PICCs are generally the venous access method of choice for long term access in neonates despite the risk of complications”
Jahagirdar and Featherstone (2019).
Excerpt:

Peripherally inserted central catheters (PICC) are thin tubes inserted for central venous access. They are minimally invasive and used where longer-term intravenous access is required to administer therapeutic needs such as fluids or medications. PICC use has increased in the past decade,1 because of the relatively low cost and ease of placement compared to other catheters.2 While their popularity has grown, PICCs are associated with potential complications. Venous thrombosis, infections, or extravasation into a body cavity and tamponade are known adverse effects with potentially fatal results.3 Further, catheter failures can include accidental removal, tip migration and fracture.4 Compared to adults, inserting and maintaining PICCs in small infants presents specific challenges due to smaller vessel and catheter diameters,3 with the potential for more safety concerns. PICCs are generally the venous access method of choice for long term access in neonates despite the risk of complications.5 PICCs have enabled advances in care for this population, replacing catheters that would have needed insertion by a surgeon.6 However, previous studies have demonstrated the potential for complications.7–9 For example, in the U.S., a five-year study found complication rates of 27% in upper extremity PICCs, and 21% in lower extremity PICCs among 559 neonates.10 Reducing catheter length may lower the risk of certain complications though there is limited literature. A 2019 study found a longer external PICC length was associated with significantly higher odds of bloodstream infection.11 As such, the need to trim catheters to mitigate against adverse events such as migration or breaking has been suggested as part of standard insertion procedures.12,13 While promising, the safety of trimming PICCs for neonates is itself unclear. An adult study found an increased risk of deep vein thrombosis when catheters were trimmed,14 but evidence in younger populations has not been compiled. Given the popularity of use and potential for complications associated with PICCs, this review aims to assess the safety and evidence-based guidelines of trimming PICCs in the neonatal population.
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- Neonatal PICC placement complicated by neonatal lymphedema
- PICC related complications literature review
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Reference: