

EDUCATION AND TRAINING

Physician associate prescribing: perspectives, practices and pathways

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ABSTRACT

With the introduction of statutory regulation of physician associates (PAs) through the General Medical Council (GMC) expected in 2024, we anticipate a consultation on whether PAs will be given prescribing rights and how this will happen. In anticipation of this consultation, we surveyed the opinions of PAs and healthcare professionals (HCPs) who work with them regarding prescribing rights for PAs. We had a combined response of more than 500 and the survey results show that the vast majority of respondents across the two groups are in favour of prescribing rights for PAs. While both HCPs and PAs overall feel that PAs should have prescribing rights, PAs prefer generalised rights while HCPs recommend specialist rights only. To ensure safe prescribing, we advocate for a safety assessment followed by a period of supervision in their specialty before prescribing rights are given: our data show that confidence, knowledge and safety increases with length of time in specialty. Prescribing rights for PAs will help them become more independent and valuable assets to the healthcare team, increasing efficiency and improving patient care.

KEYWORDS: physician associate, PA, prescribing

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Background

There are an estimated 3,250 physician associates (PAs) in the UK, and that number is growing.¹ Currently, PAs cannot legally prescribe in the UK. A lack of prescribing rights is often cited as a hindrance to employment in primary and secondary care and a limit to PAs' scope of practice.^{2–4}

With the introduction of statutory regulation through the General Medical Council (GMC), expected within the next few years, we anticipate consultation on whether PAs should be given

prescribing rights and how this should happen: automatically upon passing the PA National Exam (PANE), after additional standardised assessment or after external independent prescriber training, all with a period of supervision.⁵

As part of this discussion, we must consider the opinions of practising PAs and healthcare professionals who work closely with PAs (HCPs), whose day-to-day work and careers will be most affected by legislation change.

There is no published data in the UK concerning PAs' views on prescribing rights or how PAs currently manage medications without prescribing rights in their daily work. The aim of this paper is to explore the opinions of PAs and HCPs across the UK. We hope that this body of work can contribute to and inform the national decision on the best approach for PA prescribing rights.

Methods

We designed one qualitative questionnaire for PAs and one for HCPs. Both surveys were anonymous and conducted via a web-based survey administration software. The surveys were shared via email, social media (LinkedIn and Twitter) and PA-specific distribution lists including PA Schools Council, organisations who employ and recruit PAs, and the London Affiliation of Physician Associates (LAPA).

The HCP questionnaire was open to any healthcare professionals who work with PAs in their practice. It was distributed through similar social media channels and via email to clinical supervisors who take PA students.

Both questionnaires were completed voluntarily, and no incentive was provided for questionnaire completion. Users were able to share the links of the questionnaire with colleagues.

The PA questionnaire included 11 multiple-choice questions, three open-ended questions and three questions on a Likert scale. A comparable HCP questionnaire included eight multiple-choice questions, three open-ended questions and two questions on a Likert scale. The surveys were active for 5 weeks.

PA survey

The aim of this questionnaire was to gauge PAs' opinions about prescribing rights and to better understand how PAs navigate their day-to-day work without prescribing rights. The questions covered four themes: employment demographics, opinions on prescribing rights, pathways to prescribing rights and how PAs are currently managing medications in their practice. We asked which university

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they attended, how long they had been practising, which specialty they work in and how long they had been working in their current specialty. We surveyed how PAs currently deal with medications: how often they conduct medication reviews and propose management plans, and how confident they are in managing patients on medications in their specialties. We also examined safety and medication choice issues: how often they make errors in proposing medications and how often their supervising physician changes their proposed medications. Finally, we asked if PAs feel they should have prescribing rights, which pathway they think is best to achieve prescribing rights and how this would change their day-to-day work. We also asked PAs if they think prescribing rights should be limited to their specialty.

HCP survey

Prescribing rights (and currently the lack thereof) affects not only PAs, but the professionals who work with them and supervise them. Prescribing rights for PAs must, therefore, be accepted within the wider healthcare profession and the aim of the second survey was to understand the opinions and experience of HCPs working with PAs.

The questions mirrored the survey for practising PAs with three themes. The first was to understand who was taking the survey and how they interact with PAs in their role: their job title and level, which specialty they work in, if they work with PAs, if they directly supervise PAs and how experienced the PAs they work with are. The second theme was surrounding prescribing rights: should PAs have prescribing rights and how should this happen. The final theme was safety: do they feel PAs could prescribe safely and whether they had encountered any medication errors proposed by PAs.

Results

Demographics of PAs

We had 337 responses to our PA survey, accounting for approximately 10% of PAs in the UK. We had responses from PAs who had graduated from 33 different institutions in the UK and three American universities. There are currently 37 PA schools in the UK and two of them have not yet graduated a cohort, so this is a wide representation.⁶ PA respondents started working in the UK as far back as 2006 and as recently as 2022. They were working in more than 38 different specialties with an approximately 50/50 split between primary care (159) and secondary care (172). Six respondents work in a mixed role of primary and secondary care; for analysis, we included them in primary care as this was their primary employment. Approximately 67% of respondents have been working in their current specialty for 2 years or less, while about 12% have been in their specialty for more than 5 years.

Demographics of other healthcare professionals

We had 169 responses to the HCP survey with a wide representation of role and specialty. Approximately 45% of the respondents were consultants or salaried GPs with responses from 18 other roles including nurses, paramedics and physiotherapists. While the majority of respondents (92%) worked with PAs clinically, less than about 20% were the named supervisor for a PA. The respondents came from more than 27 specialties. The HCP respondents worked with PAs with various levels of experience:

44 respondents worked with new PA graduates who were in the first year of their career and 44 worked with PAs with more than 5 years' experience.

Prescribing rights and pathways

Both surveys showed that an overwhelming majority of respondents were in favour of PA prescribing rights (Fig 1). Almost all of the PAs (97.6%) were in favour of PA prescribing rights, while only one respondent was not. The other respondents provided qualifiers to their answer of 'yes' (Table 1). Most HCPs (82%) were in favour of PA prescribing rights, while only 12 were not. The other

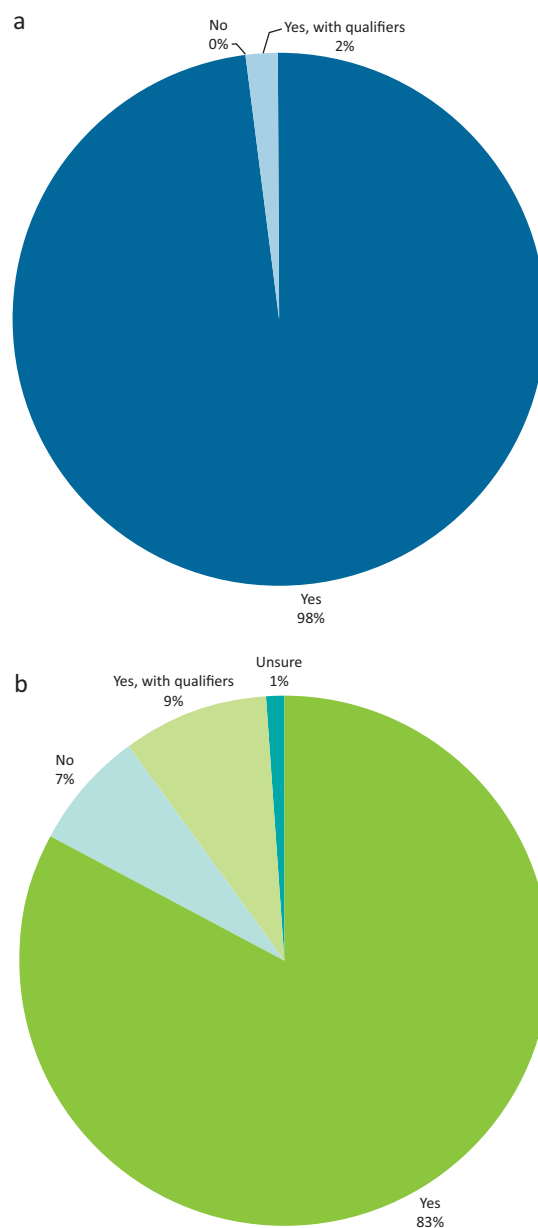


Fig 1. Results of survey question: 'Should physician associates have prescribing rights?' a) Physician associates survey. b) Healthcare professionals survey.

Table 1. Themes of qualifiers for physician associate prescribing rights

Physician associates	Healthcare professionals
Rights should not be mandated, and individual physician associates should be given a choice	With appropriate additional qualification
Not immediately upon certification	To a limited formulary

respondents were unsure or offered qualifiers to their answer of 'yes' (Table 1).

We also examined the scope of prescribing rights and what limitations (if any) on these rights should exist (Figs 2 and 3). Most PAs prefer general prescribing rights (93%) and very few (7%) would like to see PAs given prescribing rights limited to their specialty (for example, PAs in urology given prescribing rights only for drugs used in urology). HCPs are split more evenly between general prescribing rights (52%) and specialist prescribing rights for PAs (48%).

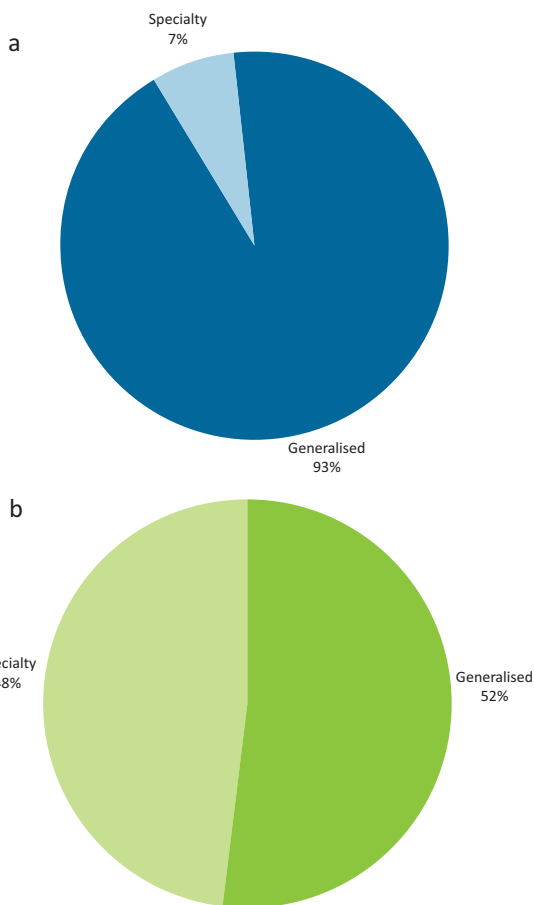


Fig 2. Results of survey question: 'Should physician associates have generalised or specialist prescribing rights?' a) Physician associates survey. b) Healthcare professionals survey.

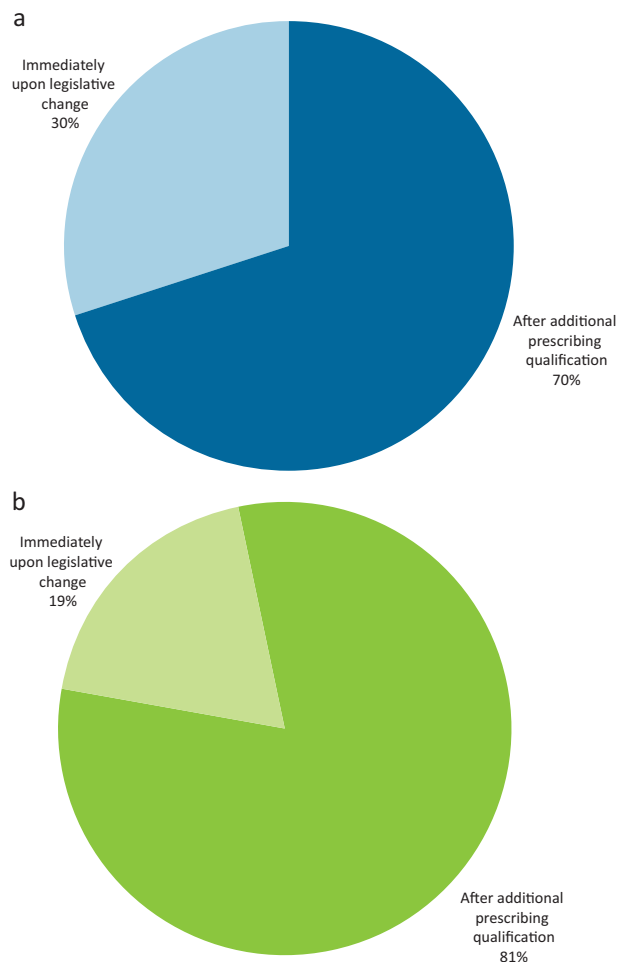


Fig 3. Results of survey regarding pathway to prescribing rights for physician associates. a) Physician associates survey. b) Healthcare professionals survey.

Respondents were asked which pathway they considered the best for currently practising PAs to be given prescribing rights and were given options and an open-ended text box. Most PAs thought that prescribing rights should be given after an additional prescribing qualification (70%), while fewer (30%) felt prescribing rights should be given immediately after legislative change. Likewise, about half of PAs (48%) thought that newly graduating PAs need a period of supervision and then an additional prescribing course prior to being given prescribing rights. Likewise, most HCPs (81%) thought that prescribing rights should be given only after an additional prescribing qualification. If their chosen pathway were enacted, most HCPs (88%) rated their confidence that PAs could prescribe safely as at least a 4 out of 5.

Current PA practice

A recent Faculty of Physician Associates (FPA) census showed that 70% of PAs report managing acute, emerging and chronic conditions in their day-to-day role.⁷ They do this by reviewing patients and proposing medication treatment plans to be

reviewed by their supervisor. With the move towards electronic prescribing, this often means a PA will see patients and request medication electronically. The medication is sent to an on-call doctor who reviews the request, approves or changes it after discussion with the PA, and then sends it to the pharmacy.

When rating their knowledge on common and important medications in their specialty, most PAs (64%) rated their knowledge as at least a 4 out of 5. Likewise, when rating their confidence in recommending common and important medications as part of their management plan for patients, most (81%) rated their confidence as at least a 4 out of 5. The majority of PAs were completing medication reviews for their patients at least weekly (70%) and initiating management plans for their patients that included medications at least weekly (95%). The number of drugs that PAs felt confident proposing varies greatly, with approximately a quarter of PAs being confident with each range of 0–10, 11–20, 21–30 and >30 medications; further analysis shows that the number of medications that PAs are confident using (their formulary size) increases with the length of time that a PA has been practising in their specialty (Table 2).

Safety of current PA practice

More than 80% of PAs chose 1 or 2 on a scale of 1–5 for how often their supervisors make changes to their proposed medication plans (Fig 4a) and 70% of PAs were not aware of any medication errors in drug proposals they have made (Fig 5a).

Many HCPs (41%) ‘rarely’ make changes to the plans that qualified PAs propose in terms of drug choice, route, dose etc (Fig 4b). In the previous 12 months, most HCPs (70%) were not aware of any errors in medications proposed by PAs they work with while very few (2%) were aware of more than a total of five errors in the last 12 months made by any PAs they work with (Fig 5b).

Open-ended themes

Qualitative responses from PAs suggest that prescribing rights would lead to a better patient experience and allow PAs to utilise

Table 2. The association between the length of time a physician associate is in their current specialty with safety factors (singular associate)

	Gamma value	p-value	Association level
PA confidence initiating medical management plans	0.446	<0.001	Strong
PA knowledge of common and important drugs in their specialty	0.486	<0.001	Strong
Frequency of changes made by their supervisor to their treatment plans	–0.312	<0.001	Strong
Formulary size	0.415	<0.001	Strong

PA = physician associate.

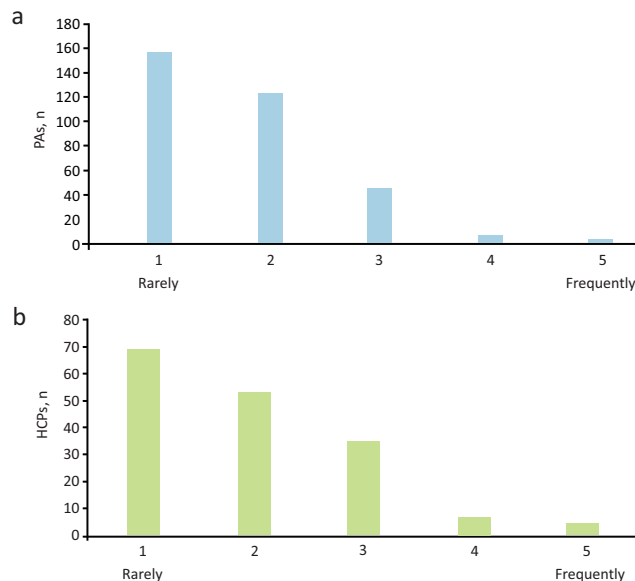


Fig 4. Results of survey regarding changes to proposed plans. a) Physician associates survey: ‘How often does your supervising physician make changes to the plans that you propose?’ b) Healthcare professionals survey: ‘How often do you make changes to the plans that qualified physician associates propose?’ HCPs = healthcare professionals who work closely with physician associates; PAs = physician associates.

their skills more fully, become a more valuable asset to the medical team and increase efficiency in the workplace. When PAs require prescriber authorisation for their proposed prescriptions, it often interrupts the pathway of care and prescribers sometimes need to sign prescriptions for patients who they have not seen. While PAs are in favour of prescribing rights, a common theme showed they would still seek discussion for more complex prescribing and for medications that they are unfamiliar with prior to proposing a prescription.

Corresponding qualitative responses in the HCP survey examined how their current practice and workload would change if PAs were given prescribing rights. Most respondents (83%) described an anticipated decrease in workload both in primary and secondary care. Other themes suggested that prescribing rights would increase the usefulness of PAs, promote the employment of more PAs and improve patient care. Another theme of note is that prescribers are, at times, signing prescriptions for patients they have not physically seen; for example, HCPs may be asked to discharge medications to patients that they have not seen on the ward. There was a general concern about PAs’ length of training and qualifications, implications for patient safety and the need for additional training.

Discussion

Benefits of prescribing rights

The overwhelming majority of PAs and HCPs were in favour of PA prescribing rights citing reasons such as increasing efficiencies in care for patients, furthering professional development and reducing workload for HCPs in the medical team. The FPA describes the PA role to include seeing a variety of undifferentiated patients (including those with long-term chronic conditions) who

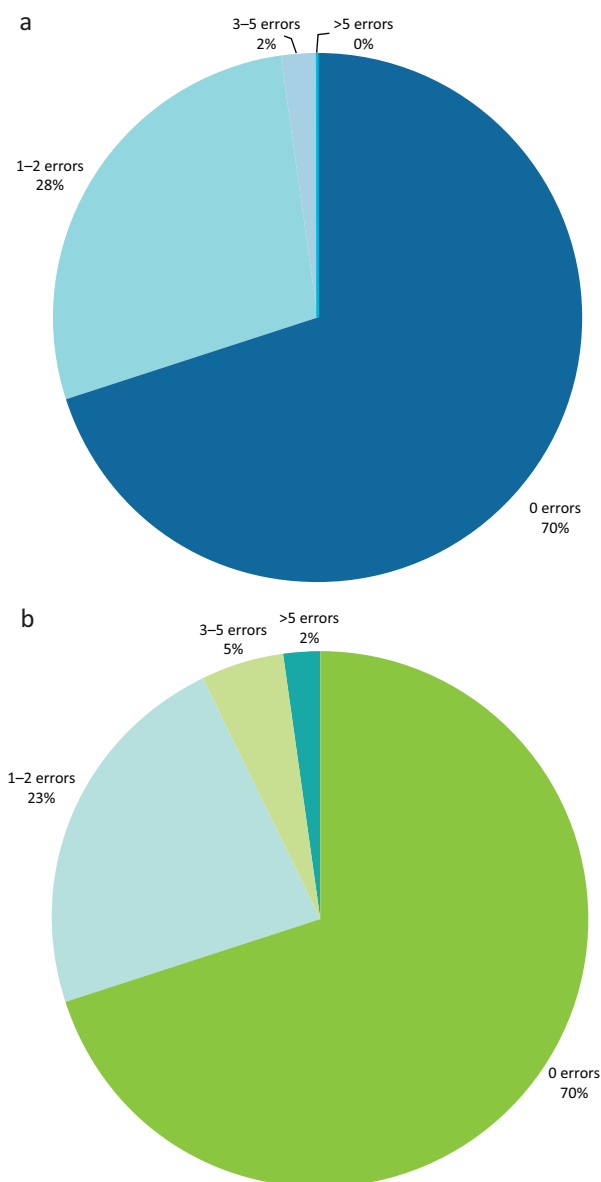


Fig 5. Results of survey regarding medication errors. a) Physician associates survey: 'How many medication errors have you made in the last year?' b) Healthcare professionals survey: 'How many medication errors are you aware of that physician associates have made in the last year?'

may have many comorbidities and be on multiple medications, formulating differential diagnoses, and developing and delivering appropriate treatment and management plans; these tasks are difficult without prescribing rights.⁷ PAs are trained in the medical model and work with a supervising physician.

Globally there is recognition of the need for PAs to prescribe. Prescribing rights are given to PAs in the USA, the Netherlands and Canada.⁸⁻¹⁰ The education of PAs and the scope of rights varies among different countries; however, studies show the positive impact of PAs in these workforces.¹¹⁻¹³

In the USA, generalised prescribing rights are given upon passing the Physician Assistant National Certifying Examination (PANCE). PAs are not automatically permitted to prescribe scheduled substances but may apply for a Drug Enforcement Administration

(DEA) licence to do so, depending on the state in which they practise.¹⁰

In Canada, PAs do not have independent authority to prescribe medications. They can, however, prescribe medications under the supervision and delegation of a registered physician. This delegation depends greatly on the PA-physician relationship.^{9,14}

In the Netherlands, the first accredited PA programme was started in 2003. There, it is a distinct training model from the UK and USA. It is referred to as a 'dual education model' where they train on-the-job having an identified physician directly responsible for their training. In 2012, a 5-year temporary pilot programme gave PAs the right to practise with high levels of autonomy, including prescribing rights. Over those 5 years, much evidence was obtained showing that PAs deliver safe, effective, affordable and high-quality care. After reviewing the evidence in 2018, PAs were given independent prescribing rights.¹⁵

Across the UK, there is recognition of the need for prescribing rights for other non-physician healthcare providers such as nurses, pharmacists and physiotherapists, collectively called non-medical providers (NMPs). In the UK, these healthcare providers can take a prescribing course and become independent prescribers. It is estimated that there are nearly 60,000 NMPs in the UK and overall evidence supports their effectiveness: NMPs increase the access and quality of care for patients.¹⁶

Patient safety

One of the main themes surrounding prescribing rights for PAs is ensuring PAs are 'prescriber-ready' and safe. Support for the current PA curriculum providing safe prescribing knowledge is demonstrated by the limited number of changes made by prescribers to the plans proposed by PAs and few medication errors.

Both PAs and HCPs report very few changes being made to PAs' proposed medication plans (Fig 4). Analysis shows that the changes made by supervisors become even less frequent as PA experience increases (Table 2). In terms of medication errors, 70% of both HCPs and PAs are unaware of medication errors made by PAs in the previous year and less than 30% report 1-2 errors (Fig 5). We did not specify details about the type of errors made, and one of the themes in the open-ended questions was that these errors were often minor, such as the duration of a medication. It is important to remember that medical errors are not uncommon, and their presence should not be grounds to deny prescribing rights. It is estimated that 237 million medication errors occur in the UK annually, most of which have little or no potential of patient harm.¹⁷

Most telling, in terms of safety, is the confidence other prescribers would have that PAs could be safe in prescribing. More than 95% of HCPs would be at least moderately confident that PAs could prescribe safely (Fig 6).

General or specialist rights

When considering prescribing rights for PAs, there has been discussion about PAs having rights only within their speciality (for example, PAs working in orthopaedics would only be able to prescribe medications commonly seen in the orthopaedic speciality). Interestingly, half of HCPs felt that PAs should be given specialist prescribing rights only, while only 5% of PAs prefer specialist prescribing rights.

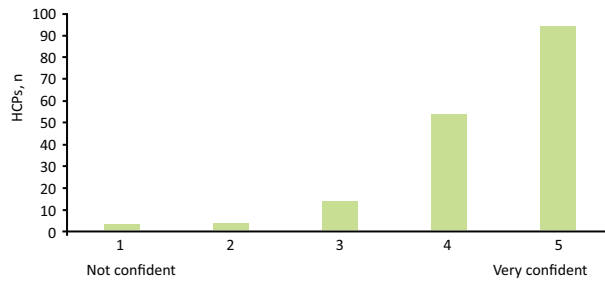


Fig 6. Results of healthcare professionals survey question: ‘Assuming the pathway you chose is adopted, how confident are you that physician associates could prescribe safely?’ HCPs = healthcare professionals who work closely with physician associates.

Unlike medical doctors, PAs do not specialise. PAs are trained as general medical professionals and often change speciality. Recent data show that PAs remain in their first jobs for a mean of 3 years, and the majority of PAs change specialties at least once throughout their career.¹⁸ The ability to change speciality and work in a variety of healthcare settings is often cited as one of the benefits of a career as a PA. This ability to easily change clinical speciality makes PAs unique and better suited for general prescribing rights.

Likewise, the logistical burden of determining which medications belong in which speciality is a huge hurdle to the specialist approach, adding complexity for workforce managers and supervisors as well as for PAs; for example, PAs who work on inpatient wards see patients with varied background health conditions and may have long-term medications that need to be prescribed while in hospital. Patients do not exist in specialist bubbles, and PAs need to be able to holistically care for their patients.

Most NMPs who take a prescribing course have generalised prescribing rights, however, they must work within their own competence and expertise.^{16,19}

Very few NMPs have specialist prescribing rights, when they do, it is in line with their scope of practice; for example, after taking a prescribing course, optometry independent prescribers can prescribe medications for ocular conditions only and community practitioner nurse prescribers (CPNPs) can prescribe from a limited formulary that includes 13 prescription medications.¹⁶ PAs see undifferentiated patients presenting with multiple comorbidities and need to be able to address the patient as a whole, not in a limited scope. As such, specialist prescribing rights are not suitable for the roles undertaken by PAs.

Pathways to prescribing

Both PAs and HCPs feel PAs should be given prescribing rights after an additional prescribing qualification. We have previously explored pathways to prescribing and have considered several options towards achieving prescribing rights.⁵

Other NMPs in the UK can undertake the independent/supplementary prescribing qualification, a 6-month course designed to prepare clinicians for safe prescribing in their field.^{16,19} However, this is designed for NMPs who are not trained to the medical model, and it may not meet the needs for PAs. For this reason and based on the data collected in the surveys, we recommend PAs take a different pathway than other NMPs for

prescribing rights: a standardised safety assessment directly after PA school followed by a defined period of supervision while practising in their speciality before prescribing autonomously.

With limited guidance nationally on the requirements of clinical pharmacology teaching within UK PA schools, we recognise that PA schools may teach clinical pharmacology in different ways and PAs graduating from different programmes will have a different base of knowledge. We have previously described our approach toward pharmacology curriculum design and have demonstrated there is significant variation in curriculum design and assessment in UK PA schools.²⁰ Likewise, in other countries (USA, Canada and the Netherlands), the guidance around how pharmacology is delivered and assessed is not specific. The USA addresses this issue by requiring PAs to pass the PANCE prior to prescribing rights.¹⁰ Canada also requires students to pass a national qualifying examination and then can only prescribe under the delegation of a supervising physician.⁹ Interestingly, the Netherlands does not require a national certifying examination and prescribing rights are given after graduating from an accredited PA school (this may be, in part, because all PA students in the Netherlands must have a bachelor’s degree in the medical field prior to starting PA school and work as a student PA while studying).⁸

We believe to best evaluate all students nationally, prescribing rights should be given after students graduate from PA school, pass the PANE and pass an additional standardised prescribing safety assessment.

A standardised safety assessment may mirror the Prescribing Safety Assessment (PSA) for medical students or the competency assessment of the prescribing course. A safety assessment would cover a variety of areas of prescribing including prescription review, patient education, drug monitoring and drug dose calculations. Like the PSA, it should include prescribing questions where students read a scenario and choose a medication including dose, route and frequency.

Like all starting practitioners, PAs will need a period of close supervision and appropriate induction before becoming autonomous prescribers, and we recommend that PAs and their supervising physicians work closely to develop a solid working relationship. Likewise, if PAs switch specialties, as many will over the course of their careers, they will require an additional period of close supervision and induction regarding prescribing within that speciality.

Our survey results show the knowledge and confidence of PAs in initiating and monitoring medications has a strong positive association with the number of years practising and the number of changes that supervisors make to PA proposals has a strong negative association with number of years practising (Table 2). Likewise, the size of a PA’s formulary (the number of drugs they feel safe recommending and monitoring without a supervisor’s input) has a strong positive association with the length of time a PA has been in their speciality. Performing more medication reviews is strongly associated with more knowledge and confidence (Table 3). This data suggests PAs will be better prepared to prescribe after a period of supervision once practising.

Strengths, limitations and future work

This is the first study of its kind in the UK and investigates the opinions of PAs and HCPs on prescribing rights and the pathways to achieving this.

Table 3. The association between how frequently physician associates perform medication reviews with safety factors

	Gamma value	p-value	Association level
PA confidence initiating medical management plans	0.358	<0.001	Strong
PA knowledge of common and important drugs in their specialty	0.378	<0.001	Strong

PA = physician associate.

While the surveys had an overall high number of respondents, more than 500 in total, we recognise this represents a small number of PAs and HCPs in the UK. Some of the HCPs surveyed did not have direct experience supervising or working with PAs. The survey did not allow for details of the medical errors occurring, although a common theme in the open-ended questions included descriptions of minor errors. Finally, we recognise recall bias associated with questionnaires.

Further work is recommended to explore the details around why many HCPs think PAs should have a specialist formulary rather than a generalised one and may consider the opinions of patients with respect to PA prescribing rights.

There are several considerations that fall outside of the scope of this body of work that will be explored in future work including the cost implication of additional assessment for PAs and should prescribing rights be mandated. Will PAs or those who hire PAs be responsible for the cost burden of additional assessment? Will it be mandated that all PAs need to undertake additional assessment and obtain prescribing rights? If not, and a PA chooses not to obtain prescribing rights (or is unable to pass the assessment), how will this affect their employability and career outlook as a PA? Likewise, if all PAs are given prescribing rights, will their NHS salary banding be increased to reflect increased autonomy and responsibility? Salaries for PAs in the USA and the Netherlands, where PAs work independently are significantly higher than those in the UK.^{21,22}

Conclusion

We feel the best pathway towards prescribing rights is a standardised safety examination after qualification followed by a defined period of supervision as a practising PA. Acknowledging the different pharmacology curricula and assessments across UK PA programmes, a standardised assessment will help ensure a safe, minimum knowledge base among practising PAs. Although the PANE does include pharmacology questions and is designed as a safety assessment, we feel an additional assessment focusing only on prescribing would better align PAs' knowledge and qualifications with other NMPs and physicians, and would help them be accepted as prescribers within the wider medical team.

As PAs are generalist healthcare providers, their rights should be generalised. PAs are holistic providers who see patients in a variety of medical settings and specialties. A limited formulary would undermine what a PA has to offer their team and patients.

Most importantly, we encourage PAs to work closely with their supervisors and the medical team when newly qualified or in a new specialty until they build their knowledge and confidence, and this is supported by a defined period of supervision before autonomous prescribing. During the induction period, we recommend PAs and their supervisors discuss a period of close supervision during which PAs will not independently prescribe but be able to discuss and reflect on management plans.²³ This period of supervision will be dependent on the PAs' competence and the PA-supervisor relationship.

The results of the survey have shown PAs and HCPs are strongly in favour of PA prescribing rights. The perceived outcome is that prescribing rights for PAs will increase efficiency, improve patient care, decrease the healthcare burden and increase PAs' usefulness within their team. These outcomes have already been seen in countries where PAs can prescribe.¹¹⁻¹³ ■

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