Promoting clinical research careers through workforce development

Key points

Research is a core NHS business
The shortage of nurses makes it challenging to deliver high-quality research
Recruitment and retention strategies can be used to attract more nurses into research

Research nursing can be enhanced by providing staff with support, training and career development opportunities
University Hospital Southampton uses an innovative workforce development model to strengthen research nursing

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Abstract Since 2014, University Hospital Southampton has been using an innovative workforce development approach to secure the research capacity needed for a growing portfolio of clinical trials. This has allowed it to dramatically increase the number of studies it conducts, the number of its patients participating in trials, its income from research and the number of staff working in its research teams. This article describes how the trust has strengthened its research nursing model.

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At University Hospital Southampton (UHS), clinical research nurses (CRNs) were under increasing pressure to conduct an expanding portfolio of adult and paediatric studies, and meet constantly rising patient recruitment targets. Over the last three years, the trust has implemented an innovative workforce development approach designed to address the issues around recruitment and retention and increasing workloads, to continue conducting high-quality and safe clinical research. This article describes the approach and its outcomes.

A core NHS business
UHS is one of the largest acute teaching hospital trusts in England, with an annual spend of £700m and over 10,500 staff across three sites in Southampton. The trust provides services to over 1.9 million people in Hampshire and specialist neurology, respiratory, oncology, cardiovascular, obstetric and paediatric services to more than 3.7 million people in central southern England and the Channel Islands.

The NHS Constitution for England mandates that all patients should have the opportunity to participate in research (Department of Health, 2013). Research is therefore a core business of the NHS and the UK is at the forefront of global health research (DH, 2014). Research-active hospitals have better patient outcomes (Rochon et al, 2014) and there is a significant correlation between academic output and mortality rates, with research-active organisations outperforming those with less focus on research (Bennett et al, 2012). In a study by Ozdemir et al (2015), research-active trusts had lower risk-adjusted mortality for acute admissions.

Research at UHS
At UHS, we conduct clinical trials, both with adult and paediatric patients, in a complex and integrated research environment. Our research nurses, midwives and allied health professionals work in a range of settings and teams: a biomedical research centre, a clinical research facility, a clinical research network trust-wide team, an experimental cancer medicine...
Clinical Practice


Innovation

centre, and a Cancer Research UK centre – some of which are National Institute for Health Research (NIHR) infrastructures.

Studies conducted at UHS include complex interventional clinical trials, high-risk phase-1 studies, and academic experimental medicine studies. These require a team of trained, competent and experienced research staff. Our expert research nurses often work in high-pressure areas including emergency, theatre, intensive care settings, as well as in settings such as schools, patients’ homes and community centres.

Since 2014, the research teams have faced growing challenges, including higher year-on-year patient recruitment targets set by the NIHR Clinical Research Network. Conducting the studies within time and budget constraints while protecting and advocating for participants was becoming increasingly difficult due to workload, as well as recruitment and retention issues.

The rapid and steady growth of the research portfolio required more research nurses, not just more unregistered support staff. To respond to these challenges, UHS designed a new research nursing model to attract and retain nurses, therefore maintaining both the safety of participants and the quality of research data.

Leadership and identity

In 2014, a divisional head of nursing for research and development (R&D) was appointed to oversee all research staff. By pulling all the teams and facilities together under senior nurse leadership we aimed to put an end to silo-working and teams working in isolation. It allowed us to be pragmatic and make economies of scale, maximising and reinvesting research income.

To address recruitment and retention issues, we created a distinct identity for the research nurse workforce, with a team uniform and standardised job titles and roles. After exploring the potential benefits of social media we created a Twitter account to give UHS research nurses a presence outside the trust. In videos, research nurses explained their roles and demonstrated their passion for their work. The videos were linked to the Twitter account, as well as to job advertisements.

Staff management

Traditionally, research nurses are on fixed-term contracts for the expected duration of a study, which undervalues the role and creates uncertainty and anxiety. In 2016, we ended fixed-term contracts and established permanent contracts for our research nurses. This has stopped the uncertainty of temporary contracts and has allowed us to move away from individuals working in isolation without appropriate management.

We now use a centralised staff management approach where research nurses are line-managed by other nurses; previously the had been managed by doctors. This has increased nurses’ sense of ownership and improved team working and the sharing of best practice. It also helps to create joint clinical and research roles that help embed research in clinical areas.

A supportive nursing infrastructure, with clear lines of accountability and team specialty definition, has been introduced, mirroring hospital divisional structures. This means that hospital divisions have a better understanding of the research being conducted in their areas. Research job titles have been aligned with clinical roles to ensure synergy between staff; previously, ward teams and research teams were disconnected, as their job titles were difficult to compare, which led to isolation for research nurses.

Multidisciplinary teams

To address the challenge created by the shortage of nurses across the country, we have invested in recruiting multidisciplinary research staff, as well as helping other professions to join. Our research staff now includes administrative roles, clinical trial assistants (CTAs), laboratory staff, medical research fellows and physicians.

Using the Skills for Care framework (Skills for Care, 2013), we ensure a career development pathway for entry-level staff, who can become certified CTAs. CTAs make a valuable contribution, freeing up more qualified staff to undertake more complex interventions and activities, such as adverse event recognition and chemotherapy delivery.

Research administrators and coordinators help nurses set up and run studies. A dedicated laboratory team takes responsibility for sample handling and processing. The research physicians and medical fellows provide flexible medical input for research across the trust and ensure appropriate principal investigator and co-investigator oversight.

Attractive workplace

Our research nurse demographic is not dissimilar from that of other organisations in that it has higher numbers of older nurses. To attract newly qualified nurses, we actively engage with the University of Southampton to ensure research nursing is seen as a career option and provide ‘hub and spoke’ placements for students.

We are passionate about valuing, supporting and developing the entire research team. We bring them together and encourage them to participate in a range of activities. Regular one-to-one meetings, discussion forums, peer group meetings, wellbeing sessions and resilience workshops are held so that staff feel supported and are equipped with the right skills. There are also clinical trial days, community and public engagement activities, and international investigator meetings.

We support flexible working and give staff opportunities for career breaks and winter month working, as well as ‘retire and return to research’ posts. As much as we are flexible with staff, they also work flexibly according to the needs of the research portfolio.

Training and career development

A dedicated clinical research education team delivers a training programme that is responsive to the needs of staff; for example, the communication skills of trial assistants were identified as requiring improvement, so ad hoc training was organised. The training programme includes robust inductions and study...
delivery, feasibility and consent training. It covers a range of topics including emergency scenario training, learning from incidents, communications skills, equipment training and venesection. The education team also undertakes an annual training needs analysis and facilitates student nurse placements.

Joint research and clinical posts have recently been created in rheumatology, hepatology and gastro-enterology, as well as in the paediatric intensive care unit and emergency department. These roles, whether joint CNS or ward staff nurse, help bridge the clinical-research divide and provide an active research environment for staff and patients on wards.

Clinical academic careers can be pursued as part of research nursing, so nurses no longer need to leave their research role to become an academic CNR. We have started developing combined research nurse/nurse researcher roles. And we support our senior research nurses in becoming principal investigators where possible, as principal investigators do not always have to be doctors.

Growth in size
Since the introduction of our research nursing model, we have grown significantly. In 1999, there were 45 nurses and midwives, mostly employed in the university by individual doctors. We now have 266 research staff: 183 research nurses, midwives and allied health professionals, 266 research staff: 183 research nurses, midwives, mostly employed in the university by individual doctors. We now have 266 research staff: 183 research nurses, midwives, mostly employed by the trust.

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Fig 1. Number of studies under way in 2017

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<th>1,054 active research studies</th>
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<tr>
<td>166 Commercial</td>
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<td>888 Non-commercial</td>
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“All nurses in all clinical areas should be involved in the research agenda”

57 CTAs and associate practitioners and 26 trial administrators, with an additional 13 dedicated administrative staff, six research support staff and five lab staff who are mostly employed by the trust.

In 2017, the research teams were working on 1,054 studies (Fig 1) – a steep increase from 93 studies in 2002. Current studies include all phases of clinical trials and complex experimental medicine studies (Box 1). There has been a significant increase in the number of patients recruited into clinical studies, rising steadily from 5,316 in 2008-09. Between 2008 and 2017, 156,320 patients were recruited to 1,437 NIHR studies alone. We currently recruit over 20,000 patients a year into research studies.

Between 2008 and 2017, the trust made £21m of direct income from commercial research and a total of £150m income from research and development.

Next steps
We believe that all nurses in all clinical areas should be involved in the research agenda and trained and delegated to work on studies. This requires a lot of ward nurse buy-in, and sessions are being developed to contribute to the ward training programmes so that research is not left out of everyday education.

We want to ensure all clinical staff have mandatory research training on the principles of good clinical practice agreed by the International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use (2016), so that they can participate in research activities when trials are being undertaken in their ward areas. This will also allow more patients to be offered the opportunity to participate in research. We want all nurses to have roles that value and allow research activities alongside clinical responsibilities, so we plan to increase joint roles.

Our model is breaking ground now and will provide a strong core for our future initiatives. It can be modified and adapted by other trusts interested in adopting our approach to clinical research nursing.

References


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Clinical research nurse or nurse researcher?
Bit.ly/NTClinicalResearch

Box 1. Types of clinical studies

- Clinical trials are usually classified into three phases. Phase-1 trials are the first time a drug is given and are designed to gather important safety data and check whether that drug works. In later phases, different doses are given and comparisons with standard treatments are made (Bit.ly/CRUKPhases)

- Experimental medicine refers to research that identifies mechanisms of pathophysiology or disease to demonstrate the validity and importance of new treatments (Bit.ly/MRCExperimental)