Skin-to-skin versus incubator in delivery room for preterm infants with GA 32-35 weeks

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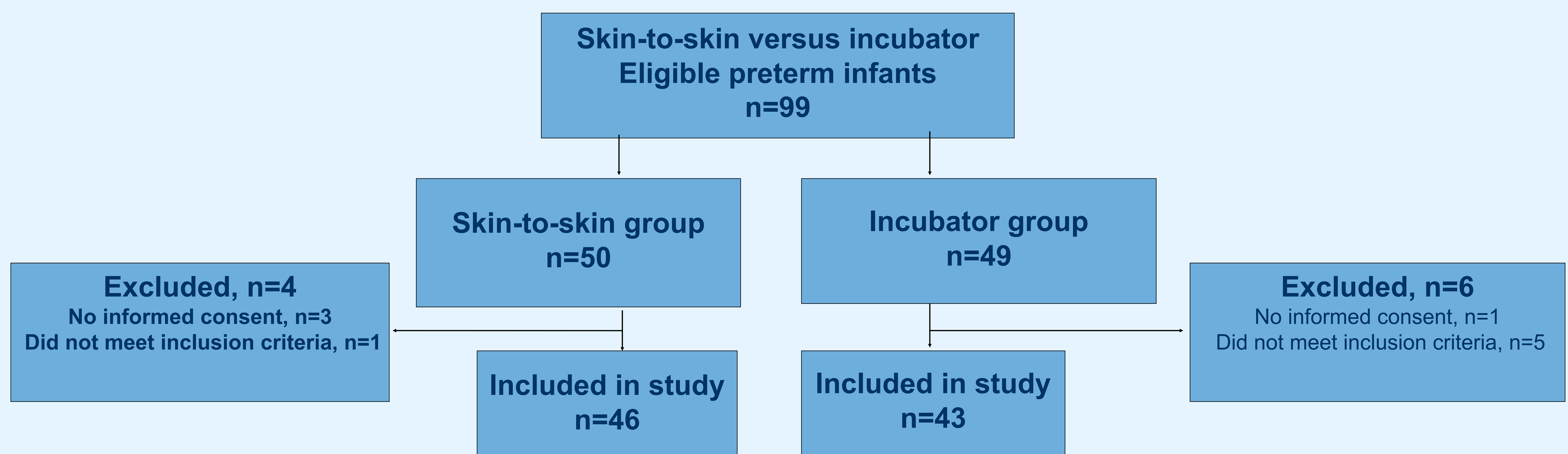
Background: The conventional treatment of preterm infants after delivery involves transfer of the infant to a neonatal intensive care unit (NICU) in an incubator. This implies separation of infant and mother and is standard of care despite well-known beneficial effects of early skin-to-skin contact between mother and late preterm infants.

Material and Methods: This was a prospective feasibility study of vaginally delivered, medically stable preterm infants born at 32^0-34^6 weeks of gestation. Infants were recruited at three hospitals, of which one practiced early skin-to-skin (St. Olavs Hospital) and the other two offered standard care with immediate transfer to the NICU (Vestfold Hospital and University Hospital of Northern Norway).

Objective: The aim of the study was to investigate the feasibility and safety of early skin-to-skin contact after delivery.



Skin-to-skin care involves:

- A paediatrician and a trained nurse in the delivery room
- Clinical assessment and monitoring on the mother's chest
- Donor breast milk was given within the first hour

Skin-to-skin ← After a quick check → Incubator

Incubator care involves:

- Transferral to NICU in an incubator
- Clinical assessment and monitoring in the incubator
- Donor breast milk was given within the first hour

Results: No significant difference was found in mean body temperature (p=0.608) or blood glucose (p=0.539) between the two groups. There was no report of any adverse events in either skin-to-skin group or incubator group during the study period

Conclusion: Based on this study early skin-to-skin contact in the delivery room for preterm infants born at 32 to 35 weeks is feasible and safe.