

Knitted items – potential for harm to babies?



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PATIENT SAFETY

Working together

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Previous safety articles published in *Infant* have highlighted the importance of reporting incidents of actual harm or near misses to avoid the potential for future harm to others.¹ The National Reporting and Learning System (NRLS) exists to support this process and currently receives over two million reports annually.² This safety article aims to outline the actions taken by the patient safety team at NHS Improvement in response to a reported incident and to highlight potential for harm to babies from knitted items.

Background

The patient safety team received a direct enquiry from a clinician via the NHS Central Alerting System asking whether a patient safety alert should be issued to raise awareness of the potential for harm to newborns from knitted items.

A baby being cared for on a neonatal unit was found to have a necrotic ring finger with poor blood supply to the right hand. A mitten had been placed over the baby's hand to prevent the baby inadvertently removing an *in situ* nasogastric tube. The mitten was a knitted type and a loose thread had become tightly woven around the baby's fingertip, causing ischaemic damage.

In health care mittens can be used as a form of mechanical restraint for circumstances where a patient may be:

- displaying behaviour that is putting them at risk of harm
- displaying behaviour that is putting others at risk of harm
- requiring treatment by a legal order, for example, under the Mental Health Act 2007
- requiring urgent life-saving treatment
- needing to be maintained in secure settings.³

Restraint mittens are classed as medical devices. However the use of mittens in newborn babies admitted to a neonatal unit is generally to prevent the unplanned removal of lines and tubes. Mechanical restraint is not a feature of neonatal care and this article does not relate to mechanical restraint of newborn babies.

Information gathering

A review of a small number of trust policies located on the intranet in relation to skin checks when using mittens varied. Advice ranged from checking *regularly*, *frequently* and *at least daily to three times a day*.

A request for expert views from a small sample of neonatal and midwifery contacts indicated that the potential for harm due to use of knitted mittens is not under-recognised by midwifery and neonatal nurses, but that other members of the neonatal team were less aware of the potential for harm. Responses indicated an



Knitted hats and mittens: a cause for concern?

understanding that potential harm from entrapment of digits to ischaemic damage from loose threads in knitted mittens is no less different from harm caused by knitted or crocheted blankets and other knitted items. We received reassurance from midwifery respondents that mothers are advised not to use cardigans, blankets or knitted clothing where small holes or threads might cause injury.

Awareness of potential for ischaemic harm following entrapment of digits in loosely knitted materials was raised through the British Association of Perinatal Medicine (BAPM) patient safety incident reporting mechanism several years ago. This is likely to have been the driver for many units avoiding the use of knitted materials and changing to cotton items instead.

With the growing use and publicity of knitted octopuses in neonatal units – used as a comforter and developmental aid for preterm babies – concern was raised about the potential for harm should threads become loose, in a similar way to other knitted items. A search of the NRLS was undertaken to determine whether any such incidents had been reported, recognising that as these are a relatively new initiative in neonatal care, the NRLS was unlikely to reveal significant, if any, related reports.

A search of the NRLS was undertaken on 28 June 2017 and included incidents occurring between 1 April 2016 and 31 March 2017 and exported to the NRLS on or before 26 June 2017. A free text search for *thread* or *cotton* or *wool* or *knit* or *toy* or *octopus* revealed 58 incidents of which just one was relevant. A second search for *damage* or *tight* or *tie/tied* or *wrap/wrapped* or *blue* or *ischaemic* or *circulation* or *necro* revealed nine incidents of which

one was relevant but was a duplicate of that found in the original search and was also the trigger incident.

The term *octopus* revealed a high number of incidents but as this term is also used to describe an intravenous (IV) extension set, all of the incidents related to the IV lines and not the newly introduced comforters or developmental aids.

Findings

Although there was just one incident relating to harm caused by knitted mittens, an unanticipated theme found in three incidents reported sewing needles being found in knitted clothing. In one incident this appears to have caused minor harm as a result of a small laceration to the forehead when a sewing needle was found in a knitted hat. The other two incidents reported having identified the needles prior to the clothing being used.

Conclusion

There appears to be minimal harm associated with the use of mittens and knitted items in neonates. A warning was

disseminated by BAPM several years ago that is likely to have had an impact on the use of knitted items in most units. However knitted hats are widely used to avoid hypothermia and to identify at-risk infants using a traffic-light coding system.⁴

Maternity and neonatal unit staff should consider processes for identifying sharps left in place inadvertently by well-meaning knitters. The use of octopuses as a developmental aid has not been linked to incidence of harm, however care should be taken to ensure any potential for digit entrapment is minimised.

References

1. **Wood F.** The power of words: respond to improve. *Infant* 2016;12:123-24.
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In collaboration with BAPM, *Infant* journal is keen to help improve patient safety and raise awareness of issues affecting neonatal patients, their families and staff by devoting a specific section to patient safety in each edition of the journal. Anyone can submit an article so if you have ideas for highlighting safety aspects to improve care, please do let us know.



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Perinatal Medicine**

- Have you implemented an initiative locally which has demonstrable benefits for improving safety?
- Are you developing a new initiative which might benefit from a wider application?
- Do you have experience in any human factors-related improvement that you'd be able to share?

If you would like to submit a patient safety article to *Infant*, please email lisa@infantjournal.co.uk

If you have any incidents for national learning, please contact BAPM by emailing bapm@rcpch.ac.uk



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