

Bathing babies in neonatal care

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Registration date 04/03/2026	Overall study status Ongoing	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
Last Edited 04/03/2026	Condition category Pregnancy and Childbirth	<input type="checkbox"/> Individual participant data <input checked="" type="checkbox"/> Record updated in last year

Plain English summary of protocol

Background and study aims

Human skin is covered in helpful microorganisms, which provide a natural barrier to infection. Babies who are born preterm or unwell and admitted for neonatal care, however, may have very thin skin or require procedures which potentially damage their skin and reduce helpful microorganisms, resulting in a higher risk of infection. Bathing babies on neonatal units can help to keep their skin free from harmful organisms. Bathing too frequently, however, can increase their risk of infection by removing any helpful microorganisms. Currently, it's unknown how often babies should be bathed to balance these risks, but it is known that it's also a really important way parents can bond with their baby and build confidence in looking after their baby when they go home.

The study will tell us whether it's possible to develop a safe and effective way to determine how often babies in neonatal care should be bathed. If it is, we can conduct a larger study with more babies to find out whether babies are more likely to get an infection if they are not bathed regularly.

Who can participate?

Babies receiving neonatal care at University College London Hospitals NHS Foundation Trust (UCLH) who were born at 30 weeks of gestation or above, their parents, and the healthcare professionals who have experienced caring for the babies in the study.

What does the study involve?

The study will compare the effects of bathing babies in one neonatal unit either once or twice a week. Babies will be selected; half will be bathed every 4 days, and half will be bathed every 7 days. The study team will collect samples of skin microorganisms before and after the bath by brushing a cotton wool bud-like swab on the baby's skin. The team will use experimental techniques to compare how the microorganisms have changed, and whether this increases the baby's risk of an infection.

This first step is to see how easy it is to do this study, before we do a bigger study with more babies, on more neonatal units. This study will also look at which parts of the study work and which parts need improving. Parents and nurses are vital to the success of the study, and so their opinions about it will be explored.

How have parents and nurses supported our proposed study so far?

Parents and neonatal nurses on our neonatal unit identified the need for this study. Many parents had not bathed their baby but said they would love to do so and would help them feel like a parent, increasing confidence in their skills. An advisory group will be created of parents whose baby was admitted for neonatal care to ensure the study remains family-focused.

What are the possible benefits and risks of participating?

Taking part in this study could have benefits for future babies and their parents admitted to neonatal units. For babies, it might help lower the chance of getting an infection while they're in the neonatal unit. For parents, they will get support to bathe their baby regularly while they're in hospital, which can help them feel closer to their baby and more confident about looking after them when they go home. By taking part, families will also help us plan a bigger study to find out if bathing babies regularly in neonatal care really helps reduce infections. Feedback from parents and healthcare professionals can help make sure the bigger study works well for parents and neonatal staff. The information we learn will help improve care for babies in neonatal units in the future.

Taking part in this study has very little risk. Bathing babies is already a normal part of care in neonatal units. This study is just trying to find out how often babies should be bathed to help lower their chance of infection. Bathing a baby in neonatal care can sometimes cause changes like a faster heartbeat or breathing, or affect their body temperature. We will watch babies taking part very closely during and right after their bath to make sure they are safe and doing well. If parents or the baby's medical team feel that the baths are too much for the baby, they can stop taking part in the study at any time. Parents don't have to explain why.

Where is the study run from?

University College London, UK.

When is the study starting and how long is it expected to run for?

January 2026 to June 2026.

Who is funding the study?

National Institute for Health and Care Research (NIHR), UK.

Who is the main contact?

Dr Katie Gallagher, katie.gallagher@ucl.ac.uk

Contact information

Type(s)

Principal investigator, Scientific, Public

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Additional identifiers

Central Portfolio Management System (CPMS)

56472

National Institute for Health and Care Research (NIHR)

206368

Integrated Research Application System (IRAS)

329394

Study information

Scientific Title

The NeoBath study: bathing babies in neonatal care

Acronym

NeoBath Study

Study objectives

In the UK, neonatal sepsis is estimated to affect 5% of babies admitted for neonatal care. Babies who are born preterm or unwell can be at even more risk of sepsis, as they may have thin skin or may need procedures as part of their care that could potentially damage their skin. Bathing babies may help to reduce sepsis by removing harmful skin bacteria; however, we do not know how often to bathe babies for this to make a difference.

This feasibility study aims to determine the feasibility of a neonatal swaddle bathing intervention, identifying primary outcome measures, usability, and acceptability to inform a

future trial exploring the impact of neonatal bathing upon skin colonisation and parent-infant bonding.

Ethics approval required

Ethics approval required

Ethics approval(s)

approved 08/12/2025, East Midlands - Nottingham 1 Research Ethics Committee (Health Research Authority, 2nd Floor, Equinox House, City Link, Nottingham, NG2 4LA, United Kingdom; +44(0)2078115; nottingham1.rec@hra.nhs), ref: 25/EM/0205

Primary study design

Interventional

Allocation

Randomized controlled trial

Masking

Open (masking not used)

Control

Active

Assignment

Parallel

Purpose

Health services research

Study type(s)

Prevention, Quality of life, Safety

Health condition(s) or problem(s) studied

Developing a safe and effective way of determining how often babies receiving neonatal care should be bathed.

Interventions

Babies recruited to the study will be randomised to either being bathed every 4 days (arm 1) or every 7 days (arm 2), for 4 weeks or until discharge from the neonatal unit if this is before the end of 4 weeks. Recruitment will last for 6 months. Babies will be enrolled until either 28 days or discharge, whichever comes first. An embedded qualitative study will involve interviews with parents and healthcare professionals to explore the usability and acceptability of the study.

Intervention:

Ten minutes prior to the agreed time of the bath, the baby's vital signs will be recorded to ensure that the baby is clinically stable enough for the bath. The bathing equipment (baby bath, towels, clean cot sheets, clean baby clothes) will be prepared. Two swabs will be taken from the baby's skin, one from the axilla and one from the groin, and labelled as the pre-intervention swabs.

Babies will be swaddle bathed on the neonatal unit, next to their cot as per usual clinical care. Babies will be undressed and swaddled using a soft cloth or thin blanket prior to the bath, lowered into the bath water with the swaddle in place and this will be partially removed once wet to enable washing the baby. Babies will have their hair washed and dried prior to having a bath, if appropriate, while they are wrapped. The duration of the bath will be determined by the baby's behavioural cues for distress. Once the bath has finished, the parent or the research nurse /clinical team member will lift the baby out of the bath and place them in a warm, dry towel on the parent's chest if possible, or otherwise onto a warm towel in the cot. The baby will be dried and redressed.

The baby's vital signs will be monitored 10 minutes after the bath to ensure that the baby has experienced no adverse effects from the intervention. If the baby becomes too distressed during the bath, the intervention can be stopped early. If the baby has been immersed, the swabs will be taken at the correct time post intervention.

Intervention Type

Behavioural

Primary outcome(s)

1. Feasibility, assessed by evaluating recruitment and retention rates, measured using data from study records at the end of the study
2. Acceptability for infants, parents and healthcare professionals measured using data collected during online interviews conducted with parents and with healthcare professionals at before their baby was discharged home for parents, and near the end of the study for healthcare professionals

Key secondary outcome(s)

Completion date

30/06/2026

Eligibility

Key inclusion criteria

Babies

1. Born at 30 weeks of gestation or above
2. Birthweight above 1kg
3. Clinically stable (not receiving ventilatory support or inotropes)
4. Maintaining temperature
5. Intact skin and no known skin disorders (no vascular access)
6. Born at UCLH and have only received care at this Trust

Parents

1. Over the age of 18
2. Able to provide consent

Embedded qualitative study:

Parents

1. Over the age of 18
2. Able to be interviewed in English
3. Baby has participated in the study

Healthcare professionals

1. Must have experienced caring for babies who have been involved in the study

Healthy volunteers allowed

No

Age group

Neonate

Lower age limit

0 days

Upper age limit

28 days

Sex

All

Total final enrolment

0

Key exclusion criteria

Babies

1. Born below 30 weeks of gestation
2. Birthweight below 1kg
3. Over 9 days of life at consent
4. Clinically unstable (ventilated, including continuous positive airway pressure ventilation, or CPAP, or requiring inotropes)
5. Intravenous access for nutritional support or antibiotics
6. Unable to maintain temperature
7. Born outside UCLH
8. Taking part in any other interventional trials
9. Born with an advanced care plan in place for palliative and/or end-of-life care

Parents

1. Below the age of 18
2. Unable to provide consent

Embedded qualitative study

Parents

1. Below the age of 18
2. Unable to be interviewed in English
3. Baby has not participated in the study

Healthcare professionals

1. Those who have not experienced caring for infants who have been involved in the study

Date of first enrolment

14/01/2026

Date of final enrolment

03/06/2026

Locations

Countries of recruitment

United Kingdom

England

Study participating centre

University College London Hospitals NHS Foundation Trust

250 Euston Road

London

England

NW1 2PG

Sponsor information

Organisation

University College London

ROR

<https://ror.org/02jx3x895>

Funder(s)

Funder type

Government

Funder Name

National Institute for Health and Care Research

Alternative Name(s)

National Institute for Health Research, NIHR Research, NIHRresearch, NIHR - National Institute for Health Research, NIHR (The National Institute for Health and Care Research), NIHR

Funding Body Type

Government organisation

Funding Body Subtype

National government

Location

United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Data sharing statement to be made available at a later date

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Participant information sheet	version 1.3	05/12/2025	27/02/2026	No	Yes
Participant information sheet	version 1.3	05/12/2025	27/02/2026	No	Yes