

EXTRAVASATION INJURIES

Supporting information

Hyaluronidase should not be used to treat injuries?

A survey of regional neonatal intensive care units (Wilkins, 2004) found that exposure to air, occlusive dressings, and hyaluronidase were all regularly used in the treatment of extravasation injuries. The authors stated that: "Infiltration with and saline is an invasive procedure recommended in standard texts, and there are case reports showing its use. However, there have been no studies in preterm infants comparing its effectiveness with other treatments. In addition the British National Formulary recommends hyaluronidase to be used with caution in infants." [Reviews from 2017 and 2021 confirmed that given the lack of comparative studies, the value of hyaluronidase remains uncertain \(Gopalakrishnan & Hackenberg\).](#)

Gopalakrishnan PN & Goel N & Banerjee S. Saline irrigation for the management of skin extravasation injury in neonates. *Cochrane Database Syst Rev.* 2017;7:CD008404
<https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD008404.pub3/full>

Hackenberg R, Kabir K, Müller A et al. Extravasation Injuries of the Limbs in Neonates and Children—Development of a Treatment Algorithm. *Dtsch Arztebl Int.* 2021;118:547-54
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8579427/>

Wilkins CE, Emmerson AJ. Extravasation injuries on regional neonatal units. *Arch Dis Child Fetal Neonat Ed* 2004;89:F274-5
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1721664/pdf/v089p0F274.pdf>

Evidence Level: V

How many babies develop skin necrosis as a result of extravasation of an IV infusion?

A survey of 31 regional neonatal intensive care units in the UK (Wilkins, 2004) found that the prevalence of neonates who sustained an extravasation injury that caused skin necrosis was 38 per 1000.

Wilkins CE, Emmerson AJB. Extravasation injuries on regional neonatal units. *Arch Dis Child Fetal Neonatal Ed.* 2004;89: F274-5 hyaluronidase
<http://fn.bmj.com/content/89/3/F274.full>

Evidence Level: V

Is the risk of extravasation injury different when comparing centrally placed catheters with peripheral cannulae?

A systematic review of 3 RCTs (208 subjects) did not detect a statistically significant difference in risk of extravasation injury when comparing central venous catheters versus peripheral cannulae for delivery of parenteral nutrition in neonates (RR:0.36 CI:0.07 to 1.75) (Ainsworth, 2015).

Ainsworth S, McGuire W. Percutaneous central venous catheters versus peripheral cannulae for delivery of parenteral nutrition in neonates. *Cochrane Database Syst Rev.* 2015:CD004219
<http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD004219.pub4/full>

Evidence Level: I

Last amended May 2022
Last reviewed May 2022