

### 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>	Sarah Allwood-Spiers	<b>Post Held:</b>	Clinical Scientist
<b>Department:</b>	<b>Imaging</b>	<b>Date (Initial Review)</b>	<b>31/07/2020</b>
<b>Subject of Assessment:</b> E.g.: hazard, task, equipment, location, people			
Scanning patients in MRI who have had a scleral buckling procedure.			
<b>Hazards</b> (Describe the harmful agent(s) and the adverse consequences they could cause)			
<p>MRI can present a risk of migration in the form of translational and rotational movement to ferromagnetic objects. If a ferromagnetic object moves in the eye this could potentially cause blindness.</p> <p>MRI can also present a risk of heating to metallic objects the likelihood of which depends on many factors e.g. the part of the body being scanned, the shape, size, type of metal and the orientation of the object.</p>			
<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 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>Scleral buckling is a procedure used to repair retinal detachment. In most cases a silicone band is used with no metal. Occasionally a metal clip or tack might be used to secure the band. Clips used with scleral buckles are usually tantalum, which is not ferromagnetic. The band is usually left in place permanently.</p> <p>The main risk is from the static magnetic field: if a ferromagnetic component has been used to secure the buckle to the retina, there is a risk of deflection (rotation or translation). The likelihood that a ferromagnetic component has been used is extremely low. If a ferromagnetic component has been used the likelihood that it will deflect is quite high.</p> <p>In a literature review, we found no examples of ferromagnetic components being used clinically for scleral buckle procedures.</p> <p>Any metallic components are very small and therefore risks from RF heating are negligible. There are no active components or long wires or components large enough to induce eddy currents, so risk from imaging gradients are negligible.</p>			
<b>Existing Precautions</b>		<b>Describe how they might fail to prevent adverse outcomes.</b>	
<p>To the best of our knowledge, scleral buckling uses non-ferromagnetic components highly unlikely to move and cause injury to the patient while in the MRI environment.</p> <p>The shape and size of clips are such that excessive heating is highly unlikely</p>		<p>This policy does not relate to ferromagnetic retinal tacks. Confusion on this issue might lead to a member of staff wrongly assuming that other retinal surgery is covered by this policy.</p> <p>These measures might fail if a new scleral buckling procedure is brought into use that presented a risk to patients in the MRI environment.</p>	

<p>To the best of our knowledge there has never been an adverse incident or injury as a result of a patient with a scleral buckle 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>	
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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
<b>Almost Certain</b>	Medium	High	High	V High	V High
<b>Likely</b>	Medium	Medium	High	High	V High
<b>Possible</b>	Low	Medium	Medium	High	High
<b>Unlikely</b>	Low	Medium	Medium	Medium	High
<b>Rare</b>	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.

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

**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>	
<b>Alert your staff to problem, new working practice, interim solutions, etc</b>	

**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