

# OPTIMISATION OF ANTIPSYCHOTIC TREATMENT IN A PATIENT UNDERGOING DIALYSIS: A CASE REPORT

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## Objective

To describe the optimisation of the antipsychotic treatment (AT) in a patient with schizoaffective disorder (SD) and chronic kidney disease (CKD) receiving haemodialysis, after performing a systematic review of the use of antipsychotic drugs.

## Materials and Methods

Systematic review of scientific literature on: Cochrane Library, Medline, Embase, UpToDate® library and Lexicomp. Keywords: “antipsychotic”, “dosage adjustment”, “risperidone”, “dialysis”, “antipsychotic poisoning”, “renal replacement therapy”. AT Summaries of Product Characteristics and Fx100-class dialyser product specifications were reviewed. A grey literature search was performed using the search engine AlquimiA.

## Results

43-year-old male patient, diagnosed with SD and CKD of unknown aetiology, undergoing haemodialysis with Fx100-class dialyser.

Antipsychotic treatment was risperidone 50 mg prolonged-release suspension for injection every 14 days.

He showed an acute exacerbation of his SD and oral risperidone was added, which was gradually increased up to 3 mg twice a day; this was administered after haemodialysis on the days of haemodialysis. The patient did not improve and the psychiatrist asked the pharmacist for information. The literature search yielded no results on the matter, but some articles allowed an approach of AT in haemodialysis.

It was concluded that risperidone would be minimally affected by haemodialysis due to its high volume of distribution (Vd) and high plasma protein binding (PPB).

Due to the lack of response, the AT was modified to zuclopenthixol, exclusively eliminated by hepatic metabolism, high Vd and 98% PPB, and therefore less likely to be affected by RRT. It was initiated at 50 mg injected intramuscularly (two doses on alternate days) and continued by 25 mg once a day orally. The patient improved in a few days

## Conclusions

- The information about dosage of antipsychotic treatment in RRT is limited.
- Dialysis membranes manufacturers should provide more information about drug extraction of their products.
- Integration of pharmacists into multidisciplinary health care teams brings along the incorporation of a medicines expert, able to solve highly complex drug searches and to recommend therapeutic alternatives, thus contributing to treatment optimisation.

