

# DOES OFFERING DELIVERY ROOM CUDDLES TO MOTHERS OF NEWBORN EXTREMELY PRETERM INFANTS AFFECT NEONATAL ADMISSION TEMPERATURES?

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## BACKGROUND

Parents of extremely preterm babies (<27 weeks' gestation) are rarely allowed a delivery-room cuddle of their newborns because urgent NICU admission is usually considered the highest priority. The abrupt separation and removal to NICU of the baby who has already been with mother for 6+ months is mutually traumatic. Once stabilised, a calm, supervised, initial cuddle is a marvellous opportunity for the neonatal doctors and nurses to provide initial reassurance for parents, for parents to meet and form an initial bond with their baby, and for baby to feel a first loving embrace (**Figure**). If a cuddle is not allowed before NICU admission, it is often many weeks before a first cuddle is possible. However there are virtually no published data to show the safety of the practice.

## AIM

Our aim was to assess the thermal safety of allowing mothers of extremely preterm infants a brief delivery-room cuddle of their baby prior to their baby's NICU admission.

## METHODS

- Single centre, retrospective, case control study
- We reviewed neonatal records of babies inborn at <27 weeks' gestation and admitted to our tertiary-level centre in the 12-year period 2006–2017
- Babies whose mothers had been allowed to hold and cuddle them in the delivery room were identified from the records and all were then matched for birth gestation, gender, delivery mode, and multiplicity with contemporaneous inborn control babies whose mothers had been only 'shown' their babies before the NICU admission

## RESULTS

- Of 396 babies admitted at <27 weeks' gestation in the study period, 233 were inborn
- Once stabilised, following the initial resuscitation and intubation, 27 (12%) of inborn babies had received a documented neonatologist-supervised delivery-room cuddle with their mother prior to NICU admission
- The **Table** shows NICU admission times and temperatures in cuddled versus control babies:

**Table: Baseline characteristics and NICU admission times and temperatures of delivery-room cuddled versus control extremely preterm infants**

	Maternal Cuddle n=27	'Shown' only n=27	p-value
Birth gestational age, weeks	24 <sup>+6</sup> (22 <sup>+5</sup> –26 <sup>+5</sup> )	24 <sup>+4</sup> (23 <sup>+1</sup> –26 <sup>+5</sup> )	0.93 <sup>a</sup>
Birth weight	728 g (506–1170 g)	685 g (545–1132 g)	0.50 <sup>a</sup>
Time to NICU admission	18 min (11–41 min)	21 min (11–37 min)	0.26 <sup>a</sup>
Admission temperature	36.5°C (34.0–38.5°C)	36.6°C (33.1–38.2°C)	0.89 <sup>a</sup>
Survived to discharge, n (%)	18 (67%)	17 (63%)	1.00 <sup>b</sup>

Data are median (range) or n (%).

<sup>a</sup>Mann-Whitney; <sup>b</sup>Chi-square test.



**Figure:** Precious delivery room cuddle of Jack, a 23+1 week gestation twin born in 2006. Jack's first cuddle with both parents was in the delivery room when aged ~30 minutes postnatal. Jack is within a polythene bag, swaddled, and the attendant neonatologist is providing manual ventilation via the endotracheal tube using T-piece with hosing still connected to the resuscitator ventilator system. Admission observations in the NICU at 41-minutes postnatal, were: temperature 38.0°C, pH 7.38, glucose 2.4 mmol/L. Jack died of sepsis on day 11.

## CONCLUSIONS

- Parents immensely value being offered a delivery room cuddle *before* their baby's NICU admission
- Practising it for extremely preterm babies did not significantly delay NICU admission, nor adversely affect the neonates' admission temperatures
- Closely supervised, the delivery room cuddle is safe - but good communication with parents is vital
- With increased family-centred care, we predict the delivery room cuddle will in time become standard care at birth for most babies born preterm
- Birth day delivery room cuddles are irreplaceable!