



**Health
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Oxford & Thames Valley



Buckinghamshire Healthcare
NHS Trust

An investigation into a burn to the foot sustained by a baby during a capillary blood test

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Situation

Following a recent incident which resulted in a baby sustaining a burn to it's heel during a routine capillary blood sample, it became evident that well-intended 'customary practices' have been adopted and adapted over time to warm the baby's heel prior to taking a heel prick sample, on this occasion a warm water filled surgical glove was used which caused a 1% mixed depth burn requiring regular dressings and hospital visits.



Background

The World Health Organisation (WHO) recommends that the sides of the heel should be used to obtain small blood samples for newborn babies(1). A common belief is that there is better blood flow if the heel is warmed and therefore enables a faster sampling time, thus reducing pain and discomfort for the baby(2). The techniques used to obtain a sufficient sample are variable and a possible reason for this is that the procedure is taught by staff who tend to teach their own preferred method rather than following the most recent research-based guidelines.

The National Institute for Health and Care Excellence (NICE) guidance for taking capillary blood samples states that the baby should be warm and comfortable but warming of the foot is not required and highlights that this practice can result in scalds or burns (3).

An eLearning for healthcare (eLfh) training video relating to capillary heel prick sampling recommends the use of a warmed surgical glove, this goes against National Guidance (4)

Actions

All staff at BHT were advised to stop using customary warming techniques with immediate effect.

Ensure that National guidance is followed with regard to warming of the baby rather than specifically the heel by encouraging skin to skin contact prior to the procedure being carried out.

NHS England contacted regarding the inconsistencies in training video and National Guidance..

Recommendations

Sharing of the incident to avoid such an injury occurring to another baby.

References

1. 9789241599221_eng.pdf (who.int)
2. Warming Prior to Heel Stick - PMC (nih.gov)
3. Guidelines for newborn blood spot sampling, March 2016 (publishing.service.gov.uk)
- 4 www.youtube.com/watch?v=gmyZcutbdSY NHSE eLfh Hub (e-Ifh.org.uk)

