



QResearch News Update Autumn 2021

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We hope that you are enjoying our newsletters. We think that they are a great opportunity to feature some of the wide-ranging projects that have been enabled by access to QResearch data.

To feature your research news here, please email Claire Meadows at

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QCOVID highly commended for 'best use of technology in Patient Safety' at the 2021 HSJ Patient Safety Awards

Professor Julia Hippisley-Cox and her team have been Highly Commended in the 'Best use of technology in Patient Safety' category for the QCovid risk calculator at this year's Health Service Journal Patient Safety Awards.

The commendation is in recognition of their work developing QCovid – an evidence-based risk-prediction model that uses a range of factors such as age, sex, ethnicity and existing medical conditions to predict risk of death or hospitalisation from COVID-19 – which 'pushed the boundaries of patient safety and drive cultural change to minimise risk, enhance quality of care and ultimately save patient lives' over what has been a challenging period in the history of the healthcare sector.



Following a comprehensive and thorough judging process, the QCovid team was handed the distinguished award, standing out amongst a highly competitive shortlist. The team was recognised for their proactive, diligent hard work and the demonstrable positive impact that their project has within the health and social care sectors.

"We're thrilled to have been Highly Commended in the best use of technology in patient safety category," said Professor Hippisley-Cox. "It's encouraging for all our team to have our efforts recognised by the HSJ awards programme, particularly when we think back and consider the many challenges we've all had to face since the dawn of COVID."

QCovid was developed through a study of the anonymised health records of more than 8 million people using GP records, hospital records and mortality data from late January 2020 to April 2020. This initial analysis, funded by the National Institute for Health Research, was done using data collected during the first wave of the coronavirus pandemic in the United Kingdom.

The awards highlight the organisational, team and individual efforts to push the boundaries of patient safety and minimise risk, enhance quality of care and ultimately save patient lives.

Hormone therapy not linked to increased risk of developing dementia

Use of menopausal hormone therapy (MHT, also known as hormone replacement therapy, HRT) is not associated with an increased risk of developing dementia, regardless of hormone type, dose, or duration, concludes a large UK study published by **The BMJ**.

Within the subgroup of women with a specific diagnosis for Alzheimer's disease, a slight increasing risk association was found with use of oestrogen-progestogen treatments, but measurable only for long-term usage (5 years or more). The researchers say this study "brings clarity to previously inconsistent findings and should reassure women in need of menopausal hormonal therapy."

HRT is used to relieve menopausal symptoms such as hot flushes, sleep disturbance, mood swings, memory losses and depression. Treatments include tablets containing oestrogen only, or a combination of oestrogen and progestogen, as well as patches, gels and creams.

Some menopausal symptoms are similar to early signs of dementia. Laboratory studies and small trials have suggested a beneficial link between oestrogen and age related brain decline. However, the largest trial of MHT, the Women's Health Initiative Memory Study, found an increased risk of developing dementia among users of oestrogen-progestogen treatments.

A recent large observational study in Finland flagged an increased risk of developing Alzheimer's disease among users both of oestrogen-only and oestrogen-progestogen treatments, but the study had some methodologically weaknesses.

To address this uncertainty, researchers at the Universities of Nottingham, Southampton and Oxford set out to investigate the risks of developing dementia for women using any of the menopausal hormone therapy treatments commonly prescribed within the UK National Health Service.

They used two UK primary care databases (QResearch and CPRD) to analyse MHT prescriptions for the 118,501 women aged 55 and older diagnosed with dementia between 1998 and 2020 (cases), and 497,416 women matched by age and general practice, but with no records for dementia (controls).

All information from MHT prescriptions issued more than three years before the case diagnosis was used, including hormone type, dose, and method of administration.

Other relevant factors, such as family history, smoking, alcohol consumption, pre-existing conditions (comorbidities), and other prescribed drugs were taken into account in the analysis.

The study used a large data sample from primary care records and was designed not only to assess overall risk for women exposed to different types of long term hormone therapy but also to explore the differences between component hormones, offering new, more reliable estimates for doctors and their patients.

Covid-19, not vaccination, presents biggest blood clot risks

Researchers from the University of Oxford have announced the results of a study into thrombocytopenia (a condition with low platelet counts) and thromboembolic events (blood clots) following vaccination for Covid-19, some of the same events which have led to restricted use of the Oxford-AstraZeneca vaccine in a number of countries.

Writing in the British Medical Journal (BMJ), they detail the findings from over 29 million people vaccinated with first doses of either the ChAdOx1 nCov-19 'Oxford-AstraZeneca' vaccine or the BNT162b2 mRNA 'Pfizer-BioNTech' vaccine. They conclude that with both of these vaccines, for short time intervals following the first dose, there are increased risks of some haematological and vascular adverse events leading to hospitalisation or death.

Julia Hippisley-Cox, Professor of Clinical Epidemiology and General Practice at the University of Oxford, lead author of the paper, said:

'People should be aware of these increased risks after Covid-19 vaccination and seek medical attention promptly if they develop symptoms, but also be aware that the risks are considerably higher and over longer periods of time if they become infected with SARS-CoV-2'

The authors further note that the risk of these adverse events is substantially higher and for a longer period of time, following infection from the SARS-CoV-2 'coronavirus' than after either vaccine.



New symptoms analysis for GPs to revolutionise early diagnosis for pancreatic cancer

**Pancreatic
Cancer
UK**

Leading researchers from the University of Oxford have carried out a new analysis to help GPs identify patients at risk of pancreatic cancer and decide who to refer for further tests. The findings will be used to develop a more accurate risk prediction model for the disease, which could help more people with pancreatic cancer get an early diagnosis and have a better chance of surviving the disease.

This new analysis, funded by the national charity Pancreatic Cancer UK, is the largest population-based study of its kind and could revolutionise the diagnostic pathway for pancreatic cancer. The research team analysed data from QResearch.

Pancreatic cancer is the deadliest common cancer and currently, half of all patients (53 per cent) are diagnosed at stage 4 (1). Just one in ten GPs (11 per cent) said they had the tools they needed to diagnose pancreatic cancer early enough for treatment to be possible, according to a survey commissioned by Pancreatic Cancer UK (2).

Currently, there is no screening programme or simple test for pancreatic cancer and the vague symptoms, such as weight loss and lower back pain, make the disease difficult to diagnose. This new analysis, published in the British Journal of General Practice (3) in July 2021, looked at a range of symptoms that occurred before the diagnosis of pancreatic cancer. The results could be used to update the QCancer risk prediction model to help GPs identify high-risk patients for timely investigation in primary care.

The research team identified 23 symptoms associated with the most common type of pancreatic cancer (pancreatic adenocarcinoma or PDAC) and nine symptoms associated with pancreatic neuroendocrine neoplasms or PNEN). Jaundice and gastrointestinal bleeding were recognised as the two alarm symptoms for both types of tumour and two new symptoms – excess thirst and dark urine – were discovered for PDAC.

This study is part of Pancreatic Cancer UK's 'Early Diagnosis Research Alliance' (EDRA) – one of the biggest investments in early diagnosis within pancreatic cancer in the UK – where leading researchers from across the field have been brought together to improve early diagnosis for the disease. The EDRA is working to accelerate early diagnosis by focussing on four key areas: enhancing the sensitivity and accuracy of biomarkers for pancreatic cancer, collecting a new biobank of samples from patients with vague symptoms in order to test new tools in clinical trials, and engaging with stakeholders to consider how a dedicated diagnosis pathway for pancreatic cancer could be implemented in the NHS.

About QResearch

QResearch is a large consolidated database derived from the anonymised health records of over 35 million patients.

The data currently come from approximately 1500 general practices using the EMIS clinical computer system.

The practices are spread throughout the UK and include data from patients who are currently registered with the practices as well as historical patients who may have died or left.

Historical records extend back to 1989, making it one of the largest and richest general practice databases in the world.

Founder Julia Hippisley-Cox is based at Nuffield Department of Primary Health Sciences, Medicine Sciences Division, University of Oxford.

www.qresearch.org

QResearch Advisory Board Member Focus: Dr Patricia Wilkie

Dr Wilkie is a social scientist particularly interested in the patient perspective.

She has spent much of her working life as a researcher in academic departments of medicine. Research topics included the ethical, social and psychological implications of genetic disease, of HIV and Aids and aspects of changes in prescribing.

Patricia helped establish the National Childbirth Trust in Scotland and has worked with many voluntary organisations including the Huntington Chorea Association and the Patients Association.

