Risk of intravenous injection of Chlorhexidine during haemodialysis catheter insertion

2% chlorhexidine has recently become available for clinical use and has been shown to be more effective at reducing the risk of MRSA line colonisation than 0.5% chlorhexidine. However, the only preparation available is a clear, colourless solution.

At the time of dialysis catheter insertion, it has been standard practice to pour 100 ml of saline into one gallipot (so that the operator can draw this into the exploring syringe as necessary) and chlorhexidine (previously coloured blue) into a second gallipot for application to the skin. Now that the chlorhexidine is a clear solution, there is the danger that an operator will draw chlorhexidine into a syringe and inject this intravenously, for instance during initial flushing of a newly inserted catheter.

No actual incident has happened in the UK as far as we are aware, but we will be checking the NPSA database. However, a very similar incident occurred in radiology in a hospital in the USA in a patient undergoing angiography - chlorhexidine being mistaken for contrast medium - with fatal consequences.

To date the following options have been considered:

1. Remove all gallipots from the insertion packs and ensure that none are available, even packed separately, in the clinical area where catheters are inserted.

2. Require operators to draw saline direct from a labelled container.

3. Remove 100ml bags of saline and require that all saline is drawn up from 10 or 20ml ampoules (unpopular, and introduces a risk of contamination).

4. Persuade the company to add blue colour to the chlorhexidine solution.

Please submit comments, solutions, and personal experience to:

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