Career Pathway for Neuroscience Nurses

British Association of Neuroscience Nurses

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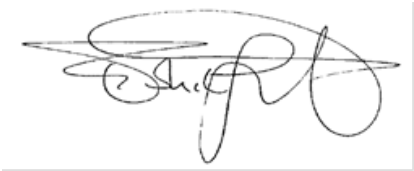
*The Senior Executive Committee of **SBNS** has reviewed this informative document about a career pathway for neuroscience nurses. We are supportive of this document, and we 'endorse' the outline pathway provided. We support the concept of progression towards expertise in the field.*



Prof. Peter Whitfield
SBNS President

This resource has been endorsed by the Royal College of Nursing until 03/09/26.

Endorsement only applies to the professional content of the resource.

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Conflict of Interest Statement

The authors declare that there are no conflicts of interest regarding the publication of this paper.

Introduction

New ways of working and delivering healthcare have been on the agenda in the UK for some considerable time and no less in Neurosciences. However, this requires employers to invest in their workforce to ensure high quality person-centred care for people with neurological problems. Registered nurses need to be trained and educated by a quality assured system to meet these demands and to adapt to changing circumstances. Critical to this pathway and attaining excellence in their role is the availability of innovative, evidence-based, flexible, relevant education and training programmes linked to service and user needs. Also fundamental to this is the need to ensure there are appropriate career pathways open to them to enable them to expand their contribution to healthcare and their personal job satisfaction. This is also vital to staff recruitment and retention which has been evidenced on multiple occasions (HEE, 2017).

In many reports into quality failings in the NHS, nurse staffing has been implicated as a factor (Keogh, 2013). Studies have indicated that the number and expertise of registered nurses available for care directly affects patient safety and outcomes including mortality. Lower adverse outcome rates were more consistently related to a higher proportion of experienced registered nurses (Boyle, 2017). This paper outlines the rationale for a Neuroscience Nurses Career Pathway underpinned by an appropriate, robust education strategy.

Rationale for an Educated Neuroscience Workforce

In the RN4CAST (2014) study Linda Aiken and colleagues assessed the effects of two nursing factors (staffing and education) on mortality for 422,730 patients who underwent common surgeries from nine European countries. This study, the largest to date, found that a better educated nursing workforce reduced unnecessary deaths with hospitals that employed more degree qualified nurses and had a lower rate of mortality compared to hospitals that employed fewer degree qualified nurses. More specifically, every 10% increase in the number of bachelor's degree educated nurses within a hospital is associated with a 7% decline in patient mortality. These findings are consistent with those already documented in the USA (Needleman et al. 2011) and Europe (Keogh, 2013) and contribute to a body of knowledge that suggest that educated registered nurses have a positive effect on patient outcome. In addition, the findings revealed that on average only 28% of bedside nurses had a bachelor's degree in hospitals in England, compared with an average of 45% in Europe.
Boyle (2017) discussed Needleman's Expanded Conceptual Model (2005) as a means of describing influences on patient outcomes and factors which act in a non-linear fashion to affect this. These are: invisible architecture (climate, culture, leadership), work organisation and nurse performance. For example, even though a nurse may have the requisite certification they may experience a lack of autonomy due to organisational culture which could lead to poorer patient outcomes.

The Raising the Bar, Shape of Caring review (HEE, 2015) aims to ensure that throughout their career's nurses receive consistent high-quality education and training which supports high-quality care. Along with The Shape of Caring Review, Health Education England (2015) in the Investing in People: Workforce Plan for England

advocates an urgent review of post registration education and call for assuring predictable and sustainable access to ongoing learning and development for registered nurses.

Rationale for Post-Registration / Post-Graduate Neuroscience Nurse Education

Over the years, demands on nurses have grown and with advanced healthcare practices, the importance of ongoing education for registered nurses has become increasingly evident. Post-registration nurse education continues to prove its significance within healthcare, enabling registered nurses to meet the demands and fulfil advanced roles. The value of post-registration nurse education is underpinned by the increasing focus on interprofessional collaboration and its benefits in improving patient care (Reeves et al. 2011). Nurses need education that prepares them to work effectively with other healthcare professionals. With the expansion of online and remote learning options, the convenience and accessibility offered has enabled nurses to pursue further training and specialisation with greater ease. This shift has been acknowledged by Bair (2021) who emphasise the flexibility and effectiveness of digital learning for nurse education.

Another significant change in post-registration nurse education is the emphasis on cultural competency and diversity training in healthcare. There is a growing recognition of the importance of this and Handtkel (2019) highlights the positive impact it has had on patient care and outcomes. With healthcare providers aiming to provide equitable care to diverse patient populations, nurses require education that fosters cultural sensitivity. Earlier in a systematic review of 61 studies Gimbel's and colleagues (2010) evaluating the impact of post-registration nurse education [e.g., post-graduate certificate/diploma, master's, and doctorates], the authors concluded that students benefited from post-registration education in relation to nurses' attitudes, perceptions, knowledge and in skill acquisition. Of note this review highlights that despite the diversity in nursing and midwifery education systems across countries findings were consistent across different settings and contexts offering valuable information to inform the further development of programmes.

The demand for specialised nursing roles has continued to rise and post-registration nurse education has adapted to meet these needs and the changing needs of healthcare. Nurses can pursue advanced practice roles, such as advanced nurse practitioners (ANP), advanced clinical practitioners (ACP's), specialist practitioners and clinical nurse specialists (CNS) through specialised education programmes.
There is a substantial amount of literature concerning the contribution that post-registration master's level education makes to advancing nursing practice. The findings of the systematic review and meta-analysis that examined the relationship between educational preparation and patient outcomes indicate clinically important evidence of improved inpatient care, improved clinical outcomes, improved quality of life, decreased patient mortality and reduced failure to rescue, patient satisfaction and reduced costs when there are more nurses with higher levels of education (Caird et al. 2010; Newhouse et al. 2011; Delamaire and Lafortune, 2012, Donald et al. 2013; Ge, Xi and Guo, 2015Liao et al. 2016, Ford, 2022; Fothergill et al. 2023; Heinen, 2023). However, none to date have been conducted in the specialist area of neuroscience nursing.
The accessibility to online education, increased cultural competence and diversity training, interprofessional collaboration and the increase in specialised nursing roles reflect the ongoing commitment to enhancing the

knowledge and skills of registered nurses to provide high quality patient centred care in a changing healthcare environment. However, as Fitzpatrick (2017) points out although a large proportion of the nursing workforce hold speciality certification this relies heavily on the motivation of individual nurses. Moreover, these courses are currently voluntary and not mandatory in most cases.

Rationale for Four Streams / Pillars in Pathway

For competent /proficient practitioners and new practitioners the Nursing and Midwifery Council (NMC, 2018), have devised 7 proficiency standards, these cover the key components of role, responsibility, and accountability for nurses in practice, to build experience, knowledge and skills and become a confident competent practitioner within their clinical setting in turn improving quality and safety in neurosciences care. These standards form the foundation upon which this pathway is built.

Advanced practice is a level of practice, rather than a type of practice (RCN standards, 2023) and advanced practitioners are educated at master's level in clinical practice and competent to expert level with clinical knowledge and skills. They have freedom and authority to act, making autonomous decisions in patient care and treatments. This is a clinical career pathway with opportunities at senior level and not including managerial/personnel responsibility. The evidence-base to support the benefits of advanced roles such as ANPs, ACPs and CNS although undisputed is limited. The development of non-medical advanced clinical practice (ACP) roles is a key component of National Health Service workforce transformation policy in the UK. For example, the NHS Long Term Plan (2019), the NHS People Plan (2020) and the General Practice Forward View (2016) all set out a vision for significant change in future service delivery resulting in the need to develop models of care that cross traditional sectors and professional boundaries.

In Evans et al. (2021) scoping review of the impacts and outcomes of ACPs in the UK and despite the limited evidence reported beneficial impacts across a range of clinical and health system outcomes. The authors recommended that more research is needed to understand the impact of ACP roles/services on healthcare team performance and workload. The NHS England workforce plan (2023) and Transforming roles initiative Scotland, paper 8 (2021) sets a plan to support and develop the NHS workforce including the expansion of advanced practice training by 46% for 2031/32. This need for developing workforce capability is set against a backdrop of the government's aim to meet the health and care needs of different population by pushing the boundaries of traditional roles. Priorities identified for Integrated care systems (ICSs) across England for example, supporting those with long term conditions (National Health Service, 2022).
The most senior of the clinical role i.e., nurse consultants, were introduced in 1999 with the publication of the strategy document Making a Difference (Department of Health, 1999), with the intention of strengthening the clinical nurse leadership role, provide new career opportunities and enhancing patient care. More recently the Health Education England have published guidance and a framework to guide consultant practitioner roles (HEE 2018, 2020). Existing reviews of their role has grown since their inception with several reviews highlighting the contribution of the consultant nurse to patient outcomes and clinical services (Kennedy et al.

2012, Manley et al. 2022). Boyle (2017) and Fitzpatrick (2017) purport that experience and education are both crucial in maintaining staff wellbeing and high standard of patient care.

Rationale for Career Pathway for Neuroscience

Several government policies have recognised the impact that nursing career pathways can have on the development of staff skills and competencies as well as job satisfaction and therefore retention of staff (DH 2007, DH 2008). The 'Shape of Caring Review' (HEE, 2015) made strong recommendations around the development of a national career pathway for nursing as well as recognising that the impact of such pathways can support nursing students entering the workforce as well as more experienced staff. It recommends that carer pathways support nurses into roles within research, clinical practice, leadership/management as well as teaching and education (HEE, 2015). A recent systematic review also supported the importance of clear development pathways being a significant strategy in retention of staff (Marufu et al. 2021). It highlights the benefits of frameworks such as the 'Clinical Academic Careers Framework' (HEE, 2018) in supporting research and innovation as well as placing an importance on post graduate education as being central to any career pathway.

This evidence supports that the implementation of a neuroscience career pathway could play a fundamental role in facilitating a standardised approach to neuroscience nursing care and staff development. An example of this already exists in the UK Framework for Stroke Nurses (RCN, 2023). The framework emphasises the importance of having a resilient nurse workforce competent in the necessary skills and knowledge needed to provide high quality, safe and effective care. In turn creating a more confident workforce who are more willing to continue in their nursing career. Evidence collated from other published documents including 'Children and Young People's Cardiac Nursing Career Pathway' (RCN, 2021) and 'A Competency Framework for Rheumatology Nurses' (RCN, 2020) reinforce the use of these pathways to not only enhance and improve clinical practice but encourage staff to focus and develop their own career path. In the acquisition and development of a skill, a nurse passes through five levels of competency: novice, advanced beginner, competent, proficient, and expert (Benner, 1984). Although dated this model is still widely used to describe levels of clinical /academic competency and can be applied to Neurosciences nursing careers.

For nurses working within the neuroscience services there are clear opportunities clinically, managerially and academically for progression from registration to expert nurse. Table 1. provides a clear progression pathway with indication of specific development of clinical knowledge and skills as well as appropriate academic enhancement

Table 1 Career Pathway for Neuroscience Nurses

<table>
<tr><th colspan="4">Registered Nurse (RN) Band 5 (Novice – Advanced beginner)</th></tr>
<tr><th colspan="2">Newly registered graduate nurse</th><th>Graduate nurse with experience in other areas of practice</th><th>RN with neuroscience qualification i.e., Specialist Practice (Neuroscience), module stand-alone certificate in neuroscience practice</th></tr>
<tr><td colspan="2">• Trust induction & Preceptorship programme (NMC 2020; NHS 2022)
• Clinical Competences specific to area of neuroscience practice
• Neuroscience specific module/post-graduate certificate at Higher Education Institute (HEI) that meets criteria for providing neuroscience education
• RN's individual learning outcomes (credentialing) evidenced by portfolio & renewal of registration with NMC through revalidation</td><td>• Trust induction
• Neuroscience specific post-graduate standalone module, certificate/diploma in neuroscience practice at Higher Education Institute (HEI)
• Clinical Competences specific to area of practice
• RN's learning outcomes achieved evidenced by portfolio & renewal of registration with NMC through revalidation</td><td>• Trust Induction
• Clinical Competences specific to area of practice
• RN's learning outcomes achieved evidenced by portfolio & renewal of registration with NMC through revalidation</td></tr>
<tr><th colspan="4">Senior (Enhanced) Registered Nurse (RN) Band 6 (Competent – Proficient)</th></tr>
<tr><th colspan="4">Minimum of 3 years experience in neuroscience practice and certification/qualification in Neuroscience Practice aligned to acceptable standards (which are quality assured)</th></tr>
<tr><th>Clinical</th><th>Educator</th><th>Leadership and Management</th><th>Research</th></tr>
<tr><td>Sister/ Charge nurse</td><td>Practice Educator/Clinical Educator</td><td>Sister /Charge Nurse</td><td>Research Assistant</td></tr>
</table>

Advanced Registered Nurse (RN) Band 7/8 (Proficient- Expert)			
Master's degree in relevant area of practice aligned to acceptable standards (which are quality assured) and previous senior nurse experience (Band 6)			
Clinical	**Educator**	**Leadership and Management**	**Research**
Clinical Nurse Specialist (CNS) Advanced Nurse Practitioner (ANP) Advanced Clinical Practitioner (ACP) Specialist Practitioner (SpP)	Practice Development Nurse (PDN) Lecturer/ Practitioner (L/P) Lecturer/ Senior Lecturer	Clinical and Service Leadership Ward Manager Matron / Lead Nurse	Research Practitioner Nurse Researcher Research Fellow
Expert (Consultant) Neuroscience Nurse (RN) Band 8 (Expert)			
Doctorate (PhD/ DProf /EdD) and			
Clinical	**Educator**	**Leadership and Management**	**Research**
Consultant Nurse (HEE 2020) Consultant Practitioner/ Senior Advanced Clinical/ Nurse Practitioner (HEE 2020)	Reader Associate Professor/ Professor	Lead Nurse/ Director of Neuroscience Services	Associate Professor/ Professor Research lead in the speciality

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