British Journal of Nursing

Why are Physician Associates (PAs) under such intense scrutiny at the point of professional regulation and what does this tell us about advanced practice roles in the NHS?

--Manuscript Draft--

Manuscript Number:	bjon.2024.0367R2
Full Title:	Why are Physician Associates (PAs) under such intense scrutiny at the point of professional regulation and what does this tell us about advanced practice roles in the NHS?
Article Type:	Comment
Corresponding Author:	David Sturgeon, PhD University of East Anglia School of Nursing and Midwifery: University of East Anglia School of Health Sciences Canterbury, UNITED KINGDOM
Corresponding Author Secondary Information:	
Corresponding Author's Institution:	University of East Anglia School of Nursing and Midwifery: University of East Anglia School of Health Sciences
Corresponding Author's Secondary Institution:	
First Author:	David Sturgeon
First Author Secondary Information:	
Order of Authors:	David Sturgeon
Order of Authors Secondary Information:	
Suggested Reviewers:	
Response to Reviewers:	Summary of amendments: 1. I would avoid naming people in the discussion i.e. Gillian Leng and Wes Streeting. It should be noted he is Secretary of State for Health and Social Care. I have removed reference to Wes Streeting and updated his title to Secretary of State for Health and Social Care. I have removed most of the references to ‘Professor Gillian Leng’ and/or the ‘Leng review’ (8/10) as advised. They have been replaced with ‘president of the Royal Society of Medicine’ and ‘independent review’ respectively. However, I have left two in place. The second is part of a quote from The Royal College of Radiologists (2025) which refers to ‘the Leng review’. The first is a namecheck to Professor Leng (as president of the Royal Society of Medicine) in the introduction since, without this, the reference to ‘the Leng review’ in the following quote doesn’t make sense/is confusing. Since the independent report into PAs and AAs is generally known as ‘the Leng review or report’ I think this is reasonable and helps to signpost readers to this (forthcoming) report. 2. One of the subheadings is question: What are the concerns? Is a question needed? Perhaps: Concerning regarding the role of PA or the like. I have replaced the subheading with the simpler: ‘Concerns’. I have also replaced the subheading ‘What are PAs?’ (also a question) with the simpler ‘Physician Associates (PAs)’ 3. Might I suggest it is also made clear to the reader that the issue is 'live' and is ongoing. There are two references to the ongoing nature of this issue (in the introduction and

	conclusion) but I have added reference to the 'live' nature of the debate to the latter to strengthen: 'It is also useful to raise awareness of the ongoing MAPs debate amongst nursing colleagues…' 'This is the starting point for the next phase of development for PAs in the UK and is very much a live issue.' 4. Concerning this: However, not all advanced level practitioners in the UK hold a master's level qualification particularly if they qualified some time ago. Is this about when they registered? Careful not to conflate qualification with registration. I have removed the following section to avoid potential confusion: 'particularly if they qualified some time ago'.
Additional Information:	
Question	**Response**
Please enter the word count of your manuscript **excluding references and tables**	3503

Title

Why are Physician Associates (PAs) under such intense scrutiny at the point of professional regulation and what does this tell us about advanced practice roles in the NHS?

Author details

Dr David Sturgeon

Lecturer in Nursing Science (Adult)

School of Health Science, University of East Anglia, Norwich Research Park, Norwich, NR4 7TJ

Abstract

The NHS is in the midst of a chronic workforce crisis resulting in a cycle of mounting pressures and poor retention. This situation is not unique to the NHS and many countries have sought to develop more cost-effective and sustainable models of healthcare by educating and employing healthcare personnel with generalist medical skills. Research from the US, UK, and elsewhere indicates that Physician Associates (PAs), Advanced Nurse Practitioners (ANPs) and Advanced Clinical Practitioners (ACPs) can deliver cost-effective care and make a positive contribution to patient outcomes. However, the last twelve months has seen much debate regarding the PA role resulting in the creation of an independent review led by the president of the Royal Society of Medicine. It useful to examine why PAs find themselves under such intense scrutiny at the point they have achieved professional regulation by the GMC and what this tells us about attitudes to advanced practice roles in the NHS.

Key words

Physician Associate (PA), Advanced Nurse Practitioner (ANP), Advanced Clinical Practitioner (ACP), Task-shift, Professional regulation, Standardisation.

Key points

1. Changes in the nature and delivery of healthcare have encouraged policy makers in many countries to consider the opportunities offered by task-shift (redistribution of a set of tasks from one professional group to those with a lower/different type of professional education).

2. Research from the US, UK, and elsewhere indicates that PAs, ANPs and ACPs can deliver cost-effective care and make a positive contribution to patient outcomes.

3. PAs were introduced into the NHS in 2003 and are now regulated by the GMC (December 2024).

4. The last twelve months has seen much debate regarding the PA role resulting in the creation of an independent review, led by the president of the Royal Society of Medicine, investigating patient safety, cost effectiveness and efficiency.

5. ANPs and ACPs have generally been accepted as valued members of the multi-disciplinary team but require standardisation of educational pathways, improved governance, and legally protected titles.

6. PAs deserve support, recognition and interprofessional solidarity at this pivotal moment in their professional evolution in the UK.

Reflective questions

Which of the four pillars of advanced practice (clinical practice, leadership and management, education and research) are your strongest and why?

What has influenced the development of these capabilities?

How can/do PAs, ANPs and/or ACPs contribute to multidisciplinary working in your clinical area?

Conflict of interest

None

Why are Physician Associates (PAs) under such intense scrutiny at the point of professional regulation and what does this tell us about advanced practice roles in the NHS?

Abstract

The NHS is in the midst of a chronic workforce crisis resulting in a cycle of mounting pressures and poor retention. This situation is not unique to the NHS and many countries have sought to develop more cost-effective and sustainable models of healthcare by educating and employing healthcare personnel with generalist medical skills. Research from the US, UK, and elsewhere indicates that Physician Associates (PAs), Advanced Nurse Practitioners (ANPs) and Advanced Clinical Practitioners (ACPs) can deliver cost-effective care and make a positive contribution to patient outcomes. However, the last twelve months has seen much debate regarding the PA role resulting in the creation of an independent review led by the president of the Royal Society of Medicine. It useful to examine why PAs find themselves under such intense scrutiny at the point they have achieved professional regulation by the GMC and what this tells us about attitudes to advanced practice roles in the NHS.

Key words

Physician Associate (PA), Advanced Nurse Practitioner (ANP), Advanced Clinical Practitioner (ACP), Task-shift, Professional regulation, Standardisation.

Key points

1. Changes in the nature and delivery of healthcare have encouraged policy makers in many countries to consider the opportunities offered by task-shift (redistribution of a set of tasks from one professional group to those with a lower/different type of professional education).

2. Research from the US, UK, and elsewhere indicates that PAs, ANPs and ACPs can deliver cost-effective care and make a positive contribution to patient outcomes.

3. PAs were introduced into the NHS in 2003 and are now regulated by the GMC (December 2024).

4. The last twelve months has seen much debate regarding the PA role resulting in the creation of an independent review, led by the president of the Royal Society of Medicine, investigating patient safety, cost effectiveness and efficiency.

5. ANPs and ACPs have generally been accepted as valued members of the multi-disciplinary team but require standardisation of educational pathways, improved governance, and legally protected titles.

6. PAs deserve support, recognition and interprofessional solidarity at this pivotal moment in their professional evolution in the UK.

Introduction

The last twelve months has seen much debate in the medical and national press - and on social media - regarding the professional status of Medical Associate Professionals (MAPs) and Physician Associates (PAs)* in particular. The medical press has provided robust and balanced debate from those who oppose and endorse the expansion of PA roles in the NHS (Bagenal, 2024; Clarke, 2024; Ferreira, 2024; Mafi, 2024; McCartney, 2024; McKee and Brayne, 2024; Oliver, 2024, 2023ab; Rosen and Palmer, 2023). However, this balance is not always evident in the national press and certainly not on social media. On the 30th September 2024, in the face of '*adverse commentary…circulating across social media platforms*' Dr Jeanette Dickson, Chair of the Academy of Medical Royal Colleges, wrote to the Secretary of State for Health and Social Care and NHS England CEO calling for a rapid review into the role of PAs and anaesthesia associates (AAs) in the NHS (Dickson, 2024). The letter asked for an independent review to consider three key areas (patient safety, cost effectiveness, efficiency) and concluded that '*if the evidence tells us that the whirlwind of anecdotes and claims on social media are in fact correct, I am sure you will agree, it will give us all cause for thought*' (Dickson, 2024). In November 2024, the Secretary of State for Health and Social Care announced that he had asked the president of the Royal Society of Medicine, Professor Gillian Leng, to lead this review in order to resolve what he said had become a 'toxic' row (Triggle, 2024). On 5th December 2024, the General

Medical Council (GMC) published its report on the outcome of its public consultation on the proposed rules, standards and guidance that will govern the regulation of PAs (GMC, 2024a). The same day, the PA role was debated in the House of Lords (Hansard, 2024). The independent review of the PA and AA professions is expected to report in the spring of 2025 (Royal College of Physicians/RCP, 2024).

At a time when the NHS faces further government reform, and service demand remains at an all-time high, it seems opportune to examine why PAs find themselves under such intense scrutiny and what this tells us about attitudes to advanced practice roles in the NHS. Discussion of the advantages and disadvantages of PAs often includes comparative reference to other advanced practitioners regarding the application of generalist medical skills and their role within the multi-disciplinary team (Bagenal, 2024; Mafi, 2024, Ferreira, 2024; Wang et al, 2022; Mann, 2018). It is also useful to raise awareness of the ongoing MAPs debate amongst nursing colleagues since much of the discourse has played out in the medical press. The outcome and consequences of the independent review, however, will no doubt be felt across the larger NHS community.

* Originally known as Physician Assistants.

Physician Associates (PAs)

PAs are medically trained, generalist healthcare professionals who work alongside doctors, and other healthcare practitioners, as part of the multidisciplinary team (GMC, 2022a). The PA role was first established in the United States in the 1960s and introduced to the NHS in 2003 to address workforce shortages in under-served primary care practices in the West Midlands (Aiello and Roberts, 2017). In order to train to become a PA in the UK, applicants must have completed a life science or health-related degree, and provide evidence of prior health and/or social care experience (RCP, 2023). PA education in the UK is typically a two-year, full-time, postgraduate level programme which is divided between theory and clinical practice (Aiello and Roberts, 2017).** This is based on the national competence and curriculum framework document developed in 2006 by the

Department of Health (DH) in partnership with the RCP (DH, 2006). The curriculum was updated in 2012, and more recently in 2023 to complement shared professional capabilities and learning outcomes that newly qualified PAs and AAs must meet to be registered by the GMC (RCP-FPA, 2024; GMC 2022a). Regulation of PAs by the GMC commenced in December 2024 with a two-year transition window for those transferring from the previous Physician Associate Managed Voluntary Register (GMC, 2024b). From December 2026, it will be an offence to practise as a PA (or AA) in the UK without GMC registration (RCP, 2025; GMC, 2024b).

** There are currently two exceptions - the University of Central Lancashire and the University of Reading. Both offer an undergraduate degree that includes an integrated Master of PA Studies (MPAS). These courses take four years to complete.

Concerns

In 2017, the British Medical Association (BMA) published *Physician Associates in the UK* to provide doctors '*with useful information about the role of PAs and the concerns that have been raised about, as well as looking at how the BMA will be influencing the roles of PAs and the ways they are introduced into the service*' (BMA, 2017, 2). The report acknowledged some positive feedback about the potential for PAs to play a role in tackling workload pressures and about the constructive influence they had already had in some parts of the country. However, they also identified 'recurring concerns' including lack of professional regulation, lack of clarity among doctors/patients/public about PAs and their roles, PA pay scales in relation to doctors and concerns about the impact of PAs on doctors' training (BMA, 2017). More recently, two high-profile deaths following misdiagnosis by PAs, and the dispute between junior doctors and the government regarding pay and conditions, have heightened concerns regarding the impact of PAs on patient safety, training opportunities for doctors and clinical overreach (Oliver, 2024; O'Reilly, 2023). Whilst the deaths highlighted in the press should not have occurred, it is important to acknowledge that adverse events, malpractice and preventable deaths occur every year under the care of regulated doctors, nurses and other healthcare

professionals (Bagenal, 2024; Lancet, 2023, 2020). Other concerns have focused on the fact that PAs are the '*new kids on the block*' and that their arrival raises questions about clinical accountability and professional status compared to more established professional groups such as nurses and paramedics (Warner, 2024). However, some commentators also express concern regarding the trend towards advanced practice roles in general. Mafi (2024), for example, comments that whilst the steady introduction of PAs, advanced nurse practitioners (ANPs), and advanced clinical practitioners (ACPs) has helped to manage the ever-increasing demand in UK hospitals, this '*new blend of different clinical ward roles is disrupting the training, skill development, and professional autonomy of rotating doctors*.' He also remarks that the addition of PAs, ANPs and ACPs onto medical rotas has blurred the lines of skill and responsibility for clinical decision making (Mafi, 2024). Ferriera (2024) makes a similar point and suggests that the '*integration of non-medical professionals such as PAs into tasks traditionally undertaken by doctors raises questions about whether condensed training can equate to the extensive experience and education of doctors*.'

Other commentators have been careful not to blame PAs (or other health professionals) for the recent hostility and identify wider financial, leadership and workforce issues as the source of the dissatisfaction and concern (Mahase, 2024; McCartney, 2024, Moran, 2024; Oliver, 2023a). Bagenal (2024) comments that an '*undervalued, dissatisfied, and underfunded medical profession is not the fault of PAs, nurse specialists or any other health-care worker*'. The president of the RCP acknowledges that 'missteps' had contributed to the current issues, including the commitment to expand the PA profession before regulation (Clarke, 2024). The government originally asked the GMC to regulate PAs and AAs in 2019, noting that the GMC was best placed to regulate both '*as they form part of the medical team and are trained to the medical model*' (Department of Health and Social Care/DHSC, 2024). However, whilst regulation was delayed because of the pandemic, PAs continued to be introduced into the workforce to meet the growing demand for services. Clarke (2024) comments that '*living with uncertainty has been exhausting and demoralising for people working in*

healthcare, including PAs…Doctors are understandably becoming more unsettled by a lack of clarity, while a growing number of PAs say they face hostility at work'.

Task-shift

The NHS is in the midst of a chronic workforce crisis resulting in a cycle of mounting pressures, declining staff wellbeing and poor retention (BMA, 2024a). The Kings Fund estimates that 111,000 NHS posts are currently unfilled and that although the NHS workforce has been growing, demand for services is growing faster than recruitment and retention strategies can manage (Mallorie, 2024). According to World Health Organization (2008) 'task-shift' refers to the re-distribution of specific tasks from highly qualified health workers, to health workers who have fewer qualifications in order to make more efficient use of the available human resources for health. In the UK, this includes developing and integrating PA, ANP and ACP roles alongside, and in collaboration with, medical colleagues (Mann et al, 2023; Timmons et al, 2023, Wang et al, 2022). There has been much discussion and debate regarding the advantages and disadvantages of non-medical healthcare professionals assuming additional roles traditionally associated with doctors (Mann et al, 2023; Fothergill et al, 2022; Evans et al, 2021; Torrens et al, 2020; Nadaf, 2018). Some doctors have welcomed the redistribution of responsibility and workload at a time of increasing pressure on NHS finances and medical workload (De Vrijer, 2023; Heatly, 2023; Spence, 2019; Mann, 2018). Others have expressed concern regarding the implications for medical training opportunities, professional delineation, standards of practice and cost benefit (Mafi, 2024; Oliver, 2023b; Martinez-Gonzalez et al, 2015). Other healthcare professionals, as well as doctors, have expressed concern that encouraging nurses/allied health professionals to adopt roles that move them outside of their established sphere of expertise, is not always the answer to healthcare staffing challenges (Leary and MacLaine, 2019; Shields and Watson, 2007). Task-shift can lead to increased job satisfaction for some practitioners as they develop new skills and are presented with new opportunities for professional development (van Tuyl et al, 2021). However, strategic realignment of the health workforce,

particularly towards ‘top of scope’ roles (i.e. leveraging the full extent of a practitioner’s skills and education to meet patient needs) may also lead to stress and decreased job satisfaction (Nancarrow, 2024). It could be argued that this is less likely for PAs since, although their role is still an example of task shift (redistribution of a set of tasks from one professional group to those with a lower/different type of professional education), they are fulfilling the role they were intended for rather than upskilling or progressing their careers per se (Wang et al, 2022). However, other stressors may present particularly if, as has been mooted, PAs are encouraged to retrain in the future (BMA, 2024b).

One step forward, two steps back.

The introduction of PAs to the NHS in the 2000’s seems to have been met with cautious optimism by medical and non-medical colleagues (Paniagua and Stewart, 2013; Ostler et al, 2012; Ross et al, 2012; Farmer et al, 2011; Stewart and Catanzaro, 2005). Armitage and Shepherd (2005, 314), writing on behalf of the RCP, concluded that ‘*experience from the USA suggests that provided the training and assessment is robust, these individuals can, and will, provide a very valuable addition to our health service. This College welcomes them*.’ Following the DH and HEE’s ambition to grow the PA role in the UK, the Faculty of Physician Associates (FPA) was established by the RCP in 2015 - the first nonphysician faculty in the RCP’s 500-year history (Aiello and Roberts, 2017). However, recent policy and professional issues have galvanised concerns amongst doctors regarding the PA role and its consequences for training opportunities, professional status, salary adjustment and quality of patient care (Bagenal, 2024; Oliver, 2024). This has resulted in a fundamental change of position and in October 2023, the National Association of Sessional GPs issued clarification regarding ‘red lines’ for the scope of PAs practising in primary care. In March 2024, the Academy of Royal Medical Colleges (ARMC) published practical and high-level principles that doctors and healthcare teams should use to determine whether and how to integrate PAs into existing teams. Finally, in October 2024, the BMA’s General Practitioners Committee for the UK (GPC UK) voted in favour of ending all recruitment and

phasing out the PA role in GP altogether (BMA, 2024b). The chair of GPC UK, said '*It's no secret that we desperately need more staff in general practice, but we need be sure that staff who see patients are suitably trained and competent to see them unsupervised…We'd like to see PAs being given opportunities to retrain and take up other roles in the NHS*' (BMA, 2024b). It is unclear what type of 'retraining' will be available to PAs or what 'other roles in the NHS' will be suitable or available given that they are educated using a medical model (DHSC, 2024; RCP-FPA, 2023).

One of the objections to the expansion of the PA role is that they cannot prescribe medications or request ionising radiation procedures (Ferreira, 2024; McKee and Brayne, 2024; Oliver, 2023a). However, this was not conceivable before professional regulation (delayed as a result of the pandemic) took place in December 2024. The government of Rishi Sunak (2022-2024) anticipated that regulation with the GMC would pave the way for broadening PAs scope of practice, '*for example requesting ionising radiation where local governance allows and, in the future, the possibility of being able to prescribe*' (DHSC, 2024). Howie et al (2023, 44) published a comparison of the scope of practice of PAs with that of healthcare professions with prescribing responsibility from point of registration. They concluded that following regulation with the GMC, PAs 'have a scope of practice consistent with a need for a mechanism to prescribe, supply or administer prescription only medication'. Unsurprisingly, the establishment of the independent review has pushed back any decision regarding prescribing and/or ionising radiation (medical exposure) regulations training until after it reports. The Royal College of Radiologists (2025) recently posted the following statement: '*With the Leng review currently determining the contribution of PAs and AAs to multidisciplinary healthcare teams, it remains unclear whether this group of professionals will be supported to act as referrers within the NHS*'. It is ironic that at the very point PAs thought they had crossed the finishing line with professional regulation by the GMC, they find that it has moved once again as they await the recommendations of the independent review later this year.

Educational pathways and scope of practice for ANPs and ACPs

ANPs were first introduced to the NHS in the 1980s in response to a shortage of junior doctors (Wang et al, 2022; Alotaibi and Al Anizi, 2019; Leary and MacLaine, 2019). The ACP title is more recent and provides advanced practice education for healthcare professionals from a range of backgrounds including paramedic, occupational therapy, pharmacy, physiotherapy, midwifery and nursing (Mann et al, 2023; Fothergill et al, 2022). Both ANPs and ACPs are expected to be registered with an appropriate UK professional regulatory body, complete a master's level programme at an accredited Higher Education Institute (HEI), and practice within the four pillars of advanced practice (Health Education England, 2020, 2017; Royal College of Nursing, 2018). However, not all advanced level practitioners in the UK hold a master's level qualification. Practitioners in England can apply for recognition via an accredited programme or through completion of an ePortfolio (supported) route using the Centre for Advancing Practice Portal web-based tool (NHS England, 2025). Even so, ANP or ACP qualifications cannot be registered with a professional body and have yet to be made legally protected titles (Mann et al, 2023; Hill and Mitchell, 2021). In March 2024, the Nursing and Midwifery Council (NMC) approved recommendations to 'develop an approach to the additional regulation of advanced practice' and the inclusion of advanced level practice requirements in the wider reviews of revalidation and the Code scheduled for 2025/26 (NMC, 2024). However, it is not clear how other healthcare professions/professionals will achieve standardisation of status. It is also worth noting that the RCN (2018) stipulates that advanced practice status must include an independent prescribing qualification not currently accessible to all professional groups. Consequently, there is still considerable variation in role titles, scope of practice, job descriptions and educational backgrounds of ANPs and ACPs across the UK, not least because advanced clinical practice is undertaken in a wide range of clinical contexts, with high levels of variability and ambiguity in understanding and application (Mann et al, 2023; Timmons et al 2023; Fothergill et al 2022; Evans et al, 2021).

ANPs and ACPs have mostly been welcomed as advanced practitioners, whereas PAs have been less understood and often received a mixed reception from colleagues, which has sometimes

undermined their professional identity (Warner, 2024; Mann et al, 2023; Wang et al, 2022; Glendinnning and Walker, 2019). Part of the reason for this is that nurses, paramedics, pharmacists etc. have professional regulation provenance which provides an acknowledged 'starting point' when they begin to develop additional skills and roles. Oliver (2023a) writes: '*doctors understand that nurses, allied health professionals, and pharmacists all have a distinct skill set and qualifications that they, as doctors, lack. But even when committed to full multidisciplinary working they may struggle to understand what skills or knowledge PAs have that they lack*.' Warner (2024) suggests that '*experienced nurses or paramedics who are transitioning into a new role, are likely to have well developed clinical acumen across a broad bandwidth'*. This might be true but Mann et al (2023) found that there were high levels of variability and ambiguity of understanding and deployment of the ACP role in England. Lawler et al (2021) also reported that ACPs identified restrictions in their role as a result of a perceived lack of understanding and awareness from colleagues, and that they had to spend time explaining their role to patients, colleagues and managers. Further clarity and structure regarding advanced clinical practice are necessary for both the individuals practising at this level, their employers and the general public (Fothergill et al 2022; Lawler et al, 2020).

Conclusion

The NHS is in the midst of a chronic workforce crisis resulting in a cycle of mounting pressures, declining staff wellbeing and poor retention (BMA, 2024a). This situation is not unique to the NHS and many countries have sought to develop more cost-effective and sustainable models of healthcare by educating and employing healthcare personnel with generalist medical skills (van Tuyl et al, 2021; WHO, 2016). Research from the US, UK, and elsewhere indicates that PAs, ANPs and ACPs can all deliver cost-effective care and make a positive contribution to workforce development and patient outcomes (Fajarini et al, 2025; Mann et al, 2023; Wang et al, 2022; van den Brink, 2021; Abraham et al, 2019). However, whereas ANPs and ACPs have generally been accepted as advanced practitioners, PAs have been less understood and received a mixed reception from colleagues

(Warner, 2024; Mann et al, 2023; Wang et al, 2022). The last twelve months in particular has seen considerable, and sometimes hostile, pushback against the PA role, resulting in a moratorium on recruitment in General Practice and the establishment of an independent review into the role (BMA, 2024b; Dickson, 2024; RCP, 2024). Leary and MacLaine (2019) observed that becoming a substitute workforce, or otherwise entering the jurisdiction of another group, can be risky since it can lead to issues regarding power and control of knowledge. This comment was made in the context of advanced nursing practice and it is important to reflect that ANPs and ACPs are also on a journey. There is broad consensus that they require standardisation of job titles and descriptions, standardisation of educational pathways, ongoing mentorship and clinical supervision, and improved governance and regulation (Evans et al, 2023; Mann et al, 2023; Timmons et al, 2023; Fothergill et al, 2022; Leary and MacLaine, 2019). Lack of standardisation and regulation of these roles is not only a workforce issue but also one of patient safety, since organisations trying to make efficiency savings are often reluctant to tackle these issues (Leary and MacLaine, 2019).

Professional regulation of PAs by the GMC took place in December 2024. The purpose of regulation is to set standards for education and training, to hold the register of professionals who are eligible to practise, to set the professional standards that registrants need to follow, and to ensure patient and public safety (DHSC, 2024). This is the starting point for the next phase of development for PAs in the UK and is very much a live issue. The recommendations from the independent review are intended to draw a line under the 'fractious debate over physician associates in the NHS' (Oliver, 2023) and pave the way for continued integration of PAs into the NHS workforce alongside other healthcare professionals. PAs deserve support, recognition and interprofessional solidarity at this pivotal moment in their professional evolution in the UK. Co-founder of the College of Paramedics, Stephen Dolphin, offered this message in October 2024: '*With self-belief, persistence and, above all, skill, ambulance staff have risen from stretcher-bearers to establish a profession in their own right, regulated by the Health and Care Professions Council. I would like to say to physician associates that as we have done it, so can you*.'

Reference list

Abraham CM. Norful AA. Stone PW. Poghosyan L. Cost-effectiveness of advanced practice nurses compared to physician-led care for chronic diseases: a systematic review. *Nurs Econ*. 2019; 37(6):293-305. https://tinyurl.com/3zvu4vxr (accessed 04 March 2025)

Academy of Medical Royal Colleges, High level principles concerning physician associates (PAs): Academy consensus statement. 2024. https://tinyurl.com/yn43muzu (accessed 04 March 2025)

Aiello M. Roberts KA. Development of the United Kingdom physician associate profession. *JAAPA*. 2017; 30(4):1-8. https://tinyurl.com/35dnxy95 (accessed 04 March 2025)

Alotaibi T. Al Anizi A. Literature review on comparisons of advanced clinical nurse practitioner role in Saudi Arabia and United Kingdom, *J Radiol Nurs*. 2019; 38(4):264-71. https://tinyurl.com/yusywzbb (accessed 04 March 2025)

Bagenal J. Physician associates in the UK and the role of the doctor. *The Lancet*. 2024; 404(10448):102-4. https://tinyurl.com/y8t2nkmh (accessed 04 March 2025)

British Medical Association. NHS medical staffing data analysis (last updated 26/10/2024). 2024a. https://tinyurl.com/htezbnc9 (accessed 04 March 2025)

British Medical Association. GPs vote in favour of phasing out physician associate role in general practice, Press release, Friday 18 October 2024b. https://tinyurl.com/4y4kj9m7 (accessed 04 March 2025)

British Medical Association, Physician Associates in the UK. 2017. https://tinyurl.com/ycx9834m (accessed 04 March 2025)

Chakraborty A. The nursing profession's coming of age: My experience of nurse practitioners. *BMJ*. 2006; 332(7532):51. https://tinyurl.com/4sh3u4tf (accessed 04 March 2025)

Coombes R. Dr Nurse will see you now. *BMJ*. 2008; 337:660-62. https://tinyurl.com/54byxknp (accessed 04 March 2025)

Clarke S. There is a role for physician associates in the NHS. *BMJ*. 2024; 384:q618. https://tinyurl.com/yc4hnst7 (accessed 04 March 2025)

Dehn R. Everett C. Hooker R. (2017) The medical model shifts. *JAAPA*. 2017; 30(5):33-42. https://tinyurl.com/mtjs2n3h (accessed 04 March 2025)

Department of Health. The competence and curriculum framework for the physician assistant. 2006. https://tinyurl.com/mr4c4kyr (accessed 04 March 2025)

Department of Health and Social Care. Consultation outcome regulating anaesthesia associates and physician associates (last updated 16/10/2024). 2024. https://tinyurl.com/4u63xzr6 (accessed 04 March 2025)

De Vrijer J. Re: Physician associates in the NHS. *BMJ*. 2023; 382:p1926. https://tinyurl.com/4h6pmxbr (accessed 04 March 2025)

Dickson J. Letter sent by the Chair of the Academy of Medical Royal Colleges to Rt. Hon Wes Streeting MP, Secretary of State for Health and Social Care, and Amanda Pritchard, Chief Executive, NHS England, re: physician associates and anaesthesia associates, 30th September 2024. https://tinyurl.com/yhn5c623 (accessed 04 March 2025)

Dolphin S. Letter: Physician associates (02/10/2024). *The Times*. 2024. https://tinyurl.com/yc3pxk45 (accessed 04 March 2025)

Duncan S. The nursing profession's coming of age: Contribution of ‘maxi’ nurses is exaggerated. *BMJ*. 2006; 332(7532):51. https://tinyurl.com/5d8w7448 (accessed 04 March 2025)

Evans C. Poku B. Pearce R. et al Characterising the outcomes, impacts and implementation challenges of advanced clinical practice roles in the UK: a scoping review. *BMJ*. 2021; 11:e048171. https://tinyurl.com/2e2f62rv (accessed 04 March 2025)

Fajarini M. Setiawan A. Sung C-M. Chen R. Liu D. Lee C-K. Niu S-F. Chou K-R. effects of advanced practice nurses on health-care costs, quality of care, and patient well-being: A meta-analysis of randomized controlled trials, *Int J Nurs Stud.* 2025; 162:104953. https://tinyurl.com/yc3pxk45 (accessed 04 March 2025)

Farmer J. Currie M. Hyman J. West C. Arnott N. Evaluation of physician assistants in National Health Service Scotland. *Scott Med J*. 2011; 56(3):130-4. https://tinyurl.com/ycs3wnsn (accessed 04 March 2025)

Ferreira T. The role of the physician associate in the United Kingdom. *Future Healthc J*. 2024; 11(2):100132. https://tinyurl.com/m93pbyxw (accessed 04 March 2025)

Fothergill LJ. Al-Oraibi A. Houdmont J. Conway J. Evans C. Timmon, S. Pearce R. Blake H. Nationwide evaluation of the advanced clinical practitioner role in England: a cross-sectional survey. *BMJ*. 2022; 12(1):e055475. https://tinyurl.com/4cwvhsz7 (accessed 04 March 2025)

General Medical Council. PA and AA generic and shared learning outcomes. 2022a. https://tinyurl.com/4f9pu4e (accessed 04 March 2025)

General Medical Council, Physician associate registration assessment (PARA) content map, 2022b. https://tinyurl.com/3fxpsck8 (accessed 04 March 2025)

General Medical Council, Proposed rules, standards and guidance: report on the public consultation, 5th December 2024. 2024a. https://tinyurl.com/yckyvtv8 (accessed 04 March 2025)

General Medical Council. PA and AA regulation: information for patients. 2024b. https://tinyurl.com/y6wfrc5r (accessed 04 March 2025)

Glendinnning A. Walker D. Advanced nurse practitioners; what do the team think? *Future Healthc J*. 2019; 6(2):s1. https://tinyurl.com/2rbk9kzw (accessed 04 March 2025)

Hansard (2024) Physician and Anaesthetist Associate Roles: Review Volume 841: debated on Thursday 5 December 2024. https://tinyurl.com/2xx35phz (accessed 04 March 2025)

Health Education England, NHS England and Skills for Health. Core capabilities framework for advanced clinical practice (nurses) working in general practice/primary care in England. 2020. https://tinyurl.com/tt7wdswe (accessed 04 March 2025)

Health Education England. Multi-professional framework for advanced clinical practice in England. 2017. https://tinyurl.com/ya7s6vjt (accessed 04 March 2025)

Heatly, C. Re: Physician associates in the NHS. *BMJ*. 2023; 382:p1926. https://tinyurl.com/mv9cs8a6 (accessed 04 March 2025)

Hill B. Mitchell A. Introducing advanced level practice and the scope of developing new roles. *Br J Nurs*. 2021; 30(1): 28-31. https://tinyurl.com/yrsfnm9y (accessed 04 March 2025)

Howie N. Howie F. Seville P. Comparison of the scope of practice of physician associates with that of healthcare professions with prescribing responsibility from point of registration. *Future Healthc J*. 10(1):38-45. https://tinyurl.com/mr3ab77p (accessed 04 March 2025)

Lancet. The Lucy Letby case: lessons for health systems. *The Lancet*. 2023; 402(10404):747. https://tinyurl.com/bddtuvv7 (accessed 04 March 2025)

Lancet. Complicit silence in medical malpractice. *The Lancet*. 2020; 395(10223):467. https://tinyurl.com/mw24rdcu (accessed 04 March 2025)

Lawler J. Maxwell E. Radford M. Leary A. Advanced clinical practitioners' experience of establishing a workplace jurisdiction. *International Journal of Healthcare Management*. 2021; 15(3):246-254. https://tinyurl.com/ycxzxxah (accessed 04 March 2025)

Lawler J. Maclaine, K. Leary A. Workforce experience of the implementation of an advanced clinical practice framework in England: A mixed methods evaluation. *Human Resources for Health*. 2020; 18, 96. https://tinyurl.com/y32rxvjh (accessed 04 March 2025)

Leary A. MacLaine K. The evolution of advanced nursing practice: past, present and future. *Nurs Times*, 2019; 115(10):18-19. https://tinyurl.com/3c5hp58v (accessed 04 March 2025)

Mafi A. Medical associates: the introduction of PAs, ANPs, and ACPs is creating new challenges for doctors on rotational training. *BMJ*. 2024; 384:q657. https://tinyurl.com/34n26ysr (accessed 04 March 2025)

Mahase E. Physician associates: NHS leader accuses BMA of getting discussion wrong. *BMJ*. 2024; 384:q707. https://tinyurl.com/yccmtwcb (accessed 04 March 2025)

Mallorie, S. NHS workforce in a nutshell (last updated 10/04/2024). *The Kings Fund*. 2024. https://tinyurl.com/bdtkk9dz (accessed 04 March 2025)

Mann, C. Doctors need to give up professional protectionism. *BMJ*, 2018; 361: k1757. https://tinyurl.com/4e8jbhhu

Mann C. Timmons S. Evans C. Pearce R. Overton C. Hinsliff-Smith K. Conway J. Exploring the role of advanced clinical practitioners (ACPs) and their contribution to health services in England: A qualitative exploratory study. *Nurse Educ Pract*. 2023; 67:103546. https://tinyurl.com/bdzafvrp (accessed 04 March 2025)

Martinez-Gonzalez NA. Rosemann T. Djalali S. Huber-Geismann F. Tandjung R. Task-shifting from physicians to nurses in primary care and its impact on resource utilization: a systematic review and meta-analysis of randomized controlled trials. *Med Care Res Rev*. 2015; 72(4):395-418. https://tinyurl.com/2y4drpm9 (accessed 04 March 2025)

McKee M. Brayne C. (2024) Physician associates in the UK: some fundamental questions that need answers now. *BMJ*, 2024; 384:q699. https://tinyurl.com/5yw6dea6 (accessed 04 March 2025)

McCartney M. Why the fuss about physician associates? *BMJ*. 2024; 385:q862. https://tinyurl.com/2p97b4k4 (accessed 04 March 2025)

Moran E. (2024) Letter: Physician associates (02/10/2024). *The Times*. 2024. https://tinyurl.com/yc3pxk45 (accessed 04 March 2025)

Nadaf C. Perspectives: Reflections on a debate: When does advanced clinical practice stop being nursing? *J Res Nurs*. 2018; 23(1):91-97. https://tinyurl.com/534fb2n3 (accessed 04 March 2025)

Nancarrow, S. (2024) Supporting health care professionals working at top of scope to thrive not just to survive (last updated 18/03/2024). 2024. https://tinyurl.com/ymybz2pa (accessed 04 March 2025)

National Association of Sessional GPs. Physician associates must work within 'red lines': RCGP. 2023. https://tinyurl.com/bdzh4sr2 (accessed 04 March 2025)

NHS England, Centre for Advancing Practice Portal (online), 2025. https://tinyurl.com/ax9whwb2 (accessed 04 March 2025)

NHS England. Workforce, training and education (advanced practice): accredited programmes (last updated 24/09/2024). 2024. https://tinyurl.com/58b4nsa4 (accessed 04 March 2025)

Nursing and Midwifery Council, Advanced practice: our recommendations for additional regulation (last updated: 20/03/2024), 2024. https://tinyurl.com/s34uadcy (accessed 04 March 2025)

Oliver D. The fractious debate over physician associates in the NHS. *BMJ*. 2023a; 383:2449. https://tinyurl.com/bddst5yp (accessed 04 March 2025)

Oliver D. Why shouldn't doctors defend our distinct professional identity? *BMJ*. 2023b; 382:1630. https://tinyurl.com/bdfj2mex (accessed 04 March 2025)

Oliver D. Senior medical leaders have mishandled doctors' concerns over physician and anaesthesia associates. *BMJ*. 2024; 384:q665. https://tinyurl.com/ymy652h9 (accessed 04 March 2025)

O'Reilly G. Cautious backing for rise in number of physician associates. *BBC News*. 5 March 2024. https://tinyurl.com/5y9bddza (accessed 04 March 2025)

Ostler J. Vassilas C Parle J. Physician assistants: friends or foes to doctors? *BMJ*. 2012; 345:e4599. https://tinyurl.com/mr25vrdx (accessed 04 March 2025).

Paniagua H. Stewart A. Medical care practitioners: introducing a new profession into the UK. *Br J Nurs*. 2013; 14(7):405-8. https://tinyurl.com/3jy5ccsp (accessed 04 March 2025)

Rosen R. Palmer W. Physician associates in the NHS: Strengthening safety and trust in a changing clinical workforce. *BJN*. 2023; 382:1926. https://tinyurl.com/568rhd5d (accessed 04 March 2025)

Ross N. Parle J. Begg P. Kuhns D. The case for the physician assistant. *Clin Med (Lond)*. 2012; 12(3):200-6. https://tinyurl.com/4kksjhm2 (accessed 04 March 2025)

Royal College of Nursing. RCN standards for advanced level nursing practice. 2018. https://tinyurl.com/4k7btpm5 (accessed 04 March 2025)

Royal College of Physicians. Physician associate national examination - information for candidates 2025. https://tinyurl.com/2h49zn5d (accessed 04 March 2025)

Royal College of Physicians. RCP welcomes House of Lords short debate on PAs. 2024. https://tinyurl.com/yvdd84u3 (accessed 04 March 2025)

Royal College of Physicians. Faculty of Physician Associates - Frequently asked question - What experience do physician associates have before training? 2023. https://tinyurl.com/3vkx4fwm (accessed 04 March 2025)

Royal College of Physicians - Faculty of Physician Associates. Physician Associate Curriculum. 2023. https://tinyurl.com/bdh2rpya (accessed 04 March 2025)

Royal College of Radiologists. Physician and Anaesthesia Associate professionals requesting ionising radiation imaging investigations, 29 January 2025. https://tinyurl.com/3hyzusz8 (accessed 04 March 2025)

Shields L. Watson R. The demise of nursing in the United Kingdom: a warning for medicine. *J R Soc Med*. 2007;100(2):70-4. https://tinyurl.com/bdzj58rd (accessed 04 March 2025)

Spence D. Bad Medicine: Advanced practitioners versus doctors. *Br J Gen Pract*. 2019; 69(681):199. https://tinyurl.com/yc4chemt (accessed 04 March 2025)

Stewart A. Catanzaro R. Can physician assistants be effective in the UK? *Clinical Medicine*. 2005; 5(4): 344-348. https://tinyurl.com/mz8247eu (accessed 04 March 2025)

Timmons S. Mann C. Evans C. Pearce R. Overton C. and Hinsliff-Smith, K. The advanced clinical practitioner (ACP) in UK healthcare: Dichotomies in a new 'multi-professional' profession. *Qual Health Res*. 2023; 3:100211. https://tinyurl.com/28rpyjfa (accessed 04 March 2025)

Torrens, C. Campbell P. Hoskins G. Strachan H. Wells M. Cunningham M. Bottone H. Polson R. Maxwell M. Barriers and facilitators to the implementation of the advanced nurse practitioner role in primary care settings: A scoping review, *Int J Nurs Stud*, 2020; 104:103443. https://tinyurl.com/3xct32xk (accessed 04 March 2025)

Triggle, N. (2024) Streeting orders review to end 'toxic' NHS staff row. *BBC News*, 20 November 2024. https://tinyurl.com/bdz28swb (accessed 04 March 2025)

van den Brink GTWJ. Hooker RS. Van Vught AJ. Vermeulen H. Laurant MGH. The cost-effectiveness of physician assistants/associates: A systematic review of international evidence. *PLoS One*. 2021; 16(11):e0259183. https://tinyurl.com/2hktesak (accessed 04 March 2025)

van Tuyl L. Vrijhoef B. Laurant M. de Bont A. Batenburg R. Broadening the scope of task shifting in the organisation of healthcare. *Int J Care Coord*. 2021; 24(3-4):91-95. https://tinyurl.com/mrdm797x (accessed 04 March 2025)

Wang H. English M. Chakma S. Namedre M. Hill E. Nagraj S. The roles of physician associates and advanced nurse practitioners in the National Health Service in the UK: a scoping review and narrative synthesis. *Hum Resour Health*. 2022; 20(1):69. https://tinyurl.com/yk62dbwz (accessed 04 March 2025)

Warner MM. Concerns over physician associates are missing the wood for the trees. *BMJ*. 2024; 385: q869. https://tinyurl.com/bdep8fy8 (accessed 04 March 2025)

World Health Organization (2016) Global strategy on human resources for health: workforce 2030. 2016. https://tinyurl.com/2cmr3seh (accessed 04 March 2025)

Young G. The nursing profession's coming of age. *BMJ*. 2005; 331:1415. https://tinyurl.com/3tm4p35c (accessed 04 March 2025)

Summary of amendments March 2025

Reviewer #2:
Thank you for asking me to review the re submission and thank you for making the amendments and addressing the issues discussed. I think this piece will generate discussion and debate

1. I would avoid naming people in the discussion i.e. Gillian Leng and Wes Streeting. It should be noted he is Secretary of State for Health and Social Care.

I have removed reference to Wes Streeting and updated his title to Secretary of State for Health and Social Care.

I have removed most of the references to 'Professor Gillian Leng' or the 'Leng review' (8/10) as advised. They have been replaced with 'president of the Royal Society of Medicine' and 'independent review' respectively. However, I have left two in place. The second is part of a quote from The Royal College of Radiologists (2025) which refers to 'the Leng review'. The first is a namecheck to Professor Leng (as president of the Royal Society of Medicine) in the introduction since, without this, the reference to 'the Leng review' doesn't make sense/is confusing. Since the independent report into PAs and AAs is generally known as 'the Leng review or report' I think this is reasonable and helps to signpost readers to this (forthcoming) report.

2. One of the subheadings is question: What are the concerns? Is a question needed? Perhaps: Concerning regarding the role of PA or the like.

I have replaced the subheading with the simpler: 'Concerns'. Reviewer 2's suggested heading: 'Concerning regarding the role of PA' seems ungrammatical. I have also replaced the subheading 'What are PAs?' (also a question) with the simpler 'Physician Associates (PAs)'

3. Might I suggest it is also made clear to the reader that the issue is 'live' and is ongoing

There are two references to the ongoing nature of this issue (in the introduction and conclusion) but I have added reference to the 'live' nature of the debate to the latter to strengthen:

'It is also useful to raise awareness of the ongoing MAPs debate amongst nursing colleagues…'

'This is the starting point for the next phase of development for PAs in the UK and is very much a live issue.'

4. Concerning this: However, not all advanced level practitioners in the UK hold a master's level qualification particularly if they qualified some time ago. Is this about when they registered? Careful not to conflate qualification with registration

I have removed the following section to avoid potential confusion: '~~particularly if they qualified some time ago~~'.