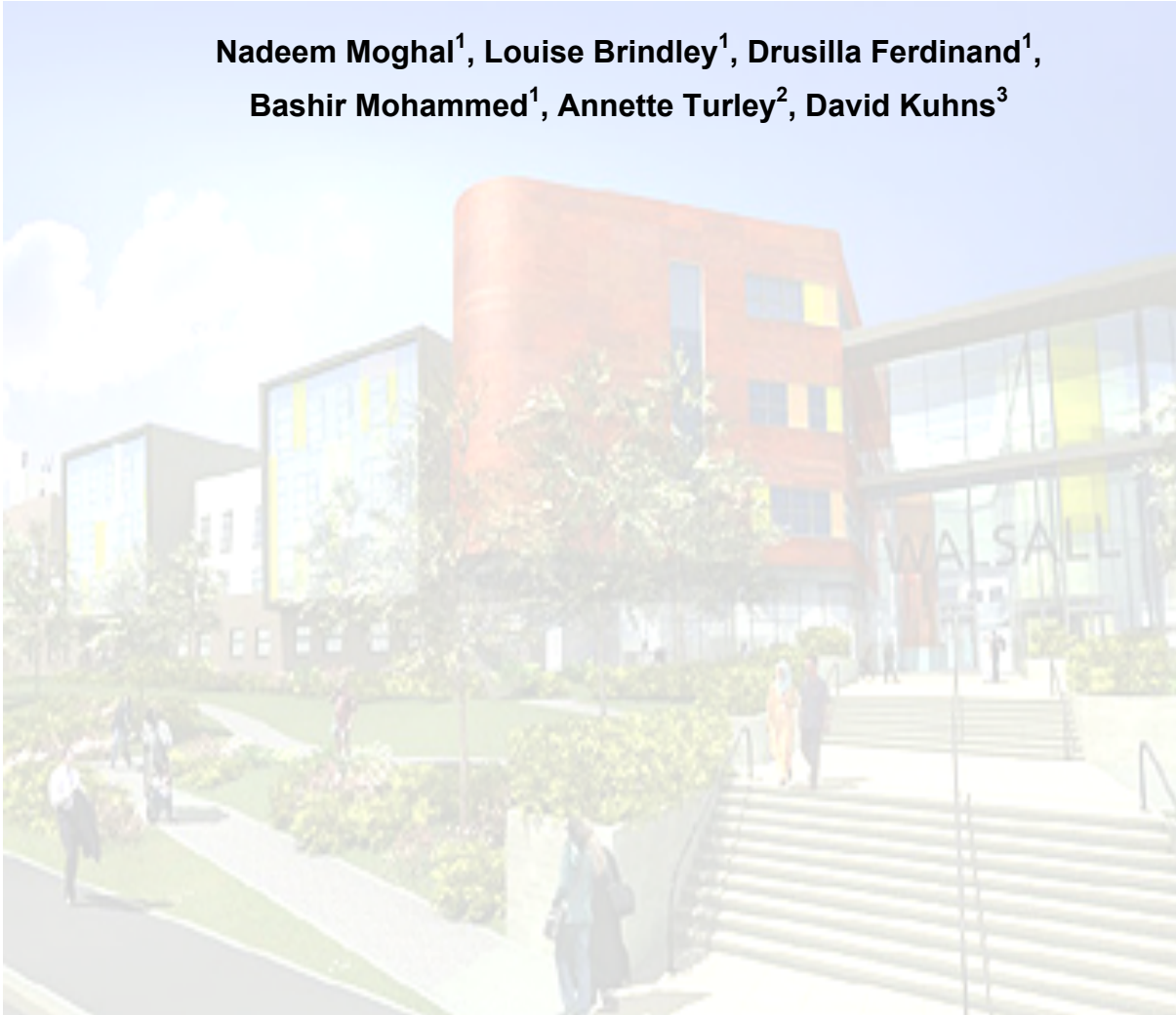


The physician assistant model – can it work in the NHS?

Walsall Hospitals NHS Trust

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Executive summary

The problem

The paediatric service at Walsall Hospitals NHS Trust has been troubled by a chronic shortage of middle grade staff to secure the rota. This weakness makes the paediatric service extremely vulnerable to closure or contraction. The Trust Board is clear that comprehensive general paediatric services are needed to serve the Walsall population and should therefore be retained and developed.

Why explore the US physician assistant model

There has been a conversation in the service about the potential value of investing in physician assistants (PA) to fill the mid-level provider gap. The service has some experience of PAs; several years ago the paediatric consultants were involved in teaching PA students from the University of Kentucky. The service has also had PA student placements from the Wolverhampton PA programme. This limited exposure left the service with a very mixed view of the potential of PAs as a workforce solution. The consensus from within the service and the Trust executive was that there was a need to explore the PA model as a possible solution for Walsall Hospitals NHS Trust and the only realistic way to do so was to visit US PA programmes and clinical services using PAs; the US has the most mature PA workforce model. .

The delegation investigated the Denver programme and Denver Children's Hospital because of its primary focus on speciality, general and primary care paediatric services; Central Connecticut Hospital in New Britain as an example of a district general hospital; Yale PA training programme and the tertiary neonatal unit use of PAs; the Northeastern PA programme and the Boston Children's cardiology programme where PAs deliver complex specialist care.

The delegation mix

The delegation was deliberately constituted of consultants and nurses who were unconvinced or sceptical about the applicability of the PA model in paediatrics. The delegation came away from the experience exhausted but tremendously energised and excited about the development of the PA model in the UK and especially for the paediatric service at Walsall Hospitals NHS Trust.

What we learned

The US PA model evolved in the late 1960's out of a need to tackle poor healthcare access in deprived areas. While there have been national accreditation standards for PA programmes for decades, the evolution of the model has varied somewhat between the various states, especially as to the extent of prescribing practice. In some areas of the US there was some initial resistance to the PA profession based on a sense of threat to the medical profession, including financial loss in a system where healthcare is a market and providers are in competition for that market. Despite these misgivings, the US PA model has continued to grow and there are more than 150 accredited PA programmes in the US and more than 88,000 practicing PAs (1, 2).

There are some differences in the models of training in the US compared to the UK and there are barriers to prescribing for PAs in the UK; this can be overcome by the use of Patient Group Directives (PGD) and bolt on prescribing courses. These are not the preferred options and don't recognise that pharmacology and therapeutics are already integral to the UK PA school curriculum. In the US, PA practice ranges from general medicine in under-served rural and urban settings to highly specialised secondary and tertiary care at such prestigious hospitals as the Mayo Clinic with over 250 PAs, and the Johns Hopkins Hospital, with more than 300 in their system. Further, PAs have been part of the White House Medical Staff since 1977.

The delegation came away unanimous in their recognition of the value of the PA model for delivering paediatric healthcare. Although the driver for PAs is a workforce shortage, the reasons for investing in PAs are fundamentally positive. A PA is;

- much clearer about why they want to deliver healthcare
- have a general medical education but one rooted in competences of assessment, technical interventions and therapeutic delivery
- work with and are mentored and supervised by a physician to develop the skills needed to deliver the general and/or specialist care
- are versatile
- deliver a service continuity and quality of care that is not as easily possible through rotating trainees
- are seen as connecting pathways of care and work as change agents in systems of care

The delegation experienced PAs performing at a level equivalent to the UK mid-grade. PA competency is usually considered adequate at around 6 months after completion of initial training. While a greater degree of autonomous practice often starts as early as 3 months, the consistent answer to when PAs and medical staff feel supervised autonomous practice is possible is typically around two years. The speed at which competency is achieved depends on the PA, the mentor and the degree of supervision provided.

The success of the PA model is also predicated on the support and strength of the PA-mentor relationship; this is best described as an apprentice type relationship where retention and development of PAs is possible because of that individual, team and service relationship; where the PAs are valued, given opportunity for autonomous work, and full team engagement. Team engagement is in fact a requirement for PAs to be able to deliver optimally.

The UK context

The PA model in the UK is limited to primary care and adult hospital services and a neonatal service where advanced nurse practitioners and PAs are synonymous in the nature of service provided. This investigation of the US PA models confirms that paediatrics, general and specialist can also be delivered by PAs.

The US has proved that the PA model is financially cost effective, is not a threat to the medical or nursing professions, is in fact welcome and encouraged; delivers consistent care at a quality equal to non-PA based teams because of better adherence to guidelines and protocols. The NHS can be afforded the same advantages. The main challenge in the UK is to identify consultants and services that are prepared to be open to the PA model: to work to develop the apprentice and mentoring relationship and to prove the value through quality outcome data.

Recommendations

There are national strategic decisions needed to secure the UK source of PAs. The recommendation to the Trust is to invest in US trained experienced PAs, take on UK PA graduates and thereby prove the model in paediatrics – Walsall would be the first, a testing ground and a model for the NHS. The Trust currently has 9-10 vacant posts at non-training grades – these posts and related services could also be test beds for the PA model.

Under the supervision of the consultants the Walsall paediatric service could and may have to be ultimately delivered by PAs and Advanced Neonatal Nurse Practitioners (ANNPs) with little or no reliance on medical trainees. Depending on the functioning of that model and other related changes in service configuration, it is also possible that the service could be delivered with at least one less consultant whilst delivering a comprehensive general paediatric care.

Reasoning for US PA exploration

The paediatric service at Walsall Hospitals NHS Trust has a chronic middle grade shortage that has been managed by consultants working without mid-level support or relying on locums when available. Locums are proving expensive, deliver inconsistent care and there is insufficient peer supervision to ensure a quality service. Added to this is a pending RCPCH workforce committee recommendation for a 50% reduction in the existing trainee pool over the medium to long term. This will result in viable middle grade rotas in only the largest units, leaving the smaller services to make decisions about viability rooted in costs rather than access to a quality service that meets a population's clinical need. The RCPCH recognizes that this recommendation will force a reconfiguration requiring smaller units to close or to work with reduced medical cover relying on nurse led services supported by larger neighboring units or to consider resident on-call consultant models working with below mid-level trainees (ST1-3) and/or advanced nurse practitioners. The Walsall paediatric service's existing workforce model is not working and the unit is therefore exposed to all these potential outcomes. The Trust Board supports the need for a comprehensive general paediatric service for Walsall and for the new facilities to be used optimally. The service has contemplated the possible use of physician assistants to provide support but was uncertain about the competences and capability of the American PA model. Before embarking on the exploration the following perceived concerns and threats were articulated by colleagues:

- Uncertainty about competency levels of physician assistants
- Uncertainty about supervision and professional development needs of physician assistants
- Paediatrics described as 'special' and therefore not a good place to test the PA model
- Uncertainty about GMC or equivalent acceptance of the model
- Loss of medical trainees by services, thereby threatening training status
- Uncertainty about the versatility of PAs – could they do general paediatrics
- Threat to the medical profession
- Challenge of change

Some colleagues could however see potential advantages

- Uncompromised middle tier rota
- Consistent clinical care
- Reduce reliance on medical trainees to deliver the service
- Medical trainees released to meet training needs
- Lower overall cost

To this end, the delegation set the following learning objectives for the exploration of the PA model:

1. To allow an objective view of the PA role in paediatrics to be formed by exposing clinicians to the mature and proven PA model in the US
2. To understand the highest competency level that is possible with the PA model, appreciating that we are seeking to fill a service need at middle grade level
3. To understand how PAs work as part of a team
4. To get a rounded perspective of the PA role, including the medical and nursing perspectives of the working PA model
5. To explore the effect of the PA model on the quality of the services using outcome measures where possible.
6. To understand the complexity of systems and cultures that will challenge the introduction of the PA model into the Walsall system and culture
7. To understand the education and supervision needs for PAs – the structure, who deliver what, the role of the medical staff, etc.
8. To understand how an education model could be developed with a long term objective of sustainability in the UK system

History of the physician assistant profession

The US has the longest history of PA training. Although the first programmes started in the mid 1960s, the origins of the competency-based shortened clinical training programme originated during World War II. There was a pressing need to generate medical staff to manage the consequences of the war and this resulted in a shortening of the medical training programme to three years in the US. That experience lay dormant until the lack of providers in areas of greatest need became apparent in the 1960s.

The primary drivers for developing the PA model was very poor access to healthcare in the rural US. The more recent drivers have been the reduction in working hours for US medical trainees to 80 hours a week and a national shortage of bedside nurses.

Denver – an early adopter

The Denver experience in the 1960s was one of considerable resistance to PAs by the medical staff across the health economy. Concerns were expressed about 'second rate clinicians' and a poorer quality service. The development was also a very clear threat to a market based health economy where physician income was directly related to clinical activity. These arguments against PAs are today described as the 'arguments of conceit'.

The current Dean of the Denver medical school worked to overcome this resistance within his profession by working with the Chapter heads of the American Medical Association (AMA) - the UK equivalent to this would be the regional advisors of the various Royal Colleges. There was deliberate placement of PAs with local opinion leaders and constant monitoring of the new physician-PA relationship. It was quickly apparent to the Chapter heads that the PAs brought great value to their services and the request came in for yet more PAs. The Denver programme has endured and grown over the decades (3).

Why become a physician assistant

One of the strongest arguments put forward by the student PAs and reaffirmed by established PAs was access to a wide variety of clinical practice throughout a PA's career. This contrasts to a medical and nursing model where careers tends to become more specialised and less flexible over time.

Applicants to US PA programmes are typically more mature than their medical counterparts, with an average entry age of 27-28 years and already have a first degree. Grade score entry is equivalent to those who apply to medical schools. In fact the PA students questioned had a choice between medical school and PA school as well as nursing and the reasons for choosing the PA school were;

- shorter training programme (2-3 years vs. 4 years)
- faster attainment of competency and delivery
- cheaper tuition costs and less overall student debt
- flexibility of profession
- autonomous practice with support.

In the past, graduates would have had one or more careers before entering the PA programme, therefore more mature. The prerequisite requirements in current programmes vary with some setting a minimum amount of clinical experience (Northeastern), whilst others set none (Denver).

The PA career is a positive choice rather than a default from other missed opportunities in medicine or nursing. It is a highly competitive career with 700 applicants for 20 places in one programme – a typical ratio for programmes around the country. The entrants have a very clear understanding of what they want as a career having investigated the various programmes in some considerable detail and seem to really know what to expect and what they will do as PAs. Some are strikingly clear that they want to return to the underserved rural or urban environments from where they originate in order deliver better healthcare.

The PA career has been in the top two of the league for career choice in healthcare for the past five years (4). The US experience over the decades has generated a wealth of PA mentors and role models that sustains the choice of a career that is recognised as a profession and welcomed by the medical and nursing organisations.

The data shows that there is a very low drop out rate and once graduated, a negligible minority change profession subsequently. The conversations with PAs revealed a high level of job satisfaction – this included recent graduates as well as seasoned PAs about to retire.

US training

The US programmes reveal some variation but are all fundamentally rooted in developing core competences. There is a foundation of core skills. There is a basic sciences element and the clinical exposure is either integrated throughout or focused in the latter half of what is a 2-3 year programme.

Entry requirements into the programmes include either no prior clinical exposure e.g. Denver, or a minimum of some sort of clinical work e.g. Northeastern (≥ 2000 hours). Clinical placements are designed to cover the breadth of clinical work with elective opportunities to meet additional interest experience to help guide job placements including working in general or very specialist areas. Clinical services that accept PA students also take advantage of the placements to inform recruitment decisions.

“The Accreditation Review Commission on Education for the Physician Assistant (ARC-PA) is the accrediting agency that protects the interests of the public and PA profession by defining the standards for PA education and evaluating PA educational programs within the territorial United States to ensure their compliance with those standards.” (5)

One of the critical questions explored was how graduates from PA schools develop the skills to be able to deliver care at mid-level i.e. assessment and diagnosis, treatment planning and delivering therapeutic interventions, including interventional procedures. The most critical determinant for developing a highly competent, autonomous but insightful PA is the relationship that is built between the PA and supervising consultant. There is therefore variation in practice between PAs reflecting exactly that relationship.

While there is not a 'basic PA training programme, at Hopkins, they offer post-graduate one-year specialty training 'fellowships' for PAs in Surgery, Emergency Medicine, and Critical Care

Most PAs have a 3 month orientation period; some were released for delivering care earlier, depending very much on the individual PA, nature of service complexity and degree of consultant supervision. The period of close supervision before autonomous practice allowed varies between states but also seems to reflect individual consultants and team practices. In many states a typical PA would undergo about 500 case-based reviews to secure speciality competences but this also tends to depend on the speciality and complexity. The PAs were allowed time (~ 5 days per year) and financial support for continued professional development – updating knowledge and skills. To maintain certification, PAs must pass a 6 yearly national revalidation exam that tests their general clinical knowledge and competences reflecting the latest evidence based practice.

What can PAs do: US system advantages and limitations

The exploration of the clinical services with PAs confirmed that PAs work at mid-level. The consistent description was a service delivery that was equivalent to senior resident/fellows. This was true whether PAs worked in highly specialist areas such as rheumatology, orthopaedics, infectious disease, tertiary level neonates (6), gastroenterology, adult congenital heart disease or in general areas such as paediatric assessment units, emergency room medicine, primary care or school clinics. In the context of a community hospital (equivalent to a district general hospital), the PAs, with 24-hour access to their supervising consultants were the sole providers working across all the areas i.e. neonates, in-patient general paediatrics and in the emergency room, undertaking clinical assessments, securing a diagnosis, establishing treatment plans, delivering interventions and therapies. The published experience shows that PAs deliver a wide range of services for the hospitalised child (7). We observed that range in the hospital as well as in community based services.

In an American system that is acutely sensitive to the financial value of services, the institutions have made workforce decisions that confirm the economic value of PAs. One personal description was of a PA earning \$115,000 but bringing to the institution in income of around \$300,000 income. The salary had recently increased significantly because of a new nearby competitor provider seeking to hire experienced PAs. PAs are seen as highly productive healthcare providers.

All the clinicians and administrators described the PAs as highly productive, delivering consistent care and with a greater level of system continuity than compared to medical trainees. Service delivery by PAs also freed up trainees to access teaching and training.

The senior medical staff who act as mentors and supervisors for the PAs gave a consistent messaging that their systems of care could not function without the PA mid-level tier, regardless of whether they also had medical trainees or not. The senior clinicians were, because of PAs, able to focus their knowledge and experience on the more complex cases whilst over seeing the work of PAs who delivered care in the more common cases. This is an over-generalisation and it is

important to take account of the fact that we were encountering PAs embedded in highly specialised teams delivering complex care – reflecting the already stated importance of the physician–PA relationship in developing the skills needed for a particular service.

The PAs are a stable workforce with low turnover. High retention, in some cases for over 25 years reflects successful integrated teams. Some described the structures as largely flat, encouraging listening and valuing team members across the disciplines.

The nurses and doctors welcome PAs as focused and energetic team members. Like other clinicians, the PAs are rooted in seeking the evidence for clinical practice and that evidence-based approach brings a challenge to day to day clinical variation, encouraging debate and enhancing services. The example was the development of the stroke service extended and developed by the PAs. PAs were described by some clinical colleagues as change agents.

It is rare to find a clinical practice that is able to reveal quality outcome data. The most common data is rooted in patient satisfaction surveys which consistently shows that PAs deliver a service that patients value. There were descriptions of parents requesting to preferentially see the PA rather than the paediatrician in a group practice. There is preliminary data in one tertiary level service that shows that the diagnostic yield for a procedure based speciality where PAs undertake autonomous practice and carry their own defined patient load is the same as when compared to patients referred into the tertiary service by paediatricians.

Where a service had advanced nurse practitioners and PAs, the difference between the two in terms of competences and service delivery was negligible. They were in effect treated as equal mid-level providers. However, the versatility of the PA compared to a nurse practitioner is worthy of note. Nurse practitioners tend to be limited over time to a speciality, whereas PAs can work move to a new specialty when the service requires it. As one vivid description put it – PAs are the interstitial providers in the system of care, connecting the system of care.

The limitations to the PA model are not very different from having medical trainees as mid-level providers. The supervising consultant needs to understand the individual and their limitations. The scope of practice is defined by that understanding, the importance of supervision as well as the PA being clear about their own limitations and having a low threshold for asking and learning.

UK training

There are three PA schools in the UK (8). They are regionally funded and each has developed its own curriculum, in line with the requirements set by the Competence and Curriculum Framework for the Physician Assistant and mindful of the national exam taken by all UK PAs as a requirement for entry to the Voluntary Managed Register. The curriculum is different from the US models, reflecting the UK medical student experience and expectation i.e. limited hands on work or case load responsibility as a student. This is different to the US medical training model which expects a high level of supervised responsibility at medical student level, and this approach is reflected in the US PA training programmes.

Because of decisions early on from the Department of Health/NHS National Practitioner Programme, whereby frameworks for PA training were being developed alongside those for Surgical Care Practitioners and Anaesthesia Practitioners, the Competence and Curriculum Framework for the Physician Assistant, excluded surgical training from the core requirements (9). This situation is now under review and it is expected that a revised Competence and Curriculum framework will include general surgery.

The UK programmes' students pay a fee of ~£3000 p.a. HEFCE funding is 50% at Band A and 50% at Band B. Funding for clinical placements is provided by the regional Strategic Health Authority on a similar basis to SIFT. There is no control over whether or not PAs take up posts within the Region upon qualification. First employment destinations are clearly dependent on the availability and attractiveness of jobs. In this situation, a region cannot guarantee local benefit and with so few institutions running PA programmes, there is no regional 'knock for knock'. We recognise the difficulty that this creates for regional funding. The best solution would be a nationally funded programme, just as are the medical student places in the UK.

UK graduates also need statutory registration. This is already in-train and a managed voluntary register will be in place from next month. The additional limitation on UK PAs (and US PAs working in the UK) is the ability to prescribe. This right to prescribe is built into US certification and the UK needs to legislate to enable an

equivalent measure in the UK. In the mean time local solutions appear to being applied.

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UK midlevel workforce mix

The UK has in its workforce a tier of non-consultant grade providers i.e. staff grade and associate specialists. It is critical to understand the differences between the PA model and the existing non-training grade mid-level provider that has evolved in the UK. The comparison in the table below is a generalisation - there are examples of valued and supported staff grade and associate specialist colleagues but the differences are significant and argue for the eventual removal of staff grade/associate specialist roles and the encouragement of physician assistant roles.

Staff grade/associate specialist	Physician assistant
Fall into posts due to failure to progress	Purposeful career choice
Have no choice but to be supervised	Choose to be supervised
Narrow field of practice	Flexible and adaptable
Typically poor supervision	Deliberate mentoring structure
CPD but no exam revalidation	CPD and exam revalidation
Seen as career dead end	Accept career structure at the offset
Relatively high cost	Relatively low cost

There are differences in the PA and ANP workforce model, though mostly in terms of the philosophies of the professions, reasons for entering the respective professions and subsequent development. There is a bedside nurse shortage and the workforce constraints in the NHS would argue in favour of developing the PA model to deliver midlevel assessment, planning and care delivery.

Advanced nurse practitioner	Physician assistant
Nursing degree entry and general nursing training first	Direct entry into PA school
Relatively narrow and focused training that anchors the ANP in the area of competency developed	Broad training and experience that keeps skills of assessment flexible across specialities
Convergent practice	Flexible divergent practice
Limited scope of practice	Wide scope of practice e.g. out-patients, in-patient, emergency room practice

It is of note that in the US the ANP and PA practitioner in the same clinical team were not easily separated in terms of the competences expected of them.

There are PAs in the NHS, but there is some confusion in the use of that term and what the term PA means in terms of competences. The title is used in some services to designate an entirely different type of health care worker, functioning at band 4 or lower. There is also some confusion resulting from the decision to change the title of Anaesthesia Practitioners (a highly specific role) to Physician Assistants (Anaesthesia). These 'PAs' are not the US PA model explored and described in this report.

There are some PAs imported from the US and working at mid-level in the NHS in adult secondary care services or general practice, There are now UK PA graduates that have found posts ranging from primary care and A&E, through to speciality surgery such as orthopaedics – it is the expectation that these UK graduates will secure the supervision and mentoring to quickly develop as mid-level providers, similar to their US counterparts.

UK advantages and barriers

The drivers for a PA workforce in the NHS are strikingly similar to those in the US where the experience over the decades has moved from simply solving a workforce pressure to making positive decisions to employ PAs in every aspect of healthcare. Although there are some cultural, skill mix and system structural differences between the US and UK, the health needs, the growing demand and the ambition to deliver quality care remain the same. PAs would afford the NHS the same advantages that the US currently enjoys: secure mid-level rotas; consistent care, continuity of care; quality care; trainees released for training; increased system productivity.

The idea of PAs being developed and used in the UK is not new. It seems that there has been a lack of clarity as to what exactly constitutes a PA, the competences and the potential. The established health professions need to reach that clarity and embrace the need for this workforce development. The barriers we are experiencing in the UK now are exactly the same as those experienced by the US 30-40 years ago – experience over time has proved that the reasons given for not investing in PAs were unfounded. The perceived threat to the medical or nursing professions has not materialised in The US, Canadian or Australian (10) experience.

Consultants will need to take on an active mentoring role to guide and develop the PA model, as is the case in the US. This will take time and leadership. The continuing shift in the culture of health care provider organisations and teams towards a flatter hierarchy and greater multidisciplinary working reduces the barriers to employment of PAs, to the benefit of the developing profession and the service.

The current prescribing limitations will limit the full potential of PAs – this may stop services from securing the PA model – but as already stated this constraint can be overcome through safe local arrangements made between PAs and their supervising doctors. This having been said, an amendment to the current legislation in this area will be a major step towards garnering the full benefit from the PA model.

Recommendations

The recommendations included here are specific to Walsall Hospitals NHS Trust but it is clear from the experience we have gained that the NHS as a whole needs to invest in the PA model. The opportunities for PA modelling in Walsall extend across the entire health economy, acute general services such as paediatrics and A&E, speciality services that can not recruit to the mid-level provider, community paediatrics and primary care. In reality the limitations to applicability of the PA model is the self-determined limitation imposed by the consultants, primary care physicians and services rather than an inherent structural speciality constraining factor.

The current UK constraints can only be overcome if the senior NHS leadership, the clinical advisors to the Department of Health, the Academy of Colleges and the Medical and Nurse Directors of acute, mental health and primary care Trusts come to a common understanding of the positive reasons for investing in this model – a mixed workforce that will deliver more healthcare for less, more consistently, with less variation, and with a degree of mid-level continuity that will help secure quality care. The buy-in from senior leadership is essential to enable interested clinicians in services to develop and mature the UK PA workforce.

The following are recommendations for a national strategy to secure the PA model in the UK:

- Accept the PA model as a necessary national workforce need, now evidenced by working examples in the UK, the success of the UK PA programmes (11) and this additional analysis in an area of medicine, paediatrics, that was initially thought to be least applicable to the PA model
- Fund all PA training places at a national level
- Expedite the registration of the PA profession with the Health Professions Council.
- Recognise PA training to allow prescribing rights on graduation

The following steps are recommended to introduce the PA model in the Trust:

- Agree that the existing workforce model is strained to breaking point and that the pressure on it can only grow through the coming decade
- Walsall Hospitals NHS Trust to agree with the PCT to include PAs in workforce planning
- Identify the services where there has been a chronic shortage of mid-level providers - PAs are considered for all services, including paediatrics
- Identify strong consultant leadership in those services that will agree to take on PAs as apprentices
- State explicitly in all workforce modelling that PAs will feature in the workforce – an estimated need would help secure the funding and planning of the UK PA programmes
- Recruit experienced American PAs on two year contracts in the areas of experience and expertise needed – work with the local PA schools to help with this process. We know that American PAs are motivated to work in the UK
- Factor in the relocation costs and securing of good quality local accommodation for the recruits
- Appoint the American PAs for two year contracts
- Secure an orientation and induction programme
- Develop and deliver a communication strategy for the health care economy advising on the new workforce mix – to include the local population
- Place the PAs into day shifts where they will be actively mentored and can have the prescribing issues dealt with by existing staff as needed until local solutions are secured
- Walsall Hospitals NHS Trust to take students from local PA programmes on placements: offering well supported clinical experience, developing mutual understanding and growing opportunities for future jobs.
- Walsall Hospitals NHS Trust to take on the best qualified graduates from the UK PA programmes
- The US PAs to be used to develop the postgraduate experience and programme for local PA graduates in service

- The PA experience is shared as widely as possible across the NHS to secure the understanding and value of the PA model

The Trust currently has approximately ten mid-level vacancies that have proved repeatedly impossible to recruit to. Aside from living with a chronic shortage, poor access or service closure, the PA model is now the only realistic opportunity to solve this mid-level provider issue.

The paediatric service needs a mid-level investment in the NNU – this is currently being sought through ANNPs. The NNU could if fully staffed with ANNPs, be separated from the general paediatric rota for cover.

If the College recommendations are accepted, then Walsall Hospitals NHS Trust will lose most if not all paediatric trainees. If the service is to survive then 8 PAs will be needed on the general rota, providing backup to the NNU.

A&E is ideally suited to PAs, not just in terms of paediatrics. The paediatric service investment in PAs could assist in the provision and support of emergency care within A&E by either pulling patients from A&E or by sending PAs to A&E during times of high demand. Although PAs may present as a possible threat to trainees gaining required experience in emergency care, experience has shown that PAs improve relationships and quality of care, contributing to rather than detracting from the training needs of others in the service.

Conclusion

The four and a half days, nine institution site visit has proved invaluable in addressing the objectives set out in advance. It was essential that the team was constituted to expose clinicians to the mature PA model. The team returned better informed, aware of the PA model limitations but also very clear about why and how the PA model could and should be applied to services in the NHS, including in the area of paediatrics. The answer to the question posed in the title '*The physician assistant model – can it work in the NHS*', is yes.

This report has laid out the learning, the challenges as well as detailed recommendations. The financial climate that faces the NHS now and for the next decade will make the challenges of delivering a quality service more acute unless innovative workforce solutions are considered. The PA model is that workforce solution, tried and tested in a large number of diverse healthcare systems in the world.

References

1. <http://www.aapa.org/about-pas/faq-about-pas>
2. http://www.arc-pa.org/acc_programs/
3. The Child Health Associate Physician Assistant Program — An Enduring Educational Model Addressing the Needs Of Families and Children
Anita Duhl Glicken, MSW; Gerald Merenstein, MD;
Mary S. Arthur, MS, CHA/PA. Journal of Physician Assistant Education 2007;18(3):24-29
4. <http://money.cnn.com/magazines/moneymag/bestjobs/2010/snapshots/2.html>
5. <http://www.arc-pa.org/documents/Comparison%20of%20Competencies%202005%20to%20Stds%2004th%20%20edition%20August%202010.pdf>
6. Nonphysician clinicians in the Neonatal Intensive Care Unit: Meeting the Needs of our Smallest Patients
Eric W Reynolds, J. Timothy Bricker. Pediatrics 2007;119;361-369:
<http://www.pediatrics.org/cgi/content/full/119/2/361>
7. The role of the Nurse Practitioner and Physician Assistant in the Care of Hospitalized Children. Committee on Hospital Care. Pediatrics 1999;103;1050
<http://www.pediatrics.org/cgi/content/full/103/5/1050>
8. <http://www.nhscareers.nhs.uk/details/Default.aspx?Id=1964>
9. http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4139319.pdf
10. Department of Health - South Australia. Evaluation of Physician Assistants in SA Hospitals. Final Evaluation Report. May 2010

11. Joint report for NHS West Midlands Strategic Health Authority. West Midlands Collaborative Programme for the Post Graduate Diploma in Physician Assistant Studies. August 2010.

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Ms Kathryn Halford: Associate director of nursing, Walsall Hospitals NHS Trust

Professor Rashid Gatrad: Consultant paediatrician, Walsall Hospitals NHS Trust

Joel Grey MPAS, PA-C: Course Director, Postgraduate Diploma Physician Assistant Studies

Appendix 2: Delegate list and brief biographies

Dr Bashir J Muhammad MBBS DCH MRCP MRCPC

Bashir Muhammad has been working for Walsall Manor Hospitals NHS Trust for the past 10 years providing general paediatric services, supervising trainees and is currently the clinical lead for the neonatal unit. His special interests are in diabetes and obesity.

Dr Drusilla Ferdinand MBChB MRCPC MScClinEd

Drusilla Ferdinand is a general paediatrician. She qualified from the University of Leicester 1999 and has been working at Walsall Manor Hospital since March 2009. Her interests are education and training and gastroenterology.

Sister Annette Turley RSCN RGN

Annette Turley's career began in 1977 with the ophthalmic nursing diploma. She, qualifying in general nurse training in 1982. Since then she has always worked within the speciality of accident and emergency. Over the years she has completed a number of courses, which includes a registered children's nurse qualification. Presently she is a senior sister in Walsall's accident and emergency department that treats both adults and children.

Nadeem Moghal FRCPCH MBA

Nadeem Moghal as a consultant paediatric nephrologist. He recently completed a fellowship with the NHS Institute for innovation and improvement. He is currently seconded from his host organization into Walsall Manor Hospital to deliver leadership and system improvement for the paediatric service and work across the Trust influencing change. His special interest is quality improvement in healthcare systems.

Staff Nurse Louise Brindley RN (Child)

Louise Brindley works in the paediatric assessment unit with a primary focus on initial clinical assessment of children. She works closely with the clinical team and hospital at home service to deliver optimal care. She has an interest in urgent admissions and the acute unwell child and is keen to develop nurse led services.

David H. Kuhns, PA-C, CCPA, MPH, DFAAPA

David Kuhns, a Physician Assistant (PA) with both American and Canadian certification, has over 30 years experience in a variety of clinical, public health and academic settings. Since 2008 he has been the first US PA educator in the UK, the Deputy Programme Lead/Senior Lecturer for the PA programme at the University of Birmingham . David is also an advisor to the Royal College of Surgeons in Ireland on PA programme development, as well as serving on the Joint Advisory Committee for developing the PA programme at the Saudi Arabia's Prince Sultan Military College of Health Sciences.

David completed his PA training at Saint Louis University, in 1980, and he then earned his Master of Public Health, with a concentration in international health, at Boston University in 2002. David's clinical experience has been primarily in emergency medicine, ranging from busy urban Emergency Departments to more autonomous practice in rural EDs. He was the first PA to serve with *Médecins sans Frontières (MSF)*, as the Country Medical Coordinator in Somalia, 1994, and then as Project Medical Coordinator in Jalalabad, Afghanistan , in 1995. He returned to Afghanistan 6 years ago with the British charity, Medical Emergency Relief International (MERLIN). David was honoured by the American Academy of Physician Assistants, first as the recipient of the AAPA's Paragon Award as the **International Humanitarian of the Year** in 1999, and then as a **Distinguished Fellow**, in 2007.

Appendix 3: Trip diary – this was all work and no play

31st October	Travel to Denver, Colorado 630am – 10pm arrival to hotel (delayed flight)
1-3 rd November	Denver programme
1 st November	8am – 530pm Breakfast at PA programme PA programme at University of Colorado Lunch at PA programme Meeting with PA students School clinic Specialist PA meetings Supper at local restaurant Team debrief
2 nd November	8am – 6pm Breakfast at Children’s Hospital Dean of medical school Chair of paediatrics Primary care service Meeting with PAs Workplace observation Supper at Anita’s
3 rd November	730-1030 Breakfast at Children’s Hospital Walk in and assessment unit observation 1230-1130PM Travel to New Haven In-flight team draft report writing Supper at Philadelphia airport Arrive at New Haven 1130pm

4th November 8am -1230
Breakfast at hotel
Connecticut Central Hospital, New Britain
2-5pm
Lunch at CCH
Yale PA programme faculty
Neonatal Unit PA experience
Supper invitation - Xandia

5th November 8-11am
Breakfast at hotel
Travel to Boston
1130-4pm
Northeastern University PA programme
Lunch at Northeastern
Boston Children's cardiology PA programme
Supper at airport
710pm Fly back to London – arrive home mid morning on 6th
November

Travel itinerary timetable

Day	Sun	Mon	Tues	Wed	Thur	Fri
Date	31-Oct	01-Nov	02-Nov	03-Nov	04-Nov	05-Nov
Morning	Travel from Heathrow			Denver PA Programme and Denver Childrens Hospital		Amtrak: Newhaven to Boston 0754/1004
Afternoon				BA 219 d. 1235		
	↓					
	Arriving Denver 1625	Denver PA Programme and Denver Childrens Hospital	Denver PA Programme and Denver Childrens Hospital	d. 1330 Denver to Philly a. 1903	YNHCH and Yale PA programme	Boston Children's and Northeastern PA programme
Evening	Open			Philly to New Haven d. 2126 a. 2234		Boston Logan Airport, BA 212dep 1910
Overnight	Denver Comfort Inn	Denver Comfort Inn	Denver Comfort Inn	Omni New Haven	Omni New Haven	↓

Appendix 4: Institutions visited and key contacts

University of Colorado, Denver

Richard D. Krugman, MD,
First Vice Chancellor for Health Affairs
Dean of the School of Medicine
University of Colorado Anschutz Medical Campus Building 500, Room E1354.
13001 East 17th Place, F543
Aurora, CO 80045-0508
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richard.krugman@ucdenver.edu

Stephen R Daniels MD, PhD
Professor and Chairman, Department of Pediatrics
University of Colorado School of Medicine
Pediatrician-in-Chief
The Children's Hospital
University of Colorado at Denver and Health Sciences Center
13123 E, 16th Avenue, B065
Aurora CO 80045
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Anita Duhl Glicken, MSW

Associate Dean for Physician Assistant Studies

University of Colorado School of Medicine

Director, CHA/Physician Assistant Program

Professor and Section Head, Pediatrics

University of Colorado Anschutz Medical Campus

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anita.glicken@ucdenver.edu

Phone 303-724-1338 : Fax: 303-724-1350

http://www.ucdenver.edu/academics/colleges/medicalschoo/education/degree_programs/PAProgram/Pages/Home.aspx

Abraham Lincoln High School

Lisa Sorrentino PA-C

2285 South Federal

Denver, CO 80219

Phone: 720-423-5000

Fax: 720-423-5098

<http://alhs.dps.schoolfusion.us/modules/cms/pages.phtml?pageid=137297&sessionid=a3d7f0b03ad04f73818e87e012cb43ea&sessionid=a3d7f0b03ad04f73818e87e012cb43ea>

Advanced Pediatric Associates

Parker Pediatrics

Kimberly A Thomas CHA/PA-C

Drs Mark H. Pearlman Stephanie Stevens, and Paula Levin

Parker Adventist Professional Building

9397 Crown Crest Blvd, Suite #330

Parker, CO 80139

303 699-6200

<http://www.advancedpediatricassociates.com/>

Greenwood Pediatrics

Brian Englund PA-C

Southeast/Main Office

9094 E Mineral Ave #100

Centennial CO 80112

303 694 3200

<http://www.greenwoodpediatrics.com/aboutus/ourproviders.asp?tContactId=1135>

Hospital of Central Connecticut (New Britain, Connecticut)

Don Solimini, PA-C, MHA, DFAAPA

100 Grand Street New Britain,

CT 06052-2016

(860) 224-5310

203-641-5773

<http://thocc.org/>

Assistant Director of Clinical Education

Assistant Professor of Bridgeport Physician Assistant Institute

Eleanor Dana Hall

30 Hazel Street

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Bridgeport

Conneticut 06604

203 576 2400

dsolimin@bridgeport.edu

<http://www.bridgeport.edu/academics/graduate/pa>

Yale University, Physician Assistant Program (New Haven, Connecticut)

Mary L. Warner, MMSc, PA-C

Associate Dean and Program Director

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203-785-2860

mary.warner@yale.edu

Rita A. Rienzo PA-C, MMSc

Clinical Co-coordinator

Assistant Professor

Yale Physician Associate Program

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New Haven, CT 06510

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(203) 785-3601 fax

rita.rienzo@yale.edu

Alexandria Garino, MS, PA-C

Academic Coordinator

Assistant Professor

Yale School of Medicine Physician Associate Program

O: 203.785.5539

F: 203.785.3601

<http://medicine.yale.edu/pa/index.aspx>

Northeastern University, Physician Assistant Program (Boston, Massachusetts)

Rosann Ippolito, PhD, PA-C

Program Director and Clinical Professor

Physician Assistant Program

Northeastern University

202 Robinson Hall

Boston, MA 02115

R.Ippolito@neu.edu

617-373-3195

<http://www.northeastern.edu/bouve/programs/mphysassist/mphysassist.html>

Boston Children's Hospital

Disty Pearson, PA-C

Senior Physician Assistant

Boston Adult Congenital Heart Service and Pulmonary Hypertension Service

Children's Hospital and the Brigham and Women's Hospital

300 Longwood Ave.

Boston, MA 02115

Phone: 617-355-6508

Fax: 617-739-8632Disty.Pearson@CARDIO.CHBOSTON.ORG]

<http://www.achaheart.org/about/medboard.php>

University of Birmingham, Physician Assistant Programme

Jim Parle
Professor of Primary Care
& Physician Assistant course director
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90 Vincent Drive
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<http://medweb4.bham.ac.uk/cpd/pgt.aspx?id=47>

University of Wolverhampton

Dr Philip A P Begg
Associate Dean
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<http://courses.wlv.ac.uk/Course.asp?menu=1&code=NH008P01UVD>

