Measuring health literacy in end stage renal failure patients receiving haemodialysis and peritoneal dialysis in clinical practice – a cross-sectional study

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Introduction
There are many system-driven and individual factors that determine the greater health literacy in chronic kidney disease (CKD). Limited healthy literacy is common in CKD, which is associated with higher morbidity and mortality\textsuperscript{1}. Since these greatly impact on the successful management of their disease, it has important implications on self-management to promote effective patient-centred care.

Of the many validated tools looking at health literacy, Rapid Estimate of Adult Literacy in Medicine (REALM) is a 66-item word recognition test most widely used in research setting\textsuperscript{2}. Scores range from 0 to 66 with lower scores representing more limited health literacy. Limited health literacy is defined as a REALM score < 60\textsuperscript{3}. A second tool is the Brief Health Literacy Screen (BHLS) which has been validated for use in ESRF patients\textsuperscript{4}. The questionnaire contains three questions 1) How confident are you filling out medical forms by yourself? 2) How often do you have someone help you read hospital materials? 3) How often do you have problems learning about your medical condition because of difficult understanding written information? with the scores being added to give a high or low literacy level.

Methods
Adult haemodialysis patients from 4 urban dialysis facilities participated in the cross-sectional study whilst they attended their session. The 2 health literacy measures were administered. Another subset of peritoneal dialysis-dependent patients was approached to undertake the questionnaires when they attended the clinic in the outpatient setting.

Results
A total of 73 patients (42 male and 31 female) were interviewed, with an average age of 62.3 years. 56\% (n=41) scored low literacy level in the BHLS, with 4\% (n=3) unable to complete the questions due to severe language barrier. Within the REALM outcome 60\% (n=44) of patients scored grades less than high school, with 27\% (n=20) scored 3rd grade or below.

Discussion
Our limited study shows that there is a high incidence of low literacy rates among dialysis-dependent patients in our local hospital. The use of 2 tools has enabled us to gauge usability and following this pilot we have made recommendations to the patient advisory group at our local hospital to adopt routine administration of health literacy questionnaires to better understand and tailor the health information that are provided to patients, especially those suffering from chronic health conditions. This should in the medium to long term improve quality of care provision in clinical practice.