



Oxford AHSN Year 7 Q3 Report

For the quarter ending 31st December 2019

Cover image:

The Oxford AHSN hosted a pitch event at the end of November, marking the culmination of our first Accelerator programme with BioCity. Ten start-up business ventures demonstrated to an expert panel how their innovation meets a proven NHS need. Two awards were presented on the day: CanSense winning Best presentation and Cotswold Health Technologies picking up Best insight. The overall winners who will receive ongoing support will be announced shortly.

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Chief Executive's Review

The next set of AHSN national programmes for delivery in 2020-23 continue to evolve. In addition to improving diagnosis of ADHD, management of eating disorders in young adults, the detection of Familial Hypercholesterolaemia (FH) is being expanded to a lipid management programme directed at improving treatment of the broad population with previous cardiovascular disease or increased cardiovascular risk. The FH programme will be the first example of genetic testing based in primary care, and with the support of the Genomic Laboratory Hubs will be key to increasing the current very low detection rate of 4% in England to the NHS Long Term Plan target of 25% by 2025. An additional programme is being established to increase the use of the diagnostic faecal calprotectin in primary care to support earlier diagnosis and referral to secondary care of people with inflammatory bowel disease.

Our commissioner NHS England has asked the AHSN Network to develop a programme identifying workforce solutions for the NHS. Workforce emerged as the key research and innovation priority for NHS partners in the national survey undertaken last year, and the need to enable NHS staff to work more productively and satisfyingly is particularly important in this region due to the shortage of staff related to the high cost of living in many of our counties. In partnership with Health Education England We will be looking for solutions within and outside our region in four areas: those aimed at changing patient/public interaction with health and care which reduce the impact on the NHS workforce; those aimed at individual NHS or social care staff improving staff experience, wellbeing, knowledge or skills; organisational level interventions that change processes that support the workforce or the way in which staff are managed; and system level interventions that change the way in which a pathway is delivered through use of different staff, skills or new technologies.

Our case studies this quarter demonstrate the impact of our work at both a regional and national level. Developing leadership capability and change expertise in our clinical communities is essential to deliver the ambitions of our Integrated Care Systems and the NHS Long Term Plan. A leadership development programme for senior pharmacists across the region developed in partnership with Novartis and the Faculty of Medical Leadership and Management for senior pharmacists across the region. An early outcome of the programme has been formalising a Thames Valley medicines optimisation collaborative. The Oxford AHSN Anxiety and Depression Network has developed a smartphone app to support patients to stay well following a course of psychological therapy. Our team are leading the national adoption of Placental Growth Factor based testing for pre-eclampsia, producing implementation packs to support other AHSNs. Projected annual savings to the NHS in England are £4m per year through reduced hospital bed occupancy

The region remains a vibrant area for life science research and development. I attended the opening of the Bayer LifeHubUK, in Reading opened by Matt Hancock, Secretary of State for Health and Social Care. This is one of seven such global centres established by Bayer which has established a strategic partnership of collaborations with external partners that will drive development of artificial intelligence enabled radiology to enhance patient outcomes. Professor Dame Sally Davies Festschrift was a reminder of the substantial achievements and impact achieved through the establishment of National Institute of Health Research by Dame Sally in 2006. A key role of AHSNs continues to be to help the NHS maximise the uptake of government, charity and industry funded research to improve patient outcomes and the population's health.

Professor Gary Ford CBE FMedSci
CEO, Oxford AHSN

Oxford AHSN case studies- Update for Q3

Case studies included in this report:

1: Thousands more pregnant women benefit from test to rule out pre-eclampsia national rollout led by the Oxford AHSN

Overview summary

Quick, accurate blood tests which can help rule out pre-eclampsia are improving care for pregnant women and their unborn babies, reducing anxiety and saving the NHS money. AHSNs are leading a rapid adoption project for these tests into maternity units across the country. Rapid uptake means these tests are becoming available to thousands more pregnant women – up from 29,000 in March 2019 to a predicted 200,000+ by the end of December 2019. The award-winning NHS/research/industry partnership has been selected for the NHS England Accelerated Access Collaborative, Innovation Technology Payment and Rapid Uptake Product programmes in 2019/20 which introduce an accelerated pathway to market for highly transformative innovations. Initially led by the Oxford AHSN, the initiative is now backed nationally by all AHSNs. Detailed implementation packs have been developed covering changes required to pathways and practices. These make it relatively straightforward to replicate at any maternity unit which is supported by a laboratory. A collaborative, multi-disciplinary approach is enabling improved decision-making and clinical risk reduction with a clearer focus on women needing closer monitoring. This is leading to improvements to patient safety, experience and satisfaction. Projected annual savings in England are estimated at £4m per year relating to reduced hospital bed occupancy. There is growing international interest in adopting this model. This initiative was a category winner at the HSI Partnership Awards 2019 (with partners OUH and Roche). The judges said: “This project showed high levels of innovation and sophistication. This evidence-based project delivered demonstrable improvements in patient experience.”

2: Supporting leadership and collaboration in medicines optimisation

Overview summary

The Oxford AHSN partnered with Novartis and Faculty of Medical Leadership and Management to support the design, development and facilitation of a four-day leadership programme. The aim of the programme was to help senior pharmacists influence the transformation agenda at a strategic level and develop plans to achieve this.

3: Paddle – Psychological therapy support app helps patients steer a course to recovery

Overview summary

A new smartphone app has been launched to support patients to stay well and maintain their therapeutic gains following a course of psychological therapy treatment for a common mental health disorder. The digital application puts patients in control, storing all their treatment-related information in a single secure location that they can access easily and immediately when needed. Co-designed by patients, the app is called Paddle because it's a tool to help people steer their way through life's choppy waters.

Oxford AHSN case study 1

Date: Q3 2020

Programme/Theme: Strategic and Industry Partnerships

Title: Thousands more pregnant women benefit from test to rule out pre-eclampsia following national rollout led by the Oxford AHSN

Overview summary

Quick, accurate blood tests which can help rule out pre-eclampsia are improving care for pregnant women and their unborn babies, reducing anxiety and saving the NHS money. AHSNs are leading a rapid adoption project for these tests into maternity units across the country. Rapid uptake means these tests are becoming available to thousands more pregnant women – up from 29,000 in March 2019 to a predicted 200,000+ by the end of December 2019. The award-winning NHS/research/industry partnership has been selected for the NHS England Accelerated Access Collaborative, Innovation Technology Payment and Rapid Uptake programmes in 2019/20 which introduce an accelerated pathway to market for highly transformative innovations. Initially led by the Oxford AHSN, the initiative



is now backed nationally by all AHSNs. Detailed implementation packs have been developed covering changes required to pathways and practices. These make it relatively straightforward to replicate at any maternity unit which is supported by a laboratory. A collaborative, multi-disciplinary approach is enabling improved decision-making and clinical risk reduction with a clearer focus on women needing closer monitoring. This is leading to improvements to patient safety, experience and satisfaction. Projected annual savings in England are estimated at £4m per year relating to reduced hospital bed occupancy. There is growing international interest in adopting this model. This initiative was a category winner at the HSI Partnership Awards 2019. The judges said: “This project showed high levels of innovation and sophistication. This evidence-based project delivered demonstrable improvements in patient experience.”

Challenge identified, and actions taken

Pre-eclampsia (PE) is a multi-system hypertensive disorder - a serious disease that occurs in around four per cent of all pregnancies (about 23,000 annual cases in the UK). It causes high blood pressure, protein in the urine and oedema and can result in maternal organ failure, restricted foetal growth and pre-term delivery. In extreme cases it can lead to foetal or maternal death. Clinical teams inevitably have a high degree of suspicion for the disease and a low threshold to admit pregnant women with suspected PE. This place significant economic and capacity burdens on maternity systems. It costs the NHS an estimated £9,000 per pregnancy to treat. Up to now there has been no definitive way to accurately diagnose who is not at risk of developing pre-eclampsia. Women are routinely admitted for an anxious few days of hospital tests ‘just in case’ - but most do not actually have the condition.

In 2017, the Oxford AHSN initiated a project to drive the uptake and adoption of placental growth factor-based (PIGF) testing. Working with the Oxford Patient Safety Collaborative and clinical leads, laboratory heads, finance and management functions, the Oxford AHSN was successful in helping the first three hospital trusts in England adopt PIGF-based testing into standard clinical practice. The Oxford AHSN has now developed an implementation pack to support the adoption and spread of PIGF-based testing. Following a rigorous process, the test has been selected for rapid uptake nationally through the NHS

England Innovation Technology Payment scheme and Accelerated Access Collaborative, which identify highly transformative innovations and introduce an accelerated pathway to market. All AHSNs are now working together to ensure rapid and widespread adoption of the test into standard clinical practice in maternity units across the country.

Impacts/outcomes

AHSNs are leading a rapid roll out into maternity units across the country enabling faster and more accurate diagnosis. This is making the pre-eclampsia test available to thousands more pregnant women. Maternity services have responded very positively to the adoption of PIGF-based testing. In the first nine months of ITP funding, it anticipated that around 50 additional NHS trusts will have adopted a test into standard clinical practice, meaning over 200,000 additional pregnant women will have a diagnostic test for PE available to them (up from 29,000 across five adopted Trusts prior to April 2019). These numbers mean that just over 40% of all maternity services in England are expected to have adopted a PIGF-based test by year end, covering just over a third of all pregnancies.

Detailed implementation packs have been developed covering changes required to pathways and practices. These make it relatively straightforward to replicate at any maternity unit which is supported by a laboratory. A collaborative, multi-disciplinary approach is enabling improved decision-making, clinical risk reduction and better targeting of resources. This in turn is leading to improvements to patient safety, experience and satisfaction. For each hospital AHSNs are developing insight into their unique pathway and needs and providing project management and business support behind the adoption process.

Positive impacts include:

- Improved patient safety through accurate diagnosis on the suspicion of PE
- Reduction in the number of (unnecessary) admissions for suspected PE
- Improvement in maternity capacity as the result of having fewer women to monitor as inpatients
- Improvement in community midwifery capacity due to a reduction in the number of follow-on appointments required once PE is suspected
- A reduction in the direct costs to the system from the array of inpatient monitoring tests undertaken on the woman and her foetus. Of note is the ability to keep a woman on the most appropriate treatment pathway (i.e. Standard, Intermediate or Intensive) and not to have to escalate the level of her care to a higher pathway during the pregnancy upon the suspicion of PE, for which no additional funds are made available
- A reduction in the number of pre-term or emergency deliveries (delivery of the baby is the only “cure” for PE)
- Positive impact on workload and costs incurred by both maternity and paediatric services as a result of fewer pre-term births – cost savings based on fewer outpatient visits, admissions, pre-term deliveries and less onward neonatal care - projected savings in England are expected to be in the region of £4m per year, based on an estimated saving of £250-£600 per woman tested projected from health economic models.

There is also growing international interest in adopting this model; clinical and laboratory leaders from the original UK adopting Trust are providing support to adopting hospitals abroad. This NHS/research/industry partnership has won national and international awards, including from the HSJ and the UNIVANTS of Healthcare Excellence.

Supporting quotes

“The key has been combining industry innovation and research evidence to meet a known NHS need. That is where the AHSNs came in. The Oxford AHSN’s expertise and connections opened doors and enabled use of this test to spread from an initial hospital to multiple sites. They developed insight into pathways and needs as well as providing project management and business support for adoption. This approach allows us effectively to segregate patients into those who have virtually no risk of getting the disease and those with an increased risk. This test improves our diagnostic accuracy and is a welcome step forward.”

Dr Manu Vatish, Consultant Obstetrician, Oxford University Hospitals, and Senior Clinical Fellow with the University of Oxford's Nuffield Department of Women's and Reproductive Health

“This test has improved our ability to make the right decision on admission. The right patients are being discharged, leaving us to focus on those women who are at greater risk of developing pre-eclampsia.”

Dr Sofia Cerdeira, obstetrician and research leader, Oxford University Hospitals

“Working in partnership with the Oxford AHSN meant the right stakeholders were brought together with a clear plan developed to accelerate the adoption of this innovation. The AHSN was committed from day one to lead on this project with a dedicated point of contact managing communication across all stakeholders.”

Mr Chris Hudson, Director Healthcare Development and Strategic Services, Roche Diagnostics

“I was so happy not to be admitted to hospital; knowing I could go home and that I was safe was brilliant.”
Mother

“Having a test that effectively triages patients into high risk and low risk groups means that we can focus our care.”

Midwife

Key learning/tips for adoption

Key to the success of the project is confirmation of local clinical need, drivers and priorities in each hospital, mapping current and future clinical pathways with associated costs and benefits. To successfully deliver the project, key internal stakeholders (e.g. labs, finance) who are required to approve and then implement the adoption of the new test and pathway must be identified and engaged early in the process. As with most diagnostic tests, simply adopting the test into existing clinical or patient pathways will likely add cost with limited additional benefit for the clinical team or pregnant women under their care. As such, clinical and laboratory teams must adopt new pathways to incorporate PIGF-based testing into standard clinical care. Example pathways are available through the AHSN Network.

Start and end dates

2017- ongoing

Contact

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Oxford AHSN case study 2

Date: Q3 2020

Programme/Theme: Clinical Innovation Adoption

Title: Supporting leadership and collaboration in medicines optimisation

Overview summary

The Oxford AHSN, Novartis and the Faculty of Medical Leadership and Management (FMLM) combined to run a leadership programme for senior pharmacists across the Thames Valley. Participants were helped to develop greater insight into their potential to influence strategies and decision-making, determine their priorities and develop plans for pharmacy and medicines optimisation within the context of greater system integration.

They rated the four-day programme highly, particularly relating to collaboration - sharing experiences, concerns and visions. Senior pharmacists across the region, supported by the Oxford AHSN, have pledged to continue to work collectively on priority areas around medicines safety, medicines value and the pharmacy workforce.

Challenge identified

The changing healthcare delivery landscape and the evolving system-level working environment is leading to significant changes to the ways in which professions like pharmacy have traditionally worked. Significantly more collaboration and system level leadership is going to be required in order to deliver to the medicines optimisation priorities and challenges outlined in the NHS Long Term Plan. Given the importance and relevance of medicines optimisation to the Oxford AHSN's projects and initiatives, it was keen to address this challenge.

Actions taken

The Oxford AHSN partnered with Novartis and the Faculty of Medical Leadership and Management (FMLM), to develop a leadership programme for senior pharmacists in the area. The aim was to support senior pharmacists across the region to develop individual and system leadership skills to actively influence their local and system transformation agenda at a strategic level.

Programme development

The project team began by canvassing the needs of senior pharmacists to build a set of specific objectives to cover through the programme. These included:

- bringing together senior pharmacists currently working across the AHSN region to develop relationships and leadership skills to become effective system leaders
- supporting senior pharmacists in understanding the current and future system context for their work, including what it means to lead at different levels
- developing an understanding the system's perceptions of pharmacy leadership across the region
- creating a space for the group to hear from senior system leaders in relation to changes at system level – and the opportunities for the profession from their perspective

- helping the group identify how they can maximise their impact and lever their strengths and diverse backgrounds, both as a collective network and individually
- supporting senior pharmacists to consider the opportunity they have to actively and effectively use power and influence, as peers across a network, to affect their local strategic agenda at a strategic level
- focusing on individual strategies and approaches to supporting self and others that emerge out of the first workshop – e.g. resilience, managing conflict, policy dilemmas, building involvement and engagement
- understanding what this means at a personal and action-oriented level – and how our own personalities and preferences can help – or get in the way.

To deliver to this the FMLM developed a comprehensive four-day (2 + 2 day) residential programme.





Recruitment and engagement

Engaging through the Oxford AHSN’s existing networks, senior pharmacists at all acute and mental health trusts, heads of medicines management at all clinical commissioning groups (CCGs) and chief executives at all Local Pharmaceutical Committees (LPCs) were engaged and signed up to the programme.

Oxfordshire CCG	Oxford University Hospitals	Berkshire and Oxfordshire LPC
Berks West CCG	Royal Berkshire	Buckinghamshire LPC
Bucks CCG	Buckinghamshire Healthcare	Thames Valley and Wessex Pharmacy Procurement Services
East Berks CCG	Frimley Health	NHS England

Innovative aspects of the programme

The programme including several innovative aspects, see chart below.

Senior Leaders Panel	360 Feedback	Influence and Impact	Developing Strategy
 <p>To offer programme delegates the opportunity to hear about system transformation, longer term plans and reflect on <i>how pharmacists' can best contribute to local health systems developments</i>, a senior system leaders panel was assembled with Medical Directors, Clinical Chairs and Regional and National Pharmacy Leads</p>	 <p>All participants were asked to provide the names of Executive and Director level colleagues within their home organisations. FMLM contacted these nominated leads to provide feedback on the participants' influence and involvement in strategic decisions, and in the wider transformation agenda and what more they can do.</p>	 <p>Focussing on impact, an extended session was developed and delivered by external professional Actors. This session helped participants work on on voice and body language and delivering impact with messaging.</p>	 <p>Time was also allocated for all participants to come together to develop plans for future collaborative working across the Thames Valley</p>

Impacts/outcomes

The programme was run successfully through October and November 2019 and was rated exceptionally highly by participants.

One of the most important aspects of the programme was the development of a shared vision and purpose for the group during the action planning sessions. This session gave the group the opportunity to think about the key priorities for each participant, and where there might be synergy. Several themes emerged from the programme which the group will take forward. These included collaboration, communication, medicines safety, workforce, leadership and culture. Next steps:



Strong Collaboration

There is excellent collaboration already taking place across the BOB ICS and wider Thames Valley, and the relationships and trust in many cases is already well-developed



Emerging Leadership

There is already in the region exceptionally strong personal, organisational and system leadership in Pharmacy



An Opportunity

There is a significant opportunity to take the initiative and influence the role of Pharmacy and Medicines Optimisation in future transformation

As a direct result of the programmes the group recognised the value of formalising a Thames Valley medicines optimisation collaborative.

Future Plans

The Oxford AHSN is currently supporting the regional group to come together and develop a steering group to collaborate to develop strategy and to create a network to deliver medicines optimisation projects in the future which will benefit patients in the Thames Valley.

NHS priorities addressed

- Care and Quality
- Patient Safety
- Medication Safety

AHSN priorities covered

- Medicines optimisation
- Patient safety
- Medication safety

Start and end dates

2019-ongoing

Contact

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Oxford AHSN case study 3

Date: Q3 2020

Programme/Theme: Patient Safety Collaborative Improvement

Title: Paddle – Psychological therapy support app helps patients steer a course to recovery

Overview summary

A new smartphone app has been launched to support patients to stay well and maintain their therapeutic gains following a course of psychological therapy treatment for a common mental health disorder. The digital application puts patients in control, storing all their treatment-related information in a single secure location that they can access easily and immediately when needed. Co-designed by patients, the app is called Paddle because it's a tool to help people steer their way through life's choppy waters.



Challenge identified

Many patients do well during and after treatment for anxiety and depression. However, they can find it difficult to organise and store all the information and knowledge gained during therapy to help them stay well. The period immediately after treatment comes to an end can be particularly challenging and going it alone can be a daunting prospect. One in three people seek additional help in the six months after they are discharged. The Paddle digital application was co-designed by patients in response to feedback from the patient forum of the Oxford AHSN Anxiety and Depression (A&D) Network that extra support was needed. The app puts patients in control, storing all their treatment-related information in a single secure location. It's called Paddle because it's a tool to help people steer their way through life's choppy waters. The app enables individually tailored support, empowering people to effectively manage their condition and reduce relapse rates. It brings benefits to the individual, clinicians and the wider health system. Following a pilot with a small group of patients at the end of 2019, the Paddle app will be rolled out across Berkshire, Oxfordshire, Buckinghamshire and Milton Keynes from February 2020. This will be by invitation only for people who have started a course of therapy from NHS talking therapies (IAPT) services.

Impacts and outcomes

In the Oxford AHSN region over 3,500 patients enter treatment for a common mental health disorder every month and all of them will be offered the app once piloting and evaluation are completed. It is hoped that most of these will choose to use Paddle.

Future plans

Once Paddle is rolled out successfully across the Thames Valley, the A&D Network will explore ways of making it available on a national level. The network is also hoping to secure additional funding to:

- explore if Paddle can be used to improve the longer term patient outcomes are monitored
- explore if Paddle data can be used to predict which patients may need additional booster sessions to maintain their therapeutic gains following a course of psychological treatment
- understand if offering certain patients booster sessions following treatment would constitute a positive return on investment for the healthcare system

Key learning/tips for adoption

It is essential to:

- co-design with patients and an extensive expert reference group to ensure user perspective is at the centre of the design, and technical/governance/operational issues are addressed
- appoint staff as champions in each service provider to guide the piloting, initial evaluation and roll-out
- incorporate evaluation design from the beginning especially in a 'before and after introduction' evaluation design
- ensure all service leads remain informed and involved in the project
- find an app developer you feel you can relate to and work with as there will inevitably be many niggles/issues/decisions to work out along the way
- cost the project in full e.g. make sure project funding includes penetration testing, ensure there is funding to develop a supporting website/user guide video/training video etc.

Priorities addressed

AHSNs

- Speeding up adoption of innovation into practice to improve clinical outcomes
- Building a culture of partnership and collaboration
- Positive experience of treatment and care

NHS England

- Care and quality
- Health and wellbeing

Start and end dates

2019-ongoing

Contact

- <https://www.paddleapp.org/>
- ineke.wolsey-anxietydepression-IAPT@oxfordahsn.org

Operational Review

Headlines

We are still on track to deliver against six of the seven NHS England national programmes – notable in Q3 is that the first trust, Buckinghamshire Healthcare, went live with TCAM; this is forecast to meet the TCAM target number of patients for 2019/20. We are planning to roll out TCAM to at least two more Trusts in Q1 next year. Berkshire Healthcare, Thames Valley Police and the Oxford AHSN signed up to a Memorandum of Understanding to implement a service equivalent to Serenity Integrated Mentoring (SIM) in Reading. Engagement in Milton Keynes University Hospital has improved – notably with the uptake of UroLift in the trust which means that all the acute trusts have adopted this treatment. Efforts continue to bring Milton Keynes' GP practices on board (only two out of 27 practices have adopted AF Detect so far) by meeting with the PCN clinical directors to agree a way forward. Frimley Health and Care ICS has expressed interest in supporting the rollout of ESCAPE-pain – we are meeting the Clinical Reference Group in January to discuss next steps. PIGF (see Case Studies) has been adopted by three of our six maternity units and we have also supported uptake by Great Western Hospital in Swindon as the trust is part of our maternity network. Frimley Park, Wexham Park and Royal Berkshire are all keen to take on the Quidel PIGF diagnostic and they are preparing business cases.

Most notable this quarter is the submission of a paper from the OxGRIP project (scanning to identify small for gestational age babies in utero) – which demonstrates that this project has reduced undiagnosed breeches from 22.3% to 4.7%; important results that will be of interest across the NHS. In collaboration with Health Education England, the e-learning package for auscultation in labour was launched. The CIA programme held a leadership training event for senior pharmacists (see Case Studies) and established the Medicines Optimisation Collaborative; participants are from all parts of BOB ICS and Frimley ICS, however, Milton Keynes is not participating.

The closing event of our new business Accelerator programme was held in November – ten start-ups pitched innovations from drug discovery, diagnostics, digital health and service delivery to an expert panel. The winners will receive an investment of £50,000 from BioCity.

Prizes and publications

I am delighted to report that the Oxford AHSN's joint initiatives with other AHSNs, NHS, research and industry partners to improve patient outcomes were recognised at two awards events in November:

1. Near Patient Testing Award at the UK Diagnostics Summit for work to extend point of care flu diagnostics across secondary and community care. Partners were Roche Diagnostics, Berkshire Healthcare, Royal Berkshire. Berkshire, Surrey Pathology Services (BSPS) provided support and advice.
2. A partnership between the Oxford AHSN and Buckinghamshire CCG to improve therapy for patients with complex needs not met by existing anticoagulation pathways received an atrial fibrillation AF Association Healthcare Pioneer Award.

This makes eight national awards received by successful Oxford AHSN collaborations in the first nine months of 2019/20.

In addition, Chief Executive Professor Gary Ford was amongst an AHSN Network delegation honoured at the national Anticoagulation Achievement Awards at which the AHSN Network won the category for best

adherence to NICE quality standards for AF for the work of the national collaborative programme for preventing AF-related stroke.

Case studies this quarter:

[Two more economic growth case studies](#) from Oxford AHSN's Strategic and Industry Partnerships programme were published on the AHSN Network's Atlas. Oxford AHSN's programmes publish at least three case studies each quarter (for the full list please see Annex B):

1. **Pre-eclampsia.** Thousands more pregnant women benefit from the test to rule out pre-eclampsia national rollout led by the Oxford AHSN – a multiple award-winning NHS/research/industry partnership has been selected for the NHS England Accelerated Access Collaborative, Innovation Technology Payment and Rapid Uptake Product programmes in 2019/20. Rapid uptake means these tests are becoming available to thousands more pregnant women – up from 29,000 in March 2019 to 200,000 by the end of December 2019. The initiative is now backed nationally by all AHSNs. It is expected that 40% of maternity units in England will have adopted the test by March 2020.
2. **Senior Pharmacists.** The Oxford AHSN partnered with Novartis and the Faculty of Medical Leadership and Management to support the design, development and facilitation of a four-day leadership programme to help senior pharmacists influence the transformation agenda and develop plans to achieve this.
3. **Paddle.** Psychological therapy support app helps patients steer a course to recovery - a new smartphone app has been launched to support patients to stay well and maintain their therapeutic gains following a course of psychological therapy treatment for a common mental health disorder. Co-designed by patients, the app is called Paddle because it's a tool to help people steer their way through life's choppy waters.

Engagement

In October, representatives from the Eastern AHSN were amongst 60 people that attended the fifth meeting of our regional emergency department (ED) collaborative. This network brings together multi-disciplinary teams from all five acute NHS trusts in Berkshire, Buckinghamshire, Oxfordshire and Milton Keynes to share challenges and successes. They are already planning for their next event in April.

Scoping of the Medicines Safety in Care Homes programme is progressing with extensive engagement of stakeholders in the region.

Colleagues from the Eastern AHSN also contributed to the closing event for our new Accelerator programme in November when ten start-up SMEs pitched to an expert panel to demonstrate which of the solutions was the most sustainable in meeting NHS needs.

In November the SIP programme hosted a patient and public involvement workshop which featured contributions from seldom heard groups and visited Denmark to showcase several health economic and outcomes research projects at the ISPOR Europe conference including industry-NHS collaborations in real world evaluation, market access and novel digital tools.

Big Health and Fujifilm recorded [video interviews](#) at the national NHS Expo event highlighting what they've gained from working with the Oxford AHSN.

From October 2018, **Genomic testing** in the NHS is being provided through a single national testing network, consolidating and enhancing the existing laboratory provision. The aim is to create a world class resource for the NHS and underpin the future Genomic Medicine Service. It will also support the delivery of the Government's Life Sciences Strategy and the broader research and innovation agenda, building upon the NHS contribution to the [100,000 Genomes Project](#).

This new network will be delivered through a network of seven Genomic Laboratory Hubs (GLHs), each responsible for coordinating services for part of the country. Regionally, the Oxford-based Genomic Medicine Centre is joining with its counterparts in Southampton and Birmingham to form one GLH. The Oxford AHSN is seen as a key partner for future adoption and spread. Representation at local and regional genomic meetings is being led by Dr Guy Rooney, Oxford AHSN Medical Director.

PPIEE ran a workshop, co-designed with Action on Pre-eclampsia and NHS England, to support the PIGF roll-out with women that had experienced pre-eclampsia. PPIEE also ran a focus group with people that had experienced emergency laparotomy. Workshops and focus groups are planned to support uptake of UroLift and understand what is important in heart failure. PPIEE also ran a workshop "Inclusion for all – working with the seldom heard".

Publications

The Patient Safety & Clinical Improvement team had two papers published this quarter:

1. Improving the place of birth of premature babies in the Thames Valley - Extreme preterm birth in the right place: a quality improvement project, and
2. An analysis of Paediatric Long-Term Ventilation Incidents in the Community

Integrated Care Systems' Long Term Plans

For the Buckinghamshire, Oxfordshire and Berkshire West (BOB) Integrated Care System (ICS) Long Term Plan (LTP) we have engaged in the Digital, Mental Health, Acute, Maternity and Workforce workstreams. We have also submitted plans on Research and Innovation, Patient Safety and exemplars of system-wide working.

We are engaged in the HEE/BOB ICS Workforce planning process with the aim to develop bespoke programmes for BOB ICS over and above the existing programmes that support workforce, eg Sleepio, Practical Innovators Course and AF Champions. We are reviewing 162 Workforce related programmes submitted by all the AHSNs with the aim of identifying initiatives that may of interest to BOB.

Oxford AHSN is working with stakeholders from across the BOB ICS to develop a proposal for an AF detection project at ICS level. A meeting is planned for 13 February 2020 to discuss this further.

We engaged with the Frimley Health and Care ICS Clinical Reference Group and will be meeting them in January to discuss ESCAPE-pain, mental health programmes, eg Paddle, and point of care diagnostics.

Whilst engagement with MKUH is strengthening, with the merger of MK CCG with Bedford and Luton CCGs, we are not getting support from MK CCG to deliver programmes in primary care and community settings such as PINCER, AF and TCAM in Milton Keynes. We are working with the PCNs to move AF Detect forward.

Highlights from the Oxford AHSN's three programmes (includes Patient Safety, local programmes and Innovation Exchange; NHS England seven national programmes reported separately below).

Patient Safety and Clinical Improvement (PSCI). In this quarter there has been good progress in a strong portfolio including publication of two papers in the BMJ (see above).

- Members of the Specialised Paediatric Care in the Community workstream that was wound up earlier this year have successfully bid for a £30,000 grant from the Health Foundation to further the work (Here is a link to the project: <https://q.health.org.uk/idea/2019/supporting-parents-to-care-for-children-with-medical-complexity/>)
- A paper from the OxGRIP project (scanning to identify small for gestational age babies in utero) has been submitted – this finds that this programme reduced **undiagnosed breech** from 22.3% to 4.7%
- The 5th regional Emergency Department Collaborative was held at and hosted by Frimley Health, with 60 attendees from EDs across the region and beyond.
- A workshop at the Royal College of Obstetricians and Gynecologists Improving Women's Health Conference on collaborating regionally with key guidelines was given by Eileen Dudley and Katherine Edwards.
- The first Oxford AHSN Mental Health Steering Group was held to guide and support our work going forward. Members are drawn from Berkshire Healthcare, CNWL and Oxford Health
- PSCI delivers **PRCePT** and **SIM** (and supports emergency laparotomy) – reported under NHS England National Programmes below.
- **Deterioration.** Sepsis workshops were delivered to East Berkshire GPs as part of “significant event” training afternoons; 120 GPs and practice staff attend each event, covering 32 practices. We have engaged across Buckinghamshire, Oxfordshire and Berkshire West ICS with the Gram-Negative Bloodstream Infection work, linking in with relevant AHSN projects - Good Hydration! NEWS2 projects and Catheter Associated Urinary Tract Infections (CAUTI) from Oxford AHSN's Clinical Innovation Adoption (CIA) programme.
- **Maternity and neonatal safety** is a very strong programme with extensive clinical engagement. The Oxford Patient Safety Collaborative is supporting two system-wide pieces of improvement work with the five NHS trusts in our region. There is an improvement programme on optimisation and stabilisation of the extreme preterm and preterm infant. Regional perinatal governance work continues with shared learning between all maternity units. With Health Education England support and in collaboration with consultant midwives, the e-learning package to improve auscultation in labour is now available – launched on 13 January 2020. In Q3 the Regional Perinatal Governance network focused on the group sharing safety recommendations from any investigations returned to them from HSIB and exploring how the resulting action plans can be improved so that they are impactful and meaningful.
- **Medicines safety in care homes.** During Q3, as part of the diagnostic process we have met or spoken with regional CQC inspectors, care home pharmacists from all our regional CCGs, safeguarding teams from local authorities and CCGs and in-reach support teams to inform them about the workstream and elicit their opinions about the medicines safety landscape, and also met with care home governance leads. A national e-survey on medicines administration was developed by the workstream leads to inform the workstream and released at the end of November; we have been actively distributing this to care homes throughout the region via partners with existing contacts. During Q4 we will be going into care homes to conduct in-depth interviews with managers and other staff to further inform the diagnostic phase.

- **COPD.** In Q3 we distributed the national COPD discharge bundle dashboard to local trusts.
- **Mental health.** Each of the three programmes supports mental health initiatives – eg CIA: Sleepio, SIP: drug resistant depression and Patient Safety: high intensity users of ED services, best practice network for care homes health in-reach teams and the Anxiety and Depression Network which includes the adoption and spread of Paddle (see Case Study). To ensure they have oversight we have created a steering group with members from our three main mental health providers, Berkshire Healthcare, Oxford Health and Central and North West London.

Clinical Innovation Adoption (CIA). CIA delivers five of the seven national programmes (Emergency Laparotomy jointly with PSCI) and deployment of ten products (rapid uptake programme - RUP, Innovation Technology Payment - ITP, Accelerated Access Collaborative - AAC), except PIGF (delivered by SIP) reported below. Highlights include:

- The **Heart Failure** programme involves both a local project and a collaboration with other AHSNs. The heart failure project this quarter delivered audits for five practices (cumulative total of nine) with significant improvement in the numbers of patients on the heart failure register and those coded with Left Ventricular Systolic Dysfunction (LVSD).
- The toolkit development is progressing and should be ready by the end of Q4. The Bucks CCG **UroLift** AAC Pathway Transformation Fund (PTF) bid supported by Oxford AHSN, was selected as one of five successful applications from a pool of 19. The Oxford AHSN is currently supporting project initiation and delivery.
- CIA supported OUH with a bid for PTF funding for patient educational materials on **Benign Prostatic Hyperplasia**. NHSE was extremely positive about the idea and is looking to fund the development of the patient material via an alternative funding source for national benefit.
- Partnering with Novartis and the Faculty of Medical Leadership and Management, the Oxford AHSN developed and delivered a four-day **leadership programme for Senior Pharmacists** in the region, to enable system leadership and create an action plan for future collaborative working (see Case Studies).
- Innovate UK has expressed an interest in making **eMaps** available to their round4 SMEs.
- The CIA Director and CEO are working with the **ARC Oxford Thames Valley** to embed translational requirements early on in research design to enable effective delivery of NIHR ARC projects into the NHS and social care.
- The CIA Director is part of the **NHS Innovation Accelerator Board** and has supported the assessment process for NIA Accelerator fellows joining the programme in 2020.
- Creation of **Pharmacist-Led Lipid Management Service**. Bucks ICP will use the funding to create a sustainable pharmacist-led service that will be developed and delivered by a clinical pharmacist independent prescriber. The Pharmacist will work across lipidology and cardiology in the Trust and the CCG Medicines Optimisation team.
- **Sleepio.** A final draft of the paper “Determinants of and barriers to adoption of **digital mental health** at scale in the NHS” has been submitted to BMJ Innovations.
- **Brainomix e-STROKE Suite** is an integrated stroke imaging solution for acute stroke pathways. It includes decision support tools for the analysis of CT, CT Angiography (CTA), CT Perfusion (CTP)

and MRI images. The assessment of the brain CT scan of an acute ischemic stroke patient is a crucial step towards treatment decisions. Not all stroke physicians are equally confident to interpret CT scans. Introducing confidence, consistency and speed into the physician's clinical decision making, e-STROKE Suite delivers a rapid, robust and standardised assessment of CT scans of acute ischemic stroke patients on expert level, serving as an expert second opinion for the physician. The Oxford AHSN, in collaboration with the Thames Valley Stroke clinical network, is leading on the development and implementation of a regional thrombectomy service. The e-Stroke AI will be a key driver in the assessment part of this pathway. The Royal Berkshire is due to go live in quarter 4 and will be the first unit in the UK to use the technology.

Strategic and Industry Partnerships (SIP) delivers Oxford AHSN's **Innovation Exchange**. The Local Implementation Plan was updated during September, resubmitted to the Office for Life Sciences and subsequently approved. The Self-Assessment Quarterly report was RAG rated Green for the last quarter. There are four core functions:

1 Needs definition.

- The focus for this quarter has been to identify **Artificial Intelligence (AI)** innovations that could be potential candidates for evaluation as part of the new fund being launched by NHS England
- The project around **Treatment Resistant Depression** entered its final phase with the completion of the clinical and primary care interviews. There are still some payer interviews ongoing which the team will complete in early 2020.
- The Oxford AHSN page on the Innovation Exchange national portal is being updated on a weekly basis. The Oxford AHSN **pre-accelerator** final pitch day took place in November, with over 50 attendees. During the pitch day we had 10 SMEs pitching for investment from BioCity (see later section).

Three SIP **case studies** have been created this quarter:

- **Trust on Tap** - The Oxford AHSN provided a business insight workshop (Lean Strategyzer) to help develop Trust on Tap's value proposition and further their product development. Trust on Tap valued the experience and expertise in driving adoption within the networks and insights on how the local health and social care ecosystem works.
- **Osler Diagnostics** – Funded by an Innovate UK grant, the Oxford AHSN worked with Osler Diagnostics, a health technology company developing an innovative biosensor technology. Their main product is a portable, handheld device capable of taking a drop of blood and quickly testing for a panel of biomarkers.
- **Perspectum** – The Oxford AHSN has been working with Perspectum Diagnostics, a company focusing on the accurate, quantitative measurement of liver, gallbladder and pancreatic disease, enabling early detection, diagnosis and targeted treatment. **LiverMultiScan®** is a CE-marked diagnostic aid for liver disorders that uses MRI to characterise liver tissue by providing quantitative measures of liver fat, and correlates of iron, fibrosis and inflammation.

2 Signposting.

- Meetings and signposting SMEs has continued this quarter, with over 40 face-to-face meetings held, as well as ongoing email support for 39 smaller companies.

- A feasibility study was conducted into the use of novel point of care device for diagnosis of **critical cardiovascular diseases** within the emergency department in the NHS in England.
- The feasibility study for **LiverMultiScan** on behalf of Perspectum Diagnostics has been completed with a range of stakeholders including hepatologists, radiologists and payers interviewed.
- A feasibility study is being conducted using Lean Assessment Process (LAP) methodology to assess the usability and benefits of a novel blood-based point-of-care (POC) diagnostic for **stroke subtype diagnosis** to enable rapid treatment for stroke patients with Large Vessel Occlusion (LVO) in the care pathway.
- Work has started to produce a landscape report on **Artificial Intelligence** solutions.

3 Real World Evaluation.

- **Lumos Diagnostics** have acquired a novel point of care test, FebriDx, that can distinguish whether an **acute respiratory tract infection** (ARTI) is clinically significant, of bacterial origin or of viral origin. Four sites have been identified and approached to conduct a service evaluation and assess the impact of the test where the FebriDx test is considered to have the potential to deliver clinical benefit.
- A cost consequence analysis study was conducted for **Wokingham Community Hospital** to evaluate the benefits and cost of care of implementing Point of Care (POC) testing across the community care hospitals in Berkshire Healthcare.
- The Oxford AHSN is part of an EIT grant funded **influenza Point** of Care project, in partnership with Roche Diagnostics and the Newcastle Medtech and In Vitro diagnostics Collaborative (MIC), looking at the widespread adoption of point of care (POC) flu testing, in both the hospital and community settings across sites in the UK and Belgium.

3. Adoption of innovation and diffusion.

- SIP is leading the adoption and diffusion locally of breakthrough diagnostic products evaluated through the Innovation Exchange activity.
- SIP also leads the gastroenterology programme including delivery of an industry-funded programme for **Inflammatory Bowel Disease** using TrueColours, or similar software, as a patient reported outcomes measure for ulcerative colitis and Crohn's; 1,000 patients are involved – 250 patients added in Q3. Potential to optimise outpatient appointments and manage patients' condition at a population level.
- Following the introduction and roll out of new **Faecal Calprotectin** testing across seven GP practices in Buckinghamshire CCG in January 2019, work continued to establish key contacts in primary and secondary care to initiate the nine months review meeting, initiated contacts with labs in Bucks and discussed possible collaboration. Discussion took place with the Analytics and Informatics Department at Nottingham University Hospitals and OPEN VIE about alternative ways of obtaining data from primary and secondary care providers.
- An Innovate UK SBRI grant was awarded to Mologic for the development and evaluation of two diagnostic tests focusing on **Chronic Obstructive Pulmonary Disease** (COPD). The first is a urine-based biomarker test for routine use at home to alert patients to when they are having a COPD exacerbation (HeadStart).

Support for Innovators

- We continue to support **Buckinghamshire HSC Ventures**.
- We continue to support **theHill**, a digital health community of local trusts and universities, funded by the European Regional Development Fund as part of the Innovation Support for Business programme.
- The first year of the Oxford AHSN **Accelerator programme** successfully completed in November and December 2019. Two start-ups received awards based on their performance at the final pitch day: Best Presentation - Cansense Ltd, and Best Insights - Cotswold Health Technology. Investors of our delivery partner BioCity are carrying out further due diligence on these and the other candidates to determine recipients of their investment (convertible loan of £50K) and a year-long advisory assistance support as well as lab space in the Nottingham facilities.
- **OxBridge Scale-Up Arc** programme: Further discussions with the Eastern AHSN are being scheduled to finalise the marketing and programme strategies.

Accelerated Access Collaborative

Through two embedded staff in the NHS England/NHS Improvement AAC team, the SIP team is supporting directly various AAC initiatives including:

- Delivering existing RUPs
- Identification of new RUPs
- Managing Pathway Transformation Fund applications and implementations
- Developing and supporting the AI Lab and AI Fund
- Engaging with charities, patients and industry partners in Patient and Public Involvement work with the AAC and the RUPs
- Promoting the interaction of the AAC with its constituent government and industry partners
- Demonstrating the future role of AHSNs and the AHSN Network in supporting the aims of the AAC and NHS England.

National spread and adoption of **Placental Growth Factor (PIGF)**-based testing for suspected pre-eclampsia continues to be driven by the AHSN Network, led by the Oxford AHSN. All AHSNs continue to report very positive reception by trusts for adoption of either the Roche Elecsys ratio test or the Quidel Triage PIGF test, with many planning to adopt testing regionally across maternity and lab networks.

NHS England national programmes

The Oxford AHSN is on track to deliver against six of the seven NHS England national programmes – notable is the first trust, Buckinghamshire Healthcare, to go live with TCAM. Berkshire Healthcare, Thames Valley Police and the Oxford AHSN signed up to a Memorandum of Understanding to implement a service equivalent to Serenity Integrated Mentoring (SIM) in Reading. Efforts continue to bring Milton Keynes GP practices on board (only two out of 27 practices have adopted AF Detect so far) by meeting with the PCN Clinical Directors to agree a way forward.

The Oxford AHSN Chief Operating Officer is working with the COO of UCL Partners to hold a workshop with the national programme managers and clinical leads to capture the learning from almost two years running the seven national programmes. This will inform the development of the new national programmes and provide insights on how the AHSN Network governs and organises these programmes in future.

Atrial fibrillation. Overall the AF Detect and Protect programmes are performing very well. Efforts

continue to bring Milton Keynes GP practices onboard (only two out of 27 are on the Detect programme). In Q3 a meeting was held with the clinical directors of the Milton Keynes PCNs to discuss ways in which the Oxford AHSN could support them to reduce variation in AF detection and anticoagulation. Follow-up meetings with individual PCNs are planned for Q4.

Emergency Laparotomy. Whilst the Emergency Laparotomy Collaborative will deliver on the national target, the CIA team is focusing on building in sustainability; the collaborative held its 5th regional meeting, that brought members of the steering group together with the site core teams. The day was designed to evaluate what is still needed to enable sustainable adoption of best practice in emergency laparotomy care at each site. Excellent engagement and progress is being made. OxCCare supported by the Oxford AHSN Director of PPIEE and ELC Steering Group Lay Representative undertook a successful first patient and family focus group, at Royal Berkshire Hospital. Outcomes included insights into post-operative pain control and information requirements for patients and general practitioners (including procedures and rehabilitation).

ESCAPE-pain. Although the number of active sites to report this quarter has remained the same, two further leisure sites indicated their intention to run the programme, plus a promising request was initiated by Frimley Health and Care ICS for a meeting on 28 January 2020 to discuss potential implementation of ESCAPE-pain.

PINCER. The Oxford AHSN has surpassed the national target of 192 practices with 204 now using PINCER clinical searches and QI methodology. The team is currently collecting data to assess the impact of PINCER over the first six months of implementation in the region.

PRCePT. The regional midwives funding was completed in September 2019 and the programme is now in the sustainability phase. The six hospitals in the region successfully trained $\geq 85\%$ of all staff on PRCePT and the importance of MgSO₄ for the extreme preterm baby. The regional midwives funding was completed in September 2019 and the programme is now in the sustainability phase. The six hospitals in the region successfully trained $\geq 85\%$ of all staff on PRCePT and the importance of MgSO₄ for the extreme preterm baby. This quarter 87.5% of eligible women received MgSO₄ with learning identified on cases where MgSO₄ was not administered in enough time prior to birth.

Serenity Integrated Mentoring (SIM). Berkshire Healthcare and Thames Valley Police signed an MOU with the Oxford AHSN to deliver a service equivalent to SIM in Reading, modelled on Hampshire. The police officer who will run the service has been identified.

Transfer of Care Around Medicines (TCAM). Buckinghamshire Healthcare went live at the end of Q3 with 11 referrals before the end of 2019. Both Royal Berkshire and Oxford University Hospitals have the technical capabilities to implement rapidly if they provide internal commitment to the project. We remain optimistic that the national target will be met this year and two more trusts will implement in Q1 2020/21.

Update on ITP/RUP/AAC

	Heartflow	Urolift	PIGF	Troponin	Cladribine	PCSK9i	SecurAcath	Endocuff	PlusSutures	NIC	FMT	Pneux	GammaCore
			Mat Units										
Berkshire Healthcare	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Buckinghamshire Healthcare	NA	Yes	Yes	NA	Considering	Yes	Considering	Yes	NA	No	Considering	No	Yes
Frimley Health	Yes	Yes	Considering	NA	Considering	Considering	Yes	Yes	NA	Considering	Considering	No	NA
Milton Keynes University Hospital	NA	Yes	Yes	NA	Considering	Considering	Considering	Yes	NA	Yes	Considering	No	NA
Oxford Health	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxford University Hospitals	Yes	Yes	Yes	NA	Considering	Considering	Yes	No	Yes	Yes	Yes	No	Yes
Royal Berkshire	Yes	Yes	Considering	NA	Considering	Considering	Considering	Yes	NA	Yes	Considering	No	NA

Further progress has been made in Q3 on uptake:

1. Heartflow – OUH and RBH are implementing
2. UroLift – MKUH had its first list using UroLift (all trusts in the region now offering UroLift)
3. PIGF – Wexham Park, Frimley Park and Royal Berkshire all preparing business cases. NB Oxford AHSN supported GWH (Swindon) in implementing PIGF. GWH is part of Oxford AHSN's maternity network
4. Cladribine – Trusts all considering (none in Q2)
5. PCSK9i – BHT implemented, all other trusts considering (two in Q2)
6. Endocuff – OUH has decided not to adopt for clinical reasons
7. FMT – all Trusts now considering
8. Others – no change this quarter

AHSN Network National programmes – forecast 2019/20 (8 January 2020)

Programme	Contracted Metric	Reason for Higher or Lower Estimate	2019/20 Business Plan or 8/1/20 trajectory	2019/20 revised AHSN Network target	2019/20 excess or shortfall
AF	Number of previously unknown AF patients diagnosed with AF	Business plan target based on 2017/18 QoF performance. Efforts continue to address variation – eg brining more practices in Milton Keynes onboard with Detect	5,983	3,000	2,983
Emergency Laparotomy	Number of emergency laparotomies in hospitals implementing the pathway	All 6 Trusts are well engaged and will over-deliver by the end of the year. Will exceed target for the year.	987	803	184
ESCAPE-Pain	Number of people completing the ESCAPE-PAIN programme	The three active leisure sites each ran a course during the quarter. Q3 saw ongoing engagement and interest from Frimley Health & Care ICS. Two further leisure sites confirmed their intention to introduce the programme.	28	570	-542
PINCER	Number of GP practices adopting PINCER	Number of GP Practices adopting was 203 at the end of Q3.	204	192	12
PRCePT	Number of additional mothers where MgSO4 given	This quarter 87.5% of eligible women received MgSO4.	4	23	-19
SIM	Number of high-intensity service users covered by SIM	Berkshire Healthcare has signed an MOU with Thames Valley Police and Oxford AHSN to implement an equivalent service to SIM. Oxford Health close to signing up.	0	0	0
TCAM	Number of completed referrals using TCAM	Buckinghamshire Healthcare is now live and we expect to achieve the target by the end of Q4.	453	453	0

Key Milestones for Q3

Programme/Theme	Key milestones 2019/20	Q3 Progress
Corporate	Improve appraisal system	Completed
Patient Safety and Clinical Improvement	Initiate COPD Discharge Care Bundle	COPD Dashboard released to Trusts
Clinical Innovation Adoption	Initiate two new funded projects that significantly benefit the NHS	Delivered. Bone Health- plans have progressed for this project. Work has started on developing the audit tool required. Heart Failure: 21 Buckinghamshire Practices have signed up to the project with 9 completing their audit cycles. 687 virtual reviews have taken place with 290 patients receiving a face-to-face review with a pharmacist. Of these, 151 patients received a pharmacological intervention and 68 were recommended for specialist review and were referred to the cardiology triage service
Strategic and Industry Partnerships	Launch of Project Accelerate National Support to pre-eclampsia	Delivered Delivered – see case study in Q3
Patient and Public Involvement, Engagement and Experience	Development and deployment of on-line recording and impact tool	Tool developed
Stakeholder Engagement and Communications	Implement findings of local research and innovation needs survey Lead national AHSN Network stakeholder survey Publish four single subject special edition newsletters Reach 5,000 Twitter followers	Working with NIHR ARC Oxford and Thames Valley Due to publish Q4 3 rd - Digital – scheduled for Q4 Achieved in Q2

Finance

Our Forecast income for 2019-20 is £5.9m. During Quarter 3, our NHS England commissioning income has increased to £2.6m due to contract variations relating to Accelerated Access Collaboration (£172k), PIGF (£10k) and Patient Educational Videos for Enlarged Prostate (£25k). Grant & Commercial income is forecast to be £1.2m and Partner contributions, £360k. Expenses are in line with budget.

	Model Period Beginning	01-Apr-19	01-Apr-19
	Model Period Ending	31-Mar-20	31-Mar-20
	Financial Year Ending	2020	2020
Year of Licence Agreement		7	7
INCOME (REVENUE)		Opening Plan	Forecast
NHS England funding		2,411,385	2,614,041
NHS England - Other commissioning Funding		308,750	308,750
Partner contributions		399,966	359,500
Accelerare Ltd Funding		187,500	87,968
Health Education England		0	12,000
Office of Life Sciences Funding		830,000	830,300
NHS Improvement funding - PSC income		447,925	447,058
Other Income - Corporate Support		20,900	42,610
Other Income - Patient Safety Collaborative		20,225	23,758
Other Income - Clinical Innovation Adoption		816,995	801,905
Other income - Strategic & Industry Partnerships		299,422	353,296
Other Income - PPIEE		13,250	12,322
Total income		5,756,318	5,893,508
AHSN FUNDING OF ACTIVITIES			
Patient Safety & Clinical Improvement		749,468	763,040
Clinical Innovation Adoption	▼	1,692,555	1,565,174
Strategic & Industry Partnerships	▼	1,317,360	1,363,532
Informatics		163,481	94,725
PPIEE		152,024	141,488
Communications, events and sponsorship		167,986	138,563
Contribution to/From AHSN Network		136,000	140,684
Grant to Accelerare Ltd		235,318	450,000
Programmes and themes		4,614,192	4,657,204
CORPORATE			
Pay costs		721,258	715,216
Non-pay costs		420,868	521,088
Total Corporate Costs		1,142,126	1,236,304
Total expenditure		5,756,318	5,893,508

Risks and issues

No new risks and issues to report.

Dr Paul Durrands ACA CMILT, Chief Operating Officer, Oxford AHSN

Patient Safety and Clinical Improvement

Summary

During this period, we have celebrated the publication of two academic papers as a result of our work -

- Our paper on improving the place of birth of premature babies in the Thames Valley region was published (Edwards K, Impey L, Extreme preterm birth in the right place: a quality improvement project Archives of Disease in Childhood - Fetal and Neonatal Edition (<https://fn.bmj.com/content/early/2019/11/12/archdischild-2019-317741.abstract>))
- Our paper on analysis of Paediatric Long-Term Ventilation Incidents in the Community has been published in the Archives of Disease in Childhood, with commentary published in the Independent. Archives of Disease in Childhood (ADC), BMJ Journals (<https://adc.bmj.com/content/early/2019/11/13/archdischild-2019-317965>)

In addition

- Members of the Specialised Paediatric Care in the Community workstream that was wound up earlier this year have successfully bid for a £30k grant from the Health Foundation to further the work (Here is a link to the project: <https://q.health.org.uk/idea/2019/supporting-parents-to-care-for-children-with-medical-complexity/>)
- A paper from OxGRIP project (scanning to identify small for gestational age babies in utero) has been submitted –this finds the OxGRIP programme reduced undiagnosed breech from 22.3% to 4.7%
- The 5th ED Collaborative was successfully held and hosted by Frimley, with approximately 60 attendees from Emergency Departments across the region
- A workshop at the RCOG Improving Women’s Health Conference on collaborating regionally with key guidelines was given by Eileen Dudley and Katherine Edwards
- The first Oxford ASHN Mental Health Steering Group was held to guide and support our work going forward
- The active part of the PReCePT project has been completed
- Sepsis workshops were delivered to East Berks GPs as part of significant event training afternoons. Approximately 120 GPs and practice staff attend each event, covering 32 practices.

More detail regarding our programmes follows-

Maternal and Neonatal Safety Improvement Programme

The Maternal and Neonatal Health Safety Collaborative is a three-year national programme running until March 2020 aimed at improving outcomes for women and neonates through employing improvement methodology to projects locally. This quarter has seen Milton Keynes University Hospital and Buckinghamshire Healthcare complete the final learning set held by NHS Improvement where their quality improvement projects have gained further rigor.



Buckinghamshire Healthcare Mat/Neo Improvement Team

Buckinghamshire Healthcare maternity unit have introduced the measurement of blood volume for all vaginal births in labour ward and their alongside birthing unit. Greater than 90% of births now have a measured blood volume chart which can be used as an early warning for increasing blood volume and subsequent deterioration of the postpartum woman. The neonatal unit is progressing and noting improvement in babies <32 weeks arriving on the unit normothermic (normal temperature). Improvement has been achieved through the introduction of several initiatives including right size hats and neohelps (a suit to help temperature regulation). Milton Keynes are working towards ensuring that women with suspected sepsis are identified and treated appropriately. The use of an electronic proforma for suspected sepsis has been introduced to ensure a clear pathway is followed and their data is demonstrating a positive change in practice.

The Thames Valley Local Learning System (LLS) met on 13th December 2019 with 20 obstetric and neonatal improvers from all five hospitals. This LLS focused on the importance of having the right stakeholder engagement from the board to the ward and how to effectively communicate your project locally. Regional system level work is critical to reduce variation, learn from others and improve outcomes for women and babies. The Oxford PSC continues to support three system wide pieces of improvement work within the five trusts in our region.

Postpartum Haemorrhage (PPH)

Postpartum haemorrhage is a leading cause of maternal morbidity and mortality. This system level quality improvement work is progressing using a data set inclusion criterion to identify if it is possible to identify women at risk of PPH through a specific risk assessment. Two maternity units within the Oxford PSC are collecting data regarding this. In addition to this Royal Berkshire and Buckinghamshire Healthcare are currently working on Quality Improvement projects related to better detection and accurate assessment of blood loss and early intervention. These projects have engaged clinical staff who are committed, enthusiastic and Royal Berkshire have secured a midwife for the next 12 months to work on this further. An improvement plan has been written to ensure the work runs smoothly.

Optimisation and stabilisation of the extreme preterm and preterm infant

Our programme of work is building on the successful regional quality improvement project which saw a 40% improvement in the transfer rates of extremely preterm infants to the tertiary unit (L3). Sustainability is being managed through several approaches/supportive measures. This has now been published in the BMJ journal of Archive and Disease in Childhood.

<https://fn.bmj.com/content/early/2019/11/12/archdischild-2019-317741>

We are continuing to focus on the portfolio of improving the optimisation and stabilisation of the extreme preterm working on the prevention, prediction and preparation of preterm birth in line with the national drive (Saving Babies Lives, Version 2) for a reduction in preterm birth from 8% to 6%. Work with the Operational Delivery Network is being undertaken to ensure that preterm metrics in line with the bundle are consistent throughout the Thames Valley and Wessex region. The hospitals in our region are working together to understand the variation in the services available to pregnant women at medium and higher risk of preterm birth, including guidelines to manage risk assessment at booking, point of care testing, expertise and availability of scanning facilities.

The maternity clinical network lead has shared a preterm birth initiation document which the hospitals in the region will use to inform the development of services to ensure that the Oxford AHSN region is taking a strict approach to the management of women at medium and higher risk of preterm birth.

Intelligent Intermittent Auscultation training



The e-learning programme Intelligent Intermittent Auscultation (IIA) endorsed by the RCM and the RCOG aims to improve safety for mothers in low risk labour and birth by improving the knowledge, skills and confidence of midwives to undertake auscultation of the fetal heart in an intelligent manner.

Designed to be interactive and using real fetal heart sounds, this is the only training package that can assess competency of this skill meeting the requirements of Saving Babies Lives V2 (NHSE 2019).

The programme is the result of a successful collaboration between Consultant Midwives Wendy Randall, Oxford University Hospitals and Christine Harding, Royal Berkshire, Health Education England and the Oxford Academic Health Science Network.

The IIA e-learning programme takes approximately 60 minutes to complete and is available on the e-LfH portal. This has gone through testing and changes within this quarter in preparation for the national roll out. The national launch on 13th January 2020 is being supported by two masterclasses led by the Consultant midwives via WebEx and facilitated by the Oxford AHSN.

Regional Perinatal Governance network

This regional forum established in Feb 2018 with an aim to be collaborative, learn and share best practice has grown in maturity and is highly valued by the obstetricians, pediatricians and midwives in governance roles who attend the quarterly meetings reflected in the following quotation:

‘I have really valued being involved in the setting up and ongoing development of this regional perinatal governance group which has added externality and validation to our own unit’s governance policies. These independent views and discussions are helpful both for sharing learning but also for delivering assurance to our Trust Boards and Executives about our individual services.

This unique group of Obstetricians, Neonatologists, Midwives and Risk Managers from across the wider region has shared incidents in an open and honest way to promote learning and development in the wider community and extend the patient safety agenda.’ (Jill Ablett, Consultant Obstetrician, Royal Berkshire.)

Q3 work focused on the group sharing safety recommendations from any investigations returned to them from HSIB and exploring how the resulting action plans can be improved so that they are impactful and meaningful. We were delighted to welcome Dr Guy Rooney AHSN MD to the September 2019, his expertise was invaluable for the group. Work has begun an Annual report/safety paper which will reflect of the work of and progress of the group over the last year and consider the future and direction mindful of the national picture and reports for example CNST and MBRRACE-UK 2019.

The group continues to invite representatives from relevant external organisations as appropriate seeking both to learn from and influence.

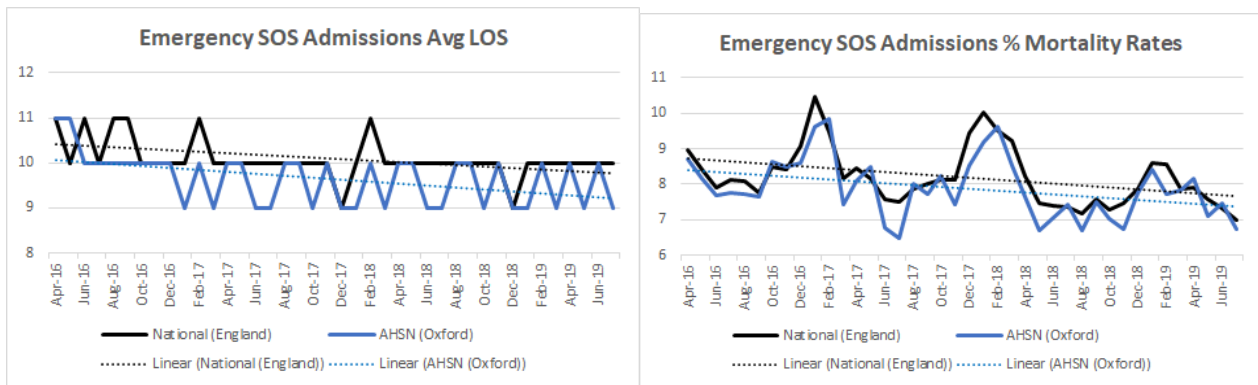
Deterioration

In this quarter two sepsis and NEWS2 workshops have been held across East Berkshire, covering 32 practices and approximately 120 GPs and practice staff, with a third planned for 7th January 2020. This has been a useful opportunity to spread the message about NEWS2 as a common language across the patient pathway, gathering comments and concerns about this to feedback to SCAS and other relevant partners, to further improve the management of deteriorating patients. The care homes RESTORE2 project in Buckinghamshire will now hold a launch event on 17th January 2020 for 3 pilot sites to allow time for staff to undertake the NEWS2 e-learning and to further engage with a care home already using NEWS2 and electronic observations in the county. A clinical project support post has been identified, making links with Wessex PSC for training resources and Yorkshire & Humber PSC for other ideas on engagement and measurement.



Further regional engagement has occurred across Buckinghamshire, Oxfordshire and Berkshire West ICS via the Gram Negative Bloodstream Infection (GNBSI) work, linking in with relevant AHSN projects - Good Hydration, NEWS2 projects and Catheter Associated Urinary Tract Infections (CAUTI) from CIA.

Data from the Suspicion of Sepsis dashboard continues to show a downward trend in relation to length of stay and mortality.



The regional Mortality Review Group held its 7th meeting, welcoming Dr Zoe Hemsley, Regional Medical Examiner (South East of England). At present this is only for acute trusts and our partner organisations are in a strong position with 4 having established Medical Examiner Systems and the 5th to start in the next few months. The Royal College of Physicians second [annual report](#) featured a case study from Buckinghamshire Healthcare and Oxford AHSN for the second year in a row.

Buckinghamshire Healthcare NHS Trust (BHT) and Oxford Academic Health Science Network (AHSN)

The impact of a medical examiner service in improving patient safety and quality of care

Regional approach to learning from deaths via the Oxford Patient Safety Collaborative, Oxford AHSN

- > Group includes community, ambulance and CCG to improve cross-system structured judgement reviews (SJR)
- > Four out of five acute trusts have now implemented a medical examiner, with the 5th planned for March 2020.
- > The group has created a safe environment with peer support for:
 - sharing feedback from national events and emerging national guidance
 - development of regional terminology
 - practical processes, eg rotas
 - sharing themes
 - how to integrate into current governance processes and learning from deaths framework.

What did we learn/change?

- > Feedback from relatives is overwhelmingly positive – examples of outstanding practice is fed back to ward teams.
- > Care of the deteriorating patient is focused on vital signs monitoring, early senior medical review with NEWS2 and electronic observations implementation.
- > Enhanced focus on care of learning disability patients including best practice guidance, health passports and communication aids.
- > Increased awareness of timely DNACPR decisions and treatment escalation plans (TEP), with BHT moving to universal TEP adoption.

Results within one year of launching the medical examiner system

- > **99.8%** compliance for medical examiner screening for adult deaths
- > Annual mean selection for SJR is **12%**
- > Increased accuracy in death certification and improved support for junior doctors (validated by staff survey)
- > Local agreement with the coroner, leading to **32%** reduction in referrals

The future

BHT works with the local authority, coroner's office and registrar (linked with the CCG) to disseminate learning to primary care – ensuring the patient journey is improved in the community as well as in hospital.

Medicines Safety

In 2017, the World Health Organisation (WHO) launched its third Global Patient Safety Challenge 'Medication Without Harm', which aims to reduce the global burden of severe and avoidable medication-related harm by 50% over five years.

In response to this, a National Medicines Safety Improvement Programme was incorporated into NHSI/E's 2019 National Patient Safety Strategy <https://improvement.nhs.uk/resources/national-medicines-safety-programme/>.

The programme incorporates several workstreams focused on different areas of the medicine's pathway i.e. PINCER, TCAM, MOCH plus MedSIP which launched in October 2019. This is a three-year workstream being run collaboratively by the national PSC aimed at improving the safety of medicines administration to residents in care homes.

The workstream timelines are a six-month diagnostic phase [Oct 2019 – March 2020], followed by a testing phase [April 2020- March 2021] and a scale-up phase [April 2021 onwards]. During the diagnostic phase, PSCs are engaging with key stakeholders throughout their regions to gain insights and intelligence about the workstream topic, to understand what quality improvement initiatives may already have been tried and thus identify ‘promising interventions’ to take forward to the testing phase. Additionally, we are looking to identify suitable care homes with QI capability and capacity to partner with us in phase II.

During Q3, as part of the diagnostic process we have met or spoken with regional CQC inspectors, care home pharmacists from all our regional CCGs, safeguarding teams from local authorities and CCGs and in-reach support teams to inform them about the workstream and elicit their opinions about the medicine’s safety landscape, and also met with care home governance leads. A national e-survey on medicines administration was developed by the workstream leads to inform the workstream and released at the end of November; we have been actively distributing this to care homes throughout the region via partners with existing contacts. During Q4 we will be going into care homes to conduct in-depth interviews with managers and other staff to further inform the diagnostic phase.

COPD

During the early part of Q3, the national COPD discharge bundle dashboard was released, detailing compliance to each bundle element for every provider that submits data to the national asthma and COPD audit programme [NACAP] <https://www.rcplondon.ac.uk/projects/national-asthma-and-copd-audit-programme-nacap>. This is a joint workstream between the RCP and KSS AHSN and enables providers to benchmark their services against each other and national averages.

We distributed login details to the dashboard to the Trusts in our region who submit to NACAP, with an offer to explore working with them on any areas of concern. However, compliance levels are universally high in the region and we received no approaches for help although the dashboard data was well received, and some local action plans have been put in place to improve performance.

Adoption and Spread

COPD Care Bundle

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ED Checklist and ED Collaborative

The PSC continues to support sustainability of the ED Safety checklist and monitors compliance through the ED collaborative. All EDs in the Oxford AHSN region are using a safety checklist that complies with the national recommendation. At the 5th ED collaborative in October 2019 we were delighted to host members from the Eastern AHSN who are finding engagement with their local trusts challenging and therefore progress with implementation of the ED safety checklist has been problematic for them. Sharing ideas,

discussion and networking with staff from our regional EDs was very helpful and it was exciting to work with members from a different AHSN.

The ED Safety Collaborative

The 5th Emergency Department Safety Collaborative was hosted by Frimley Health NHS Foundation Trust and took place at Wexham Park Hospital on 10 October 2019. The programme content is driven by members of the collaborative and continues to focus on shared learning, hearing about safety and quality improvement initiatives to improve patient flow and experience and support each other with time to network and build relationships with colleagues and peers.

'The ED collaboratives are doing two things: firstly, they are bringing people together to share best practice and great ideas and secondly, and in some ways more importantly, it is bringing people to a place of mutual support and strengthening, realising that the modern ED is a place of real challenge and a place where support is needed in spades.

Oxford AHSN Lay Partner.

The opening address was delivered by the Deputy Medical Director focusing on the importance of healthcare staff valuing and caring for each other and the evidence that it is an enabler for the provision of high-quality safe care for families and patients.

Recognition of compassion fatigue and understanding what tools to use to build resilience was an important topic for debate.

Of importance and a first for the collaborative was the presentation of a maternity case where care had crossed various boundaries and involved community, ambulance, ED and the maternity services.

The learning is invaluable, and we hope to present on a similar style again.

The Collaborative value hearing from national programmes reflected in Dr Saskia Fursland's presentation on behalf of HSIB highlighting the key safety issues identified from investigations into clinical practice in the ED which are:

- handover and transfer of clinical information,
- guidance and standardisation
- misperception.

An evaluation of the impact of the ED collaborative based on the results of a survey asking how the ED events had benefitted attendees and their opinions on improvements and future direction was presented. It was heartening to review progress reflected in the number of projects and improvements implemented since the first collaborative in 2017. They ranged from a 'Hug in the Bag' QI project to support women who present with threatened miscarriage to the ED to ANP's signing off ECGs reducing wait times for patients, mental health work focusing on frequent attenders and telehealth innovation which allowed remote access to psychological support for patients.

A quote from an ED Consultant sums up the value of this fantastic community of healthcare staff.

"it often feels very bleak working in the ED and it's helpful to have a bit of headspace to realise we are doing some good work".

Emergency Laparotomy – PSC contribution

The PSC continues to support CIA with the Thames Valley Emergency Laparotomy Collaborative, including opportunities to link with other relevant networks, such as the ED Collaborative and Sepsis Stakeholders. Activities this quarter include site meetings with key stakeholders and the 5th regional meeting in December which was a Sustainability Sense check, identifying any gaps and actions required to maintain/improve processes and outcomes beyond the length of the project.

PReCePT



The overall aim of the national PReCePT programme is to increase the number of women in preterm labour < 30 weeks gestation within England who receive Magnesium Sulphate (MgSO₄) from a baseline of 43% to ≥ 85%. The long-term vision is to reduce the incidence of cerebral palsy in babies born preterm. The regional midwives funding was completed in September 2019 and the programme is now in the sustainability phase. The six hospitals in the region successfully trained ≥ 85% of all staff on PReCePT and the importance of MgSO₄ for the extreme preterm baby. Midwives who have consistently ensured that women receive MgSO₄ receive the PReCePT award certificate (Picture: Amy from RBH). This quarter 87.5% of eligible women received MgSO₄ with learning identified on cases where MgSO₄ was not administered in enough time prior to birth. Local collaboration to improve this continues through the existing maternal and neonatal clinical network.

Mental Health

SIM (Serenity Integrated Mentoring)

SIM is one of the seven NHS England national programmes being rolled out by AHSNs, in which police are integrated within a mental health team, working together with high impact users of services helping them towards safer and healthier lives.

Progress is being made with making available the dedicated time of a police officer being made available to work proactively alongside care coordinators, with a small cohort of high intensity service users, along the lines of the model developed within Hampshire. The Hampshire model has been assessed as comparable to the SIM model and so we hope that the Thames Valley models will be assessed similarly. The aim is to support a small number of high intensity service users to reduce the impact of their crises.

In Q3 Berkshire Healthcare, Thames Valley Police and Oxford AHSN signed an MOU to deliver and equivalent service to SIM. An MOU is with Oxford Health and Thames Valley Police for signature.

Anxiety and Depression

The Anxiety and Depression Network is now at pilot and evaluation stage of two new service innovations focused on relapse prevention/ staying well after a course of psychological treatment: The Paddle therapy support app and the new, integrated step two treatment relapse prevention/ staying well protocol. More information on Paddle can be found here <https://www.paddleapp.org/> The Paddle champions within each of the Improving Access to Psychological Therapies (IAPT) services across Thames Valley and Milton Keynes

are supporting the pilot and evaluation activity. The network's Patient Forum remains closely involved. Applications for funding for Paddle phase two (functionality to enable services to stay in touch with patients following discharge) have been submitted.

The Anxiety and Depression Network is also supporting the Improving Access to Psychological Therapies for Older Adults Network which has resulted in partnership working with AgeUK. With the help of Patient Forum, the network and AgeUK are currently scoping a programme of work to raise awareness of older adults' mental health and educate staff who may be able to signpost older adults for help where needed.

Best Practice Network for Care Homes Health In-reach teams

This best practice network held a further workshop in October, on the topic of Dementia and Learning Disabilities. We heard from Jules McKim and Rachel Evered, from Oxford Health NHS Foundation Trust about how assessment of dementia in people with learning disabilities is carried out, about matters to consider for younger people with learning disabilities in dementia care homes and about training which is offered to care homes staff and health in-reach teams by the trust's Learning Disabilities team.

The workshops continue to be well attended with representatives from across the Thames Valley.

New Steering Group for Oxford AHSN Mental Health Programme meets

Our steering group, which we set up to inform the work of the AHSN Mental Health Programme has met and had a wide-ranging discussion about the priorities and challenges for mental health providers. This group has membership from Berkshire Healthcare, Oxford Health, and Central & North West London.

Regional Collaborative to Improve Care for High Intensity Users of Emergency Department services

This is a Health Foundation funded Thames Valley-wide project which has explored different aspects of high intensity use of emergency departments. With service users we developed a psycho-social form which we hope can be used to understand better the driving factors in frequent attendance in the emergency department and we have been trialling this form with the help of research nurses.

Our website which we developed to report on the project has more details <https://www.thamesvalleystarlingcollaborative.net> .

Clinical Innovation Adoption (CIA)

Highlights

Activities for national and local projects have progressed well during Q3. Highlights for national and local projects include:

- TCAM: Buckinghamshire Healthcare went live at the end of Q3 with 11 referrals before the end of 2019. Both Royal Berkshire and Oxford University Hospitals have the technical capabilities to implement rapidly if they provide internal commitment to the project. We remain optimistic that the national target will be met.
- PINCER: The Oxford AHSN has surpassed the national target of 192 with 204 practices using PINCER clinical searches and QI methodology. The team are currently collecting data to assess the impact of PINCER over the first 6 months of implementation in the region.
- Whilst the Emergency Laparotomy will deliver on the national target, the CIA team is focusing on sustainability; the Collaborative held their 5th regional meeting, that brought members of the Steering Group together with the site core teams. The day was designed to evaluate what is still needed to enable sustainable adoption of best practice in emergency laparotomy care at each site. Excellent engagement and progress being made.
- ESCAPE-Pain: Although the number of active sites to report this quarter has remained the same, two further leisure sites indicated their intention to run the programme, plus a promising request was initiated by Frimley ICS requesting that we attend a meeting on 28th January 2020 to discuss ESCAPE-pain and its potential for implementation.
- The Bucks CCG Urolift AAC PTF Bid supported by Oxford AHSN, was selected as one of five successful applications from a pool of 19. Oxford AHSN is currently supporting project initiation and delivery.
- CIA supported OUH with a bid for Pathway Transformation Funding (PTF) for patient educational materials on Benign Prostatic Hyperplasia. NHSE was extremely positive about the idea and is looking to fund the development of the patient material via an alternative funding source for national benefit.
- The Heart Failure programme involves both a local project and a collaboration with other AHSNs. The heart failure project this quarter delivered audits for 5 practices (cumulative total of 9) with significant improvement in the numbers of patients on the heart failure register and those coded with Left Ventricular Systolic Dysfunction (LVSD). To date, 290 patients have received a face to face review with 151 receiving a pharmacological intervention and 68 being recommended for specialist review. The collaborative project involves the development of a toolkit for implementing medicine optimisation projects in heart failure. The aim is that this is shared nationally with other AHSNs. The toolkit development is progressing and should be ready by the end of Q4.
- Partnering with Novartis and the Faculty of Medical Leadership and Management, the Oxford AHSN developed and delivered a four-day leadership programme for Senior Pharmacists in the region, to enable system leadership and create an action plan for future collaborative working.

Other activities

- Innovate UK has expressed an interest in making eMaps available to some of their SMEs.
- The CIA Director and CEO are working with the Oxford ARC to embed translational requirements

early on in research design to enable effective delivery of ARC NIHR projects into the NHS and Social Care.

- The CIA Director is a member of the NIA Board and has supported the assessment process for NIA Accelerator fellows joining the programme in 2020.

Project progress for Clinical Innovation Adoption Q3

The CIA Programme manages five of the seven national programmes undertaken by the Oxford AHSN.

National Programmes	Measure Goals	Business Plan	Q3 Position	Comment	Status
AF	No of Pt's diagnosed with AF	3,000	Unknown as annual measure is yearly (Oct2020) retrospective for 2019). Our forecast is 5,983.	Based on the 2018/19 QOF figures we are confident that the 2019/20 target will be achieved.	
EmLap	No of Procedures	803	675	Final figures for each quarter are only available several months after the quarter has ended due to the nature of data collection for EL procedures, hospital episodes of care and the NELA audit. The figures of 675 is correct from the national website for the period 1 st April 2019 to 31 st December 2019 (on the 17 th January 2020) using locked cases. Currently the locked quarterly figure is 156 cases, including unlocked cases, there have been 265 cases	
PINCER	No of GP Practice Implementing	192	20	Two-year cumulative target now exceeded. Currently collating data on impact, to further reinforce the case for sustainability of the initiative.	
TCAM	No of Completed referrals	453	1	All five Trusts continue to engage with us to implement TCAM. TCAM has gone live at one site and referrals are being made. Another Trust is close to having a working IT solution. We continue to work with the remaining Trusts. Our estimates of implementation suggest that we are still able to hit our cumulative target.	
Escape-Pain	No of people completing programme	80	4 (year-end forecast has been reduced from 80 to	The three active leisure sites ran courses during Q3 following marketing of the course and recruitment of suitable participant during the previous course.	

National Programmes	Measure Goals	Business Plan	Q3 Position	Comment	Status
			59)	Q3 focused on progressing discussions with interested sites. Wokingham Council confirmed the programme will be introduced at a Council Leisure Centre in 2020/21. Park Club expressed interested in expanding the programme to another of their sites, with a fitness instructor identified to undertake training. This will be in 2020/21 due to other priorities with Frimley Health ICS who are considering the programme for their MSK pathway.	

National Project: Atrial Fibrillation

Background

Atrial fibrillation (AF) is the most common cardiac arrhythmia affecting around 2% of the population. AF is the cause of 20% of all strokes and confers a five-fold increase stroke risk for an individual.

Anticoagulation (with warfarin or a Direct Oral Anticoagulant – DOAC) has been shown to reduce the risk of stroke in patients with AF by two-thirds.

Quarter 3 highlights

Berkshire West Integrated Care System programme – AF Champions

Oxford AHSN, Wokingham GP Alliance and the Royal Berkshire have developed a local AF Champions programme funded by the Pfizer-BMS alliance. Through this initiative each GP practice across Berkshire West will develop an in-house GP champion with the confidence and knowledge to ensure atrial fibrillation is identified and managed appropriately.

The AF Champions programme includes a series of educational events where participants can develop extended skills and to form a community of practices. Together with other members of their practice team, the champions are engaging in a quality improvement project, aimed at increasing AF detection using the MyDiagnostick device.

In Q3 the second cohort of the AF champions completed their education sessions and continued with their quality improvement projects. Also, in Q3 the third cohort of the AF champions commenced, taking the total participating practices to 41 (out of 46). The third cohort will complete in January 2020.

Feedback has been very positive with participants reporting that they found the sessions useful. Several participants provided feedback that they have changed their practices as a result of the programme.

Comments included:

- “I already pulse check in my hypertension clinic, but this has given me more confidence in advising and prescribing anticoagulation”

- “close monitoring of creatinine clearance”
- “This is important and practical and something we have to apply regularly in general practice. It is good to have up to date specialist advice”

Participants were also positive about the need to carry out a QI project:

- “Inspired to detect more AF opportunistically and maybe do more than one QI project”
- “Good to know the requirements and suggestions for projects and all the help that’s available. I feel encouraged and very well supported to embark on a suitable QI project”.

E-learning

Oxford AHSN is developing an e-learning programme to support improved anticoagulation initiation and quality. In Q3 the build phase of the programme was completed, and we anticipate launching the package in Q4.

Milton Keynes

In Q3 a meeting was held with the clinical directors of the Milton Keynes PCNs to discuss ways in which Oxford AHSN could support them to reduce variation in AF detection and anticoagulation. Follow-up meetings with individual PCNs are planned for Q4.

BOB ICS Joint Working

Oxford AHSN is working with stakeholders from across the BOB ICS to develop a proposal for an AF detection project at ICS level. A meeting is planned for 13th February to discuss this further.

Activities for next quarter

- Cohort 3 of AF Champions to complete
- Evaluation of AF Champions to commence
- JWA development meeting with Pfizer
- Development of individual tailored improvement plans with Milton Keynes PCNs
- Launch e-learning package

National programme: Emergency Laparotomy Collaborative (ELC)

- Emergency Laparotomy is high risk surgery addressing several causes. The Emergency Laparotomy Collaborative Programme supports the establishment of a formal Emergency Laparotomy pathway with the adoption of a bundle of six best practice care interventions associated with reduced mortality & length of stay.
- The ELC Programme incorporates the Royal College of Anaesthetists National Emergency Laparotomy Audit (NELA) that captures the data underpinning the Programme. These metrics provide the evidence-base to enable identification of areas for improvement, evaluation of the success or otherwise of new ways of working and supports activities leading to sustainable change.

Activities in Q3

The 4th Thames Valley ELC Conference, 9th September 2019

The 5th Thames Valley Emergency Laparotomy Collaborative Meeting – Sustainability Sense Check was very well attended bringing together members of the Steering Group, site core teams and as ever, some first-time attendees. Site core teams completed a significant 'current state' document prior to the event. At the meeting, each site presented their current state before discussion with the Steering Group representatives and the entire ELC cohort present, covering common themes and site-specific successes and challenges. Some common themes pertain to the integration of emergency surgical care into the wider hospital system. Despite being the most challenged region nationally for access to critical care, the region has seen significant increase in the numbers of high-risk patients being admitted to critical care by clinicians advocating the needs of their patients and articulating the evidence-base for this with colleagues. Additionally, the region is best performing nationally for support from geriatrician and period-operative physicians for patients undergoing emergency laparotomy procedures. Much of this achievement has been based on the good will of those colleagues. Sustainable provision, however, can only be realised if formal cases are presented and accepted.

The outcomes from the meeting inform the next stage of the Programme. In addition, OxCCare presented their findings from the first Thames Valley ELC patient focus group.

The next meeting shall aim to incorporate the first Thames Valley Regional M&M meeting for Emergency Laparotomy.

Emergency Laparotomy Collaborative Steering Group

The Steering Group is due to meet again in Q4 with a focus on implementation of outcomes from the December Regional meeting, to enable sustainable adoption of best practice.

Patient and Public Involvement, Engagement and Experience

OxCCare supported by the Oxford AHSN Director of PPIEE and ELC Steering Group Lay Representative undertook a successful first patient and family focus group, at Royal Berkshire Hospital. Outcomes included insights into post-operative pain control and information requirements for patients and general practitioners (including procedures and rehabilitation).

Site Visits

Site visits shall continue for the duration of the Programme. Contact has been made with the MD at one site for extra support where the core team is particularly challenged in gaining peer adoption. We have and shall continue to encourage members of the Collaborative to visit peer sites for ideas sharing, support and mutual development.

ELC Dashboard

The national NELA Dashboard is now in use.

National programme PINCER

PINCER is a pharmacist-led information technology intervention for reducing clinically important errors in general practice prescribing. It has been shown, in a large cluster randomised controlled trial published in [The Lancet](#) to reduce medication error rates by up to 50%. A published [economic analysis](#) showed introducing PINCER was cost effective, demonstrating an increased quality of life for patients (0.81 Quality Adjusted Life Years per practice) and an overall reduction in costs of £2,679 per practice.

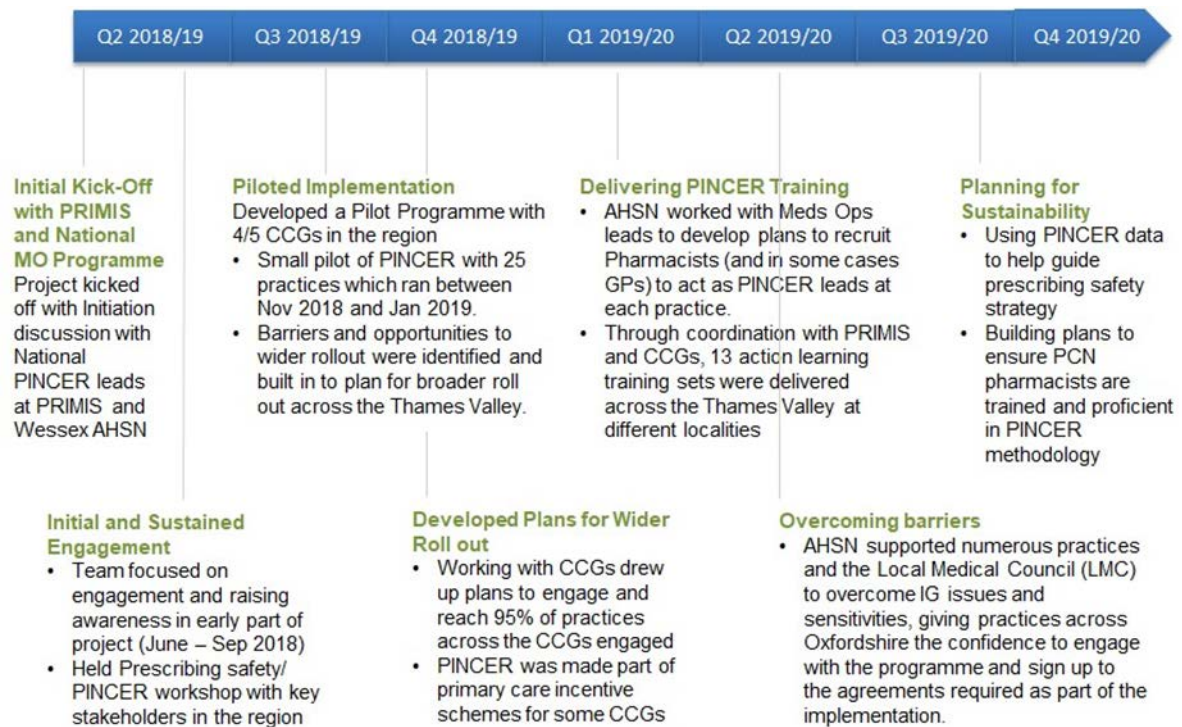
Key Achievements in Oxford AHSN PINCER programme

- 204 practices in the Oxford AHSN region (over 80% of general practice) have now fully implemented and are using PINCER to reduce prescribing errors.
- Over 200 Pharmacists and GPs have been trained on Quality Improvement methodology and root cause analysis around prescribing safety which is a central part to the PINCER initiative
- Oxford AHSN was the first AHSN nationally to reach its two-year NHSE target and despite its small geography has contributed considerably to the overall national adoption.
- Currently collecting data to evidence the impact of the PINCER initiative over the first 6 months of implementation
- Early data received from 61 practices across the region has shown that 900 cases of hazardous prescribing have been addressed already. We expect this figure to be significantly higher once all 204 practices have been addressed.

Activities in Q3

- Oxford AHSN is continuing to support CCGs and practices in the Thames Valley to implement and sustain PINCER
- After completion of all Action Learning Set one and two training in Q2, the Oxford AHSN has been focused on delivering Action Learning Set three training with PINCER leads across the region in Q3.
- To support sustainability Oxford AHSN is also supporting the development of a Thames Valley Medicines Optimisation Collaborative, which will have oversight of AHSN medicines optimization related projects including PINCER.
- In addition, plans are being made with CCGs around ensuring that PCN pharmacists receive PINCER training and embed PINCER into PCN working.

- To support future training needs, the CIA Pharmacy Lead, has been accredited as PINCER trainer, and now has the capability and authority to deliver all action learning set training.



Activities planned Next Quarter (Q4)

- The Oxford AHSN are working at a strategic level with senior Pharmacy leaders to embed PINCER as standard into the primary care medicines optimization workstream.
- The Oxford AHSN are currently working with CCGs to encourage practices to reupload PINCER to evidence the impact of the initiative over the first months.
- The Oxford AHSN will be looking to provide newly appointed PCN pharmacists with ALS 1,2 and 3 training.

Progress against targets

The national target for PINCER in the Oxford AHSN was to have implemented PINCER at 192 practices by end of Q4 2019/20. This has now been surpassed.

National programme: Transfer of Care Around Medicines (TCAM)

Background

The TCAM project aims to reduce the number of patients being readmitted to hospital due to adverse medication events. Patients at risk of an adverse medication event are identified and referred by hospital pharmacists to community pharmacists through a secure platform called 'PharmOutcomes'. Community Pharmacists can then invite the patient to a review where they are able to address any issues with the medication and re-emphasise the correct way to take the medication.

Metrics

The nationally agreed targets for Oxford AHSN for TCAM are shown below. Although there are no completed scripts yet, the referral target of 453 is achievable but is dependent on: Trust IT issues being resolved within timescales; the rate of referrals made by the Trusts; and the 'conversion rate' attained in community pharmacies. Analysis of outcome data across the AHSN Network suggests the target is achievable and we are cautiously optimistic.

Table shows 2019/20 target and position at Q3.

National Programme	Measure/Goal	Plan 2019/2020	Q3 Position	Comment	Status
TCAM	Number of acute Trusts using TCAM	2	1	We have successfully implemented TCAM at Buckinghamshire Healthcare. The IT solution at Royal Berkshire is relatively straightforward however local IT support contracting agreements are slowing development which is now predicted to be completed in Q1 of 2020/21. Integration of IT should also be relatively straightforward at Oxford University Hospitals, but the work needs to be coordinated with their Trust-wide IT programme. The remaining sites continue to express an interest in adopting TCAM.	
TCAM	Number of completed referrals	453	1	There is the potential to achieve the cumulative referral target by 31/03/20 with only one trust going live in Q3.	

Progress made during Q3

One site has gone live and we continue to focus on implementation at another of our trusts. We have also continued to work on stakeholder engagement and the development of implementation plans for the remaining three sites. Sites that do not have an electronic prescribing and medicines administration (EPMA) system need to identify and implement an IT integration solution.

Whilst the focus is on implementation, we have also been working to address some of the barriers to implementation.

With the support of Clare Howard, the TCAM National Lead, we have overcome some of the concerns held by our LPC colleagues regarding the new CPCF, for example the number of MURs reimbursed next year. This has led to improved engagement however the LPC remains cautious. It has been useful to flag to the central team how the decisions in other areas of the NHS are impacting on TCAM implementation.

As mentioned in previous Q3 reports, TCAM requires integration to Trust systems and works best where the EPMA is already installed. There are three key aspects for this implementation (1) development of the IT solution that enables integration to the PharmOutcomes system for secure transfer of patient information to a Community Pharmacist (2) change management and support for Trust Pharmacists/staff (3) change management and support for the LPCs and Pharmacists in the community.

Buckinghamshire Healthcare

In Q3 we have successfully implemented TCAM. All hospital pharmacists have been trained and are able to make TCAM referrals. In collaboration with the LPC, we held a training event for Community Pharmacists and have produced and distributed a variety of alternative training material to all.

Oxford University Hospitals

The Cerner EPMA system which launched in 2018/19 has now been embedded and the Trust is able to engage with the TCAM project. Discussions with the Trust's Clinical Informatics team have confirmed that PharmOutcomes can be fully integrated with the EPMA relatively easily. The Trust is determining when the integration can be scheduled into their IT team's work schedule. An implementation plan will be developed in consultation with both the Trust and the LPC.

Royal Berkshire

The Cerner EPMA system which was launched in November 2018 has been embedded into practice and the Trust is able to engage in TCAM. There is strong clinical interest but some concern over the costs of the IT support caused by local contracts between the Trust and Cerner. A project plan and implementation timeline have been agreed with the Trust and LPC. Due to difficulties in IT testing and limited IT team capacity we continue to work to this with the expectation of going live in Q1 2020/21.

Milton Keynes University Hospital

The Trust Pharmacy and IT teams are fully engaged with and keen to progress the TCAM project. The Trust uses Cerner EPMA and therefore the IT integration should be relatively straightforward. The Trust pharmacy team is designing their workflow after which the IT team can continue to develop the IT solution.

Frimley Health

Frimley Health does not yet have an EPMA system. Their IT department has looked for a technical solution to enable them to use PharmOutcomes but they have so far been unsuccessful in finding one.

Activities for next quarter

- Complete testing at Buckinghamshire Healthcare. Run community pharmacist training event in Buckinghamshire. Monitor referrals at Buckinghamshire Healthcare and work with LPC to ensure that community pharmacists are completing them where possible.
- Received feedback on referrals made and improve/refine referral procedure at Buckingham Healthcare.
- Plan community pharmacist training event in Berkshire.
- Sign MOU with Royal Berkshire.
- Sign MOU with Milton Keynes University Hospital.
- Continue engagement with Oxford University Hospitals and Frimley Health.

National Project: ESCAPE-pain

Background

ESCAPE-pain (enabling self-management and coping with arthritic pain using exercise) is an evidence-based group rehabilitation programme for people over 45 years with hip or knee pain. The programme integrates education, self-management and coping strategies with an individualised exercise regime. It can be delivered in both the health and leisure sectors by physiotherapists and fitness instructors. Each programme consists of 12 sessions run over six weeks, with typically 12 patients per session. The national programme is running for two years and is due to end in March 2020.

Q3 Update

This quarter saw three courses held, one at each of the three active leisure sites.

Following the announcement in Q2 that the facilitator at Park Club Willowbrook was leaving a replacement instructor undertook the necessary qualifications to be eligible for the ESCAPE-pain training. The training course will be attended in Q4 and therefore it is unlikely a programme will be run and completed in the next quarter. The AHSN is funding the training course. Park Club also expressed a desire to offer ESCAPE-pain at another site. The AHSN will fund training for the training for a facilitator which, due to other priorities, will take place in 2020/21.

Ravenscroft Physiotherapy in Milton Keynes was due to commence a pilot but due to operational issues this has been delayed. The AHSN is continuing to seek further information from the providers as to when it is anticipated the facilitator training can be undertaken and the pilot commenced.

Following re-engagement with Frimley Health ICS in Q2, discussions have continued during the quarter and there is strong interest to introduce the programme. Discussions will continue next quarter and implementation, if it does occur, will be in 2020/21.

One further leisure centre indicated their interest in delivering ESCAPE-pain, but unfortunately the individual identified to run the programme did not have the necessary experience to attend the facilitator training. Follow-up will take place with the site in Q4 to understand if the individual can attain the necessary experience or if another facilitator has been identified.

Following an initial meeting with Wokingham Council in Q2, a subsequent meeting was held, and a decision made to introduce the programme at one of the council's leisure centres. Facilitators have been identified and have booked onto the training course at the beginning of Q1 2020/21. The annual outturn for 2019/20 is 80 participants completing the course. This is a challenging target which is unlikely to be achieved due to difficulty recruiting large number of eligible participants to the active leisure sites, and length of time for interested sites to become active sites.

The national programme will finish at the end of 2019/20. The AHSN will continue to provide some support to those sites who have shown strong intent to introduce the programme.

Activities for next quarter

Q4 will focus on the following:

- Seeking decision and further information from Ravenscroft Physiotherapy regarding the pilot
- Discussions with Frimley Health ICS regarding potential implementation
- Ensure identified facilitators schedule training and begin marketing the course
- Seek response from leisure centres that have previously indicated interest in the programme

Local and International Projects

The projects reported below have been initiated either through partner priorities (fall prevent projects, WireSafe, prostate cancer), national awarded funding via bids (Innovate UK – Sleepio/Atrial Fibrillation), workforce development funding from Health Education England (HEE) or international funding (EIT Health - eMaps).

Requirement	Project	Start	End	Status
Local	Frailty - Bone Health Management in Primary Care	Sept-19	June-21	Start Q2
Local	Heart Failure (detect and treat - Novartis)	May- 18	Dec-20	Ongoing
Local	Sleepio (Innovate UK)	Apr-18	Jun-20	Ongoing
Local	Atrial Fibrillation project - Reducing AF-related stroke through coordinated primary/ secondary care.	Nov-18	Dec-20	Sep-20
Local	Innovation Course cohort 6 (Buckinghamshire New University/Oxford AHSN)	Sep-18	Jun-20	Ongoing
	Innovation Course extended with a focus on attracting applicants from Primary Care for Cohort 8 onwards.	Feb-20	--	Ongoing
Local	Polypharmacy	Jan-20	Mar-21	Planning
International	eMaps – Market Access Tool	Jan-17	Dec-19	Ongoing

Local Project: Excellence in Heart Failure

Background

Excellence in Heart Failure aims to increase medicines optimisation for heart failure patients in primary care. The project involves code cleansing to increase coded prevalence of heart failure and then review and optimisation of medicines to improve quality of life and reduce hospital admission. The project is being delivered to practices in Buckinghamshire via a joint working arrangement (JWA) between Oxford AHSN and Novartis. Through this JWA Novartis have appointed Interface Clinical Services to support practices in running clinical audits and reviewing patients.

Progress in Q3

Nine practices have now completed their audit cycles and showed significant improvement in the number of patients on the heart failure register and the number of patients coded with Left Ventricular Systolic Dysfunction (LVSD).

- 152 additional patients have been added to the HF register (15% increase)
- 319 additional patients with HF have been given an LVSD code (86% increase)

- On average, practices have seen a £5k uplift in their QOF funding because of the coding improvements
- 687 patients have received a note review to date
- 290 of these patients went on to be reviewed face to face
- 151 patients received a pharmacological intervention, the majority of which were up titration of an existing medication
- 68 patients were recommended for specialist review

A further 14 practices are currently signed up to the project and are expected to complete in Q4.

Toolkit

Oxford AHSN has signed a JWA with Novartis to develop an implementation toolkit to support adoption and spread of Excellence in Heart Failure. This includes contacting other sites across the country who are working on similar projects to learn from their project data and delivery insights. The toolkit content is nearing completion with the aim of it being ready for circulation in April 2020. In Q4 we will run a procurement process to identify a supplier who will develop the flat toolkit content into a high-quality on-line document.

Activities for next quarter:

- Increase practice sign up for Buckinghamshire project
- Procurement process to identify company to publish toolkit
- Collate data from other sites
- Encourage further sign up in Buckinghamshire through sharing early results finalise tool kit.

Local Project: Innovate UK Funded Sleepio

Sleepio is an online Cognitive Behavioural Therapy-based support programme that helps users with insomnia which affects one in ten adults. It aims to improve sleep without recourse to medication through a fully automated, interactive web-based tool.

Innovate UK is funding a project providing free direct access to Sleepio to all 2.7 million adults living or working in the Thames Valley (Berkshire, Buckinghamshire, Milton Keynes and Oxfordshire) from October 2018 until spring 2020.

This is the first large-scale NHS rollout of direct access digital medicine. Any adult can access the programme without needing a GP referral or prescription.

This initiative is being led by the Oxford Academic Health Science Network (Oxford AHSN) in partnership with Big Health (the company that developed Sleepio), major employers, GP surgeries and other primary care professionals.

Activities in Q3:

- Commissioner Engagement – A final updated draft of the paper “Determinants of and barriers to adoption of digital mental health at scale in the NHS” has been submitted to BMJ Innovations shortly for publication.

- Engagement and presentations were attended at several Health Conferences and Events; NHS Clinical Commissioners Conference, DTx Berlin, HETT 2019, and ISPOR.
- GP Engagement – we are testing more involved form of implementation, where there is a significant amount of face time and support up front with education and training at the following additional practices: Falkland Surgery, Highfield Surgery, Manor Surgery, Millbarn Medical Centre, Simpson Centre and Southmead Surgery. The approach includes a multi-disciplinary team (MDT) model, and current implementation model for logistics in routine reviews with Health Care Assistant/nurses.
- Population Engagement - For the duration of the Sleepio project, the web-based tool will be made available to anyone (over 18 years-of-age) within the Oxford AHSN geography. Following the official launch on World Mental Health Day (10 October 2018), large employers and third sector organisations (particularly those supporting carers, mental health issues, and long-term conditions) are being sought to engage with the project and roll-out Sleepio. Population Engagement - Eleven large local employers are now rolling out Sleepio to their staff (Buckinghamshire Healthcare, Oxford Brookes University, Oxford Health, Oxford University Hospitals, Oxfordshire County Council, Thames Water, TXM Group, Unipart, University of Buckingham, University of Oxford, and West Berkshire Council). In Q1, the number of Thames Valley-based employees accessing Sleepio was 3,390; compared with 2,009 from the previous two quarters after the project's launch on World Mental Health Day (10 October 2018).

Since the start of the project:

- A series of meetings with colleagues from Public Health England have been conducted at a local, regional and national level to explore methods by which the wider population might be engaged through a sleep-related health campaign. Notes and information gathered from these interactions are being used to develop a pilot campaign and materials.
- OASIS and Theory of Change approached and used to shape the basis for a potential Public Health campaign. Campaign materials will include social media, local media and a bespoke website to host the campaign information and materials.
- Presentations to several groups have been given; including GP Psychiatry Study Days and Health Hospitals events which have raised awareness of the availability of Sleepio to clinicians and patients alike. Third sector organisations such as Oxfordshire MIND, Restore, and Archway have also been approached to engage with their clients.
- Presentations also given to brand partners at the Westgate Centre (retail complex) and at Oxford Science Park. Media engagement to coincide with Mental Health Awareness week has been sought locally.
- Case studies have been featured on local radio (BBC Oxford and Jack FM) as well as articles within the national press (Guardian, BBC News etc.), as well as regular articles in stakeholder newsletters. This will be expanded over the coming quarter in partnership with Good Relations and the communications project. This also involved an interview with the Financial Times.

- An audience insight survey – issued to around 1,000 individuals in the Thames Valley – developed from the Expert by Experience forum. The results from the survey will help generate media stories with a local aimed at gathering the views and thoughts from users of Sleepio have been developed for dissemination across the country.
- Since the project’s launch over 7,813,00 individuals have accessed Sleepio from the Thames Valley. 40% of these individuals went on to access the CBT element of the programme. The majority of those (just over 50%) individuals are Oxford-based. The average improvement in additional hours of sleep per week was 5.5 hours in this quarter.

Activities for Next Quarter

GP Engagement:

Continue to utilise alternative communication routes, such as MJOG, to raise awareness with new GP surgeries and supporting Big Health’s application for NICE’s Medical Technologies Evaluation Programme (MTEP).

Population Engagement:

- Greater focus on Public Health campaign. Developing a pilot sleep campaign for rolling out across Oxfordshire initially and specifically produced website featuring blog posts, videos and information about the importance of sleep aimed at the public.
- Developing sleep campaign materials based on audience survey which will be issued to current and previous Sleepio users in the UK who have given their consent to be approached.
- Development of media campaign and materials for World Sleep Day (13 March 2020).
- Develop further engagement with Oxford Health NHS Foundation Trust with support from Director of Strategy and Planning and re-launch of campaign at Buckinghamshire Healthcare to coincide with World Sleep Day.

Local Project: Elastomeric Devices

Background

Elastomeric devices are small, single use pumps used to administer medication such as IV antibiotics or chemotherapy and can be used in patients’ homes. As the pressure on hospitals beds is significant, Trusts are keen to explore alternative ways to treat patients safely and effectively that either can facilitate an earlier discharge from hospital or prevent an admission to hospital. Elastomeric devices could be used to support both the discharge of patients who would otherwise remain in hospital purely to receive IV antibiotics, and to support the prevention of admissions for such patients. This project is initially being run with OUH, to provide support to the pharmacy and clinical teams to develop and embed this service and to enable a greater number of patients to benefit from this model of treatment.

Q3 Update

OUH completed the pilot and presented the results at an internal meeting. Following this, approval was given for the devices to be used on patients in their own homes. A meeting was held with the AHSN and project leads to discuss next steps, including the development of patient information materials and patient questionnaire.

Activities for next quarter

Q4 will continue to monitor the number of patients who benefit from the device and gather outcome data. Work will commence on developing materials and tools for other sites who may wish to consider the introduction of these devices.

Local Project: Healthy Ageing

Background

Healthy ageing is a key priority for health and social care and has been highlighted in the NHS Long Term Plan. This incorporates a wide spectrum of health needs, such as the management of patients who are classed as frail, but also enabling people to age well and live well into older age such as providing greater awareness of and the necessary steps for successful management of long-term conditions.

The Oxford AHSN has identified a need for a greater awareness of bone health and the appropriate management of osteoporosis to prevent fragility fractures. This project is also being deployed by four other AHSNs who are collaborating to deliver the “Northern Bone Health Programme”.

The Oxford CIA team will initiate a local project with GP practices to ensure patients with osteoporosis are managed in accordance with NICE guidelines and are optimised on treatment. The project will also include an educational component for both patients and clinicians.

Q3 Update

This quarter has seen further discussions and progression made with PRIMIS regarding collaborative working. Work has commenced on developing the algorithm to be incorporated into PRIMIS’s existing osteoporosis tool. Contracts are currently being reviewed by the different parties involved.

Activities for next quarter

Q4 will focus on the following:

- Agreement of contracts
- Building and testing the algorithm within the osteoporosis tool
- Identification of GP practices to participate in the project
- Planning of patient workshop, with a focus on educational needs of patients with osteoporosis

Local project-Syncope

Background

Syncope, or transient loss of consciousness, can arise due to highly varied causes with significantly different degrees of seriousness. Investigation of syncope can follow different paths depending upon

the clinical suspicion of the underlying cause(s). Accordingly, following investigation, a patient experiencing syncope may ultimately be managed by any of number of different teams or services. Identification and investigation of syncope can at times be complicated by apparently more urgent conditions warranting attention, such as fractured neck of femur.

All the above can lead to variation in practice within a service and between Trusts. Equally, it can result in delays in the more serious causes of syncope being identified and escalated.

The annual number of syncopal episodes is hard to quantify because patients may suffer with other contemporaneous events (such as fractured neck of femur), the significance of which may be recorded as the primary reason for attendance at hospital.

Interest from local stakeholders

Oxford AHSN is currently scoping the interest from Trusts across the region. Trusts have reported that syncope pathways are an area that they would like to work on, particularly given the impact on the emergency department.

Progress in Q3

Oxford AHSN attended a syncope workshop where James Cook Hospitals NHS FT presented their approach to running a multidisciplinary blackout service. This provided a rich learning opportunity and we will aim to make links with James Cook so that we can continue to learn from their experience.

Stakeholder interest was scoped out. Discussions with Emergency Department Leads and with the Thames Valley Cardiovascular Strategic Clinical Network for Cardiovascular disease have suggested that there is enough interest across the region to warrant a project.

A meeting was held with the Oxford AHSN PPIEE team where the PPIEE approach to the problem was discussed and agreed.

Innovation

This has yet to be fully worked up but will be developed with interested local stakeholders, potentially with the support of relevant industry partners. Innovation is likely to focus on ensuring that NICE guidelines are effectively applied across the whole syncope pathway. This would have the following benefits:

- Serious causes identified more efficiently
- Reduction in unnecessary admissions

Next steps:

- Set up stakeholder group
- Arrange visit to James Cook
- Refine innovation
- Collect regional data on incidence and impact

Innovation and Technology Payment (ITP) 2019/20

NHS England (NHSE) launched the third wave of ITP products during quarter 1. The ITP aims to reduce financial and procurement barriers to enable the uptake of products that are evidence-based, cost-effective and market ready innovations and that demonstrate the potential to deliver significant patient outcomes and savings to the NHS.

The four themes supported by the ITP in 2019/20 are:

- Non-invasive vagus nerve stimulation for cluster headaches
- Diagnostic placenta growth factor-based test for the rule-out of preeclampsia in pregnancy
- High sensitivity troponin assay for the identification of myocardial infarction
- Absorbable hydrogel spacer to reduce rectum radiation exposure during prostate radiation therapy

There are two further themes that are being supported through the Evidence Generation Fund (EGR). These will have a more limited rollout to evaluate their potential benefits:

- Digital app to support emergency mental health assessment
- Interoperable personal health record

The technical guidance summarises the products, eligibility criteria and data requirements. The Oxford AHSN is working with the relevant organisations to support the adoption of these products, as outlined below:

Product	Comment
GammaCore	We have prescribers actively using gammaCore at Oxford University Hospitals, Buckinghamshire Healthcare and Frimley Health. We will continue to seek engagement with other trusts in our region.
Placental Growth Factor (PIGF)	MKUH went live 4/12/19 (Roche Elecsys ratio test). FHFT and RBH in joint discussions to adopt Quidel Triage PIGF test through the BSPS network.
High sensitivity troponin (HST)	All trusts confirmed as following a 1- or 3- hour pathway. No Oxford AHSN Trusts appear on the national targeting list no local activity.
Hydrogel spacer (SpaceOAR)	There is a limited number of procedures (400) available via the ITP and as such a small number of Trusts have been identified to implement this product. Currently no Trusts within the Oxford AHSN region have been selected for implementation via the ITP.
Digital app to support emergency mental health assessments (S12)	A select number of STP/ICS regions have been selected to implement this product via the ITP. No sites fall within the Oxford AHSN region.
Personal Health Record (PHR)	This programme of work is being led by NHS Digital and Innovation Agency. NHS Digital has identified several sites through which it will be piloting the integration of PHR. None of these sites fall within the Oxford AHSN region.

HeartFlow

Background

HeartFlow FFRCT is coronary physiology simulation software used for the qualitative and quantitative analysis of previously acquired computerised tomography DICOM data. The software provides a noninvasive method of estimating fractional flow reserve (FFR) using standard coronary CT

angiography (CCTA) image data. FFR is the ratio between the maximum blood flow in a narrowed artery and the maximum blood flow in a normal artery. FFR is currently measured invasively using a pressure wire placed across a narrowed artery. HeartFlow is currently available to Trusts through the ITP 2019/20.

Progress to date:

Trust	Heart Flow Implementation
Oxford University Hospitals	Implementation in progress; Awaiting site visit from company.
Frimley Health	HeartFlow adopted.
Royal Berkshire	Adoption agreed, awaiting kick-off meeting to commence implementation.
Buckinghamshire Healthcare	Previously not eligible due to <700 CTA performed per annum. Threshold lowered so potential for adoption.
Milton Keynes University Hospital	Previously not eligible due to <700 CTA performed per annum. Threshold lowered so potential for adoption.

Next steps:

- Continue to offer support to supplier and Trusts committed to implementation.
- Engage with Buckinghamshire Healthcare and MKUH considering new eligibility criteria.

myCOPD

Background

The treatment of COPD (Chronic Obstructive Pulmonary Disease) is complex, with different inhalers needing to be used in different ways. This has the potential for poor treatment compliance leading to poor outcomes and potentially wasted prescribing. Improving self-management for patients with COPD is a key priority for the NHS, as good symptom management is essential to stabilise the disease and prevent exacerbations.

myCOPD is an integrated online education, self-management, symptom reporting and pulmonary rehabilitation (PR) system. It focuses care on behaviour modification and self-management of COPD to increase the knowledge and skills that patients need to treat their own illness. The system includes a self-management plan and inhaler diary, a COPD Assessment Test (CAT), a pulmonary rehabilitation program, online education tutorials, weather and pollution forecasts, and symptom reporting.

Patient licences have been made available at a CCG level to those CCGs who indicated their interest in and intention to implement the product. Through the Innovation and Technology Payment (ITP) programme, NHS England will fund the cost of the patient licences with licences covering the patient’s lifetime.

Q3 Update

Within the Oxford AHSN region, Milton Keynes CCG and Berkshire West CCG have licences allocated via the ITP. Both CCGs have previously met with the company and agreed to implement the licences within the COPD pathway.

Berkshire West CCG approved the contract with my mhealth during Q3 and continued to work through Information Governance arrangements.

Milton Keynes CCG confirmed funding for implementation. A meeting is planned for early Q4 to discuss implementation plans with the company.

Activities for next quarter

Quarter 4 will focus on introducing the licences within the Berkshire West services and progressing implementation plans with Milton Keynes CCG.

Patient Safety Devices

Background

Since 2017/18 the CIA team has been working with two NHS Innovation Accelerator (NIA) Fellows to implement three patient safety devices (Non-Injectable Arterial Connector (NIC); PneuX; WireSafe™) within critical care and operating theatres. The devices provide engineered solutions that significantly reduce the possibility of human error and improve the safety in providing care to critically ill patients. Two of these devices (NIC and PneuX) were provided to Trusts at zero cost via the Innovation and Technology Tariff (ITT). The WireSafe™ project closed at the end of 2018/19 however, there may be renewed interest from Oxford University Hospitals.

Q3 Update

Due to the work undertaken during the previous two years, there has been limited activity during the quarter. CIA manager attended an AHSN Network workshop on the NIC.

UroLift

Background

UroLift is a minimally invasive treatment for benign prostatic hyperplasia which can be undertaken as a day case, as an alternative to TURP or laser. There are several patient and health economy benefits including:

- Preservation of sexual function
- Rapid symptom relief
- Improved bed capacity
- Improved theatre capacity due to shorter procedure time compared to TURP or laser

Q3 Update

Milton Keynes University Hospital held their first list during the quarter, meaning all five acute Trusts within the Oxford AHSN region now offer UroLift as a treatment option.

Work started with Buckinghamshire Healthcare on their successful Pathway Transformation Fund (PTF) bid, which will look at options to streamline the pathway for men with BPH and potentially work towards a one-stop assessment clinic. The second wave of applications for PTF funding was held during Q3. OUH submitted a bid to create educational video materials for patients. While the bid was unsuccessful, feedback was extremely positive and NHSE wish to fund the work separately. This work, which will be used nationally, will progress during the next quarter.

The table below summarises UroLift activity by Trusts in the region:

Trust/Activity	UroLift Procedures							Status
	2018/19				2019/20			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
Oxford University Hospitals	6	13	3	7	9	2	7	
Royal Berkshire	5	5	12	5	6	5	1	
Buckinghamshire Healthcare	0	0	0	0	3	1	8	
Milton Keynes University Hospital	0	0	0	0	0	0	5	
Frimley Health: Frimley Park Hospital	15	26	17	20	17	17	10	
Frimley Health: Wexham Park Hospital	0	0	0	12	8	5	4	

Activities for next quarter

Q4 will focus working with Bucks HT and OUH on the Pathway Transformation Fund workstream and patient educational materials.

Polypharmacy

Background

Polypharmacy is the concurrent use of multiple medications. Although there is no standard definition, polypharmacy is often defined as the routine use of five or more medications. This includes over-the-counter, prescription and/or traditional and complementary medicines used by a patient. [\[1\]](#)

Polypharmacy has been described as a significant public health challenge. [2] It increases the likelihood of adverse effects, with a significant impact on health outcomes and expenditure on health care resources.

Adverse events are now estimated to be the 14th leading cause of morbidity and mortality in the world. [3] In the UK, it is estimated that up to 11% of unplanned hospital admissions are attributable to medication-related adverse events, of which 70% occur in elderly patients on multiple medicines, and of which 50% are deemed preventable. [4] Polypharmacy is a key part of the WHO Global Challenge to reduce harm from medications errors by 50%. [5]

The overall goal of the Oxford AHSN polypharmacy initiative will be to reduce inappropriate polypharmacy (irrational prescribing of too many medicines) and to ensure appropriate polypharmacy (rational prescribing of multiple medicines based on best available evidence and considering individual patient factors and context). Management should be comprehensive, addressing such issues as improved health outcomes for the patient and population, greater patient engagement in therapeutic decision-making and cost-effectiveness of health care systems and resources.

Several AHSNs have been working locally on this complex topic area and have developed some ground-breaking work. The Polypharmacy Prescribing Comparators developed by Wessex AHSN have recently won a Health Service Journal Award for improving patient safety.

The National AHSN Medicines Optimisation programme board supports the approach that each AHSN should develop its key priorities around polypharmacy. These priorities should be relevant and achievable within the local system.

Prioritising Initiatives

To identify local priorities around Polypharmacy Oxford AHSN started out by hosting a meeting of the Thames Valley Clinical Commissioning Group (CCG) Medicines Optimisation Teams on October 2019. Some high-level areas were identified to explore and work up in more detail. These local initiatives agreed were:

- The adoption and spread of the Polypharmacy Action Learning Sets developed by Wessex AHSN and Health Education England
- The development of CCG Polypharmacy Data Packs to support identification of priority areas at place and system level
- Exploring integration of the polypharmacy comparators into GP computer systems
- Development of a proposal to support the 'Me and My Medicines Campaign'
- Reviewing literature and sources for effective approaches to safer prescribing of Opioids:
 - [1] Medication Safety in Polypharmacy. Geneva: World Health Organization; 2019 (WHO/UHC/SDS/2019.11). Licence: CC BY-NC-SA 3.0 IGO.
 - [2] Payne RA, Avery AJ. Polypharmacy: one of the greatest prescribing challenges in general practice. Br J Gen Pract. 2011;61(583):83–

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- [3] Jha AK, Larizgoitia I, Audera-Lopez C, PrasopaPlaizier N, Waters H, Bates DW. The global burden of unsafe medical care: analytic modelling of observational studies. *BMJ Qual Saf.* 2013; 22(10):809–815. <https://doi.org/10.1136/bmjqs-2012-001748> <https://www.ncbi.nlm.nih.gov/pubmed/24048616>
 - [4] Kongkaew C, et al. Risk factors for hospital admissions associated with adverse drug events. *Pharmacotherapy* 2013;33(8):827–37.
 - [5] . Medication Without Harm - Global Patient Safety Challenge on Medication Safety. Geneva: World Health Organization, 2017. Licence: CC BY-NC-SA 3.0 IGO.

Q3 progress

- CIA Clinical Pharmacist has shadowed all three ALS delivered in Dorset
- Requests have been made to local geriatricians to support with day three of the polypharmacy ALS
- 26 participants, to date, have booked a place for the polypharmacy ALS
- Individual CCG polypharmacy data packs have been produced and circuited to the MO leads. MO leads have used these within their local Integrated Care Partnerships (ICP) to identify and prioritise areas for improvement
- An Integrated Care System (ICS) data pack on opioid prescribing has been produced and circuited to MO leads. This is being used by ICPs as the basis to initiate conversations on areas of population need and potential improvement in this area
- An Expression of Interest has been submitted for the EIT Health fund to support an opioid prescribing improvement initiative
- A draft proposal for the Me and My Medicines campaign has been produced

Q4 planned activities

- To further promote and increase uptake on the polypharmacy ALS
- To sign up 2/3 local geriatricians to support with day three of the polypharmacy ALS
- To support delivery of the first Oxford AHSN polypharmacy ALS
- To write a review on artificial intelligence and opioid prescribing
- To complete the proposal for the Me and My Medicines campaign and circulate to MO leads
- To co- develop the proposal for the EIT Health funding bid

Oxford AHSN has also conducted some discovery work to take stock of work being done, locally, nationally and internationally around this to identify innovations that may have an impact Initiatives with the most support included: providing training and education to PCNs around polypharmacy and deprescribing Exploring the role of shared decision making around Polypharmacy and the use of a “Medicines Communication Charter” through the Me and My Medicines campaign using ePACT2 and prescribing data to create searches for primary care around polypharmacy patients that need to be reviewed (PINCER model) Oxford AHSN will be developing a set of proposals to take to the wider

Medicines Optimisation network for decision and approval of direction to follow. We hope to initiate selected initiatives by the start of 2020.

PCSK9i

Background

In 2019 it was announced that PCSK9 inhibitors as a class of therapies would be supported as Rapid Uptake Products as part of the AAC. The reasons for this were:

1. Both marketed products in this class have NICE approval
 - a) TA393 - www.nice.org.uk/guidance/ta393 [1]
 - b) TA394- www.nice.org.uk/guidance/ta394 [2]
2. They both had full evidence of clinical and cost effectiveness
 - a) [Evolocumab and Clinical Outcomes in Patients with Cardiovascular Disease.](#)
 - b) [Alirocumab and Cardiovascular Outcomes after Acute Coronary Syndrome. Schwartz GG et al. N Engl J Med. 2018 Nov 29;379\(22\):2097-2107](#)
3. They both help address an NHS priority:
 - a) CVD prevention is a key priority in the NHS Long Term plan and raised cholesterol was highlighted as a key modifiable risk factor.
 - b) CVD is the biggest cause of premature mortality in the UK: For every 1 mmol/L reduction in LDL-C there is a 23% REDUCTION IN MAJOR VASCULAR EVENTS - [Association Between Lowering LDL-C and Cardiovascular Risk Reduction Among Different](#)
4. Adoption within the system was significantly lower than expected:
 - a) The NHS Innovation Scorecard showed uptake of these medicines was between 72% and 77% lower than expected- [NHS Innovation Scorecard](#)
5. Recognised as having proven value, either in terms of system efficiencies or health gains.

Whilst the national AAC RUP initiative and planned activities is still being approved, the Oxford AHSN has been taking proactive steps to develop plans and understand the current baseline around these therapies in the Thames Valley.

Q3 Activities

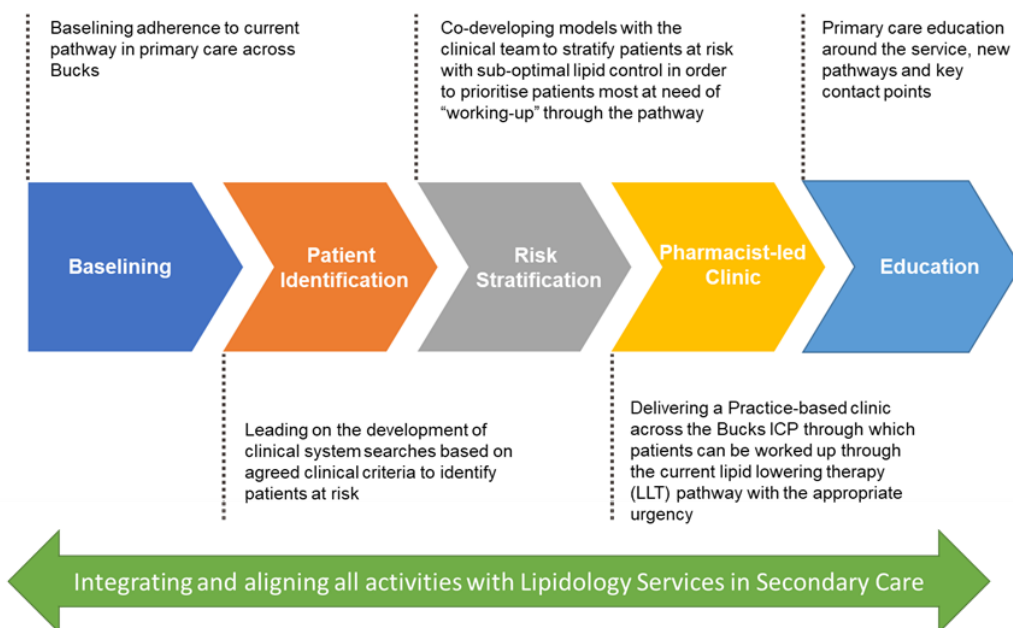
- Developed with Buckinghamshire ICP and Berkshire West ICP to applications for PCSK9i Pathway Transformation Funding (AAC grant)
- The proposal with Buckinghamshire was successfully awarded funding in Dec 2019 which entailed an innovative primary care approach to funding made up of four main elements:

1. Creation of Pharmacist-Led Lipid Management Service

Bucks ICP will use the funding to create a sustainable Pharmacist-Led service that will be developed

and delivered by a Clinical Pharmacist Independent Prescriber. The Pharmacist will work across Lipidology and Cardiology in the Trust and the CCG Meds-Ops team.

The Clinical Pharmacist will be responsible for



2. Development of a clear pathway for primary care

A working group will be installed as part of this project to design, develop and deliver the pathway across Bucks ICP. Stakeholders from the Trust (Cardiology, Lipidology, Pharmacy, Transformation), CCG (Long Term Conditions, Medicines Management, Finance) and AHSN will ensure the project is delivered to the proposed timescales. Resources and tools will be developed such as "alerts" on clinical systems to ensure patients are appropriately tested and managed.

3. Establishing a "Virtual" Consultant-Led Lipid Clinic

To ensure more effective use of the limited Lipidology services in secondary care, the Clinical Pharmacist will manage simple cases. For complex cases, a consultant-led virtual clinic will be established whereby the MDT led by the Consultant Lipidologist can come together to assess patients and move them on more swiftly to PCSK9i where appropriate.

4. Improving Coding around Lipids

After baselining the current quality of data and coding, a strategy to enhance the frequency and accuracy of coding will be put in place. Outcomes data will be captured and used to refine and optimise the service. This will be critical to support the case for sustainability beyond the pilot.

Through the appropriate Cardiology, Lipidology and GP leadership the team are confident that this proposal will be able to deliver increased access to PCSK9i and improved patient outcomes across the Bucks ICP

Q4 Planned Activities

- The Oxford AHSN is currently supporting Bucks CCG and Buckinghamshire BHT to setup the project more formally and to develop an ambitious but deliverable project plan.

- The Oxford AHSN is likely to play a role in delivering this project and aligning this initiative with potential national projects around lipid management.

Leadership in Medicines Optimisation

Background

Medicines optimisation is a key cross cutting theme of so many of the Oxford AHSN's projects. Specifically, in CIA PINCER, TCAM, AF and Heart Failure have all been reliant on strong Pharmacy leadership and collaborative working wither at place or system level. To support our Pharmacy leaders the Oxford AHSN has sought to deliver a Leadership Programme for Senior Pharmacists in the region. The aim of this was to develop vision, strength and impact of our individuals whilst developing system leadership skills and behaviors.

Partnering with Novartis, the Oxford AHSN commissioned the Faculty of Medical Leadership and Management to develop a 4-day Programme. For more information read the case study at the start of this report.

Q3 Activities

- The 4-day programme was developed with a core team of three Senior Pharmacists, the Oxford AHSN, Novartis and FMLM
- A process of 360 feedback took place with System leaders across the Thames Valley (Exec board, Medical Directors etc.)
- A residential program was delivered to over 20 senior Pharmacists in the Thames Valley over four days covering a breadth of content
- All Senior Pharmacist in the region have committed to maintaining the group as a Thames Valley Medicines Optimisation Collaborative

Q4 Planned Activities

- The Oxford AHSN is taking a lead role in helping shape and setup the Thames Valley Medicines Optimisation Collaborative
- Subgroup workstreams are emerging in the areas of Medicines Safety, Medicines Value and Workforce
- Currently supporting the development of Governance structures, Terms of Reference for the group, securing buy-in for System level collaborative activities from home organisations and developing relationships with BOB ICS

The Adopting Innovation and Managing Change in Healthcare Settings Programme

Background

The Adopting Innovation and Managing Change in Healthcare Settings Programme is designed to help healthcare professionals identify and introduce new ways of improving patient care and to teach them

about innovation adoption/quality improvement and managing change within health care settings. The programme is a collaboration with Bucks New University and Oxford Academic Health Science Network with the programme sponsored by Health Education England.

Activities in Q3

The programme has been impactful for the region since its inception, contributing to the upskilling of the region's healthcare workforce. With the introduction of the NHS Long Term plan, the establishments of Sustainability and Transformation Partnerships (STPs) and Integrated Care Systems (ICSs), the scope of the programme was redefined to align with these. As a result, new content was introduced focusing on the systemic change and integration of healthcare services. This was aimed to challenge the students to direct them to consider the impact of their project proposals to the healthcare system holistically. The redefined programme was first introduced with cohort seven and feedback have been positive.

Concurrently, cohort six started their second module, delivering and sustaining improvement in healthcare settings, and have presented their project during the poster day in December which was attended by members of the Clinical Innovation Adoption team. High quality project proposals were observed for this cohort.

Activities for next quarter

Recruitment for cohort eight is underway and to align with the new focus of the programme, half of the places for the cohort will be offered to healthcare professionals from primary care. It is expected that 15-30 healthcare professionals will enroll for this cohort in February 2020.

Cohort seven will start with their second module in February 2020.

Breakdown of NHS Staff engaged with the programme

Organisation	Cohort 1	Cohort 2	Cohort 3	Cohort 4	Cohort 5	Cohort 7	Total
Berkshire Healthcare NHS FT	1	5	2	0	2	7	17
Oxford University Hospitals NHS FT	21	4	4	12	8	6	55
Oxford Health NHS FT	1	3	4	6	4	4	22
Buckinghamshire Healthcare NHS Trust	0	8	5	1	9	4	27
Great Western Hospitals NHS FT	2	3	0	1	2	0	8
Frimley Health NHS FT	0	0	4	1	0	8	13
Milton Keynes University Hospital NHS FT	1	1	0	0	0	0	2
Royal Berkshire NHS FT	1	0	0	0	0	1	2
NHS England/CCGs within the region	0	1	1	3	0	0	5
					Cohort 6		33
					Total Students Trained		184

European Market Access for Partners (eMaps)

Background

This is an online platform to support the life science Industry and innovators to understand how the NHS and other health sectors work in other countries; Its primary purpose is for preparing to access markets. The digital platform provides advice and information on key areas of market access including clarifying and testing value proposition, regulations and compliance, pricing and reimbursement, market structure, stakeholders and overall pathways for market access. Information has been developed for UK, France, Spain and Denmark and work started during Q4 on Germany, Italy, Portugal and the US. The modules giving information about digital, medical technology and drugs within country's markets. This is an EIT Health KIC funded activity that is of benefit to the UK Life Science Market and others across the world.

Activities in Q3

Activities with German and US partners continued during the last quarter with regular scheduled bi-weekly meetings taking place alongside the Portugal and Italy. These include reviewing of content development, progress of modules, timeline overview and video production update. All draft content has been submitted by the German and US partners with Digital Health, MedTech and Biotech modules now signed off and being uploaded to the platform by the developers.

A dynamic promotional video with testimonials has been shot and produced on the Science Park site and used in various comms activity. Several marketing assets have been created for promotional and social media activity. Social media has been deployed using various channels (LinkedIn, Twitter, Newsletters, Vimeo). A public market readiness assessment tool has been used for social media

activity and news articles have been published on the News page of the site which cover appropriate latest and topical trends.

Innovate UK has expressed interest in making eMaps available to SMEs in the Digital Health Technology Catalyst (DHTC) round 4. They have agreed to provide feedback on the platform.

A poster on eMAPs was presented at the International Society for Pharmacoeconomics and Outcomes Research – Nov 5th, 2019.

Activity in Next Quarter

- Continue to develop, review and publish content for the Italian and Portuguese modules.
- Capturing video case studies to supplement module learning content for the above.
- Comprehensive quality assurance and review of US and German content.
- Executing the marketing strategy and plan for eMaps phase three (US and German modules) to increase awareness of the platform.
- Source and attend events at which the platform can be promoted.
- Continue to update and maintain the UK, US and German modules.
- Follow up with Innovate UK regarding access to eMaps (comms, feedback requirements).

Data Management for CIA and other Oxford AHSN programmes

Activities in Q3

Prostate Cancer Application

We have been working on our application for prostate cancer information, through the National Cancer Registration & Analysis Service (NCRAS), who hold the most comprehensive collection of cancer data available. This organisation is overseen by Public Health England (PHE). We have been going through quite an extensive application process, in order that they can tailor the request to our specific project requirements.

Emergency Laparotomy

We continue to get data in from the six hospitals in the region, to submit data to KSS through the Data Dashboard.

Elastomeric IV Pump

This is used to deliver intravenous antibiotics in the home or another hospital setting. Following a pilot undertaken at the JR hospital of 25 patients, we provided some data analysis and a PowerPoint

presentation for this project in October, which aims to save bed days and potentially avoid re-admissions, using these intravenous devices.

Heart Failure

We requested data from the CSU regarding emergency admissions for heart failure for Buckinghamshire Healthcare and Frimley Health. We have been working with the CSU to get more meaningful information.

Strategic and Industry Partnerships

Creating the Innovation Exchange for the Oxford AHSN through the Strategic and Industry Partnerships programme.

The aim of the Strategic and Industry Partnerships (SIP) Programme remains to support the development of partnerships between academia, industry and the NHS across the development pathway for new products and services and to deliver the four core functions that form the basis of the Office for Life Sciences model of working as an Innovation Exchange to deliver the 2019/20 Local Implementation Plan (LIP). The Local Implementation Plan was updated during September, re-submitted to the Office for Life Sciences and subsequently approved by the Office for Life Sciences and NHS England. The Self-Assessment Quarterly report was again RAG rated Green for the last quarter (JAH).

1a. Needs definition - Providing additional capability for helping innovators understand healthcare needs and priorities of the local health footprint

The focus for this quarter for the Innovation Exchange call has been to identify Artificial Intelligence (AI) innovations that could be potential candidates for evaluation as part of the new fund being launched by NHS England for assessing promising AI technologies. We have two high quality submissions that meet the given criteria, which will be assessed in the next quarter. The two submissions from the previous quarter were not of interest to the local region and have been fed into the NICE HealthTech Connect portal (www.healthtechconnect.org.uk) for support from other partners.

On-going support is being provided, on an ad-hoc basis, for companies who contact us, through signposting to the relevant resource, or providing advice and insight into the local needs and landscape. This enables companies to create products and services that are designed with the end user, and the NHS, in mind, with clear value propositions and of potential interest to commissioners. Members of the SIP team continue to regularly contribute to the National Innovation Exchange website, highlighting local projects and successes for dissemination, and providing information on local needs and challenges for innovators so that those with relevant technologies can engage with us.

1b. Needs definition - Identifying the evidence requirements for innovative medicines, medical technologies, diagnostics and digital products.

The project around **Treatment Resistant Depression** entered its final phase with the completion of the clinical and primary care interviews. There are still some payer interviews on going which the team will complete in early 2020. A PowerPoint presentation report was delivered to the Janssen team, at their High Wycombe Offices on 12 December, which was very well received. The Janssen team are currently reviewing the content of the report as a potential peer-reviewed publication around clinician views on the impact of Janssen's new product in the management of treatment resistant depression in the NHS.

Oxford Cancer Biomarkers have developed a germline assay, ToxNav, to detect genomic variants in DNA that reduce the dihydropyrimidine dehydrogenase enzyme (DPD) function. DPD is involved in degrading 5-FU and capecitabine prior to cytotoxic activation, meaning insufficient enzyme activity in patients receiving 5-FU-based chemotherapy can lead to drug-induced toxicity. The assay detects 20

clinically validated genotypic variations on the DPYD and TYMSOF1 genes associated with adverse toxicity.

Approximately 35% of patients on 5-FU-based chemotherapy experience dose-limiting levels of drug-induced adverse events. Furthermore, drug toxicity results in a mortality rate of 0.5 to 2% for patients receiving 5-FU treatment. Assessing current guidelines and a literature search, the Oxford AHSN is utilising its Lean Assessment Process to map an example of the current fluoropyrimidine treatment pathway and propose an alternate pathway involving the ToxNav germline assay. The information document and questionnaire protocol to facilitate the production of a business case, along with budget impact model, have been developed and are being finalised. Stakeholder interviews are due to commence in January 2020.

A barrier to adoption study regarding the use of an **antimicrobial device** for aiding the diagnosis of urinary tract infections is also underway. Several microbiologists, GPs and community nurses have been interviewed to ascertain the evidence requirements and potential barriers to adoption to be identified.

A new project is being started to review of current practices in **Indication Based Pricing (IBP)** in relevant European Union (EU) countries and the practical considerations for implementation of Flexible Net Pricing (FNP) in the UK. The project proposal was developed by the SIP Market Access team to meet the requirements of the request for proposals from a local pharmaceutical company project team. After three iterations and discussions about contracting the project was confirmed at the end of December against a January start and June/July delivery date. The project will involve work investigating the health care systems which facilitate flexible net pricing and then mapping their systems onto the NHS in England and then consulting NHS staff as to the potential to implement a form of flexible net pricing for medicines into the systems used in the NHS in England.

1c. Communicating local priorities

Senior Programme Manager (ARA) and Digital Marketing Manager (RU) are focused on outbound communication of local needs and priorities via the appropriate media and play a key role in communication and diffusion with other AHSNs.

The Oxford AHSN page on the Innovation Exchange national portal is being updated on a weekly basis. The Oxford AHSN pre-accelerator final pitch day took place in November, with over 50 attendees. During the pitch day we had 10 SMEs pitching for investment from BioCity (see later section).

In the last three months there has been a big push on increasing the number of tweets posted on the Strategic and Industry Partnerships programme Twitter feed. New Twitter images and statistics have been created, with a focus on all the programmes that we are working on. The SIP programme had the highest number of retweets, likes and impressions of the year in November 2019.

Three **case studies** have been created this quarter:

1. **Trust on Tap** - The Oxford AHSN provided a business insight workshop (Lean Strategyzer) to help develop Trust on Tap's value proposition and further their product development. Trust on Tap valued the experience and expertise in driving adoption within the networks and insights on how the local health and social care ecosystem works.
2. **Osler Diagnostics** – Funded by an Innovate UK grant, the Oxford AHSN worked with Osler Diagnostics, a health technology company developing an innovative biosensor technology. Their main

product is a portable, handheld device capable of taking a drop of blood and quickly testing for a panel of biomarkers.

3. **Perspectum** - The Oxford AHSN has been working with Perspectum Diagnostics, a company focusing on the accurate, quantitative measurement of liver, gallbladder and pancreatic disease, enabling early detection, diagnosis and targeted treatment. LiverMultiScan[®] is a CE-marked diagnostic aid for liver disorders that uses MRI to characterise liver tissue by providing quantitative measures of liver fat, and correlates of iron, fibrosis and inflammation.

Meetings / events attended:

- UK Diagnostics Summit
- Flu Forum 2019
- Healthcare Excellence Through Technology (HETT)
- National AHSN Communications Forum

Impact evaluation

Visitors to website and breakdown of visitors by category

Month	Sessions	New users	Bounce rate
October	289	159	80.41%
November	236	126	62.86%
December	242	92	60.00%

Strategic and Industry Partnerships Twitter

Month	Impressions	Engagement rate	Link clicks	Re-tweets	Likes
October	25,000	0.8%	48	56	44
November	39,600	1.0%	63	131	107
December	24,500	0.6%	33	34	30

2. Innovator support and signposting

Senior Programme Manager (ARA), supported by members of the SIP team, is focused on helping companies to develop innovative solutions that meet healthcare needs; directing companies to local resources; supporting health partners to innovate by triaging of novel innovations that have the potential to fit with NHS need; and supporting the development of viable business models and strategies for company growth. Meetings and signposting SMEs has continued this quarter, with over 40 face-to-face meetings being held, as well as on-going email support for 39 smaller companies.

Signposting of innovators has continued over the last quarter, with most of the enquiries coming from the companies involved in our Accelerator programme, and light touch support for companies who have encountered the Oxford AHSN through meetings and previous work.

A feasibility study was conducted into the use of novel point of care device for diagnosis of **critical cardiovascular diseases** within the emergency department in the National Health Service in England.

The project was conducted as an early economic evaluation testing the impact of reaching an earlier diagnostic decision for the main routes a patient might follow through the emergency department when presenting with chest pain. The project tested a range of assumptions which led to potential cost savings through the adoption of point of care versus standard laboratory testing for patients following various routes through the emergency department following a chest pain presentation. The economic evaluation points to additional work to be performed to test the assumptions with real data from the ED setting. The report was sent to the client in November 2019 and was well received.

The feasibility study for **LiverMultiScan** on behalf of Perspectum Diagnostics has been completed with a range of stakeholders including hepatologists, radiologists and payers interviewed. The finding of where in the pathway LiverMultiScan has the best utility, current shortfalls, evidence requirements and how it is likely to be resourced has been compiled. The second part of the project was conducted as an early economic evaluation testing the impact of using MRI interpreted using LiverMultiScan, compared to liver biopsy, for the ongoing monitoring of patients with a diagnosis of mild to moderate autoimmune hepatitis in the main routes a patient might follow for the first five years of monitoring post diagnosis.

The project tested a range of assumptions which led to potential cost savings through the adoption of MRI interpreted using LiverMultiScan over liver biopsy based on lower costs and the avoidance of biopsy side-effects for patients with mild to moderate autoimmune hepatitis. The economic evaluation points to additional work to be performed to test the assumptions with real data. The report was sent to the client in December 2019 and was well received.

A feasibility study is being conducted using the Lean Assessment Process (LAP) methodology to assess the usability and benefits of using a novel blood- based point-of-care (POC) diagnostic for **stroke subtype diagnosis** to enable rapid treatment for stroke patients with Large Vessel occlusion (LVO) in the care pathway. Current treatment of stroke patients is dependent on diagnosis via computerised tomography (CT) scan to the head. The new POC test device combines blood biomarkers that are highly specific for stroke subtypes. The ultra rapid immunoassay detection can differentiate between stroke patients with mimics and help with identify LVO within twenty minutes. This POC test may help in reducing the time of diagnosis and speeding the treatment for differentiating between stroke and mimics and LVO patients resulting in improved prognosis.

The aim of this study is to understand the clinical usability, advantages and economical constraints that such a blood test could offer in various clinical settings. After the literature search, the clinical pathway mapping was performed, and interview documents were prepared to assess the utility and the barriers to adoption of this POC test in the stroke care pathway 10 stakeholders were identified and interviewed. All the semi-structured interviews were conducted face-to-face and audio recorded after agreeing with interviewees. The recordings are reviewed and thematically analysed to obtain the information required to understand where in the care pathway this product may be utilised, barriers to adoption and adjustments required for the device implementation of the POC device in the care pathway.

The final report will be prepared and submitted during Q4. After the completion of the feasibility study, an early economic evaluation will be conducted to explore the value proposition for the POC

test in the stroke care pathway. Identified resources will be valued in monetary terms using appropriate UK unit costs. Estimated costs will be compared between across pathways.

Ufonia is leading a project to automate follow-up phone calls to patients who have undergone cataract surgery in Buckinghamshire. The current care pathway is for patients to receive a phone call from a ward nurse or an Ophthalmologist, depending on which day of the week surgery took place, shortly after their operation. The clinically relevant time-period is two weeks post-surgery, but due to the volume of phone calls and patient availability, this can be as high as nine weeks post-surgery, or in some cases no phone conversation is possible. The phone call consists of five questions to determine the patients’ response to surgery and to determine whether an appointment needs to be made to see the patient in an out-patient clinic. The number of appointments is low, with between 3-10% of all patients likely to need an appointment. Ufonia are seeking to implement a chatbot to make fully automated phone calls which will provide several advantages: reduce clinician time; ensure phone calls are made within two weeks; phone calls can be made at any time to suit the patient; phone calls can last if the patient needs to discuss all the concerns they have.

The Oxford AHSN is currently designing a health economics plan to capture relevant qualitative and quantitative data from the trial to inform a model to demonstrate value.

Month	October	November	December	
Company Details	Roche Diagnostics MyWay Digital Health Perspectum HIGOE TotalMama Quidel POCKit	Osler Janssen Lumos Diagnostics Oxford Cancer Bio Mologic Biomerieux Cytex Kandu Cotswold Health	Oliver Pearce EMIS (unnamed Merck Milton Osler Keynes AstraZeneca University Biomerieux Hospital Lamina spinout) Lumos Cortech Diagnostics Roche Sarissa PolyMathsAI Balsamee DeepXHealth	Philips Ufonia AstraZeneca Biomerieux Lumos Perspectum Roche Lug Diagnostics Healthcare Quidel Technology Kandu Spinout from University of Oxford
Total Number of companies in OLS Database	15	15	8	

3.Evaluation in real world setting

The SIP team is supporting the generation of a real-world evidence package that can demonstrate system (including health economic benefit), patient and clinical benefit for diagnostics.

A point of care (POC) **service evaluation** of the Abbot iSTAT and Horiba MicroSemi at Brookside clinic in Earley, Reading, has drawn to a close. In total, diagnostic tests were run for 107 separate patients, with >1 test being performed per patient in some cases and according to diagnostic needs. The record forms have been collated to allow analysis of the impact of the tests on the clinical decisions made and the value to the service and patient, compared to current practice.

Staff at the clinic are very positive about the value of the tests in supporting their local clinical and patient management decision making and in the “softer” benefits e.g. reassurance for the patient, however

analysis of the results of the trial to allow a funding bid for permanent adoption of the tests has not yet been completed due to long term sickness and alternative resource has been sought. The Oxford AHSN is liaising with Wessex AHSN on the learnings from this evaluation as they are embarking on an evaluation of POC testing for CRP on the Isle of Wight. An economic model is being developed to demonstrate the value of the POC tests to both clinicians and patients, as well as the value to the NHS.

Lumos Diagnostics have acquired a novel point of care test, FebriDx, that can distinguish whether an acute respiratory tract infection (ARTI) is clinically significant, of bacterial origin or of viral origin. The single use test detects C-reactive protein (CRP), an acute-phase inflammatory protein elevated in the presence of a clinically significant infection and Myxovirus resistance protein A (MxA), an intercellular protein that becomes elevated in the presence of an acute viral infection. The test has a rapid turn-around time of 10 minutes and can be used in primary care or other areas where patients enter the health service. The test has the potential to deliver improvements in service efficiency, reducing referrals to secondary care due to diagnostic uncertainty and by reducing inappropriate antimicrobial prescribing, aligning itself with the UK 5-year action plan for antimicrobial resistance.

Four sites have been identified and approached to conduct a service evaluation and assess the impact of the test where the FebriDx test is considered to have the potential to deliver clinical benefit. Training on the use of the device and appropriate data capture has been delivered to two GP sites and at a Community Hospital inpatient ward. Sites have been provided with posters, outlining the test procedure and consumables for use. Interim follow-ups of all 'live' sites are ongoing to ensure adequate recording of data and ongoing support to sites.

Documents have been assembled for a nursing home that is linked to one of the participating GP sites with protocol regarding authorisation of testing and reporting of results approved by the lead GP. Training is set to take place in February for the nursing home staff.

A cost consequence analysis study was conducted for **Wokingham Community Hospital** to evaluate the benefits and cost of care of implementing Point of Care (POC) testing across the community care hospitals in Berkshire Healthcare. Currently on all the Community Health wards (except Wokingham), all blood samples are sent to the pathology department at the acute trust. This can often be a timely process and lead to a delay in diagnosis and appropriate treatment whilst waiting for sample results. All urgent bloods are couriered to the acute trust at Wexham Park Hospital for the East wards and Royal Berkshire Hospital for the West. At present, at the Wokingham community hospital QuikRead-go and i-stat Allinity is being used as POC testing. QuikRead-go CRP is a fast and simple rapid test for quantitative determination of C-reactive protein (CRP) in whole blood, serum and plasma. The test gives reliable results within minutes and speeds up the path to the right diagnosis.

The i-stat Allinity is an advanced, easy-to-use, portable system that delivers real-time, laboratory quality blood test results at the point of care. It is used for venous blood gases and urea and electrolytes. With the new proposed process, the blood samples can be taken and tested immediately, and the results can support clinical judgement with a timely diagnosis and appropriate treatment which could both reduce patient length of stay and improve patient experience. Smaller samples are required from the patient for POC testing, which is advantageous when taking bloods from deteriorating patients. A cost consequence model was created for the analysis to evaluate the total cost and benefit of implementing the both the POC device at the Wokingham community hospital based on the real-world data collected for 3 months.

The cost model was conducted to evaluate the net saving and the benefits of implementing of the above-mentioned POC testing in the community hospital care pathway. The analysis indicated that the POC implementation may result in improved patient care, reduce the number of patient transfers to ED and reduce the length of stay. Also, this will help reduce the financial cost to the health care system. The final health economics report was prepared and submitted. Based on the Wokingham study, a business case will be produced for the POC to be implemented at other community hospitals in their care pathway.

The Oxford AHSN is part of an EIT grant funded **influenza Point of Care** project, in partnership with Roche Diagnostics and the Newcastle Medtech and In Vitro diagnostics Collaborative (MIC), looking at the widespread adoption of point of care (POC) flu testing, in both the hospital and community settings across sites in the UK and Belgium. The Oxford AHSN is evaluating the Roche LIAT POC flu analyser in the community setting in Berkshire West, covering the Out of Hours GP service (Westcall) and the Rapid Response And Treatment team (RRAT) who are part of Berkshire Healthcare. The key stakeholders have been identified, met and appraised of the project. All are keen for this to progress and are supportive. The protocol has been written and approved by all parties involved, evaluation sites have been selected, and training is due to commence 10 January 2020. Go-live date is currently dependent on Roche Diagnostics completing their legal paperwork, but it will be before the end of January 2020. Work around the value proposition and Lean Assessment Process has also begun, to support the creation of a business case for the community care team to procure this going forward if the evaluation is successful.

4. Adoption of innovation and diffusion

Head of Evaluation and Transformation (GC) is leading the adoption and diffusion locally of breakthrough diagnostic products evaluated through the Innovation Exchange activity. Programme Manager (ML) leads the gastroenterology programme including delivery of an industry-funded programme for **Inflammatory Bowel Disease** (IBD) using TrueColours, or similar software, as a patient reported outcomes measure for Ulcerative Colitis and Crohn's and supports the regional roll out of faecal calprotectin testing.

Following the roll out of the TrueColours (TC) platform in Oxford in June 2018, the IBD Programme has continued successful recruitment and training of patients with Ulcerative Colitis (UC) and from February 2019, Crohn's Disease (CD). This real time digital data collection technology is now a component of clinical care in the Oxford IBD service. Each patient, with UC from 1ST June 2019 and, from 1st February 2019, with CD, seen by the Oxford IBD service is offered the chance to register with the TrueColours IBD programme. Once registered, the patient receives email prompts that link to independently validated questionnaires. There were 250 IBD patients recruited for the period from September to December, totalling 1,000 patients recruited for the period from June 2018 to December 2019.

Full integration into IBD Clinics has become part of standard care in Oxford. There is continued provision of ongoing support to clinicians using the TCIBD in the outpatient clinics and work with the IBD service to further validate the TrueColours UC (TCUC) Escalation of Therapy or Intervention (ETI) calculator in an IBD outpatient clinic setting to support the IBD service demand and capacity management. Work has continued for RAINBOW (ReAl tIme data moNitoring platform for patients with inflammatory Bowel disease) project official sign off.

Publication for the first 500 ICHOM baseline set shows increased prednisolone use in high levels of fatigue and anxiety and is being submitted to the JCC (Journal of Crohn's and Colitis). It is also being presented at the ECCO (European Crohn's and Colitis Organisation) and DDW (Digestive Disease Week). 3 abstracts have been accepted to ECCO and DDW.

There are ongoing discussions with Oxford University Hospitals and TCIBD software developers on the options available for the integration of the TCIBD with the local ePR system - Cerner Millennium. There is a strengthening relationship with Department of Psychiatry, Oxford University and Oxford Health (members of the TrueColours Strategic Meeting, meets monthly).

In Winchester, following successful approval of the upgrade of the InfoFlex IBD PMS v5 platform (in July 2019), Hampshire Hospitals NHS FT has obtained official quotations for the additional IT costs associated with hosting the service and payment plan agreed. Work began on setting up a project team and arranging the first project initiation meeting for the implementation and installation of the InfoFlex upgrade. There is ongoing work to integrate data collection with Infloflex (InfoFlex IBD PMS v5). Data collection is being finalised (as a one-off version) for the Baseline survey/questionnaire (ICHOM, SCCAI, IBD Control) collection initiated as an interim solution while waiting for InfoFlex IBD PMS v5 platform to be rolled out. Data has been collected on 84 patients with Ulcerative Colitis.

A progress report for Q1 and Q2 2019/20 (Year 2) Contract for Medical Educational Grant submitted to Janssen and Janssen and discussions taken place into requirements for the Year 3 funding.

Following the Faecal Calprotectin (FCal) Testing network meeting in London (facilitated and organised by Yorkshire and Humber AHSN) in May 2019 where the guidance document on capturing and measuring the benefits of adopting the new pathway was issued, the support team preliminary met to discuss the document and agree on the next steps in obtaining the data. In October at the FCal Collaborative meeting in London was confirmed the programme was not selected as a national programme and therefore should be finalised by the end of March 2019.

Following the introduction and roll out of the new FCal testing across seven GP Practices in Aylesbury Vale CCG in January 2019, work continued for establishing key contacts in the primary and secondary care to initiate the nine months review meeting. Initiated contacts with labs in Buckinghamshire and discussed possible collaboration. Discussion took place with Analytics and Informatics Department, Nottingham University Hospitals and OPEN VIE about alternatives ways of obtaining data from primary and secondary care providers.

An Innovate UK SBRI grant was awarded to Mologic for the development and evaluation of two diagnostic tests focusing on Chronic Obstructive Pulmonary Disease (COPD). The first is a urine-based biomarker test for routine use at home to alert patients to when they are having a COPD exacerbation (HeadStart). The second is a blood-based biomarker test to differentiate the aetiology of the COPD exacerbation to enable stratified treatment (RightStart). Using current guidelines and a literature search, the Oxford AHSN is utilising its Lean Assessment Process to map the COPD exacerbation treatment pathway and propose an alternate pathway involving the RightStart testing device. The information document was used to engage stakeholders and the discussion guide invited them to comment on the current pathway for management of acute exacerbations of COPD and the inclusion of the product within that pathway. The clinical utility was also assessed along with willingness to promote the product.

Sarissa Biomedical have developed a novel point of care assay, SMARTChip, using enzymatic biosensor technology to detect purine levels in patients displaying stroke-like symptoms. Purine levels are increased when the blood supply to cells is cut off and they undergo metabolic stress. As such, the test can identify

ischaemic strokes enabling rapid diagnosis and ischaemic stroke-mimics to divert them away from the stroke pathway appropriately. Focus has been shifted to understand and map the pathways for stroke / suspected stroke patients that occur nationally. The patient journey is to be mapped in 5 different settings in the NHS in England to highlight the variation, with the inclusion of district general hospital, tertiary hospital and ambulance trust.

5: Stimulating economic growth through the Innovation Pathway and the Innovation Exchange

Vipul Modi has been working with PATHLAKE and NCIMI to construct capital bids as part of the top up funding available through the Industrial Strategy Challenge Fund.

6: Transforming digital health and maximising the potential of artificial intelligence (AI)

Graham Taylor has started as Interim Project Manager to produce a landscape report on Artificial Intelligence solutions available in the market place.

7. Working with researchers and research funders

The EIT Business Plan 2021 call has opened and collaborations are being explored for submissions due in March 2020.

8. Support clinical and commercial innovators

In the first licence period the Oxford AHSN helped to establish two regional innovation hubs aimed at supporting the creation and development of new innovations that would be better aligned with the needs of the NHS.

The priority for 19/20 was the establishment of the Oxford AHSN multidisciplinary accelerator programme. **Bucks HSC Ventures** is funded by the European Regional Development Fund grant. The grant is match funded by five delivery partner organisations; Buckinghamshire New University, Buckinghamshire Healthcare NHS Trust, Buckinghamshire County Council, Buckinghamshire Clinical Commissioning Group and the Oxford AHSN.

They are currently running an on-going series of workshops for innovators around the challenges that innovators often come up against. These are being well attended and have had a significant amount of interest from the local healthcare system as well as innovators. The second cohort is progressing well and are due to graduate from the programme in Q4. Applications for Cohort three will soon be accepted.

TheHill is a digital health community funded by the European Regional Development Fund as part of the Innovation Support for Business programme. The Innovation Support for Business programme is a three-year 5.2 million programme which supports Oxfordshire entrepreneurs and businesses. TheHill is hosted by Oxford University Hospitals and supported by partners across Oxfordshire including Oxford Academic Health Science Network, Oxfordshire Local Enterprise Partnership, University of Oxford, Oxford Brookes University, Oxford Health, the Oxford AHSN and Oxford University Hospitals. TheHill runs a small to medium sized enterprise support programme within The John Radcliffe Hospital, Oxford University Hospitals, by providing bespoke support which include calibrating and signposting to partners across the ecosystem, workshops, one to one support, introductions and networking events.

TheHill has scheduled Start-up Social Mixer events and Strategy workshops:

- 4th Feb 2020
- 23rd April 2020
- 5th May 2020 (to be confirmed)
- 4th June 2020

The focus of these events is to initially engage the community of start-ups and entrepreneurs

Oxford AHSN Accelerator Programme:

The first year of the Oxford AHSN Accelerator-Scale Up programme successfully completed in November and December 2019. Two start-ups were awarded for their best performance as summarised below:

- Best Pitch: Cansense Ltd
- Best Insights: Cotswold Health Technology

Investors of our delivery partner, BioCity are carrying out further due diligence on these and other few candidates to determine recipients of their investment (convertible loan of £50K) and a year-long advisory assistance as well as lab-space in the Nottingham facilities. Results of this assessment will be announced in January 2020. We also await a detailed feedback from the various participants (10 start-ups in the Premium programme) on how the programme benefitted them, what areas can be improved and what desirable features could be added moving forward. Alumni mentees and mentors are encouraged to stay connected via our online Kandu platform.

Future planning/Next steps: After a successful first year, a similar schedule of activities (12 weeks) will be arranged for the second year of the Accelerator. Additional features that are being reviewed include:

- **Three one-day Commercialisation workshops** (May-June 2020) at locations such as University of Reading, Oxford and the Harwell Campus to engage a wider network of multi-sector start-ups and entrepreneurs.
- **Two two-day Pre-Accelerator workshops** (Aug-Sep 2020) to robustly short-list candidates from the above pool of candidates on the principles of Customer discovery, disruption potential and agility to learn/adapt.
- **One eight-week Accelerator programme** (Oct-Nov 2020) in Oxford comprising an intense, hands-on programme navigating start-ups through Customer-Market discovery, business modelling and access strategy.

Funding & partnership support: Business development activities with corporate sponsors are being planned to drive fund-raising in the Jan-March 2020 period. An MoU strategy is also being developed for regional/local NHS Trusts to agree testing beds for select innovations coming out of the Accelerator. The key value/benefits for the NHS-industry sponsor/partnership include:

- Future asset/Cross-sector market discovery
- Access to the regional health innovation network
- Impact proof-points for innovations that are adoptable locally and scalable globally

OxBridge Scale Up Arc programme: Further discussions with the Eastern AHSN are being scheduled to finalise the marketing strategy and the programme strategy. Delivery partner, Cartezia offered commitment to facilitate the Scale Up Academy workshops for mature start-ups aiming to scale up growth.

It was agreed to have two cohorts per year with three companies per cohort and shared pool for qualified mentors from the AHSN-Cartezia-industry network.

Supporting the Accelerated Access Collaborative (AAC) through SIP

The Accelerated Access Collaborative (AAC) aims to make the NHS one of the most pro-innovation health systems in the world and has six priorities: single front door for innovators, demand signalling, single horizon scanning approach, world-leading testing infrastructure, stronger adoption and spread and agreed funding strategy. These priorities will remove common barriers to adopting innovations. As part of the stronger adoption and spread workstream, the AAC is supporting seven late-stage rapid uptake products (RUP) as part of Rapid Uptake Products programme: HeartFlow, Placental growth factor (PIGF) based testing, PCSK9 inhibitors, High sensitivity troponin tests, Quantitative faecal immunochemical tests, Cladribine and Urolift.

Through two embedded staff in the NHS England/NHS Improvement AAC team, the SIP team is supporting directly various AAC initiatives including:

- Delivering existing RUPs,
- Identification of new RUPs,
- Managing Pathway Transformation Fund applications and implementations,
- Developing and supporting the AI Lab and AI Fund,
- Engaging with charities, patients and industry partners in Patients and Public Involvement work with the AAC and the RUPs,
- Promoting the interaction of the AAC with its constituent government and industry partners, and
- Demonstrating the future role of AHSNs and the AHSN Network in supporting the aims of the AAC and NHS England.

National spread and adoption of **Placental Growth Factor (PIGF)-based testing** for suspected pre-eclampsia continues to be driven by the AHSN network, led by Oxford AHSN. All AHSN's continue to report very positive reception by Trusts for adoption of either the Roche Elecsys ratio test or the Quidel Triage PIGF test, with many planning to adopt testing regionally across maternity and lab networks.

Given the very rapid speed of adoption, approximately 40% of all maternity services in England have adopted or are very close to adoption of a PIGF-based test into standard clinical practice at the end of the 2019 calendar year (9 months into the 18-month ITP funding window). This translates to >250,000 women being able to benefit from the availability of PIGF-based testing for suspected PE.

Grant funding contracts have been written for the seven successful applications for pathway transformation funding (PTF). PTF is provided to help overcome financial barriers arising from adoption of an ITP funded product.

In common with all RUP funded projects, a "Deep Dive" was undertaken into PIGF during December, led by the AAC, to identify those factors that have made the project such a success and to identify areas which could be improved upon to benefit future AAC-funded projects. MKUH adopted the Roche Elecsys ratio test to help with the diagnosis of suspected pre-eclampsia into standard clinical practice on 10th December." ITP support is offered for Trusts adopting a 1- or 3- hour (**High Sensitivity Troponin (HST)**) pathway for troponin testing for suspected heart attacks. The national targeting list does not currently include any Trusts in the Oxford AHSN region as most sites currently follow a 1- or 3- hour pathway. Clarification is still being sought on the exact pathway being followed at Wexham Park to be able to assess their possible inclusion in the targeting list – ITP support is offered for Trusts adopting a 1- or 3- hour (high-sensitivity)

pathway for troponin testing for suspected heart attacks. The national targeting list does not include any Trusts in the Oxford AHSN region as no sites are eligible for funding (all sites currently follow a 1- or 3- hour pathway) therefore there is no activity on this project

Faecal Microbiotic Transplant (FMT) is a third-line treatment for the treatment of recurrent C.Diff, is supported under the 2019/2020 ITP funding programme. Due to the very low numbers of patients expected to be eligible for treatment (single digits per Trust per year), the objective of the project is to alert Trusts in the region to the availability of funding for the product and to help them to get it onto their formulary, should they desire to use it. Discussions have been held with the key stakeholders in each trust in the region to alert them to the availability of funding for the treatment. The Oxford AHSN and Wessex AHSN jointly attended the Q3 meeting of the Oxford / Wessex “Gut Club” to support a presentation made on FMT by Dr Tariq Iqbal and offer support to interested delegates.

Research & Development (R&D)

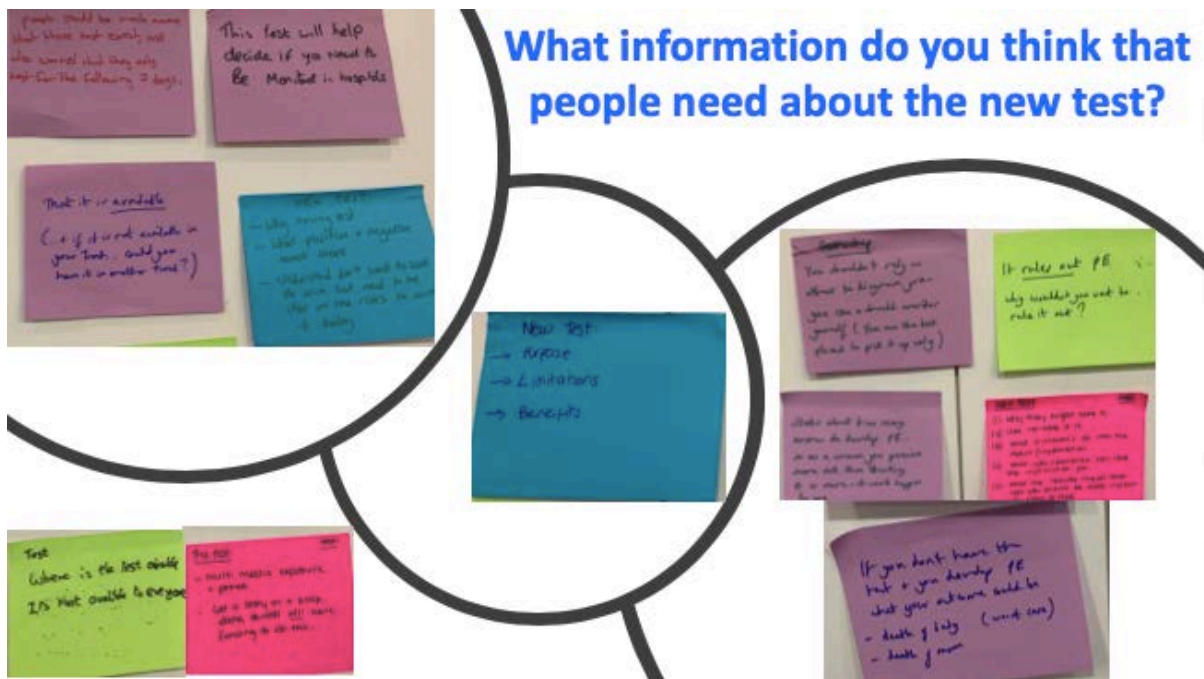
The R&D programme supports the development of capability, capacity and collaboration across the NHS and the Universities to make the region a more attractive place for research to improve healthcare locally and nationally. The R&D Oversight Group meets three times annually with the latest meeting being held on 30th October 2019.

In the absence of Joe Harrison, Stuart Bell, CEO Oxford Health, stepped back into the role of Chair on this occasion. Gary Ford opened the meeting with the Chief Executive's summary which included an update on the recent review, led by Sir Kent Woods (formerly Chief Executive of the MHRA), of the role of Clinical Trials Units (CTU) which was followed by a group discussion around the potential for cross-region CTU collaborative function development which will be re-visited at the next meeting. An overview was also provided on work being carried out across the national AHSN Network to review and align, where possible, implementation strategies as currently there is no single model with projects often being judged on a case by case basis. The national AHSN view is that the Applied Research Collaborations (ARC) need to be producing a pipeline of innovation for national implementation. The NIHR is working with existing systems to improve implementation through AHSNs, ARCs and beyond, possibly demonstrating a minor shift in focus.

The Chief Executive's summary was followed by Sian Rees, Director of PPIEE, Oxford AHSN, who presented an overview of current work, including some detail around a scoping exercise carried out of PPIEE within the AHSN region's partners, who were approached through the R&D group contacts. Three out of 11 of the partners responded to the survey with the offer made at the meeting for the group to draw on the expertise of Sian and her team. Following group discussion, Sian agreed to work with the AHSN Communications team to produce resources, to include a localised video and signposting resource on AHSN website, with input from the R&D group.

The ARC interviewed for the role of Programme and Implementation Manager on 20th December 2019 with an offer made ahead of a proposed start date of 1st April 2020. Interviews for the Senior Manager are scheduled for the end of January.

Patient & Public Involvement, Engagement & Experience (PPIEE)



Working with our programmes

We are working with our programmes to help to embed what matters to patients within them.

For example, we ran a workshop on PIGF with women who had had preeclampsia and their partners. We codesigned the workshop with the charity Action on Pre-eclampsia and with NHS England. The workshop report will be used to help determine how women can play a part in promoting the new test.

We also ran a focus group with people who had experience of emergency laparotomy.

Key finding included:

- improve communication e.g. the need to make sure that people understood what was happening even when very ill, so maybe via their carer
- recovery management e.g. understanding the length of time recovery may take
- discharge planning e.g. getting an effective system in place to manage take home medication.

We also conducted a survey of need for support in research and development and will be producing a short video about patient and public involvement as a result.

We are planning workshops to look at the information needs of professional and patients in relation to the rapid uptake product, Urolift and focus groups to understand what's important in heart failure.

Working with our partners

Thames Valley and Surrey Care Records Partnership

We co-produced and co-delivered a workshop to help raise awareness of good practice in collecting and using patient data. It was attended by clinicians, communication leads, patients and the public. Discussion

focused on language and ways to communicate, led by Natalie Banner from Understanding Patient Data, and ethics led by Sir Jonathan Montgomery. We are now working with the Ethics and Engagement Advisory Board we recently established to make sure that we have a set of clear, plain English messages around the development of new processes and the current and future use of patient data.

Training and development

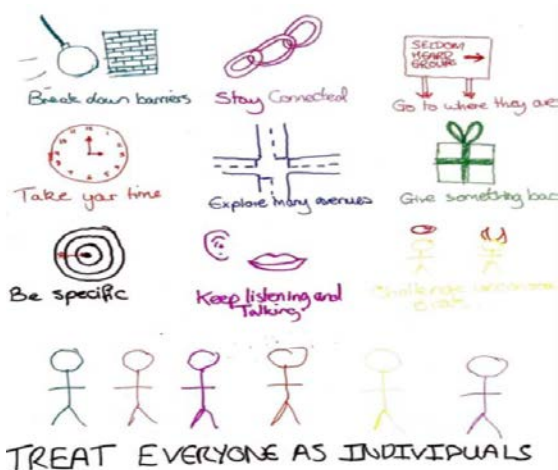
Workshop: Inclusion for all - working with the seldom heard



“I must say that the workshop was well coordinated, and the presentations/activities were superb. I learned a lot yesterday, especially with the presentation on the unconscious bias and the LGBTQ session with Nic Bray.” NHS England participant

As part of our approach to make sure that we hold events across the geography of the AHSN and in community venues, this workshop was held in a LA space in Milton Keynes. We worked with Nic Bray from the LGBTQ community, Sally-Jane Davidge representing people with a sensory impairment and Dawn Wiltshire from My Life, My Choice, an advocacy organisation for people with learning disabilities. They delivered short presentations and small group sessions to raise awareness of the things that are important to them when working collaboratively. We also heard from Healthwatch colleagues from Reading and Oxfordshire about projects that they had run with Asian women and working age men.

Attendance included members of the public and a range of staff from service delivery and research backgrounds: 86% rated the workshop as good or excellent.



Stakeholder Engagement and Communications

During the third quarter of 2019/20 the Oxford AHSN continued to deepen its relationships with partners across the NHS, industry and research communities. We strengthened our joint working with other AHSNs – individually across a wide range of projects, and collectively with all AHSNs through our shared commitment to [seven national programmes](#) and key events.

In October, representatives from the Eastern AHSN were among 60 people that attended the fifth meeting of our regional emergency department (ED) collaborative. This network brings together multi-disciplinary teams from all five acute NHS trusts in Berkshire, Buckinghamshire, Oxfordshire and Milton Keynes to share challenges and successes. They are already planning for their next event in April.

Colleagues from the Eastern AHSN also contributed to the closing event for our new Accelerator programme in November when ten start-up SMEs pitched to an expert panel. An announcement of the overall winners demonstrating the strongest sustainable solution meeting proven NHS need is awaited. Their wide-ranging innovations relate to drug discovery, diagnostics, digital health and service delivery. Through the Accelerator programme the concepts were tested with mentors from industry, investment and healthcare.

Also, in November we hosted a patient and public involvement workshop which featured contributions from seldom heard groups and we travelled to Denmark to showcase a number of health economic and outcomes research projects at the ISPOR Europe conference including industry-NHS collaborations in real world evaluation, market access and novel digital tools.

We added [two more economic growth case studies](#) to the national AHSN Network Atlas collection. Two of our industry partners – Big Health and Fujifilm - recorded [video interviews](#) at the national NHS Expo event highlighting what they've gained from working with us.

Successful joint initiatives with other AHSNs, NHS, research and industry partners to improve patient outcomes were recognised at two awards events in November. We won the Near Patient Testing Award at the UK Diagnostics Summit for work to extend point of care flu diagnostics across secondary and community care. A partnership between the Oxford AHSN and Buckinghamshire Clinical Commissioning Group to improve therapy for patients with complex needs not met by existing anticoagulation pathways received an AF Association Healthcare Pioneer Award.

Our Chief Executive Professor Gary Ford was also among an AHSN delegation honoured at the national Anticoagulation Achievement Awards which celebrate outstanding practice in preventing stroke through effective use of anticoagulation. The AHSN Network won the category for best adherence to NICE quality standards for atrial fibrillation (AF) for the work of the national collaborative programme for preventing AF-related stroke. See below for a list of all our latest awards. More details [here](#).

Three significant academic papers relating to improvements in patient safety and outcomes were published during Q3 – see list below.

Over 12,000 people in the Thames Valley took advantage of free access to online support to improve sleep without pills or potions in the first year following the launch of a unique initiative in October 2018. More

than 4,500 started a personalised online programme at sleepio.com/NHS. These people slept an extra 5.5 hours per week on average. Other benefits included less stress, improved productivity and reduced absenteeism. Free access in the Thames Valley has now been extended to June 2020.

Our regular monthly newsletter now has more than 1,400 subscribers. Sign up here: <http://j.mp/OxfordAHSNnews>. In Q4 we plan to publish a special edition devoted to developments in digital health - the third in a series of one-off updates to reflect the growing wealth of projects led by the Oxford AHSN and its partners.

Our web content is regularly updated at www.OxfordAHSN.org, www.patientsafetyoxford.org, www.clinicalinnovation.org.uk and www.healthandwealthoxford.org. Collectively these websites had around 20,000-page views in Q3. The [@Oxford AHSN](https://twitter.com/OxfordAHSN) Twitter account has passed 5,250 followers with 78,000 impressions in Q3.

Key publications 2019/2020

Paediatric enteral feeding at home: an analysis of patient safety incidents	Archives of Disease in Childhood (ADC), BMJ Journals, June 2019 https://adc.bmj.com/content/early/2019/06/14/archdischild-2019-317090
Reducing urinary tract infections in care homes by improving hydration	BMJ Open Quality, July 2019 http://bmjopenquality.bmj.com/cgi/content/full/bmjopen-2018-000563
Randomized interventional study on prediction of preeclampsia/eclampsia in women with suspected preeclampsia	Hypertension, August 2019 www.ncbi.nlm.nih.gov/pubmed/31401877/
Extreme pre-term birth in the right place: a quality improvement project	ADC Fetal and Neonatal, BMJ, November 2019 https://fn.bmj.com/content/early/2019/11/12/archdischild-2019-317741?
Analysis of paediatric long-term ventilation incidents in the community	ADC, BMJ, December 2019 https://adc.bmj.com/content/early/2019/11/13/archdischild-2019-317965

Awards won 2019/20

Sepsis identification Winner, Best Emerging Solution, HSJ Patient Safety Awards with Imperial College Health Partners and the Patient Safety Measurement Unit	https://www.oxfordahsn.org/news-and-events/news/sepsis-identification-tool-wins-national-patient-safety-prize/
Safer prescribing of anticoagulants in primary care Winner, Royal College of Pathologists Excellence Awards with Oxford University Hospitals and Oxfordshire Clinical Commissioning Group	https://www.oxfordahsn.org/news-and-events/news/patient-safety-initiative-wins-national-prize/
Improving the safety of mothers and babies using angiogenic biomarkers for pre-eclampsia Winner, Univants of Healthcare Excellence	https://www.diagnostics.abbott/us/en/univants-healthcare-excellence
Pre-eclampsia diagnosis Finalist, HSJ Awards	
Pre-eclampsia diagnosis Finalist, UK Diagnostic Summit Awards	
Excellence in atrial fibrillation Winner, AF Association Healthcare Pioneer Awards	
Near patient testing Winner, UK Diagnostic Summit Awards	
Detection and management of stroke risk Winner Anticoagulation Achievement Awards (AHSN Network)	

Appendix A - Risks Register & Issues Log

Risks Register

#	Prog	Risk	Description of Impact	Likelihood	Impact	Time	Mitigating Action	Owner	Actioner	Date	Date mitigated	RAG
1	Oxford AHSN Corporate	Failure to establish culture of partnership and collaboration across the region	Insufficient engagement of clinicians, commissioner universities and industry.	Low	Low	> 6 -12 mon	Stakeholder and communication strategy for the AHSN – being updated Each project has an engagement plan, including patient involvement. Appointed a new Medical Director. Clinical engagement grows quarterly.	AHSN Chief Executive	Programme SROs	06Sep 13	Ongoing	Green
2	Oxford AHSN Corporate	Failure to sustain the AHSN	Programme activities cease	Low	Low	> 6--12 mon	NHS England has re-licensed all AHSNs. NHSI has confirmed funding to March 2023. NHSE taking over OLS commission. Successfully pursuing industry partnerships and grants.	AHSN Chief Operating Officer	AHSN Chief Operating Officer	31Jul 14	Ongoing	Green
3	Oxford AHSN Corporate	National Programmes delivery	Reputation Protect breach of Contract.	Low	Low	>6 12 mon	Robust engagement plans in place. Six of seven programmes on track to deliver. More work is required to ensure the MK system is engaged, outside of MKUH – take up of Pincer and AF has not been successful so far without the support of MK CCG	AHSN Chief Operating Officer	AHSN Chief Operating Officer	19Feb 18	Ongoing	Green

Issues Log

#	Programme	Issue	Severity	Area Impacted	Resolving Action	Owner	Actioner	Date	Status	Date Resolved
1	Oxford AHSN Corporate	Lack of awareness by local partners and national stakeholders of progress and achievements of the AHSN	Min	Engagement	Overarching comms strategy. Level of engagement monitored across all programme and themes. Website refreshed regularly visits per month increasing. Twitter followers and newsletter subscribers increasing. Oxford AHSN stakeholder survey. Quarterly report sent to all key stakeholders; piloting new system (county) level report in Buckinghamshire. Electronic Newsletter to stakeholders. Oxford AHSN organise and participation stakeholder events. Participation in ICS and STPs and engage PCNs.	AHSN Chief Operating Officer	Head of Communications	19Jan 18	90% complete	Ongoing
2	Oxford AHSN Corporate	Sourcing clinical data- issues failed to deliver	Med	Evaluation, QI, Monitoring business cases	Assessed three providers. Identified one provider; need to agree terms	AHSN Chief Operating Officer	AHSN Chief Operating Officer	18Oct 19	25% complete	Ongoing

Appendix B - Oxford AHSN case studies published in quarterly reports 2013-2019

Quarterly report	Case study summary	Programme/Theme
Q3 2019/20	Thousands more pregnant women benefit from test to rule out pre-eclampsia national rollout led by the Oxford AHSN	Strategic and Industry Partnerships
	Supporting leadership and collaboration in medicines optimisation	Clinical Innovation Adoption
	Paddle – Psychological therapy support app helps patients steer a course to recovery	Patient Safety and Clinical Improvement
Q2 2019/20	Adoption and spread of a quality improvement programme to prevent cerebral palsy in preterm labour (PReCePT)	Patient Safety and Clinical Improvement
	Preventing prescribing errors with PINCER	Clinical Innovation Adoption
	Feasibility study for introducing a new rapid point-of-care HIV test into sexual health clinics	Strategic and Industry Partnerships
Q1 2019/20	Healthcare tech company's expansion and Stock Exchange listing enabled by Oxford AHSN expertise	Strategic and Industry Partnerships
	Oxford AHSN support enables AI company to leverage £700,000 of grant funding	Strategic and Industry Partnerships
	The Oxford AHSN assists Fujifilm in real-world evaluation of point of care flu test	Strategic and Industry Partnerships
Q4 2018/19	Learning together through a regional patient-centred event to improve sepsis support and information	Patient Safety and Clinical Improvement
	Improving detection and management of atrial fibrillation	Clinical Innovation Adoption
	Understanding the impact of a new model of urgent care within a GP practice	Clinical Innovation Adoption
Q3 2018/19	AHSN-led collaboration brings multi-million-pound investment to Buckinghamshire and supports SMEs to meet health and social care needs	Strategic and Industry Partnerships
	Better diagnosis of pre-eclampsia improves patient safety and reduces burden on maternity services	Strategic and Industry Partnerships
	Patient forum helps improve NHS services	Mental Health

Quarterly report	Case study summary	Programme/Theme
	for people with anxiety and depression	
Q2 2018/19	Healthcare tech company's expansion and Stock Exchange listing enabled by Oxford AHSN expertise	Strategic and Industry Partnerships
	Unique point of care blood test speeds up clinical decision-making improves quality of care and reduces costs	Strategic and Industry Partnerships
	AHSNs come together to create new sepsis identification tool	Patient Safety and Clinical Improvement
Q1 2018/19	Spreading best practice in dementia through webinar programme	Mental Health
	Establishing networks to improve patient care in early inflammatory arthritis	Clinical Innovation Adoption
	Supporting life science companies and entrepreneurs to access healthcare markets	Clinical Innovation Adoption
Q4 2017/18	Showcasing developments in NHS MSK, falls, fracture and frailty services	Clinical Innovation Adoption
	Improving detection and management of AF	Clinical Innovation Adoption
Q3 2017/18	Digital Health Roadmap published to guide digital health developers	Strategic and Industry Partnerships
	Reducing urinary tract infections in care homes by improving hydration	Patient Safety
	Stillbirth prevention - Oxford Growth Restriction Identification programme saves a life	Patient Safety/Best Care: Maternity
Q2 2017/18	Point of care test evaluation points the way to quicker diagnosis of common childhood illnesses	Strategic and Industry Partnerships
	Oxford AHSN insights on digital health feed into key report on Oxfordshire's tech cluster	Strategic and Industry Partnerships
	Defining and measuring suspicion of sepsis	Patient Safety
Q1 2017/18	Improving patient outcomes following high-risk surgery through better use of technology	Clinical Innovation Adoption
	Improving return rates to psychiatric wards	Patient Safety
	The Hill – putting innovation at the heart of healthcare in Oxford	Strategic and Industry Partnerships

Quarterly report	Case study summary	Programme/Theme
	Improving the care and life chances of young people who develop psychosis through effective early intervention	Best Care (Early Intervention in Psychosis)
Q4 2016/17	Digital health initiative leads to better monitoring and fewer hospital visits for women who develop diabetes during pregnancy	Clinical Innovation Adoption
	Better data sharing through regional information governance framework	Informatics
	Catalysing innovation and driving economic growth in Buckinghamshire	Strategic and Industry Partnerships
	Lives of more premature babies saved through improved referral pathways	Best Care (Maternity)
Q3 2016/17	Promoting workforce health and wellbeing through our Get Physical initiative	Corporate
	Improving detection and management of atrial fibrillation (AF)	Clinical Innovation Adoption
	New standard measures to improve care for patients with IBD developed by international collaboration	Wealth Creation
	Leading together – patients and professionals take a collaborative approach to solve health issues	PPIEE
	Better network-wide data sharing improves patient care	Best Care (Maternity)
Q2 2016/17	Digital survey results	Wealth Creation
	Imaging patient info films	Best Care
	Sustainability project	Wealth Creation
Q1 2016/17	Bicester healthy new town	Wealth Creation
	Children's immunisation	Best Care
	Perinatal SHaRON	Clinical Innovation Adoption
Q4 2015/16 (annual report)	Memory clinic accreditation update	Best Care
	Meds optimisation CBT programme	Best Care
	AWOL project	Patient Safety
	J&J collaboration	Wealth Creation

Quarterly report	Case study summary	Programme/Theme
	CAUTI project	Clinical Innovation Adoption
Q3 2015/16	EIP data-based approach	Best Care
	Leading Together programme starts	PPIEE
	Get Physical event review	Corporate
Q2 2015/16	Targeted medicines support	Best Care/Patient Safety
	Memory clinic accreditation	Best Care
	IPC stockings	Clinical Innovation Adoption
	Alumni Summit review	Wealth Creation
Q1 2015/16	A&D recovery rates	Best Care
	Pre-term birth location saves lives	Best Care
	In2vu data visualisation	Informatics
Q4 2014/15 (annual report)	GDM remote monitoring	Clinical Innovation Adoption
	IOFM benchmarking	Clinical Innovation Adoption
	Sustainable energy	Wealth Creation
Q3 2014/15	Developing patient leaders	PPIEE
	CFT – heart attack test	Wealth Creation
Q2 2014/15	Memory clinics	Best Care
	Managing acute appendicitis	Best Care / Patient Safety (PSA)
	A&D recovery	Best Care
Q1 2014/15	Dementia network launch	Best Care
	Medicines optimisation launch	Best Care
	Wealth creation explained	Wealth Creation
	GDM remote monitoring	Clinical Innovation Adoption
Q3 2013/14	App development route map	Wealth Creation
	2023 Challenge	Wealth Creation

Updated: January 2020