







When to high level disinfect with trophon2

WHAT PROCEDURE WILL YOUR PROBE BE USED FOR?

Procedure	Probe used on healthy intact skin	Probe may contact mucous membranes and non intact skin ¹⁻⁶	Probe may contact sterile tissue or blood
Spaulding Classification	<p>NON-INVASIVE</p> <ul style="list-style-type: none"> • Abdominal surface ultrasound • Pelvic surface ultrasound 	<p>SEMI-CRITICAL</p> <p>Intracavity</p> <ul style="list-style-type: none"> • Transvaginal scans • Transrectal scans <p>Surface ultrasound (broken skin)</p> <ul style="list-style-type: none"> • Wound scanning • Burn evaluation • Probe-guided cannulation/venepuncture* • Probe-guided wound assessment* 	<p>CRITICAL</p> <ul style="list-style-type: none"> • Intraoperative procedures • Drainages • Biopsy • Needle guidance • Transvaginal oocyte retrieval • Venous catheter placement • Vascular access • Probe-guided cannulation/venepuncture* • Probe-guided wound assessment*
			
Disinfection / Sterilisation Requirements	<p>Low level or high level disinfection</p> 	<p>High level disinfection</p> 	<p>High level disinfection</p> 

PROBE IS READY FOR PROCEDURE

trophon supports your compliance to United Kingdom guidelines and audit preparations

* HSE Ireland and NHS Scotland classify critical procedures such as cannulation and venepuncture as semi-critical.

Why do I need to high level disinfect my ultrasound probes?

Prevention is better than cure as first study of its kind reveals increased risk of infection and antibiotic prescriptions following semi-invasive ultrasound probe procedures

A groundbreaking epidemiological study which has global implications concerning the methods used to reprocess transvaginal and transrectal ultrasound probes, has been released by Health Protection Scotland and NHS Scotland.⁷ The study shows:

- Thirty days after a transvaginal ultrasound scan, patients were 41% (HR=1.41) more likely to have positive bacterial cultures. In addition, 26% (HR=1.26) more likely to be prescribed antibiotics than similar patients who underwent gynaecological procedures without ultrasound ($p < 0.001$).
- For transrectal scans, patients were 3.4 times (HR=3.4) more likely to have positive bacterial cultures and 75% (HR=1.75) more likely to be prescribed antibiotics ($p < 0.001$).

The Spaulding Classification forms the basis for multiple United Kingdom guidelines

- Guidelines issued by the Society & College of Radiographers and the British Medical Ultrasound Society advise that all ultrasound probes undergo cleaning followed by disinfection or sterilisation. Furthermore, critical probes should minimally undergo high level disinfection and be used with a sterile sheath, and all semi-critical probes should undergo high level disinfection regardless of sheath use.
- High level disinfection is advised in the Scottish, Irish and Welsh guidelines as the minimum standard in ultrasound probe reprocessing for intracavity probes that contact mucous membranes.¹⁻³
- Additionally, the Irish and Scottish guidelines advise high level disinfection for non-invasive probes that are used on broken skin. What's more, these guidelines state that high level disinfection using a manual multi-wipe system is the least preferred option for decontaminating semi-invasive ultrasound probes.

References

1. Society and College of Radiographers (SCoR), and British Medical Ultrasound Society (BMUS) (2017). "Guidelines For Professional Ultrasound Practice." 127.
2. Health Service Executive (HSE) Quality Improvement Division (2017). HSE Guidance for Decontamination of Semi-critical Ultrasound Probes; Semi-invasive and Non-invasive Ultrasound Probes. Document: QPSD-GL-028-1.
3. Welsh Health Technical Memorandum (WHTM) (2014). WHTM 01-06 - Decontamination of flexible endoscopes Part C: Operational management, NHS Wales Shared Services Partnership – Specialist Estates Services: 74.
4. Nyhsen, C. M., et al. (2017). "Infection prevention and control in ultrasound - best practice recommendations from the European Society of Radiology Ultrasound Working Group." *Insights Imaging* 8(6): 523-535.
5. Kollmann, C. and K. Salvesen (2017). "Best Practice recommendations for cleaning and disinfection of ultrasound transducers whilst maintaining transducer integrity." European Committee for Medical Ultrasound Safety (ECMUS).
6. Royal College of Nursing (2011). The selection and use of disinfectant wipes. RCN guidance: 20.
7. Health Protection Scotland (HPS), NHS National Services Scotland (2017). NHSScotland Risk Based Recommendations for the Decontamination of Semi-Invasive Ultrasound Probes: Risk of infection following semi-invasive ultrasound procedures in Scotland, 2010 to 2016. Version 1.0.

European guidelines

Guidelines released by the European Society of Radiology mandate high level disinfection for endocavitary ultrasound probes and ultrasound probes used in all major and minor interventional procedures (e.g. ultrasound guided injections and tissue sampling), regardless of cover use.⁴ Single use sterile gel is strongly advised for these procedures. Sterile probe covers are mandated for invasive procedures, and recommended for endocavitary probes. Automated systems are recognised as standardised, reproducible processes.

The guidelines stated that in Germany, "Merz et al., like others, favours automated systems for high level disinfection, in particular devices using hydrogen peroxide (Tropon® EPR)... Another important aspect of automated systems is the standardised and reproducible decontamination process thus avoiding operator-associated errors or variations. Ultraviolet (UV) light is less effective in eradicating microbes in comparison to hydrogen peroxide."



Nanosonics Limited (Headquarters) 14 Mars Road, Lane Cove, NSW 2066 Australia.
T: +61 2 8063 1600 E: info@nanosonics.com.au www.nanosonics.com.au

Nanosonics Europe Limited (Distributor) Unit 2, Linfit Court, Colliers Way Clayton West, Huddersfield HD8 9WL, United Kingdom.
T +44 1484 860581 E ukinfo@nanosonics.co.uk www.nanosonics.co.uk

Nanosonics Europe GmbH (EU Representative) Poppenbütteler Bogen 66, 22399 Hamburg, Germany.
T +49 40 46856885 E info@nanosonics.eu www.nanosonics.eu