

Quality & Safety

Situation: Patients using the Covidien Kangaroo e-Pump continue to experience instances of the pump beeping occlusion and/or flow error. This is more prevalent in patients who have gastrostomy or jejunostomy tubes with specific formula types such as Peptemen Jr. and Nestle Complete. The Quality Safety Department along with Bio-Med, Materials, Nutrition Services and CPDP has been working with the manufacturer to determine next steps.

Background: After changing to the Covidien Kangaroo e-Pump feeding pump in July of 2013 there were an increased number of safety learning reports related to pump malfunction. Children's had additional consultation with the manufacturer including several return visits by the Covidien representative to provide additional education and training on the pump to nursing staff, still certain combinations of feeding tubes and formulas continued to cause frequent alarms. In February 2013 Children's worked with Covidien to trial another model pump that staff reported thru evaluations would not meet the current needs of Children's patients.

Assessment: Currently Children's will continue to use the Covidien Kangaroo e-pump while we explore options within Covidien and with other manufacturers.

Recommendation: An algorithm was created to assist staff experiencing alarms with the Kangaroo e-pump. This algorithm walks through troubleshooting the pump including assessment of the feeding tube and if there is not a resolution makes recommendations of next steps. See the following page for the algorithm.

Trouble Shooting the Covidien Kangaroo e-Pump What to do when the pump is beeping occlusion or flow error:

Feeding pump beeping occlusion or flow error:

First Steps

Assess the feeding tube to ensure that it continues to be patent.

Check that feeding bag is 18 inches above the pump.

Shake the feeding bag to mix any sediment that may be sitting at the bottom obstructing flow. ---Avoid adding medications to feeding bag when possible.

Assess the pump and tubing – take the tubing out of the pump and re-thread around the wheel – then restart the pump

Get new feeding bag (this may require changing formula from old bag to new bag as to not waste formula)

Change pumps- order a new Kangaroo e-pump and tag the old pump with yellow tag and return to bio-med Feeding pump continues to beep occlusion or flow error after you have tried all of Step 1:

Next Steps

Change to a low volume feeding pump (mfg #3500). This may be required for feeding tubes that have small diameter, long length in combination with certain formula types (Pediasure, Nestle Complete.)

Low volume feeding pumps allow for a rate of 55 ml/hr of feeding – for patients with larger feeding volumes this may require frequent syringe changes.

4 hours of feeding may be drawn into syringes and kept in the room (same as 4 hours of feeding in a bag)

- Syringe **MUST** be capped
- Syringe **MUST** be labeled with:
 - Patient Identifier
 - o Date
 - o Time
 - o Formula in syringe
- Syringe MUST be kept on a clean surface (DO NOT set syringes on surfaces where "dirty" equipment, specimens or supplies may contaminate it).

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