TheAHSNNetwork

NHS Improvement

neoPremQI - a perinatal optimisation care bundle for babies born at less than 32 weeks

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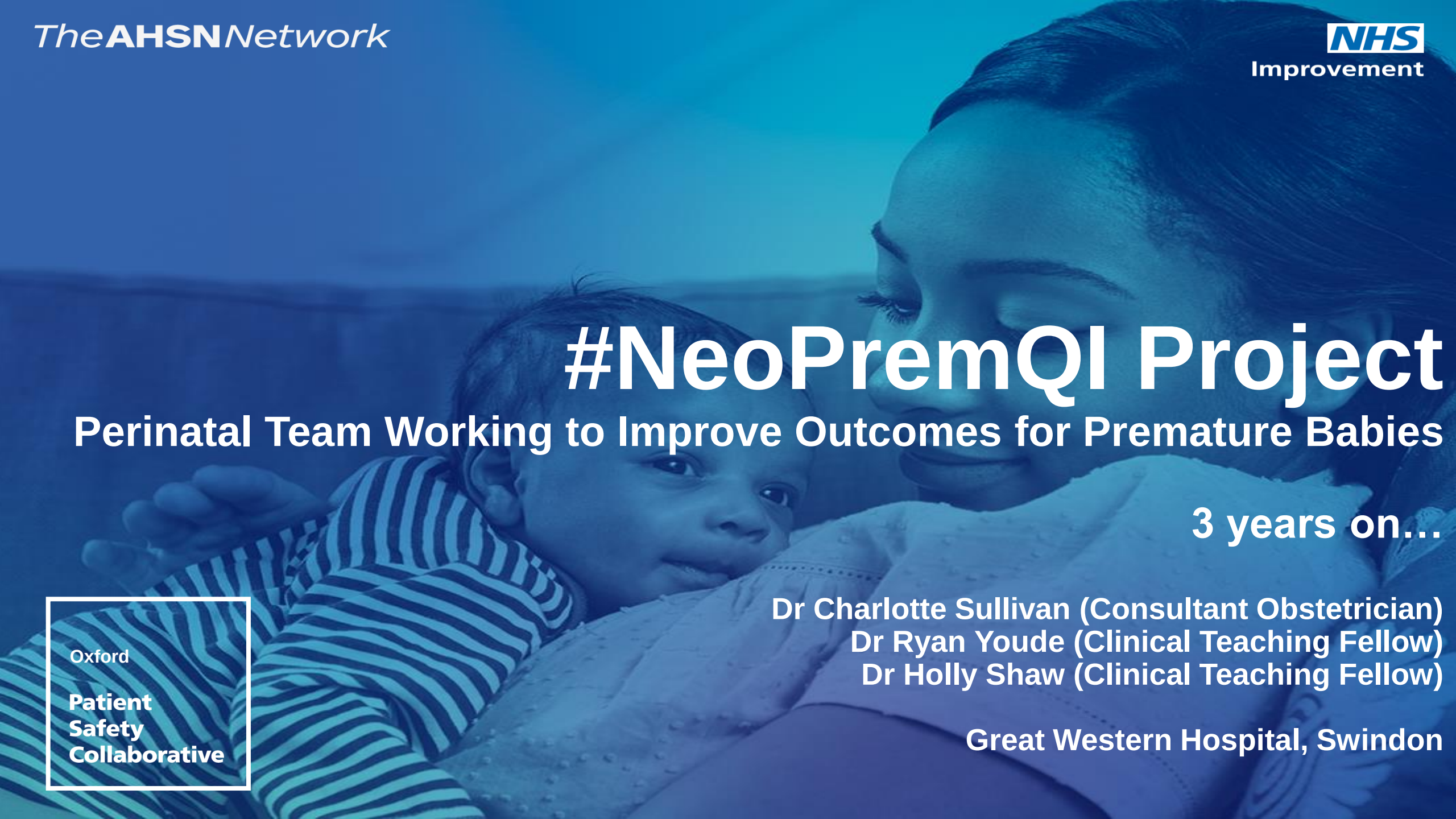
Oxford
Patient Safety Collaborative

NHS
Thames Valley
Strategic Clinical Network



The AHSN Network

NHS Improvement

#NeoPremQI Project

Perinatal Team Working to Improve Outcomes for Premature Babies

3 years on…

Dr Charlotte Sullivan (Consultant Obstetrician)
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Our NeoPremQI Goals

- Antenatal Steroids
- Antenatal Magnesium Sulphate

- Delayed Cord Clamping
- Thermal Care

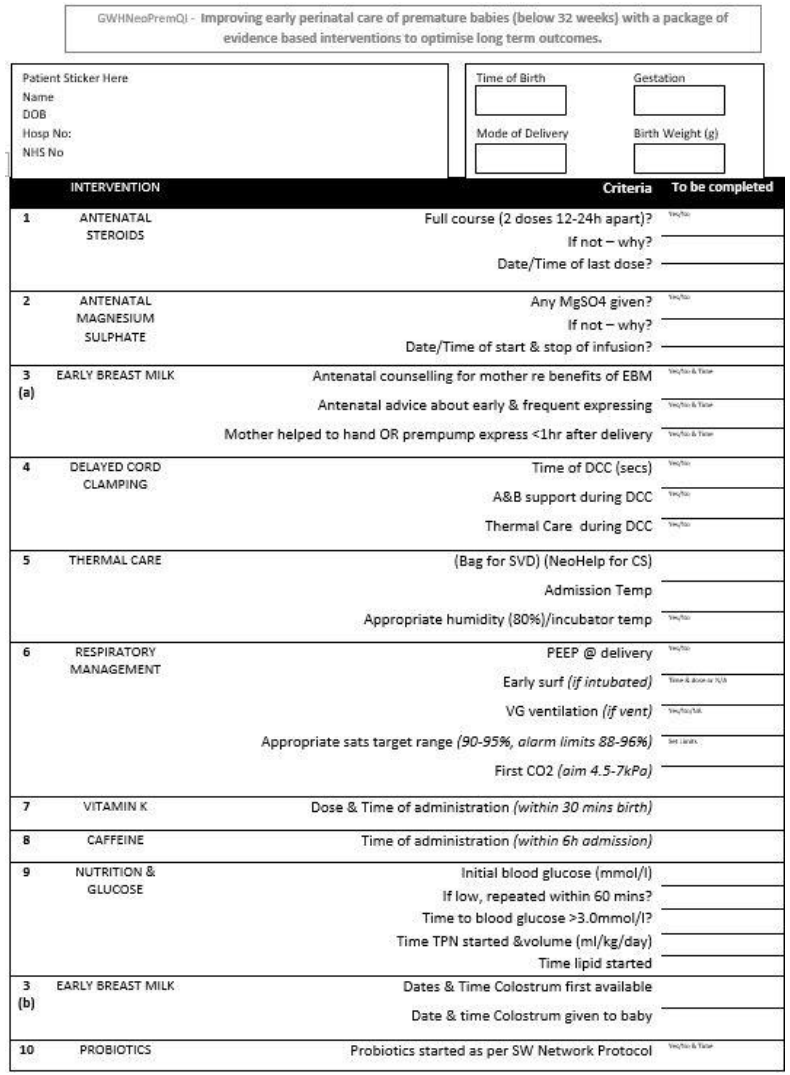
- Respiratory management
- Early Caffeine
- Early Vitamin K
- Optimal Early Nutrition
- Early Expressed Breast Milk
- Probiotics

A Multi-disciplinary Team Approach

- The key to sustained improvement

- Individual MDT champions to focus on specific interventions
  - Midwives
  - Obstetricians
  - Neonatal nurses
  - Doctors
  - Pharmacist

#NeoPremQI Proforma



GWHNeoPremQI - **Improving early perinatal care of premature babies (below 32 weeks) with a package of evidence based interventions to optimise long term outcomes.**

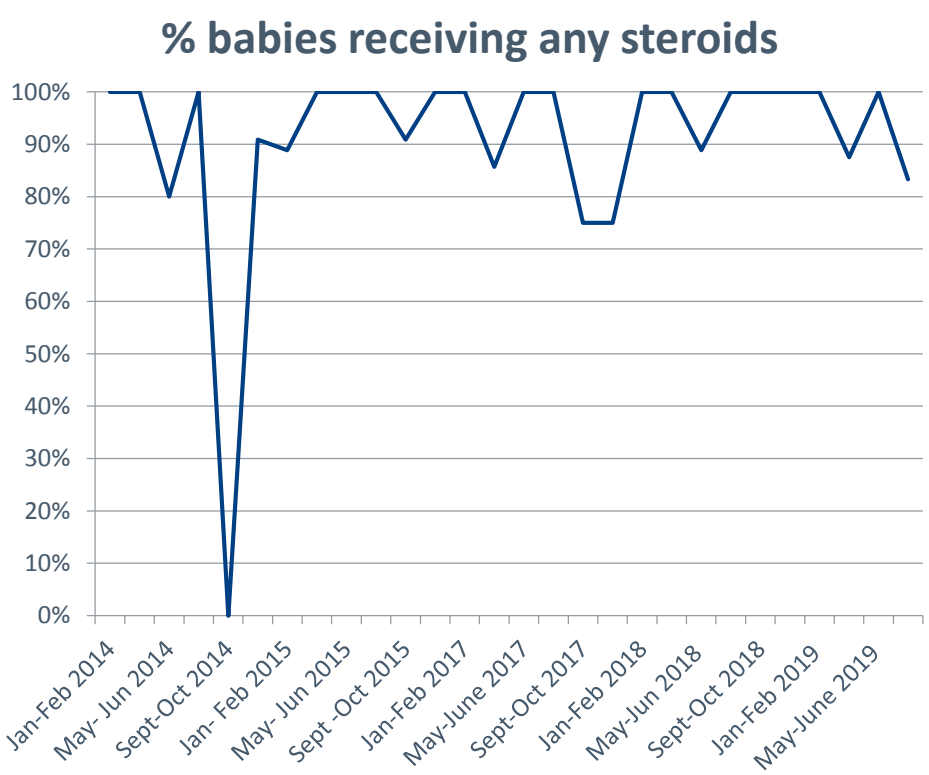
Patient Sticker Here
Name
DOB
Hosp No:
NHS No

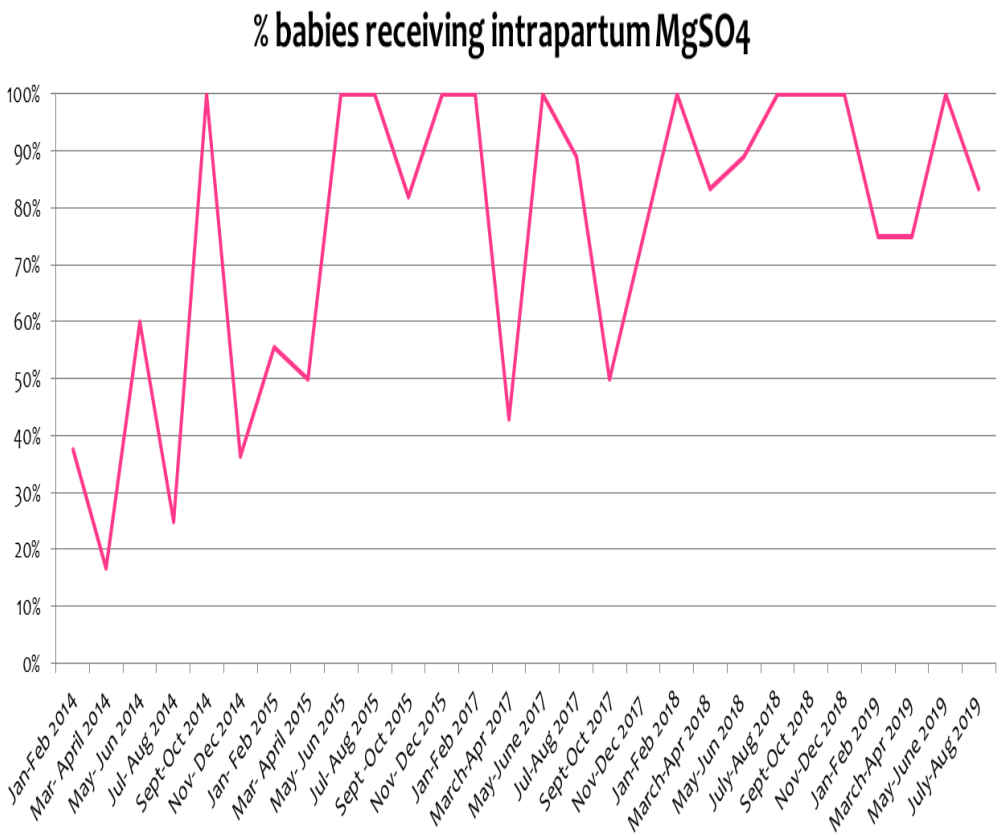
Time of Birth | Gestation
Mode of Delivery | Birth Weight (g)

	INTERVENTION	Criteria	To be completed
1	ANTENATAL STEROIDS	Full course (2 doses 12-24h apart)?	Yes/No
		If not – why?	
		Date/Time of last dose?	
2	ANTENATAL MAGNESIUM SULPHATE	Any MgSO4 given?	Yes/No
		If not – why?	
		Date/Time of start & stop of infusion?	
3 (a)	EARLY BREAST MILK	Antenatal counselling for mother re benefits of EBM	Yes/No & Time
		Antenatal advice about early & frequent expressing	Yes/No & Time
		Mother helped to hand OR prempump express <1hr after delivery	Yes/No & Time
4	DELAYED CORD CLAMPING	Time of DCC (secs)	Yes/No
		A&B support during DCC	Yes/No
		Thermal Care during DCC	Yes/No
5	THERMAL CARE	(Bag for SVD) (NeoHelp for CS)	
		Admission Temp	
		Appropriate humidity (80%)/incubator temp	Yes/No
6	RESPIRATORY MANAGEMENT	PEEP @ delivery	Yes/No
		Early surf *(if intubated)*	Time & dose or N/A
		VG ventilation *(if vent)*	Yes/No/NA
		Appropriate sats target range *(90-95%, alarm limits 88-96%)*	Set Limits
		First CO2 *(aim 4.5-7kPa)*	
7	VITAMIN K	Dose & Time of administration *(within 30 mins birth)*	
8	CAFFEINE	Time of administration *(within 6h admission)*	
9	NUTRITION & GLUCOSE	Initial blood glucose (mmol/l)	
		If low, repeated within 60 mins?	
		Time to blood glucose >3.0mmol/l?	
		Time TPN started &volume (ml/kg/day)	
		Time lipid started	
3 (b)	EARLY BREAST MILK	Dates & Time Colostrum first available	
		Date & time Colostrum given to baby	
10	PROBIOTICS	Probiotics started as per SW Network Protocol	Yes/No & Time

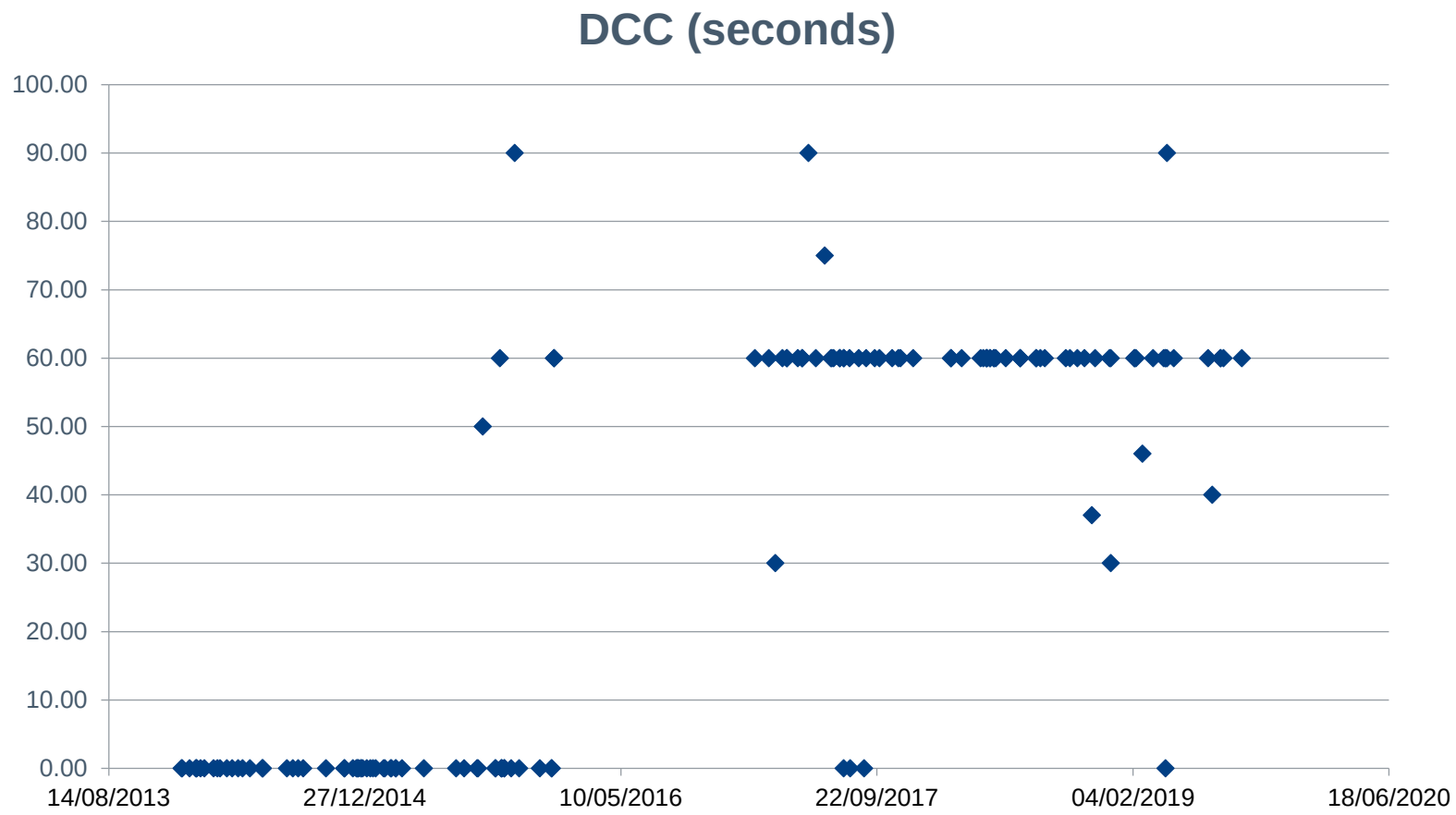
- Proforma issued for each premature baby (below 32 weeks)
- Aide Memoir
- Highlights timescales
- Rapid review and 2 monthly MDT faculty meetings

Antenatal Optimisation – Steroids & $MgSO_4$

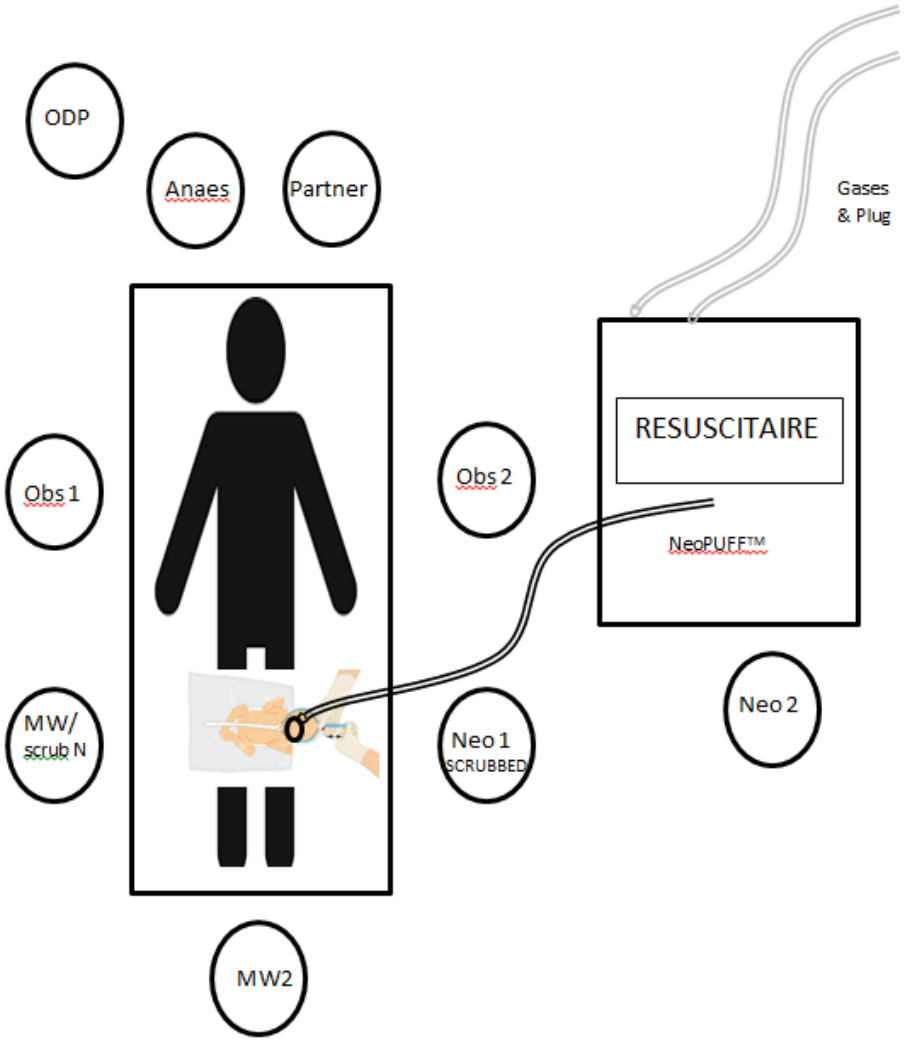




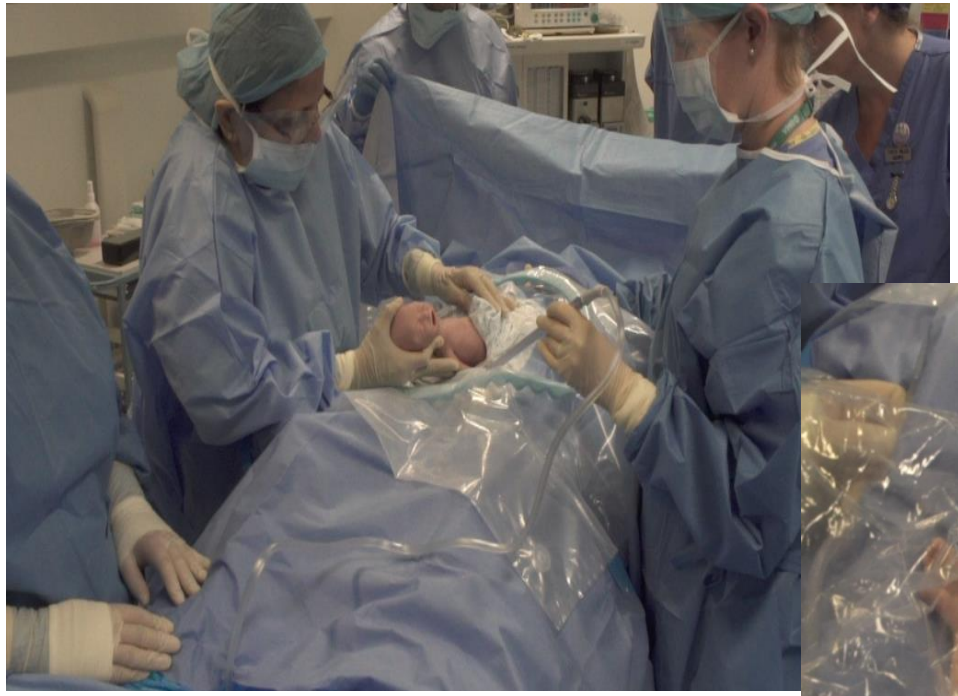
Deferred Cord Clamping with Thermal Care & Stabilisation



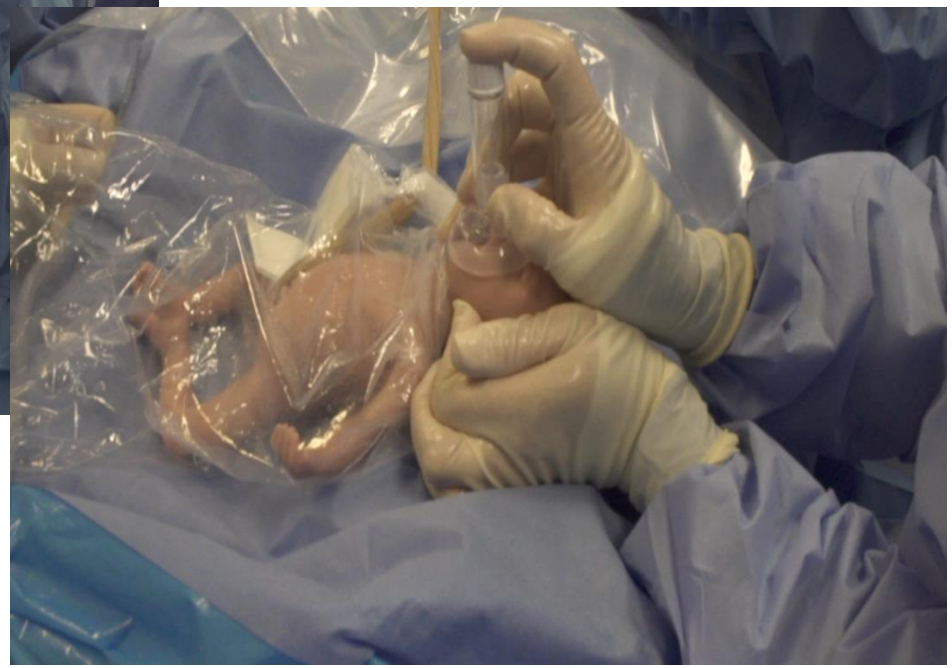
Positioning Diagram for Cord Intact Stabilisation at Caesarean



SIM Problem Solving

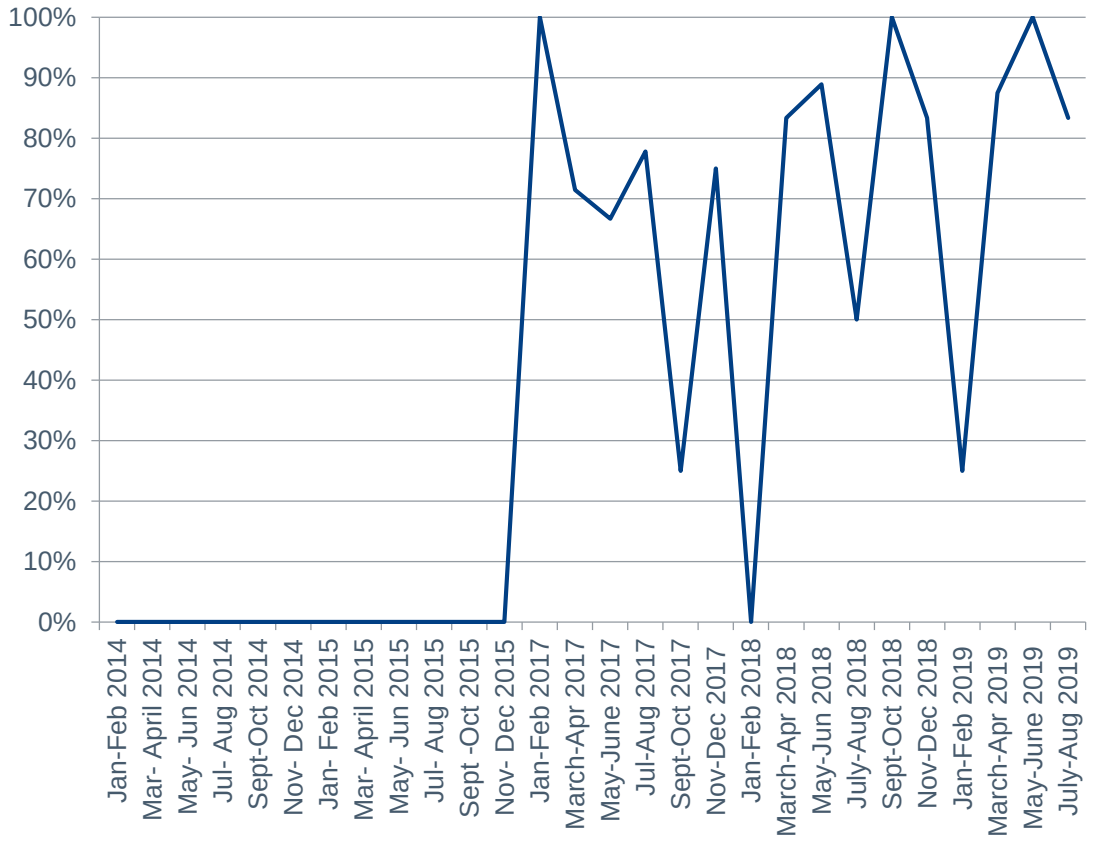


Optimising Delayed Cord Clamping

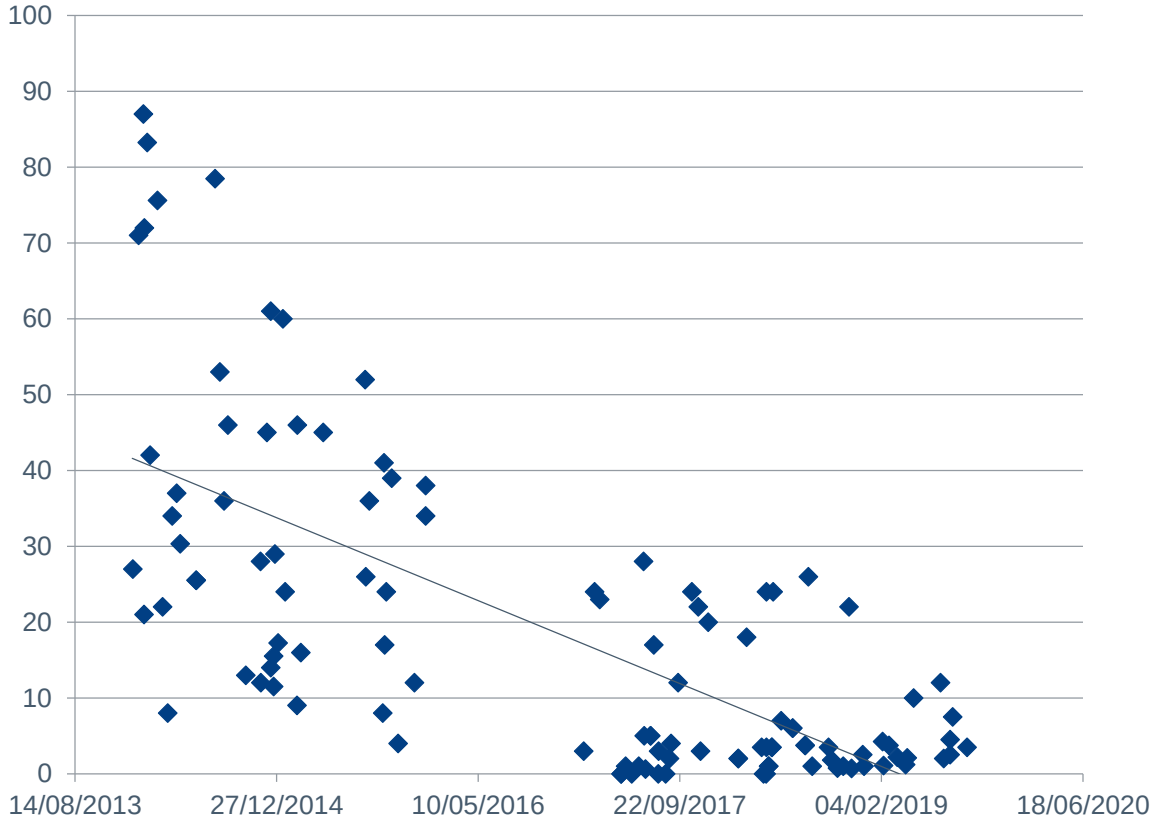


Early Breast Milk

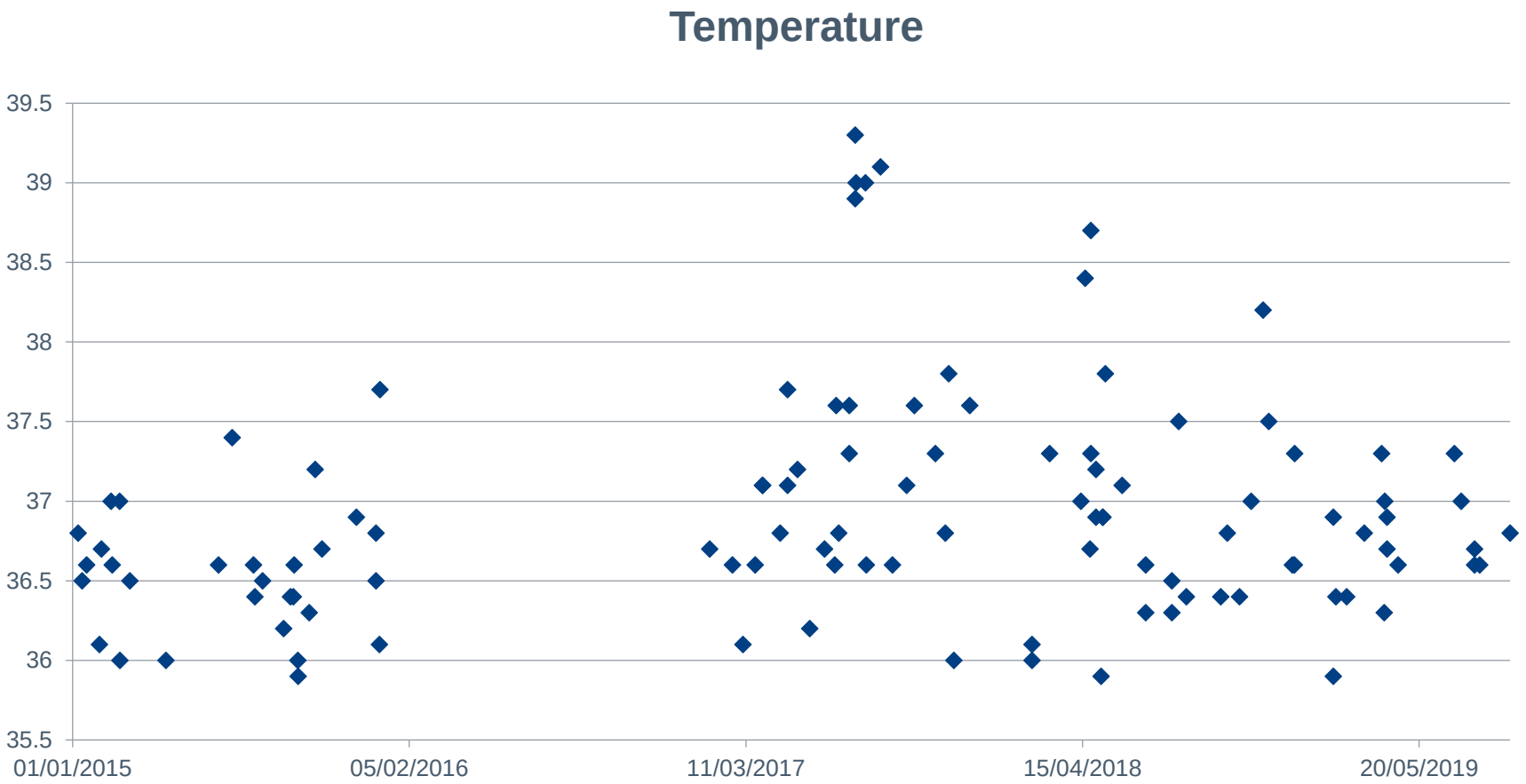
Antenatal breast milk advice



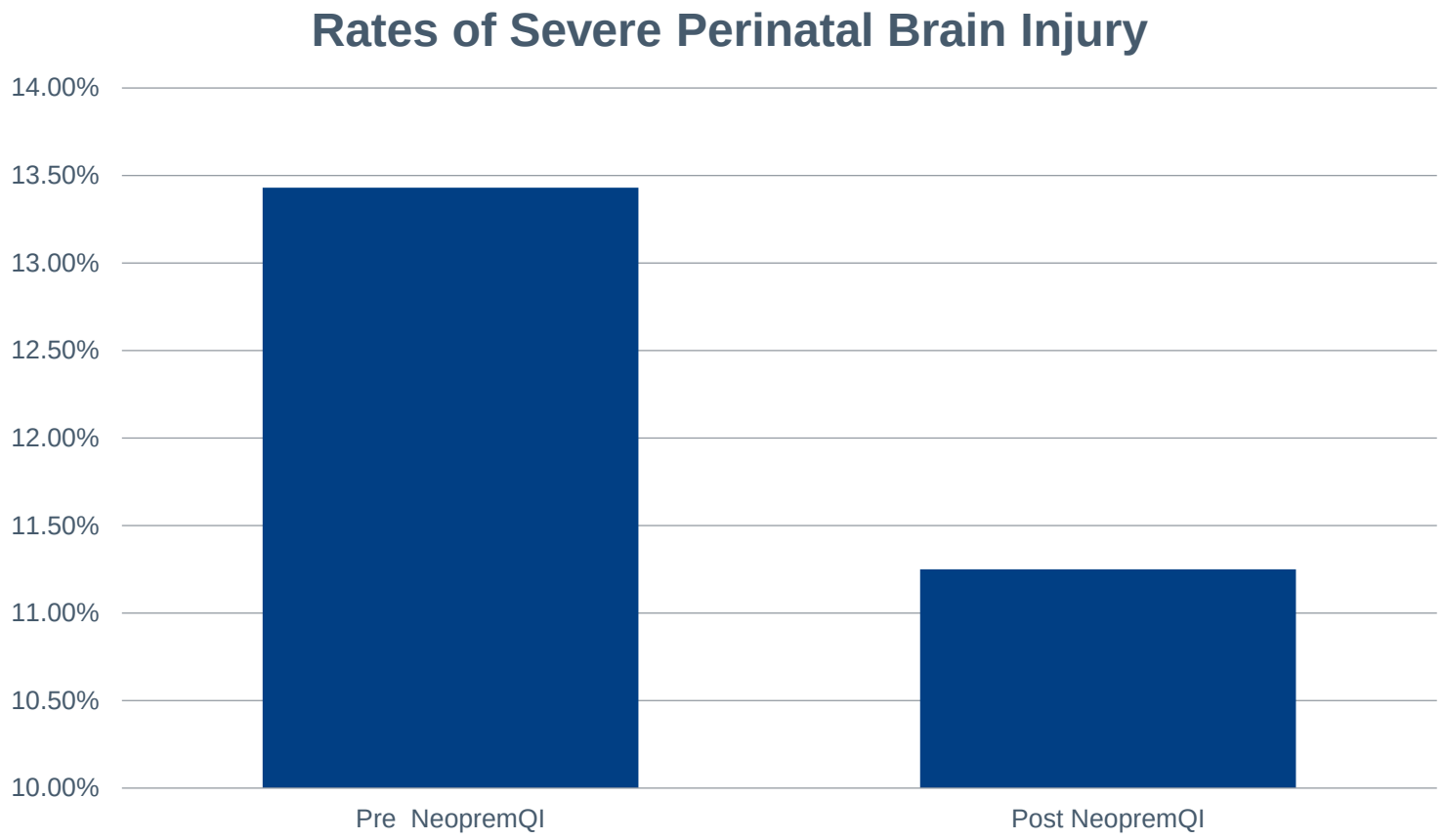
Time to first breast milk (hours)



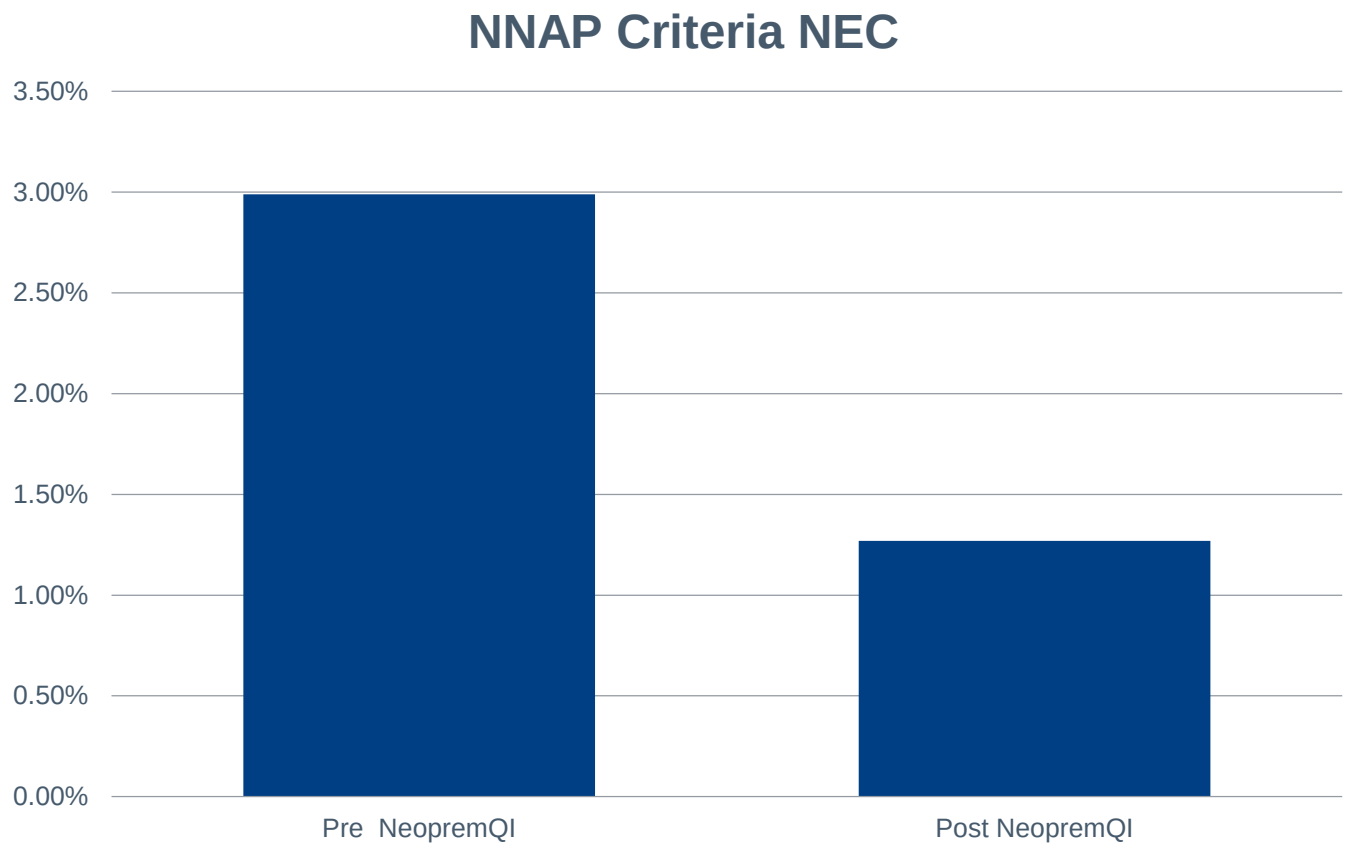
Normothermia



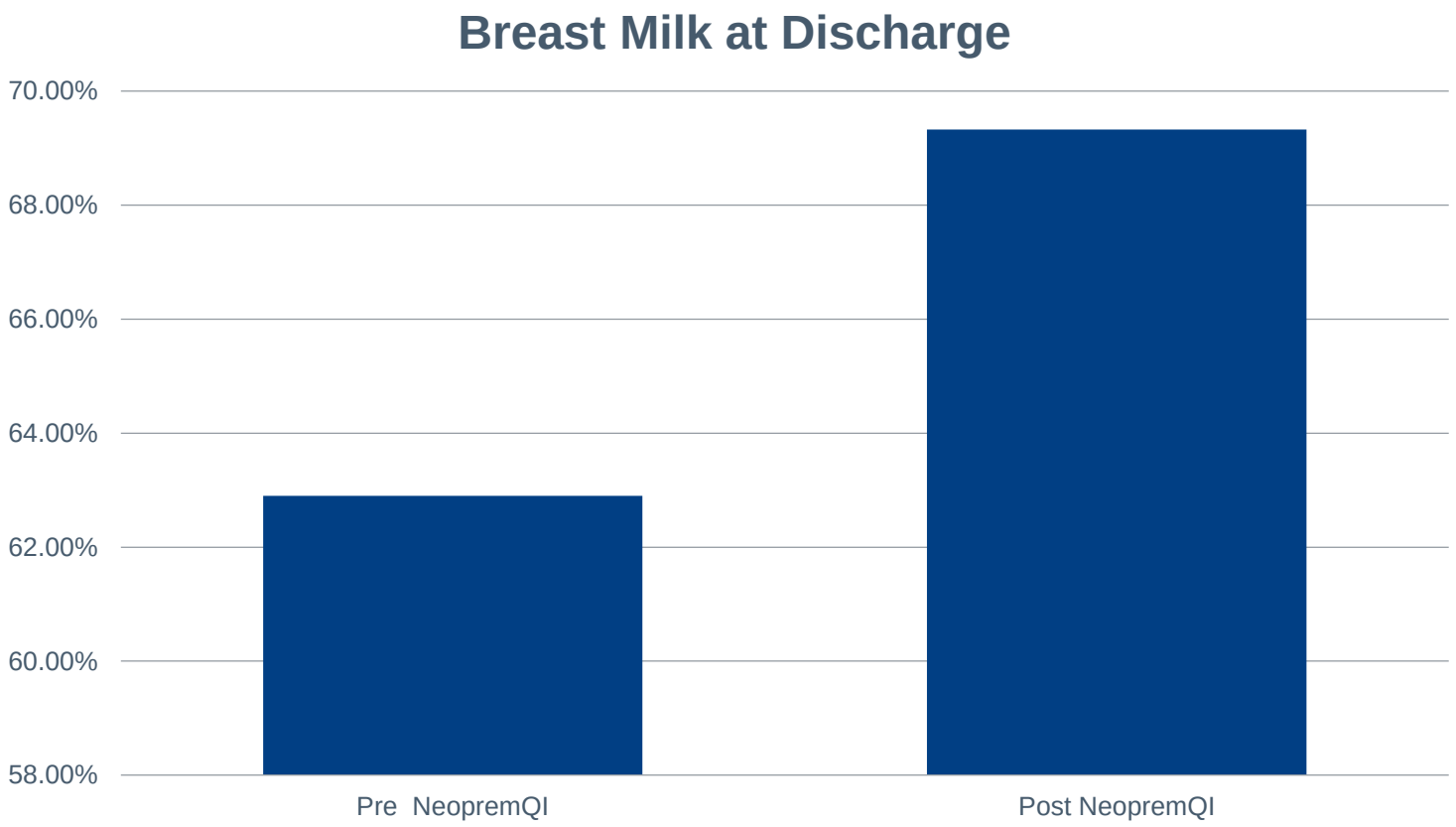
Severe Perinatal Brain Injury



NEC


NNAP Criteria NEC
3.50%
3.00%
2.50%
2.00%
1.50%
1.00%
0.50%
0.00%
Pre NeopremQI
Post NeopremQI

Breast Milk


Breast Milk at Discharge
70.00%
68.00%
66.00%
64.00%
62.00%
60.00%
58.00%
Pre NeopremQI
Post NeopremQI

Conclusions

- MDT approach is key
- Improvement in rates of implementation of best practice intervention
- Early indications of beneficial impact on key neonatal outcomes

Questions?

References

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Thank you!

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