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NHS X

Innovation Collaborative.

East of England: Transforming dermatology services across Norfolk and Waveney

REGIONAL INNOVATION SERIES
SUPPORTING DIGITAL TRANSFORMATION

At a glance

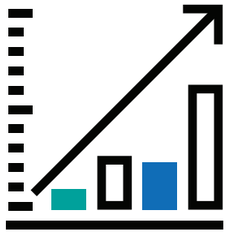
Project overview

- Health teams across Norfolk and Waveney have implemented a new digital referral process to transform dermatology care.
- Using a camera function on a smartphone, GPs can capture and share diagnostic images with specialist consultants in secondary care.
- The technology allows information to be rapidly shared between GPs and specialists, speeding up diagnoses and reducing waiting times across the region.

Implementation highlights

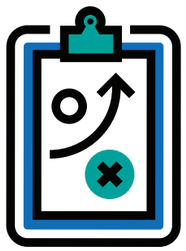
- Engagement sessions and peer-to-peer support for GP practices have given credibility and focus to the project, increasing awareness and guiding the implementation process.
- Dedicated surge support from a team of dermatologists means that there has been rapid assessment of images, reducing the pressure on hospital demand.
- Regular communication, training and ‘how to’ guides have helped to support GP practices to embrace and embed the technology.

Impact and benefits



- Early evaluation shows that 330 patients have already benefitted from the digital service across the area.
- Nearly three-quarters (74%) of these cases were managed in primary care and all were reviewed by consultants within 48 hours.
- As well as improving patient experience, there is also expected to be non-cash releasing saving of £1.4 million a year by reducing demand on acute services.

Conclusions and next steps

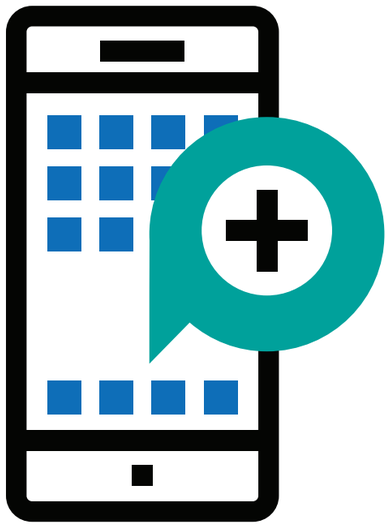


- The project has delivered a more integrated approach to care by opening up a new channel of communication between primary and secondary care, enabling more patients to be treated in the community rather than in hospital.
- In addition to addressing the immediate challenge of reducing waiting times, the project has yielded a range of hard and soft benefits – from financial savings to improvements in GPs’ capabilities – which can be shared across the system.

Key numbers

89

GP practices were live with the technology at the end of June 2021.



74%

of cases were retained in primary care

(referrals reviewed between 14 January 2021 and 21 June 2021)

492

patients have benefited from using the service at the end of June 2021.

Costs savings of

£1.4 million

every year are expected.

All of the cases via the new pathway were reviewed by consultants within

48 hours

compared with an approximate 50 weeks routine wait.

(14 January 2021 and 21 June 2021)

Overview

In this report, we explore a project in Norfolk and Waveney that is transforming dermatology care via a new digitally-led, rapid referral process which uses the camera function on a smartphone to allow GPs to collect and share diagnostic images.

Demand for dermatology services across the region has grown due to an ageing population that is more susceptible to serious skin conditions, while the resulting increase in waiting lists has been further exacerbated by the COVID-19 pandemic.

The technology creates a faster and more continuous dialogue between primary care practitioners and hospital-based consultants, speeding up diagnosis and enabling more cases to be treated in the community rather than in hospital settings, thereby dramatically reducing expected waiting times.

It also encourages knowledge sharing between GPs and specialists, helping to improve professional standards – and as part of a wider regional improvement programme enabled by technology the project is helping to inspire similar innovation across other areas of care.

115%

increase in the region's dermatology waiting lists over the last 5 years.

(Source: NHS England)

24%

of the registered practice population for Norfolk and Waveney is over 65.

(Source: Norfolk and Waveney registered practice lists)

7,800+

patients waiting to start specialist treatment for skin conditions across the region.

(Source: NHS England)

6-12

months indicative wait for routine treatment for 9 out of 10 dermatology patients across the region.

(Source: nhs.uk)

ABOUT THIS SERIES

Health and care teams across England are increasingly using new technology to enable more care to be provided at home in response to the COVID-19 pandemic, supported by additional funding from NHSX. NHSX is also working with the AHSN Network to deliver the Innovation Collaborative to enable regional teams to accelerate deployment, and share learning and best practice.

The **Regional Innovation Series** takes an in-depth look at some of the exciting projects underway across the country. It explores the challenges and opportunities presented by new technologies and looks at their impact on people, processes, cultures and the practical tools available to patients, service users and frontline professionals.

Project aims and ambitions

Reduce average waiting times for hospital-based consultant advice to 48 hours for routine referrals

Support better outcomes by ensuring patients receive treatment sooner, including identifying serious diseases that should be referred through urgent pathways.

Boost patient experience by allowing more care to be offered closer to home, with around 60% of all treatment expected to be conducted in primary care settings in the future.

Improve clinical practices by creating strong, equitable relationships between primary care and consultant teams through enhanced contact.

> **This project is creating new possibilities in terms of how we diagnose, refer and treat dermatology cases across Norfolk and Waveney. By opening up better channels of communication between GPs and hospital teams, we will be able to optimise the treatment of patients in primary care. This will result in shorter waiting times for those needing secondary care management, ultimately improving both the patient's experience and their clinical outcomes.**
>
> **Dr Katie Pryce, GP Fellow, NHS Norfolk and Waveney CCG**

Who is involved

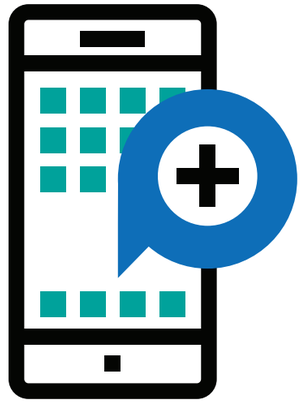
The Norfolk and Waveney project is part of a wider digital transformation programme taking place across the six Integrated Care Systems (ICSs) in the East of England.

It involves close collaboration between the following key organisations, along with several other providers:

NNPC North Norfolk Primary Care

NHS Norfolk and Waveney Clinical Commissioning Group

What digital technologies are being used?



The technology turns the smartphone into a powerful clinical tool that allows GPs and other primary care practitioners to capture skin observations and images which can be shared quickly with specialists for further investigation and diagnosis.

This is achieved by attaching a **specialised magnifying lens called a dermatoscope** to the phone to take high-definition images of the patient's skin. Dermatoscopes are used by dermatologists to examine skin lesions. The lens can be magnified up to 10 times to capture clear, clinical-grade photographs.

An **app on the smartphone** then allows the user to connect to a secure digital referral management platform, provided by Cinapsis, which allows the patient information and imagery to be shared with both primary and secondary care practitioners. Office-based systems also connect to the platform.

System interoperability and security are integral to the project's long-term success. Extensive review and testing have been completed by the project team to test the referral platform is capable of securely speaking to a wide range of IT systems.

"This technology is exciting because it will start to break down the walls between primary and secondary care. It should allow consultants to review cases quickly and accurately, then work with the GP or practice nurse to recommend the best way forward. It doesn't replace outpatient care – we will still see patients physically when it is most appropriate – but it enhances it and means we can act much faster in getting patients the treatment they need."

Dr Paul Everden, Clinical Quality & Innovation Lead, North Norfolk Primary Care

The impact on processes and working practices

The technology forms part of a **fast, simple and easy to use process which leads to much faster diagnosis and advice** as below.

1 The GP or primary care practitioner takes a **photograph of the patient's skin** using their enhanced smartphone.

2 The image and other supporting information are **immediately sent to the platform** which is accessed by a team of consultants.

3 The consultant and primary care practitioner may then **discuss the case** or **seek more information** or advice prior to diagnosis.

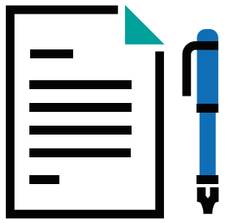
4 **Within a maximum of 48 hours, the consultant responds** providing detailed information about the diagnosis and the required treatment.

5 Following diagnosis, the **necessary treatment plan is put in place,** either directly by the primary care team if appropriate or through referral to a specialist clinic.

> **The platform will provide us with real insight from a training and education perspective as we will be able to access data to help us to identify and understand individual and common knowledge gaps experienced by practitioners. Thanks to this real-time insight we will be able to take immediate action to develop and implement personalised education which links to professional development records. It's a groundbreaking way of educating people.**
>
> **Amy Crawford, Transformation Lead, North Norfolk Primary Care**

Key tools and techniques for implementation

1



Planning

A planning group directs the project to ensure the digital tool and the data it gathers is accurately informing all clinical decisions, as well as creating governance and operational frameworks that can be applied quickly and easily to future services.

2

Training

Ongoing training is key to the project's success. Regular virtual training, live demos, 'how to' guides and other forms of engagement help all users within primary and secondary care to embrace the technologies and experience the benefits. Through a process of constant evaluation, further training needs are identified and addressed.

3

Resourcing

The project is being temporarily supported by a team of dermatologists who are working with in-house NHS teams to provide additional surge capacity to help bring down the number of patients waiting for referrals. Legacy plans are in place to ensure this resource can be gradually stepped down as lists reduce and in-house teams adopt the process within their schedules.

4

Engaging

Ongoing engagement through regular meetings is helping to create, nurture and sustain the 'one team' ethos between the temporary dermatology team and in-house consultants. This will be complemented by future evaluation. User feedback from patients and practitioners will help to develop the system further.

5

Reviewing

The impact on patient outcomes, reducing the pressure on hospital demand and the financial savings achieved will be regularly reviewed. Shared learning networks and formal evaluations will enable the region to collectively evaluate effectiveness and explore opportunities to use similar schemes across other care pathways.

The impact on people

How is the new technology benefiting patients? These pen portraits show a range of scenarios where the new system can improve care.

Tony, 45, went to see his GP to ask about some eczema on his leg that had gradually been getting worse over the last 12 months - previous treatment had not worked. His GP took a number of images and uploaded these and supporting case notes onto the referral platform.

Later that day, a consultant reviewed the case and diagnosed that the skin rash was a poorly controlled atopic eczema which could be treated through a primary care management plan. Tony was informed at his next GP appointment and treatment started. Six weeks later, he went back to see his GP for a review - he was pleased as the condition had improved. The GP with guidance from the consultant continued to manage Tony's care over the next few months.

Gina, in her late teens, went to see her GP with a mole that had been worrying her. Her GP did not suspect skin cancer but wanted an opinion regarding diagnosis and management and so took an image of the lesion and processed it through the referral platform with additional notes. Within one hour, the case was reviewed by a consultant who identified that it was harmless and Gina was discharged back to primary care.

Later that day, her GP was able to give Gina the news that there was nothing to worry about - she was relieved to hear back so quickly. Under the previous process, she may have had to wait around 32 weeks to see a hospital consultant for a routine referral. For her GP, the process meant an unnecessary patient referral had been avoided while the consultant's feedback had improved their own confidence to diagnose similar lesions in future.

Audrey, a woman in her eighties, attended her GP surgery complaining of a sore spot below her eye. She was concerned because it had been there for a few months but it was not healing. Her GP took images of the crusted red lesion and uploaded these and supporting information to the referral platform.

The consultant reviewed the case within two hours and recommended that Audrey should be referred onto the two-week cancer pathway as the lesion showed possible signs of squamous cell cancer. This was immediately actioned, preventing an inappropriate wait on the previous routine referral pathway.

To protect patient confidentiality, please note that these are fictional pen portraits that reflect the range of scenarios where the technology is already proving useful.

How is the technology working in practice?

We asked a selection of health professionals working with the dermatology service to describe the real-world impact of the technology on their patients and their own working practices. Here are their personal experiences.

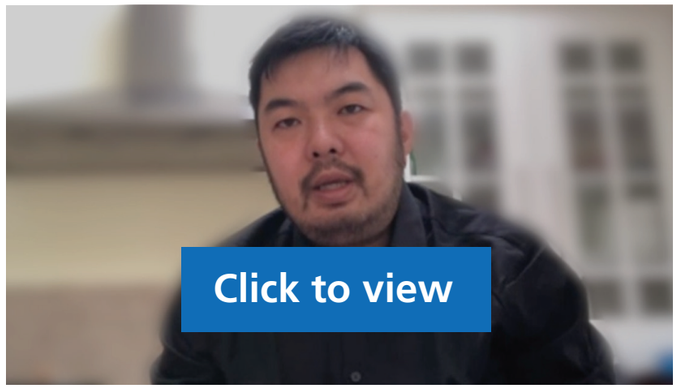
“You can get an expert opinion within hours”

Dr **Katie Pryce** describes how the technology radically reduces the amount of time it takes for GPs to receive expert advice from specialists – which provides greater reassurance and support for the GP and enables the patient to start treatment faster.

“We’re delivering a much better experience for the patient”

Amy Crawford, Transformation Lead for North Norfolk Primary Care, highlights how the technology helps to put patients at the heart of care by reducing waiting times and bringing support closer to home.

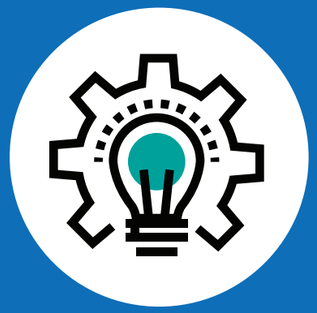
“The dialogue between GPs and consultants is opening up possibilities”



Dr **Mark Lim,** Interim Director of Clinical Services and Clinical Transformation at NHS Norfolk and Waveney Clinical Commissioning Group, describes how the technology enhances the relationship between clinical teams, opening up new possibilities for how care might be delivered in future.

Key lessons and next steps

Looking ahead, how might this project help to shape the future direction of health services in the region?
We asked members of the project team to outline the key lessons that are shaping their priorities for the future.



1. Delivering system-wide benefits

As well as showcasing the potential of technology, we think this project is a good example of taking a fully integrated approach to care. It has created new methods of communication between primary and secondary care and has yielded benefits that can be shared across the system.

While helping to meet the immediate challenge of reducing waiting times for dermatology services, we have found that this approach is also proving to be an invaluable way of training and supporting GPs so that they have the knowledge to refer patients with greater confidence in the future.

2. Creating advocates for change

Identifying GPs who share the same vision has played an important role in getting this project off the ground. Having these advocates has been vital for building credibility and raising awareness among health professionals.

Our engagement approach, which included live and recorded videos that could be watched at any time, was designed to give GPs and practice managers a flexible way to get involved. These sessions have been crucial to the success of the project and have enabled continued dialogue with health professionals.

3. Extending beyond dermatology services

We know that the tool is safe, secure and has the interoperability necessary to work with other systems as a result of the extensive planning and user testing we've done.

There is now a golden opportunity to apply the same principles and technologies we've used to transform dermatology services to enhance and improve other areas of care, both here and elsewhere. We are excited about what may be possible in the future.

For more information about this project supported by NHSX:

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To find out more about the Innovation Collaborative:

Existing members can access the Innovation Collaborative Digital Health workspace on the FutureNHS platform by visiting **future.nhs.uk/innovationcollaborative**.

Please e-mail **InnovationCollaborative-manager@future.nhs.uk** to request to join.