

Permission to print: Yes

Category: Heater Cooler unit

Incident type: Good Catch Near Miss

Duration of incident: seconds

Description: Was conducting routine disinfection of a Maquet HCU40 heater cooler. Dissolved the Clorina solution in warm water as per the IFU. Whilst dissolving the Clorina I noticed something black swirling around in the solution. Draining the Clorina out of the mixing container into the HCU it appeared to be a rock like impurity about 3mm in diameter (see attached photos). Given the issues the HCU40 has with the flow valves - there have been multiple recall notices for faulty vacuum valves (in use when draining lines following a case) - flow sensors and now 3 way valves within the units [we speculate these issues] could be possibly due to the impurities in the Clorina. [Getinge] have updated their IFU to include dissolving the Clorina in 35 degree water to ensure its fully dissolved. Getinge provided us with a filtered funnel but the pore size was too large and only stopped the largest particles. We just now add the Clorina solution to the heater cooler reservoir slowly and leave about 100ml of solution behind. This captures all the fine and coarse bits.

GOOD CATCH - what went well: Dissolved the Clorina well before adding it to the heater cooler to allow any contaminants to settle out.

What could we do better: Nothing

Preventive actions: Dissolve Clorina well before adding it to the heater cooler. Use warm water to dissolve Clorina. Observe the bucket of dissolved Clorina for contaminants prior to adding it to the heater cooler. Carefully decant the Clorina so as to not disturb the contaminants settled on the bottom of the container.

Type of incident: Equipment

Hospital incident filed: No

Ext Authority Advised: No

Discussed with team: Yes

Rule issue: No

Skill issue: No

Knowledge issue: No

Protocol issue: No

Patient outcome variance f: Nil

Commentary: Examples of recalls for the HCU40 can be found on the internet - e.g. https://www.rceth.by/Documents/HCU_40_Heater.pdf <https://recalls-rappels.canada.ca/en/alert-recall/heater-cooler-unit-hcu-40-2018-11-26>. Since the identification of nontuberculous mycobacteria (NTM) in heater cooler units of different types, the stringent disinfection requirements have created widespread issues of device degradation. The industry is challenged to finding alternatives to water based heat transfer for CPB. (PIRS Ed).

