Health Innovation
Oxford & Thames Valley

NHS
Oxford University Hospitals
NHS Foundation Trust

HTA186

Oxford Digital Biomarkers for Dementia (OxDBD): Lean Assessment Process methodology for evaluating clinical needs, adoption barriers and as precursor for early economic evaluation and adoption strategy in acute NHS hospitals

Serres F[1], Rose J[1], Pendlebury ST[2,3], **Bajre M**[1]

1Health Innovation Oxford and Thames Valley, Magdalen Centre, Oxford Science Park, UK
2 NIHR Oxford Biomedical Research Centre and the Departments of Medicine and Geratology, Oxford University Hospitals NHS Foundation Trust, UK
3Wolfson Centre for Prevention of Stroke and Dementia, Nuffield Department of Clinical Neurosciences, University of Oxford, UK

Aim

The study aims to explore key stakeholders' views on the clinical needs, potential usefulness, acceptance and barriers to adoption of the OxDBD risk stratification score for identifying older adults at risk of cognitive decline and dementia in the NHS in England, using the Lean Assessment Process (LAP) methodology.

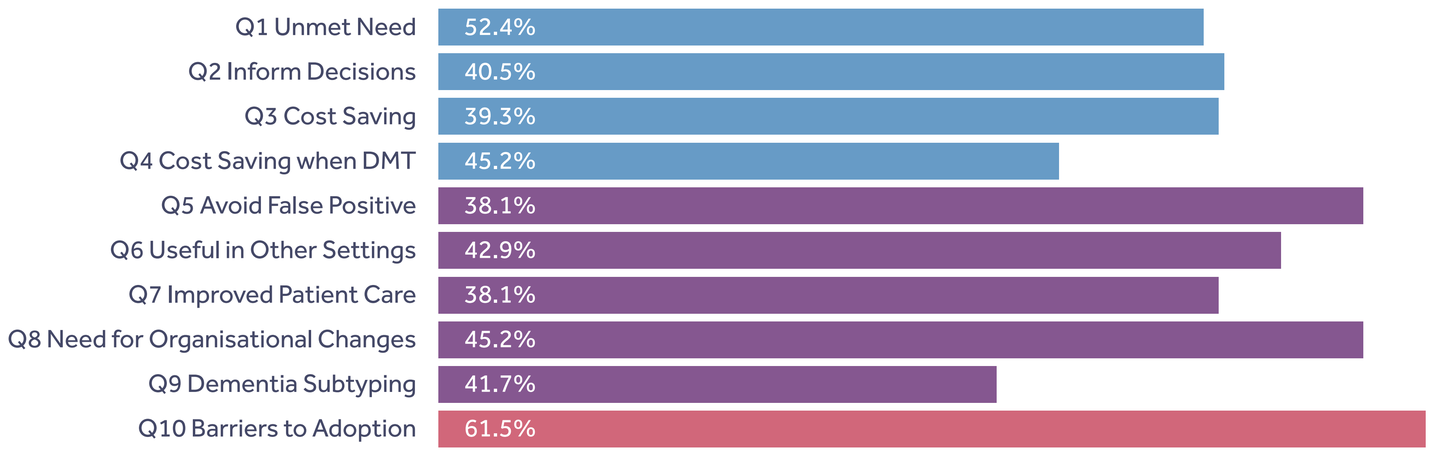
Objectives

- To explore the potential usefulness of the OxDBD risk score, intended to use routinely collected hospital data to identify older hospital patients at risk of developing dementia or cognitive decline in the short term.
- To assess the current management of older adults admitted to the hospital after an unplanned admission during and after their hospital stay.
- To gather insight into the perceived utility and potential barriers to the adoption of the OxDBD risk score in the dementia pathway in the NHS in England.
- To capture the clinical need; user requirements and preferences; the perceived value and acceptance of the OxDBD risk score in the dementia pathway using LAP methodology.

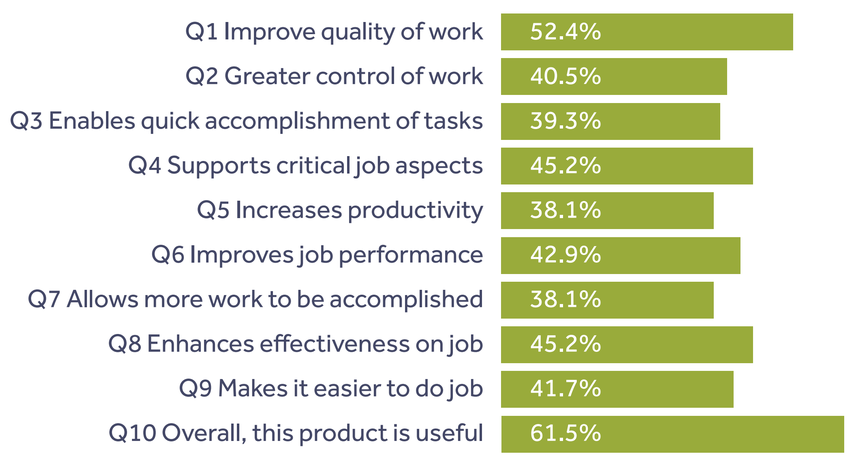
Results

The LAP study showed that stakeholders were overall positive with regards to the potential usefulness of the OxDBD risk score in the dementia pathway. They suggested that it could flag vulnerable patients to the clinicians, and thereby, allow targeted interventions tailored to individuals' risk profiles to be put in place. The OxDBD risk score could also help prioritise the high-risk patients in the pathway, making it a more cost-effective pathway. Additionally, it would also ensure the patient's risk profile is communicated at each of their contact with health services. Knowing the size of the at-risk population could also help commissioners plan future service offer and resources. To be adopted in the pathway, better harmonisation between hospital record system would be needed, as well as clinician education to enhance engagement and organisational changes to address the needs of the population identified by OxDBD risk score. The insights gathered lay a foundation for future development efforts, guiding the path towards more effective and efficient care delivery for individuals at risk of dementia.

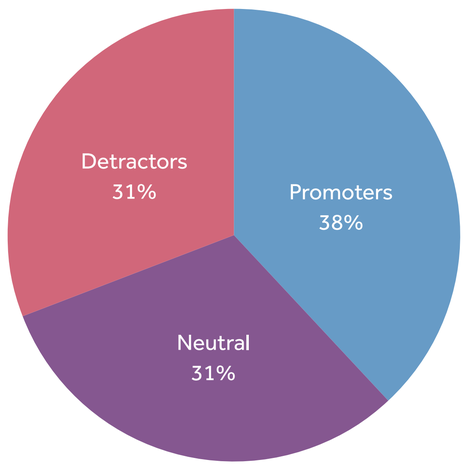
Level of agreement between stakeholders on the potential impact of the OxDBD risk score as a tool to identify older adults at risk of developing dementia in the short term



Perceived usefulness of the OxDBD risk score in the dementia pathway



Intention to use and Promote OxDBD risk score to colleagues



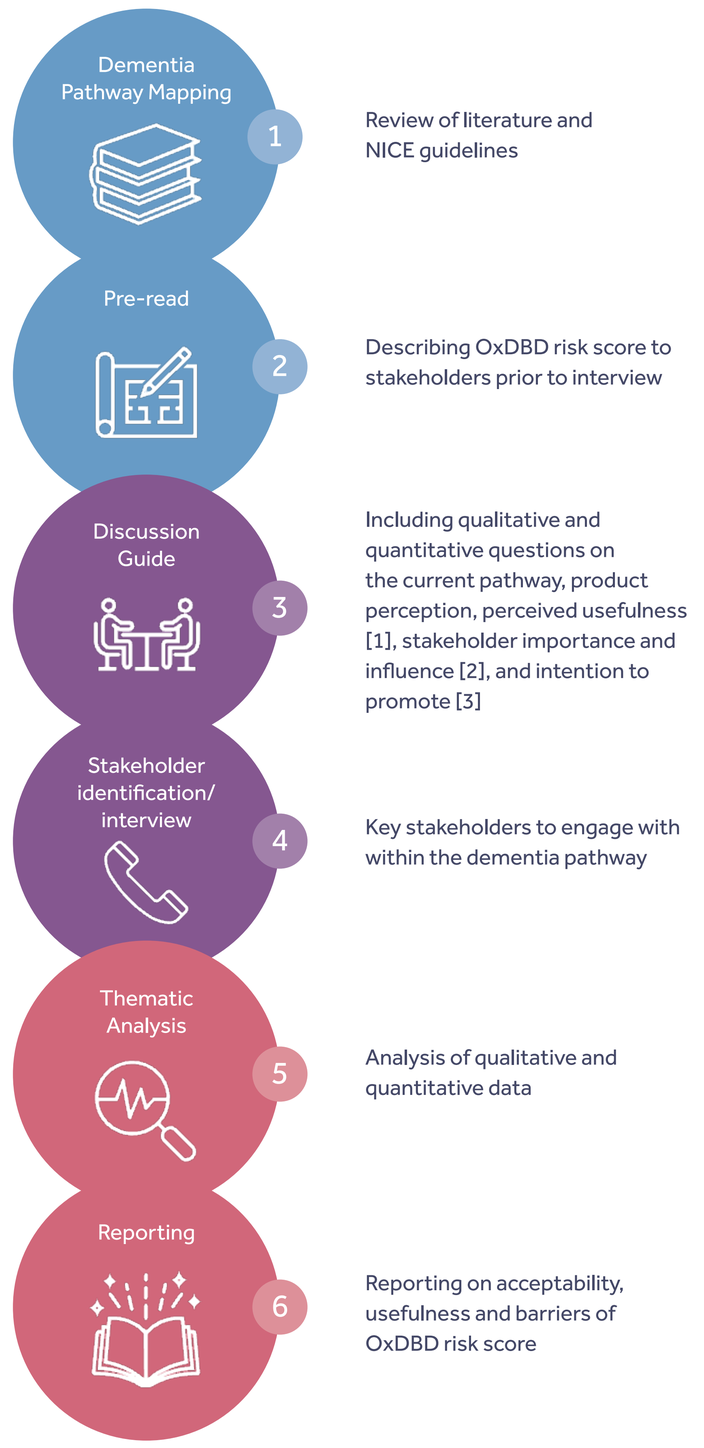
Conclusions

The LAP study provided valuable information on the perceived potential usefulness of the OxDBD risk score and its alignment with stakeholders' preferences. An evaluation is being planned on the integration of a prototype into the workflow to assess the clinical effectiveness and cost benefit of the OxDBD risk score in the NHS dementia pathway.

Methodology

The LAP methodology includes a combination of qualitative, quantitative and human factor tools to explore the feasibility of implementing a technology in a care pathway using a preliminary assessment of clinical needs, stakeholder preferences and potential barriers to adoption of the product. Using LAP, the potential usefulness of the OxDBD risk score was explored. Semi-structured interviews were conducted with 17 expert stakeholders with key roles within the dementia pathway from 14 NHS Trusts across England, including commissioners, managers and healthcare professionals working in the management of older adults either in an acute setting or primary care.

LAP methodology flowchart for OxDBD risk stratification tool stakeholder study



Contact

Dr Florence Serres
Email: florence.serres@healthinnovationoxford.org

References

1. Davis, Fred D. (1993). User acceptance of information technology: system characteristics, user perceptions and behavioural impacts. International journal of man-machine studies 38.3: 475-487
2. World Health Organization (2005). Health service planning and policy-making: a toolkit for nurses and midwives. Module 2: Stakeholder analysis and networks. Manila: WHO Regional Office for the Western Pacific
3. Reichheld, FF. (2003). One Number You Need to Grow. Harvard Business Review 1(12):46-54, 124