Background Dosing of antipsychotic treatment (AT) in patients undergoing renal replacement therapy (RRT) is not well established. The information regarding the extraction of drugs by dialysis membranes is scarce.

Purpose To describe the optimisation of the AT in a patient with schizoaffective disorder (SD) and chronic kidney disease (CKD) receiving haemodialysis.

Material and methods A systematic review of the scientific literature was performed on Cochrane Library, Medline, Embase, UpToDate library and Lexicomp. Keywords used were ‘anti-psychotic’, ‘dosage adjustment’, ‘risperidone’, ‘dialysis’, ‘anti-psychotic poisoning’ and ‘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 A 43-year-old male patient was admitted to a psychiatric hospital in April 2018, diagnosed with SD and CKD of unknown aetiology, undergoing haemodialysis with a Fx100-class dialyser. AT 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, which 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). Nevertheless, 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.

Conclusion Information about the treatment of AT in RRT is limited. Dialysis membranes manufacturers should provide more information about drug extraction of their products. The integration of pharmacists into multidisciplinary healthcare teams encourages the incorporation of a medicines expert, able to solve highly complex drug searches and to recommend therapeutic alternatives, thus contributing to treatment optimisation.

REFERENCES AND/OR ACKNOWLEDGEMENTS
To my pharmacist colleagues.

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