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## Strategies for Achieving High Volume HDF

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Online haemodiafiltration (OL-HDF) is a haemodialysis (HD) method that represents a convective form of blood purification and has the potential to improve clinical outcomes in patients with end-stage renal disease (ESRD). Previous studies have reported that when adequate CV is achieved ( $CV > 23$  L: post-dilution), high-volume HDF can reduce the risk of all-cause and cardiovascular mortality compared to conventional HD. Treatment time, blood flow rate (BFR), and filtration rate are important factors to achieve a high CV. Filtration rate is not difficult to achieve in most patients, as dialysis machines have automated settings to optimise filtration rate. However, increasing blood flow is limited in Asians. We are implementing a HDF protocol to achieve high CV using post & pre-dilution HDF modes in our center. Step1. Change from the existing HD setting to HDF (pot-dilution) mode only and check the substitution volume to see if the high-volume is reached for one week. Use a dedicated HDF dialyzer (membrane). Step 2. If the target is not reached, increase the BFR first. 1) if 250 ml/min -> 270 or 280 ml/min, 2) if 270 or 280 ml/min -> 300 ml/min. If the patient is already on 300 ml/min or more, increase as much as possible. Step3. Change dialysis membrane to a larger surface area. Step 4. If all else fails, switch to pre-dilution HDF and perform HDF at the highest possible BFR. In our experience with this protocol, high-volume HDF can be performed in >85% of cases. With the exception of a few patients who did not want to change modes, there were no difficulties in performing HDF and no additional workload for nurses. We found that performing high-volume HDF is feasible and affordable for our patients if it is applied step by step like the HDF prescription introduced.

**Keywords:** haemodiafiltration, Convection volume, blood flow rate, dialysis membrane