

The evolving role of Paramedics – a NICE problem to have

This short essay supports the growing role of paramedics in the clinical and academic workforce. We present a collaborative review of recent UK National Institute for Health and Care Excellence (NICE) guidelines (1,2) that set out how the role of paramedics may be evolving to assist with the changing demands on the clinical workforce. We extend these recommendations, and suggest that the profession should also lead the academically-driven evaluation of these new roles.

Background

Although the term 'paramedic' started to emerge only in the 1960s, non-medically qualified personnel trained to provide specialised emergency medical care have been established since ancient times, and have long been considered a vital part of the medical team, providing emergency care to patients when, and where, it is most needed. In the NHS, most paramedics apply their skills in the ambulance service, working alongside other emergency care staff.

However, despite its foundation in advanced life support and other superior skills for dealing with emergencies, the role of the current paramedic has evolved.

Paramedics now provide far more than just emergency care and are expected to manage a broad range of conditions in the out-of-hospital environment (1). Part of the reason for this evolution is necessity. Only eight percent of 999 calls are from people with life-threatening illnesses or injuries (3). Most patients, therefore, have the potential to be assessed and managed in the community, without needing hospital admission (2).

A Contemporary Workforce

Many UK ambulance services now position themselves more as mobile healthcare providers. Consequently, paramedics increasingly provide clinical assessment and management, using a variety of delivery methods: remotely (using a hear-and-treat approach) or face-to-face (using a see-and-treat or see-and-refer model) (1). The spectrum of what constitutes urgent clinical care has evolved. Paramedics need to be skilled in managing acute-on-chronic long-term conditions; assessing (and referring) acute presentations of mental ill-health; social assessments; and transfers between hospitals. With changing demands on the ambulance service, and social dependence on it (4), the twenty-first century paramedic is expected to be nothing if not a generalist.

A key driver of the transformation of paramedics in care provision has been their level of autonomy as Allied Health Professionals. Unlike the US, Canada and other parts of the world, UK paramedics are required to register with the Health and Care Professionals Council (HCPC), which empowers them to innovate and challenge healthcare provision. While other countries may be planning to have professional self-regulation systems for paramedics, in the UK this regulation has resulted in a movement of paramedics from their traditional employer, the NHS ambulance services, to other healthcare settings. For professional advancement, this has offered paramedics opportunities to practice in diverse areas, such as acute hospital trusts, forensic healthcare, GP practices, minor injury units, primary care services, and urgent care centres (5, 6, 7). The supply, development and evolution of a paramedic workforce has not typically been seen as an untapped healthcare resource, but rather as an isolated problem restricted to the ambulance service,

which is challenged by the increased demand and competition for paramedics from other providers.

Opportunities for paramedics to work within other sectors are articulated in new draft guidance from NICE recognises the evolving role of paramedics (2). The draft plays emphasis on the predicted effect of paramedics with enhanced competencies in reducing demands in emergency departments, reducing hospital admissions, and improving patient outcomes (2). This is aimed particularly at paramedics with sufficient post-qualification experience and enhanced education, with development based on supervised practice in their speciality, similar to other advanced professionals within medicine, physiotherapy and nursing. A body of paramedics performing the 'standard' paramedic role would still be required, and the guidance discusses such enhancements as an opportunity for paramedics to develop and progress, avoiding professional attrition.

Preliminary evidence suggests that such enhanced roles for paramedics may be cost-effective. Support for paramedics working in remote areas is also the subject of consultation (1). However, a lack of sufficient research indicates that no formal recommendation about this can currently be made. Support from senior decision makers within the ambulance services, such as Consultant Paramedics, would probably incur high costs that would not be justifiable, given the lack of directly applicable evidence of clinical benefit. Use of technology was also discussed, but it was acknowledged that there might be cultural and population barriers to its application. In both consultations, NICE emphasised the value of multidisciplinary teams, in both training and working. This is natural in much of primary care, such as

in minor injury units or GP practices, as well as in remote care settings, but these are little mentioned in ambulance services. Such working and training would not only combine resources but would ensure standardisation of practitioners' experiences and patients' experiences. It would also ensure the efficacy of paramedics working in this area as well as provide more opportunities for safe care. However, this emphasises the need to meet defined criteria based on sufficient knowledge, experience, and education.

The draft (1) suggests that enhanced education and training would not be appropriate for the entire workforce, but crucial for the development of specialist and advanced paramedics. It is therefore highly likely that the evolving role of paramedics will need new pathways for education and training. The traditional education of paramedics has been very different from that of their nursing and allied health colleagues. The current education threshold for professional registration remains equivalent to a Certificate in Higher Education, despite professional advocacy that this should increase to a BSc(Hons) (8). The professional body, the College of Paramedics, has produced guidance describing this increased educational level as a fundamental tenet of enhanced paramedic practice and career trajectory, particularly as future roles expand (9). However, it is not clear whether such guidance is being universally adopted across all paramedic employers in the UK, resulting in a nationwide mismatch of entry requirements, titles, and skill sets. Research into the most appropriate educational background that enables paramedics to successfully deliver the wide range of care expected of them in contemporary healthcare settings is crucial to the development of the profession.

The broader extended role for paramedics may be innovative but may have potential consequences. Many Ambulance Services face an unprecedented retention challenge, as other healthcare providers target their most experienced and best-educated paramedics, typically working as Specialist Paramedics (using the title advocated by the College of Paramedics, and previously known as an Emergency Care Practitioners), having undertaken postgraduate education. In an attempt to tackle this, the UK Department of Health recently launched a nationally coordinated initiative, which has seen increased financial rewards for paramedics (10). This is laudable and reflects the changing demand and the recognition of efficiency and effectiveness within the paramedical practice.

While the professional stature of paramedics is increasing and the variety of practice settings evolving, the current opportunities for employment in these different domains still requires careful evaluation for clinical impact, value, and satisfaction (1, 2, 11). However, the evidence suggests that these results may prove fruitful (12). It has been estimated that a Specialist Paramedic, working in the community Urgent Care, could save the NHS £72,000/year, by relieving the pressure of unnecessary attendance in emergency departments and hospitals, and sometimes admissions (13). More recent studies have suggested the cost-effectiveness of Specialist Paramedics compared with hospital conveyance in a traditional 999 service (14).

Recommendation

To move things forward, we advocate that the paramedic profession itself should lead the evolving roles for paramedics, but delivered with an interprofessional approach. Members of the paramedical profession should be undertaking research,

particularly leading service reviews and evaluating delivery implementation, as well as evidencing the profession's contributions to new models of care. The primary care environment is an obvious choice for this (1, 2, 12). Paramedics must work with patients, primary care clinical staff, academics, commissioners, and policymakers to define and shape these integrated roles. An immediate need is to identify the key measures and indicators around quality of communication, clinical excellence, and integration into primary care. As the role of the paramedic evolves, learning together and working alongside their medical colleagues will be paramount to the safety and success of paramedics as they enter this environment.

References

1. National Institute for Health and Care Excellence. Consultation Chapter 4 Paramedic remote support. [Forthcoming]. 2017. [cited 2017 July 20] Available from: <https://www.nice.org.uk/guidance/GID-CGWAVE0734/documents/draft-guideline-4>
2. National Institute for Health and Care Excellence. Consultation Chapter 3 Paramedics with enhanced competencies Emergency and acute medical care in over 16s: service delivery and organisation. [Forthcoming]. 2017. [cited 2017 July 20] Available from: <https://www.nice.org.uk/guidance/gid-cgwave0734/documents/draft-guideline-3>
3. Keogh B. Ambulance Response Programme (National Medical Director NHS England). Letter to: Jeremy Hunt (Secretary of State for Health). 2007 July 13. [Internet] Available from: <https://www.england.nhs.uk/wp-content/uploads/2017/07/ambulance-response-programme-letter.pdf>
4. Wankhade P. Cultural characteristics in the ambulance service and its relationship with organisational performance: evidence from the UK. In: Management of Emergency Response Services: Does Culture matter Track, PAC Conference,; 2010 Sept 6-8, Nottingham Business School, UK.
5. Evans R, McGovern R, Birch J, et al. Which extended paramedic skills are making an impact in emergency care and can be related to the UK paramedic system? A systematic review of the literature *Emerg Med J* 2013;**31**:594-603.
6. Williams B, Jennings PA, Fielder C, et al. Next generation paramedics, agents of change, or time for curricula renewal? *Advances in Medical Education and Practice*. 2013;**4**:245-250.

7. O'Meara P. Community paramedics: a scoping review of their emergence and potential impact. *International Paramedic Practice* 2014;**4**:5-12.
8. Lovegrove M. Maximising paramedics' contribution to the delivery of high quality and cost effective patient care. Bridgwater: College of Paramedics, 2013
9. College of Paramedics [internet]. College of Paramedics Response to the Health and Care Professions Council (HCPC) Consultation on the threshold level for entry to the Register for paramedics. 2017. [cited 2017 November 27] Available from: <https://www.collegeofparamedics.co.uk/news/response-to-the-hcpc-consultation-on-the-threshold-level-for-entry-to-the-register-for-paramedics>
10. Department of Health [internet]. New pay deal for paramedics. 2016. [cited 2017 July 20] Available from: <https://www.gov.uk/government/news/new-pay-deal-for-paramedics>
11. Primary Care Workforce Commission. The future of primary care. Creating teams for tomorrow. London: Health Education England; 2015
12. Ball L. Setting the scene for the paramedic in primary care: a review of the literature. *Emerg Med J* 2005; **22**: 896-900.
13. Woollard M. Paramedic practitioners and emergency admissions. *BMJ*. 2007;**335**:893–894.
14. Dixon S, Mason S, Knowles E, Colwell B, Wardrope J, Snooks H et al. Is it cost effective to introduce paramedic practitioners for older people to the ambulance service? Results of a cluster randomised controlled trial. *Emerg Med J* 2009;**26**:446-451