NHS Greater Glasgow and Clyde

**ID: DR-GGC-RISK-078**

# 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.

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| **Name of Initial Assessor/Reviewer** | Blair Johnston | **Post Held:** | Clinical Scientist |
| **Department:** | **Imaging** | **Date (Initial Review):** | **23/4/2020** |

**Subject of Assessment:** E.g.: hazard, task, equipment, location, people

MRI safety status of patients with insulin pumps

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

At the time of review, all insulin pumps are classified as MR Unsafe. The majority of insulin pumps are attached to the surface of the skin, either directly (patch pump) or via a cannula/infusion line (tethered pump). For tethered pumps (those that require an infusion set), whilst the pump is MR Unsafe, some infusion sets are MR Safe (all plastic) whereas others are MR Unsafe (steel needle). Infusion sets are generally replaced ever two to three days so removal should not be an issue.

There exists an implantable insulin pump which remains inside the body at all times. The implanted insulin pumps are rare with only a small number of patients worldwide being fitted with these devices, these are also assumed to be MR Unsafe.

The main risk described by the manufacturers of insulin pumps is that the pump will cease to function after being brought into the Magnet Room of the MRI scanner. However, there may also be potential for displacement or projectile risk and heating.

**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.

For the MRI to safely proceed, it is necessary for the patient to remove their insulin pump prior to entering the Magnet Room. However, some patients may be unwilling to remove the pump (and infusion set if required). Whilst it is important to ensure care is not withheld unnecessarily or delayed, if a patient is unwilling to remove their pump (and infusion set if required), the scan must be rescheduled to a time when the patient no longer has the pump (and infusion set if required) or is able to remove it.

| **Existing Precautions** | **Describe how they might fail to prevent adverse outcomes.** |
|---|---|
| At the time of review, all insulin pumps are classified as MR Unsafe. Therefore, the pump (and any infusion set that cannot be shown to be MR Safe) must be removed before the patient can enter the Magnet Room.<br><br>All implanted insulin pumps require an investigation to identify the make and model and MRI safety information. | Patients may fail to disclose that they have an insulin pump during the MRI safety checklist procedure. |

**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**

| Likelihood | Impact/Consequences | | | | |
|---|---|---|---|---|---|
| | 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**<br>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.**

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| **Date of last review:** | As per QPulse record | **Next review date:** | As per QPulse record |