

BACKGROUND:

The National Neonatal Audit Programme (NNAP) uses a range of measures to monitor high quality neonatal care. A recurrent theme at Royal Preston Neonatal Unit with regards to NNAP data was missing Badgernet data especially around preterm perinatal optimisation and parental partnership which affected the performance outcomes.

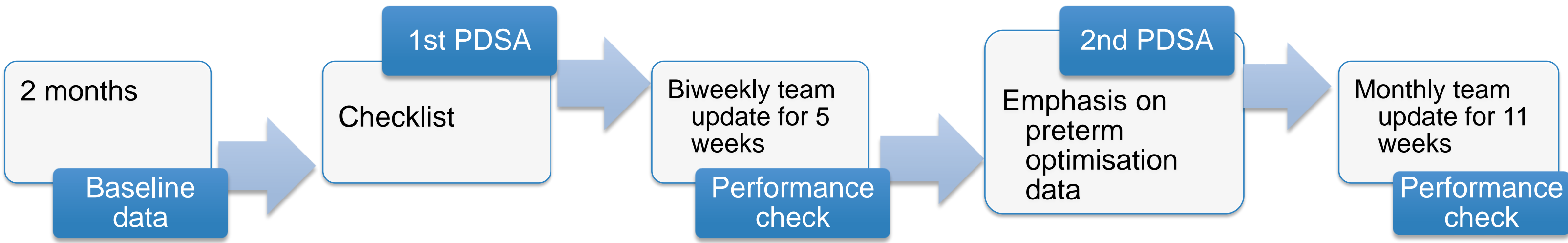
The main reasons for missing data entry were clinical workload and no effective system of handover of the Badgernet updates.

OBJECTIVE:

To improve the data entry on all the NNAP data quality indicators ensuring documentation of high-quality care.

METHODS:

- 1. The project involved two consecutive Plan–Do–Study–Act (PDSA) cycles.
- 2. Baseline data entry was collected prior to the 1st PDSA cycle using a checklist including all the 2023 NNAP measures during admission and discharge (Figure 1).
- 3. Weekly grand rounds and team communication meetings were used to highlight the team performance.
- 4. The 2nd PDSA cycle was implemented with emphasis on indicators of preterm perinatal optimisation measures including antenatal steroid and magnesium sulphate administration, delayed cord clamping, thermoregulation, early colostrum and parental consultation within 24 hours.



RESULTS:

- Baseline NNAP data entry completion for 17 admissions and 21 discharges were compared with the 1st and 2nd PDSA cycles and presented in Chart 1.
- Both PDSA cycles showed an improvement in the completion of Badgernet data entry for admission measures.
- The total number of admissions and discharges analysed in the 1st PDSA cycle were 33 and 44 respectively and during 2nd PDSA cycle were 84 and 61 respectively.
- Preterm perinatal optimisation data entry was strictly monitored and the performance is depicted in Chart 2.
- Documentation of culture results for blood stream infection are done by consultants with final microbiology reports, preterm birth injury during weekly cranial ultrasound meetings, and NEC as a part of NEC care bundle.

NNAP AUDIT MEASURES DOCUMENTATION CHECKLIST

ADMISSION MEASURES – TICK IF ENTERED IN BADGERNET

MEASURE	At admission	<24 hours	>24 hours	Signature
DATE				
Antenatal steroids	✓			X
Antenatal MgSO4	✓			X
Centre of birth	✓			X
DCC	✓			X
Temperature at admission	✓			X
Parental consultation		✓		x

MEASURE If yes enter Time	<24 hours	<2 days	2-7 days	>7 days	Signature
EBM mouth care If yes enter Time		✓			
Introduction of breast milk If yes enter Time					

DISCHARGE MEASURES – TICK IF COMPLETED		Signature
Blood cultures in the badger		
ROP on-time screening		
BPD		
NEC		
Preterm birth injury (CrUSS)		
Breast milk in 14 days		
Breastmilk at home	✓	x
Outcome at discharge		

KINDLY CHECK IF DAILY SUMMARY FORMS HAVE THE FOLLOWING UPDATED		Signature
Parental presence in ward rounds		
Neonatal nurse staffing		
Respiratory supports		
Enteral feeding		

Figure 1 - Checklist with 2023 NNAP measures. The checklist is a prompt at admission to document data and was reviewed on ward rounds everyday and during discharge to ensure completion of data entry.

Chart 1. Completion of Badgernet data entry

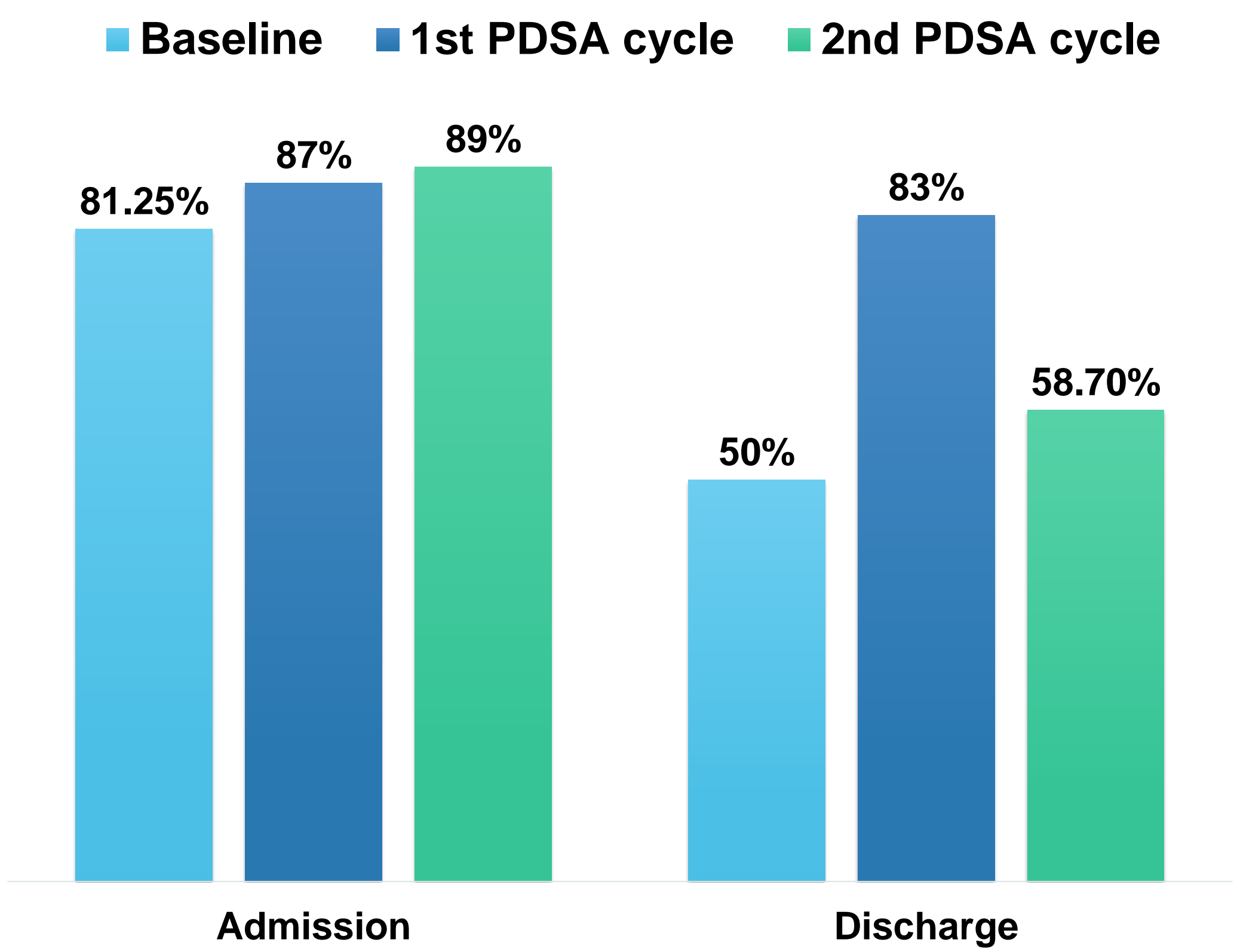
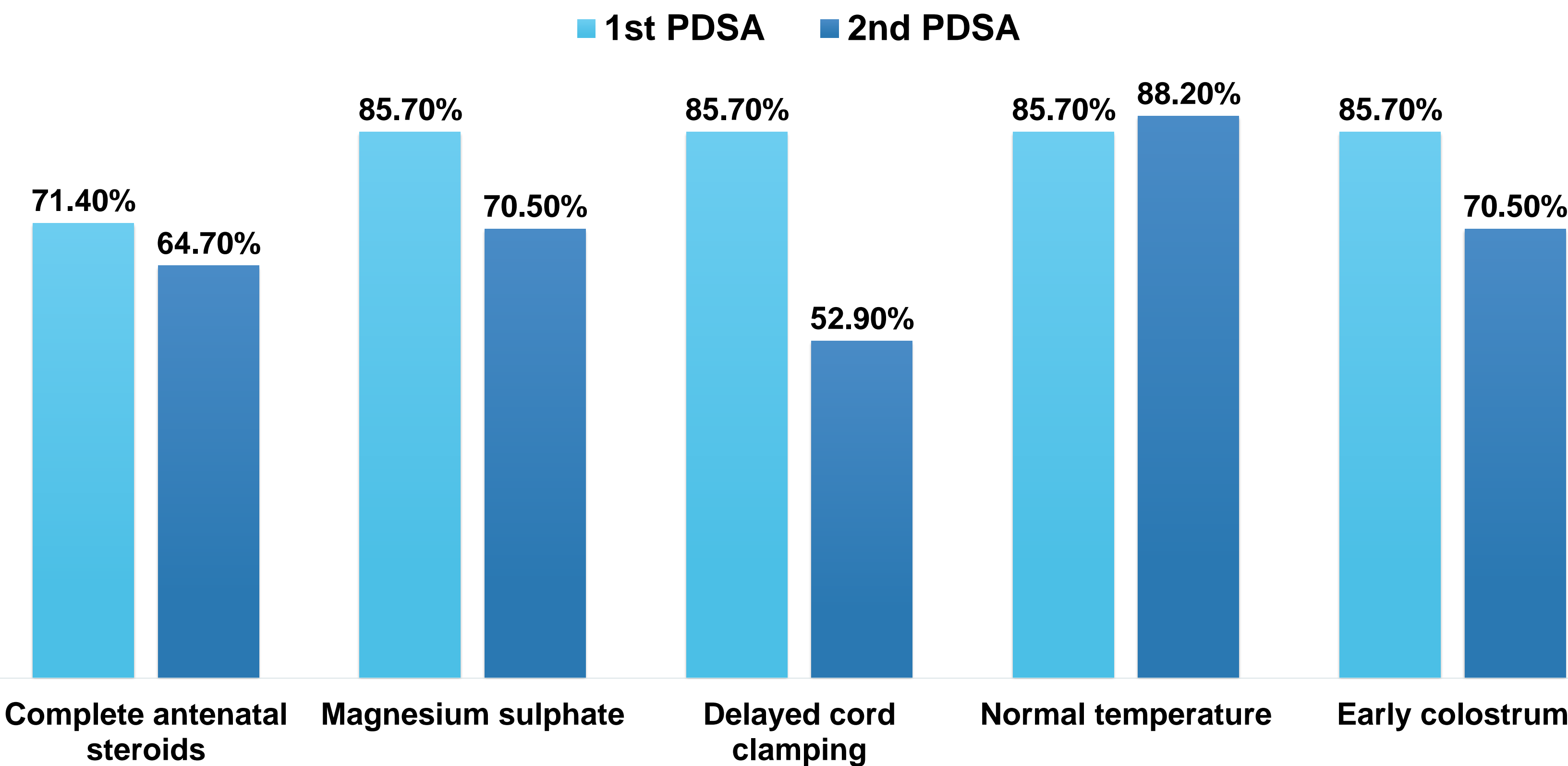


Chart 2. Performance of Preterm perinatal optimisation



CONCLUSION:

- Use of the checklist as a prompt and sharing of real time performance statistics resulted in consistent awareness of documentation by medical staff and conscious handover for team members to fill in missing data.
- The reduction in the performance in 2nd PDSA cycle may be a result of reduced frequency of reminders from biweekly to monthly and the QIP also coincided with the two changes of doctors in August and September.
- Any deviation from the optimal perinatal management is being actively monitored and we have highlighted that **efficient documentation and real time sharing of performance are key steps in improving quality of care.**

REFERENCES:

- National Neonatal Audit Programme (NNAP) measures [Internet]. RCPCH. [cited 2024 Feb 20]. Available from: <https://www.rcpch.ac.uk/work-we-do/clinical-audits/nnap/measures>
- QI made easy [Internet]. British Association of Perinatal Medicine. [cited 2024 Feb 20].Available from: <https://www.bapm.org/pages/209-qi-made-easy>
- Perinatal optimisation pathway [Internet]. British Association of Perinatal Medicine. [cited 2024 Feb 20]. Available from: <https://www.bapm.org/pages/perinatal-optimisation-pathway>

ACKNOWLEDGEMENTS: We thank the team at Royal Preston Hospital NICU for the continuous support with the project and always striving for excellence.