develop a clinical career pathway and as such be a positive indica-
tor for recruitment and retention of staff, which in today’s National
Health Service is a time-consuming and expensive undertaking [5].

The creation of such a workforce is not without challenges. The
survey revealed a number of obstacles that would need to be
overcome for the successful implementation both at national
and local levels. These include the culture of the team and the
institution. Would the workforce deplete the existing nursing
cohort? This fear could be considered a threat but should not be
a legitimate excuse for halting progress; the development of staff
is a prerequisite of career development and a necessary part of
our professional lives.

In 2010, a further SCTS survey was undertaken to document
the degree to which strategic planning was being realized. It
sought to review the number of AHP roles; their impact on the
delivery of care and their education and clinical competencies.
Sixty-two percent of units responded and the data show that
100% of these units had created a Nurse Practitioner and
Surgical Care Practitioner team [6].

The Nottingham model sets the benchmark for the workforce
within critical care and there has been an expanse of units with
the UK and Ireland who have developed the service in other
parts of the patient pathway. What is clear is that while there is
a plethora of postgraduate courses for Advanced Practice, the
degree to which they cover specialty knowledge and compe-
tency is not assured, it is often for the student and individual
unit to determine the competence, and much of the work at the
local level is of a very high standard. In the UK and Ireland, the
SCTS has developed a national course that combines didactic
lectures, wet labs and interactive workshops. However, to date,
there is no generic cardiothoracic specialist examination to
benchmark a standard and demonstrate competence for the in-
dividual, the speciality, the hospital and the public. There is a
joint venture between the SCTS and the Royal College of
Surgeons in progress to address this.

Interestingly the USA, to which Europe often looks, has dispar-
ate models of care. Geographical restrictions mean that many
specialist critical care units do not have resident surgical cover at
night, with AHPs caring for the deteriorating patient with surgeon
direction through telephone or video link. Opening the chest in an
emergency situation is one necessity that has led to the
American Critical Care Association to run the Cardiac Life
Support course (www.csu-als.com). The European Resuscitation
guidelines have been embraced across USA and within the UK
and Ireland. They demonstrate a positive outcome for patients.
Coincidentally, anecdotal evidence suggests that there is a reduc-
tion in the incidence of open chests and intuitively, an improve-
ment in the care of the deteriorating patient.

It could be asked why a review of the workforce would be ne-
cessary in units where surgical cover is plentiful as it still is in
some areas of Europe, but the Nottingham data demonstrates
that a consistent team, correctly trained, improves outcomes.
To those that argue AHPs cannot deliver the care of the cardio-
thetic surgical patient, the Nottingham paper and the evi-
dence emerging from the SCTS in the UK and Ireland and the
USA would give clear evidence to the contrary.

Conflict of interest: none declared.

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EDITORIAL COMMENT

Advanced practitioners in the cardiothoracic intensive care unit

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Keywords: Cardiothoracic intensive care • Advanced critical care practitioner • Staffing

In this month’s journal, Skinner et al. [1] present a study that seeks to demonstrate that specifically trained advanced nurse practitioners can safely and efficiently provide sole resident cover within a cardiac surgical intensive care unit (ICU), without


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In this month’s journal, Skinner et al. [1] present a study that seeks to demonstrate that specifically trained advanced nurse practitioners can safely and efficiently provide sole resident cover within a cardiac surgical intensive care unit (ICU), without
the need for additional resident middle grade medical staff. They have utilized outcome measures such as mortality, cost and surgical training time to attempt to quantify the impact of this staffing innovation.

The critical care workload within the UK continues to rise on a yearly basis. Within cardiothoracic ICUs, the age and co-morbidities of the patients also rise each year, and the complexity of many procedures increases, with a resultant increase in the clinical workload. Cardiothoracic ICUs within the UK have traditionally employed a varying combination of junior/middle grade anaesthetic and surgical medical staff to provide 24 h cover.

As the authors state, the challenges of continuing to provide this level of skilled medical cover are increasing. In response to these shortfalls in manpower, many ICUs across the UK in recent years have sought to introduce new roles or have extended the scope of practice of existing ICU nursing staff, as is the case with the Nurse Practitioners in Nottingham. Within the UK, the demand for these types of advanced roles has culminated in the development of the advanced critical care practitioner (ACCP) role.

The ACCP role is a new way of working for health professionals in critical care. The role crosses the professional boundaries of many functions within critical care, including medicine, nursing, technical, physiotherapy and clinical pharmacology. Recruitment to the ACCP role is not limited to nursing staff, but rather to any suitably qualified and academically able health care professional, with at least 2 years recent experience working within a senior level; this includes nursing staff, physiotherapists, pharmacists and Operating Department Assistants.

The ACCP programme in the UK is an ongoing project under the auspices of the Faculty of Intensive Care Medicine at the Royal College of Anaesthetists. It is a development of the initial ACCP pilot scheme that subsequently led to the publication of the National Education and Competence Framework for ACCPs by the Department of Health in March 2008. This document provided a basic training framework from which several hospital trusts within the UK designed tailor-made ACCP programmes in conjunction with local Higher Education Institutions (HEI).

The FICM is now in the process of utilizing the knowledge and experience gained within these initial training centres, in order to produce a comprehensive national training curriculum together with an accredited exit examination. ACCP training will consist of a full-time 2-year Master’s-level qualification that is taught and assessed in conjunction with local HEIs. The majority of the teaching is delivered within the clinical arena and is augmented by the nationally accredited non-medical prescribing qualification (this enables the ACCPs to prescribe independently of medical staff). The ultimate aim is to develop a network of ACCP training sites around the UK, delivering a common, high-intensity training programme, resulting in the award of a nationally recognized and transferable qualification.

As of June 2012, there were already at least 25 fully qualified ACCPs working at the four existing training sites within the UK. Although the exact nature of their role differs slightly from trust to trust, most are already being utilized to provide 24-h resident cover for the ICU, having been embedded within existing medical rotas. Close attention continues to be paid to patient safety and outcome measures, but the initial feedback and data analysis has been very positive.

Skinner et al’s study was conducted within the dedicated cardiac surgical ICU in Nottingham, with ~700 major cardiac cases per year. It is widely perceived that the role of the ACCP may be particularly well suited to cardiothoracic ICUs. In comparison with a general ICU, the workload is more predictable, more repetitive, more amenable to employing protocol-led care and generally presents less primary diagnostic difficulty. Patient turnover is higher and the potential impact of introducing ACCPs in terms of throughput, speed of recovery and discharge, cost savings and enhanced patient satisfaction, may be more easily demonstrable.

Within any critical care environment, a transition from resident medical cover to only non-medical personnel being resident must be predicated on the basis that patient safety is not compromised. Continuous detailed monitoring of patient outcomes is essential when introducing any new clinical role into the ICU environment. Morbidity, mortality, length of stay, re-admission rates, cost savings, etc. can all be utilized to assess the impact of these new roles.

The ability to perform immediate chest re-opening in patients post-cardiac surgery has traditionally been considered one of the primary reasons to maintain resident surgical cover on cardiac ICUs. The Nottingham group have attempted to address this difficult issue by ensuring that all of their nurse practitioners are trained in basic chest re-opening as per the Cardiac Advanced Life Support protocols and that an on-call surgeon is a maximum of 15 min away.

However, the increasing prevalence of minimal access forms of cardiac surgery (transcatheter aortic valve implantation, Port Access mitral valve repair, aortic valve replacement via mini- sternotomy, minimally invasive direct coronary artery bypass) brings an entirely new dilemma in terms of post-operative management and patient safety, as there is virtually no scope for immediate surgical intervention if the surgeons themselves are no longer resident on the ICU. If the practice of using ACCPs as sole resident cover within cardiothoracic ICUs is to be widely adopted, this will be one of the primary obstacles that will need to be overcome.

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