

## Risk Assessment Form

Use this form for any detailed risk assessment unless a specific form is provided. Refer to your Summary of Hazards/Risks and complete forms as required, including those that are adequately controlled but could be serious in the absence of active management. The Action Plan and reply section is to help you pursue those requiring action.

<b>Name of Initial Assessor /Reviewer:</b>	John McLean/ Sarah Allwood-Spiers	<b>Post Held:</b>	MR Safety Expert
<b>Department:</b>	Imaging	<b>Date (Initial Review):</b>	23/12/2024
<b>Subject of Assessment:</b> E.g.: hazard, task, equipment, location, people			
Scanning patients in MRI with skin staples			
<b>Hazards</b> (Describe the harmful agent(s) and the adverse consequences they could cause)			
MRI can present a risk of implant migration and translation to ferromagnetic implants. MRI scan also present a risk of heating to metallic implants.			
<b>Description of Risk</b> Describe the work that causes exposure to the hazard, and the relevant circumstances. Who is at risk? Highlight significant factors: what			
<p>The high static magnetic field has the potential to cause migration or translation of ferromagnetic implants. The RF power of the MRI scanner also has the potential to cause heating in metallic implants.</p> <p>Small metal implants &lt;2cm are very unlikely to cause excessive heating at field strengths of 3T and below.</p> <p>Most skin staples used for surgical procedures are non-ferrous i.e. they are typically made from titanium, non-ferrous stainless steel or tantalum, and therefore would not move in the magnetic field.</p> <p>Staples are small and well-fixed in tissue. If a staple is weakly ferromagnetic, it is unlikely it would move significantly in the magnetic field.</p>			
<b>Existing Precautions</b>		<b>Describe how they might fail to prevent adverse outcomes.</b>	
<p>The majority of skin staples used for surgical procedures are non-ferrous i.e. they are typically made from titanium, non-ferrous stainless steel or tantalum.</p> <p>The shape and size of staples are such that excessive heating of the staples is highly unlikely.</p> <p>If a patient reports that their staples are magnetic, check with a hand magnet. Move patient into scanner slowly and stop if any discomfort.</p> <p>To the best of our knowledge there has never been an adverse incident or injury as a result of a patient with skin staples being scanned with MRI.</p> <p>The MRI safety literature is continually monitored by MRI physics staff such that should issues arise with these implants necessary corrective action can be taken.</p>		<p>These measures might fail if a new surgical staple is brought into use that is ferrous. However, we feel it is highly unlikely in modern medicine that such a product would be made that was not suitable for MRI.</p>	

Give more than one risk level if the assessment covers a range of circumstances. You can use the 'matrix' to show how 'likelihood' and 'consequences' combine to give a conclusion. Also, be critical of existing measures: if you can think how they might fail, or how they could be improved, these are indications of a red or orange risk.

<u>Likelihood</u>	<u>Impact/Consequences</u>				
	Negligible	Minor	Moderate	Major	Extreme
Almost Certain	Medium	High	High	V High	V High
Likely	Medium	Medium	High	High	V High
Possible	Low	Medium	Medium	High	High
Unlikely	Low	Medium	Medium	Medium	High
Rare	<u>Low</u>	Low	Low	Medium	Medium

### Current risk level

Given the current precautions, and how effective and reliable they are, what is the current level of risk? **Green** is the target – you have thought it through critically and you have no serious worries. Devise ways of making the risk green wherever you can. **Yellow** is acceptable but with some reservations. You can achieve these levels by reducing the inherent risk and or by effective and reliable precautions.

High (Orange) or Very High (Red) risks are unacceptable and must be acted on: use the Action Plan section to summarise and communicate the problems and actions required.

**Action Plan** (if risk level is High (Orange) or Very High (Red))

Use this part of the form for risks that require action. Use it to communicate, with your Line Manager or Risk Coordinator or others if required. If using a copy of this form to notify others, they should reply on the form and return to you. Check that you do receive replies.

Describe the measures required to make the work safe. Include hardware – engineering controls, and procedures. Say what you intend to change. If proposed actions are out with your remit, identify them on the plan below but do not say who or by when: leave this to the manager with the authority to decide this and allocate the resources required.

**Action by Others Required - Complete as appropriate: (please tick or enter YES, name and date where appropriate)**

<b>Report up management chain for action</b>	
<b>Report to Estates for action</b>	
<b>Contact advisers/specialists</b>	

Alert your staff to problem, new working practice, interim solutions, etc	
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**Reply**

If you receive this form as a manager from someone in your department, you must decide how the risk is to be managed. Update the action plan and reply with a copy to others who need to know. If appropriate, you should note additions to the Directorate / Service Risk Register.

If you receive this as an adviser or other specialist, reply to the sender and investigate further as required.

**Date of last review:**

As per QPulse record

**Next review date:**

As per QPulse record