

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.

Name of Initial Assessor/Reviewer:	Rosario Lopez Gonzalez	Post Held:	MR Safety Expert
	Blair Johnston		Clinical Scientist
Department:	Imaging	Date (Initial Review):	06/05/2021
Subject of Assessment: E.g.: hazard, task, equipment, location, people			
Scanning patients in MRI with dressings containing silver			
Hazards (Describe the harmful agent(s) and the adverse consequences they could cause)			
Radiofrequency (RF) energy used by the MRI scanner can induce currents in metal such as silver, effectively creating a current in the area where the dressing is located which can lead to heating and burns.			
Description of Risk			
<p>Some antimicrobial dressings used to prevent or manage infection in a wide range of wounds contain silver. As silver is non-ferromagnetic, dressings containing silver do not pose a risk of translational or rotational forces from the static magnetic field of the MRI system. However, as silver fibres conduct electricity, there is a risk of heating from the RF energy. Dressings containing silver may also affect image quality if the silver dressing is within the imaging field of view and in proximity of any underlying pathology. Whilst there has been concern about the effects of MRI on silver dressings in the past, to date, there have been no demonstrated adverse effects purely as a result of the patients having had an MRI scan while wearing a silver dressing.</p> <p>However, to our knowledge there has been only one incident reported, in this case the evidence was far from conclusive that the silver containing dressings were the cause of the patient's pain, for more details see http://mrisafety.com/SafetyInformation_view.php?editid1=283 [Health Devices. 2007 Jul;36(7):232-3 and 2008 Feb; 37(2):60-2].</p> <p>Some manufacturers recommend that the silver dressing should be removed before MRI i.e. these are contraindicated for use during MR scans. MRSafety.com states that the reason that some silver-containing dressings are contraindicated by the dressing manufacturer for use during MR scans is because they could produce artefacts and distortions in the MR image, not because of any risk they might pose to the patient (although such risk cannot be conclusively ruled out).</p> <p>To safely scan a patient using a silver dressing follow the Existing Precautions section below.</p>			
Existing Precautions		Describe how they might fail to prevent adverse outcomes.	
<p>Extensive checklist to identify if a patient has a silver dressing. Having a silver dressing should not stop a patient having an MRI scan but we recommend following the guidance below.</p> <p>1. If the dressing is out of the imaging field of view: The patient should be informed about the potential of the dressing to heat up. The patient</p>		<p>Patients may not report/know that the dressing contains silver during the MRI safety checklist procedure.</p> <p>Local T/R coils may not be available or appropriate for the requested examination.</p> <p>Some patients may be unable to report heating, such as patients under General Anaesthetic. In this circumstance, a clear</p>	

should be informed to press the staff call button immediately should they feel any unusual sensation or heating.

2. If the dressing is within the imaging field of view:

Check and replace any dressings that are impregnated with silver with a non-metallic dressing, if possible. If the silver dressing cannot be removed, check with the radiologist on duty to check the benefit outweighs the risk of the patient having an MRI scan. The risk of a burn is low, however, the risk cannot be conclusively ruled out and possible image artefacts might be present. The patient should be warned about the potential for heating, carefully monitored and instructed to press the patient call button should they feel any unusual pain or heating.

Note: i) In cases where the dressing is removed it is recommended to wash the wound as some silver fibres may have transferred.

ii) Apply cold compresses if the patient feels any heating, if the patient's symptoms do not improve and the possible causes of heating are not found, discontinue the MR examination.

iii) Please report any incidents using Datix and contact your local MRI Physicist.

It may be possible to select a local Transmit / Receive coil which would ensure the area with the silver dressing is not exposed to the RF and therefore heating.

clinical benefit from scanning the patient with the silver dressing in place is required to offset the low risk of an adverse event as a result of heating.

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

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.

Date of last review As per QPulse record

Next review date: As per QPulse record