

Infection control concerns regarding the Viamed infant resuscitation cabinet

This report has been prepared in response to concerns raised by Derek Bamton, Infection Control at St Mary's Hospital, Isle of Wight regarding the Viamed wall-mounted infant resuscitation cabinet system.

It addresses 3 observations that were made by Mr. Bamton during a demonstration of the system on 10th July 2013 by Keith Taylor of Viamed.

Observation: The door catches are a 2-piece catch, with a rotating clasp on the cabinet body and a metal plate on the cabinet door, both manufactured from chrome-plated brass. The catch plates on the demonstration cabinet are showing signs of wear and the chrome plating has been worn in a circular path by repeated closing of the catch to reveal the brass underneath, which raises infection control concerns.

Response: the wearing of the chrome plating occurs after many hundreds of open/close cycles, the demonstration cabinet has been in use for many years and, as such, is exhibiting signs of wear.

As the underlying material that the plate is manufactured from is brass, the exposure of the base metal does not increase the infection control risk by nature of the exposed material itself, as brass has intrinsic anti-microbial properties. However, Viamed accepts that the physical scoring can harbour microorganisms.

The plate is chrome plated to increase its hardness and resistance to scoring, whilst other materials, such as un-plated brass and nylon were considered, these would actually increase the amount of scoring, due to being softer, and thus increase the potential for harbouring microorganisms.

Chrome plating is deemed to be the most appropriate solution as it significantly increases resistance to scoring and offers visual indication as to when that has occurred.

The catches are available as a replacement spare part. The plate can be routinely replaced as part of an annual service or when signs of wear become apparent.

Observation: the stainless steel door support bars are not smooth, which raises infection control concerns.

Response: the bars are manufactured from brushed stainless steel, which is found on many pieces of medical equipment. It is used for its strength and resistance to corrosion. On previous designs of the cabinet, these bars were painted, but this led to wear over time and the potential flaking of the paint, which presented its own risks.

If concerns exist that the brushed stainless steel might harbour microorganisms at a microscopic level that the Trusts own cleaning products may not have the required efficacy to effectively manage, Viamed would advocate the cleaning of the system with TECcare® CONTROL, which is a high-level cleaning and disinfection product that provides a protective coating to inhibit microbial adhesion and colonisation for up to 4 weeks after application. Information regarding TECcare CONTROL has been sent to accompany this report.

Observation: the storage bins used in the cabinet system have many ridges, corners etc in the body mouldings, which raises concerns regarding cleaning and infection control.

Response: the storage bins are optional, but do provide a convenient storage solution. Viamed would again advocate the cleaning of these with TECcare® CONTROL, which is available as a pump spray, a soft wipe or a textured wipe. If the infection control risks outweigh the convenience, then Viamed would recommend that the storage bins are not used and alternative methods for storing the required components be investigated by the Trust, for example a dedicated cupboard in close proximity to the resuscitation cabinet.

Additional comments: Viamed has taken steps to address infection control concerns over the ongoing lifecycle of this product, including:

- The move to seamless mattresses to prevent the ingress of fluids
- The adoption of anti-microbial powder coating techniques to give the cabinet body intrinsic anti-microbial properties
- The sourcing of, in Viamed's opinion, the best high-level cleaning and disinfection product available on the market: TECcare® CONTROL, which provides anti-microbial protection for up to 4 weeks after application. Whilst Viamed acknowledges that individual NHS Trusts have selected their own approved cleaning and disinfection agents (which can be used on this cabinet system), it feels that adoption of TECcare CONTROL would offer significant advantages for the management of infection risk throughout the Trust.

The Viamed infant resuscitation cabinet system is subject to continual development, and Viamed welcomes suggestions on how to improve it. At the moment, Viamed believes that the system offers the best compromise in terms on functionality whilst attempting to address all end-user concerns, infection control related and otherwise.

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