

## Outcomes Amongst Jehovah's Witnesses in a Tertiary Renal Centre

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### Introduction

The religious ideology amongst the Jehovah's Witness population, often culminating in blood product refusal, is well recognised amongst the medical profession. Haematological manifestations of renal disease, frequent requirement for invasive procedures, and potential for surgery, including transplantation, make this patient cohort particularly challenging for renal physicians.

Despite this, scarce literature exists documenting their long-term outcomes. Therefore, we aimed to investigate prevalence of Jehovah's Witnesses amongst our renal unit and obtain further insight regarding their clinical trajectory.

### Methods

Jehovah's Witnesses registered to our services were identified from our renal database. Patient data was obtained retrospectively through electronic patient records, including demographics, primary renal disease, co-morbidities, modality, previous renal replacement therapy (RRT), all available previous haemoglobin (Hb) and ferritin/iron studies results, and previous iron and erythropoietin-stimulating agent (ESA) prescriptions.

### Results

47 patients were identified, (mean age 63.8 years), with 76.6% (n=36) female. 66.0% (n=31) were Black African or Black Caribbean, 12.8% (n=6) White British, 4.3% (n=2) Asian, and the remainder unknown ethnicity. Mean eGFR was 29.3mls/min with 48.9% (n=23) chronic kidney disease (CKD) stage 5. 14 patients (29.8%) were deceased.

Hypertensive and/or diabetic nephropathy was the commonest primary renal pathology in 46.8% (n=22), although only 14.9% (n=7) underwent renal biopsy. 19 patients overall received RRT (40.4%), 7 requiring this within first year of presentation to renal services (14.9%). Mean time from first presentation to initiating dialysis was 49.9 months. Amongst alive CKD5 patients (n=15), 4 receive haemodialysis, 1 peritoneal dialysis, 7 received transplants, with the remaining 3 low clearance patients.

Mean overall Hb was 104.2g/L. 17% (n=8) had a current Hb <75g/L and 29.8% (n=14) a mean Hb<100g/L. Iron depletion (i.e. ferritin levels <100ug/L) was observed in 38.3% (n=18) at initial presentation, and 20.9% (n=9) based on current bloods. 57.4% (n=27) received iron replacement, however only 42.6% (n=20) had additional iron indices measured. Of the 51.1% (n=24) prescribed ESA's, 29.2% (n=7) had current Hb between 100-120g/L.

Mean age of death was 63.4 years, with 50% (n=7) on RRT at time of death. Mean time from presentation to dialysis was 24.7 months amongst this deceased cohort, with mean time from commencing dialysis to death 25.6 months. Mean Hb at death was 73.2g/L.

### Discussion and Conclusions

A high proportion of the cohort were CKD5 therefore at highest risk of becoming anaemic and requiring procedural interventions. 7 patients were transplanted, reiterating transplantation amongst Jehovah's Witnesses can be achieved despite concern regarding the surgical and peri-operative period.

Given the strikingly lower than expected survival time on dialysis demonstrated, and a mean age of death below national averages for those with ESRF, this retrospective audit suggests there may be adverse prognostic outcomes associated with this population.

We have demonstrated greater focus on anaemia and iron management is required amongst this cohort - nearly 30% having mean Hb<100g/L and over 20% iron deplete on their most recent bloods.

Ultimately this retrospective study provides insight into outcomes of Jehovah's Witnesses within a London tertiary centre. Nationwide data is warranted for comparison to provide clarity on optimising their care.