PACESETTER SCHEMES 2018-19

Health Board	Cwm Taf University Health Board
Pacesetter Title	Artificial intelligence (video conferencing and symptom checker application) to assist the clinical triage process in OOHs service
Context: what is the current evidence and how does this project add value?	Primary care is under pressure in hours and out of hours. There is a broad consensus that change is needed and there is no single solution, rather a range of measures. One area of interest is the use of information technology. The proposal is to introduce artificial intelligence into the GP OOH Service. As part of this proposal we will provide the opportunity for patients and clinical staff the opportunity to operate video consulting application. Babylon also offer private video and face to face consulting services, it is expressly not this part of their activity which we are considering. The proposal is to use an existing software with years of testing and operator experience. Nothing about this is experimental, however, this is not yet in use in Wales and it is unknown the position NWIS would take on any engagement. Cwm Taf Out of Hours (OOH) achieves a low triage completion rate. Completion is when at the end of the triage call no other action is needed or (only) a prescription is generated. The patient is not seen face to face either in OOH or other urgent services. Indications from other South Wales OOH providers are of 40-50% triage completion rates. In Cwm Taf this figure can fall to below 20%. The effect of this is to place a potentially avoidable burden on base appointments in our OOH primary care centres, home visiting services and two A&E departments. It is anticipated in 2019 Cwm Taf OOH will be incorporated into NHS 111. This is presents a challenge and an opportunity for innovation. For practices demand for urgent care has been identified as an area of almost universal concern at recent GP engagement sustainability meetings. And there has been an appetite to explore innovative ways of dealing with this demand. There are a range of services on offer in NHS in England, particularly in London, which offer services which can possibly revolutionise the way in which patients can access advice and also a video consulting platform allowing patients to access a clinician for triage or full consultation purposes.

	The unscheduled care application and the video conferencing can provide an alternative mechanism of accessing integrated urgent care and connecting patients to clinicians. **Evidence from Elsewhere** On specific provided has been selected to power the NHS urgent careline (NHS111). Since its launch in January 2017 the AI triage agent now serves 1.5 million people in London on behalf of the NHS. Since the beginning of the trial period of the use of the app by NHS 111 there has been over 9,500 downloads of the app and it has been used to perform more than 5,000 triages. In more than 40% of cases, the app directed patients to self-management outcomes, with the remaining triages most frequently sending people to their GP (28%), or to urgent and emergency care (21%). In a comprehensive clinical review of 74 patients that the app triaged to urgent and emergency care there were no cases found in which the patient should have cared for in a less acute setting. The symptom checker has been teste against doctors and nurses and was found to be 100% safe and more accurate that an nurse or doctor, 90.2 % accurate vs 77% for doctors and 73.5% for nurses. Cwm Taf UHB believe that there is an opportunity to test the use of AI technologies to help inform the transition to 111 but also it will help inform the use within core in-hours General Practice. The OOH service provides a safe and structured environment in which to test the use of these innovative services.
Aims of project	The aim of the project is to trial a new way of providing patients with alternative access to urgent unscheduled care advice and triage using technology. We would like to explore the use of 1. A Symptom Checker Application used by patients remotely on a smart phone or tablet, which can act as a triage tool and provide advice with no further action needed in up to 80% of general enquiries, or redirect to face to face primary care or emergency services when needed. The information from the application can be uploaded into primary care records. In the OOH setting if the patient

	needed to be seen face to face this would be into the Adastra records system currently in use. 2. A Video Consulting Platform allowing patients to access a clinician for triage or full consultation purposes. **The benefits of this project are:** The potential benefits to patient experience: - Improved patient experience with the use of an increasingly familiar technology, in a timely fashion, without leaving home. - Encouragement of self-management where appropriate and ownership of one's own health. - A robust tested safe method of triage with the added visual reassurance of 'seeing' a clinician. Patient flow in OOH: - An improved completion rate for triage, particularly in the OOH setting - Improved access to face to face appointments where these are appropriate - a particular pressure on weekend evenings. - The potential to use an amended form of the symptom checker for telephone triage by call handlers in OOH. For Clinicians: - A lower clinical risk with video compared with telephone triage – a point accepted by indemnity providers - A stored complete record of video triage or consultation and symptom checker enquiries. For wider healthcare teams: Aim to reduce pressure on the NHS during the busy winter period and beyond. It will help inform whether the video technology be used for primary care clinicians to support colleagues from Welsh Ambulance, Community Nurses or Care Homes. The learning from this pilot will also help inform District Nurses, Virtual Ward and Home Visiting Teams.
Allocation	£100K

Start date of project	April/May 2018
Alignment with Emerging Model	There is alignment with the emerging model as evidenced below **Better Access** • Faster and more convenient way to get advice or GP treatment • Serves unmet needs of less mobile or working populations • Reduces uncomfortable and unnecessary visits to Primary Care Centres, A&E & GP • Enhances patient's own earning/learning potential (less time away from work/education visiting the OOH service in person). **Better Health Outcomes** • Educates and empowers patients on wide range of healthcare issues • Encourages earlier presentation, and therefore earlier commencement of treatment • Surfaces problems patients perceive as embarrassing, e.g. mental and sexual health. Also prompts action to red-flag symptoms, e.g. rectal bleeding. **Better overall NHS Efficiency** • Availability of online treatment encourages uptake of other online transactional tools e.g. appointment booking, repeat prescriptions • These serve as *pre-general practice options* that top-slice patient demand for appointments, particularly amongst patients who are unclear if they need to see the GP at all but are "playing it safe" • Improvement in access for all patients • GP appointments are protected for doing more with their complex patients As part of the sustainability engagement workshops which have taken place over the last year a number of clusters have expressed an interest in piloting the concepts of 'urgent care centres'. This work will help to inform the way in which these centres are designed and planned going forward.
Potential to demonstrate financial redesign / resource shift	Utilises the latest technologies to support better access to patient care. At present there is significant demands on both our in hours and OOHs services for urgent care. Although we have managed to maintain our shift fill rate for OOH to 76-80% we still have times when we have sufficient numbers of GPs coming forward to work the

	OOHs. This is a result of resent changes to the HMRC tax and pension rules. If successful the technology would mean less reliance on GPs and the ability to work and progress a different skill mix within the OOH team.
Dates for submission of Business Plan and Delivery agreements	The business plan will need to be further developed and is depending on the provisional approval to fund this project.
Status within: **HB strategy** **IMTP process** **Cluster Action Plans**	The OOH Strategy has referenced greater use of artificial intelligence both in our OOH and In hours Services. As a result we have also made a commitment within our IMTP to support further work to test new technologies. As part of our sustainability work with our GP Clusters, some have asked to be pilot sites to test the concepts of 'Urgent Care Centres'. This work will also help to inform these developments.
Timescales for each stage of project, with rationale	There are a number of providers offering the services and therefore a formal tender process would need to be completed. If the principle for the pacesetter is agreed we would progress this stage as soon as possible and a detailed implementation plan would commence with effect from 1st April 2018. It is also envisaged that the use of the technologies will be limited to a select number of GPs who work in OOHs and for perhaps a target group of patients. The details in respect of this are to be worked through.
Evaluation methodology and measures to be used	We have approached the Swansea Centre for Health Economics, part of Swansea University to provide a health economic evaluation. We would also look at the attainment of the new all Wales OOH Standards Patient Satisfaction GP / User Satisfaction Triage / Conversion Rates Reduction in admissions to A&E

Project support available	The project support will be provided by the OOH team and in particular the Clinical Lead and the OOH/111 Senior Manager. Additional administrative project support has been sought via the IMTP process.
Describe anticipated impact on health inequalities	It is anticipated that this project will provide the following benefits for health inequalities: • Promoting Self-care and staying healthy - ensuring our population will have the knowledge, and confidence to look after their own health and to prevent ill health through targeted public health interventions across all age ranges. • Advice and support - provide a range of sources of health information and advice. • Early Intervention – ensuring timely access to primary care services by enhancing capacity and improving early detection.
Potential for rollout at scale, with indication of costs and workforce implications	Workforce implications are unknown at present but if successful it is anticipated that it may reduce the over reliance we currently have on GPs. Project costs are un-know as this will be dependent on the outcome of the tender process. One provider is charging 0.28p per patient. The funding envelope would not enable complete coverage of our population but based on this a controlled pilot will be possible and is probably the best way forward. We anticipate that the project will be piloted for a select number of GPs who work within OOH and for a specific cohort of patients. It is anticipated that the learning from this project will help inform the design of urgent care services within core in-hours.

NATIONALLY AGREED CRITERIA FOR PACESETTER PROGRAMME – 2018/19

1. The schemes should be aligned to the work of the Implementing the Emerging Model Group in terms of building on:

    - Outcomes of previous Pacesetter projects
    - The whole system emerging model for primary care
    - Outcomes of the Pacesetter Critical Appraisal
    - Outcomes of the Parliamentary Review into Health and Social Care

2. Projects should actively explore the potential for whole system financial redesign and resource shift between sectors

3. Each project to be underpinned by a clear business plan and delivery agreement that has been agreed by the Health Board executive team, PC Directorate, cluster leads, the relevant cluster and the professionals responsible for delivering project outcomes.

4. A clear and realistic approach to timescales for project outcomes that takes account of bedding in, transforming care and reporting arrangements.

5. Robust measures for evaluation to be defined at the outset and using an appropriate range of methodologies to give a clear understanding of outcomes and benefits, including costing

6. The programme of work to be an integral part of the relevant cluster action plan, the health board strategy and the IMTP process

7. Evidence that the project team will be supported through appropriate backfill arrangements; dedicated project management; access to expertise in research analysis, IT systems usage and data analysis.

8. Consideration should be made of the specific challenges faced by professionals working with deprived communities in relation to innovation and redesign. Primary care teams in these areas often need more support and/or resource to initiate new ways of working and a proactive approach is required to promote innovation.