

Treatment of extravasation injuries in infants and young children: a scoping review and survey

Mark Corbett,^{1*} David Marshall,¹ Melissa Harden,¹
Sam Oddie,² Robert Phillips¹ and William McGuire¹

¹Centre for Reviews and Dissemination, University of York, York, UK

²Bradford Teaching Hospitals NHS Foundation Trust, Bradford, UK

*Corresponding author mark.corbett@york.ac.uk

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Plain English summary

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Extravasation injuries are skin injuries caused by accidental leakages of treatments that are given intravenously. They can cause short-term pain and longer-term scarring that can sometimes result in restricted movement of the affected joint. These injuries may be particularly problematic in babies because of their fragile skin. Prompt care is usually required, but there is no agreement on the best treatment approaches. This is mainly because much of the published research appears to have a limited value in helping to inform treatment decisions. This project aimed to identify which treatments may be the most promising for babies and children. The results would help to inform which treatments may be the most appropriate to study in the future.

We identified and studied all the key data from all relevant studies and also surveyed knowledge and opinions across relevant NHS staff. The results from examining the studies showed that, although it is unclear which treatments are best, flushing injuries with salt solution appears to be an approach worthy of further research. However, this treatment carries risks, so it is possible that a simpler treatment – such as a dressing – might be better.

The survey results showed that variation exists across the NHS in terms of how extravasation injuries are initially assessed and in terms of which treatments are used. In hospital units that care for newborns, treatment of injuries by flushing them with salt solution was adopted in around half the units, but was never used in around one-third of units. The survey also revealed a variation in opinion about how a future research study should be designed. We comprehensively discussed the likely advantages and disadvantages of adopting different types of research design when considering how to plan a new research study on treatments for extravasation injuries.

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