



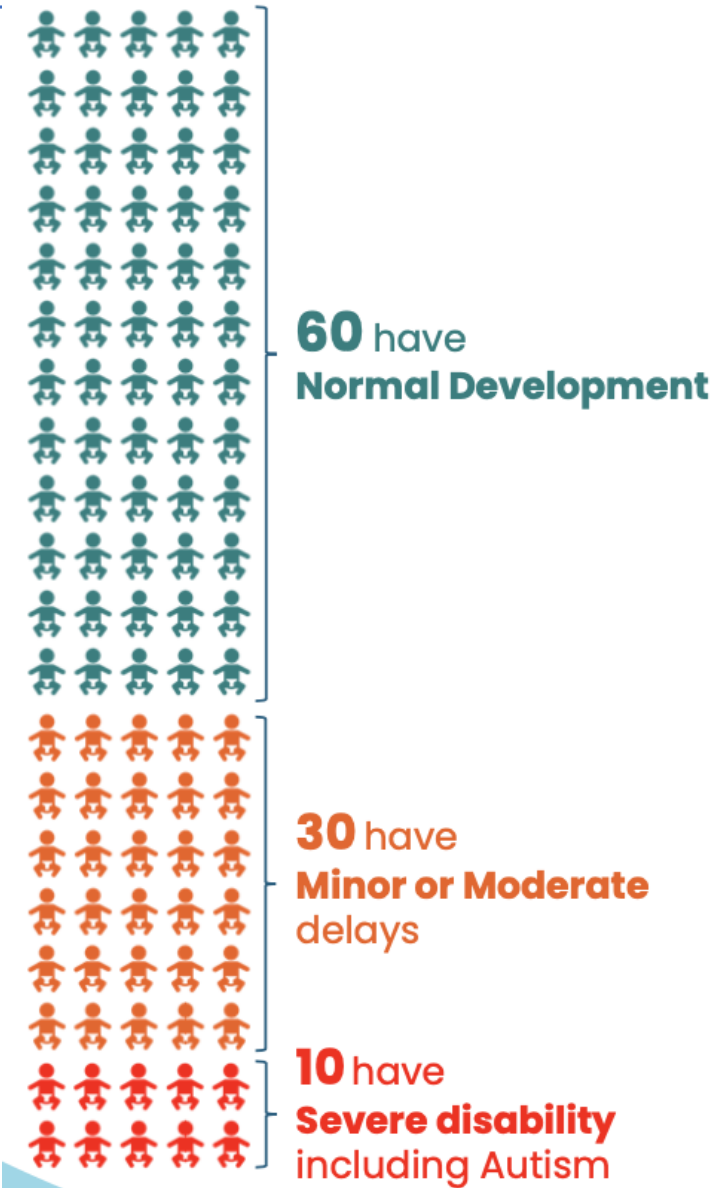
Cooling in Mild Encephalopathy Trial (COMET)

Prof Sudhin Thayyil and Prof Seetha Shankaran

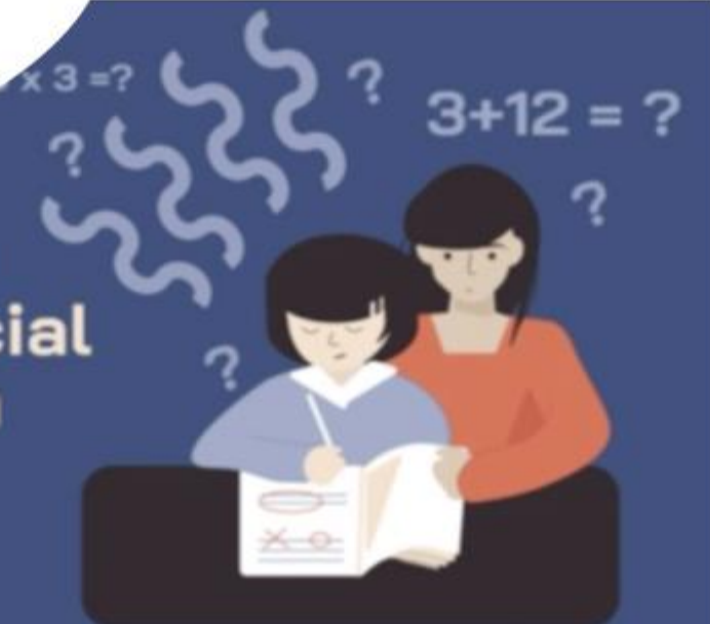
[COMET Trial Website](#)

100 Babies with Mild Brain Injury

How are they at 2 years?



38% may have special education needs at school



Can a cooling
mattress protect
a baby's brain
and prevent later
disability?

100 Babies with Mild Brain Injury How are they at 2 years?



60 have
Normal Development



30 have
Minor or Moderate
delays



10 have
Severe disability
including Autism

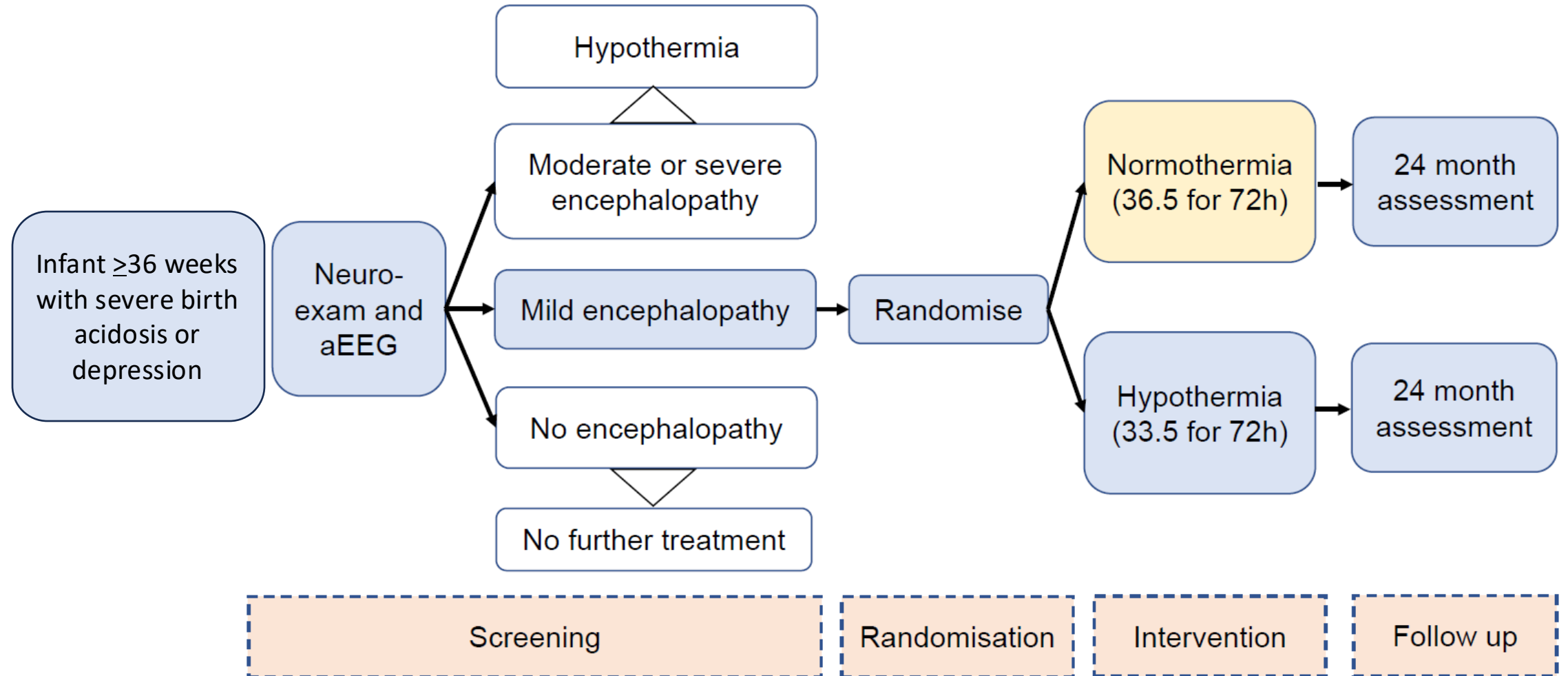
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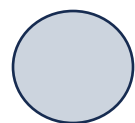


POPULATION
[426 babies]

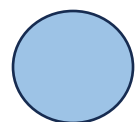
INTERVENTION
CONTROL

OUTCOME
[Cognitive scores]





Open sites



In set up sites

1

Standardisation of neurological assessment

Inter-rater reliability of Modified Sarnat Stage requires standardisation

Comparison	Kappa
Gold standard examiner versus Gold Standard examiner	0.8 to 1
Gold standard examiner versus Certified examiner	0.7 to 0.8
<i>(Pavageau et al Ped Research 2019)</i>	
Non-certified examiners without standardisation	0.1 to 0.2

(Zain et al Neonatal Soc meeting, London, March 2025)

Neonatal neurological assessments in the UK

Fadilah et al. *BMC Pediatrics* (2022) 22:562
<https://doi.org/10.1186/s12887-022-03616-4>


BMC Pediatrics

RESEARCH

Open Access

Attitudes towards the neurological examination in an unwell neonate: a mixed methods approach



Ala Fadilah, Quentin Clare and Anthony Richard Hart* 

“Don’t actually know how to do a neurological examination

“No agreed structure for the examination”

“Consultants struggle too”

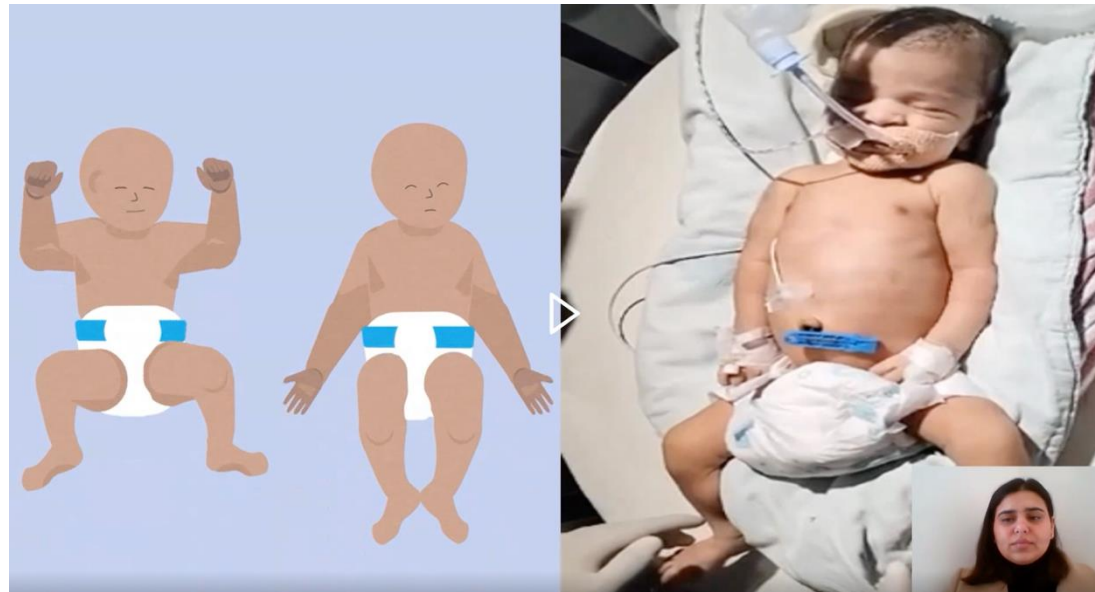
“No modelling by consultants”

“No assessments of competencies”

Conclusions: There are barriers preventing paediatricians being able to perform a neurological examination in unwell neonates, and a culture of neurophobia is common. A new standardised examination is needed, alongside aids to interpretation, training, and assessment.

Training and Certification

- Over 600 resident doctors and consultants trained from 40+ hospitals



2

IMPERIAL

First Neuro Exam

Please scan the QR code with your mobile phone before you do the the first neuro-examination.



COMET

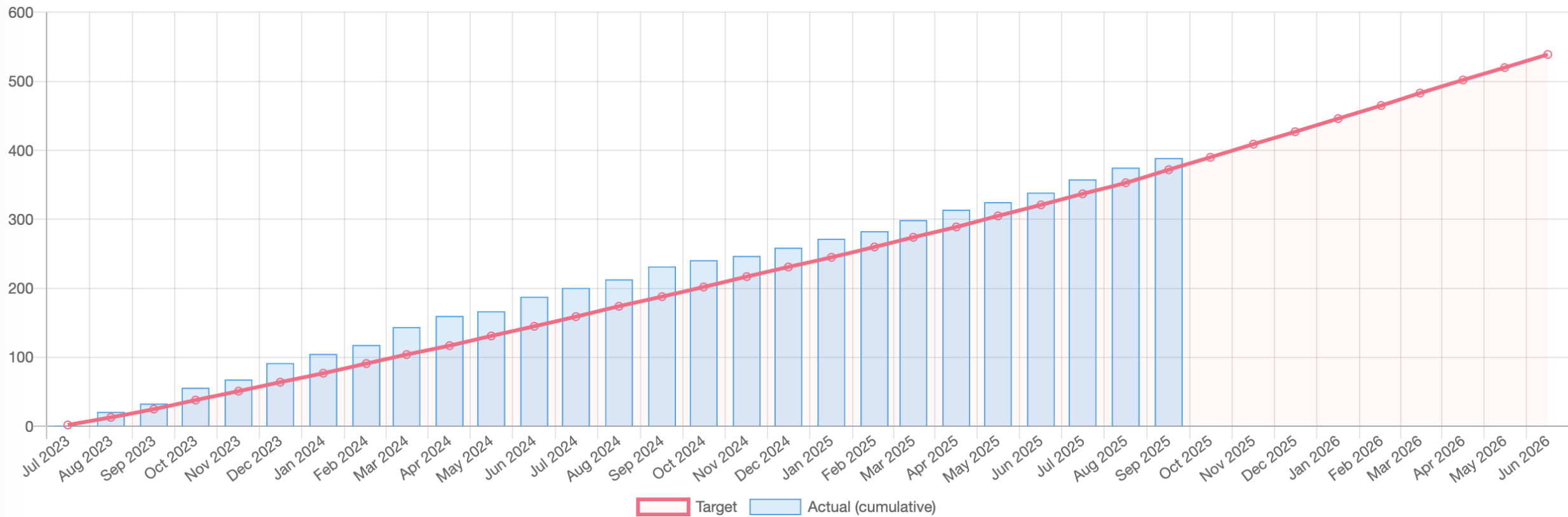


Target recruitment

Actual compared to target recruitment. Targets are defined for each site and amalgamated across all sites. Click on a column heading to sort by that column.

Return to reports

Download as CSV



COMET Pilot RCT (2019 to 2023; 101 babies from 6 NICU) suggests clinical equipoise

FUNDED BY
NIHR | National Institute for
Health and Care Research

Apgar <5 at 10 min,
continued
resuscitation at 10
min or cord pH <7.0

Mild HIE on
neurological
assessment

Normal aEEG

COHORT A (aged < 6h and before cooling) – **NON-DRIFT Group**

Randomise

Normothermia (37 C x 72 hours)

Hypothermia (33.5 C x 72 hours)

MRI

COHORT B (aged 6h to 36 hours and after cooling initiated) – **DRIFT Group**

Hypothermia already
started within 6 h as
clinical care (“drift”)

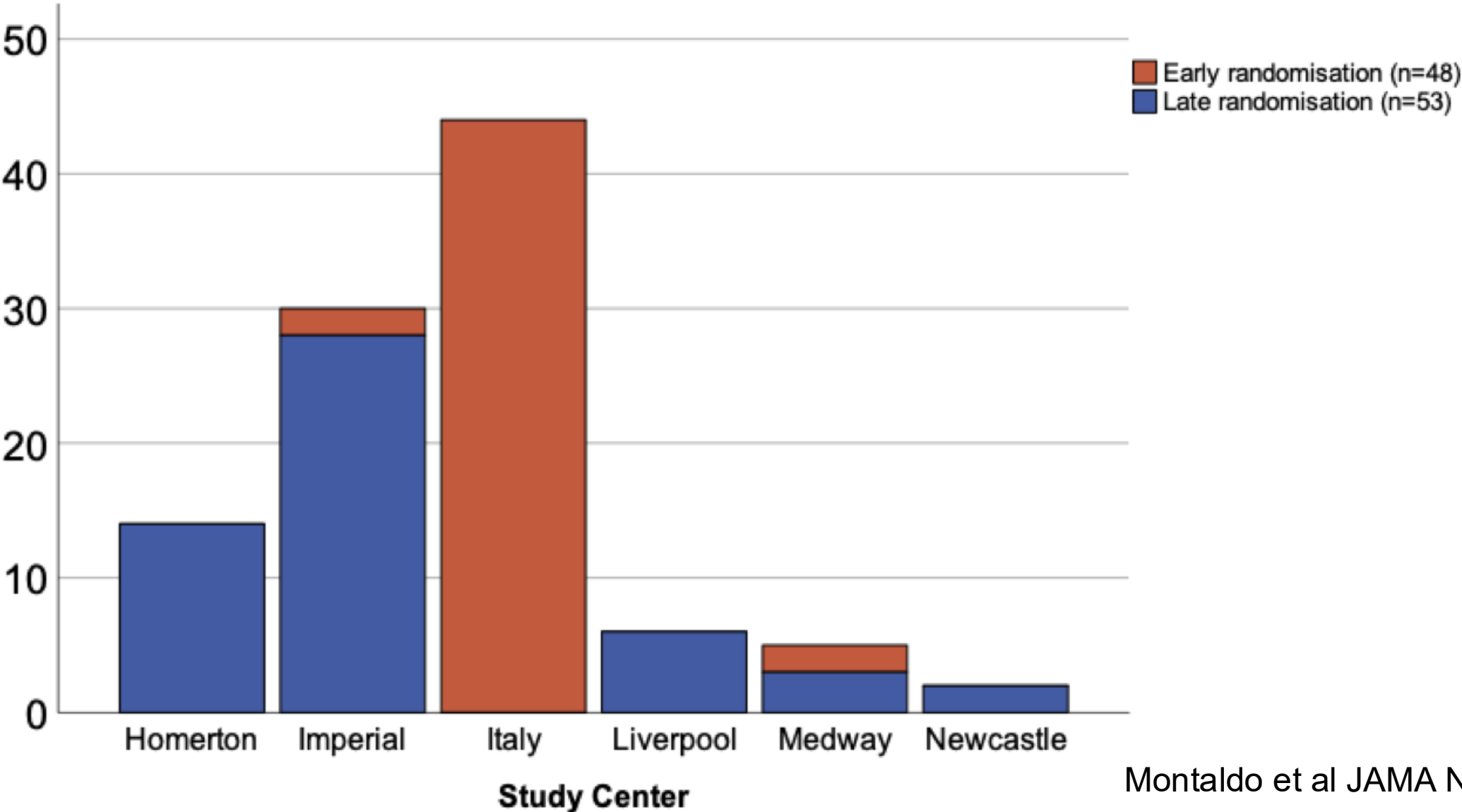
Randomise

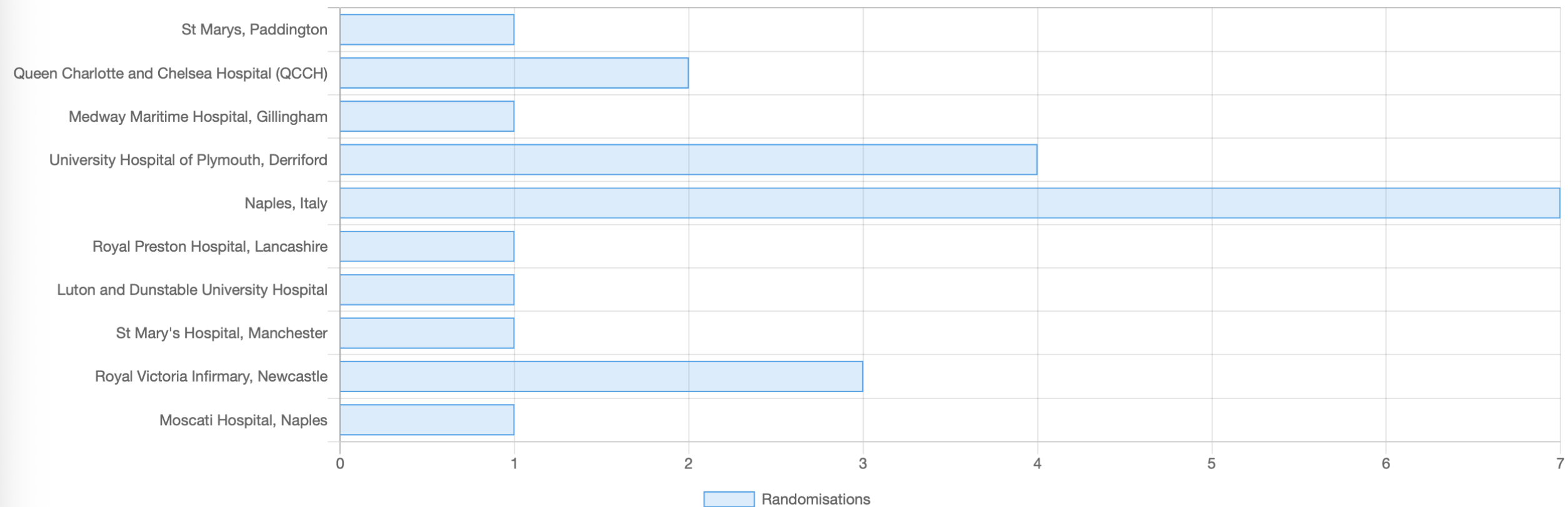
Hypothermia (33.5 C x 48
hours)

Hypothermia (33.5 C x 72
hours)

MRI

eFigure 1. Recruitment sites and number of neonates randomised within 6 hours of birth (red) and at or after 6 hours (blue) indicating therapeutic drift







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IMPERIAL

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