

# Appendix D: Equipment impacted by electromagnetic interference

## Status of electromagnetic interference mitigations

Institution	Impacted equipment	Proposed mitigation measures	Completion status	Note
Peter Mac	6 linear accelerators	Reduce railway current	Complete	Railway current has been reduced with the option to reduce further
		Additional testing and monitoring	Complete	Testing so far confirms that reducing the railway current can mitigate the impact of electromagnetic interference
	3 MRI machines	Fit MACS in one original MRI room at Peter Mac Parkville for testing	In progress	MACS MRI tests have drawn inconclusive results. RPV has planned further testing
		Temporarily relocate 2 outpatient MRI services from Peter Mac Parkville to Peter Mac East Melbourne	Complete	None
		Temporarily relocate one inpatient MRI service from Peter Mac Parkville to the Royal Melbourne Hospital's new MRI department	Complete	
	Royal Melbourne Hospital	2 MRI machines	Extend the hospital's North Wing to accommodate a new MRI department	Complete
Construct a new lift to allow ICU patients access to MRI department			In progress	MRI services for ICU patients are temporarily being delivered at Melbourne Private Hospital
Permanently relocate 2 MRI services to the new MRI department			Complete	None
Install one additional MRI machine			Complete	None
One intraoperative MRI machine		<ul style="list-style-type: none"> <li>Agreed procedure to stop Metro Tunnel testing when intraoperative MRI machine needs to be used</li> <li>Option to install MACS for permanent mitigation</li> </ul>	No agreed mitigation	MACS MRI tests have drawn inconclusive results. RPV has paused further MACS installation
Royal Women's Hospital	One MRI machine	Permanently relocate one MRI service within the Royal Women's Hospital	Complete	None
University of Melbourne/ Peter Doherty Institute	One transmission electron microscope	Upgrade existing MACS	Complete	None
		Option to install passive shielding to enable transmission electron	No agreed mitigation	The suitability of passive shielding is subject to ongoing discussion

Institution	Impacted equipment	Proposed mitigation measures	Completion status	Note
		microscope to operate at full capability		
	Other equipment	Not defined	In progress	Tests are ongoing to ascertain electromagnetic interference impact
RMIT	3 transmission electron microscopes	Install shielding and MACS	Not started	None
	Other equipment	Install or upgrade MACS (15 items)	In progress	Mitigations are complete for all 15 items, pending dynamic testing results
		Relocate (one item)	Complete	None

Note: RPV has not agreed on a contingency plan in the event that:

- MRI services cannot safely return to Peter Mac Parkville
- MACS cannot mitigate the electromagnetic interference impact on Royal Melbourne Hospital's intraoperative MRI (noting that relocating this service is not currently an option) or the MRIs currently servicing ICU patients at Melbourne Private Hospital.

RPV continues to work with RMIT and CYP to progress mitigation measures for RMIT's transmission electron microscopes.

Source: VAGO, based on information from RPV and other relevant stakeholders as of 19 April 2024.