2024 Electrical/Electronic (Cardioplegia delivery #3)

Permission to print: Yes
Category: Electrical / electronic
Severity: Good Catch No Harm Incident
Description: Essenz heart lung machine in use for a paediatric case. The cardioplegia module gave a communication error while delivering induction. On toggling into the cardioplegia screen it was noted that the machine was saying that the volume delivered was 3229ml (this was not correct as the delivery time was 3 minutes at a flow of round120ml/min). On further investigation it was noted that the preset volumes for induction and maintenance had disappeared and were unable to be reset. Communication alerts were flagged on the cockpit, these were recorded and sent back to Liva Nova. Another perfusionist was called in to help trouble shoot. Watched closely doses of cardioplegia delivered for rest of case and manually started and stopped dose to ensure correct volumes were delivered.

GOOD CATCH - what went well: Noted that volumes were incorrect, called in second perfusionist to verify. Did not over deliver cardioplegia.

What could we do better: We run N+1, with the +1 in a back room close by - we had just stopped having 2 people in the room for each case with the Essenz - we could have continued this buddy system longer.

Preventive actions: Errors communicated Liva Nova - noted that it is a software issue and an update is pending. Closely watch volumes and flows when delivering cardioplegia and do not rely on the machine to deliver correct doses - manual calculations and manual control.

Type of incident: Equipment
Manufacturer advised: Yes
Duration of incident: Minutes
Hospital incident filed: No
Ext Authority Advised: No
Discussed with team: Yes
Patient outcome variance: Nil

Commentary: This is the third recent report of a software failure of the Essenz cardioplegia delivery system and the second in the last week from 2 different centres. All Essenz users should be aware of this issue. The previous reporter has elevated this to the regulatory authority in their jurisdiction. PIRS2 is unaware of any general notification. PIRS2 Ed.