NEW STUDY RESULTS SHOW SPUR™ TOOL PREDICTS HOSPITAL ADMISSION AND EARLY READMISSIONS

French healthtech company, Observia, and Kingston University are proud to share the results of their latest scientific study, demonstrating that their novel Patient Reported Outcome Measure (PROM), known as SPUR™, is predictive of hospital admission and early readmission in people living with Type 2 Diabetes.

Paris, March 20th. Non-adherence is understood as the difficulty patients may have following their healthcare professionals' prescriptions and recommendations for taking medicines. Though non-adherence was identified as a global issue to address in 2003 by the World Health Organization, little progress has been made since that time.

Beyond the impact on patients' health, who may not experience all the intended benefits from their treatment, non-adherence has significant health economic implications for healthcare systems. The annual cost of non-adherence is estimated at €1.25 billion across parts of Europe and almost $300 billion in the US[1] alone each year, with no recent signs of improvement.

Indeed, a treatment plan that is not properly followed may lead to a deterioration in health status, an increase in the risk of a hospital admission or readmission, and consequently increased costs on healthcare systems to care for these patients and their related complications.

In response to this crisis and with a determination to improve our understanding of medication adherence to support patients, French healthtech company Observia developed SPUR.

SPUR is a holistic Patient Reported Outcome Measure (PROM) that is able to predict patients' non-adherence risk and provide contextual information on patients' behaviour to explain the reasons for that risk, giving healthcare stakeholders the means to act through the development of tailored interventions.

A new study, known as VMATT2, led by Observia and Kingston University has demonstrated that SPUR is predictive of hospital admission and early readmission risk in patients living with Type 2 Diabetes. This study has been published in the prestigious

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[1] https://ilcuk.org.uk/125-billion-lost-each-year-due-to-non-adherence/

Patient Preference and Adherence Journal, and led by PhD candidate Josh Wells as well as his supervisors, Dr Chao Wang, and Chief Investigator for the study, Pr. Reem Kayyali, Head of Department of Pharmacy at Kingston University. Patients were recruited with the support of Kingston Hospital.

"To our knowledge, this is the world's first holistic behavioural model of medication adherence to predict admission and early readmission in hospital patients. This will not only provide a benefit to the patient in terms of their care and experience with medicines, but also a health economic benefit associated with harm reduction for NHS Trusts and other care services that may adopt the SPUR model within routine care."

Joshua Wells, PhD Candidate and Lead Researcher for the VMATT2 study

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While a limited number of medication adherence models have been linked to hospital admission, none to date have implemented a holistic assessment of behavioral determinants. This is the first study to use a holistic PROM of medication adherence behavior to build a predictive model of hospital admissions and early readmissions (those occurring within 30 days of a previous discharge) in patients living with Type 2 Diabetes.

The study identified that higher SPUR scores (i.e., higher levels of adherence) were significantly predictive of a lower number of admissions to hospital. The finding was also true for early readmissions, where higher SPUR scores were linked to a lower risk of being readmitted to hospital within 30 days of a previous discharge.

These findings suggest that SPUR can predict a patient's likelihood of being admitted to hospital based on their non-adherence risk.

The implications of such results are highly promising: they demonstrate that the use of SPUR in hospital settings is relevant to detect patients at risk of hospital admission or readmission, and make it possible to tailor health interventions to avoid it.

This could especially be useful to the NHS and other care providers, who would be able to evaluate a patient's risk of admission/readmission and implement the right interventions to proactively limit or counter that risk.

Finally, these results show that SPUR is an assessment tool that goes beyond adherence, and is correlated to a number of different health measures. Indeed, an abstract presented at the ESPACOMP[2] congress in 2022 demonstrated that SPUR is predictive of anxiety and depression risks for patients suffering from hypertension.

Observia is excited for future studies to continue establishing the correlation between the risk of non-adherence and other patient clinical outcomes.

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[2] European Society for Patient Adherence, Compliance, and Persistence

About SPUR

SPUR is a behavioral diagnostic tool, shedding light on the complexity of chronic patients' health behavior. Validated through a 4-year research plan and multiple studies, SPUR accurately detects a patient's risk of non-adherence and explains the reasons behind that risk via 13 behavioral drivers, and 4 over-arching dimensions: Social, Psychological, Usage and Rational.

SPUR's statistic model is agnostic and can be used in any cultural settings or therapeutic area.

Designed for the continuous exploration and optimization of interventions for patients' adherence to treatment protocols, SPUR is free for use by the academic community globally.

About Observia

Observia is a healthtech company founded in 2011, and based in Paris, pioneer in personalized engagement and support solutions for patients suffering from one or more chronic diseases. Every day, Observia's employees are engaged in improving patients' lives.

Observia bases its innovations on robust scientific data and research, through partnerships with renowned researchers and physicians from medicine, behavioral sciences and consumer psychology; and contract research organizations such as ICON and their Mapi Research Trust.

The solutions developed by Observia are deeply rooted in proven behavioral science. They have been deployed in 25 countries and over 40 medical specialties. The company has been present in China since 2018. Observia employs 60 people in France, Germany, Switzerland, and Sweden.

About Kingston University

Kingston University offers an extensive range of undergraduate and postgraduate courses to equip its 19,000 students with the skills and knowledge they will need in the 21st Century's demanding workplace.

Having been named in the top 60 in the latest Guardian University Guide for the last three years and placing the University among the top 10 London institutions, Kingston University also received the 2017 Guardian University Award for Teaching Excellence.

The University is a growing force in research and a pioneer in entrepreneurship. The latest Higher Education Business and Community Interaction Survey reported that Kingston was the top university in the country for the number of graduates starting up their own businesses, helping more than 650 entrepreneurial graduates get their companies off the ground in the past few years.

Kingston University makes a substantial economic contribution to the local borough, London and the United Kingdom. Developments in teaching, learning, research and facilities have all contributed to positioning the University at the heart of education and economic development in the region.

About Kingston Hospital

Kingston Hospital NHS Foundation Trust cares for more than half a million patients each year, from across Kingston, Richmond, Elmbridge (Surrey), Merton, Wandsworth and Sutton.

In 2018, Kingston Hospital became the first acute hospital trust in London to be rated Outstanding for overall quality and leadership by the national Care Quality Commission regulator.

The Trust provides a full range of diagnostic and treatment services and has a national reputation for innovative developments in healthcare, particularly in 'patient-focused' care across services including emergency, day surgery and maternity.