Permission to print: Yes
Incident type: Good Catch No Harm Incident
Type of incident: Equipment
Category: Electrical / electronic
Description: Stockert S5 HLM using CP5 centrifugal pump driver. The CP5 had an adaptor plate to drive the Affinity CP. Whilst on CPB - upon cooling in anticipation of DHCA - the CP5 console came up with an internal? error message and ceased to operate the driver -i.e., there was no rpm generated. The perfusionist clamped both the arterial and venous lines - informed the surgeon of the situation - then turned off the console and turned it back on again (i.e., rebooted the system). The rebooted console was functional and remained so for the duration of the case. A down time at 28 deg Celsius was about a minute. An explanation provided the company is that the adaptor plate - which is not supplied by them (being supplied by the company supplying the Affinity CP disposable) - was the cause of the error signal, whereby the expected rpm do not match the actual rpms measured in the driver unit.

GOOD CATCH - what went well
The centrifugal pump system can rapidly be rescued by a standalone Medtronic biopump and associated driver

Preventive actions
A colleague was alerted to bring in a Medtronic biopump and driver - that was positioned adjacent to the now functioning CP5 driver; allowing the affinity CP to be re-positioned into this new driver rapidly. During DHCA the adaptor plate was swapped with another one. A manual pump driver was already available to the primary perfusionist.

Manufacturer advised: Yes
Discussed with team: Yes
Ext Authority Advised: No
Hospital incident filed: No
Commentary
The use of centrifugal pump adaptors to accommodate pump heads not compatible with the console is not uncommon, however the does introduce an added level of risk that may be difficult to defend in the event of a serious adverse event as a result of a pump failure. This report highlights the importance not only of a rescue plan that is practiced but also the importance of "N+1" perfusionists on site. PIRS Ed