

# European study of neonatal excipient exposure: study of excipient kinetics in neonates

<b>Submission date</b> 06/03/2012	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 28/05/2012	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 14/02/2018	<b>Condition category</b> Other	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Medicines contain active pharmaceutical ingredients along with a range of other chemicals, collectively known as excipients. These excipients are required to overcome the chemical, physical and microbiological issues that occur when developing formulations that are of good quality to be used in clinical practice. Extensive work is done by pharmaceutical companies to ensure that excipients are safe, which requires knowledge about exposure and outcomes. Premature babies are a vulnerable group as they are not yet suited to life outside of the uterus and can become seriously ill as they adapt to birth, therefore they are often given multiple medications to help them. This may also be the case for full-term babies who are seriously unwell, for example with infections. Nobody has measured the levels of excipients used in medicines for babies and although we are happy with those currently used in clinical practice, it would help to know more about how the body handles the excipients currently used. It would also help pharmacists when developing new medicines for use in babies to ensure that only chemicals that are necessary are included in the formulations. The main aim of the study is to measure the concentration of selected excipient in blood samples taken from newborn babies.

### Who can participate?

Treatment, or likely treatment, of neonates with a drug prescribed containing any of the following excipients; Propylene Glycol, Ethanol and metabolites (Fatty acid ethyl esters are non-oxidative ethanol metabolites), Propylhydroxybenzoate and other parabens, sodium benzoate/benzoic acid/benzyl alcohol, Polysorbate 80, Sorbitol. Each neonatal unit will develop a list of medicines containing the excipient which will trigger eligibility to the study.

### What does the study involve?

This is an observational study of routine clinical practice in which clinical data will be supplemented by information from blood samples taken opportunistically or during specific sampling periods.

### What are the possible benefits and risks of participating?

There is no expected direct benefit to participants and no risks.

Where is the study run from?  
Liverpool Women's NHS Foundation Trust

When is the study starting and how long is it expected to run for?  
October 2011 to December 2012

Who is funding the study?  
Medical Research Council (MRC), UK

Who is the main contact?  
Ms Susan Graham  
susan.graham@lwh.nhs.uk

## Contact information

**Type(s)**  
Scientific

**Contact name**  
Ms Susan Graham

**Contact details**  
Liverpool Women's Hospital  
Crown Street  
Liverpool  
United Kingdom  
L8 7SS  
-  
susan.graham@lwh.nhs.uk

## Additional identifiers

**Protocol serial number**  
11663

## Study information

**Scientific Title**  
European Study of Neonatal Excipient Exposure (ESNEE): an observational study of excipient kinetics in neonates

**Acronym**  
ESNEE

**Study objectives**  
Medicines contain drugs (active pharmaceutical ingredients) along with a range of other chemicals, collectively known as excipients. These excipients are required to overcome the chemical, physical and microbiological issues that occur when developing formulations that are of good enough quality to be used in clinical practice.

Extensive work is done by pharmaceutical companies to ensure that excipients are safe in adults. Nobody has measured the levels of excipients used in medicines for babies so that it is not possible at present to make robust evaluations of excipient safety, particularly in newborn babies. Although clinicians are happy with those currently used in clinical practice, it would help to know more about how the body handles the excipients currently used. It would also help pharmacists when developing new medicines for use in babies to know how the body deals with excipients.

This study will look at a selection of excipients and measure how much of these excipients get into the blood stream and how long those excipients stay in the blood stream of newborn babies. The selected excipients will serve as case studies to describe what happens to important excipients and to define the best ways to measure excipients in newborn babies.

More details can be found at <http://public.ukcrn.org.uk/search/StudyDetail.aspx?StudyID=11663>

### **Ethics approval required**

Old ethics approval format

### **Ethics approval(s)**

NRES Committee North West - Greater Manchester, 14/10/2011, ref: 11/NW/0665

### **Study design**

Observational case-controlled study

### **Primary study design**

Observational

### **Study type(s)**

Screening

### **Health condition(s) or problem(s) studied**

Medicines for neonates

### **Interventions**

Parents will be asked to consent to allow their baby to participate in the study in advance of them being prescribed one of the medicines that contain the excipient of interest.

Where parents have consented to allow extra blood samples to be taken from their child, a maximum of 10 extra samples will be taken at specific time points.

Where parents consent to only allow for blood to be taken as part of routine clinical practice, any excess blood will be used instead of being discarded. The day of the last sample will be when 10 extra samples have been obtained or when the baby is transferred to a unit which is not collecting samples for the study.

### **Intervention Type**

Other

### **Phase**

Not Applicable

**Primary outcome(s)**

To develop pilot excipient kinetic models to indicate how much of each selected excipient is in the bloodstream of babies who have been given medicines containing those excipients

**Key secondary outcome(s)**

No secondary outcome measures

**Completion date**

31/12/2012

**Eligibility****Key inclusion criteria**

Treatment, or likely treatment, of neonates with a drug prescribed containing any of the following excipients:

1. Propylene glycol
2. Ethanol and metabolites [Fatty acid ethyl esters (FAEEs) are nonoxidative ethanol metabolites]
3. Propylhydroxybenzoate and other parabens
4. Sodium benzoate/benzoic acid/ benzyl alcohol
5. Polysorbate 80
6. Sorbitol

Each neonatal unit will develop a list of medicines containing the excipient which will trigger eligibility to the study.

An example list of the drugs prescribed in the lead UK neonatal unit which contain the excipients can be provided on request to the study coordinator.

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Neonate

**Sex**

All

**Key exclusion criteria**

1. Babies whose mothers refuse to give consent
2. Babies whose mothers are deemed too poorly or not competent to give valid consent

**Date of first enrolment**

01/11/2011

**Date of final enrolment**

31/12/2012

**Locations**

**Countries of recruitment**

United Kingdom

England

Estonia

France

**Study participating centre**

**Liverpool Women's Hospital**

Liverpool

United Kingdom

L8 7SS

## Sponsor information

**Organisation**

Liverpool Women's NHS Foundation Trust (UK)

**ROR**

<https://ror.org/04q5r0746>

## Funder(s)

**Funder type**

Research council

**Funder Name**

Medical Research Council (MRC) (UK) ref: G1100158 - Lifelong Health and Wellbeing

**Alternative Name(s)**

Medical Research Council (United Kingdom), UK Medical Research Council, MRC

**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

Not provided at time of registration

### Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	01/06/2016		Yes	No
<a href="#">Participant information sheet</a>	Participant information sheet	11/11/2025	11/11/2025	No	Yes