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Enteral LactoFerrin In Neonates

Submission date 05/06/2013	**Recruitment status** No longer recruiting	[X] Prospectively registered [_] Protocol
Registration date 13/06/2013	**Overall study status** Completed	[_] Statistical analysis plan [X] Results
Last Edited 14/01/2019	**Condition category** Digestive System	[_] Individual participant data

Plain English summary of protocol

Background and study aims
About 20% of very preterm infants (born before 32 weeks) acquire a serious infection. These infants are more likely to develop other problems including severe lung and bowel conditions, and have a higher risk of dying or being disabled. Better methods of preventing infection in very preterm infants are needed. This study will test whether giving them supplemental lactoferrin (a natural antibiotic protein from cow's milk) reduces the number of serious infections.

Who can participate?
We will invite participation from 2,200 very preterm infants (<32 weeks) cared for in neonatal units across the UK.

What does the study involve?
Parents will be offered information about the study and will have 72 hours to consider and give their informed consent. Infants will be randomly allocated to receive either lactoferrin or placebo (dummy) mixed with their milk. Neither doctors nor parents will be aware of what supplement the infants will receive. Treatment will continue until the infants are no longer at high risk of acquiring serious infections. As well as comparing serious infection rates between the two groups, we will also assess what effects this supplement has on the risk of other serious diseases and death, on the need for infants to receive multiple or prolonged courses of antibiotics and on the length of hospital stay.

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 babies as the results of the study are likely to influence the NHS policy and practice.

Where is the study run from?
The study 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 will start with six centres in the North of England, as part of a planned 9-month pilot, in September 2013. Following this, the study will be opened in further centres in England, Scotland and Northern Ireland and continue to recruit for a further three years.

Who is funding the study?
The National Institute for Health Research's Health Technology Assessment Programme (NIHR HTA)
has provided the funding for the study.

Who is the main contact?
Chief Investigator, Professor William McGuire: William.McGuire@hyms.ac.uk
Trial Co-ordinator, James Griffiths: james.griffiths@npeu.ox.ac.uk

Study website
http://www.npeu.ox.ac.uk/elfin

Contact information

Type(s)
Scientific

Contact name
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Additional identifiers

EudraCT/CTIS number
2012-004260-22

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers
ELFIN01

Study information

Scientific Title
A multi-centre randomised placebo-controlled trial of prophylactic enteral lactoferrin supplementation to prevent late-onset invasive infection in very preterm infants

Acronym
ELFIN

Study objectives
It is hypothesised that the proportion of very preterm (<32 weeks postmenstrual age) infants with at least one episode of late-onset invasive infection by the time of discharge from hospital will be lower in the lactoferrin group versus the placebo group

Ethics approval required
Old ethics approval format

Ethics approval(s)
National Research Ethics Service (NRES) Committee East Midlands - Nottingham 2, Ref: 13/EM /0118, Date: 02/04/2013

Study design
Phase III multi-centre placebo-controlled randomised controlled trial

Primary study design
Interventional

Secondary study design
Randomised controlled trial

Study setting(s)
Hospital

Study type(s)
Prevention

Participant information sheet
Not available in web format, please use the contact details below to request a patient information sheet

Health condition(s) or problem(s) studied
Preterm infants, necrotising enterocolitis, late-onset invasive infection, lactoferrin

Interventions
Infants will be randomly allocated to receive either lactoferrin (150 mg/kg/day to a maximum of 300 mg) or placebo. Until discharge they will be monitored for late-onset invasive infection, necrotising enterocolitis, bronchopulmonary dysplasia, retinopathy of prematurity, length of hospital stay and length of time in intensive care.

Intervention Type
Drug

Phase
Phase III

Drug/device/biological/vaccine name(s)
Lactoferrin

Primary outcome measure

The incidence of microbiologically-confirmed or clinically suspected late-onset infection from trial entry until hospital discharge. Clinicians will record whether or not infants have been treated for late-onset infection on the data collection form, however we are not recording specific test results.

Secondary outcome measures
1. All-cause mortality prior to hospital discharge
2. Necrotising enterocolitis (NEC): Bell's stage II or III
3. Severe retinopathy of prematurity (ROP) treated medically or surgically
4. Bronchopulmonary dysplasia (BPD): infant is still receiving mechanical ventilator support or supplemental oxygen at 36 weeks' postmenstrual age
5. A composite of invasive infection, major morbidity (NEC, ROP, or BPD as defined above) and mortality
6. Total number of days of administration of antibiotics per infant from 72 hours until death or discharge from hospital
7. Total number of days of administration of antifungal agents per infant
8. Total length of stay until discharge home
9. Length of stay in (i) intensive care, (ii) high dependency care, (iii) special care

Overall study start date
01/03/2013

Completion date
31/05/2018

Eligibility

Key inclusion criteria
Infants will be eligible to participate if:
1. Gestational age at birth is less than 32 weeks
2. Less than 72 hours old
3. Written informed parental consent is obtained

If infants are receiving antibiotic treatment for suspected or confirmed
Infection, they are still eligible for recruitment.

Participant type(s)
Patient

Age group
Neonate

Sex
Both

Target number of participants
2200 (including pilot phase)

Key exclusion criteria

1. Infants with severe congenital anomalies
2. Anticipated enteral fasting of more than 14 days
3. Infants who, in the opinion of the treating clinician, have no realistic prospect of survival

Date of first enrolment
01/09/2013

Date of final enrolment
28/09/2017

Locations

Countries of recruitment
England

United Kingdom

Study participating centre
Hull York Medical School and University of York
York
United Kingdom
YO10 5DD

Sponsor information

Organisation
University of Oxford (UK)

Sponsor details
Clinical Trials and Research Governance
Joint Research Office
Block 60 Churchill Hospital
Old Road, Headington
Oxford
England
United Kingdom
OX3 7LE

Sponsor type
University/education

ROR
https://ror.org/052gg0110

Funder(s)

Funder type
Government

Funder Name
National Institute for Health Research (NIHR) Health Technology Assessment Programme (HTA) (ref: 10/57/14)

Results and Publications

Publication and dissemination plan
Not provided at time of registration

Intention to publish date

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/12/2018		Yes	No
Results article	results	02/02/2019		Yes	No
HRA research summary			28/06/2023	No	No