

Haematological Malignancies – 'Levels of Care'

- Level 2b treatment encompasses those that will predictably cause prolonged periods of neutropenia, would normally be given on an in-patient basis, and which may need to be given at weekends as well as during the week. These regimens are more complex to administer than at level 1 or 2a (for example, in terms of drug scheduling) and have a greater likelihood of resulting in medical complications in addition to predictable prolonged neutropenia. Consequently, the resources required to deliver these more complex regimens are greater than at level 1 or 2a. Such regimens include those used to treat AML with curative intent, and salvage chemotherapy regimens for relapsed aggressive histology lymphomas (for example DHAP, IVE). It is acknowledged that with some of these regimens the patient will be at home during the period of neutropenia. As with patients treated at level 1 and level 2a, clear arrangements for the management of chemotherapy-related emergencies should be in place.

- Level 3 treatment refers to those regimens which are complex, and, as with level 2b, may have a high incidence of complications. In addition these treatments are designed for rare haematological malignancies where centralisation of care at regional centres is considered to be advantageous, for example in terms of the familiarity of the biology of the rare diseases and the treatment protocols used. An example of this is the modern in-patient management phase of acute lymphoblastic leukaemia (ALL).

Staffing guidance:

- Level 2a: Consultant haematologist with junior medical staff cover should be provided on a 24 hour / 7 day a week basis. Cross-cover of in-patient beds between different sites at consultant level would be satisfactory and there should be specialist haematology nursing provision during the working week.

- Level 2b: 24 hour cover by an attending haematologist would be expected whilst designated junior trainee or sub-consultant non-career grade staff would be provided during the working week. On site specialist haematology nursing would be provided during the week, and there should be provision for 24 hour cover with Haemato-oncology trained nurses.

- There should be the resource to increase the number of nurses to achieve a nurse: patient ratio of 1:2 if required, for example in the setting of a patient requiring high dependency nursing.

- Level 3: As at level 2b, there should be 24 hour cover by an attending consultant haematologist. There should also be 24 hour specialist middle

grade medical staff cover during the weekdays / weekends. With respect to nursing, there would need to be on site specialist haematology nurse

BSUH – Haematology unit

- Treats patients up to level 2b
- Supports Level 3 pre and post-transplant patients from Kings and the Marsden Hospitals
- Gives induction treatment for bone marrow transplant patients

Nurse patient ratio at Present:

Day shift 1:3.3 qualified Nurse and 1:10 HCA

Night shift 1:5 qualified Nurse and 1:10 HCA

Summary – staffing meets National Guidance

5. Cardiovascular

Sussex Kidney Unit

National guidance recommendations for staffing

Renal High Dependency
- Ratio of 1 nurse to 2 patients or 1 nurse to 1 patient

Haemodialysis Main Centre
- 3 patient shifts per day.
- Patient to staff ratio 3:1, 70:30 registered to unregistered. 20% added to WTE for annual leave, sickness etc.

Haemodialysis satellite unit
- 3 patient shifts per day.
- Patient to staff ratio 4:1, 50:50 registered to unregistered. 20% added to WTE for annual leave, sickness etc.

Peritoneal Dialysis
- PD unit caring for 100 patients providing the total care.
- Ratio of 1 member of staff to 20 patients

20% added to WTE for annual leave, sickness etc. One less registered nurse per day shift during weekend days.

Template comparison to Renal workforce planning, 2001

Trafford Renal Ward
26 beds / 39 WTE. This adheres to the guideline but does not factor in the increased falls risk and demand for 1:1 care at night. Neither does it factor in the emergence of supervisory role ward managers. **Requested addition of 1 WTE, HCA night shift**

Haemodialysis hub
36 stations plus 3 high-dependency stations / 51 WTE. This should be 54 WTE according to the guidelines. Considering high-dependency stations as isolation

patients in side rooms and unstable chronic dialysis patients. The RN to HCA ratio at the Brighton hub unit is 62:38, not the recommended 70:30. However it is felt it works well as we employ and retain senior HCAs at Bands 3&4 better than registered nurses.

Satellites at Bexhill and Worthing

Each satellite dialyses the same number of patients and has approximately the same staff levels. Worthing operates 3 patient shifts/ day on fewer machines and will be used for comparison.

11 stations / 13 staff. According to the guidelines this should be 13.5 with 50:50 registered and HCA ratio. The actual ratio at Bexhill is 58:42 RN: HCA.

At Worthing, it's 54:46. This is felt to be right for the satellite locations without medical presence and the need to keep the patient longer at their local satellite.

Peritoneal dialysis and home haemodialysis
70 PD patients and 46 home dialysis patients / 7.7 WTE. According to the guidelines this should be 3.5 WTE for PD alone. For home haemodialysis training is recommended 1:1 and we train 2 patients every week and maintain the others at home. That requires 2.5 WTE for training and 2 WTE to monitor and give holistic and respite care. A total workforce of 8 WTE required, which includes active promotion of home therapies and recruitment of new patients.

Cardiology

Cardiac Intensive Care Unit (CICU)
Current working to;

- Trained - 8 beds / 34.38 WTE, i.e. a 4.29 nurse to bed ratio
  This aims to provide a 1:1.3 nurse to patient ratio with 4 trained nurses for 4 x Level 3 patients, 2 trained nurses for 4 x Level 2 patients and a supernumerary nurse in charge. Overall this amounts to 7 trained per shift during the week which reduces to 6(Sat)/5(Sun) trained at the weekend when there is no elective surgery, only emergency.
- Untrained – 8 beds / 5.18 WTE

Variance in current establishment;

The Core Standards for Intensive Care Units (2015) the nurse in charge must be supernumerary each shift in order to provide clinical support and ensure patient safety. The supernumerary status of the nurse in charge is also a key action of the BSUH Clinical Oversight Group (COG). The nurse in charge being supernumerary currently only occurs on 15-40% of shifts per month due to the increased numbers of Level 3 patients and due to under establishment. The increased numbers of Level 3 patients is due to an ageing population with increased co morbidities. Recruitment is continuous with 2 x Band 7 Clinical Sister/ Charge Nurse posts about to be advertised. The new Clinical Sister / Charge Nurses', not supernumerary, will work alongside the supernumerary Unit Manager to support the continued development of the unit. A Clinical Educator and technologist also provide extra support.

Proposed establishment 2016/17;

- Trained – 8 beds / 41.4 WTE, i.e. a 5.17 nurse to bed ratio
  This ensures a 1:1.1 nurse to patient ratio with 6 trained nurses for 6 Level 3 patients, 1 trained nurse for 2 Level 2 patients and a supernumerary nurse in charge, whose supernumerary status will be guaranteed. Overall this amount to total of 8 nurses per shift during the week and 7(Sat)/6(Sun) at the weekend. This extra provision will also allow for the increase in surgical activity that is currently being undertaken and is projected to occur.
- Untrained - 8 beds / 5.18 WTE

Cardiac Surgical Step Down Unit

Current working to;

- Trained - 11 beds / 11.56 WTE
  This ensures, during the week, a nurse to patient ratio of 1:5.5 during the morning and night and 1:4.4 during the afternoon when there are elective admissions. At the weekend the nurse to patient ratio is 1:5.5 each shift due to the lack of surgical activity at this time. The nurse to patient ratios are in accordance with national guidelines.
- Untrained – 11 beds / 5.17 WTE

Cardiac Care Unit (CCU) / 6A

Current working to;

- Trained – 14 beds / 28.46 WTE
  This ensures, during the week, a nurse to patient ratio of 1:2.3 during the day and 1:2.8 at night. The nurse to patient ratios are in accordance with national guidelines as there are 6 Level 2 CCU beds on the Unit with the ability to flex up to 8 CCU beds as required.
- Untrained – 14 beds / 5.17 WTE

Albion and Lewes Ward

Current working to;

- Trained – 31 beds / 31.04 WTE
  On Lewes Ward this ensures a nurse to patient ratio of 1:5 during the day and 1:6.7 at night in accordance with national guidelines.
  On Albion Ward the nurse to patient ratio is 1: 3.6 during the day and 1: 5.5 at night, which is appropriate due to the level of activity in the newly re-established Chest Pain Unit and the number of side rooms on the ward
- Untrained – 31 beds / 10.35 WTE.

Proposed establsihment for 2016/17;

The numbers of untrained staff, 2 during the day and 2 at night, is insufficient for the size of the ward as both HCA's are currently only able to cover Lewes Ward which leaves Albion without. One extra WTE HCA (an increase to 15.15 WTE) is requested for every shift in order to cover Albion Ward. The extra HCA at night will also be beneficial if cover is required for specialing patients on Albion and Lewes Ward as well as the Cardiac Surgical Step Down Unit and CCU/6A. All areas very often have patients who require specialing.

Cardiac Catheter Labs

- Trained – 11.37 WTE
  This ensures adequate cover for the 3 cath labs, the hybrid theatre, and extra procedures that are undertaken, and provision of an call.
- Untrained - 1.42 WTE

Cardiac Theatres

- Trained – 13.22 WTE
  This ensures adequate cover for the 2 cardiac theatres and provision of an on call service.
- Untrained – 2.71 WTE

Summary

Table 6: staffing in cardiovascular

Ward/Unit/Lab/Theatre	Current staffing	Proposed staffing	Variance
Cardiac intensive Care Unit	**34.38 WTE (trained)** 5.18 WTE (untrained)	**41.4 WTE (trained)** Unchanged (untrained)	**-7.02 trained**
Cardiac surgical Step Down Unit	11.56 WTE (trained) 5.17 WTE (untrained)	unchanged	
CCU/6A	28.46 WTE (trained) 5.17 WTE (untrained)	unchanged	
Albion and Lewes Ward	31.04 WTE (trained) **10.35 WTE (untrained)**	Unchanged (trained) **15.15 WTE (untrained)**	**-4.8 wte untrained**
Cardiac Cath Labs	11.37 WTE (trained) 1.42 WTE(untrained)	unchanged	
Cardiac Theatres	13.22 WTE (trained) 2.71 (untrained)	unchanged	
Renal			**2.6 HCA**
			Total -14.42

6. Children's

Neonates

Trevor Mann Baby Unit (TMBU) has 27 cots currently 9 IC, 8 HDU and 10 special care. There are a further 8 special care cot's at Princes Royal Hospital.

Table 7: TMBU staffing

Current Number of Cots	Current nurses per shift	Current WTE		Current % of qualified in speciality (QIS).
9+8+10	14 = 1x B7 management Mon- Fri	83.3 wte		62% (70% Sept 2016)
Potential Number of Cots	**Nurses per shift**	**Required WTE**	**BAPM 2011 Required wte**	**Required % of qualified in speciality (QIS).**
9+8+10	17 (includes 1 supernumerary coordinator every shift)	97.75 wte	108 wte	77.86%
8+9+12	17 (includes 1 supernumerary coordinator every shift)	97.75	108 wte	77.86%
7+10+12	16 (includes 1 supernumerary coordinator every shift)	92 wte	108 wte	77.86%

Calculation Intensive care (IC) 1 to 1, High Dependency Unit (HDU) 1 to 2, Special Care 1 to 4 + shift coordinator - 5.75wte (includes annual leave sickness)

BAPM (2011) 25% allowance for annual leave, training sickness etc.

Activity figures based on average activity over the last 3 years;

- IC: 2373 cot days for 9 cots = 72% occupancy
- HDU: 2836 cot days for 8 cots = 97% occupancy
- SC: 3661 cot days for 10 cots = 100% occupancy

Special care PRH;

2 x trained staff and 1 nursery nurse per shift is appropriate for number of babies and cot days.

Nursing staff provide cover for both units when required.

Children's

The Royal Alex Children's Hospital is a hospital within a hospital. There are on average 61 beds open but this can vary on a daily basis. The Royal College of Nursing has published; Defining staffing levels for children and young people's services (2013). It states that "the standards are the minimum essential requirements for all providers of services for babies, children and young people".

The guidance includes 16 core standards;

1. The shift supervisors in each clinical area will, be supernumerary to ensure effective management, training and supervision of staff.
2. Nurse specialists and advanced practitioners will note included in the bedside establishment, except periodically where required to maintain skills, to teach and share expertise with ward and department based staff.
3. At least one nurse per shift in each clinical area will be trained in APLS/EPLS depending on the service need
4. There will be a minimum of 70:30 % registered to unregistered staff
5. A 25%increase to the minimum establishment is required to cover annual leave, sickness and study leave
6. There should be a minimum of two registered nurses at all times in all inpatient and day care areas
7. Nurses working with children and young people (CYP) should be trained in children's nursing with additional training for specialist services or roles
8. 70% of nurses should have specific training required for the speciality, e.g. children's intensive care, children's oncology, children's neurosurgery
9. Support roles should be used to ensure that registered nurses are used effectively
10. Unregistered staff must have completed a course of training specific to the setting, and in the care of infants, children and young people and have undergone a period a period of competence assessment before carrying out care and delegated tasks
11. The number of students on a shift should not exceed that agreed with the university for individual clinical areas
12. Patient dependency scoring should be used to provide an evidence base for daily adjustments in staffing levels
13. Quality indicators should be monitored to provide and evidence base for adjustments in staffing levels
14. Where services are provided for children there should be access to a senior children's nurse for advice at all times throughout the 24 hour period. A senior qualified children's nurse is a nurse that holds a children's nursing qualification, also has a master's degree in an appropriate health/social care related subject, with a minimum of band 8A dependent on the full scope and remit of the position in which case the post may be graded higher where the remit is greater. All post holders of matron positions in children's services must hold a registered children's nursing qualification
15. All staff working with babies, children and young people must comply with the safeguarding children and young people: roles and competences for health care staff (2010). All staff must be able to access a named or designated safeguarding professional for advice at all times 24 hours a day
16. Children, young people and young adults must receive age-appropriate care from an appropriately skilled workforce in dedicated environments that meet their specific needs

Current staffing

Table 8: RACH staffing

Current					
Ward	Level 9	Level 8	Level 7	HDU	Total staffing
Beds	22	12	17	10	
Band 7	1	1	1	1	
Band 6	5.07	5.17	2.86	6.17	
Band 5	27.87	10.35	11.56	20.69	

HCA	3.94	2.59	1.6	1	
TOTAL	37.88	19.11	17.02	28.86	102.87

National Guidance

Table 9: national guidance

National Guidance					
Ward	Level 9	Level 8	Level 7	HDU	Total staffing
Beds	22	12	17	10	
Band 7	1	1	1	1	
Band 6	6.33	5.17	4.5	8	
Band 5	19.26	10.14	10.43	34.8	
HCA	8.26	7.68			
TOTAL	34.85	23.99	15.93	43.8	118.57

Registered to unregistered ratio for non-specialist areas (Minimum 70% registered/30% unregistered)

Summary;
Children's – variance -15.7 wte
Neonates – using IC 7+HDU 10+ SC 12 cot model, -8.7 wte

7. Neurosciences, stroke, rehabilitation and spinal nursing

Stroke

National Guidance - British Association of Stroke Physicians (2014)

In the first 72 hours of an acute stroke patient's admission, they will require more intensive monitoring and nursing input, requiring a minimum Level 2 nursing staff numbers to manage the acute stroke patient (2.9 WTE nurses per bed; 80:20% trained to untrained staffing ratio) is recommended. Thereafter a level of 1.2 WTE nurses per bed is appropriate.

Recommended establishment

RSCH 6 patients and PRH 4 will meet the hyperacute definition

Table 10: stroke recommended establishment

Soloman/Donald Hall		**Trained**	**Support**	**Trained**	**Support**	**Total Trained**	**Total Support**
	Beds	**2.9 x 80%**	**2.9 x 20%**	**1.2 x 80%**	**1.2 x 20%**		
RSCH	6	13.9	3.48			13.9	3.48
RSCH	17			16.32	4.08	16.32	4.08
Totals	**23**					**30.22**	**7.56**
Current						**22.48**	**11.76**
Variance						**-7.74**	**4.2**

Ardingly		Trained	Support	Trained	Support	Total Trained	Total Support
	Beds	**2.9 x 80%**	**2.9 x 20%**	**1.2 x 80%**	**1.2 x 20%**		
PRH	4	9.28	2.32			9.28	2.32
PRH	24			23.04	5.76	23.04	5.76
Totals	**28**					**32.32**	**8.08**
Current						**23.91**	**21.29**
Variance						**-8.41**	**13.21**

The above calculations suggest that Solomon/ Donald Hall ward requires an addition 7.74 wte trained nurses and a reduction of 4.2 support staff. Ardingly ward requires an additional 8.41 wte trained and a reduction of 13.21 wte support staff. However, current there is a stroke divert in place so no hyperacute strokes are currently cared for on this ward. A clear way forward needs to be included before any additional staff would be considered. If Stroke becomes a single site service the numbers of strokes cared for on Donald Hall / Solomon will increase.

Neuro- surgery

National Guidance – British Association Neurosciences Nurses - recommended establishment; 1.5 qualified nurses per bed there are no recommendations regarding HCA numbers.

Neurology

National Guidance - British Association of Neurosciences Nurses, 1.5 qualified nurses per bed

No recommendation regarding HCA numbers

Table 11: neurology staffing

	8A West	Clayton
Beds	32	15
1.5 x beds	48	20.85
Current	39.62	17.53
Variance	-8.38	-6.62

Rehabilitation

National Guidance

British Society of Rehabilitation Medicine 24-30 WTE per 20 beds + rehab assistants (HCAs)

Recommended staffing;

- Lindfield 21 beds approx. 28 wte as nearer the high end of rehabilitation
- Newtimber 18 beds approx. 27 wte as nearer the higher end of rehabilitation

Current staffing;

- Lindfield - 20.8 WTE qualified
- Newtimber - 18.21 WTE qualified

Summary

Table 12: Neurosciences, stroke, rehabilitation and spinal nursing

	8A West	Clayton	Solomon/ Donald Hall	Ardingly	Lindfield	Newtimber	Total
Beds	32	15	23	28	21	18	
Current	39.62	17.53	34.24	45.2	20.8	18.21	
National	48	20.85	37.78	40.4	28	27	
Variance	-8.38	-6.62	-3.54	4.8	-7.2	-8.79	-29.73

8. Perioperative

The National guidance for staffing Operating Theatres has been developed by the Association of Perioperative Practitioners, and this is followed at BSUH for staffing operating theatres. (AfPP).

The recommendations are based on the requirements per operating list for theatre staff, including first stage recovery. Many Operating lists at BSUH are all day operating lists, running from 08.30-17.30. The half day lists where consultants change tend to run from 08:30-12:30 and 13:30-17:30. AfPP recommend an hour is allowed per list for preparing and clearing up afterwards, which in practice at BSUH means staff starting their shift at 08:00 (1/2 hour before the start of the list) and finishing at 1800 (1/2 hour after the end of the list).

The recommendations include as a minimum and after risk assessment of patients' needs and the skills and competencies required of the perioperative team the following:

• **TWO SCRUB PRACITIONERS** as the basic requirement for each session, unless patient dependency and/or clinical service demand more or less. Two practitioners are recommended for a list of major surgery unless there is only one case. Two practitioners are recommended for a list of minor surgery that demands a quick throughput or has several cases on it such as for an elective day surgery list.

• **ONE CIRCULATING STAFF MEMBER** for each session unless there is a requirement for more, i.e. when two cavities are opened, for example anterior and posterior resection.

• **ONE REGISTERED ANAESTHETIC ASSISTANT PRACTITIONER** for each session involving an anaesthetic. This includes sessions where local sedation or regional anaesthesia is administered. There may be occasions when more than one assistant is required due to patient dependency/type of anaesthesia.

• **ONE RECOVERY PRACTITIONER** per patient for the immediate postoperative period. If the patient is not returning to a special care area such as a high dependency unit immediately after surgery, they need to be cared for by practitioners who are trained and experienced in post-anaesthetic care.

The recovery, scrub and anaesthetic roles are usually filled by a qualified nurse or Operating Department Practitioner (ODP) who are band 5 or above. The Circulator role is filled by band 2 health care Assistants with specific training for working in the perioperative environment.

Formula for working out a list staffing template;

Staff	Shift	No of Staff	Hours	WTE	21% uplift	Total
Trained - Scrub	9.00	2.00	18	0.48	0.10	0.58
Trained - Anaesthetics	9.00	1.00	9	0.24	0.05	0.29
Trained Recovery	9.00	1.00	9	0.24	0.05	0.29
Healthcare Assistants	9.00	1.00	9	0.24	0.05	0.29
Total						**1.45**

The staffing for recovery areas has to be staggered and adjusted to reflect the admission pattern of staff and the usual length of stay in the recovery area. For instance at RSCH each of the 11 bays are covered at peak times (12:00-19:00) but this is much less earlier in the day and tails off later in the evening. At PRH the practice is recovery nurses return patients to the ward, where elsewhere patients are collected by ward staff. This helps ensure the recovery doesn't become full up and slow down theatres but requires and extra nurse in day time shifts to support. Therefore recovery templates in some areas can look more like 1.2-1.3 people per list to reflect the reality of the working pattern and maintain the 1-1 nursing relationship.

AfPP isn't specific in the number of Team Leaders required but mentions that each list will have a person in charge or Team leader. In practice at PRH we have Team Leaders (Band 7) in charge of specialties, which reflects approximately 1-2 theatres work and teams of approximately 15- 20 people. When a team leaders isn't available to lead the shift a band 6 will lead the list. In the large departments we also have team leaders in Recovery and for Anaesthetics. These have also have responsibility for leading the developments of their sub-speciality and teams of 20-30 people. The band 6s in these teams will often have responsibilities for providing services outside the main department, such as in Interventional Radiology, Labour Ward, A&E and MRI.

Future Developments in Perioperative Roles

Surgical First Assistants – demand is growing for this role with the reduction in junior doctors in the Operating Theatres - A First Assistant, provides non interventional assistance to surgeons during operations (e.g. retracting organs, holding scopes etc.). This is considered an extended role for Scrub Practitioners and has specific training. However it is a separate role and cannot be practiced at the same time as performing the scrub role. We have sent a about 5 people a year for the last few years on this course but as yet we haven't been commissioned formally to supply the role but ad hoc requirements are growing and a business case is been prepared at present by the Workforce Modernisation Programme Manager.

Surgical Care Practitioners manage the clinical care of patients but also assist with technical and operative interventions - overlapping with some of the care that's traditionally offered by doctors, often performing minor operations such as excision of skin cancers. We have one SCP in BGH at present.

Theatre Assistants We are also looking at developing band 4 scrub practitioners (Theatre Assistants). We have one going through a programme in DSU at present. We would have to fulfil certain other staffing changes for it to become more common

Summary;

Staffing levels meet guidance from Association for Perioperative Practice 2014 Staffing for Patients in the Perioperative Setting Harrogate, AfPP

9. Speciality Medicine

Older Peoples Wards: Safer Staffing for Older People's Wards RCN 2012: Summary guidance and recommendations refers to good skill mix being 1:5 -1:7 for RN's – BSUH wards run 1:7-1:8

Ball J 2010 – Guidance on Staffing levels RCN

Dementia Wards: Alzheimer's Society Report – Counting the Cost 2009 – Discusses the increased needs of patients with Dementia in terms of their nursing requirements but no guidance regarding staffing ratios.

National Audit of Dementia care in General Hospitals 2012 –refers to enhanced care required for patients with Dementia

Commitment to the care of people with Dementia in general hospitals RCN 2013 – emphases the need for skilled nurses who have time for the needs of the patients suggesting a higher NPR

General Medical Wards: Ball J et al 2012 – RN4CAST Nurse Survey in England NNRU. Survey raises issues around increased mortality where NPR's are above 1:8.

Keogh B 2013 – Review into Quality of Care and Treatment provided by 14 Hospital Trusts in England: An overview NHS England discusses poor staffing levels leading to increased mortality and poor care.

Berwick D 2013 – A promise to learn – a commitment to act. Improving the safety of patients in England, National Advisory Group on the Safety of Patients in England

NICE Guideline 2014 SG1 – Safe Staffing for Nursing in Adult In-patient wards in Acute Hospitals

Patterson, J. 2011 – The effects of Nurse to Patient ratios. Nursing Times 18.01.11: Vol 107 No.2. article discusses the increased mortality of patients with low nurse to patient ratios

Respiratory wards:
British Thoracic Society Guidelines – Clinical Standards October 2008: The use of Non-Invasive Ventilation the management of patients with Chronic Obstructive Pulmonary Disease admitted to hospital with Type 11 respiratory failure - one nurse to 2 patients receiving non-invasive ventilation (NIV i.e. BIPAP) – on average 20% of patients on Catherine James Egremont receive NIV but current nursing establishment does not reflect this.

To reflect 20% of patients on NIV the ward would need and additional 1 nurse for the day and 2 at night = 7.8wte

HIV/GUM ward: Standards for HIV Clinical Care; Royal College of Physicians 2007 – raises concern about patients being admitted to general medical wards or specialist units.

Dermatology OPD: Staffing and Facilities Guidelines for Dermatology Services: Clinical Services Unit 2014 –discusses the need for a high level of CNS's working in the clinic. No clinic template is given template currently in place

Infectious Diseases Ward: No specific standards

Summary; working within guidance except Catherine James and Egremont ward Acute Respiratory

10. Women's

Gynaecology – there are no specific nursing standards that apply to gynaecology in patient wards. There is guidance regarding nurses specialising e.g. endometriosis, colposcopy, hysteroscopy.

Maternity; has several national guidelines regarding staffing.

- Birthrate plus – 2014,
- Safer Childbirth Minimum Standards for the Organisation and Delivery Care in Labour - 2007
- Staffing Obstetric theatres 2009
  Staffing In Maternity Units The Kings Fund - 2011
- NICE Safe Midwifery Staffing - 2015

The guidance is all very similar and works from the basis of Birthrate plus.

Maternity services are fully integrated with the community. Midwives have opportunities to work within the hospital or in the community. Over the last few years buddy systems have started to work well where two midwives link up and swap

between the hospital and community monthly or 3 monthly. They are given one off duty and between them they cover the shifts.

Two years ago the community midwives changed the way they were working to provide support 24 hour support for home births which has meant community midwives are allocated for homebirths and work 11.5 hour shifts to provide that. During the day they are not allowed to do antennal clinics when allocated to homebirths as they have to be able to leave at any time and at night they are not able to look after women on labour ward as they are based at the hospital until required to support a woman at home. Across BSUH 3 midwives are allocated during the day and 3 at night for homebirths. This new way of working has seen a significant increase in homebirths. The BSUH Midwifery team won the national award from the Royal College of Midwives for Better Births in recognition of the homebirth service that is provided.
Midwives are supported by the practice development team to meet their competencies from a band 5 to 6 with many completing within a year of qualifying. All staff are supported to achieve their mandatory training requirements through a rolling programme lead by the practice development team.

The units are staffed as a whole and midwives and support staff work flexibly across the care settings according to where the activity is. This means templates are worked out to cover the main care settings. The labour ward co-ordinators will consider the clinical requirements and allocate staff to clinical areas as required on a shift by shift basis. This is also reviewed as required during the shift. A minimum of 2 midwives with support staff would be left on the antenatal / postnatal ward.

Specialist Midwives
The following staff provide specialist clinical care, skills, teaching and management for the whole of the maternity services and work both at RSCH and PRH:

- Maternity Risk Manager
- Practice Development / Audit Lead
- Clinical Skills Facilitators x2 WTE
- Birth stories Lead
- Antenatal Screening Coordinator
- Bereavement Lead
- Teenage Pregnancy Midwife
- Infant Feeding Specialist
- Substance Misuse / Travellers / homeless
- Lecturer Practitioner (shared with the University)

Supervisors of Midwives (SoM)
The supervisors of midwives provide a rota for 24/7 on-call which covers all of maternity services. The rotas and contact details are available via both labour wards. The expected ratio of supervisors to midwives is 1:15. Supervision of midwifery is changing by coming out of statue from March 2017. The details of how women and midwives will be supported is still been discussed.

Manager's on-call
There is a manager on-call rota 24/7 which the 3 matrons, Head of Governance and Head of Midwifery support.

Required staffing levels for each care setting
In maternity services it is recognised that intra-partum care is provided in diverse birth settings, at home, in midwifery units and acute hospitals. The planning for

staffing and skill mix levels needs to reflect the local model of care, case mix, the needs of women, their families and service design.

The totality of midwifery care has an impact on and implications for antenatal, intra-partum and postnatal provision within the acute sector, as well as in primary care and community settings. The need for continuous care means that labour ward staffing requirements cannot be considered in isolation or separated from the total establishment of the maternity service. Equally, staffing of the labour ward must not be at the expense of other areas of the maternity services, such as community midwifery.

Using the methodology from Safer Childbirth (RCOG 2007) and Birthrate Plus the following workforce calculations have been made. This is based on the total births of 5780 for the period 1st April 2015 to 31st March 2016 (using average numbers for March).

The latest formal commissioned Birthrate Plus review was completed in July 2009 and the Head of Midwifery has repeated this exercise for data collected for calendar year 2015. With colleagues an assessment of the case mix arising from the intra-partum episode using current birth statistics;

	Categories I-III	Categories IV - V
RSCH	56%	44%
PRH	58%	42%

Categories	Definition
I	Low risk women, home birth, birth centre, hospital, normal no intervention
II	Low risk women, home birth, birth centre, hospital, normal no intervention
III	Moderate degree of intervention; induction, fetal monitoring, instrumental birth, 3rd degree tear, pre term
IV	Higher risk / higher choice; normal birth with epidural for pain relief, El C/S, post birth complications
V	Highest risk; emergencies, Em C/S, multiple births, still births, sever pregnancy induced hypertension

Parameters of Care and Staffing Allowances included in the ratios

Community based staff; Home, Caseload and Community care for hospital births
17.5% Travel Time Allowance

Community care for hospital births
12 –15 hours for all antenatal and postnatal care including parent education depending upon the birth outcome and neonatal needs.

Home Births
All antenatal and postnatal care as above, plus an allowance of 17 hours for intra-partum care including second midwife present for the birth, and first follow up visit.

Hospital Ratios include the following:
Measured workload for antenatal outpatient activity including clinics and day units,

- All antenatal inpatient activity, plus ward attendees
- Postnatal care in hospital

- Neonatal examination of the new-born

Skill Mix Rationale

- It is important to distinguish between the situations where MCA assist the midwife and where he/she replaces the midwife.
- Birthrate Plus® (1996) makes it clear the ward and clinic staffing levels for midwives are based upon the premise that they are supported by MCA and clerical staff and these staff needs are assessed on a shift by shift basis.
- Overall the % of midwives to trained support staff is 90/10, so this split can be applied to the total clinical establishment as a means to estimate the contribution from non-midwives. However, this remains a local decision and is not a recommendation of Birthrate Plus®.
- Units Leave allowance = 21%. This includes annual leave, sick and study leave.

RSCH	**Ratio applied**	
Hospital births	1:	42
Home births	1:	35
Traditional community	1:	96

PRH	**Ratio applied**	
Hospital births	1:	45
Home births	1:	35
Traditional community	1:	96

One to one care in labour

This is another measurement we use to measure staffing.
Women on the labour ward in active labour should receive 121 care from a midwife.

BSUH 89%
RSCH 84%
PRH 97%

A review is taking place regarding some of the women on the labour ward and should they be cared for in that way and on the labour ward. This needs to take place before any changes are considered.

Additional Roles

- All maternity services require additional roles to manage and provide maternity services over and above clinical care. This includes senior midwifery management, governance, risk, practice development, antenatal screening coordinator, and specialist midwives. An element of these roles is included in clinical care.
- Birthrate Plus and Royal College of Midwives recommends this should be 8% = 15 WTE. At BSUH non clinical roles = 6.88 WTE = 3.6%.
- Birthrate Plus recommends an allowance of 1% for Supervision of Midwifery =2WTE

Total Staffing

GRAND TOTAL (ALL STAFF)	**253.96**	**WTE**
Midwifery & support staff	**197.87**	**WTE**
Supervisory Band 7's	**4.4**	**WTE**
Supervisors of midwives	**1.5**	
Total staff eligible for ratios	**191.97**	**WTE**

Ratio calculations

Ratio calculation on current births/staff (includes support staff)		
		Ratio = 1:
Total births	**5780**	**30**
Eligible staff	**192.0**	
Support staff (B3-4)	**19.03**	**10%**
Trained Midwives (B5-7)	**172.9**	

The Birthrate plus review for BSUH staffing was 1 to 30 and the Board agreed in 2012 to staff maternity services to that level. Activity varies on a daily basis but managers, practice educators, specialist midwives and supervisors of midwives support the services.

Summary

Staffing for maternity services is within standards from National Guidance

6. Summary of Directorates and National Guidance

Directorate	Position to National Guidance
Abdominal medicine & surgery	Working within National Guidance
Acute floor (New Directorate Lead Nurse needs to have opportunity to review)	ICU RSCH and PRH – 39.54 wte, trained ED RSCH; 18.2 wte trained staff and 2.6 HCA's ED PRH; 7.8 wte trained
Cancer	Working within National Guidance
Cardiovascular	Renal Trafford ward -2.6 wte HCA Cardiac -11.82 trained and untrained
Children's	Children's – 15.7 wte Neonates – 8.7 wte
Head & Neck	Working within National Guidance
Musculoskeletal	Working within National Guidance
Neurosciences & Stroke	Neurosciences -29.73 wte trained and untrained
Perioperative	Working within National Guidance
Speciality Medicine	Working within National Guidance Catherine James Egremont - = 7.8wte trained
Women's	Working within National Guidance

7. Conclusion/action required by the Board

Six of the 11 Directorates are working within national staffing guidance. Speciality Medicine has one ward not working within respiratory guidance. Further detailed work needs to take place to review the national recommendations and to review each area that is identified as needing more staff and consider how this would enhance care and safety of our patients. Quality of care for our patients must be our priority as it is best for patients experience but also from a professional experience knowing we have provided good care and this in turn is a cost effective way to provide services.

High quality care depends on a range of other factors including leadership, culture, team working, environment and training & development.

In particular activity levels, acuity and dependency of patients to calculate nursing and midwifery workforce. In addition, there are discussions taking place locally and nationally regarding the number of nurses in training and an acceptance that numbers need to increase.

Appropriate staffing can be monitored in several ways, safer staffing filled and unfilled shifts, acuity and dependency, bank and agency usage, vacancies, turnover, sickness levels, overtime, patient feedback, patient voice, friends and family test,

falls, pressure ulcers, medication errors, complaints, staff feedback on missed breaks, attendance at mandatory training and number of appraisals completed.

The Board is asked to note that the national guidance is aspirational, rather than an index of safe staffing and high quality care. The guidance also uses different parameters for calculating staff which inflates the staffing requirements and cannot be universally applied in every setting.

Further work will be undertaken where there is a variance between current establishment and national guidance and the outcome of this work will be reported to the Board in the next 6 monthly report. This will take into account the acuity and dependency of patients. The Board is also asked to note that there are discussions taking place locally and nationally regarding the number of nurses in training and an acceptance that numbers need to increase

Helen O'Dell
Deputy Chief Nurse
March 2016

National Guidance reviewed

A promise to learn – a commitment to act. Berwick D 2013

Association of Perioperative Practitioners

Birthrate plus – 2014

British Society of Rehabilitation Medicine

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Appendix 2 - Nurse to Patient Ratio February 2016

Monthly monitoring of Nursing & Midwifery workforce

Nursing & Midwifery Vacancies	December 2015	January 2016	February 2016
Trained	178.2 wte	157.8 wte	168.1 wte
Untrained	86.6 wte	76.5 wte	90.1 wte
Total	264.8 wte	244.3 wte	258.1 wte

Table 1: substantive, bank and agency spend 2015/16

	Nursing & Midwifery	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
£m	Substantive	9.13	9.15	9.34	9.18	9.09	9.31	9.20	9.35	9.37	9.52	9.55	
	Bank *14/15 average £0.77m*	0.94	0.92	0.72	0.94	0.82	0.73	1.00	0.77	0.71	0.87	0.84	
	Agency *14/15 average £0.47m*	0.46	0.90	0.81	0.76	0.84	0.54	0.40	0.66	0.35	0.27	0.27	
	Total	**10.53**	**10.96**	**10.87**	**10.89**	**10.75**	**10.58**	**10.60**	**10.79**	**10.43**	**10.66**	**10.66**	
%	Substantive	86.8	83.4	85.9	84.3	84.6	88.0	86.8	86.7	89.8	89.3	89.5	
	Bank	8.9	8.4	6.7	8.6	7.6	6.9	9.4	7.2	6.8	8.1	7.9	
	Agency	4.3	8.2	7.5	7.0	7.8	5.1	3.8	6.2	3.4	2.6	2.6	

Table 2: Nursing and Midwifery staffing fill rates (%)

2014	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Day								
Trained	92	92	93	92	91	92	93	90
Un-trained	90	91	90	92	95	93	92	91
Night								
Trained	95	94	94	93	93	95	94	92
Un-trained	104	106	109	105	106	106	106	102

2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Day												
Trained	92	89	91	92	93	94	91	92	90	93	94	93
Un-trained	89	91	95	94	98	97	95	96	98	96	95	99
Night												
Trained	94	92	93	93	95	96	94	94	93	92	93	95
Un-trained	106	106	109	104	107	105	106	108	107	106	112	113

2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Day												
Trained	93	92										
Un-	94	94										

trained												
Night												
Trained	96	94										
Un-trained	109	110										

Table 3: filled and unfilled hours 2015/16

Hours and percentage	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan 16	Feb 16
Total number of actual staff hours (includes trained & un-trained)	221,384	217,149	228,012	248,634	241,353	252,200	242,145	255,832	256,823	239,958
	96%	96%	95%	95%	94%	95%	96%	97%	95.8%	95.1%
Total number of hours un-filled (includes trained & un-trained)	9,408	8,176	13,043	12,929	14713	14,191	10,453	7,597	11,133	12,462
	4%	4%	5%	5%	6%	5%	4%	3%	4.2%	4.9%
Total Hours	230,792	225,325	241,055	261,563	256,066	266,391	252,598	263,429	267,956	252,420

Table 4: Areas with fill rates of 80% or less

2014	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
No of wards 80% or less	12	15	18	16	6	13	14	11

2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
No of wards 80% or less	13	16	7	16	9	7	5	7	10	5	4	6
2016	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**
No of wards 80% or less	8	10										

Table 5: starters and leavers

Trained Nurses (Band 5,6,7)	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	TOTAL
Starters Local/ National	34	59	44	40	30	23	35	31	24	23	27	52	11	433
International starters	10	14	8	14	7	41	12	10	9	27	22	21	0	196
Leavers	34	23	22	34	25	26	21	20	45	17	27	42	25	361

Trained Nurses (Band 5,6,7)	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16
Starters Local/ National	21	21										
International starters	32	38	30									
Leavers	19	17										

Table 6: Agency Nurse expenditure

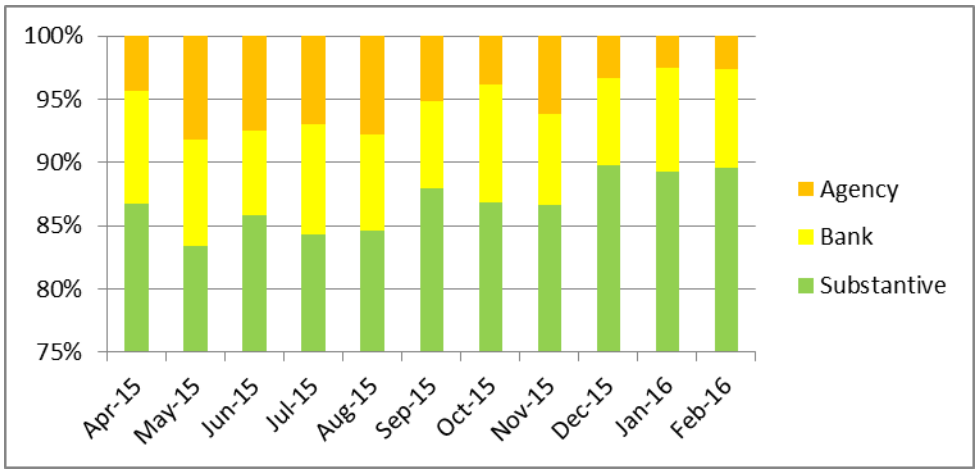

Table 7: Trust Development Authority Report

	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16
Total relevant Nursing expenditure, £000s	8,598	8,896	8,912	8,880	8,785	8,622	8,595	8,833	8,454	8,551	8,639
Relevant Nursing Agency expenditure, £000s	457	897	812	755	817	507	394	659	347	274	274
Agency %	5.3%	10.1%	9.1%	8.5%	9.3%	5.9%	4.6%	7.5%	4.1%	3.2%	3.2%