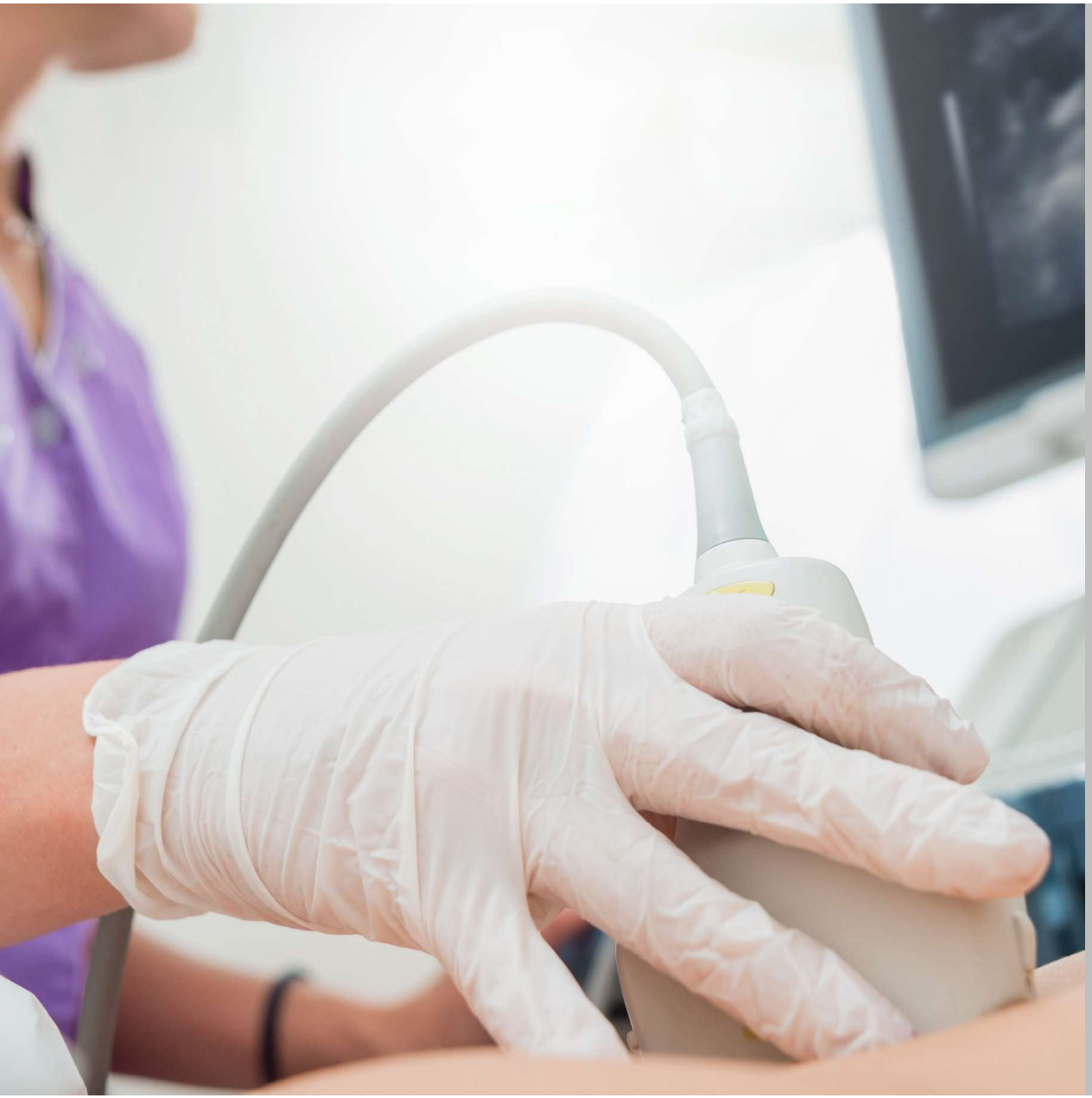


Probing Questions

A decontamination journey

Linda Cooper

In association with

Ultrasound Infection Prevention Toolkit

Background

- I have worked within the decontamination world for 30+ years. Initially as a nurse, then within theatre services and finally within the direct provision of decontamination services.
- During this time I have been involved in both the use and decontamination of ultrasound probes.
- Decontamination guidance has developed over time from when it was a locally agreed process to now where it is regulated by national guidelines.
- Several events and documents have had a direct impact on the guidance and regulations now adopted for the decontamination of reusable invasive medical devices (RIMD) including ultrasound probes.

Probing Question: How did we get here?

1957

- **Spaulding classification**:
  A strategy for sterilization or disinfection of inanimate objects based on the degree of risk involved in their use

2004

- **Hine Report:**
  Independent review of endoscope decontamination in Northern Ireland

2012

- **Creutzfeldt-jakob Disease (CjD):**
  Minimise transmission risk of CjD and vCjD in healthcare settings

2016

- **Health Technical Memorandum (HTM) 01-06:**
  Management and decontamination of flexible endoscopes

2017

- **British Society of Gastroenterology (BSG):**
  Guidance on decontamination of equipment for gastrointestinal endoscopy

Probing Question: What is the Spaulding Classification System?

Spaulding Classification	Medical Device Contacts	Risk of Infection Transmission	Disinfection Level
Critical	Sterile tissue or the bloodstream	High	Sterilisation
Semi-critical	Mucous membranes or non-intact skin	Medium	High Level Disinfection (HLD)
Non-critical	Intact skin only	Low	Low level disinfection (LLD)

Probing Question:
What does this all mean for Ultrasound probe decontamination?

Current Guidelines in UK

- UK Health Technical Memorandum 01-06
- Wales WHTM 01-06
- BMUS: Guidelines for Professional Ultrasound Practice
- BMUS: SCoR Ultrasound transducer decontamination- best practice summary
- NHS Scotland: Guidance for the decontamination of semi-critical ultrasound probes

Probing Question:
What does this all mean for Ultrasound probe decontamination?

- Where there is **no specific guidance** document relating to Ultrasound probes decontamination
  - Decontamination practices/guidelines for other medical devices should be adopted
  - Ultrasound probes are classified as medical devices
  - Adherence to Best Practice is expected
- In terms of patient safety, **Best Practice** should be evident in all aspects of the decontamination process.
- Adopting Best Practice standards involves the creation of robust systems including
  - standardisation of processes and
  - operating procedures.
- This can pose challenges for services
- The Infection Prevention (IP) Toolkit can assist with this

Probing Question:
Where do we go from here?

- The clinicians who use ultrasound probes are keen to adopt guidance and best practice standards that improves patient safety and clinical outcomes, but are sometimes unsure how to get things started.
- Ultrasound probes can be used by many specialties, which are not centrally managed, and this can pose significant challenges in locating probes and standardising decontamination protocols.
- It is important to forge partnerships between clinicians and decontamination experts to benefit the patient
- It is also important to forge partnerships with other clinicians to create standardised protocols within your facilities.
- The Infection Prevention (IP) Toolkit provides an important resource in this process.

Probing Questions asked by Clinicians

- How do I find and identify my ultrasound probes?
- How do I identify the probe use and the appropriate decontamination method?
- How do I identify and manage the risk involved in the decontamination process?
- How do I bring all this information together within an operating procedure?

Introducing the IP Toolkit

The IP Toolkit is a **free peer created and reviewed resource.**

Developed and brought to life by a collective of clinical decontamination experts in the UK and Ireland, who all share a passion for best practice and open & shared learning:

Claire Jones-Manning Deputy Head of Operations & Decontamination Lead (England)
Elizabeth Collins Clinical Lead Infection Prevention (England)
Helen Campbell Decontamination Consultant (England)
John Prendergast Authorised Engineer (Decontamination)(Wales)
Anthony Sullivan External Decontamination Services Manager (England)
Niamh O'Callaghan Hospital Sterile Services Clinical Nurse Manager & Decontamination Lead (Ireland)
Linda Cooper Decontamination Project Lead (Northern Ireland)

Support for the development was provided by Nanosonics Ltd.

Introducing the IP Toolkit

The 4 editable tools are available free of charge,
and are downloadable from the IP toolkit webpage:

www.ultrasoundinfectionprevention.org.uk

Tool 1
Locate & Profile

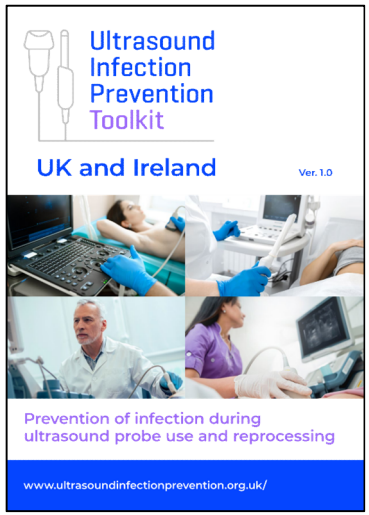
Tool 2
Algorithm

Tool 3
Risk Assessment

Tool 4
Policy Development Framework

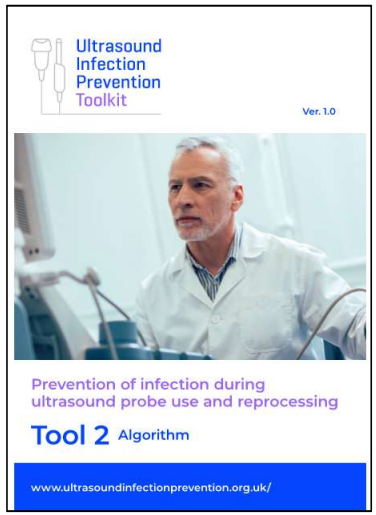
Introducing the IP Toolkit

Tool 1: Locate and Profile



Use this tool to **observe**, **assess** and **create an action plan** where discrepancies are observed between guidelines, practice and standard operating procedures.

Tool 2: Algorithm

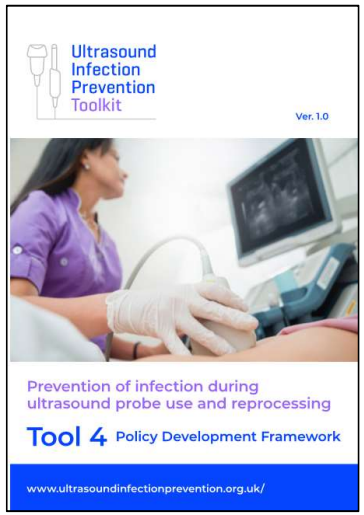


Use this tool to **identify correct probe reprocessing requirements** based on guidelines, organized by department.

Tool 3: Risk Assessment

Use this tool to **assess potential hazards that may be encountered** during the use and reprocessing (e.g., cleaning, disinfection storage and traceability) of ultrasound probes.

Tool 4: Policy Development Framework



Use this tool to **develop an ultrasound infection prevention policy** for your facility.

Introducing the IP Toolkit:
TOOL 1 LOCATE & PROFILE

Part A: Locate

- 4 strategies to identify all ultrasound probes across the facility

Part B: Profile

- Templates to profile the type of probes and the practice observed across the facility:
  - type of probe
  - probe manufacturer
  - current procedures
  - required decontamination status
  - available documentation
    e.g. operating procedures, instructions for use

Part C: Action plan

- Template to document a set of actions from the audit carried out in Part B

TOOL 1 LOCATE & PROFILE
Part A Locate

Strategy	Rationale	How	Limitations
1. **Locate where ultrasound machines are by searching the organisation's asset register.**	The HCO's assets registry department maintains an asset register of equipment used throughout the facility. The asset register links the ultrasound machine to department locations.	Ask HCO's assets registry department to provide a complete list of ultrasound probes and consoles from their asset register. Identify the service they belong to and the department in which they are located.	• Not all ultrasound machines may be listed on the register. • Asset registers may be incomplete (e.g. due to mergers/acquisitions, purchases being made by local departments, trial equipment being used, replacement of old equipment, equipment shared between several departments or other reasons).
2. **Locate where ultrasound consumables are being used (e.g. gel, probe sheaths/ covers).**	All ultrasound probes are used with ultrasound gel which is essential for imaging quality. Some ultrasound probes are used with sheaths/covers. Locating ultrasound gel and probe covers will lead to the departments using ultrasound probes.	Approach the procurement and/ or logistics team to request they search purchase orders and inventory lists for each service department/facility, and provide a report of material.	• It may be difficult to obtain purchase orders and inventory, particularly if a central system is not in place. • Some consumables may be ordered centrally and distributed, or may be ordered and purchased locally (e.g. by individual departments or units). • It may be difficult to identify consumables due to multiple brands/ suppliers.

TOOL 1 LOCATE & PROFILE
Part A Locate

Strategy	Rationale	How	Limitations
3. **Survey departments to identify where ultrasound is used.**	End users are the best placed to know where ultrasound is being used.	Approach departments and ask about their ultrasound use. Methods include but are not limited to: departmental/facility wide email, physically visiting or phoning each department and/or patient care unit leadership. Also, the assumption is that most Emergency departments, Critical Care Units and Operating departments will use USS (ultrasound scan) during procedures. It might be worthwhile to make contact with a clinical specialist i.e. critical care scientist who could advise of locations that routinely use USS for cannulations etc.	· It may be time consuming to reach all departments. · It may be difficult to identify staff with full knowledge of ultrasound use in their department.
4. **Identify ultrasound procedures in HCO coding systems records.**	Ultrasound procedures should be coded. If ultrasound procedure item codes are obtained, they can then be used to identify which departments or providers are performing those procedures.	Identify ultrasonography procedure codes; coding and information department for a list of ultrasound procedure item codes and determine which departments are performing those procedures.	· Coding may not provide department specific information. · The coding system may not be set up to readily perform these searches. · Not all services using ultrasound probes for diagnosis or treatment will record these as ultrasound procedures .

TOOL 1 LOCATE & PROFILE
Part B Profile: Departments & Ultrasound systems

a) Department and ultrasound systems

Department	Date	Assessor / Auditor	Operator(s) present
OBGYN	22/9/21	Jane Doe	Joe Bloggs

	Ultrasound machines identification	Manufacturer(s)
1	XSF-741321846541-512	ABC
2		
3		
4		
5		
6		

TOOL 1 LOCATE & PROFILE
Part B Profile: Probes & Procedures

b) Probes and procedures

Probe name	Probe type (surface / endo-cavitary)	Probe ID*	Probe Serial Number	Probe Manufacturer	Procedure(s)	Spaulding Classification (non critical / semi-critical / critical)
Abdominal Probe	SURFACE	DEPT 001	ABCDE	XXXXX	ABDOMINAL SCANNING	NON-CRITICAL

TOOL 1 LOCATE & PROFILE
Part B Profile: Documentation

c) Documentation

Questions	Answers			Comments
Does the facility/department have SOP(s) for reprocessing ultrasound probes?	□ Yes	☑ No	□ Not specified	
Do the operators have access to the US probe(s) IFU?	☑ Yes	□ No	□ Not specified	
Is the reprocessing system manual?	□ Yes	☑ No	□ Not specified	
Is the reprocessing system automated?	☑ Yes	□ No	□ Not specified	
If yes to the automated question above: Has the automated reprocessor been validated, serviced and tested in line with national and international standards and following the manufacturer's recommendation?	☑ Yes	□ No	□ Not specified	
Where are the validation and service reports stored?	☑ Yes	□ No	□ Not specified	

TOOL 1 LOCATE & PROFILE
Part B Profile: Probe processing procedure audit

Step	Observations				Comments
Post-procedure cleaning (bed-side)	□ No	☑ Yes	Method used:	□ Not specified	
Containment of contaminated probe	☑ No	□ Yes	Method used:	□ Not specified	Immediate HLD with product X
Cleaning	□ No	☑ Yes	Method used: Y wipes	□ Not specified	
Disinfection type	□ LLD	☑ HLD	Method used: Product X	□ Not specified	
Disinfection method	□ Manual	☑ Automated	Method used: Product X	□ Not specified	
Terminal process step	□ LLD	☑ HLD	□ sterilisation	□ Not specified	
Cover use	□ None	□ Single-use non-sterile	☑ Sterile	□ Not specified	
Gel use	□ Multi-use bottle	□ Single-use non-sterile	☑ Single-use sterile	□ Not specified	Multiuse gel not used
Multi-use Gel max usage	□ 1 day	□ > 1 day	Please specify:	☑ Not specified	
Reprocessing Traceability	□ No traceability	☑ Manual	□ Electronic	□ Not specified	
Post processing storage	□ No	☑ Yes	Method used:	□ Not specified	Storage cover on console
Time limit defined?	□ No	☑ Yes	Time limit:	□ Not specified	
Other steps(s) (please specify)					

TOOL 1 LOCATE & PROFILE
Part B Profile: Assess practice & audit conclusion

Assess Practice

Questions	Answers			Comments
Is the observed practice fully compliant with the SOP?	☐ Yes	☑ No	☐ Not specified	
Where are the training records stored?	Please specify: Electronically		☐ Not specified	
Are the operators trained for this procedure?	☑ Yes	☐ No	☐ Not specified	
Type of training	☑ Internal	☐ External	☐ Not specified	

Audit Conclusion

Comments
This practice is non-compliant as no SOP is available

TOOL 1 LOCATE & PROFILE
Part C Action plan

Action Plan				Progress Update	Re-audit	
Auditor/assessor: Date:				Auditor/assessor: Date:	Auditor/assessor: Date:	
Deviations identified	**Actions required**	**Person responsible**	**Priority** High Medium Low	**Status**	**Outcome**	**Action effectiveness** *(How do you prove that the actions have been effective?)*
SOP to be created	1.Review IFU	XX	High	1.IFU reviewed	SOP conform with IFU	
	2.Create a standardised procedure	XX	High	2. SOP created	SOP is available in folder for all staff	Perform process audits once a year
	3.Communicate SOP to all relevant staff	Y.Y.	Medium	3. Awareness training rolled out	All relevant staff have been asked to describe the SOP	
	4. Update training folders	Y.Y.	Medium	Staff training folders to be updated		

IP Toolkit: Next Steps

After using **Tool 1** to **Locate and Profile** all ultrasound probes

The team knows:

- What ultrasound systems & probes you have and their locations.
- What procedures these ultrasound probes are used for and their required decontamination status
- What documentation exists and what needs to be created.

This gives an action plan to move forward to the next stage of the process. Which is **Tool 2: Algorithm**

IP Toolkit: Next Steps

Tool 2: Algorithm

- Contains the correct processing requirements
- Based on guidelines
- Organised by department

All tools are available @

www.ultrasoundinfectionprevention.org.uk

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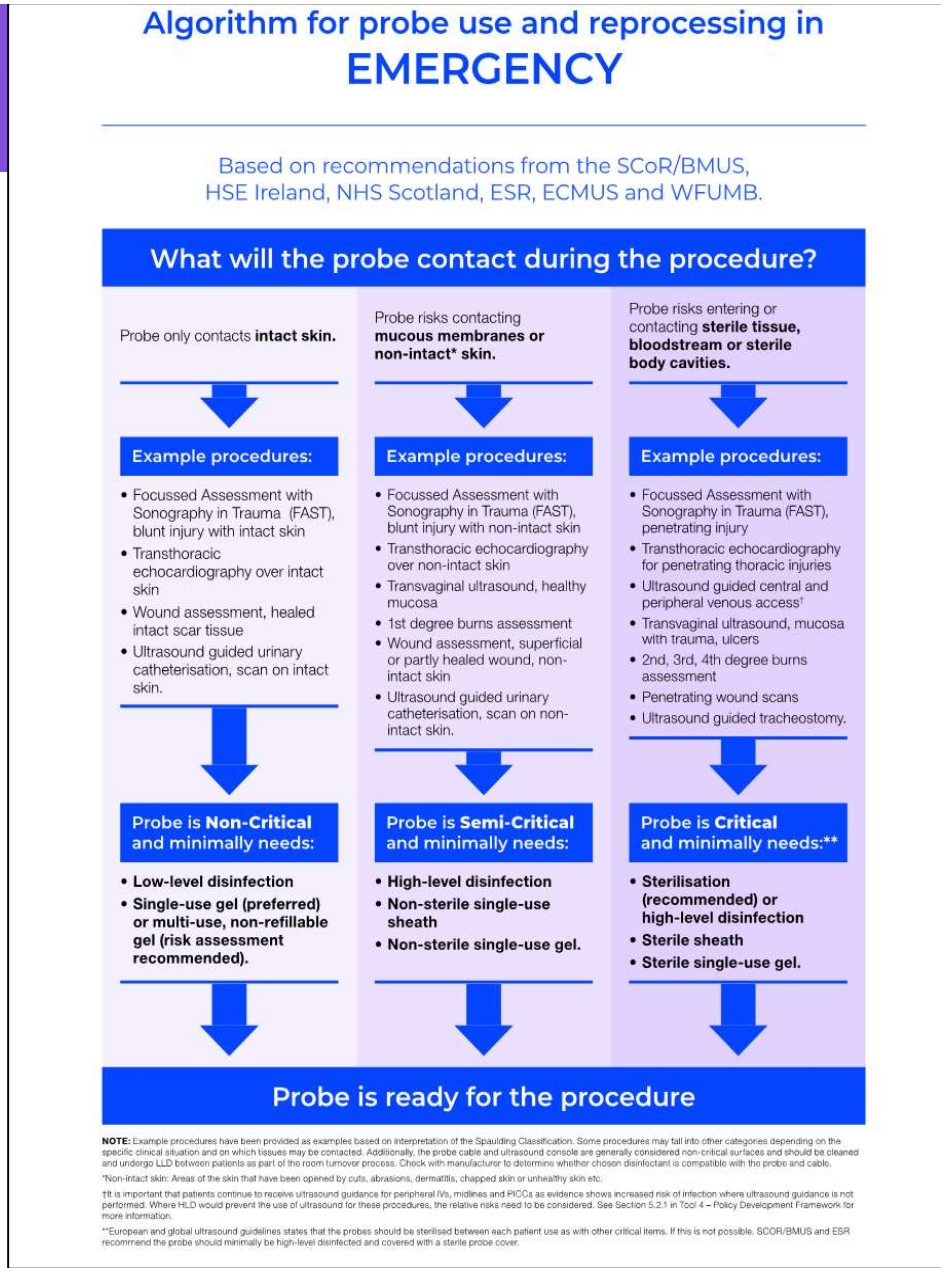

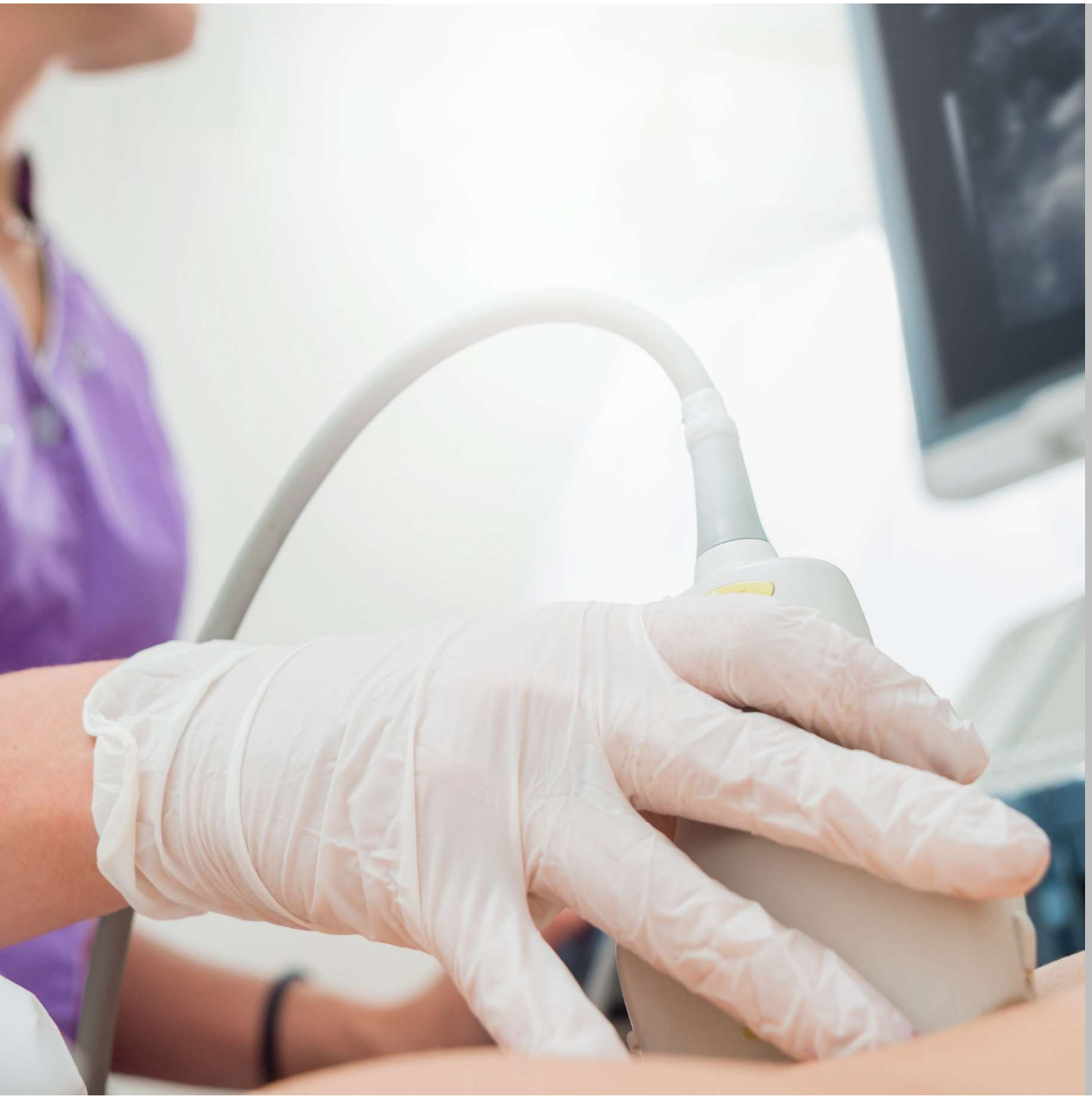

Thank You

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