Haemolysis from silver-stabilised hydrogen peroxide water treatment

Silver-stabilised hydrogen peroxide was used to treat a Hospital Water Supply to reduce the incidence of Legionella on a site where haemodialysis is provided to renal patients.

A day or two after this water disinfection process was undertaken some renal patients were admitted to hospital with acute signs and symptoms such as chest pain, unexpected anaemia and raised potassium levels. It was identified that the patients were haemolysing and possible causes for this were urgently discussed.

As part of the initial investigation of these occurrences it was identified that the renal water treatment plant (including the carbon filters) does not appear to filter out the hydrogen peroxide as the Facilities/Estates staff undertaking the water treatment had been informed. The hydrogen peroxide appears to pass straight through, thereby exposing all renal patients undertaking haemodialysis on the site to potentially dangerous levels of hydrogen peroxide.

At this time it is not proven that the hydrogen peroxide is the definitive root cause of the haemolysis in the patients but is thought that it is a likely contributory factor. The investigation is on going and further information will be provided once available.

IMMEDIATE ACTION:

The hospital reporting this incident has suggested suspension and review with immediate effect of water disinfection procedures involving Hydrogen Peroxide based disinfectants on sites where haemodialysis treatment is performed.

Please submit comments, solutions, and personal experience to:

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