KANGAROO CARE
Supporting information

This guideline has been prepared with reference to the following:

Ludington-Hoe SM. Evidence-based review of physiologic effects of kangaroo care Curr Women's Health Rev 2011;7:243-253

Kangaroo Care (KC) can help to reduce procedural pain in preterm infants?
A 2020 RCT compared the effects of kangaroo care and oral sucrose on pain relief in 64 preterm infants during heel lancing (Sen, 2020). There was a statistically significant difference between the groups in favour of the kangaroo group in terms of change in the Premature Infant Pain Profile values after heel lancing. The authors therefore concluded that Kangaroo care is more effective than oral sucrose in pain relief during heel lancing in preterm infants.
A Cochrane Systematic Review of 51 studies in a total of 3396 participants (Pillai Riddell, 2011) found kangaroo care effective in reducing procedural pain in preterm infants (SMD -1.12, 95% CI -2.04 to -0.21).
A Cochrane systematic review (Johnston, 2014) also investigated the pain relieving effect of skin-to-skin care (also known as Kangaroo Care). 19 studies involving 1594 infants were analysed and the authors concluded that "SSC appears to be effective, as measured by composite pain indicators and including both physiological and behavioural indicators, and safe for a single painful procedure such as a heel lance"
preterm infants.

Johnston C,Campbell-Yeo M, Fernandes A et al. Skin-to-skin care for procedural pain in neonates. Cochrane database of systematic reviews 2014. CD008435
http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD008435.pub2/full

Pillai Riddell RR, Racine NM, Turcotte K, et al. Non-pharmacological management of infant and young child procedural pain. Cochrane Database of Systematic Reviews 2011, Issue 10. Art. No.: CD006275
http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD006275.pub2/pdf/standard

Sen E, Manav G et al. Effect of Kangaroo Care and Oral Sucrose on Pain in Premature Infants: A Randomized Controlled Trial. Pain Manag Nurs. 2020;21:556-64

Evidence Level: I

KC can help to reduce mortality in premature or low birth weight infants?
A 2016 systematic review of RCTs found that when compared with conventional neonatal care, KC was found to reduce mortality of low birth weight infants at discharge or at 40 to 41 weeks' postmenstrual age and at latest follow-up [risk reduction 0.60, 95% confidence interval 0.39 to 0.92] (Conde-Agudelo, 2016).
A 2010 systematic review of randomised and observational studies (all from low or middle-income countries—Colombia, Ethiopia, Ecuador, Ethiopia, Indonesia, Bangladesh, India, Mexico and South Africa) found that KMC substantially reduces neonatal mortality amongst preterm babies (birth weight <2000 g) in hospital, and is highly effective in reducing severe morbidity, particularly from infection (Lawn, 2010).

Conde-Agudelo A, Díaz-Rossello JL. Kangaroo mother care to reduce morbidity and mortality in low birthweight infants. Cochrane Database Syst Rev. 2016;23;(8):CD002771
http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD002771.pub4/full

Lawn JE, Mwansa-Kambafwile J, Horta BL et al. 'Kangaroo mother care' to prevent neonatal deaths due to preterm birth complications. Int J Epidemiol. 2010 Apr;39 Suppl 1:i144-54
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2845870/

Evidence Level: I

For what period of time should skin-to-skin contact be maintained?
Unicef's Baby Friendly Health Initiative suggests a minimum of 1 hour:

UNICEF. Baby Friendly Health Initiative
https://www.unicef.org.uk/babyfriendly/

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Evidence Level: V

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