

Whittington Health Trust Board

4 June 2014

Title:		Nursing Establishment Review of Nurse Staffing Levels on Adult Wards					
Agenda item:		14/100		Paper		4	
Action requested:		For discussion and agreement					
Executive Summary:		Executive Summary: This paper sets out to review and make recommendations related to nurse staffing levels on the acute adult wards reflecting the most recent bed reconfiguration. <ul style="list-style-type: none">• There is a clear link between nurse: patient ratios, skill mix and patient outcomes.• Ward staffing levels were reviewed using the Telford methodology alongside the RCN guidelines and the latest daft NICE guidelines.• 22% uplift was applied to include annual leave, study leave and maternity as well as sickness.• All ward managers to have one day supernumerary To formalise the arrangements we currently have on the wards that bring nurse staffing levels in line with recommendations. This seeks an investment of £1,990,713, which will lead to an annualised reduction of nursing pay costs for base beds compared to actual spend for 2013/14 of £185,575.					
Summary of recommendations:		For agreement regarding the recommendations of this paper and for direction for the further considerations					
Fit with WH strategy:							
Reference to related / other documents:							
Reference to areas of risk and corporate risks on the Board Assurance Framework:							
Date paper completed:		May 23 rd 2014					
Author name and title:		Lisa Smith Deputy Director of Nursing		Director name and title:		Jill Foster Director of Nursing	
Date paper seen		Equality Impact		Quality		Financial	

by EC		Assessment complete?		Impact Assessment complete?		Impact Assessment complete?	
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Review of Nurse Staffing Levels on Adult Wards

Background

In March 2013, the Executive Committee, in April 2013 the Trust Board and in March 2013 the Quality Committee agreed a methodology for reviewing nurse staffing levels on the general adult wards in Whittington Hospital. This included a method of using professional expertise (Telford approach) and the latest Royal College of Nursing (RCN) guidelines. This approach was endorsed by Chief Nursing Officer for England, Jane Cummings, in her paper of 19 November 2013 entitled "How to ensure the right people with the right skills, are in the right place at the right time." How the organisation is performing against the expectations within that document are addressed in a separate paper.

Literature Review

Much has been published in recent years regarding nurse staffing levels and patient safety. There is a clear link between nurse patient ratios, skill mix and patient outcomes. Key points are listed below;

- Each additional patient per nurse has been associated with a higher 30 day mortality rate across all groups of patients (Carthon et al; 2012)
- Each additional patient per nurse is correlated with an increased likelihood of readmission in 30 days with pneumonia, heart failure or myocardial infarction. (McHugh;2013)
- There is a significant increase in the likelihood of falls, pressure ulcers and urinary tract infections (UTIs) when the patient nurse ratio exceeds 7:1 (Liu et al;2012)
- A low nurse to patient ratio is associated with a higher rate of blood stream infections and medication errors (Liu; 2012)
- An increasing skill mix of registered nurses is correlated with a reduction in pressure ulcers, deep vein thrombosis, cardiac arrest, failure to rescue and upper gastro-intestinal (GI) bleed (Ausserhofer et al; 2013)

There is growing evidence related to the economic benefit of increased nurse staffing levels:

- Reducing the nurse to patient ratio from 8:1 to 4:1 resulted in a decrease in mortality at a cost of £85,000 per life saved (Rothberg et al; 2005)
- 75% skill mix resulted in a significant cost saving related to reduced length of stay and reduced adverse outcomes (Needleman et al; 2006)
- An increased skill mix was found to reduce the overall cost (Thungjaroenkul et al: 2007)
- Each increase in registered nurse was found to decrease adverse events and be valued at a reduction of £36,000 (Dall; 2009)
- An increased nurse to patient ratio is correlated with a reduction in readmission rates at a projected saving of £255 per standard deviation (Weiss et al: 2011).

Method

During September 2013 the nurse staffing levels across all adult wards were reviewed. This incorporated a meeting with the ward manager, the matron and the respective Head/Deputy Head of Nursing. The approach to this piece of work used the Telford methodology which was subsequently endorsed by Cummings (2013). Using the Telford approach the ward manager identifies and justifies the numbers of nurses and HCAs required for each shift according to their expertise and knowledge of the needs and likely acuity of their patient group. This calculation also takes into account the layout of the ward environment and

recent performance against ward key performance indicators. The establishment is then calculated to provide 24 hours, seven days per week cover, with an uplift to cover sickness, annual leave, maternity leave, and study leave. This method provides the opportunity for senior nurses and managers to challenge the ward manager on the assumptions he/she makes and the activity of the ward on which the ward manager will base his/her staffing requirements. It also allows discussion among clinicians and managers of the complexity of determining nurse staffing levels and for an agreed approach to determining the final figures.

The staffing levels calculated for each of the wards following this exercise were then compared to the Royal College of Nursing (RCN) (2012) guidelines. While the Francis report suggested that ward managers should be supervisory, this was interpreted as the additional uplift being a proportion of a whole time equivalent, in line with other organisations in the country, with a view to analysing the effectiveness of this and exploring a further uplift in the next financial year.

An uplift of 22% was applied to the nurse staffing calculations based on whole time equivalents as endorsed by the Shelford Group. This is to cover all absences, including annual leave requirements according to Agenda for Change, sickness, maternity and professional development. Professional development is particularly important to include as there has been a significant increase in the regulatory and mandatory requirements over recent years. In addition to this there is an increased need within the organisation related to service changes, both current and future. This is also in the context of a workforce with a high proportion of part time workers, who still require the same level of development and training as full time workers. The breakdown of allowance for uplift is as follows. There is also an assumption that within the provision for a 22% uplift and the proposal to make the ward manager role partially supernumerary that the increase requirement for 1:1 nursing 'specials' can be managed within the proposed establishments:

Annual Leave:	15%
Maternity Leave:	3%
Sickness:	2%
Development:	2%

Requirements for specials were also discussed alongside recent performance in the ward quality indicators. Specials are where a patient with a high level of dependency needs one to one nursing care. Commonly this is a case where patients are confused and/or challenging in terms of behaviour and at risk of leaving the ward or falling, patients who are de-toxing from excessive alcohol consumption or those with mental health needs. A special may also be required for other clinical reasons such as neurological instability, where there is a lack of high dependency beds. Ward managers felt that with the establishments proposed, it would enable them to better manage the use of specials and thus reducing the requirement for bank and agency as additional requirements. It is expected that if the recommended nurse staffing levels are introduced that the need for specials will be covered by pool nurses and that the use of specials will only be in special circumstances – for example where an RMN is required where there is not one available on the bank.

Results

The table below summarises the financial position and a detailed financial analysis is contained in the appendices.

Nurse Staffing	Total
Budget 13/14	£9,049,282
Cost 13/14	£12,039,410
Uplift plus supernumerary ward manager	£11,856,035
Proposed reduction in nurse pay costs compared to expenditure in 13/14	£183,375

The table below demonstrates the current levels of staffing, the proposed new levels of staffing and comparison to RCN guidelines.

Ward	Current Early	Current Late	Current Night	New Early	New Late	New Night	Staff: Patient Ratio	RN: Patient Ratio	Actual Skill Mix 13/14	New Skill Mix
Cloudesley 25 Beds	4+3	4+1	2+2	4+3	4+3	3+1	1:3.6	1:6	54:46	63:37
Meyrick 25 Beds	4+3	4+1	2+2	4+3	4+3	3+1	1:3.6	1:6	46:54	63:37
Mary Seacole North 16 Beds	4+1	3+1	3+1	4+1	4+1	3+1	1:3.2	1:4	65:35	77:23
Mary Seacole South 18 Beds	5+1	4+1	3+1	5+1	5+1	3+1	1:3	1:4	76:24	79:21
Mercers 16 beds	4+1	3+1	2+1	4+1	4+1	2+1	1:3.2	1:4	70:30	75:25
Montuschi 16 Beds	4+1	3+1	2+1	4+1	4+1	2+1	1:3.2	1:4	77:23	77:23
Nightingale 21 beds	5+1	4+1	3+1	5+1	5+1	3+1	1:3.5	1:4	88:12	79:21
Coyle 18 beds	NA	NA	NA	4+1	4+1	3+1	1:3.6	1:4.5	63:37	77:23
Thorogood 10 beds	2+1	2+1	2	2+1	2+1	2	1:3.3	1:5	78:22	80:20
Victoria 22 beds	NA	NA	NA	5+1	5+1	3+2	1:3.7	1:4.4	71:29	72:28

RCN Guidelines

Staff: patient ratio 1:3.3 - 1:3.8
 RN: patient ratio 1:5 - 1:7
 Trained/Untrained ratio 65/35%

Commentary

By bringing nurse staffing in line with recommendations we are seeking an extra £1,990,713, which is a reduction of £185,575 from the actual cost. There is a proposed increase in budgeted establishment of 39.19 WTE. A recruitment drive is underway to ensure that vacancies are filled and there will need to be future drives to ensure that the organisation attracts quality staff. As all wards will receive an uplift in their establishment with these proposals, it is expected that ward managers will manage their staffing within budget. This includes a zero agency policy (unless there are exceptional circumstances). The establishment of pool nurses cover short notice sickness and specialing of patients whilst there is a vacancy gap needs to be discussed by the Trust Management Group.

Further Considerations

- The requirement of an evidenced based acuity and dependency tool
- The need to introduce an e-rostering system

- Further briefing required for nursing and midwifery staffing levels for clinical areas outside the adult in-patient wards and for the community
- Further briefing for the Board regarding safe nursing and midwifery staffing levels and excellent nursing and midwifery care quality at Whittington Health

Conclusion

This paper proposes that following a review of the nurse staffing levels on adult wards, an increase in the budgeted nursing establishment is recommended. The benefits of this to patient safety as well as the economic benefits are supported by the literature and bring the organisation in line with recommendations by the RCN (2012) and the Francis report (2013).