Guideline for cleaning and storage of Breast milk Collection kits

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Background

- Milton hypochlorite solution does not provide sterilisation of equipment merely a high level of disinfection
- The product has been marketed in such a way as to persuade users that sterilisation is achieved
- In the clinical setting, soaking equipment is discouraged as there is often no record of the time the items have been soaking (Atkinson, 2001)
- Milton solution is often left within the breast pump kit at the time of assembly
- The effect on the infant of this solution on colostrum and ultimately the infant is not known
- The process of the mother expressing breast milk increases the risk of bacterial contaminants coming in contact with expressed breast milk (EBM)
- With correct hand washing, cleaning of equipment and storage of equipment such as a breast pump collection kits, bacterial contamination is unlikely (Pittard et al 1991)
- The manufacturers advise disinfection of the breast pump collection set, Medela does not recommend the use of Milton or hypochlorite solution as the chemicals involved can damage parts causing them to become brittle
- Leaving equipment submerged in the hypochlorite solution increases the risk of pathogenic bacterial contamination
- Washing with hot soapy water using a neutral detergent, followed by dry storage offers the safest option (Medela, D’Amico et al 2003)

Possible concerns with using Milton solution within the clinical setting:

- Equipment is not always fully immersed in the solution
- Used equipment may be returned to the Milton solution without pre-cleaning
- Milton solution may be left longer than the recommended 24 hours between cleaning the container and changing the solution
- Milton solution may remain in the collection kit on assembly, possible effect on colostrum itself or a preterm infants digestive system is not known
- Damage to clothing, fabrics and working surfaces if spillage occurs
- Financial cost of solution and containers
- Staff time involved for daily cleaning of containers and changing of the solution
Equipment-

- Mothers who need to express will be supplied with a sterile breast pump collection set (breast shield, white membrane, yellow valve, plastic container for storing)
- A new sterile bottle will be used for milk collection every time
- On discharge the plastic container will be washed with soapy water and wiped with a detergent wipe. The breast expressing kit is for one person use so can be discarded on discharge.

Method-

- Wash and dry hands thoroughly using the hand basin designated for hand washing
- Using the sink in the milk kitchen, disassemble and wash breast pump shield, white membrane and yellow valve thoroughly using detergent—use fingers to clean the parts, not a bottle brush
- Rinse under warm running water
- Shake off excess water droplets
- Dry thoroughly with clean white paper towels
- Once dry, store in the clean plastic container covered with a fresh paper towel. The lid should be placed on.
- Where possible keep the kit at the cot side or labelled well in the milk kitchen
- Before pumping wash hands thoroughly and assemble the breast kit
- Cups for feeding with MEBM should be used and stored the same as breast pump equipment

Exclusions-

- The cleaning and storage of bottles and teats for formula feeding and bottles and teats where breast milk is given via.
- This equipment should continue to be disinfected in line with current advice from the Department Of Health (NHS 2011)
- The cleaning and storage of breast pump expressing kits within the home environment should continue to be disinfected in line with current advice from the Department of Health (NHS 2011). Follow the instructions supplied with chosen sterilising equipment
NB. This should only be carried out for breast milk collection kits; bottles for feeding should continue to be sterilised in the same way unless a new sterile bottle is used with each feed.
References-

- Boswell, L. (2013) Guideline for cleaning and storage of breast milk collection kits, Frimley Park Hospital FPH
- MEDELA UK Ltd