The ON TRACK Network

June 2018 Edition 22




ON TRACK NETWORK
BETTER HEALTH FOR MOTHERS AND BABIES

Welcome to the June edition of the ON TRACK Network newsletter

ON TRACK News

- Welcome to our new Site Network Co-ordinators; Esther Caljé (Canterbury) and Lisa Mravicich (Counties Manukau), its great to have you on the team!
- Congratulations to the MAGENTA teams in Auckland and Christchurch on completion of the MAGNUM study (160 babies undergoing MRI at 36 weeks after MAGENTA treatment)
- Use of the fetal movement app in the My Baby's Movement Study has gone live this month in Auckland, Canterbury and Counties Manukau DHBs. For more info contact:

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The ON TRACK Trial Development Workshop - Concept Summary

Our annual workshop aims to develop promising concepts for clinical trials into collaborative, multicentre proposals suitable for submission for competitive grant funding. This month we profile the third of four concepts presented at this year's workshop.

Dr Lesley Dixon (midwife) and Alison Eddy (midwife) from Christchurch presented their proposal for **Pasteurised Donor Breast Milk for the Prevention of Neonatal Hypoglycaemia.** The aim of the proposed research is to explore whether giving pasteurized donor breast milk (PDBM) prophylactically shortly after birth can reduce the incidence of hypoglycaemia in babies who are at high risk of developing hypoglycaemia. The primary outcome will be the number of episodes of hypoglycaemia identified, and secondary outcomes include the impact of using PDBM on breastfeeding and it's acceptability to women.

A summary from Lesley and Alison - the use of donor breast milk within healthcare is gaining acceptability and supports continuation of breastfeeding which has an important impact on child health and engaged parenting. It is frequently used to support a mother's own milk when there is either insufficient supply or it is not available. Babies of mothers who have diabetes; are born late preterm; or are small or large for gestational age have an increased risk of hypoglycaemia following birth with 50% developing hypoglycaemia and requiring treatment. First line treatment is now oral dextrose gel. We hypothesise that breast milk may be an alternative and effective way of preventing hypoglycaemia.

Attending the ON TRACK workshop was extremely helpful as we worked through issues and refined our concept. The workshop provided an opportunity for us to work through our concept in a structured and supportive way. We are now in the process of identifying and inviting key representatives to be collaborators in the project. Our next steps are to refine the trial protocol using the templates and guidelines provided by the Liggins Central Coordinating Research Hub (CCRH). We then plan to apply for ethics approval and funding from the Health Research Council.

The ON TRACK Network

Multicentre Trials currently recruiting in NZ

DIAMOND | GEMS | HINT2 | hPOD | MBM | OBLIGE | PROVIDE | PAEAN | PLUSS

The ON TRACK Network website is going live! Find us at: http://ontrack.perinatal.org.nz/

Our website provides a ready link to information about the ON TRACK Network for anyone to learn about who we are and the maternal and perinatal multicentre clinical trial research which is currently going on in New Zealand. It also provides links to resources and trial publications and back copies of all our newsletters so you can re-visit 'update your practice' and much more!

We will continue to refresh and update the website and plan to include consumer friendly pages in the near future.

Update Your Practice

NeOProM Collaboration
JAMA 2018;319(21):2190-2201
Doi:10.1001/jama.2018.5725

JAMA | Original Investigation
Association Between Oxygen Saturation Targeting and Death or Disability in Extremely Preterm Infants in the Neonatal Oxygenation Prospective Meta-analysis Collaboration

There are potential benefits and harms of too much or too little oxygen for pre-term infants receiving supplemental oxygen in the neonatal period. Too little oxygen increases the risk of death and neurodevelopmental impairment but too much may cause retinopathy of prematurity and blindness.

Several randomised trials have explored the effects of different target ranges for oxygen saturation (measured by pulse oximetry, SpO_2). The multinational Neo-natal Oxygenation Prospective Meta-analysis (NeOProM) Collaboration has used individual participant data in meta -analyses to assess the effects of these target ranges on death or major morbidity. The New Zealand Benefits Of Oxygen Saturation Targeting (BOOST) trial is included (https://doi.org/10.1016/j.jpeds.2014.01.017).

This was a prospectively planned meta-analysis of the individual patient data from 5 randomised trials that included infants born <28 weeks gestation comparing lower target SpO_2 (85-89%) to a higher target SpO_2 (90%-95%). The primary outcome was a composite of death or major disability (defined as bilateral blindness, deafness, cerebral palsy as ≥2 level on Gross Motor Function Classification System, or Bayley-III cognitive or language score <85) at a corrected age of 18-24 months.

Results: A total of 4965 infants were included in the study, 2480 randomised to the lower target SpO_2 and 2584 randomised to the higher target SpO_2. The median gestational age was 26 weeks and mean birthweight was 832g.

There was no difference in the composite primary outcome; 1191/2228 (53.5%) in the lower SpO_2 group and 1150/2229 (51.6%) in the higher SpO_2 group (RR 1.04, 95%CI 0.98-1.09).

However, on reviewing secondary outcomes the lower SpO_2 target range was associated with a higher risk of death (RR 1.17, 95%CI, 1.04 to 1.31) and severe necrotising enterocolitis (RR 1.33, 95%CI 1.10 to 1.61) but a lower risk of retinopathy of prematurity treatment (RR 0.74, 95%CI 0.63 to 0.86).

What do these results mean for practice: Given the severity of the outcome of death, the findings suggest that the higher SpO_2 target range of 90%-95% is more appropriate for extremely premature infants.

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