TPS1614 : Electronic collection of cancer patient-reported outcomes using a novel digital oncology platform: A multi-site randomized controlled trial

Authors: Chris Fidyk[1], Serena Popat[1], Nicole Tay[1], Luke Smith[2], Rebecca Bowen[3], Saira Khawaja[4], Pauline Leonard[5], Amir Montazeri[6], Rahul Peck[7], Ahmad Raslan[8], Paul Ridley[9], Hasina Thandar[10], Simon Skene[2], Georgina Kirby[1], Rayna Patel[1], Agnieszka Michael[10]

[1]Vinehealth Digital Limited; [2]Surrey Clinical Trials Unit, University of Surrey; [3]Royal United Hospitals Bath NHS Foundation Trust; [4]Hywel Dda University Health Board; [5]Barking, Havering and Redbridge University Hospitals NHS Trust; [6]The Clatterbridge Cancer Centre NHS Foundation Trust; [7]Wrightington, Wigan and Leigh NHS Foundation Trust; [8]Yeovil District Hospital NHS Foundation Trust; [9]East Suffolk and North Essex NHS Foundation Trust; [10]Royal Surrey NHS Foundation Trust

Background

Cancer is the leading contributor of disease burden worldwide, and incidence rates are estimated to rise 47% by 2040[1]. With increasing numbers of people living with cancer, alongside healthcare workforce shortages, current models for cancer monitoring and surveillance are unsustainable. Within the UK's National Health Service (NHS), this is exacerbated by a rising backlog following the COVID-19 pandemic[2]. Furthermore, a 2020 Macmillan Cancer Support survey showed that current patient information and support is scattered, inaccessible, and poorly personalized[3]. There is an urgent need for effective personalized tools to support cancer patient self-management and data collection to enable healthcare professional (HCP) monitoring and remote follow-up.

Methods

A multi-site randomized controlled trial is underway within the NHS to evaluate the implementation of a novel digital oncology platform (Vinehealth) for personalized support. Vinehealth consists of a mobile patient application, integrated wearables data, and a clinician dashboard.

Primary objective: To assess if implementation of Vinehealth improves patients' quality of life (QoL) compared to SoC based on EQ-5D-5L, EORTC QLQ-C30, and FACT-G (PWB) questionnaires.

Secondary objectives:

- Assessing patient compliance with electronic patient-reported outcome (ePRO) data collection and patient self- management of symptoms.
- Evaluate whether Vinehealth improves the process of care (assessed through medication adherence) and reduces emergency healthcare utilization (including ED/GP visits/admissions and acute oncology hotline use).

The trial is expected to end by September 2023 with results being reported in January 2024.
Clinical trial information: ISRCTN44293246

Key points

- *Workforce shortages and backlogs are exacerbating pressures on healthcare systems.*
- *More effective personalized tools to support patient self-management and remote monitoring are required.*
- *This multi-site RCT evaluates the impact of a digital oncology platform (Vinehealth) on cancer patients' QoL, ePRO compliance, process of care, and healthcare utilization.*

Corresponding author:
a.michael@surrey.ac.uk

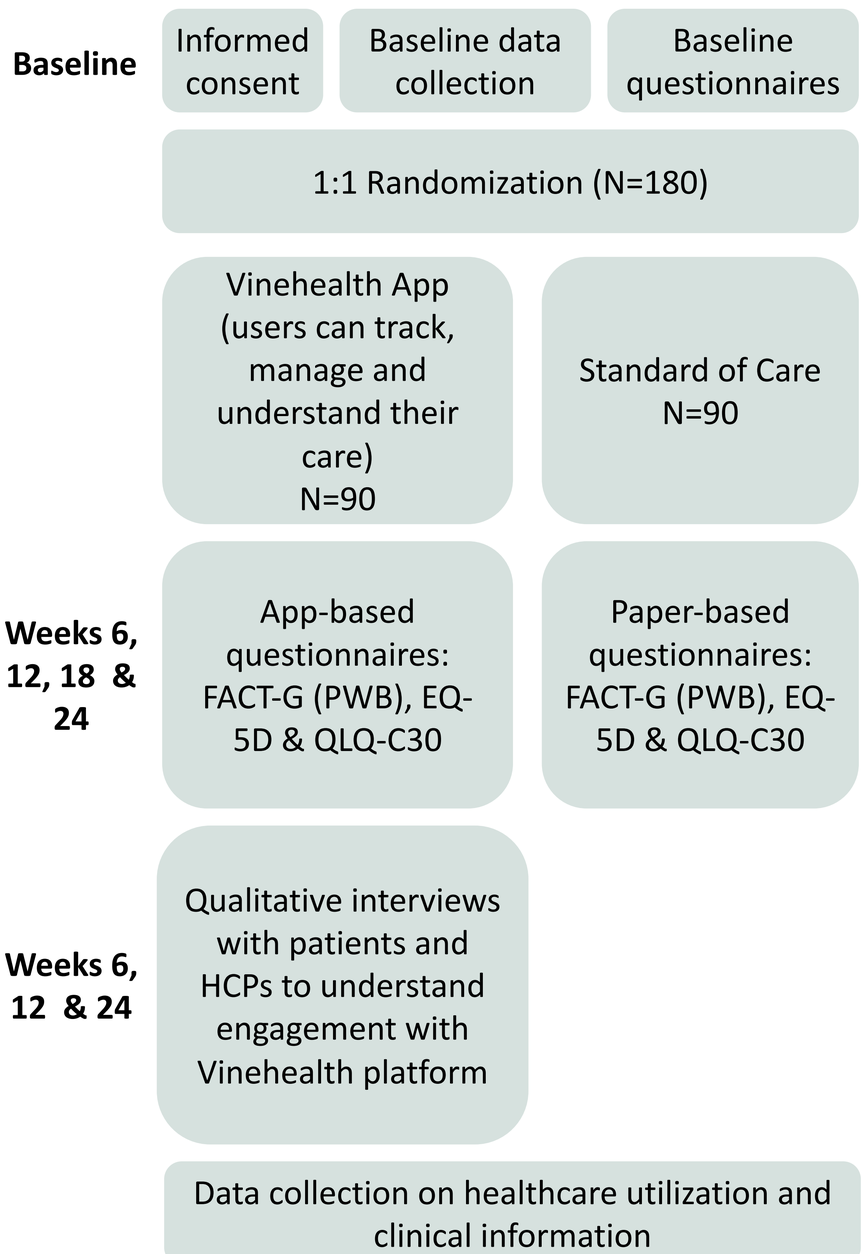
Patient Population

The study aims to recruit 180 patients across 8 NHS Trusts. A power calculation was conducted relating to the primary objective demonstrating the efficacy in improvement of QoL in the interventional arm, providing 80% power and at a significance level of 0.05.

Eligibility:

- Adults aged 18+
- Diagnosed with colorectal, breast, or lung cancer
  - > Undergoing adjuvant systemic treatment (chemotherapy +/- targeted therapies) post surgery
  - > Asymptomatic breast cancer undergoing neoadjuvant treatment
- Have smartphone access meeting minimum device requirements

Study Design



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