



Zachary Nathan Phillips, with kind permission from his parents.

# SurfON Study

Randomisation and Surfactant Delivery- Bite size session

15<sup>th</sup> June 2023 Sarah Turner Trial Manager

# Study Design & Summary

## ■ Study Design

Multicentre, open-label, randomised controlled trial

## ■ Study Arms

Expectant management

Early surfactant therapy

## ■ Sample Size

1,522 infants across UK in NICUs and LNUs.

SCUs are also now included following Substantial Amendment 07 approval

## ■ Recruitment period

30 months of active recruitment was planned; Trial end date will be advised

## ■ Follow up

Remote FU with no direct contact with participants at one year of age, corrected for prematurity

## ■ Team

Study Coordinating centre – NPEU CTU, University of Oxford

Sponsor – University of Leicester

Funder – NIHR HTA Programme





# HYPOTHESIS

Early, proactive management of respiratory disease will

- reduce the progression to severe respiratory failure requiring mechanical ventilation
- reduce length of hospital stay
- reduce early hospital readmissions
- reduce costs of neonatal care



# Ramdomisation – When and Who?

- Randomisation will only be triggered once participant's
  - screening has taken place,
  - eligibility is confirmed that the participant meets the inclusion criteria
  - informed consent has been obtained
- Screening, consent and randomising can be performed by any trained and delegated member of staff
- Confirmation of eligibility can **ONLY** be performed by medically trained Doctors and Advanced Neonatal Nurse Practitioners



# Randomising an infants



Randomisation  
1:1

≤ 24 hours birth

Multiples randomised  
to the same arm

Expectant  
Management

Early Surfactant  
Therapy



# Randomising an infant



Randomise to SurfON



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SurfON is trying to find out how best to treat babies born two to six weeks early with breathing problems.

## SurfON

SurfON is a multicentre, open-label, randomised controlled trial of early surfactant therapy versus expectant management in late preterm and early term infants with respiratory distress. The study is run by the National Perinatal Epidemiology Unit Clinical Trials Unit (NPEU CTU) at the University of Oxford. The study is funded by the National Institute of Health Research



Parents



Clinicians



# Randomising an infant

Log into the randomisation program using your site log-in (details are located on the lid of your Site Document Box).

- Select your site from the drop-down list
- Enter your username
- Enter your password

Once you are logged in, click **“Enter infant”**:

If you need to contact us **urgently** with randomisation problems, please click on this [link](#)

Logged in as: **Centre 1 (City 1)**

## Menu

- **Enter infant** 
  - **Recruitment list**
  - **Screening log**
  - **Add infant to screening log**
- 
- **Log out**



## Section A: Eligibility

Time of randomisation: 16 Jun 2020 13:46

Press **Complete** to confirm randomisation or **Amend** to change any values

**A1.** What was the expected date of delivery (EDD)?  
25 / June / 2020

**A2.** What is the infant's date of birth?  
15 / June / 2020  
17 : 33 24hr clock

**A3.** What is the infant's sex?  
Male

**A4.** What is the  $\text{FiO}_2$  needed to maintain  $\text{SaO}_2 \geq 92\%$ ?  
0.4

**A5.** Is the work of breathing clinically significant, regardless of  $\text{FiO}_2$ ?  
Yes

**A6.** Is there a clinical decision to provide non-invasive respiratory support?  
Yes

**A7.** Do you have written parental informed consent for the infant's participation?  
Yes  
Who signed the consent form?  
Mother

**A8.** Do you have written consent for the mother's participation to complete questionnaires?  
Yes

**A9.** Does the infant have a major structural or chromosomal abnormality?  
No

**A10.** Does the infant have no realistic prospect of survival?  
No

**A11.** Has the infant had prior intubation and/or surfactant administration?  
No

**A12.** Does the infant have known or suspected hypoxic ischaemic encephalopathy?  
No

**A13.** Does the infant have a congenital abnormality of the upper or lower respiratory tract?  
No

**A14.** Does the infant have a known or suspected neuromuscular disorder?  
No

**A15.** Was the infant one of a multiple pregnancy?  
No

Name of person completing this form:  
Rose Garr

- Complete questions related to eligibility of the infant
- If you are happy that the data are correct, click **“Continue”**. Any data that suggest the infant is ineligible will be flagged up.
- If any information is incorrect, click **“Amend”** and enter the corrected information before clicking **“Complete”**.



# Randomising an infants

If you need to contact us **urgently** with randomisation problems, please click on this [link](#)

Logged in as: **Centre 1 (City 1)**

## Section B: Randomisation

SurfON study number:  
**10031**

Allocation

**Expectant management**

Date and time of randomisation

**16/06/2020 13:46**

**Study number obtained here should be entered on the consent form & any other associated documents such as the questionnaire**

Please record study number **10031** on the Consent Form and any other trial documentation for this infant.

Please press the **Print** button below to generate a pdf which you should print out.

Print

Thank you for entering this infant into the SurfON study.  
Please click the link below to log out

[Log out](#)

[Home](#)



Infant

Forename	Surname	NHS Number
James	Jones	7984561230

Forename not known

Once you have completed randomisation the participant's details will automatically feed through to OpenClinica

Mother

Forename	Surname	NHS Number
e	Jones	6549873215

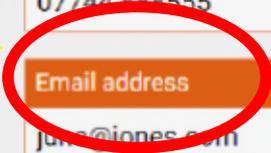
Mobile number  
07744 99555

Address  
12 Acaccia Avenue  
Newtown

Email address  
jones@jones.com

Postcode  
NT1 1AZ

Email ID is often missing!



Undo changes

Save

# What can go wrong?

I'm having trouble with the randomisation programme!

- In office hours call the SurfON team **01865 289437** where we will assist with your query and if necessary help perform paper randomisation.
- Out of office hours call **0800 138 5451**, your call will be answered by a UK call centre. You will be asked to confirm:
  - the name of your trial (SurfON),
  - your name,
  - hospital,
  - and phone number.

After which you will be offered some options.



# What can go wrong?

## Duplication!

Sometimes a moment of patience is required.

The most common problems are,

- randomising the same participant twice
- manually adding a participant to OpenClinica thus creating a duplication

As I mentioned earlier the randomisation programme speaks directly OpenClinica the feed can take a few moments so hold tight before trying to randomise again or manually adding participants to avoid extra administration burden down the line.

If in doubt contact the SurfON help team.



## GUIDANCE SHEET 3: Randomisation



Prior to randomisation, please ensure:

- Written informed consent has been obtained
- Final eligibility sign-off has been obtained from a delegated medically trained doctor or ANNP (need not be the Principal Investigator)

### Randomising infants

- To randomise the infant, access the online randomisation website at <https://rct.npeu.ox.ac.uk/surfon/login.php>

Log into the randomisation program using your centre log-in details (located in your Site Document Box).

- Select your centre from the drop-down list
- Enter your username
- Enter your password

Once you are logged in, click "Enter infant":

Randomisation Program

If you need to contact us urgently with randomisation problems, please click on this link

logged in as: random 1 10th 11

Menu

- Enter infant
- Randomisation Log
- Delegation Log
- Add infant for screening log
- Log out

Reset

- Complete questions related to eligibility of the infant. The person completing the form must be on the **Delegation Log** for randomisation.
- If you are happy that the data are correct, click "Continue". Any data that suggest the infant is ineligible will be flagged up.

GUIDANCE SHEET 3

Guidance sheet 3 in your document box has detailed instruction, you can also access this document via the SurfON website in the clinicians area.



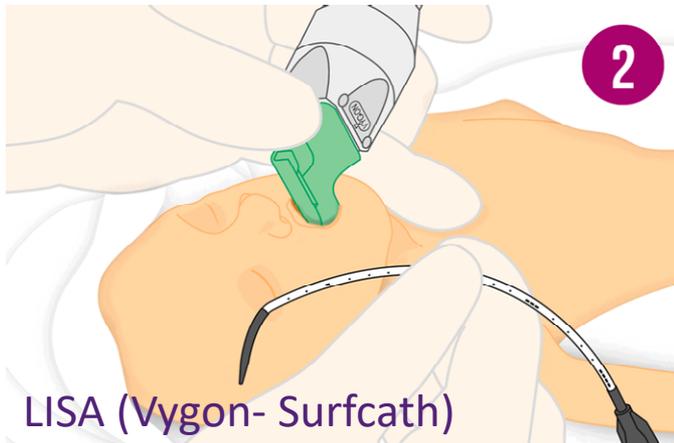
# Surfactant administration

- IMP is CUROSURF®
- Dispensed from the hospital stock through routine prescription
- **Single dose** as per the SmPC (100–200 mg/kg (1.25–2.5 ml/kg) in the Protocol
- Please follow your local site policy for dosage including rounding to the nearest whole vial (120mg or 240mg), based on dose of 100mg/kg
- Clinician or advanced nurse practitioner can administer IMP as per local site policy and procedure (*no need to be trained/delegated to work on SurfON as this is standard care*)



# Methods of Surfactant administration

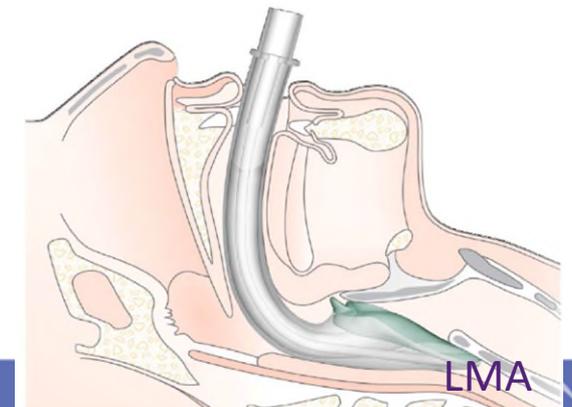
- Surfactant should be administered as per local site policy and procedure (for eg- LISA, INSURE, Laryngeal Mask etc); There are study-specific requirements



  
**IN**tubation

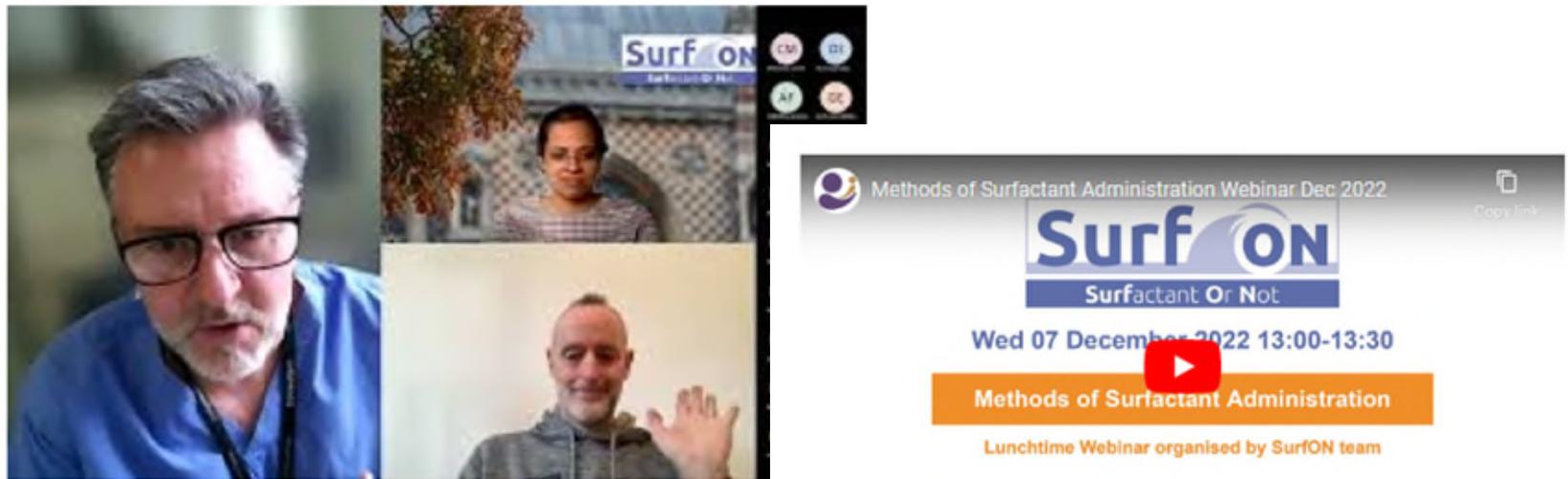
  
**SUR**factant

  
Rapid **E**xtubation



# Podcast for surfactant delivery options

- <https://www.npeu.ox.ac.uk/surfon/whats-new/2347-methods-of-surfactant-administration-webinar>



The image shows a Zoom webinar interface. On the left, three video thumbnails are visible: a large one for a man with glasses in a blue shirt, and two smaller ones for a woman and another man. On the right, a promotional banner for the 'Methods of Surfactant Administration Webinar Dec 2022' is displayed. The banner includes the 'Surf ON' logo, the date 'Wed 07 December 2022 13:00-13:30', and the text 'Methods of Surfactant Administration' and 'Lunchtime Webinar organised by SurfON team'. Below the banner, there are logos for 'Watch on YouTube', 'University of Leicester', 'NPEU', and 'Oxford Child Health NPEU'.

Published on Tuesday, 03 January 2023

Dr Charles Roehr, Clinical Director NPEU CTU





## Early Surfactant Therapy group

In order to ensure sufficient separation between the two study groups, it is essential that for infants in the

**Early Surfactant Therapy** group, Surfactant is given **as early as possible**, after randomisation.

*Any deviation from this guidance should be at the discretion of the attending clinician, following assessment of the infant's clinical condition.*

***Note: This is not a withdrawal from the study***





# Expectant Management group

Infants in the **Expectant Management** group should, where possible, be maintained on non-invasive respiratory support alone, at least until a more severe disease threshold is reached, defined as,

sustained ( $\geq 30$  minutes) requirement for  $FiO_2 \geq 0.45$  to maintain oxygen saturations ( $SaO_2 \geq 92\%$ )

Why is this important?

This threshold has been determined by clinicians in line with current known variation in clinical practice. It helps ensure sufficient separation between the two study groups.

*Any deviation from this guidance should be at the discretion of the attending clinician, following assessment of the infant's clinical condition.*

**Note: This is not a withdrawal from the study**



# What next? – Data Collection

- Primarily using e-CRFs on *Openclinica*
- **Trial Intervention Form** is completed for all infants, regardless of which study arm they are randomised to.
- Important to maintain **Respiratory Support Log** once infant has been randomised to either trial groups (**primary outcome**)



# What do I do if an infant has been randomised to a study arm, but a different course of treatment is taken?

In either study group, surfactant may be given if the attending clinician deems this necessary. Information on the reasons for additional respiratory intervention and surfactant administration will be collected.

The use of additional surfactant is marked on the respiratory support log and the Surfactant e-CRF is completed.

Time interval	Respiratory Support <i>(please tick ALL that apply)</i>	Oxygen requirement: Did the infant require $\text{FIO}_2 \geq 0.45$ to maintain $\text{SaO}_2 \geq 92\%$ for a sustained period of $\geq 30$ minutes?	Was surfactant administered? <i>(please exclude single dose of surfactant given as study intervention)</i>	Person completing entry <i>(print name)</i>
00:00 to 03:59	Mechanical ventilation <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/> <i>If Yes, please complete Surfactant Form</i>	
	Positive airway pressure (CPAP, BiPAP) <input type="checkbox"/>			
	High Flow Therapy <input type="checkbox"/>			
	Incubator or low flow oxygen <input type="checkbox"/>			
	Breathing in air <input type="checkbox"/>			



Infants can be randomised to either **Expectant Management** (or) **Early Surfactant Therapy**.

In order to ensure sufficient separation between the two groups, it is essential that for infants in the early surfactant therapy group, surfactant is given as early as possible, after meeting the inclusion criteria and being randomised.

#### Expectant Management

Infants in the "expectant management" group should, where possible, be maintained on **non-invasive respiratory support alone**, at least until a more severe disease threshold is reached, defined as:

Sustained ( $\geq 30$  minutes) requirement for  $FiO_2 \geq 0.45$  to maintain oxygen saturations ( $SpO_2$ )  $\geq 92\%$

This threshold has been determined by clinicians in line with current known variation in clinical practice. Any **deviation from this guidance should be at the discretion of the attending clinician**, following assessment of the infant's clinical condition.

#### Early Surfactant Therapy

For infants randomised to "Early Surfactant Therapy" group, **surfactant administration should occur as soon as possible after randomisation and within 24 hours of birth**.

#### Process for Administering Surfactant

- The recommended starting dose for the IMP is 100–200 mg/kg (1.25–2.5 ml/kg), as per the SmPC detailed in the SurfON Protocol.
- Please follow your local site policy for dosage including rounding to the nearest whole vial (120mg or 240mg), based on dose of 100mg/kg
- Surfactant should be administered in a **single** dose, as soon as possible after diagnosing respiratory distress syndrome and randomisation.
- The administration of surfactant is as per local site policy.
- Surfactant can be administered by a clinician or advanced nurse practitioner. However, final eligibility must always be confirmed by a clinician, in advance of administration.

Guidance sheet 4 in your document box has detailed instruction, you can also access the document via the SurfON website



Any Questions?



# SurfON Bite Size Training Sessions

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Please see the schedule of planned virtual training sessions, which follow the participant journey.

Each session be approximately will be 30 minutes long with a further 15 minutes for any question, or an opportunity for sites to share their experiences.

Topic	Date	Time	Duration
Screening and Eligibility	26/04/2023	12.30pm	45 minutes
Consent and delegation of duties	18/05/2023	12.30pm	45 minutes
Randomisation and Surfactant delivery timeframe	15/06/2023	12.30pm	45 minutes
CRFs on OpenClinica and missing forms	13/07/2023	12.30pm	45 minutes
Respiratory Support Logs	17/08/2023	12.30pm	45 minutes
Avoiding 'Incidents' and 'data breaches'	14/09/2023	12.30pm	45 minutes
Discharge, transfers and SAEs	12/10/2023	12.30pm	60 minutes





# Thank you for listening

## SurfON Study Team

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Old Road Campus  
Headington  
Oxford OX3 7LF

P: 01865 289437/ 289738/ 617965

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[ouh-tr.surfon@nhs.net](mailto:ouh-tr.surfon@nhs.net)

W: [www.npeu.ox.ac.uk/surfon](http://www.npeu.ox.ac.uk/surfon)

- Training podcasts and further resources for use at internal training events, grand rounds etc:
- <https://www.npeu.ox.ac.uk/surfon/clinicians/podcasts>
- <https://www.npeu.ox.ac.uk/surfon/clinicians/resources>
- <https://www.npeu.ox.ac.uk/surfon/clinicians/training-materials>



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