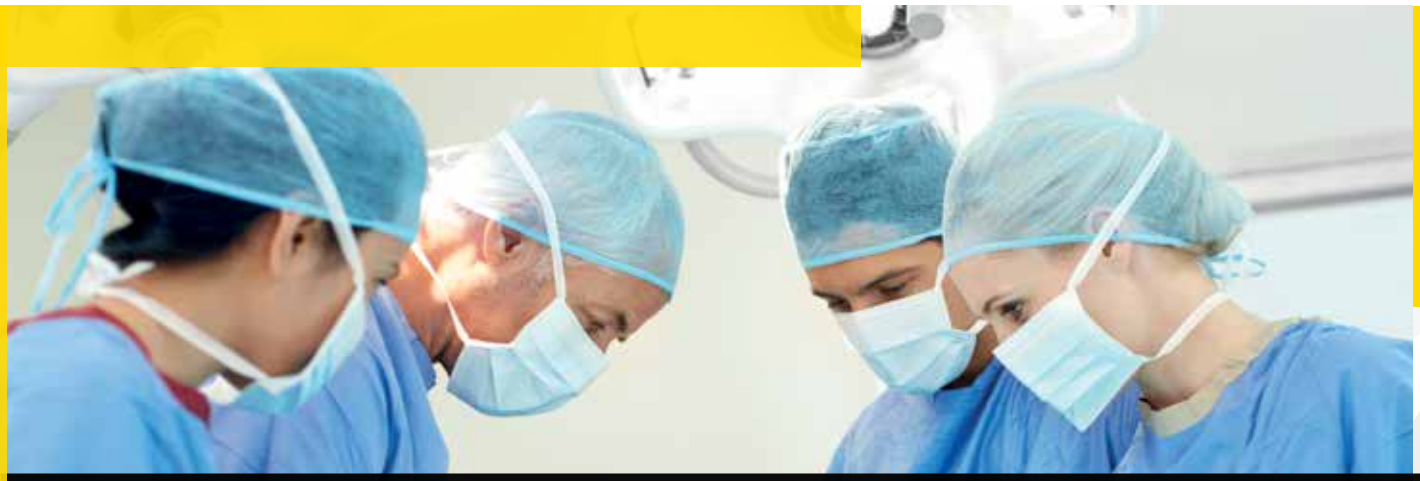
FACT SHEET



How do you know it is safe to operate?

opira.com.au

IATA Controlled Environments Accreditation No.15597

ISO 9001 SGS

The link between postoperative infection and operating room (OR) air quality has been well established. This link has seen the development of not only intelligent OR design but also a move to less invasive surgical procedures where possible.

REGARDLESS OF THE DESIGN PERFORMANCE PARAMETERS OF YOUR THEATRE AS AT BUILT COMMISSIONING, IT IS IMPORTANT TO PERIOD-ICALLY TEST A NUMBER OF PARAMETERS TO MAKE SURE IT IS SAFE TO OPERATE.

The risk from airborne microorganisms is minimised in the ventilation of conventionally ventilated ORs in three ways:

1. By filtration of supplied air;
2. By dilution of contaminated air in the room;
3. By preventing entry of contaminated air from areas outside the room

Some questions to ask are:

- Are you aware of how your theatres perform against their design intention?
- Do you have 'dirty areas' at a higher pressure to clean areas?
- Are your air change rates up to 50% less than the original commissioned values?
- What is your baseline airborne particle numbers?

MAR 2022

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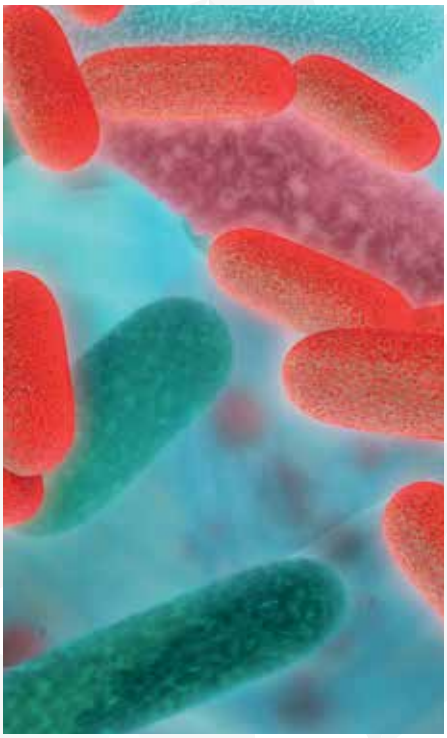

Schedule	Required maintenance and testing	Service interval
Pressure gradients[3]	Test, verify and report operating room pressure gradients to *AS1807.10*[12]. Minimum ΔP OR-corridor of 10 Pa.	12 months
Air change rate[2,3]	Test, verify and report conventional operating room air change rate. Minimum of 20 air changes per hour (ACH) with filters at maximum pressure drop and around 37 ACH in preparation rooms used for laying up of sterile instruments or around 11 ACH if room used as a sterile pack store	12 months[3]
Air velocity and flow characteristics[3]	Test, verify and report operating room air velocity to AS1807.3. Air velocity should be a minimum of 0.2 m/s at 1 m from the floor or operating table height.	12 months
Operating room particle concentrations validation (room class)[3,6]	Conventional operating room-test, verify and report operating room particle concentration (class of room) to *AS/NZ ISO 14644.1 , CLASS 7.* All test performed in "at rest" state.[8]	12 months
HEPA filter validation[3,7]	Test, verify and report operating HEPA filter integrity. HEPA filter installations should be in accordance with *AS1807.6* and should be validated and certified annually in accordance with *AS1807.6*[9].	24 months * Accepted practice is annually

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