

Haemolysis Protocol

1. Cross References	<p>Treatment of hyperkalaemia</p> <p>http://stgrenal.med.unsw.edu.au/StGRenalWeb.nsf/page/Hyperkalaemia</p>
2. Purpose	<p>The source of haemolysis must be promptly identified to avoid life threatening complications</p> <p>Haemolysis is a rare, recognisable complication of haemodialysis.</p>
<p>3. Causes:</p> <ul style="list-style-type: none"> • Chemical: from contaminated dialysis water • Osmolar: due to hyper/hypotonic dialysis solution from insufficient water to concentrate ratio • Thermal: from overheated dialysis solution greater than 42 degrees Celsius • Mechanical: as a result of kinked lines, blood pump and needle trauma to the red blood cells <p>Signs and symptoms:</p> <ul style="list-style-type: none"> • Nausea • Vomiting • Chest pain/tightness • Cramping • Shortness of breath • A port wine appearance of blood in the venous line • Hyperkalaemia & associated ECG changes: arrhythmias • Anaemia • Back pain • Dramatic deepening of skin pigmentation • Burning sensation in access <p>Procedure:</p> <ul style="list-style-type: none"> • Stop the blood pump immediately • Complete a set of obs: BP, P, Temp, RR, SaO2 and administer oxygen. • Call for medical assistance, <u>call a PACE Tier 2 and collect arrest trolley</u> • <u>(Sutherland to call 000 for urgent ambulance for transfer to ED)</u> • Do not return the blood, keep the dialysis tubing, dialyser, packaging, saline bag 	

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<p>and tubing, these items may need to be tested for possible causes</p> <ul style="list-style-type: none"> • Withdraw blood in cannulae and discard, then flush with N/Saline to maintain patency and access • Cardiovascular and respiratory assessment, including ECG, oxygen saturations, blood gasses and troponin, URGENT urea, K+, FBC, LFT, LDH and amylase. • Treat hyperkalaemia and any other symptoms (this may be via haemodialysis) • Test water (if positive for chloramines immediately cease dialysis for all other patients and inform Gambro Technician immediately). • Observe other patients for signs and symptoms of haemolysis • Document the event in the patients notes and RISC & complete an IIMS • Arrange for admission and transfer of patient to the critical care environment as directed by medical officer. • Provide open disclosure with the patient and family when the cause of the issue has been identified 	
4. Network file location/reference, if applicable	<p>http://stgrenal.med.unsw.edu.au/StGRenalWeb.nsf/page/Nursing+Protocols</p> <p>http://stgrenal.med.unsw.edu.au/StGRenalWeb.nsf/page/Hyperkalaemia</p>
5. External References Further Reading	<p>Harman, E & Dutka, P (2007) <i>Nephrology Nursing Journal</i>, Hemolysis: A Hidden Danger, vol 34: pp; 219-224</p> <p>Kazmi, A, Canada, R & Wall, B (2008) <i>Nephrology dialysis transplantation plus</i>, Mechanical haemolysis related to the use of tandem dialysers, vol2: pp; 89-91.</p> <p>Daugradius, J, Blake,P, & Ing, T (2007) <i>Handbook of Dialysis, Fourth Edition</i></p>

Revision and Approval History

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August 2014	1	Tracey Blow Nurse Unit Manager	August 2017
Date		Approved (Position)	
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