RCN policy position: evidence-based nurse staffing levels
Everybody – governments, regulators, managers, nurses and perhaps most of all, patients – recognise that having enough nursing staff is critical. In every setting in every speciality, nursing staff are the primary deliverers of health care. Clearly having enough nurses is essential. But how many is enough? And enough for what? Enough to deliver care safely, to meet basic needs, prevent complications and avoid unnecessary deaths? Or enough to deliver care to a recognised level of quality?

But despite general agreement that getting it right is critical, the arguments have become polarised. We have become entrenched in positions that are biased towards one or other side of the cost-benefit equation. In defence of upholding quality of care, we assert, more nurses means better care, – always. Whilst looking from a purely financial perspective, auditors assert that costs can be significantly cut by moving to the lowest levels of nurse staffing, without regard to the impact on quality\(^1\). Such polarised positions are not helping us to achieve our shared objective: to deliver high quality care safely and cost-effectively.

The research evidence demonstrates that there is an association between nurse staffing and patient outcomes, and this is illustrated in the graph below. For example, hospitals with better staffed wards have lower mortality rates\(^2\). The patient to nurse ratio on wards where care is rarely or never compromised is half that of wards where care is often compromised\(^3\).

As nurse staffing levels are increased, we expect to see a corresponding improvement in patient outcomes and vice versa. During boom times of investment and growth, health providers are focussed on getting staffing comfortably within the green zone – ensuring there are sufficient nurses to provide good quality care. The objective of staffing reviews is generally to identify those parts of the service where staffing relative to need, falls below this zone, and to bring them into line.

However, in the current financial climate, there is a danger that nurse staffing cuts may be made, that move us down the curve into the red zone, to the point at which care is clearly compromised and patient safety at risk. The disastrous effect of too few nurses is all too evident\(^4\) in the high profile cases such as Mid Staffordshire, Maidstone and Tunbridge Wells and Stoke Mandeville. In the course of one year, more than 30,000 patient safety incidents related to staffing (including lack of suitably trained or skilled staff) were reported in England and Wales\(^5\).

Now more than ever, resources are limited. Within the NHS we face unprecedented levels of financial pressure – in England the NHS is looking to find savings of up to £20 billion by 2014, whilst NHS Scotland needs to find over £250m in savings to break even in 2010-11. In Northern Ireland pressures are impacting on nurse workforce plans – there is a reduction both in pre and post registration nurse education budgets for 2010-11.

Organisations outside the NHS also face financial challenges – despite the rising number of elderly requiring care, hundreds of care homes are going out of business, or have been found to have insufficient nursing input\(^6\).
Whilst everyone wants to ensure that there are enough nurses, we cannot afford to have services staffed with more staff than are needed. Researchers suggest that in the relationship between nursing inputs and patient outcomes there is a point of diminishing return – where the benefit of more nurses tails off. The challenge is therefore to identify the optimal level and mix of nurse staffing – the sweet spot on the curve.

Pressure to identify optimum nurse staffing levels and identify safe minimums is mounting from all sides. RCN members want clear guidance on what staffing levels should be – this is a perennial concern, voiced repeatedly at RCN Congress. Likewise, employers want to know that they have enough nurses to maintain standards, and that staffing does not fall below a level that is unsafe.

There is no universal truth about the number of nurses needed, and no shortcuts to identifying the optimal level. Neither the RCN nor any other national body can claim to know what staffing levels should be. Because services, and the staff required to provide them, must be shaped on the basis of patient need – an obvious truism that is nonetheless easily overlooked in our quest to get guaranteed patient safety, and use resources wisely. Since patient need and the nature of services provided varies – between specialties and between places – staffing needs to be determined locally.

This is why the RCN has never advocated the use of a universal minimum nurse staffing level. Setting a minimum level, without reviewing the demand for staff locally, is potentially dangerous. Too often minimums can be misused and become maximums. And the responsibilities of all involved – nurses, managers, and regulators – to ensure that local nurse staffing is appropriate relative to demand, becomes masked.

How should staffing levels be determined?

The RCN staffing levels paper sets out the range of different factors that influence the total demand for staff and highlights the variety of methods for planning or reviewing staffing. The principles underpinning different approaches to planning or reviewing nurse staffing are explained and some of the apparent strengths and weaknesses of these methods are outlined. There are a wide range of tools available, some commercially, but there is little evidence of how reliable the systems are or whether they produce consistent results to one another.

Given the importance and cost associated with nurse staffing the RCN is concerned by the lack of independent evaluation and evidence based guidance. We recommend that these systems should be subjected to the same level of scrutiny and review that is applied to specific interventions. In England the government is proposing that local NHS providers will have even greater responsibilities for determining staffing requirements in the future. Unlike Scotland, where the Nursing and Midwifery Workload and Workforce Planning programme coordinates workforce planning, this expectation is to be met without access to the nationally developed and agreed workload and workforce planning tools. Meanwhile although all health organisations in Wales now submit annual workforce plans to the workforce development unit, the quality of these plans is extremely variable.

However, recognising the complexities and difficulties of ensuring that staffing levels are safe is not an excuse for inaction. Despite the lack of clear guidance, there are simple to use approaches available – many of which have been in existence for decades.
The RCN report highlights the following as essential elements to planning or reviewing nurse staffing, regardless of the specific tools used:

- **systematic**: use a systematic approach and apply it consistently
- **staff involvement**: involve staff in both the process and outcomes of a review
- **triangulate**: for example patient dependency based workload tools should be complemented with professional judgment and benchmark data from matched comparators
- **adequate uplift**: having identified the nursing staff needed, the establishment itself must be calculated to allow for service delivery times (i.e. shift patterns) and staff time away from the service (i.e. an 'uplift'). The RCN recommends an uplift of 25 per cent is applied
- **evaluation**: the only way we can judge whether the staffing level for a service is optimal, is by looking at indicators of its sufficiency. This relies on good quality HR data and patient outcomes/quality data being collected, and used to review and inform services (at the unit and board level)
- **regular review**: the Healthcare Commission recommended that staffing should be reviewed at least every 2-3 years.

The last of these points is crucial – staffing levels and skill-mix need to be reviewed and evaluated to ensure they are evidence based. And this is where nursing metrics and benchmarking can play a vital role.

We need to be able to judge staffing on the basis of the impact it has on patients. Increasingly health providers will be judged by the outcomes of the care they provide – this message is strong throughout the White Paper. Good quality data on staffing variables and on patient outcomes is therefore the cornerstone to ensuring that staffing levels are safe and effective. Data capture needs to be regular, routine and robust, for example, through a score-card/dash-board system. And the results must be fed back and interpreted by local/unit managers so that problems can be detected and improvements made. Meanwhile, boards also need to be routinely reviewing these data - not just to get assurances about the quality of care provided and identify hot-spots – but to be able to make evidence-based assessment of the cost-effectiveness of care delivery.

However, even with good planning staffing levels can become unsafe. A number of factors impact on staffing levels so that even when carefully planned, an establishment may be insufficient to meet patient need safely day to day. For example, high vacancy or absence levels can undermine the ability of a well-planned establishment to meet patient needs. Safe staffing therefore also relies on good management and HR practices to ensure that the budgeted posts are filled (and turnover managed efficiently), and that the staff employed are available, fit for work and that they are deployed effectively.

As well as reviewing patient outcomes data, health care organisations need to have up-to-date information on the staffing profile in each area of practice. It’s not enough to plan staff through a one-off review, and then hope that it continues to be sufficient to deliver care to an agreed standard. If care is to be delivered safely and cost-effectively (not just cheaply) organisations need to understand and review the characteristics of the staffing in place, alongside data on it effectiveness in terms of service quality and patient outcomes.

The RCN has indentified the following as key indicators that we believe need to be routinely monitored by providers, commissioners/purchasers, and regulators:
Actual nursing staff in post as a proportion of total establishment

To identify current staffing relative to the planned number of nurses required - per ward/unit/catchment area

Proportion of registered nurses (RN) as percentage of total nursing staff

The benchmark average on general hospital wards is 65% RNs

Nursing staffing relative to population served

• In hospitals this is nurses per occupied bed (NPOB) or per bed
• In community this is nurse per head of population (and may include measure of socio-economic need of population)

Nurse staffing relative to patients

• Ratio of the patients per RN (on a day or night shift) provides indicator of actual staffing levels on hospital wards
• Nursing hours per patient day (provides global measure)
• In the community this is typically captured through caseloads

Staff turnover

For example using data on annual joiners and leavers to provide a stability index (defined as the percentage of staff in the organisation for at least a year). Length of service can be used as a proxy.

Sickness absence

Sickness absence rate is calculated by dividing the sum total sickness absence days by the sum total days available per month for each member of staff.

Reviewing these indicators enables healthcare providers to profile staffing and allows them to:

• identify internal variation
• monitor changes over-time
• review staffing against external benchmarks.

We see the last of these – external benchmarks – as critical. Using these indicators to benchmark one unit/ward/patches staffing against that of a matched comparator group (for example, using the NHS benchmarking database or similar\(^2\)) can provide an early warning system – identifying places where staffing is likely to be inadequate and in need of further review. For example, if the number of staff in post is well below that planned, and there is high sickness absence, plus the skill-mix is considerably lower than average for that specialty, and the nursing hours per patient is relatively low – there is high risk that nurse staffing is inadequate and in need of review.

Whilst health system regulators do not currently include a set of staffing metrics for assessing compliance with their safe staffing standard, these are exactly the sorts of measures that are used in reviewing the adequacy of staffing and skill-mix of a failing trust. For instance, the Healthcare Commission\(^2\) reported on the number of wards with less than 65 per cent RNs when reviewing staffing at Maidstone and Tunbridge Wells. Similarly Professor Sir George Alberti’s report\(^3\) drew attention to the skill-mix at Mid Staffordshire, referring to a 42 bed medical ward with a skill-mix of 50 per cent RNs, and only four trained staff per shift (for example, a ratio of at least 10 patients per RN).
Unfortunately such data is currently only captured – let alone reported – after a health care crisis has arisen. If boards were routinely monitoring their staffing according to these simple metrics, and looking at this data alongside their measures of patient outcomes and care quality, maybe such crises would be avoided.

Health care systems are without doubt complex; but this is why a rational and systematic approach is needed to ensure that the number and mix of nursing staffing is evidence based in order to maintain patient safety and the quality of services.
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8 RCN 2010 Guidance on safe nurse staffing levels in the UK


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December 2010
Published by the Royal College of Nursing
20 Cavendish Square
London W1G 0RN
020 7409 3333

Publication code: 003 870