The NIHR Southampton Biomedical Research Centre (BRC) has a tight quality assurance system for the writing, reviewing and updating of Standard Operating Procedures. As such, version-controlled and QA authorised Standard Operating Procedures are internal to the BRC.

The Standard Operating Procedure from which information in this document has been extracted, is a version controlled document, managed within a Quality Management System. However, extracts that document the technical aspects can be made more widely available. Standard Operating Procedures are more than a set of detailed instructions; they also provide a necessary record of their origination, amendment and usage within the setting in which they are used. They are an important component of any Quality Assurance Framework, but in themselves are insufficient and need to be used and interpreted with care.

Alongside the extracts from our Standard Operating Procedures, we have also made available here an example Standard Operating Procedure and a word version of a Standard Operating Procedure template. Using the example and the Standard Operating Procedure template, institutions can generate their own Standard Operating Procedures and customise them, in line with their own institutions.

Simply offering a list of instructions to follow does not assure that the user is able to generate a value that is either accurate or precise so here in the BRC we require that Standard Operating Procedures are accompanied by face-to-face training. This is provided by someone with a qualification in the area or by someone with extensive experience in making the measurements. Training is followed by a short competency assessment and performance is monitored and maintained using annual refresher sessions. If you require any extra information, clarification or are interested in attending a training session, please contact Dr Kesta Durkin (k.l.durkin@soton.ac.uk).

This document has been prepared from Version 3 of the BRC Standard Operating Procedure for measuring length if infants in incubators. It was last reviewed in February 2014 and the next review date is set for February 2016. The version number only changes if any amendments are made when the document is reviewed.

NIHR Southampton Biomedical Research Centre

Procedure for Measuring LENGTH OF INFANTS IN INCUBATORS

BACKGROUND

The Leicester Incubator Measure is the preferred choice of instrument for making accurate length measurements of infants in special care and intensive care wards. Monitoring the length, weight and head circumference of infants from birth onwards can serve to quickly identify current and future health problems.

PURPOSE

To ensure correct and uniform use of the Leicester Incubator Measure for measuring length of infants in incubators.

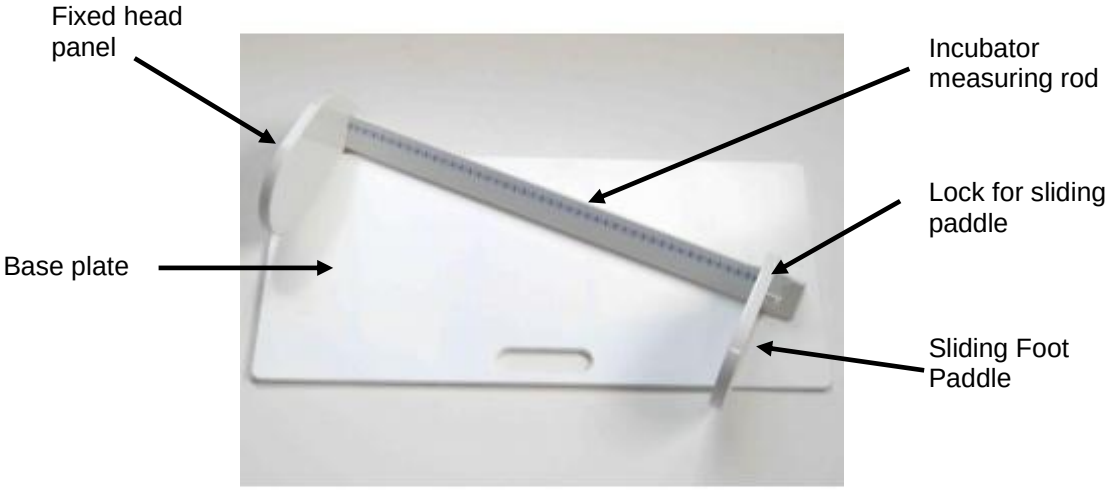
SCOPE

This procedure applies to any study requiring making length measurements of infants in incubators using the Leicester Incubator Measure, within the BRC. This equipment is based and used in the Neonatal Unit of the Princess Anne Hospital.

RESPONSIBILITIES

It is the responsibility of the measurer to use this procedure when measuring the length of infants using the Leicester Incubator Measure. It is the responsibility of the principle investigator to ensure that staff members who are working on specific studies have adequate experience to do so.

PROCEDURE



1. If parents are present, explain the procedure.
2. Two members of staff are required to make the measurement.
3. Ensure that the Incubator Measure is clean before use.
4. Do not use the Base Plate as it is not sensible or practical lifting the infant to insert this underneath them.
5. Ensure that the infant is in the supine position.
6. If the infant is currently in an incubator, carefully open the side of the incubator and place the measure next to the infant, ensuring that the flat aspect of the sides of the head and foot plates are on the mattress.
7. Measurer 1 must take the incubator measure and unlock the sliding foot paddle and move it to the end of the rule.
8. Measurer 1 must place the incubator measure alongside the infant, placing the fixed paddle against the crown of the infant's head.
9. Operating from the other side of the incubator, measurer 2 must place the infant's feet in the dorsiflexed position and place their hand on the knees in order to straighten the legs as much as is possible, ensuring that the infant is as straight and flat as they can be.
10. Measurer 1 must then slide the sliding paddle up to the infant's heels and lock it in place, whilst the infant's feet and knees are still being held in the correct position.
11. Measurer 1 must then lock the sliding paddle of the incubator measure at the position of the infant's length and remove from the incubator.
12. Either measurer can then read and record the value on the scale to the nearest mm.

13. Make 3 measurements of length. If the infant is unwell and it is inappropriate to perform 2 or three measurements of length then one measurement is adequate.
14. Measurements must be within 0.5cm of each other.
15. Clean all the components of the Leicester Incubator Measure kit.

Accuracy of the measurement:

The Leicester Incubator Measure is intended to provide repeatable measurements, accurate to better than +/- 1mm, when measured at the scale between the fixed and moving paddles.

The Leicester Incubator Measure's repeatability will be affected by the exact positioning of the infant being measured, which is outside the measurement control of the device.

The Leicester Incubator Measure's accuracy will be affected by the exact positioning of the baby being measured and may be adversely affected by pulling or pushing the paddles during measurements (being plastic, the paddles are flexible to a degree).

Correct measurement depends upon consistent operational practice by the users.