

## LONGITUDINAL EVALUATION OF SYMPTOM BURDEN IN HEMODIALYSIS PATIENTS

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**BACKGROUND:** Dialysis patients have an extremely high symptom burden. Unfortunately, their physical and psychological symptoms are often underrecognized and under-appreciated. It is prudent that nephrology care providers pay as much attention to these symptoms as they do to the laboratory values that are routinely monitored. The Edmonton Symptom Assessment System (ESAS), which captures symptoms such as pain, tiredness, nausea, depression, anxiety, drowsiness, appetite, wellbeing, shortness of breath, itchiness, and insomnia, has been shown to be a reliable symptom assessment tool in the hemodialysis patients. In this urban tertiary care hemodialysis unit, ESAS has been administered quarterly to patients since September 2010.

**OBJECTIVE:** As part of a continuous quality improvement initiative, the purpose of this study is to describe the prevalence and severity of various symptoms measured by ESAS at baseline and at 1 year after implementation.

**METHODS:** This is a retrospective cohort study of patients receiving hemodialysis in an urban tertiary care hemodialysis unit. ESAS scores were measured on a scale from 0 to 10, with 0 meaning no symptom and 10 being the worst. A score of 1 to 3 represents mild symptoms, 4 to 6 moderate and 7 to 10 severe. ESAS scores were tabulated in the provincial database. The severity of various ESAS symptoms were compared at baseline and at 1 year using paired t-test.

**RESULTS:** A total of 187 patients completed ESAS at baseline and at 1 year. At baseline, the median score ranged from 0 to 4 for the various symptoms with a score of zero for symptoms such as, nausea, depressed, anxiety, and shortness of breath, while tiredness scored the highest at 4. Both the median and mean scores were slightly reduced at 1 year. The difference in mean scores between baseline and 1 year ranged from 0 to -0.80 for the various symptoms. Of which, tiredness, depressed and drowsiness symptoms were statistically significant, -0.57 + 3.19, -0.47 + 0.017, -0.80 + 0.0001, respectively. Fewer patients had severe symptoms at 1 year for pain, tiredness, depressed, anxiety, drowsiness, wellbeing, and shortness of breath although more than 10% continued to report severe pain, tiredness, itchiness or insomnia.

**CONCLUSIONS:** The prevalence and severity of various ESAS symptoms were reduced 1 year later. More than 10% of patients continued to report several

severe ESAS symptoms. Practitioners caring for hemodialysis patients should continue to strive to target patients with high symptom burden and improve their quality of life.