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Royal College of Anaesthetists

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Ms. Sarah Bourke, Assistant Coroner for Inner North London

Regulation 28 Report to Prevent Future Deaths following the inquest into the death of Mr. Mike FELL.

Dear Ms. Bourke,

Thank you for giving the Royal College of Anaesthetists (RCoA) the opportunity to respond to your Regulation 28 Report highlighting matters of concern regarding types of and practical use of central venous catheters and the risk of air embolism. In order to prevent future deaths, the RCoA has collaborated with the Association of Anaesthetists of Great Britain and Ireland (AAGBI), the Faculty of Intensive Care Medicine (FICM) and the Intensive Care Society (ICS) in preparing this response.

We note the Coroner's concerns are:

1 Though it is a matter of routine care to check that unused taps are "closed to air", it was not recorded in the notes that the taps were checked and were closed.

2 The particular central venous line used in this case did not come with a clamp that would have enabled the line to be clamped when not in use, so providing a second barrier, to air entrainment.

We are concerned that in practice there are many different types of central venous access line in use and that these devices, even if they have a clamp, can be used with different caps, that may or may not allow injection through them, including with three-way taps.

In addition, though there is national guidance on vascular access (Safe Vascular Access 2016, AAGBI) there is currently no national guidance on best practice with central venous access covering the use of clamps, caps and three-way taps with these catheters in an attempt to minimise the risks of air embolism.

Actions to be taken in response to these concerns:

- We will ensure these issues are brought to the attention of all trainees in anaesthesia and all Fellows and Members of the RCoA and AAGBI by publishing information in the Patient Safety Update, which is published quarterly by the RCoA on behalf of the Safe Anaesthesia Liaison Group (SALG - https://www.rcoa.ac.uk/salg), and is distributed to practising anaesthetists throughout the UK.
- When the AAGBI guideline Safe Vascular Access is updated these issues will be included.
- The Joint Standards Committee of the FICM and ICS is currently developing national guidelines on the prevention, detection, referral and treatment of air embolism associated with central venous access.
- In the meantime, we will inform individual trusts and health boards that they should ensure they have appropriate systems in place to prevent harm from air entrainment through such devices. We recommend that theatre departments, ICUs, HDUs and other clinical areas caring for patients with central venous catheters ensure that they examine local practice in terms of using only

catheters with clamps associated with each lumen, what is used to cap each lumen and how these catheters are checked and this is recorded.

I hope that these actions will satisfy you that the named organisations are taking appropriate steps to ensure that anaesthetists are aware of these issues and that the circumstances that led to the death of this patient are therefore less likely to occur again.

I would be happy to respond to any questions that you might have.

Yours Sincerely

[redacted]
Clinical Quality Adviser, RCoA