NHS Innovation Accelerator:
supporting faster take-up of high impact innovations for patient benefit

Case study #1: Supporting national spread of self-management tool, myCOPD

Challenge
Chronic Obstructive Pulmonary Disease (COPD) causes 115,000 emergency admissions and 24,000 deaths per year. Over 900,000 people in England are currently diagnosed with COPD, with a potential 2.2M undiagnosed. Treatment is complex; most patients have an inhaler but 90% don't use them correctly. Compliance with treatment is low, leading to poor outcomes and wasted prescribing. For this reason, improving self-management for patients with COPD is a key priority for the NHS. As COPD has no cure, it is essential to stabilise disease and prevent recurrent flare-ups or exacerbations.

How can myCOPD solve this challenge?
myCOPD is one part of a long-term condition patient app, which assists people with COPD to self-manage their condition more effectively whilst enabling clinicians to monitor and manage patients remotely at scale. Patients can manage their condition with a self-management plan and inhaler diary/videos, pulmonary rehabilitation (PR) programme, online education tutorials, and weather, pollution and symptom reporting.

Supporting national spread of myCOPD
myCOPD was selected to join the NHS Innovation Accelerator (NIA) in 2015 and has been supported to spread nationally by England's 15 Academic Health Science Networks. From working with three CCGs and one acute trust, myCOPD is now being used across 113 NHS sites and is currently freely available to all NHS organisations in England via the Innovation and Technology Tariff (ITT) 2017-19.

Impacts and outcomes
- myCOPD has been proven to correct up to 98% of patient inhaler errors without clinical involvement
- myCOPD doubles the rate of recovery from acute exacerbations and reduces the risk of a readmission
- myCOPD's PR service costs £20 for the lifetime of a patient and has been shown in an RCT to deliver the same outcomes as face to face programs which cost the NHS £400-£800 per six-week course
- A CCG with an average COPD population of 5,000 patients would expect to make savings in the first year alone of over £200,000 if deployed to 60-80% of their COPD population
- The first 'NHS approved' app in the NHS Apps Library
- International spread to USA and New Zealand

Testimonial
"Since I started using myCOPD, I have lost weight, my depression has lifted, and I see my GP just once a year (compared with twice-monthly visits previously). I have not needed hospital treatment for 18 months."
Patient

Contact
NIA Fellow: Simon Bourne (simon.bourne@mymhealth.com)
NIA Communications Manager: Rebekah Tailor (rebekah.tailor@uclpartners.com)
https://mymhealth.com/
@mymhealthltd

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Case study #2: Supporting national spread of mental health innovation, i-THRIVE

Challenge
Mental illness represents a quarter of the nation's overall burden of disease. It affects at least 10% of children aged 5-16. Despite the vast scale of this challenge, only one quarter of those with mental illness are receiving treatment.

How is i-THRIVE helping to solve this challenge?
i-THRIVE is transforming the way mental health services are organised for children and adolescents. Its model incorporates a new way of delivering support services alongside shared decision making. This means children and young people have much greater control over their care, which is integrated along the pathway from prevention through to complex treatment.

Supporting national spread of i-THRIVE
i-THRIVE was selected to join the NHS Innovation Accelerator (NIA) in 2015 and has been supported to spread nationally by England's 15 Academic Health Science Networks. First tested in Camden and adopted in Liverpool, in the past three years i-THRIVE has spread to over 70 NHS sites, covering 48% of the population of children and young people in England.

Impacts and outcomes
- i-THRIVE Community of Practice spread to 72 CCG areas
- Almost 50% children and young people in England with mental health needs benefitting
- i-THRIVE academy established in London, providing training for clinicians
- Improved access to Child and Adolescent Mental Health Services (CAMHS) through improved efficiency (i.e. reduced re-referrals and DNAs)

Testimonial
"i-Thrive is providing a systematic and population-focussed approach to improving the targeting of interventions for children, young people and their families. This implementation of the THRIVE model increases the efficiency and enhances the effectiveness of clinical services so that we can deliver better outcomes to more children."
Professor Peter Fonagy, Programme Director for the AHSN Integrated Mental Health Programme at UCLPartners, National Clinical Lead of Improving Access to Psychological Therapies for Children and Young People

Contact
NIA Fellow: Anna Moore (a.moore@ucl.ac.uk)
NIA Communications Manager: Rebekah Tailor (rebekah.tailor@uclpartners.com)
www.implementingthrive.org
@iTHRIVEinfo

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Case study #3: Supporting national spread of patient safety innovation, Episcissors-60

Challenge
Each year 30,000 women across the UK suffer from OASIS: obstetric anal sphincter injuries. This is often due to misjudging the angle of surgical cuts (episiotomy angle) during childbirth. OASIS is a serious complication, and is the single most important cause of anal incontinence (AI) in women. With more than 15% of all births in England requiring an episiotomy, there is a need to reduce incidence of OASIS and to protect mothers from avoidable harm.

How can Episcissors-60 solve this challenge?
Episcissors-60 are patented fixed angle scissors that take away human error in estimating episiotomy angles during childbirth. Use of Episcissors-60 reduces the risk of complications associated with standard practice episiotomies, which can cause OASIS.

Supporting national spread of Episcissors-60
Episcissors-60 was selected to join the NHS Innovation Accelerator (NIA) in 2015 and has been supported to spread nationally by England's 15 Academic Health Science Networks. Initially adopted by 15 UK sites, Episcissors-60 are now being used by 80 of the 126 consultant-led maternity units in the UK. This patient safety device is currently freely available to all NHS Trusts via the Innovation and Technology Tariff (ITT) 2017-19.

Impacts and outcomes
- Direct annual cost of OASIS to the NHS is £55M
- 18-50% reductions in OASIS demonstrated in five UK hospitals with 20,000 annual births attributable
- Royal Free and Barnet Hospitals showed 50% reduction of OASIS in normal births and 75% in instrumental births
- Potential net savings of £28K per 1,000 births accrued from avoided cases of OASIS
- Selling internationally in ten countries

Testimonial
"I would not want to deliver in a London hospital that does not use the Episcissors-60."
Patient feedback

Contact
NIA Fellow: Dr Dharmesh Kapoor (dharmesh.kapoor@medinvent.net)
NIA Communications Manager: Rebekah Tailor (rebekah.tailor@uclpartners.com)
www.medinvent.co.uk/medinvent-products.html

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Case study #4: Supporting national spread of patient safety innovation, Nervecentre

Challenge

Over 44,000 deaths are attributed to sepsis every year. The estimated annual cost of sepsis in the UK may be as high as £10.2 billion. More consistent early identification and treatment of sepsis can improve survival and reduce long-term disability for patients[1]. Hospitals have well-established protocols for these conditions, however these can be complex - involving multiple staff and decision points. This complexity increases the potential for human error, delays and miscommunications - all of which can adversely impact patient safety.

How can Nervecentre Software solve this challenge?

Nervecentre Software is a mobile, clinical platform that delivers patient safety and flow improvements to acute hospitals through real-time data and communications. The platform captures vital signs, early warning score (EWS) and pathology results to inform the early diagnoses of sepsis. Critically, when a patient presents early indications of sepsis, Nervecentre's system immediately alerts the right clinicians and nurses to ensure that care is appropriately escalated, prioritised and carried out.

Supporting national spread of Nervecentre Software

Nervecentre Software was selected to join the NHS Innovation Accelerator (NIA) in 2015 and has been supported to spread nationally by England's 15 Academic Health Science Networks. Nervecentre is now implemented in over 30 acute trusts across England, and is being used daily by more than 20,000 nurses and doctors across the NHS.

Impacts and outcomes

- Improved percentage of patients screened for sepsis from 46% to 100% in County Durham & Darlington NHS Foundation Trust
- Improved percentage of time a patient receives antibiotics within the hour following a positive sepsis trigger from less than 50% to over 90%
- Reduces unplanned admission, equating to £1M savings per year
- Improves nurse efficiency and allows doctors to spend more time with their patients (from 2.9% to 7.3%)
- Spread internationally to Australia and Sweden

Testimonials

"The mobile platform is helping us support our staff with tools to recognise - and respond to - a potentially life-threatening condition. And it's allowing us to provide the assurance that every patient that comes into our care will be screened for sepsis - and treated promptly and appropriately."
Paul Latimer, Lead Nurse at County Durham and Darlington NHS Foundation Trust

Contact

NIA Fellow: Paul Volkaerts (pvolkaerts@nervecentresoftware.com)
NIA Communications Manager: Rebekah Tailor (rebekah.tailor@uclpartners.com)
www.nervecentresoftware.com
@NervecentreHQ

References

[1]https://www.england.nhs.uk/ourwork/ltc-op-eolc/sepsis/