Resuscitation Council UK

[redacted]
Case Manager
His Majesty's Coroner's Office
The Coroner's Courts
Burgage Square
WAKEFIELD
WF1 2TS

9 July 2025
0725GDP001ABC

Dear [redacted],

Response of Resuscitation Council UK Re: Regulation 28 Report to Prevent Future Deaths. Resuscitation Council UK (RCUK) has been asked to respond to the specific concerns outlined in the Coroner's Regulation 28 Report to Prevent Future Deaths.

Thank you for your email received by the Resuscitation Council UK on 4 June 2025, regarding the death of Benjamin Finch Arnold. I would like to start by expressing our condolences to the Benjamin's family.

In preparing this response, I have received expert input from [redacted] (RCUK Executive Committee member and Neonatal Subcommittee) and [redacted] (Chair RCUK Neonatal Subcommittee), upon whose advice this response is based.

Coroner's concern 3: The evidence disclosed concerns that guidelines for performing a LISA procedure are not standardised across the NHS, particularly with reference to performing a chest X-ray to exclude pneumothorax before commencing the procedure, and to the necessity of seeking consultant approval before undertaking the procedure.

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RCUK provides three national neonatal resuscitation courses: the one-day Newborn Life Support course (NLS), the one-day out-of-hospital Newborn Life Support course (OH-NLS) and the two-day Advanced Resuscitation of the Newborn Infant course (ARNI). All three courses teach a standardised approach to resuscitation and stabilisation at birth. However, the scope of the one-day courses (NLS and OH-NLS) and the two-day ARNI course does not extend to teaching intubation or laryngeal catheter insertion skills to a level sufficient for performing LISA procedures.

Similarly, neither the 2025 International Liaison Committee on Resuscitation (ILCOR) Consensus on Science with Treatment Recommendations for newborns[1], nor the European Resuscitation Council guidelines[2], on which the UK Resuscitation Guidelines are based, define a single optimum method. The British Association of Perinatal Medicine (BAPM) does have a LISA checklist for safe administration (enclosed), which includes checking for pneumothorax.

The RCUK Resuscitation Guidelines are intended for urgent resuscitation or stabilisation, and therefore, delaying intervention to obtain a chest X-ray is generally not advisable in most situations.

At present, there are several methods for administering surfactant without clear evidence to recommend one over another. All require competent and skilled staff working in a team. This remains an active area of research, with a large global trial ongoing (Surfsup Trial[3]).

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[1]International Liaison Committee on Resuscitation (ILCOR). *Neonatal Life Support: 2025 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science With Treatment Recommendations. Resuscitation*. 2025. Available at: https://ilcor.org/uploads/NLS-2025-COSTR-Full-Chapter.pdf.

[2] European Resuscitation Council. *Guidelines 2021: Newborn resuscitation and support of transition of infants at birth. Resuscitation*. 2021;161:291–326. Available at: https://doi.org/10.1016/j.resuscitation.2021.02.014.

[3] Surfsup Trial. Available at: https://www.surfsuptrial.au/.

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Coroner's concern 4: The evidence disclosed concerns whether national guidelines on the reversible causes of cardiac arrest ("the 4 Hs and 4 Ts") were sufficient for the purposes of identifying and treating the potential causes of cardiac arrest in a newborn baby.

Within RCUK's **Newborn Resuscitation and Support of Transition of Infants at Birth Guidelines**[4]**,** it is specifically advised that in an arrest situation, in the absence of an adequate response, the team should:

> "Consider other reversible factors (e.g. tension pneumothorax, hypovolaemia, equipment failure) or congenital abnormalities"

This is also reflected in the NLS algorithm[5].

Within the NLS course, the 'Resuscitation at Birth' lecture includes a slide stating:

> "If there is no heart rate at birth and still absent at 10 minutes, the team should consider the effectiveness of ongoing resuscitation, reversible factors, and the overall clinical picture."

The accompanying lecture notes prompt the instructor to address:

- Have you followed all the relevant steps in the NLS algorithm?
- Reversible causes, e.g. hypoxia, hypovolaemia, hypothermia, tension pneumothorax.
- Have you got quick access to equipment needed to deal with reversible causes, e.g. needle to drain pneumothorax, O negative blood.

These points are also reinforced within the OH-NLS course and ARNI courses, as well as in the relevant course manuals. However, techniques for chest drain insertion are only taught on the ARNI course, as these are more advanced skills.

We believe that the NLS approach and algorithm adequately address the potential causes of non-response during newborn resuscitation.

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[4] Resuscitation Council UK. *Newborn resuscitation and support of transition of infants at birth Guidelines*. 2021. Available at: https://www.resus.org.uk/library/2021-resuscitation-guidelines/newborn-resuscitation-and-support-transition-infants-birth.

[5] Newborn Lise Support algorithm 2021. https://www.resus.org.uk/sites/default/files/2021-05/Newborn%20Life%20Support%20Algorithm%202021.pdf.

Resuscitation Council UK

RCUK remains committed to supporting high standards in neonatal resuscitation and welcomes continued collaboration to improve outcomes and patient safety. Should the Coroner require any further information or clarification, we would be pleased to assist.

Yours sincerely

[redacted]

President

Resuscitation Council UK

CC [redacted] – RCUK Executive Committee member and Neonatal Subcommittee.

[redacted] – Chair RCUK Neonatal Subcommittee

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