

## 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 Assessor:</b>	John McLean	<b>Post Held:</b>	Clinical Scientist
<b>Department:</b>	Imaging	<b>Date:</b>	13/09/2017
<b>Subject of Assessment:</b> E.g.: hazard, task, equipment, location, people			
<b>Scanning patients in MRI with dermal piercings who can't or won't remove or replace them.</b>			
<b>Hazards</b> (Describe the harmful agent(s) and the adverse consequences they could cause)			
<p>The hazard varies depending on the material used within the dermal piercing, with piercings made from ferromagnetic and non-ferromagnetic metals, as well as non-metallic materials. Non-metallic piercings introduce no additional risk when performing an MR examination. However, ferromagnetic metals present a displacement or projectile risk whereas conductive metals present a heating risk. Dermal piercings may also affect image quality if the piercing is within the imaging field of view and in proximity of any underlying pathology.</p>			
<b>Description of Risk</b>			
<p>Describe the work that causes exposure to the hazard, and the relevant circumstances. Who is at risk? Highlight significant factors: what makes the risk more or less serious – e.g.: the time taken, how often the work is done, who does it, the work environment, anything else relevant.</p>			
<p>While in an ideal world patients would remove any metallic dermal piercings prior to entering the MR magnet room, in reality many patients are unwilling or unable to remove the piercings prior to their MRI. To ensure care is not withheld unnecessarily or delayed it is incumbent upon us to assess the risk of scanning patients with MRI who have dermal piercings.</p> <p>If a dermal piercing was ferrous, the patient may feel it pull or tug while they are within the magnet room. While it is unlikely dermal piercings will be ferrous, this can be quickly assessed outside of the magnet room by passing a hand held magnet over the piercing. If the piercing is not drawn towards the magnet, then the piercing is not significantly ferrous. Therefore, the risk posed by the MRI magnet will be negligible.</p> <p>Any metal object placed with the MRI scanner will pose a risk of heating during scanning. The likelihood of heating occurring will depend on many factors including, amongst other things, the size, shape and material of the piercing, the position of the patient, the MRI sequence being used and the location of the piercing. Taking all of this into consideration it is deemed that the risk of heating to a dermal piercing during scanning will be low. To mitigate this risk, the patient should be informed about the potential of the implant to heat up. The patient should be informed to press the staff call button immediately should they feel any unusual sensation or heating.</p>			

<p><b>Existing Precautions</b></p> <p>Identify patients with metallic dermal piercings through the MRI safety checklist procedure.</p> <p>Ask if it can be removed.</p> <p>If the piercing cannot be removed, proceed as described below.</p> <p>Identify whether or not the dermal piercing is ferromagnetic using a handheld magnet outside of the magnet room.</p> <p>Warn patients with metallic piercings about the risk of heating and instruct them to use the staff call button if they should feel any unusual sensations or heating.</p> <p>Radiographer should monitor the patient throughout scanning and speak to the patient between scans</p>	<p><b>Describe how they might fail to prevent adverse outcomes.</b></p> <p>Patients may not report metallic dermal piercings during the MRI safety checklist procedure.</p> <p>It is conceivable that the patient may drop the patient call buzzer during the scan and therefore be unable to press the buzzer should they feel any unusual sensation. However, patients are not typically restricted so much that they could not move during the scan, moreover the radiographer should be monitoring the patient throughout the duration of the scan.</p> <p>Patients who are anaesthetized will not be able to respond to heating. In this circumstance, a clear clinical benefit from scanning the patient is required to offset the low risk of an adverse event as a result of heating.</p>
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**Level of Risk** - Is the control of this risk adequate?

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.

**Risk Matrix**

<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	Low	Low	<u>Low</u>	Medium	Medium

Very High
  High
  Medium
  Low

**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.

Proposed actions to control the problem List the actions required. If action by others is required, you must send them a copy	By Whom	Start date	Action due date

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

Report up management chain for action	
Report to Estates for action	
Contact advisers/specialists	
Alert your staff to problem, new working practice, interim solutions, etc	

### 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.

Assessment completed - date:

As per Q-Pulse

Review date:

As per Q-Pulse