Capturing patient perspectives in the evaluation of medical devices: The case of central venous access devices in chemotherapy

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1. Background

Three different central venous access devices (CVADs) are routinely used in the intravenous administration of anti-cancer treatment: peripherally inserted central catheter (PICC), skin-tunnelled central catheter (Hickman), and implantable chest-well Port (Port). These devices avoid the need for undesirable repeated peripheral cannulation and allow for home treatment.

There is a lack of evidence as to which device offers the best outcomes in terms of safety, clinical efficacy, cost-effectiveness, and quality of life. A multi-site randomised controlled trial aiming to provide this evidence is currently underway in the UK, entitled ‘Cancer and Venous Access’ (CAVA). As part of this trial, a qualitative study was undertaken to assess these devices from the perspective of patients.

2. Objectives

Primary objective: To explore patients’ experiences of CVAD use in anti-cancer treatment, with a view to assessing impact on quality of life.

Secondary objective: To contribute to the development of a quality of life measure specific to these devices.

3. Methods

Semi-structured focus group discussions were conducted with patients participating in CAVA at the trial’s six major recruitment sites in England and Scotland. A range of experiences with different devices were sampled. Focus groups were audio-recorded and transcribed. Analysis is an iterative process and currently ongoing. Transcripts are analysed using a data-driven approach focusing on patients’ lived experience. Results presented are provisional.

4. Results

Seven focus groups were conducted. Analysis has found that the effect of CVADs on patients’ quality of life is influenced by three key factors: (i) patient adaptability, (ii) staff capabilities, and (iii) device type.

5. Conclusion

This research identifies several challenges facing patients who need CVADs in the context of anti-cancer treatment and examines the ways in which these challenges relate to quality of life. This analysis offers novel insights regarding some potential benefits of Port devices in this context.

In addition, this research suggests that conventional approaches using EQ-5D alone to capture the impact of medical devices on patient quality of life may not be sufficient; the incorporation of technology-specific measures should be considered.

References