2024 Venous Reservoir fault

Permission to print: Yes

Category: Venous Reservoir

Category 2: Circuit error

Severity: Good Catch Near Miss

Duration of incident: minutes

Description: During priming for an elective case using the Chalice Paragon Infant Integrated Oxygenator, perfusionist observed an unusual flow pathway of the cardioplegia recirculation line. Flow was observed emptying directly into the venous reservoir despite being connected to a filtered cardiotomy port. A second perfusionist opinion was sought and concerns were raised regarding the integrity of the seal separating the integrated filtered cardiotomy reservoir to the venous reservoir. The potential of cardiotomy suckers flowing unfiltered directly into the venous reservoir was discussed, leading to the decision to change the reservoir. Knife-to-skin had occurred, but redo-sternotomy had yet to begin. Surgeon, anaesthetist and nursing staff were informed and happily set tools down to safely manage the exchange. The new reservoir showed no signs of flow external to cardiotomy filter, and case continued uneventfully after the 10min delay. We have lodged a report with the manufacturer (Chalice) and are awaiting instruction. The reservoir has been rinsed and set aside with the aim to return.

GOOD CATCH - what went well: Suitable attention paid during priming process leading to identification of reservoir fault, which may have been otherwise missed if in a hurry. - Appropriate second opinion sought for early discussion of concerns. - Appropriate communication with all theatre staff regarding reason for clinical delay.

What could we do better: N/A

Preventive actions: Investigate manufacture LOT number to remove from shelf if required (we are since satisfied this is not a LOT issue, rather an isolated event). The replaced reservoir was of the same Lot number, and did not have the same issue. Upon reviewing records, the whole delivery (this was a limited order to cover stock shortage of our usual oxygenator) was of the same Lot number and we've not encountered this fault in the dozen we've used.

Continue to perform appropriate safety checks during priming, including visualisation of full circuit to identify faults early.

Type of incident: Equipment

Timing of incident: Prime

Hospital incident filed: No

Ext Authority Advised: No

Discussed with team: Yes

Patient outcome variance: Nil

Commentary: The fact that this was a substitute device to cover a stock shortage may have contributed to heightened observation, however this is an example of keen observation and good team work as outlined in the Good Catch. PIRS Ed

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