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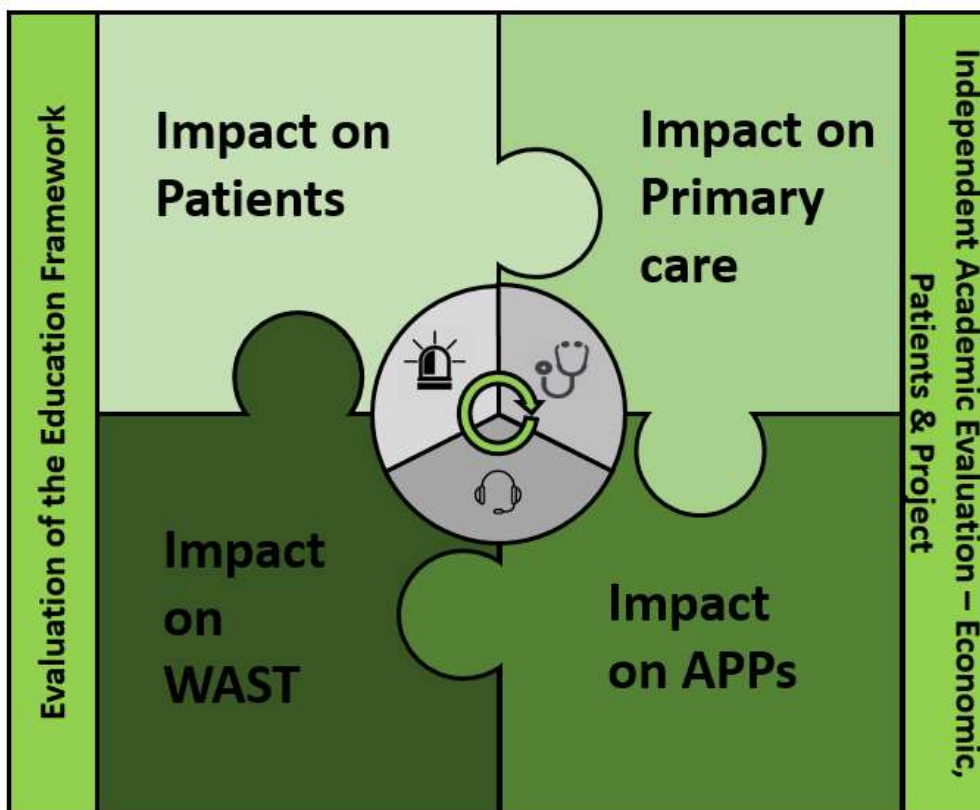


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Advanced Paramedic Practitioner (APP) Pacesetter Project: Phase I Evaluation Executive Summary



September 2020



Foreword

The role of the paramedic has been constantly evolving since inception to meet changing demands, including access to higher education pathways leading to clinical career progression. Extended roles, such as advanced clinical practice have opened up new career options for experienced and educated paramedics to work in patient-facing senior clinical roles outside of the traditional paramedic employer, the ambulance service.

The challenge now for any modern ambulance service is how to provide a long career with varied options for the groups of staff that have had significant investment in their professional development; particularly when this development makes them an attractive employee for other health care organisations. Data from England indicates that an increasing number of paramedics are making the choice to work in Primary Care. There are certainly advantages to the individual paramedic and practices, however the transition to a new work environment may not always be the right move for some, and while a number of paramedics return, the intellectual contribution for those that stay away means ambulance services lose out on the benefits that working in other health sectors can offer.

From a system perspective, this is an inefficient way of delivering healthcare, and organisations that compete for talent against each other may not be able to work closely together to deliver excellent joined up care. The purpose of this Welsh Government funded Pacesetter project was to test an extended rotational working pattern following a successful internal pilot project. This extension was for a small group of advanced paramedic practitioners to include working within Primary Care. The benefits were assumed to be two-fold, to support workforce sustainability in Primary Care and to bring the benefits of extended clinical and Primary Care system knowledge back into the clinical contacts while working with Welsh Ambulance Services.

The following report outlines the results of the first phase of this Pacesetter through a detailed mix of quantitative and qualitative data. Setting up and delivering the project has been a huge task undertaken willingly by a small and enthusiastic team who continue to deliver strong results. On behalf of the project board I would like to thank the whole team for their efforts to get us to this point and providing the insights that form the basis of this report. This has been a project with strong collaborations across multiple professional boundaries and should be seen as a template for the future with the potential for real workforce transformation.

Duncan Robertson

Regional Clinical Lead (North) – WAST & Project Co-Chair



Executive Summary

Introduction

Betsi Cadwaladr University Health Board (BCUHB) and Welsh Ambulance Services NHS Trust (WAST) were awarded Welsh Government Pacesetter Funding to assess the viability of an extended rotational approach to the delivery of care using a WAST Advanced Paramedic Practitioner (APP) based within Primary Care. The three part rotation incorporates Primary Care, and shifts in the WAST clinical contact centre, and solo responding.

Nine APPs started their rotation into five Primary Care clusters within BCUHB in June 2019. The model of implementation was designed to meet the needs of the local population and is different in each cluster. Alongside the Primary Care rotation, the APPs received a half day of formal education per week delivered by a local GP training provider.

The project team worked with colleagues from Public Health Wales (PHW) to develop an evaluation framework comprising seven elements. The findings from APP, WAST, Primary Care/Clusters elements are included within this report. Data was collected using different qualitative and quantitative methods including a focus group, APP reflections, online questionnaire, standardised questionnaire, and reported daily activity data. Work to evaluate the Education Framework, Patient Experience, Project Design and Economic Evaluation elements has been undertaken by external partners and will be reported elsewhere.

The findings from Phase I will inform the planning process and as the project progresses into Phase II.

First Six Months Primary Care Questionnaire

The questionnaire was hosted on an online platform and a link was circulated to colleagues in Primary Care. It intended to capture their experiences from first six months of the Pacesetter project. Respondents (n=8), included representatives from different job roles and areas who were able to provide insight from a cluster/Primary Care perspective.

- Respondents reported that the implementation progressed as planned.
- Several areas had reviewed the model or implemented changes to ensure the service delivered by APPs met the needs of the cluster and patient population. These included adding APP surgery clinics and reviewing travel to ensure efficient use of time.
- Reflecting on whether they would do anything differently, two responded that they wouldn't make any changes. Representatives from three cluster areas suggested surgery clinics from the start and another suggested a shorter induction period.
- When asked what resources or support would optimise implementation, responses included an individual to coordinate home visits, additional clinical cover and mentorship. Others suggested electronic data collection tools, and balancing room availability and busy days in surgery with APP availability. There was praise for the support provided by colleagues from WAST and PHW.
- The main benefits arising from APPs rotating into Primary Care were relieving pressure on surgeries and releasing GP time to focus on complex patients (mainly due to APPs undertaking home visits on behalf of GPs). Two areas cited the project as the foundation for potential work in future utilising paramedics in Primary Care services.



- The main challenge reported was that each APP is only available to the cluster two days each week. Some more minor challenges were physical space and coordinating home visits between practices.
- It was thought the APP service would contribute to sustainability in Primary Care by increasing GP capacity, expanding the range of clinicians available in surgery, and potentially attracting GPs in future. By understanding the APP role, it was anticipated that they will be utilised more efficiently in practice.
- Clusters were keen to continue working with APPs and develop their role further in future. The APPs were complimented and described as a valuable resource.

Cluster Co-ordinator Focus Group

Following the six-month questionnaire, a focus group was undertaken with four representatives from three of the clusters to explore some of the findings in more detail. The responses were aligned to the Primary Care element of the evaluation framework.

Is the model tested the preferred model for future development within the Clusters?

- The home visiting service was discussed in depth, and worked well in terms of releasing GP time and providing “an extra pair of hands”. Because of this, there was reluctance to move to incorporate surgery clinics into APP time in some areas.
- The focus group was represented by individuals from rural clusters and some of the uniqueness of this area were captured. The APP’s ability to communicate with patients in Welsh was described as “powerful”. Despite being geographically diverse there was a support system in place for APPs, a strong sense of community and good continuity of care.
- The model utilised in each area was reviewed; for example, one area had started surgery clinics. Looking ahead, there was a suggestion to shorten the induction period and utilise the current APPs to support a new cohort. There were conflicting views whether withdrawing incentive funding would prove a barrier to GPs going forwards.

How do we make this sustainable?

- Good cluster relationships and communications were said to be key to sustainability. This ensured APP time was used efficiently and the APPs could support staff shortages in Primary Care.
- GP supervision provided a source of support and guided APP development. However there was some concern that APP reliance on GPs for reassurance would have a negative impact long term.
- The input, support and collaboration with PHW and WAST was highlighted, particularly for supporting aspects of the evaluation and ensuring that the clusters and APPs were progressing as expected.
- Overall, the selection of APPs, and their individual attributes were thought to contribute to the sustainability of the project. They were described as flexible, keen and thorough, and one respondent described how an APP went ‘above and beyond’ in caring for patients.
- Looking ahead, clusters viewed the APPs as part of the team and were keen to expand the APP workforce. They identified other clinical areas which could potentially benefit from having an APP, such as minor injuries clinics. Clusters recognised the importance of investing in APPs and developing them as clinicians.

What would the clusters change?



- The importance of collecting feedback from patients was acknowledged. Where this had already been done, feedback was positive.
- Some changes were suggested to support efficiency and utilisation for example reviewing the structure of the working day, purchasing specific testing equipment and encouraging APPs to use the laptops, and tablets supplied.

How have the cluster changed their approach to the APP?

- Practices have encouraged patients to consult an APP where appropriate, but more could potentially be done to raise the profile of APPs before patients see them. The inconsistent approach to paramedic uniform in Primary Care was also discussed.
- The APPs were recognised as being highly skilled, autonomous practitioners, however there was some concern around the perceptions of other healthcare professionals.
- With a better understanding of the APP role and skills, clusters can now plan how they will effectively utilise the APP resource in future.
- APPs also contributed to suggestions around working hours and additional work.

Minnesota Satisfaction Questionnaire

The Minnesota Satisfaction Questionnaire (MSQ) (Weiss et al 1967) is a 100 item (question) tool which measures satisfaction with work and the workplace environment. Each item is mapped to one of twenty scales, with five items/questions per scale. There are 5 fixed response options per question: very dissatisfied, dissatisfied, neither, satisfied, and very satisfied.

All APPs completed the questionnaire and it was scored according to the instructions provided with the tool. The findings contribute to part of the APP element of the evaluation framework.

- Overall, the findings from the MSQ indicated that the APPs were generally satisfied with the Pacesetter rotation.
- The highest scoring individual question when the score for all APPs was combined was 'the chance to help people' and the lowest scoring was 'the way promotions are given out'.
- The highest scoring scales were Social Service, Co-workers and Working Conditions. The lowest scoring scales were Recognition, Advancement and Authority.
- The short version MSQ provided guidance for mapping scores to one of three scales; intrinsic satisfaction (based on type of work/the work itself), extrinsic satisfaction (based on environmental factors) and general satisfaction. Based on APP scores, it was noted that most of the extrinsic/general items scored in the bottom seven for raw score. In contrast most of the top scoring scales were classified as intrinsic/general. This indicates higher level of satisfaction with the type of work and job itself, and lower levels of satisfaction with external factors.
- Based on the MSQ scoring system, if scores are converted to percentages then 0-19% would represent very dissatisfied, 20-39% dissatisfied, 40-59% neither, 60-79% satisfied and 80-100% very satisfied. Based on percentages, all scales would fall in the "satisfied range" except Co-Workers and Social Service which would be classified as "very satisfied".
- The highest total raw score from one APP was 417 (maximum total 500), and the lowest 294. The mean average was 360.78. If scores were converted to percentages using the system outlined above, one APP would be ranked as "neither" for satisfaction, seven as "satisfied" and one "very satisfied".
- The standard deviation was calculated for each of the 20 scales. The Social Status and Activity scales had low standard deviation meaning there was little variation and APP scores tend to be



close to the mean. The Advancement and Creativity scales had the highest standard deviation indicating diverse scoring between the APPs.

- A box and whisker graph was used to display distribution of data. This identified that the scales of Variety, Ability Utilisation, Working Conditions and Responsibility all had scores outside the whisker considered to be 'outliers'. For the purpose of the MSQ, it indicates that one APP scored vastly different to the rest of the group on a particular scale.

APP Reflection 'Am I learning?'

To fulfil the 'am I learning?' item from APP element of the evaluation framework, the APPs were asked to provide a reflection on this topic. Seven of the APPs returned a reflection, which provided a rich insight into their experience. The reflections were analysed together and nine themes arose which are outlined in more detail below:

Initial expectations and induction

"I remember mentioning unknown unknowns-those areas of Primary Care that I was so unaware of that I couldn't identify them as gaps in my experience and knowledge."

The rotation into Primary Care was approached with a degree of hesitancy, APPs were conscious of gaps in their knowledge. Some APPs reflected on the benefits of a longer induction period having initially spent time observing other clinicians.

Adapting to Primary Care

There was some initial anxiety around home visits and later before starting surgery clinics which was attributed to a perceived lack of confidence. Primary Care gave APPs the opportunity to practice differently, seeing review patients and providing palliative care, but with this came the burden of responsibility for balancing risk and managing patient care.

Supervision

"I feel personally that I have had fantastic support from our nominated GP supervisor, she has sought our feedback on how the scheme [can] be changed to better improve our learning experience and we have recently begun to run supported clinics."

Several of the APPs described how GP supervision and mentorship had positively impacted on their clinical practice and experience in Primary Care, providing a source of formal and informal learning.

Personal and professional development

"As a practitioner I feel my critical thinking has changed significantly and has moved away from the paramedic way of training/ thinking."

APPs were said to have experienced "shift in practice", developing skills in critical thinking, identifying areas for future learning and working autonomously. Clinically, improvements were noted in safety netting, consultation and diagnostic skills.

Education framework

"They have delivered excellent and informative sessions that are relevant to practice in Primary Care and I feel that I have been incredibly well supported by all of the doctors involved."



The APPs praised the quality of the education and support provided. The importance of peer social support, meeting as a group and sharing experiences was described as “invaluable”.

Risk

The concept of risk was raised throughout the reflections. As autonomous practitioners, the APPs were responsible for perception and management of risk when caring for patients. The APPs recognised risk as being inherent to medicine, the importance of learning to manage risk safely, and seeking the opinion of senior colleagues in decision making.

Evolution of the APP model

“until this point, I have found that surgeries would often allocate minor illness complaints for my review... The vast majority of home visit patients seen have a respiratory, dermatology or musculoskeletal presenting complaint.”

The APPs worked together with their cluster to implement changes which supported development of the model to meet local need. Some APPs were initially allocated a limited range of patients for example respiratory and dermatology but were now seeing a more varied caseload.

MDT integration and inter-professional relationships

Working with multidisciplinary colleagues gave the APPs a better understand of their roles, and vice versa. This helped improve their knowledge of the local services available for patient referrals such as community audiology.

Impact on WAST

“I have taken a great deal from my time in Primary Care, improving my practice while working within the cluster which I feel is reflected in my practice when undertaking my WAST shifts.”

New knowledge and skills acquired in Primary Care were said to impact on clinical practice on WAST shifts. New learning had increased confidence and effectiveness in patient assessment and clinical management skills which reduced consultation times, and improved the APPs ability to support colleagues in the clinical contact centre.

Primary Care reported APP Activity data

Clusters were asked to collect activity data as evidence for the Primary Care/clusters element of the evaluation framework. They were offered a financial incentive to undertake this work. Data was returned from four of the five Clusters. Overall, the data was inconsistent and there were discrepancies when compared with the activity data provided by the APPs. Data was not available from all areas for every month. Because of the compromised data quality, it was difficult to compare clusters over time or determine whether trends such as an increase in activity were a reflection of true activity or attributable to data errors.

The clusters collected data on five different items which are outlined in further detail;

Number of appointments utilised for APP consultations

In North West Wrexham the number of appointments with an APP used out of those available ranged from 69% to 92% and averaged 83%. In Arfon, the figure ranged from 90% to 114% and averaged 98%.



Number of APP appointments

In North West Wrexham there was a data error where the cluster recorded a greater number of patients seen in a particular month than the APP did. Similar errors were noted in Arfon, where the cluster data for number of appointments used, location and type of patient all exceeded APP recorded activity. In all areas there were inconsistencies between the total figures from the three data sources (total number of appointments, location of type of appointment). Generally, APP reported activity was higher than the cluster recorded data, except Conwy West where data was missing for one APP.

Location of appointment - from five options (patient home visit, residential home, care home, nursing home and practice-based appointment).

In North West Wrexham most appointments took place in surgery clinics (n=352), and patient homes (n=47). Similarly, for Arfon the category with the highest number of consultations was surgery appointments (n=248) followed by care home visits (n=70). Over time the number of appointments in surgery reduced and the number taking place elsewhere increased. In contrast, most patients in Dwyfor and Conwy West were seen by an APP in their own home (n=268 and 310 respectively).

There was data available for the location of 1,938 appointments (out of 2,565 reported by APPs). Of these 672 (34.7%) took place in surgery clinics, and 1,266 (65.3%) were undertaken in patient home, nursing home, care home or residential home. This is an important consideration in terms of travel time and the number of patients APPs are able to see per Primary Care shift.

Type of patient - from four options, categorised by the APP and reported by cluster (sick patient requiring escalation, well patient requiring reassurance, unwell patient but fit for home management or complex patient requiring supervision or senior discussion).

In North West Wrexham, most patients were categorised as well but requiring reassurance. Data from Dwyfor and Conwy West indicated most were well patients seeking reassurance or unwell but able to have their condition managed at home. Both Dwyfor and North West Wrexham noted an increase in the proportion of patients categorised as complex who were seen over time, whereas the figure for Conwy West decreased.

Complaints or concerns

There were no complaints or concerns raised by patients relating to their consultation with an APP.

APP Activity data (June 2019 – January 2020)

APP daily activity data was captured to evidence the 'am I effective' APP element of the Pacesetter evaluation framework. Conwy West, Conwy East and North West Wrexham were all missing at least one month of data.

Between June and January, the APPs completed 2,565 patient consultations, ordered a range of samples including bloods, radiology and ECG, and referred to a number of primary and secondary care services.

- **Number of APP consultations** – the highest number of patient consultations took place in North West Wrexham, followed by Dwyfor, Conwy East, Arfon and Conwy West. On average, across all clusters there was a mean total of 344 patient consultations per month, and a peak in December.



- There was variation between the clusters across the months, but an overall positive trend and an increasing number of consultations being undertaken. By January the time to see one patient ranged from 0.9 to 1.4 hours across the clusters. In clusters with missing data, an assumption was made that the missing activity data would be equal to the other APP in the cluster. This would have represented an additional 352 consultations, totalling 2,917 between June and January.
- **Supervision** – Across all clusters there were over 430 hours of reported GP supervision, more than half took place in the first two months. There was considerable variation between clusters from just 12 hours in Dwyfor to over 200 hours in Conwy East. This is likely to represent time spent shadowing rather than supervised practice.
- **Prescriptions** – An average of 40.7% of patients consulting an APP required a prescription. The percentage was highest in Arfon across all months (where the APP is a prescriber) and an increasing trend for the remaining clusters except Dwyfor.
- **Patients not requiring treatment** – Over two thirds required treatment, and just under a third did not. Arfon had the highest percentage of who did need treatment of all the clusters. Over time there was an increasing trend for patients not needing treatment in all clusters except Conwy West.
- **PGDs (patient group directions)** – Overall 16.5% of patients would have been eligible for WAST PGD, with the highest number recorded in December. Arfon recorded the highest total for five of the eight months documented.
- **Conversion to GP appointment** – In total, just 6.7% of APP consultations converted to GP review. The highest proportion was in North West Wrexham, and lowest in Arfon. The month with the highest number of patients subsequently needing to see a GP was October.
- **Secondary care referral** – After consulting an APP, 2.3% of patients were referred to the Emergency Department (ED). The highest number of referrals were in October. Most came from Conwy East and least from Dwyfor. Similarly 2.5% were referred to The Medical Assessment Unit (MAU)/Surgical Assessment Unit (SAU) or The Ambulatory Care Unit (ACU). Conversely most of these referrals were from Dwyfor and least from Conwy East, potentially due to service availability.

Key Findings

- After overcoming some initial difficulties, the APPs reported a generally positive experience. The supervision provided by GPs and integration with other healthcare professionals were found to be beneficial. The reflection provided a rich insight into the experience, describing positive changes which also influenced their practice on WAST shifts.
- From a cluster perspective, the APPs are perceived to have had a positive impact, and even at six months, practice staff and clusters could recognise benefits of having an APP in practice and how they could contribute to future sustainability in Primary Care. Several areas were reviewing the service to ensure it continues to meet local demand. There was an interest in expanding APP capacity and developing the role in future.
- Activity data indicated that the APPs had made a significant contribution to Primary Care. However, data collection was inconsistent from both clusters and APPs, and the quantity of missing data meant it was difficult to draw conclusions over time or between cluster areas.



Recommendations

1. Surgery clinics - Feedback from Primary Care representatives indicated that it would be beneficial for APPs to consult patients in surgery clinics from the start of the rotation. It was found to provide APPs with exposure to a broader range of patients and clinical complaints than home visiting alone. However, it is important to maintain the home visiting service provided by APPs as it relieved pressure on surgeries by releasing GP time to focus on complex patients.
2. Implementation support - The implementation of Phase I was supported by extensive consultation between the project team, Clusters and Primary Care staff. Cluster representatives were satisfied with the implementation process, therefore it will be important to continue regular communication to support the implementation process in Phase II, particularly as there may not be the same level of input from PHW and WAST in future.
3. APP Whole Time Equivalent - There was some disappointment that each APP was only available to practices for two days each week. Clusters expressed an interest in continuing to work with APPs, to develop their role and expand the service in future. An increase in the number of APP WTE would potentially provide cover across the whole week in Primary Care.
4. Senior mentorship and support services - The APP reflections provided evidence of the positive impact of GP supervision. From a cluster perspective, the experience was generally viewed as positive, but there was some APP reliance on GPs by APPs seeking reassurance. In a future model, this role may fall to experienced Primary Care APPs. Therefore, there must be a clear understanding of boundaries whilst maintaining patient safety.
5. Raise the profile of APPs in Primary Care - Feedback from the cluster focus group indicated that patients were satisfied with the service once they had seen an APP, however more could be done pro-actively to raise awareness of their presence in surgeries.
6. Peer support – The social support from the education sessions had a positive impact on the APPs. Recent changes mean the education is likely to be delivered using a virtual platform for the foreseeable future. The project team and education providers need to ensure consequences of reduced peer contact are identified and mitigated where possible.
7. Data collection – One of the greatest areas of weakness in Phase I was data collection. In Phase II, there is a need for clear expectations and accountability with regards to activity data collection. Improvements have already been made to streamline the process for APPs and feedback may help improve this process for Phase II.
8. Wider impact - There has been strong focus on the impact for Primary Care in Phase I. Phase II seeks to understand the impact on WAST. The evaluation will focus more on the clinical contact centre and solo responding aspects of the rotation and skills such as leadership and autonomous working. From a Primary Care perspective, further work need to be done with patients, GPs and other healthcare professionals to gather the opinions of a wider range of individuals, and triangulate the evidence.
9. Dissemination - An initial literature review identified a lack of research around the APP role, particularly those working in Primary Care. The project team have developed a publication strategy and are keen to disseminate the findings from this report in paramedicine, primary care and emergency care journals in the coming months.
10. Train where you work - Some of the cluster feedback, particularly from rural areas identified the “powerful” impact of the APPs conversing with patients in Welsh and how integrating culturally has the potential to improve continuity of care for patients. This provides support for proposed model of ‘train where you work’ so that APPs work in Primary Care area in the region they would ordinarily be based for WAST APP shifts.