



Trust Board Capital Business Case Briefing Paper	
Reference Number:	TB147/11/E
Date of Meeting:	24/11/22
Presenting Director:	Dr Dave Watkins
Subject:	Replacement of Washer Disinfectors to include Reverse Osmosis plant upgrade and Independent Monitoring System upgrade in Antrim Hospital Sterilisation and Disinfection Unit (HSDU)
Purpose/Action Required:	To provide a summary of the Capital Business Case for Trust Board Approval.
Background:	Antrim Hospital Sterilisation and Disinfection Unit provides a medical device and surgical instrument decontamination service across the Northern Trust to include Whiteabbey Hospital, Causeway Hospital, Mid-Ulster Hospital and Antrim Hospital. Decontamination must be comprehensive to avoid transmission of infection. Medical Device decontamination process typically uses a combination of manual cleaning, disinfection using an automated process utilising a washer disinfectant and sterilisation using a porous load autoclave. The water supplied to the equipment must come from a Reverse Osmosis plant to remove contaminants from the water. Steam sterilisers are used to sterilise all surgical instrumentation and medical devices across the Trust. The steam generators provide readily available steam to the sterilisers. This helps to ensure patient safety and reduces the risk of infection. <u>Washer Disinfectors</u> The current six washer disinfectors are non-compliant with HTM01-01NI. They were installed in 2006 and are now 16 years old.



	Due to the age of the equipment increasing breakdowns are occurring in conjunction with this the equipment is an antiquated model with spare parts being increasingly unavailable and current manufacturers support will cease in 2024. <u>Independent Monitoring System (IMS):</u> HSDU currently use T-DOC IMS which is non complaint with the guidelines within HTM01-01NI. <u>Reverse Osmosis (RO) plant:</u> HSDU reverse Osmosis plant supplies HSDU washer disinfectors and sterilisers. The plant is 16 years old. The equipment uses out of date technology with various spare parts now obsolete. A stock of spares are available but once utilised the risk of disruption to supply is increased. Health Estates recommend replacement after 10years. The aim of this project is to replace all existing Washer Disinfectors, upgrading of RO plant, upgrade of IMS system in HSDU ensuring compliance with HTM01-01NI <u>Options</u> Three options were reviewed for consideration within the capital business case to support the upgrade of the equipment within HSDU with Option 3 being the preferred option. Option 3: Replace all 6 Washer Disinfectors with 7 up to date and reliable washer disinfectors within the Hospital Disinfection and Sterilisation Unit, with an updated Independent Monitoring System and RO plant This option will take a total of 48 weeks Installation will be a planned replacement with a staggered approach to ensure minimal disruption of the decontamination of medical devices and surgical instrumentation
Benefits:	This proposal will ensure the continuity of decontamination services on the Antrim Hospital site by providing clinical staff with the appropriate clean



	equipment for procedures and ultimately ensuring patient safety. Replacement of the decontamination equipment will ensure that the machines are compliant reliable and with manufacturers support to ensure HSDU can continue at full capacity. Modern Washer Disinfectors have a smaller footprint meaning that 7 WDs can be installed in the current footprint in HSDU. This will enable a further 15 surgical instrument sets to be processed every hour.
Total Capital Costs:	• RO plant upgrade: £286,000 • Installation and commissioning: £86,259 • Equipment Costs: £381,030 • Building & MEM Works: £188,669 • Preliminaries: £9,433 • Contingency: £29,715 • Professional & Statutory Fees £31,894 Total : £1,013,000
Affordability:	The split of expenditure over the 2 financial years is £381,030 in 2022/2023 and £631,970 in 2023/2024 Total capital cost - £1,013,000 The total equipment cost of £381,030 will be funded from the Department of Health monies ring fenced for Decontamination.
Risks:	If the Washer Disinfectors are not replaced in HSDU increased risk of- • Non-compliance to HTM01-01NI • WDs could suffer terminal failure. • Failed cycles. • Longer turnaround for the decontamination of medical devices and surgical instruments, resulting in an adverse effect on surgical/diagnostic waiting lists. • Potential adverse effect on patient safety.
Conclusion:	Investment required into HSDU to ensure WDs are fully compliant to HTM01-01NI. Patient safety will be maintained and any future increase of surgical/diagnostic activity can be facilitated. For approval by Trust Board.