It was a new surgeon's first case at our institution. We were using a LivaNova S5 HLM with electronic venous occluder. The CBP lines were handed off to the operating table, recirculated and the arterial pump was switched off. The arterial line was clamped and the venous occluder closed. The surgeon cannulated the aorta first, followed by the right atrium with a single 2 stage cannula. Upon connection of the venous cannula to the venous line, blood began draining out of the patient. As I was watching the surgeon closely I noticed this and quickly spun the electronic occluder to close it. Patient blood had drained down the venous line to the occluder by this time. I was initially thinking that I had somehow inadvertently not closed the occluder when I had clamped up the lines (as it is performed almost automatically I had no recall of actually closing it) Concurrently, but my perfusion colleague standing behind me actually observed the occluder open without command just as the surgeon connected the venous cannula. At this point I had not, to the best of my knowledge, touched, bumped or knocked the occluder controller. The 300ml or so of displaced volume was reinfused via the arterial line and bypass instituted. The remainder of the CPB run was uneventful. We had a previous incident of this nature but it was unwitnessed so could not determined if it was an equipment fault or procedural issue.

GOOD CATCH - what went well  The issue was identified before the patient exsanguinated into the reservoir!!

What could we do better  What I should have done, and now do routinely is physically clamp the venous line alo

Preventive actions  The incident was reported to the manufacturer, who advised us not to use the occluder until they could come over and download the occluder data from the case. This was done a few days later, with no error or untoward issue found. The manufacturer sent the data to their experts in Germany who also couldn’t find an issue. Finally the manufacturer changed out the venous occluder and controller for us. The offending occluder has been returned to the manufacturer.

Region  ANZ
Manufacturer advised:  Yes
Hospital incident filed:  No
Ext Authority Advised  No
Patient outcome variance  Nil