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Enhancing prostate cancer management with Wave Health (Digital Health Platform): A feasibility study

Aim

This study aimed to explore the acceptance of "Wave Health", an electronic Patient Reported Outcome (ePRO) digital health app/platform for supporting self-management and care team remote monitoring in the post-diagnosis prostate cancer pathway and to gain stakeholders' views on the potential benefits, usefulness and level of acceptance of the platform in the prostate cancer pathway.



Lean Assessment Process (LAP) Methodology

To better understand the unmet clinical need, a feasibility study was conducted with Health Innovation Oxford & Thames Valley using the LAP methodology. This methodology focuses on generating an understanding of the potential benefits and acceptance of an innovation to facilitate adoption by the NHS. The LAP methodology is used to align evidence generation with available resources at an early or late stage of a healthcare technology development - in this instance late stage.

The LAP methodology includes the use of human factors tools to assess the feasibility of implementing a technology in a care pathway using a preliminary assessment of design, value and evidence reliability (1)(2).

Additionally, the LAP study provides a structured process for identifying views which might support prioritisation of clinical needs and alignment of stakeholder preferences. This helps in supporting manufacturers in deciding and refining the direction of development for their technology. LAP methodology was developed as a health technology assessment tool for medtech products and product concepts (3). Understanding the stakeholder views on the potential impact of the proposed technology helps with the subsequent early economic evaluation to explore the cost-benefit of the product.

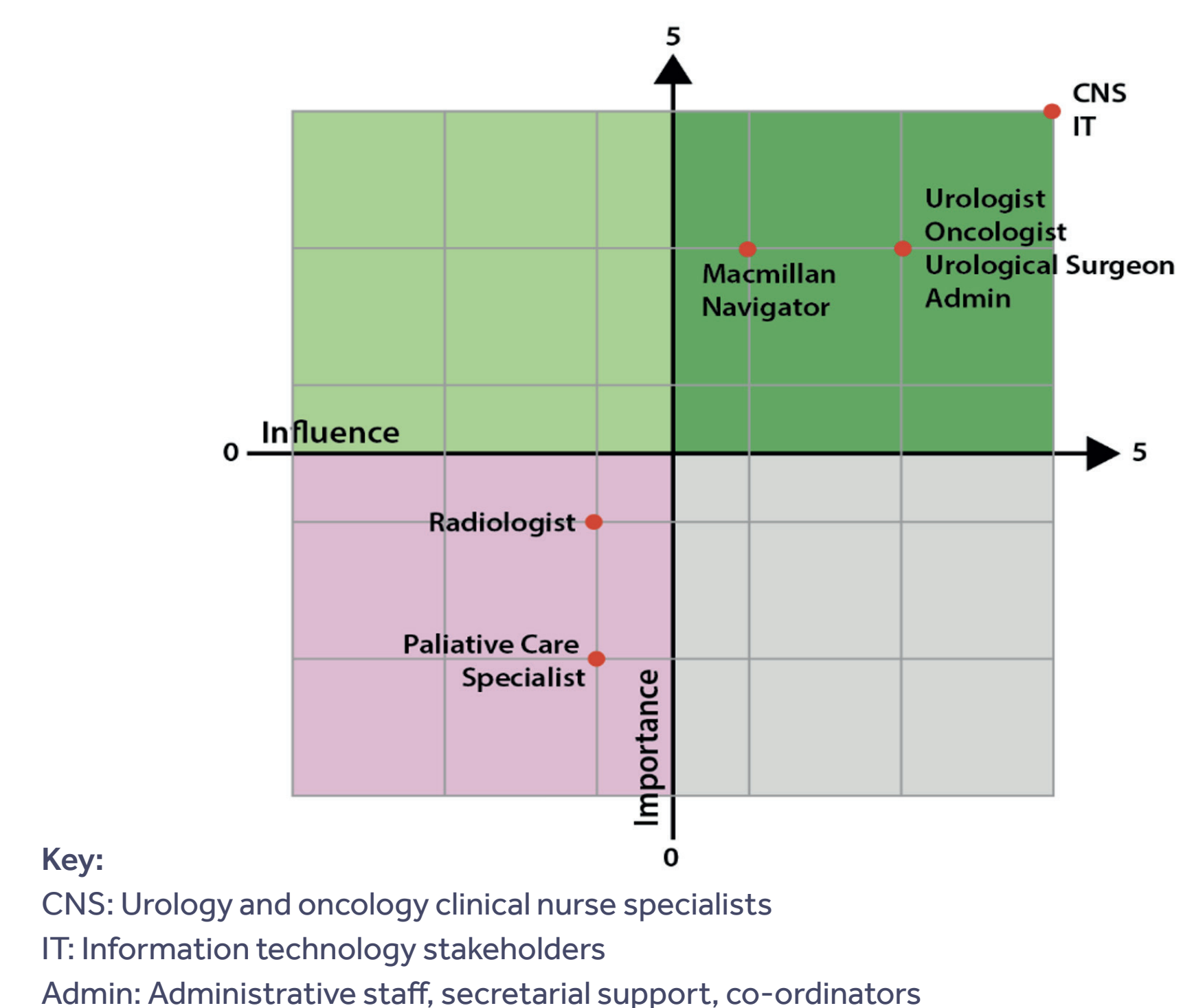


Objectives

- Assessing impact and feasibility:** To evaluate the potential impact of the app and portal on prostate cancer management and its feasibility of adoption within the NHS England care pathway, utilising the Health Innovation Oxford & Thames Valley Lean Assessment Process (LAP) methodology (1).
- Understanding stakeholder perspectives:** To conduct interviews with key stakeholders involved in secondary care prostate cancer pathways in the NHS in England, aiming to understand their perspectives on the platform's clinical value, user requirements and potential barriers to its adoption.
- Identifying clinical needs and user preferences:** To identify specific clinical needs, gather user requirements and preferences and predict the value and acceptance of the app among healthcare professionals and patients within the NHS England framework.



Figure 1: Stakeholder influence and importance



The LAP methodology focuses on understanding the potential benefits and acceptance of the technology for adoption by the NHS

- A high-level post diagnosis prostate cancer pathway and key stakeholders were identified.
- A "pre-read" document to provide context about the technology and a "discussion guide" for semi-structured interviews were developed.
- Fifteen healthcare stakeholders from seven NHS trusts who make treatment and/or management decisions within the prostate cancer pathway were interviewed.
- Responses were thematically analysed, and human factor tools (4)(5) were used to evaluate the clinical utility, usefulness and barriers to adoption.

Results

Impact and feasibility: The study establishes the feasibility of the technology by a preliminary assessment of the design, value and evidence reliability in the late stage.

Understanding stakeholder perspectives: Fifteen stakeholders were interviewed. Stakeholders expressed interest in tailored patient feedback and triaged notifications of patient symptoms.

Identifying clinical needs and user preferences: Stakeholders expressed an unmet need for an ePRO tool with Wave Health's potential to enhance clinical efficiencies, including reducing administrative workload and improving patient-centred care. The main perceived utility was identified as a self-management tool to more effectively monitor and support patients remotely impacting positively short- and long-term patient management. Furthermore, prostate cancer pathway stakeholders were rated for influence and importance (Figure 1). A summary of the level of agreement of potential impact on the pathway is shown in Figure 2.



Figure 2: The summary of level of agreement for the tech

Q1 Unmet need for PC app for self management	88%
Q2 Potential to improve self management	77%
Q3 Help improve patient's experience	77%
Q4 Potential to achieve cost savings	70%
Q5 Useful for reducing administrative paperwork	83%
Q6 Potential to improve patient management	87%
Q7 Potential to inform clinical decision making	73%
Q8 Potential to reduce unplanned clinic visits	74%
Q9 Potential to improve system efficiencies	82%
Q10 Potential barriers to adoption	60%

Conclusion

The stakeholders' positive response to patient-supported self-management highlights the need for innovative solutions in prostate cancer care and oncology. Stakeholders have agreed that utilising Wave Health's ePROs for diverse patient groups is beneficial for patients. The LAP feasibility study report has enabled a pilot within an NHS trust, gathering real world evidence to support service implementation and adoption.

The Wave Health product has been created by Treatment Technologies & Insights (TTI). Bayer has partnered with TTI as marketing agent for the prostate cancer version of Wave Health in the UK and is not responsible for the content or function of the product in any way.



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