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Speed of Increasing milk Feeds Trial

Submission date
05/03/2013

Recruitment status
No longer recruiting

Registration date
14/03/2013

Overall study status
Completed

Last Edited
23/08/2021

Condition category
Pregnancy and Childbirth

[X] Prospectively registered

[X] Protocol

[_] Statistical analysis plan

[X] Results

[_] Individual participant data

Plain English summary of protocol

Background and study aims
Survival of preterm infants has increased greatly over the years, so a major aim now is to improve the long-term outlook for these infants and to avoid serious complications. The way infants are fed in early life affects short- and long-term health and survival. Because the bowels of preterm infants have not matured, they cannot digest large volumes of milk feeds straight away. Until the gut matures, nutrition is provided by intravenous drip while the amount of milk given is gradually increased over time. Increasing the amount of milk rapidly may increase the risk of gut complications. Increasing the amount of milk given more slowly means that intravenous nutrition is needed for longer; there is an associated risk of infection proportional to the time the intravenous line is present in the bloodstream of these infants. Despite the importance of milk feeding preterm infants, there have been few studies to inform how best to balance these risks, and what the best way to increase feeds in these infants is - this study sets out to address this missing information. The study will compare two different rates of increase of milk feeds, one faster and one slower, both within rates currently used in UK neonatal units. The study aims to find out if either rate gives better outcomes for the infants. Investigators will measure a variety of outcomes, such as survival without disability, infection, bowel problems, growth and long-term physical and mental development, as well as the impact on families and the NHS, including costs. The study will be led by an established team of researchers who have run similar studies before, and will use an established network of neonatal units that have taken part in previous studies.

Who can participate?
The study will recruit 2800 very preterm (<32 weeks) or VLBW (<1,500 g) infants from 58 neonatal units within the UK and Ireland over 3 years.

What does the study involve?
With informed consent from parents, infants will be randomly allocated to receive either faster (30 ml/kg/day) or slower (18 ml/kg/day) increases in milk feed volumes. As well as assessing the effect of a faster feeding increment on the risk of severe or moderate disability, the study will also compare the rate of serious infection and necrotising enterocolitis [portions of the bowel undergo necrosis (tissue death)], the time taken to reach full milk feeds, the duration of nutrition is provided by intravenous drip, growth, and the length of hospital stay between the

two groups. Infants will be followed up at 2 years of age via a questionnaire which will be posted to the parents. Finally, an economic evaluation will be undertaken to determine whether faster feeding advancement is a cost-effective treatment.

What are the possible benefits and risks of participating?
There will be no immediate direct benefit to those taking part in the study; however, there should be benefits to future very preterm or VLBW babies as the results of the study are likely to influence NHS neonatal feeding policy and practice. As both the study rates of increase of milk feeds (faster and slower) are within rates currently used in UK neonatal units, there is no difference in risk between feeding regimens administered as part of the study and those administered as part of standard clinical care.

Where is the study run from?
SIFT is run from the National Perinatal Epidemiology Unit Clinical Trials Unit at the University of Oxford (UK).

When is the study starting and how long is it expected to run for?
Recruitment started in summer 2013 and finished in summer 2015. Follow-up will start 2 years after the first infants are recruited (summer 2015) and continue until 2 years after the last infants are recruited (summer 2015).

Who is funding the study?
NIHR Health Technology Assessment Programme - HTA (UK)

Who is the main contact?
Chief Investigator, Jon Dorling: Jon.Dorling@iwk.nshealth.ca
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Contact information

Type(s)
Scientific

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ClinicalTrials.gov (NCT)

NCT01727609

Protocol serial number
HTA 11/01/25

Study information

Scientific Title
A multi-centre randomised controlled trial of two speeds of daily increment of milk feeding in very preterm or very low birth weight infants

Acronym
SIFT

Study objectives
It is hypothesised that the proportion of very preterm (<32 weeks) or very low birth weight [VLBW] (<1,500 g) infants surviving without moderate or severe disability at 24 months post menstrual age will be greater in the faster (30 ml/kg/day) versus slower (18 ml/kg/day) increasing milk feed regimen.

Ethics approval required
Old ethics approval format

Ethics approval(s)
NRES Committee East Midlands - Nottingham 2, 31/01/2013, ref: 13/EM/0030

Primary study design
Interventional

Study design
Phase III multi-centre open-label randomised controlled trial

Study type(s)
Prevention

Health condition(s) or problem(s) studied
Neonatal feeding, preterm infants, very low birth weight infants, necrotising enterocolitis, late-onset invasive infection

Interventions
The study will recruit 2800 very preterm or VLBW from 58 neonatal units within the UK and Ireland over 3 years.

Infants will be randomly allocated to receive either faster (30 ml/kg/day) or slower (18 ml/kg /day) increases in milk feed volumes. Until discharge they will be monitored for late-onset invasive infection, necrotising enterocolitis, time taken to reach full milk feeds, growth, duration of parenteral feeding, length of hospital stay, and length of time in intensive care.

They will be assessed for moderate or severe disability at 24 months post menstrual age.

Intervention Type
Other

Phase
Phase III

Primary outcome(s)
Moderate or severe disability at 24 months post menstrual age

Key secondary outcome(s)
Current secondary outcome measures as of 28/04/2016:
1. Survival to discharge home
2. Incidence of microbiologically-confirmed or clinically suspected late-onset infection from trial entry until hospital discharge
3. NEC (Bell stage 2 or 3) from trial entry
4. Time taken to reach full milk feeds (tolerating 150 ml/kg/day for 3 consecutive days)
5. Growth (weight and head circumference) when discharged home
6. Duration of parenteral feeding
7. Length of time in intensive care
8. Length of hospital stay
9. Diagnosis of cerebral palsy by a doctor or other health professional (parent reported)

Previous secondary outcome measures:
1. Incidence of microbiologically-confirmed or clinically suspected late-onset invasive infection from trial entry until hospital discharge
2. Incidence of necrotising enterocolitis (NEC) [Bell stage 2 or 3]
3. Time taken to reach full milk feeds (tolerating 150 ml/kg/day for 3 consecutive days)
4. Growth (weight and head circumference) at discharge
5. Duration of parenteral feeding before discharge
6. Length of time in intensive care
7. Length of hospital stay

Completion date
10/05/2018

Eligibility

Key inclusion criteria
1. Gestational age at birth <32 weeks, or birth weight <1,500 g
2. The infant is receiving ≤30 ml/kg/day of milk at randomisation
3. Written informed parental consent is obtained
To ensure the widest applicability to preterm infants across the UK, those exclusively breast milk fed, formula milk fed, or receiving mixed feeds will be included.

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Neonate

Sex
All

Total final enrolment
2804

Key exclusion criteria
1. Infants with a severe congenital anomaly
2. Infants who, in the opinion of the treating clinician, have no realistic chance of survival
3. Infants who are unlikely to be traceable for follow-up at 24 months of age (for example, infants of non-UK residents)

Date of first enrolment
01/06/2013

Date of final enrolment
31/05/2015

Locations

Countries of recruitment
United Kingdom

England

Ireland

Study participating centre
NPEU Clinical Trials Unit
Oxford
United Kingdom
OX3 7LF

Study participating centre
58 other sites
United Kingdom
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Sponsor information

Organisation
University of Oxford (UK)

ROR
https://ror.org/052gg0110

Funder(s)

Funder type
Government

Funder Name
Health Technology Assessment Programme

Alternative Name(s)
NIHR Health Technology Assessment Programme, Health Technology Assessment (HTA), HTA

Funding Body Type
Government organisation

Funding Body Subtype
National government

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated during and/or analysed during the current study will be available upon request.

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	10/10/2019	10/10/2019	Yes	No
Results article	results	01/04/2020	29/04/2020	Yes	No
Results article	Study Within A Trial (SWAT)	21/08/2021	23/08/2021	Yes	No
Protocol article	protocol	28/01/2017		Yes	No
HRA research summary			28/06/2023	No	No

Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes
Study website	Study website	11/11/2025	11/11/2025	No	Yes