

2023 Heater Cooler (Frosty)

Permission to print:	Yes
Category	Heater Cooler unit
Incident type	Good Catch Near Miss
Duration of incident:	minutes
Description:	<p>Prior to institution of CPB a yellow spanner indicating fault appeared on screen of Spectrum frosty heater/cooler. Two power cycles were conducted to clear error followed by 2 primes & then deprime/prime cycle. CPB prime during this time dropped to approx. 5.5C as later a faulty valve was identified by technician. We were told to use a power cycle if we get a fault code as the software was sensitive & picked up minor operating fluctuations that can result in this error code. We have done this episodically for the last 12 months without a problem. The issue was this time it was a sticking valve that let cool glycol from the tank into the frosty heating circuit.</p> <p>[Further notes]: Swapping devices, requires backup frosty to be connected in a closed loop to itself via igloo hoses. Then [the] system [is] brought up to temperature before swapping with unit being used, otherwise extremely low temperatures (lower than any water based unit) can be pumped through heat exchanger. In hindsight this would have been the better option however we have used a power cycle many times when encountering this error code which in itself takes several seconds as opposed to moving an 80 kg device from outside & bringing it to temperature then swapping with device in theatre. Case was delayed by approximately 20 mins as this occurred just as heparin was requested however we asked them to hold off.</p>
GOOD CATCH - what went well	Fault was identified prior to CPB initiation with no risk to patient.
What could we do better	Hot swap of failed Frosty with new system
Preventive actions	The manufacturer is changing the software so that these error codes become less sensitive & by definition less frequent. Prior to CPB if a fault is indicated then a hot swap is undertaken. While on CPB if Frosty displays fault & is still working normally then its use is continued while being vigilant with its function. If it fails to heat/maintain temperature or cool then a hot swap with backup frosty will be initiated. Spectrum are considering a request to change the software so that it will never run glycol below 10C.
Type of incident:	Equipment
Hospital incident filed:	No
Ext Authority Advised	No
Discussed with team:	No
Patient outcome varianc	Nil