

## QUANTIFYING THE ROLE OF PALLIATIVE MEDICINE IN END STAGE RENAL DISEASE : USE OF AT RISK REGISTER

Pharro, G<sup>1</sup>, McNally, L<sup>1</sup>, Klinger, S<sup>2</sup>, Feyi, K<sup>1</sup>, James, A<sup>1</sup>, Gretton, K<sup>2</sup>, Almond, MK<sup>1</sup>  
Southend University Hospital , Essex, UK, Renal<sup>1</sup> and Palliative Care<sup>2</sup> Departments

**INTRODUCTION:** There is an increasing recognition of the need for good palliation of symptoms for those patients with non-malignant diseases<sup>(1)</sup>. The Gold Standard Frameworks Committee devised Prognostic Indicator Guidance in November 2007 to “aid identification of adult patients with advanced disease, in the last months or year of life, who are in need of supportive or palliative care”<sup>(4)</sup>.

**OBJECTIVES:** To use the GSF Prognostic Indicator Guidance to formulate a list (at-risk register) of patients predicted to die within 1 year with end stage renal failure (but not necessarily because of it) and to analyse the data to establish the specificity and sensitivity of this register.

**METHODS :** The “surprise question” suggested by the Prognostic Indicator Guidance from the GSF was used. This asks, “Would you be surprised if this patient were to die in the next 6-12 months?” The question was considered by a multi-disciplinary team in relation to all patients on dialysis and all predialysis patients, including failing transplants, choosing not to commence dialysis treatment or those who would not be fit enough to receive it. An “at-risk register” was then formulated. The data from patients added to the at-risk register during the follow up period between 1<sup>st</sup> February 2007 and 31<sup>st</sup> July 2008 were studied. Patients were characterised by their demographic details, dialysis vintage and modality as well as co-morbidities. Annual mortality rates were calculated and compared to those of patients not added to the register, but were part of the dialysis-programme or followed up in the low-clearance clinic. Patients who were on the register and demised were also compared to those who died while not on the register, in order to determine any systematic differences between the two groups. In order to further characterise the patients on the list who died during the follow up, they were compared with those who were still alive at the end of follow-up, with regards to their demographic details, dialysis vintage and modality as well as co-morbidities. Data was compiled using Microsoft Excel for Windows and STATA 8. All categorical variables were compared using the chi-squared method, while continuous data was compared using parametric tests, mainly student t tests, were appropriate. P values were calculated and a level of less than 0.05 was used as level of significance.

**RESULTS :** 58 patients were added to the list during the follow-up period of which 28 (48.28%) died during the same period giving an annual mortality of 32.18%. In comparison to the patients who died during the follow-up period but were not added to the at-risk register, those on the register had a much higher mortality rate (32.18% vs 7.78%). Interestingly, these two group patients did not have significant difference in their demographic details, dialysis vintage, dialysis-modality or co-morbidities (Table2), apart from a significantly higher proportion of individuals dying due to discontinuation of dialysis. Identification of patients with chronic kidney disease and reduced life expectancy by this method appears to have a high sensitivity (66.675) and specificity (77.94%). In particular the negative predictive value for mortality for those on the at-risk register appears to be very high (88.3%), indicating the very low mortality among those not on the register.

**CONCLUSIONS:** Patients with chronic kidney disease and a reduced life expectancy can be accurately identified by a multi-disciplinary team using the surprise trigger question with a relatively high sensitivity and specificity independent of traditional risk factors like demographic variables, dialysis vintage, or co-morbidities. The accurate identification of patients with reduced life expectancy allows appropriate end of life care planning to begin in keeping with patients wishes and within published guidelines.