2023 Circuit Contamination

Permission to print: Yes

Category Circuit contamination
Incident type Good Catch Near Miss

Duration of incident: hours

Description: At approximately 5 am there was a pump failure/burst water pipe gasket in the plant room

directly above the perfusion pump room and above an adjacent (non-cardiac) theatre which led to a complete flooding of the perfusion pump room including the two heart lung machines - one of which had a sterile set up on it. The on call perfusionist was called in at 530 am to assess the damage and the cardiac theatre was also examined. The set up was completely drenched in water from the ceiling flood – there were alarms going off on the two HLMs which are plugged into mains power – they were both completely saturated. Luckily the cardiac theatre was unaffected however the pump room was severely flooded and another theatre adjacent also affected. All equipment and trolleys were moved out of the pump room and clean up began. A 4-week timeline given for full repairs to be done. The biomed engineers were urgently called and 'drying' as well as full electrical safety testing commenced. One machine passed the testing and was cleaned and pushed into theatre where it was set up for the semi elective inpatient - a delay of 2 hours before patient could be sent for. The second machine stayed with biomed engineers and was also given the all clear a few hours later. This will be cleaned and tested by perfusion as well prior to patient use. The Operating room complex is 9 years old.

GOOD CATCH - what went well

Teamwork between security, managers, theatre staff and biomed engineers to move equipment and have safety testing underway before the semi urgent case was started.

What could we do better

Provision / designation of spare 'clean' spaces in the theatre complex for storage of vital stock/equipment in crisis situations. We have never faced this situation before.

Preventive actions

The areas in the roof above vital clinical areas must be maintained and checked regularly - a debrief to be held soon to discuss outcome and future preventative actions.

Type of incident: Equipment

Hospital incident filed: Yes

Ext Authority Advised No

Discussed with team: Yes

Knowledge issue No

Rule issue Yes

Protocol issue Yes

Skill issue No

Patient outcome variance f Nil



the sealed pump room - unable to have access for 4 weeks while they repair damage & clean