

Media release
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App shares real-time data with clinicians to improve Scottish breast cancer patients' experience and their health outcomes

- OWise, an app that allows breast cancer patients to record treatment symptoms, with data delivered to clinicians in real time, is being trialled at NHS Lothian
- In Scotland, breast cancer accounts for 15% per cent of all cancers diagnosed in women and an estimated 1 in 8.5 women develop breast cancer during their lifetime
- Px HealthCare's award-winning OWise platform is also being used to develop a similar app to help those with prostate cancer

An app that allows breast cancer patients to record treatment symptoms, with data delivered to clinicians in real time, is being trialled at NHS Lothian.

[OWise](#), created by [Px HealthCare](#), lets patients log symptoms and side effects, which are then shared with clinicians, allowing them to track an individual's progress and recommend adjustments to treatment plans, based on real-time data.

Not only does this permit a more personalised approach to breast cancer treatment, improving patients' experience and overall wellbeing, it also has the potential to vastly improve clinical outcomes as health professionals are able to closely follow symptoms and make adjustments as soon as they appear.

When it was originally launched in the Netherlands in 2013, a clinical study showed 90% of patients would recommend OWise to others, as well as 90% of doctors and nurses.

The app, which has recently been updated, is currently only available to breast cancer patients and clinicians at NHS Lothian. It now includes a traffic light system sending patients alerts and showing doctors and nurses immediately if a patients' symptoms deteriorate.

The technology also gives patients the opportunity to receive a personalised list of questions to help them prepare for appointments and a diary function to store treatment notes, voice recordings, photos and appointments in one place.

The app progressed to the second phase of the Cancer Innovation Challenge in 2018, a £1m project funded by the Scottish Funding Council to encourage collaboration between innovation centres, medical professionals and cutting-edge healthcare businesses to help Scotland become a world-leader in cancer care, with Px HealthCare awarded a further £100,000 in funding to develop and evaluate its impact.

The project brings together three Innovation Centres, led by The Data Lab in collaboration with the Digital Health and Care Institute (DHI) and Stratified Medicine Scotland (SMS).

Px HealthCare's award-winning OWise platform is also being used to develop a similar app to help those with prostate cancer. The project is actively supported by Nesta, Maggie's Centres, Prostate Scotland and clinicians of the West of Scotland Cancer Network.

In Scotland, prostate cancer accounts for 21 per cent of all cancers diagnosed in men and an estimated 1 in 10 men develop prostate cancer during their lifetime.

Speaking about the OWise app, Julie (49), who is being treated for breast cancer commented: “As a breast cancer patient, the OWise App is an invaluable tool to give peace of mind that supports during stressful treatment periods when monitoring is thorough and continuous. It is easy to use with clear guidance.”

Sheila (53), another breast cancer patient noted: “I think the app is brilliant. I can record everything so when I go to chemo every three weeks and they ask how I've been, I have a precise record of side effects and when they happened during the cycle. It takes all my fear away.”

Dr. Peter Hall, Consultant Medical Oncologist at the Edinburgh Cancer Centre, commented: “Digital technologies like OWise offer real potential to improve a cancer patient's experience. Being able to see a timeline that chart's a patient's symptoms from their own perspective, directly within our electronic clinical records is fantastic. It definitely improves our ability to understand how cancer and its treatment are affecting a patient.”

Dr. Anne Bruinvels, Founder of Px HealthCare, said: “The ‘Px’ in our name stands for ‘patient experience’. This is because we felt that being diagnosed with cancer is so traumatic and complex, we needed to develop smart mobile technology that supports cancer patients and helps them regain control over their lives with personalised medical tools and tailor-made feedback.

“Also, as very little is known about how patients in the real world respond to their medical treatment, we worked with NHS Lothian to develop the upgrade of OWise whereby the hospital-integrated version becomes a collaborative empowerment platform for both patients and clinicians.”

Steph Wright, Director of Health & Wellbeing Engagement at Data Lab, said: “Thankfully, we are seeing more investment to improve clinical outcomes, such as the development of new drugs, but less has been done to understand patients' overall experience of treatment and their general wellbeing.

“There is often a focus in the treatment of cancer on physical pain, but there's also much evidence, both formal and anecdotal, that points to the negative impact it can have on mental wellbeing, too. By helping patients to closely track their symptoms in the knowledge it is being fed to highly experienced clinicians, apps such as OWise are helping to lift some of the burden from patients and their families.”

To find out more about Cancer Innovation Challenge, visit:

<http://cancerchallengescotland.com/>

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About Px HealthCare

Px was established by medical scientists in 2012. The OWise breast cancer app was launched in the UK in 2016 on the back of its ongoing success in the Netherlands.

OWise was initially developed by Px founder, Dr. Anne Bruinvels. While Executive Director at the European Personalized Medicine Association, Anne realised that cancer patients' experience following diagnosis is poorer than it needs to be, and can be much improved when patients are correctly informed and supported during treatment and recovery. Anne is a pharmacist by training and has a PhD in molecular neuroscience. She is joined in Px Healthcare by her brother Dr. David Bruinvels, a clinical occupational physician specialising in oncology.

About OWise

OWise breast cancer (www.owise.uk) is a validated and award-winning, patient-centric mobile app platform designed to improve patient experience, hospital efficiency and oncology outcomes in real-time.

OWise is a mobile app and website that has been demonstrated to empower patients during treatment and improve the patient-doctor interaction¹. The fully anonymized real-time Patient Reported Outcome (PRO) data resulting from the use of OWise are investigated using advanced data - analytics to improve oncology outcomes for cancer patients both in real-time per patient and in aggregated format at a population health level.

OWise contains a suite of tools supporting cancer patients, including personalized medical information, a tailor made question prompt list, a secure audio recording function (cannot be tampered with or shared), side-effect / symptom tracking function resulting in PRO data, real-time sharing function of OWise PRO graphs, glossary, a cancer treatment diary and a shareable Notes function, all with very high security and privacy protection standards.

Recently, an upgrade of OWise (called OWise–Closed Loop) has been made available to help organizations with the improvement of patient experience and clinicians with the management of oncology treatments. This upgrade has two additional features: The real-time OWise PRO data are directly visible in the hospital's electronic patient record system. Also, patients receive personalized alerts nudging them to contact hospital or organization helpline when their side effects exacerbate (fully aligned with CTC-AE) aimed at reducing the number of avoidable hospitalizations or ER visits.

About The Data Lab

The Data Lab is Scotland's innovation centre for data and AI. Through hubs in Edinburgh, Glasgow, Aberdeen and Inverness, we foster innovation through collaboration, build skills and grow talent, and champion Scotland's data science community. We help Scotland maximise value from data and lead the world to a data-powered future.



About Innovation Centres

The Innovation Centres, which were launched in 2014 and in the latter part of 2013, sit within the construction industry, oil and gas, stratified medicine, digital health, industrial bio-tech, and sensors and imaging. Each Centre aims to establish bonds between Scotland's universities and their respective industry sectors, translating the knowledge and expertise into commercially viable products and companies to benefit the country's economy.