

Tech helps GPs reduce diabetes and stroke incidence through improved antipsychotic prescribing

New AHSN analysis of how NHS primary care prescribers use medicines optimisation solution FDB OptimiseRx, shows substantial clinical benefits and financial impact around reducing antipsychotic medicines for at risk patients. A return of £1.20 for every £1 invested was calculated from the impact of just three of more than 4,800 prescribing messages.

Reductions in stroke and diabetes from improved antipsychotic prescribing are just some of the clinical benefits being achieved by thousands of GPs and other primary care prescribers, after being informed by a medicines optimisation solution.

The finding, which comes at a time of renewed government urgency around overprescribing, is revealed in a new health economic analysis carried out by Kent Surrey Sussex Academic Health Science Network (KSS AHSN). KSS AHSN examined the impact of NHS use of [FDB OptimiseRx](#), a solution currently used by around two thirds of GP practices across the country, covering more than 38 million patients.

FDB OptimiseRx messages deliver patient specific prescribing information when the clinical information in the patient record indicates that a prescription may not be in line with national or local best practice guidance. Messages can be used to discourage overprescribing or to offer clinically appropriate alternatives with less side effects or risk of harm.

As part of its research, KSS [AHSN](#) carried out an analysis of the clinical, financial and economic value of just three of more than the 4,800 best practice primary care messages in OptimiseRx. These messages relate to the prescribing of antipsychotic drugs for patients with learning disabilities (LD), generalised anxiety disorder (GAD), or dementia.

The report noted that though antipsychotics can be useful to treat certain mental health conditions, they are not always the most appropriate prescription for all patients. Sub-optimal or incorrect antipsychotic prescriptions can lead to adverse side effects, for example suicidal thinking and weight gain, that can impair the patient's ability to complete daily activities. Traditionally, correct prescription of medicine relies on the prescriber's own knowledge.

"OptimiseRx is positioned favourably to aid in avoiding sub-optimal or incorrect prescribing of antipsychotics, for learning disabilities, generalised anxiety disorder, and dementia patient cohorts, by providing patient specific messages that may aid in the prescriber's decision making," said Ian Mylon, CEO of KSS AHSN's Analytics and Evaluation Unit (now called Unity Insights).

KSS AHSN examined how three messages in OptimiseRx "flag the improper use of antipsychotics within these modelled cohorts", adding that "alerting or stopping an incorrect prescription could lead to several benefits for patients, their families, and the NHS".

In particular, analysis modelling over a five-year period forecast a range of significant clinical benefits associated with the messages. These include:

- **reduced incidence of diabetes and treatment costs:** Antipsychotic usage is correlated to an increased risk of type II diabetes due to antipsychotic effects on insulin sensitivity and secretion, according to research cited in the analysis;
- **reduction in stroke incidence:** The analysis noted a study that showed patients are at a statistically significantly higher risk of stroke when they are exposed to antipsychotics;

- **reduction in outpatient and inpatient costs associated with tardive dyskinesia:** a drug-induced movement disorder;
- **reduced prescribing costs;**
- **gains in quality of life from therapy.**

The analysis also described a number of unmodelled potential clinical benefits including reductions in akathisia, dyspnoea, sudden death, cardiac effects as well as myocarditis avoidance.

Over a five year period starting in 2021/22, the analysis modelled £91 million of benefits from the three messages. After taking into account the cost to the NHS of the entire OptimiseRx solution, as well as the cost for therapies prescribed to LD, GAD and dementia patients as an alternative to antipsychotic medicines, the analysis calculated a net return on investment of £1.20 for every £1 invested. This was determined by solely looking at the impact of the three antipsychotic medicine messages provided by OptimiseRx for the relevant patient population.

Darren Nichols, managing director at FDB, said: “The issue of potential harm and unnecessary waste from overprescribing is once again a priority area for the government and the NHS. At the same time, the NHS is placing increasing emphasis on measuring success of digital implementation, something that we are equally eager to understand for the benefit of our customers.

“This health economic analysis from Kent Surrey Sussex Academic Health Science Network demonstrates just some of the clinical value of our solution to clinicians, who are making use of a tool to inform appropriate prescribing decisions for their patients. A significant return on investment was also cited after analysing and modelling the impact of only a tiny fraction of the thousands of messages in OptimiseRx. Technology suppliers must play a role in helping the NHS to understand where it is getting value from digital adoption, in this case as a means to support important changes to prescribing processes and approaches.”

The findings from KSS AHSN have been revealed after [the government](#) announced widescale system and cultural changes to prevent unnecessary medicines prescribing. This action was in response to a long-awaited review by chief pharmaceutical officer for England, Dr Keith Ridge, [“Good for you, good for us, good for everybody”](#), which found that many patients were being prescribed unnecessary or even harmful treatments.

The research from the AHSN around improvements in antipsychotic prescribing is the latest in a series of analyses on the impact of OptimiseRx in the NHS, as a means to help reduce prescribing related harm. Previous work has looked at impact such as the potential prevention of up to 26,000 falls in the elderly, reduced hospital admissions for patients with renal impairment, and prescribing interventions in relation to conditions such as acute kidney injury.

To view the full infographic illustrating the health economic analysis of the benefits and cost-effectiveness of OptimiseRx for supporting antipsychotic prescribing, [click here.](#)

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Notes to editors

The Kent Surrey Sussex Academic Health Science Network report is available on request, please contact Gemma.Mendham@fdbhealth.com for more information.

About FDB

FDB (First Databank), part of the Hearst Health network, is the leading provider of drug knowledge that helps healthcare professionals make precise decisions. With thousands of customers worldwide, FDB enables our information system developer partners to deliver valuable, useful, and differentiated solutions. We offer four decades of experience in transforming medical knowledge into actionable, targeted, and effective solutions that help improve patient safety, operational efficiency, and healthcare outcomes.

About FDB OptimiseRx

FDB OptimiseRx® is the leading medicines optimisation solution for primary care in the UK. OptimiseRx combines evidence-based best practice, safety and cost-effective prescribing messages, and delivers them in real time at the point of care during the prescribing workflow.

In use in more than 4,000 GP practices covering over 38m patients across the UK, OptimiseRx is the gold standard for prescribing decision support and medicines optimisation.

OptimiseRx is the only solution that delivers patient-specific prescribing guidance, integrated with prescribing workflows, supporting medicines optimisation at the point of care in EMIS Web, TPP SystemOne and Microtest Evolution. Tailored to the patient medical record, OptimiseRx takes into consideration current and previous medications, morbidities, observations and measurements to support prescribers to make the safest, most clinically appropriate prescribing decision.