

Development of a Questionnaire to Capture Patients' Perspectives of Needling for Haemodialysis

University Hospitals Of Derby And Burton NHS Foundation Trust Catherine Fielding^{1,2}, Sarah Brand³, Dan Waters¹, Apostolos Fakis¹, Rachelle Sherman¹, Nicholas Selby^{1,2}, Heather Buchanan²

¹University Hospitals Of Derby And Burton NHS Foundation Trust, Derby, United Kingdom, ²University of Nottingham, Nottingham, United Kingdom, ³Nottingham University Hospitals, Nottingham, United Kingdom

Introduction: Patients' experiences of cannulation for haemodialysis, whilst necessary, is a poorly understood phenomenon. Patients' experiences of cannulation can be poor, with the procedure causing pain; anxiety about success and complications; and feelings of dependence and vulnerability. No questionnaire exists to fully capture patients' perspectives of their cannulation.

Methods: We aimed to develop a Patients' Perspective of Needling questionnaire (PPN). The results of a systematic review (CRD42019134583) were used to identify potential themes for inclusion. 6 renal patients from 2 renal centres attended a group meeting, where they reviewed these themes and identified relevant content for the PPN. The initial PPN included 22 questions over 4 sections— pain, worry, problems and interaction during needling.

The PPN underwent face validity, internal consistency, convergent validity and test retest reliability tests from data collected at 2 renal centres. 12 haemodialysis patients undertook the face validity test. 80-100 haemodialysis patients will complete questionnaires to provide data for internal consistency, convergent validity and test-retest reliability tests. Data collection will be completed by March 2020.

Results: 12 participants were identified for the face validity test, via purposive sampling. This ensured a range of haemodialysis patients and practices were represented in the small sample, as summarised in Table 1.

Participants were asked to rate (between 1 and 7) how easy each section of the PPN was to understand (1=Did not understand at all; 7=Easy to Understand); the relevance of each section (1=Not Relevant At All; 7=Completely Relevant) and overall completeness of the PPN (1=Not at all; 7=Complete). The median score for completeness of the PPN was 6.0 (Inter-quartile range (IQR) 6.0-7.0). Median understanding and relevance scores for each section are summarised in Table 2.

Free text comments indicated the questionnaire was easy to understand and the content was relevant, although some participants did not understand the words 'Interaction' and 'Insertion'. These were altered in the next draft of the PPN. Participants suggested use of local anaesthesia should be included. This did not meet the purpose of the questionnaire, so was not included. However, this highlighted that local anaesthesia use provides context to the results of the PPN and should be collected separately.

Discussion: Patients found the PPN is easy to understand and relevant to gain their perspectives of their needle insertion. Current data collection and testing will provide further data on the validity and reliability of the questionnaire. The final PPN will provide a valid and reliable tool to enable capture of patients' perspectives of their cannulation for haemodialysis, which can be incorporated into studies that evaluate cannulation, vascular access and associated interventions.