

DID YOU
KNOW
-Incorrect
Dialyzer

Keeping Kidney Patients Safe

www.kidneypatientsafety.org



Incorrect Dialyzer or Dialyzing Solution

Fact	Source
<p>Nearly two-thirds of professionals report that the wrong dialyzing solution has been set-up for a patient within the past three months.</p>	<p><i>Health and Safety Survey to Improve Patient Safety in End Stage Renal Disease</i>, page 18</p>
<p>Patients who are involved in their dialysis care are less likely to indicate that they have had the wrong dialyzing set up for their treatment than those who are uninvolved in their care (80% vs. 46%, respectively). Thus increasing patient involvement in their dialysis care may provide an approach to safeguard against solution errors.</p>	<p><i>Health and Safety Survey to Improve Patient Safety in End Stage Renal Disease</i>, page 18</p>
<p>Based on a confidential Network Chairman Patient Safety Study (2007) with both patient and professional responses, 17% patients reported problems with settings on their dialysis machine, 3% had the wrong dialyzer set up for treatment and 2% had the wrong dialyzing solution set up.</p>	<p><i>Health and Safety Survey to Improve Patient Safety in End Stage Renal Disease</i>, page 10</p>
<p>The fluid used for hemodialysis may contain DNA fragments from bacteria, which could be harmful for patient outcomes. DNA fragments from bacteria, containing the nonmethylated CpG motif, can trigger inflammation through the monocyte and lymphocyte Toll-like receptor 9, and these DNA fragments have been observed in dialysate. The fragments may transfer across the dialyzer into the patient's bloodstream during hemodialysis treatment.</p>	<p>Handelman GJ, Megdal PA, Handelman SK. Bacterial DNA in water and dialysate: detection and significance for patient outcomes. <i>Blood Purif.</i> 2009;27(1):81-5. Epub 2009 Jan 23.</p>

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<p>Over 80% of dialysis centers have a reuse program, but reuse varies according to facility type. Reuse is the highest in freestanding and for-profit facilities reflecting the economic factor in these operations. Reuse is also higher in large versus smaller facilities. The frequency of reuse highlights the need to insure patients are receiving the correct dialyzer.</p>	<p>Brown C. Current Opinion and Controversies of Dialyzer Reuse. <i>Saudi J Kidney Dis Transpl</i> [serial online] 2001 [cited 2008 Oct 28];12:352-63. Available from: http://www.sjkd.org/text.asp?2001/12/3/352/33559</p>
<p>Heparin-induced thrombocytopenia (HIT) is a clinicopathologic syndrome in which one or more clinical events, usually thrombocytopenia or thrombosis, are temporally related to heparin administration and caused by HIT antibodies. This syndrome is important to recognize as it might mimic a dialyzer reaction.</p>	<p>Syed S, Reilly F. Heparin-induced thrombocytopenia: a renal perspective. <i>Nature Reviews Nephrology</i>, advance online publication, Published online 28 July 2009. Available from: http://www.nature.com/nrneph/journal/vaop/ncurrent/abs/nrneph.2009.125.html</p>
<p>Dialyzers intended for reuse should have a blood compartment volume not less than 80% of the original measured volume or a urea (or ionic) clearance not less than 90% of the original measured clearance.</p>	<p>KDOQI Clinical Practice Guidelines and Clinical Practice Recommendations. 2006 Updates.</p>