

### 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	<b>Post Held:</b>	MR Safety Expert
<b>Department:</b>	Imaging	<b>Date (Initial Review):</b>	17/3/2015
<b>Subject of Assessment:</b> E.g.: hazard, task, equipment, location, people			

Exposure to noise during MRI scanning : Considerations for pregnant patients

**Hazards** (Describe the harmful agent(s) and the adverse consequences they could cause)

The MRI scanner uses powerful imaging gradients to acquire images of the body. During scanning, the necessary switching on and off of these imaging gradients creates noise. Noise levels can be in excess of 100dB.

While the mother can be given ear protection, clearly the foetus cannot.

**Description of Risk**

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.

There is a theoretical risk that the hearing of the foetus may be affected by MRI. However, the anatomy of the mother is known to provide a degree of dampening of sound to the foetus. The MRI scan is a transient event, typically not lasting longer than 30mins. Thus, exposure to high noise levels is not for a prolonged period of time. There is no evidence to-date that has shown a clear link to any adverse outcome to a child's hearing (or other factor) as a result of the foetus having been exposed to noise from MRI.

**Existing Precautions**

<b>Summarise current controls in place</b>	<b>Describe how they might fail to prevent adverse outcomes.</b>
Pregnant patients must be scanned in normal operating mode	The authorised operator might not select to conduct the scan in normal operating mode

**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 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.

Date of last review:

As per QPulse record

Next review date:

As per QPulse record