

## Haemodialysis after radioactive iodine treatment

An interesting topic recently discussed on RenalPro was that of performing haemodialysis treatments on patients undergoing radioactive iodine treatments.

The discussion focused on required safety measures. Here is a short summary of the discussion:

The nuclear medicine department or radiologists should be able to provide guidelines to treatment. Ideally there is an isolated machine for the specific patient during the course of treatment. The patient needs to be isolated in a room on their own during therapy. Non-pregnant staff were assigned to the patient. Staff need to wear an exposure meter to monitor radiation exposure whilst dealing with the patient. PPE is used during initiating and terminating dialysis, when there is a chance of direct contact with body fluids. Nurses limited time spent in the room but did not need to wear lead aprons. Some units had a Radiation RN to test radiation levels in the room at the beginning and after haemodialysis.

The majority of the radioactive contamination remains within the blood tubing circuit and dialyser and is disposed of after treatment (observing due precautions because it's still radioactive). Following repeated rinsing, residual contamination levels in the machine are regarded as completely minimal and the machine would have been able to be returned to normal machine pools. Generally, 3 dialysis treatments were sufficient for the radioactive levels to decrease to undetectable.

Water disposal was another point, with the water being potentially radioactive.

Additionally, it was discussed the difference between radioactive iodine I-31 treatment and implanted radioactive iodine seeds treatment.

Link to an article on the topic:

<https://onlinelibrary.wiley.com/doi/full/10.1111/j.1525-139X.2004.17114.x?s=id=3Dnlm%3Apubmed>

As always, thanks to all who participated!

Questions, comments, corrections? Be in touch! [renalpro@mailman.srv.ualberta.ca](mailto:renalpro@mailman.srv.ualberta.ca)

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