

Assessing the Role and Employability of Military Advanced Practitioners in Deployed Pre-Hospital Setting: A Qualitative Interview Study

E Paxman, J Turnbull, J Prichard

Key messages

1. APs support healthcare delivery and workforce flexibility in deployed PHEC environments.
2. Military APs are autonomous and have the potential to operate independently in the Defence Medical Service and remote pre-hospital care.
3. Multi-professional trust is key to AP autonomy in military pre-hospital care, but standardised roles and careers are needed to overcome hierarchical barriers and ensure career progression.

Abstract

Introduction: Previous research in the UK civilian sector indicates that advanced practitioner (AP) roles could significantly enhance the Defence workforce by addressing increasing healthcare demands in austere and remote environments. Defence Medical Services (DMS) could deploy APs to deliver pre-hospital emergency care (PHEC) on operations, potentially improving patient outcomes in resource-limited settings. While the DMS has trained a few APs, limited research defines their operational role. This study assesses whether military APs can contribute to the deployed pre-hospital workforce.

Methods: Qualitative, semi-structured interviews were conducted with 10 military APs and 12 non-AP healthcare professionals (paramedics, nurses and doctors) purposively sampled from the DMS PHEC subspecialty board. The study explored the roles, experiences and challenges of military APs and examined non-APs' perceptions of their employability and integration within DMS. Data were thematically analysed, focusing on role clarity, collaboration and the operational impact of APs.

Results: There were three main themes: 'Understanding the gaps, training and career challenges for military APs'; 'Building trust and managing boundaries in multi-professional teams'; and 'Exploring future roles and employment of military APs'. Participants recognised the potential of military APs to operate autonomously in remote locations. Trust fostered through mentorship and collaborative relationships emerged as essential for APs' autonomy and professional growth. However, hierarchical structures within military and medical systems presented challenges, highlighting the need for clearer career management and role identification for APs. Participants advocated for standardising AP roles, aligned with civilian practices, to ensure consistency in roles and expectations. Participants suggested that military APs could enhance care delivery in prolonged field care and critical care retrieval, particularly in PHEC Level 8 teams. APs perceived their role offered enhanced flexibility to the PHEC workforce.

Conclusion: To maximise AP potential, the DMS must continue fully developing an AP strategy with workforce implementation. APs offer opportunities to bridge gaps in operational care, improve patient outcomes and support clinical career progression for nurses and paramedics.

Introduction

Advanced practice represents an evolving level of clinical expertise for nurses and allied healthcare professionals (AHPs), such as paramedics, pharmacists and physiotherapists. Advanced practitioners (APs) are trained to work autonomously, extending their skills and knowledge beyond traditional scopes of practice, typically supported by Master's level education.¹

To provide context for this study, APs refer to registered pre-hospital nurses or paramedics who have undertaken, or are undertaking, an MSc in Advanced Clinical Practice to upskill their role beyond nurse or paramedic. This qualification is aligned with the UK Health Education England (HEE) framework, which defines advanced practice under four distinct pillars (clinical practice, education, leadership and research). APs are typically trained to work beyond the scope of traditional registered healthcare professionals, often under a governance framework.

Civilian frameworks, such as the College of Paramedics' hierarchy, 'Specialist, Advanced and Consultant Paramedics', reflect increasing levels of expertise and autonomy as they progress through career stages.² Advancements in paramedic practice in non-military settings were first introduced in the '90s to respond to rising emergency calls, specifically for urgent care. Outside of urgent care, further specialisation of paramedics and a minority of nurses has since occurred in specialist pre-hospital critical care, often working for a helicopter emergency response service (HEM). UK paramedics represent most of the workforce due to their established career pathways in civilian pre-hospital emergency care (PHEC). In contrast, nurses comprise a smaller proportion, often entering through specialist retrieval or dual-trained roles. APs in civilian PHEC were developed in response to recommendations in UK national policy reports concerning trauma care.^{3,4} Since expanding their scope of practice in civilian systems, APs now deliver advanced skills such as advanced analgesia, sedation, ultrasound and other critical care interventions, contributing to decreased patient mortality.⁵

Countries like the United States, Australia and New Zealand have further advanced AP roles, enabling paramedics and nurses to deliver pre-hospital critical care autonomously, including Rapid Sequence Induction (RSI), a practice reserved for physicians in the UK. Australian Mobile Intensive Care Ambulance (MICA) paramedics exemplify this evolution. The establishment of advanced paramedics in the United

States has been reported to have led to a 20% lower mortality rate for patients than the UK traditional paramedic model.⁶

In the UK military context, PHEC is delivered by either nurses or paramedics. Those with relevant experience and clinical exposure may later upskill as an AP for their clinical development, building on their foundational scope to undertake extended clinical responsibilities. The difference between an AP and a paramedic or pre-hospital nurse is that nurses/paramedics typically work under clinical protocols and guidelines. In contrast, APs can operate with full clinical autonomy, using advanced decision-making to assess, diagnose and manage patients independently within a governed scope of practice.

As such, the UK Army, Navy and Royal Air Force (RAF) have begun to train a small number of nurses and paramedics in advanced practice for clinical development since 2010; however, there remains a lack of clarity on a defined operational role in pre-hospital care.⁷ Currently, there is a lack of research on the role of APs in military contexts, creating a knowledge gap in this area.⁸

This study presents part of a larger program of research that aims to investigate the potential contribution of APs within the Defence Medical Services (DMS) to understand if they could deliver similar benefits to those observed in the National Health Service (NHS) and international PHEC settings. Specifically, this qualitative study addresses two research questions:

1. What work activities do military APs currently perform in pre-hospital practice?
2. What are the perceptions and experiences of military pre-hospital personnel regarding the current AP role, and what are their views on its future value in military settings?

Methods

The exploratory qualitative study used semi-structured interviews with two groups of participants: UK military APs and non-APs. Interviews with APs were used to understand and explore the experiences of current military pre-hospital APs who have been previously deployed as level 5 practitioners (nurses or paramedics), see Figure 1, PHEC levels of capability.⁹

The UK military PHEC levels of care deploy different teams of varying levels and are scaled up and down depending on the pre-hospital capability required. The Medical Emergency Response Teams (MERT) may be called upon to provide pre-hospital care and rapid evacuation. A MERT is a UK Defence medical evacuation asset that uses either a helicopter,

battlefield ambulance or hovercraft to bridge the gap in time between injury and treatment. Each MERT consists of a specialist pre-hospital team with different levels of clinical expertise. This includes either a consultant in Emergency Medicine or Anaesthetics (PHEC level 8), a Specialist Emergency Medicine Nurse (PHEC level 5) and two Paramedics (PHEC level 5).

Interviews and participant demographics

Interviews with APs focused on their training, preparation and ongoing requirements for the role during peacetime civilian duties and operational postings. Discussions also covered working culture, relationships and hierarchies. Interviews with non-AP participants, including those with military PHEC experience, explored their understanding of the AP role, expectations and perceptions of its potential benefits in military PHEC.

Participant selection

Participants were purposively selected based on military experience. APs from all three services (Army, Navy and RAF) were included, with eligibility limited to those MERT-qualified, deployed on PHEC operations and practising at an advanced clinical level. Other professions, such as physiotherapists and pharmacists who work as APs, were not included in this study, as their roles are not associated with PHEC in the deployed operational context.

Non-AP participants were sampled from the Defence Sub-Specialist Pre-Hospital Board, which advises on military pre-hospital care. This group included

Defence Consultant Advisors, Defence Specialist Advisors and MERT subject matter experts.

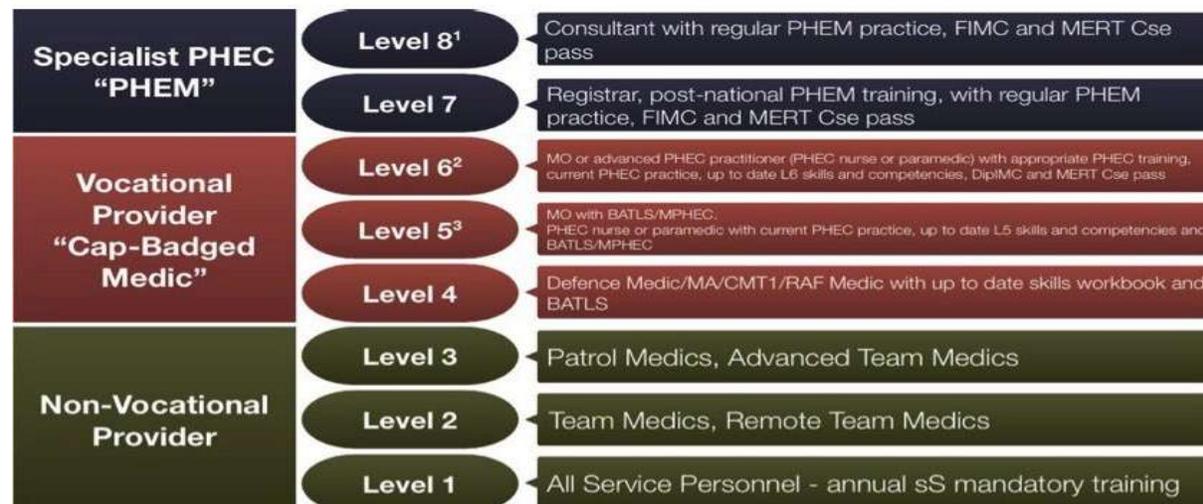
The study included 10 APs ('AP1' to 'AP10') and 12 non-APs (coded as 'DR' for doctors, 'P' for paramedics and 'N' for nurses). Demographics are presented in Tables 1 and 2.

Trends and context

Most AP participants were nurses, reflecting the military's prioritisation of nurses for advanced practice training in roles like Military Nurse Practitioner (MNP). These nurses typically had Emergency Department (ED) and PHEC experience. Conversely, paramedics serving as APs were primarily reservists, combining civilian practice with part-time military service, unlike full-time, regular personnel.

This distinction contrasts with civilian PHEC practice, where paramedics, rather than nurses, are predominantly trained for advanced roles. Consequently, the findings may have limited generalisability to civilian contexts, where training pathways and professional experiences differ significantly. In addition, APs were either currently undertaking or had completed an MSc in Advanced Clinical Practice. APs begin applying advanced clinical skills during training but only gain full autonomy upon completion, supported by clinical governance and supervision. While trained under the same framework, APs' clinical backgrounds (nurse or paramedic) influence their skill sets and areas of focus. As such, not all APs are trained in identical procedures (e.g., sedation), and practice varies depending on service needs and clinical exposure.

Figure 1: Defence PHEC Levels of Capability.⁹



¹ Or GPs with equivalent skills, qualifications and experience
² All EM consultants, PHEM trainees not fulfilling all requirements for L7 practice and some GPs.
³ Will often require MERT course for role

Data collection

The interviews used a structured topic guide to address participants' understanding of AP roles in civilian and military settings and the potential benefits of these roles for patient care.

Interviews with AP participants focused on their current work, training and development needs and, where applicable, their operational deployment experiences and the application of advanced skills. The discussions concluded with questions about the participants' vision for a future deployed AP role.

For non-AP participants, questions aimed to explore their views on the AP role, including any prior

experience working with APs in military or civilian settings. Initial questions were broad to gauge existing knowledge before transitioning to military-specific topics such as, 'Do you think APs should be deployed on military operations?'

Interviews were conducted between September 2020 and April 2021, either face-to-face or via virtual video conferencing, depending on participant preference. Virtual interviews were the preferred method due to COVID-19 constraints. Notes were taken during the initial portion of each interview to document participant characteristics, such as current role, deployment history and additional skills training. All interviews were digitally recorded and transcribed verbatim for analysis.

Table 1: Demographic characteristics of AP participants

Id.	Nurse/ paramedic	Qualification	Reg or reserve	Firm-base role	Deployment history	Additional skills training
AP 1	Nurse	MSc Advanced Clinical Practice	Reg	Ops role	MERT Herrick (Afghanistan), Telic (Iraq), BATUK ¹ (Kenya).	Nil
AP 2	Paramedic	DipIMC ² , PG Dip Advanced Practice	Reserve	Critical Care Practitioner (CCP) Air Ambulance	BATUK and MERT HERRICK	Sedation Course - independently sedate. Surgical Skills Course - independently perform thoracostomies and surgical airway. Royal College Emergency Medicine (RCEM) EM Level 1 Ultrasound Training ALS ³ and APLS ⁴ Course.
AP 3	Nurse	PG Dip Advanced Practice	Reg	ACP Emergency Medicine (EM)/ PHEC	MERT HERRICK and BATUK	PHEC University Course
AP 4	Nurse	MSc Advanced Clinical Practice	Reserve	ACP EM/PHEC	MERT BATUK	Nil
AP 5	Paramedic	MSc Advanced Clinical Practice	Reserve	CCP Air Ambulance	MERT HERRICK	CCP lone working
AP 6	Nurse	PG Dip Advanced Practice	Reg	ACP EM/PHEC	MERT BATUK and HERRICK	Advanced Clinical Practitioner (ACP) RCEM pathway
AP 7	Nurse	MSc Advanced Clinical Practice	Reserve	ACP EM	MERT BATUK	ACP RCEM pathway
AP 8	Nurse	MSc Advanced Clinical Practice	Reg	Staff Role (non-clinical)	MERT BATUK	Nil
AP 9	Nurse	PG Dip Advanced Practice	Reg	ACP EM	MERT BATUK	ACP RCEM pathway
AP 10	Paramedic	PG Dip Advanced Practice	Reserve	CCP	MERT BATUK	CCP lone working

1 British Army Training Unit Kenya

2 Diploma Immediate Medical Care Exam

3 Advanced Life Support

4 Advanced Paediatric Life Support

Table 2: Demographic characteristics of non-AP participants

Number	Role	Regular or reserve	PHEC level
DR 1	EM Consultant	Reg	L8
DR 2	EM Consultant	Reg	L8
DR 3	EM Consultant	Reg	L8
DR6	EM Consultant	Reg	L7
DR9	EM Consultant	Reg	L8
DR12	EM Registrar	Reg	L7
DR14	GP	Reg	L7
DR15	GP	Reg	L8
P2	Paramedic	Reg	L5
P4	Paramedic	Reg	L5
N1	Nurse	Reg	L5
N3	Nurse	Reg	L5

Data analysis

Thematic analysis was selected for its ability to uncover deeper meanings beyond content analysis, focusing on patterns and sequences within text. This study followed Braun and Clarke's six-step framework,¹¹ combining both inductive and deductive coding approaches to analyse extensive data (see Table 3). The process began with familiarisation, where transcribed data were thoroughly reviewed. Initial codes were then systematically generated, capturing relevant data segments. These codes were

grouped into potential themes, which were reviewed, refined, defined and named to ensure they reflected the dataset accurately. The six-step framework, designed to be flexible and creative rather than rigid, was adapted to fit the research questions. Quirkos qualitative analysis software (Version 2.4, Quirkos Software, Edinburgh, UK) supported the organisation and coding of the transcribed data, enabling clear visualisation of emerging themes.

Ethical considerations

The study was submitted to the RAF Science Advisory Committee board for ethical consideration and then sent to the Ministry of Defence Research Ethics and Committee (MODREC). The study received ethical approval from MODREC ref 887/MODREC/18 11 July 2019 and was also approved by the University of Southampton ERGO 46636.

It was made clear that participation in the study was voluntary, participants were free to withdraw at any time, and that non-participation would not adversely affect their careers. With military participants, the rank gradient between the researcher and participants can have an indirect risk of coercion; additional reassurance within the participant information form was outlined.¹³

Findings

The main themes identified in the analysis were Theme 1: *Understanding the gaps: training and career challenges for military APs*, which highlights training, career progression and role development; Theme 2: *Building trust and managing boundaries in multi-professional teams*, focusing on the importance

Table 3: Thematic analysis

6 Step analysis	Description	Action
Step 1 Immersing within the data	The data was analysed to understand initial findings, impressions and developments, this is known as the researcher becoming familiar with the data. ¹⁰	Transcripts were read, and memos were kept of initial thoughts and patterns.
Step 2 Initial coding	Braun and Clark consider a 'code' as a 'pithy label that captures what's interesting about the data'. ¹¹	Sentences coded using Quirkos Software
Step 3 Deeper understanding	The data was further explored for deeper analysis, specifically searching for themes, patterns and generalisations.	Codes located in Quirkos were reviewed to look for a shared meaning. These codes generated a thematic map.
Step 4 Re-read establish themes	Data was re-read to clarify potential themes to ensure they were bounded, relevant, and reached saturation. ¹²	Using Quirkos software, a thematic map was finalised.
Step 5 Finalisation of themes	Final themes are determined.	Quirkos finalisation of themes
Step 6 Final analysis	Results were formally reported and concluded.	Informed discussion and recommendations

of trust, role clarity, and navigating professional and hierarchical boundaries; and Theme 3: *Exploring future roles and employment of military APs*, which examines potential roles for AP in operational contexts (Table 4).

Table 4: Themes and sub-themes of the interviews

Theme	Sub-theme
Theme 1: Understanding the gaps: Training and career challenges for military APs	Current role and career pathways
	Training adequacy and clinical currency
	Clinical value and ongoing role support
Theme 2: Building trust and managing boundaries in multi-professional teams	Trust and role clarity
	Professional and military hierarchies
Theme 3: exploring future roles and employment of military APs	Deployment value
	Operational challenges

Theme 1: Understanding the gaps: training and career challenges for military APs

This theme explores the current work of military APs, focusing on role perceptions, career development, management and training. All APs had completed or were undertaking an MSc Advanced Clinical Practice over a minimum 3-year period, combining academic study with clinical postings. However, APs reported that military taskings such as deployments, exercises or mandatory duties often interrupt training with limited protection for study time. Regular military APs reported a lack of a standardised training pathway, requiring them to negotiate training time with their chain of command. Informal arrangements with their NHS civilian hospital placements often dictated how training was balanced with military duties, creating variability and inconsistency in the training experience.

AP6 *‘So just recently, having done some pre-deployment training. And having been away for probably a couple of months from the department (NHS Emergency Department), it does affect my (clinical) confidence, but I don’t think I’m unusual in that.’*

Having a military consultant instead of a civilian as a clinical mentor working in the civilian NHS hospital placement was perceived as advantageous in better understanding the AP’s military role and being more willing to allow the AP to practice their skills.

AP6 *‘I think that military consultants working in the*

same environment (NHS hospital) as you is a huge bonus. They obviously have to fulfil so many SPA’s (supported professional activities) if you are working, I think they’re probably much more willing to allow you to do stuff than maybe some of the civilian consultants because they sort of understand who you are, and what’s expected of you. So, yeah, working with military consultants does make a huge difference.’

Having worked with civilian APs in the NHS, non-AP participants saw clear benefits in patient care and workforce efficiency in military settings. Their positive experiences led them to believe military APs could bring similar improvements during deployments. They also felt that military APs could offer different perspectives and enhance care during deployments.

DR2 *‘Huge numbers of years of experience, expertise and decision making that only comes with those years of experience.’*

However, there were also concerns that the current level of clinical exposure for military paramedics compared to civilians would not be suitable to prepare for the AP role. Most military paramedics in regular service outside of operations do not currently work full-time within an ambulance service. Their role is split between undertaking non-clinical military roles combined with clinical placements with an annual mandated clinical time of 36 shifts. DR2 called for a change in policy regarding current paramedic training with an increased emphasis on clinical time before they could undertake military AP training. It could be surmised from the DR2 reference that a ‘proper’ training pathway for paramedics, which mirrors the NHS, was required to protect paramedics’ training and career pathway, ensuring they remain working in full-time clinical practice.

DR2 *‘I certainly won’t be pushing to train critical care paramedics for a number of years until the proper paramedic training pathway is really cemented and embedded.’*

Reservist APs’ clinical exposure and experience before undertaking the role were considered superior compared to regular paramedics. Reservist nurses and paramedics routinely work in full-time clinical practice, undertaking their military service part-time unless deployed. Therefore, it was felt by some reservists that their clinical experience is greater when compared to regular serving nurses or paramedics in developing autonomous practice.

AP5 *‘I’ve been, prior to doing the AP role, in the ambulance service for 15 years, done a bit of HEMS (Rotary Based Medevac) work, urgent care practitioner,*

so you know that kind of sole lone working higher acuity job, as it were. The military will never get their paramedics to that level of experience, of just seeing patients and volume of patients, unless they have a huge change in the way they operate.'

The interviews suggested that the absence of a career pathway has resulted in the misemployment of military APs. Some APs (regular serving nurses and paramedics) had been posted into non-clinical roles such as instructing or staff roles, writing policies or commanding units after training. Participants highlighted the need for clinical-facing posts throughout an APs career. Postings to non-clinical areas stagnated development and onward progression as a qualified AP.

AP3 *'Career pathways that allow you to remain developed and clinical in a deployed space without the requirement to drive a desk somewhere to tick that staff box.'*

In terms of APs deploying, there were some examples of when an AP had deployed in a level 5 PHEC capacity as a nurse or paramedic but not formally as an AP.⁹ During the deployments, the AP's skillsets were called upon to assess and treat patients. APs reported that being trained to a higher level and then deployed as a nurse or paramedic blurred the lines of practice. In addition, APs articulated that practising beyond their deployed role (nurse or paramedic) as an AP without the appropriate clinical governance exposed them to possible litigation.

AP1 *'So from a deployment perspective, I've been deployed out to BATUK (British Army Training Unit Kenya) as part of the forward aeromedical capability and not formally deployed as an advanced practitioner, but I have used my advanced practitioner skills in that role to see treat, diagnose and make clinical decisions about patients.'*

However, during the interviews, the lack of policy regarding career pathways was highlighted as an ongoing challenge. From the non-AP group, DR4 felt they could not help provide career advice for military nurses or paramedics aspiring to become APs. It was highlighted that they could see the 'end product' (a qualified AP), although the process to guide them to become an AP and practice as an AP was unclear. DR4 felt this was because they were unaware of a formal AP military pathway.

DR4 *'I think we are all quite naive that we get to the end and see the end product. We don't necessarily support people through that process. And then also how do we signpost people to become APs? Because we often see people who have got maybe the attributes*

or the skill set to be future great APs but actually, how do you to get them there, often you see doctors giving really, really bad advice, because they just don't understand the pathway.'

The analysis from the AP interviews revealed that this lack of overarching policy surrounding the military AP role has impacted the AP's career management.

AP1 *'Things that restrict us currently are the lack of policy that supports APs, its embryonic.'*

AP6 *'There's a lack of understanding of it (APs) and the policies are not there, the policy to articulate the requirement and what we're able to deliver just isn't there at the moment.'*

The lack of a clearly defined scope for advanced practice emerged as a key concern among both APs and non-APs. APs reported feeling that their role, achievements and enhanced skill sets were not adequately recognised or understood by their line managers.

At the time, the absence of a sustainable development pathway had already impacted APs, resulting in some considering leaving military service. AP9 has stated that they have looked at leaving the armed forces if they are not retained in a clinical posting to maintain their AP skillset and deploy as an AP after completing their MSc in advanced practice.

AP9 *'I want to remain clinical and progress [as a] practitioner, you know, hopefully, that is in the military and it will see a role for us and we will be utilised.'*

Theme 2: Building trust and managing boundaries in multi-professional teams

Trust and personal relationships between APs, doctors and other medical team members emerged as a key theme, focusing on perceptions of trustworthiness, role definition, and the influence of hierarchies and professional 'tribes' within the military context. Trustworthiness was linked to the awareness and confidence team members had in the AP's abilities, and the AP's need for a supportive environment to practice at an advanced level and manage the additional risks associated with their role. However, the lack of a clear definition and understanding of the AP role often hindered the establishment of trust, creating challenges in working relationships.

AP1 *'So that, I think, it generates quite a lot of ambiguity within how people see you, because there's no standardisation.'*

The demarcation of doctors, nurses and paramedics is well understood with their roles defined by terms

of reference, which outline their scope of practice. These roles are further emphasised with military rank, setting boundaries regarding seniority and experience. The AP role and its position within the medical and military hierarchies is not yet defined and, as such, blurs boundaries of hierarchies, risking conflicts and challenges.

A running theme throughout each interview was the complexity noted within different hierarchies. Within the military hierarchy, rank was identified as an area of concern. It was found that the APs' military rank did not map over to the clinical seniority gained as an AP. In addition, progressing to senior ranks for both officer and non-officer was highlighted as an issue regarding the availability of clinical postings at higher levels. Most senior ranks result in non-clinical postings to staff or command appointments. In addition, concerns about making an AP an officer-only position were raised.

The notion of tribes refers to different professional groups: doctors, nurses and paramedics. Participants highlighted further issues concerning interprofessional politics related to identity and roles when these tribes clash. Opinions concerning professional identity related to a perceived tribal mentality with individual roles. It was apparent that the pre-hospital AP role overlapped with each of the tribes, causing conflicts regarding role boundaries. Inter-professional dominance was noted among the APs and their position in the medical hierarchy. Concerns about where APs fit into the military PHEC levels were raised. Some APs felt restricted or boxed into certain levels of PHEC practice. From the below quote, AP2 uses the term 'antiquated', suggesting the military had not caught up with NHS and had a culture of outdated professional boundary restrictions.

AP2 *'I think. The military is. And the (single service), in particular, is still very antiquated in a lot of its roles and a regimented system, regimented to roles. A career pathway of what you should be at what rank.'*

The current military PHEC levels do not feature an AP role (see Figure 1). It was perceived during the interview that APs did not fit into the levels, further promoting a regimental culture. AP5 struggled to see the purpose of the levels. AP2 felt that the levels restricted practice as they were labelled into levels by their role and not skills.

AP5 *'I think I think they are meaningless, I am yet to work out any meaningful impacts that they have. And I think they are something that has been. It's a physician-centred set of levels...'*

AP2 *'I think the MERT course, for example, I got very frustrated. In terms of, that's a level eight job (clinical skill). that's a level-five job (clinical skill).'*

Theme 3: Exploring future roles and employment of military APs

Questions were asked that focused on the potential utility of APs for future operations in different deployed environments. Participants suggested a variety of capabilities and platforms that APs could employ to meet future operational challenges.

More specifically, participants could see a role for an AP working in remote treatment units such as Role 1 or Role 2 treatment facilities. It was felt that APs could deploy in place of a doctor delivering care to patients autonomously, providing treatment and stabilisation in austere locations before the patient is repatriated for definitive care in a larger hospital such as a Role 3 or 4 facility. Within these capabilities, participants felt an AP would add significant value during a prolonged field care scenario, where patients are held in an austere location for a significant time. Participants considered the additional skills that an AP has and if it would meet the needs of patients during their hold in this environment while awaiting retrieval back to a Role 3 facility.

DR2 *'So I think they have a huge role to play in what I would call role 1 pre-hospital emergency care. Clearly, they have a role to play as part of a medical emergency response team. But that's more on the doctor-paramedic-nurse model. But working autonomously, they have a Role in Role 1 pre-hospital treatment teams, definitely.'*

From a military PHEC perspective, utilising an AP at level 6 was viewed as increasing skill levels in autonomous working and decision making. Deploying APs in this role could mitigate risk, offering an additional capability and meeting a gap in ability between a level 5 (nurse/paramedic) or level 8 (PHEM consultant).

AP1 *'If you have advanced practitioners at a level six, they then sit in the middle of that bubble and provide the extra clinical decision making, clinical capability to meet those riskier ends of the operational spectrum where either we don't have a level eight team or we're not willing to deploy them because the risk is there isn't considered such a high risk.'*

An AP working in PHEC at level 6 could offer flexibility in supporting level 5 teams and providing mentorship. The role could be used as part of a 4-person level 8 team. Providing additional skills to manage multiple anaesthetised patients safely.

DR1 felt that although this had been done in the past without an AP, it lacked governance to ensure the process of moving multiple ventilated patients without a team specifically trained in this role.

DR1 *'I'm very keen to make sure that you know, we push that concept a bit on working with CCPs that if you have that second practitioner, you can actually do a lot more of what we would like to do and we have probably done in the past without that solid governance foundation like looking after multiple intubated patients.'*

Having an AP within a 4-person team could enable the team to be split into two capabilities of 2-person led teams (level 8 and AP-led teams). This would result in a capability that had additional effects in terms of increased lift of patients, with the bonus of spreading the clinical teams across a larger area.

DR4 *'You know, you can have a much bigger effect over a much bigger geographic area that you can necessarily have with one person. And as long as, well the benefit of the PHEC levels it's really clear, if you're a PHEC 5, 6, 7, 8, being able to split them up and cover a huge area is probably going to be the way forward.'*

Despite their proposed conceptual utility, concerns were raised about how the DMS could put these concepts to fruition.

P1 *'Absolutely, absolutely. 100% there is so much utility for them, we desperately need them be that in a PHTT (pre-hospital treatment teams, be that in company groups that are isolated operating out of small bases, be that in that MAB (special forces) world where they are desperately needed and would be utilised.'*

Discussion

This study has identified several critical issues related to the ongoing development and employment of military APs. Despite progress in formalising the AP role in civilian contexts, such as the NHS, the military context presents unique challenges that require a different lens.

Standardisation in training and career development

These findings align with previous research highlighting the need for clear career pathways and standardised training frameworks for military APs.¹⁴ In civilian healthcare, the development of AP roles has been underpinned by structured academic and clinical pathways.¹⁵ At the time of this study, the

absence of a formalised strategy for military APs led to fragmented training experiences and career development, resonating with the challenges faced during the early stages of AP role development in the NHS, such as inconsistent training and unclear role identity. Since the interviews, significant progress has been made with the introduction of the 'Defence Functional Nursing Strategy' and the 'JSP 950 Advanced Clinical Practitioner Policy for Nurses, Midwives and AHPs', which provide a framework for standardising AP roles across Defence. These policies mark a significant step towards addressing the findings of this study; however, their full implementation within the workforce is essential to ensure they achieve their intended impact and translate into meaningful change.

Trust and role boundaries within multi-professional teams

Theme 2 highlights the impact of hierarchical structures and role boundaries on the professional development and autonomy of military APs. The military's rank-based system and the undefined scope of AP roles lead to tensions within multi-professional teams as APs struggle to gain the trust and recognition required to practice at their full potential. This issue of professional dominance from other roles is consistent with findings from civilian AP literature, where role boundaries and medical hierarchies have historically impeded the development of AP autonomy.¹⁶

The lack of clarity in role definitions further exacerbates these challenges, creating confusion and limiting the potential for APs to contribute to military operations fully. This study demonstrates that the military context, with its added layer of rank structures, intensifies these tensions, making it difficult for APs to navigate their roles. If left unresolved, these issues may threaten the retention of APs, as participants expressed concerns about feeling underutilised and undervalued if not employed as a military AP.

The Defence Functional Nursing Strategy and JSP 950 policies provide a foundation for standardising AP roles, offering clearer career pathways and formally recognising their contributions. If fully implemented, these policies have the potential to address workforce integration challenges, ensuring APs are effectively utilised, professionally supported and retained within the DMS.

The future role of military APs: utility and feasibility

Theme 3 explored the future potential of military APs, particularly in austere and remote operational settings. Participants agreed that APs could address gaps in the Operational Patient Care Pathway (OPCP), providing autonomous care in scenarios where doctors may not be available. This aligns with Bricknell et al.'s findings, highlighting the need for flexible and dynamic healthcare solutions in future military operations, including paediatrics, humanitarian care and prolonged field care.¹⁷

While participants recognised the utility of APs in Roles 1 and 2 and pre-hospital care, they also highlighted challenges in fully integrating APs into military healthcare due to a lack of clear policy and clinical governance at the time. Since then, progress has been made with introducing the Defence AP and functional nursing strategy to provide a foundation for standardisation. However, fully realising the potential of APs will require further efforts to align single-service operational requirements and establish robust governance frameworks.

Implications and contributions

This study highlights the unique challenges military APs face, including the lack of standardised training, unclear role boundaries and the impact of military hierarchies on their professional development. In response to these issues, recent policy developments for Defence AP represent significant steps towards standardising the AP role. However, given the scale and complexity of workforce integration, their success will depend on straightforward implementation and sustained strategic management. Without structured follow-through, there remains a risk that APs will continue to face role ambiguity, underutilisation and limited career progression, ultimately impacting retention and operational effectiveness.

There is broad recognition that APs could play a crucial role in addressing the logistical challenges of future military operations, particularly by bridging gaps along the OPCS and delivering autonomous care in remote and austere environments.

Limitations and future research

One limitation of this study is its focus on a small sample of military APs and non-AP personnel, which may limit the transferability of the findings to the civilian setting or other specialities such as general

practice. The APs who were purposively sampled had deployed on PHEC operations, ensuring participants had relevant operational experience. However, the perspectives of those earlier in their AP training were not captured, which may limit the relevance of findings across the full AP training continuum. To put this into context, the RAF trains approximately one AP per year, depending on its workforce requirements. In addition, the non-AP group was drawn from the Defence Sub-Specialist Pre-Hospital Board, which provides oversight and policy advice on PHEC. While these participants offered informed and strategic perspectives, they may not fully represent frontline clinical views. Lastly, supported elements such as other combat teams or patients were not included, which may have provided different perspectives on the perceived utility and effectiveness of APs in deployed settings.

Further research is needed to explore the experiences of a broader range of APs across different military contexts and roles and to examine the impact of potential policy and training framework changes on the development and retention of military APs.

Conclusion

While the role of APs in civilian healthcare is well understood, their place within the military remains unclear. This study reveals that military APs, despite their advanced training, face significant challenges in terms of career development, role recognition and utilisation. Hierarchies within military and medical teams create barriers to trust and professional autonomy, further complicating their integration into military operations. To address these issues, UK Defence must continue the work that has begun to establish standardised career pathways, modernise its PHEC levels and align the AP role with the strategic vision outlined in current Defence policies. A comprehensive review of the workforce, focusing on skills rather than roles, will be essential to ensure that APs can meet the evolving operational needs of the UK Armed Forces.

*Corresponding Author: Elizabeth Paxman,
liz.1@live.co.uk*

Authors: E Paxman¹, J Turnbull², J Prichard²,

Author Affiliations:

1 Royal Australian Air Force

2 University of Southampton

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