

**Title: Quality of life (QoL) and disease burden in diabetic patients with end stage kidney disease (ESKD) on haemodialysis compared to diabetic patients with chronic kidney disease (CKD).**

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**Background:** Many studies have shown that patients with reduced kidney function require greater surveillance and more psychiatric intervention for depression due to poor quality of life (Palmer et al., 2013). This is especially for patients with diabetes mellitus (Yu et al., 2014). However, the difference in quality of life and disease burden in diabetic patients with ESKD on haemodialysis and diabetic patients with CKD remains elusive.

**Aim:** The aim of this study is to examine and compare the quality of life and symptoms of anxiety and depression in diabetic patients requiring haemodialysis and diabetic patients with CKD that were not on dialysis.

**Method:** A convenience sample of diabetic patients with kidney disease was recruited in Cork University Hospital Haemodialysis Centre and Diabetes Outpatient Department in 2015. The following data was collected: demographics, staging of CKD and previous history of depression. Health-related quality of life (HRQOL) was measured using the 36-Item Short Form Health Survey (SF-36). The physical component summary (PCS) and the mental component summary (MCS) were the outcome variables. Anxiety and depressive symptoms were measured using Hospital Anxiety and Depression Scale (HADS). Data was analysed using Mann-Whitney U test to compare means. Analysis was performed using SPSS Statistics version 21.0.

**Results:** The total number of patients recruited was 90. The mean age was 67 years ( $SD=11.1$ ). 67% ( $n=60$ ) were male. 51% ( $n=46$ ) were on dialysis and the median length on dialysis was 2.5 years (range 1-13 years). 89% ( $n=80$ ) were Type 2 Diabetes Mellitus. 12% ( $n=11$ ) has previous history of depression. The median HADS score was 7.0. The mean score of SF-36 PCS was 32 and MCS was 57. There is no significant difference in HADS score and SF-36 PCS score between the dialysis and non-dialysis group. The dialysis group had significantly higher SF-36 MCS score ( $p<0.01$ ), mental health sub-scale ( $p<0.05$ ) and emotional role subscale ( $p<0.01$ ). The dialysis group also had significantly higher SF-36 bodily pains sub-scale ( $p<0.01$ ).

**Conclusions:** There was no significant difference in anxiety and depressive symptoms between diabetic patients with ESKD on haemodialysis and diabetic patients with CKD. Dialysis group has better mental health QoL compared to non-dialysis group. More studies are needed to explore the factors influencing QoL in diabetic patients with CKD.

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## REFERENCES

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