

## Editorial

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### Volume 1 : Issue 1

Article Ref. #: 1000NPOJ1e001

### Article History

Received: November 23<sup>rd</sup>, 2014

Accepted: November 24<sup>th</sup>, 2014

Published: November 26<sup>th</sup>, 2014

### Citation

Shukha K. Depression in dialysis. *Nephrol Open J.* 2014; 1(1): e1-e3. doi: [10.17140/NPOJ-1-e001](http://dx.doi.org/10.17140/NPOJ-1-e001)

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## Depression in Dialysis

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When was the last time you talked to your dialysis patient about depression? And what prompted you to start the conversation?

It may be that our patients are not talking to us about the way they feel regarding the treatments we offer them, but they are definitely talking about it amongst themselves online; On a facebook page named “Dialysis suck,” and a website titled “Ihatedialysis.com”, where dialysis patients are able to express the distress and discomfort, the sadness and loneliness they feel while on dialysis.

One dialysis patient writes about her experience in the first 4 months of dialysis from the latter website:” *I had dialysis yesterday, and it seemed endless. It has been hurting, stinging, throbbing, infiltrating, fistula grams, balloons, rogue beings, narrow arteries, I went to bed crying and I woke up crying. I am as alone as I can ever remember”, When I am not at dialysis, I am spending my days off on the phone with doctors or on here or something like that, documenting the latest damage so I never get a break. There is no joy to offset this experience*”.<sup>1</sup>

### PREVALENCE OF DEPRESSION

Depression is the most common psychiatric diagnosis in dialysis patients.<sup>2</sup> Watnick et al found that depressive symptoms are very common at the start of dialysis therapy, as up to 44% of the patients she screened with the Beck Depression inventory (BDI) were depressed.<sup>3</sup> It is estimated that up to 30% of the dialysis patients suffer from major depression.<sup>4</sup> In comparison, a study conducted by the CDC, which surveyed the prevalence of depression in 2006-2008 in the general population, found that amongst 235,067 adults (in 45 states, the District of Columbia [DC], Puerto Rico, and the U.S. Virgin Islands), 9.0% met the criteria for current depression, including 3.4% who met the criteria for major depression. By state, age-standardized estimates for current depression ranged from 4.8% in North Dakota to 14.8% in Mississippi.<sup>5</sup>

### BACK IN TIME

In 1969, Beard interviewed 14 dialysis patients who were in the process of being assessed for a kidney transplant.<sup>6</sup> He tells the story of each of them, their personalities and feelings towards their illness; he described their intimate experiences with fear of imminent death. Some of them controlled this anxiety by plain denial. After denial however, came sadness and hopelessness:

*“Patients with renal failure fear that their lives will be cut short by an untimely death, and as we listen closely we also hear these same patients express their fears that even if they live, their lives may not be acceptable. This fear of death, coupled with a fear of life, is the dilemma of the patient with chronic renal failure.”*

Later, in 1971, Abram et al sent out questionnaires to 201 dialysis centers in the United States,<sup>7</sup> surveying suicide attempts, withdrawal, death due to non compliance and accidents. 127 questionnaires were returned, and they included 3478 living and dead dialysis patients. Notably, the events questioned, were higher amongst patients getting

in center dialysis, as compared to those getting dialyzed at home. He concluded that even when not including non-compliance, the incidence of suicide is 100 times more than the general population.

#### HIGHER MORBIDITY AND MORTALITY FOR DEPRESSED PTS ON HD

Over the years there have been many studies, which have raised our awareness and shown increased morbidity and mortality in ESKD patients who report having depressive symptoms,<sup>8</sup> or those who are diagnosed with clinical depression.<sup>9</sup>

Moreover, several studies have shown a connection between depression and physiological changes, increasing the depressed patient's risk for disease; Some of those discoveries include a higher c-reactive protein levels in depression<sup>10</sup> an increased risk for cardiovascular disease,<sup>11</sup> enhanced platelet and endothelial activation,<sup>12</sup> alterations in attention and cognitive functions<sup>13</sup> and dysregulation of the hypothalamic-pituitary-adrenal axis.<sup>14</sup>

Combining the above with the non-compliance associated with depression,<sup>15</sup> we can begin to understand why the depressed dialysis patient has a higher morbidity and mortality.<sup>16</sup>

#### HOW MUCH IS IT COSTING US?

Arneson et al were able to create an algorithm to estimate the magnitude of fluid overload treatment episodes in inpatient, hospital observation, and ED settings for the Medicare hemodialysis population, focusing on episodes that might be preventable. They included all U.S. ESKD patients who were receiving hemodialysis with Medicare as the primary payer, and who survived at least 90 days after ESKD onset (January 1, 2004 - December 31, 2006.)

They found that the total costs for the episodes identified in the study cohort, over the 2.5-year follow-up period were approximately \$266 million. The average cost was \$6,372 per fluid overload treatment episode; (Inpatient episodes \$7,171, hospital observation \$1,947, emergency department \$1,326).<sup>17</sup>

#### WHAT CAN WE DO?

Due to the high prevalence of depression in dialysis patients, it would be reasonable to screen all patients for depression using questionnaires such as BDI or short form 36. Those with concerning results may benefit from initiating treatment. CBT has been shown to be effective,<sup>18,19</sup> physical activity<sup>20</sup> and anti-depressants,<sup>21</sup> while closely monitoring the patients for side effects. Recently, the science of a dog's capability to treat depression and PTSD is widening, and we should consider using those loving animals with patients in dialysis.

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