**GLOBAL RISK ASSESSMENTS**

**What is a global risk assessment**? A global risk assessment is the careful examination of the MTF’s physical environment to identify hazards and estimate the potential impact of those hazards on people, equipment, or buildings and grounds.

### What is a hazard? A hazard is anything with the potential to cause harm (injury, illness, or damage); for example, poorly maintained floors or stairs may present a slip and fall hazard.

### What is risk? A risk is the likelihood that a hazard will cause a specified harm to someone or something. For example, if there are no guard rails on the scaffolding it is likely that a maintenance worker will fall and break a bone.

**Why perform a global risk assessment?** Managing risks puts you in control and helps to keep the physical environment safe, functional and supportive of patient care.

**Who should conduct a global risk assessment?** Global risk assessment is a straightforward process that most people can do, given some basic training. Members from the environment of care team and the safety committee are ideal candidates.

**When should global risk assessments be reviewed and updated?** Few workplaces stay the same.  Sooner or later, new equipment, substances and procedures, will be introduced into the physical environment and that could lead to new hazards.  Therefore, it is a good management practice to review the assessments at least annually and update them on an ongoing basis, and especially following a major change in the physical environment. When reviewing the assessments, ask–

* Have there been any changes?
* Are there improvements still needed?
* Have workers reported a problem?
* Is new information available (for example, accidents or near misses, industry standards, regulations)?

 **How do I conduct a global risk assessment?** The following steps explain the process for conducting a global risk assessment. The Global Risk Assessment form lists some deficiencies or hazards that may be potential risks (this is not a comprehensive list) in a healthcare facility.

**Step 1. What are the Hazards?**

* Walk around the workplace and look at what could reasonably be expected to cause harm. Record the findings under the Hazards column on the Hazard Identification Worksheet.
* Ask employees, patients and visitors what they think. They may have noticed things that are not immediately obvious.
* Visit the OSHA, CDC, NFPA, and The Joint Commission websites for practical guidance on where hazards occur and how to control them.
* Check manufacturers’ instructions or data sheets for chemicals and equipment as they can be very helpful in spelling out the hazards and putting them in their true perspective.
* Take a look at the OSHA 300 log – these often help to identify the less obvious hazards.
* Remember to think about long-term hazards (for example, high levels of noise or exposure to harmful substances).

The following examples are provided as a guide to identifying hazards in the workplace –

* Slipping/tripping hazards caused by poorly maintained floors or stairs
* Fire due to improper storage of flammable liquids
* Chemical exposures due to the improper use of cleaning materials
* Electrical shock due to poor wiring
* Ergonomic issues related material handling
* Burns resulting from use of heating pads
* Risk of falling due to openable windows above ground floor

**Step 2. What is the EC risk area?** Determine the management plan or program that deals with the nature of the hazard. List the plan or program on the Hazard Identification Worksheet under the Environment of Care Risk Area column. Use the following as a guide –

* Safety
* Security
* Hazardous materials and waste
* Fire safety
* Medical equipment
* Utilities
* Infection control

**Step 3. Who Might be Harmed?** Decide who might be harmed and how. Identify groups of people doing similar work or activities (for example, people working in the storeroom or laboratory workers, nurses, patients, visitors, volunteers). In each case, identify how people might be harmed, that is, what type of injury or ill health might occur. For example, shelf stackers may suffer back injury from repeated lifting of boxes. List the affected group(s) under the Groups at Risk column of the work sheet. Examples of groups include –

* Staff
* Housekeeping staff
* Maintenance personnel
* Contractors
* Patients
* Visitors
* Volunteers

**Step. 4 Is the risk adequately controlled?** Indicate whether precautions have already been taken against the risks of the hazards listed on the form. For example, ask –

* Is adequate information, instruction or training provided?
* Are adequate systems or procedures in place?

And do the precautions –

* Meet a regulatory standard?
* Comply with recognized guidelines?
* Represent a good work practice?

If the risks are controlled, list the precautions in place in the Controls in Place column of the work sheet. Refer to local regulations or standing operating procedures if needed.

**Step 5. Is further action is necessary to control the risk?** Decide if more can be reasonably done to control risk. For example, is it feasible to –

* Remove the risk completely?
* Try a less risky option?
* Prevent access to the hazard (for example, guarding)?
* Organize work to reduce exposure to the hazard?
* Issue personal protective equipment?
* Provide welfare facilities (for example, removal of contamination and first aid)?

**Step 6. What risks should be tackled first**. A good rule of thumb is “worst, first” by giving priority to those risks which affect large numbers of people and/or could result in serious harm. To set priorities for tackling the risks, list them on the Global Risk Assessment form to determine the potential impact to safety. The scoring is defined as –

|  |  |  |  |
| --- | --- | --- | --- |
| **Probability Score** | **Description** | **Impact Score** | **Descriptions** |
| 1 | Very unlikely to ever occur | 1 | No injury is likely to occur |
| 2 | Unlikely to occur in one year | 2 | Minor injury is likely to occur |
| 3 | May occur in one year | 3 | Moderate injury is likely to occur |
| 4 | Likely to occur in one year | 4 | Serious injury is likely to occur |
| 5 | Almost certain to occur in one year | 5 | Death is likely to occur |

Scoring can be accomplished by multiplying the probability and impact scores. The total values can be used to prioritize those hazards that require remedial action. Each MTF should determine actions to take based on the level of risk. For example:

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| --- | --- | --- |
| **Score** | **Risk Category** | **Actions** |
| 1-8 | Low (RAC 4 or 5) | No extraordinary actions required. Monitor. |
| 9-12 | Moderate (RAC 3) | Educate staff. Enforce existing policies. Monitor. |
| 13-16 | High (RAC 2) | Educate staff. Emphasize during environmental tours. Implement interim controls. Post a notice of unsafe or unhealthful conditions at or near the hazard. Prepare and abatement plan when corrective actions cannot be completed within 30 days. Respond to incidents immediately. Monitor. |
| 17-25 | Extremely high (RAC 1) | Educate staff. Emphasize during environmental tours. Implement interim controls. Post a notice of unsafe or unhealthful conditions at or near the hazard. Prepare and abatement plan when corrective actions cannot be completed within 30 days. Respond to incidents immediately. Monitor. |

Focused risk assessments should be performed for moderate and high risk hazards, starting with those with the highest impact scores, to determine the actions that may be taken or the processes that may be altered to reduce the overall risk to an acceptable level. Remember, to consider –

* Cheap or easy improvements that can be done quickly, perhaps as a temporary solution until more reliable controls are in place
* Long-term solutions to those risks most likely to cause accidents or ill health
* Long-term solutions to those risks with the worst potential consequences
* Arrangements for training employees on the main risks that remain and how they are to be controlled
* Regular checks to make sure that the control measures stay in place
* Defining clear responsibilities – who will lead on what action, and by when

Finally, be sure to demonstrate that a consensus about the risks was reached by the Safety Committee.

**HAZARD IDENTIFICATION WORKSHEET**

**Location: Assessor: Date:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **HAZARD** | **ENVIRONMENT OF CARE (EC) RISK AREA** | **GROUP(S) AT RISK** | **CONTROLS IN PLACE** | **ADDITIONAL CONTROLS NEEDED** |
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**GLOBAL RISK ASSESSMENT FORM**

**EC Risk Area: Safety POC: DATE:**

| **HAZARD** | **OCCURRENCE PROBABILITY****(1-5)** | **OCCURRENCE IMPACT** **(1-5)** | **TOTAL IMPACT SCORE****(PROBABILITY X IMPACT)** |
| --- | --- | --- | --- |
| **People:** |
|  **Slips, trips and falls** |  |  |  |
|  **Needle stick injuries** |  |  |  |
|  **Patient handling/ergonomic** |  |  |  |
|  **Storage/housekeeping** |  |  |  |
| **Equipment:** |
|  **PPE** |  |  |  |
|  **Chemical fume hoods** |  |  |  |
|  **Biological safety cabinets** |  |  |  |
|  **Machine guarding** |  |  |  |
| **Buildings:** |
|  **Age of structure** |  |  |  |
|  **Lack of handicapped access** |  |  |  |
|  **Eyewash stations and safety shower locations/function** |  |  |  |
|  **Cell phone interference potential** |  |  |  |
|  **Electrical hazards**  |  |  |  |
|  **Paging system “dead zones”** |  |  |  |
|  **Suicide potential due to building features** |  |  |  |
|  **Suicide potential due to building systems** |  |  |  |
|  **Wrong way finding signage** |  |  |  |
|  **Stairwell design** |  |  |  |
|  **Mold** |  |  |  |

**RISK ASSESSMENT FORM**

**EC RISK AREA: Security POC: DATE:**

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| **RISK ELEMENT DESCRIPTION** | **OCCURRENCE PROBABILITY****(1-5)** | **OCCURRENCE IMPACT****(1-5)** | **TOTAL IMPACT SCORE****(PROBABILITY X IMPACT)** |
| **People:** |
|  **Infant/pediatric abduction** |  |  |  |
|  **Assault/workplace violence** |  |  |  |
|  **Elopement** |  |  |  |
|  **Forensic patients** |  |  |  |
|  **Weapons brought onto MTF property** |  |  |  |
|  **Trespassing** |  |  |  |
| **Equipment:** |
|  **Lost identification badge** |  |  |  |
|  **Lost keys/key card** |  |  |  |
|  **Property loss** |  |  |  |
|  **Information loss** |  |  |  |
| **Buildings:** |
|  **Uncontrolled access to security sensitive areas** |  |  |  |
|  **Staff/patient identification** |  |  |  |
|  **Parking violations** |  |  |  |
|  **Security system failure** |  |  |  |
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**RISK ASSESSMENT FORM**

**EC RISK AREA: HAZMAT/Waste POC: DATE:**

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| **RISK ELEMENT DESCRIPTION** | **OCCURRENCE PROBABILITY****(1-5)** | **OCCURRENCE IMPACT****(1-5)** | **TOTAL IMPACT SCORE****(PROBABILITY X IMPACT)** |
| **Exposure to chemicals**  |
|  **Asbestos** |  |  |  |
|  **Mercury** |  |  |  |
|  **Formaldehyde** |  |  |  |
|  **Glutaraldehyde** |  |  |  |
|  **Xylene** |  |  |  |
|  **Pesticides** |  |  |  |
|  **Pharmaceuticals and hazardous drugs** |  |  |  |
|  **Waste anesthetic gases** |  |  |  |
|  **Laboratory chemicals** |  |  |  |
|  **Maintenance chemicals** |  |  |  |
| **Compressed gases** |  |  |  |
| **Exposure to radioactive materials** |  |  |  |
| **Exposure to infectious materials** |  |  |  |
| **Spills and releases** |  |  |  |
| **Waste minimization** |  |  |  |
| **Packaging, labeling, and transporting RMW** |  |  |  |
| **Lasers** |  |  |  |
| **Latex allergy** |  |  |  |
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**RISK ASSESSMENT FORM**

**EC RISK AREA: Fire Safety POC: DATE:**

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| **RISK ELEMENT DESCRIPTION** | **OCCURRENCE PROBABILITY****(1-5)** | **OCCURRENCE IMPACT****(1-5)** | **TOTAL IMPACT SCORE****(PROBABILITY X IMPACT)** |
| **Oxygen enriched atmospheres** |  |  |  |
| **Fire code deficiencies** |  |  |  |
| **Construction** |  |  |  |
| **Loss of fire alarm system** |  |  |  |
| **Loss of sprinkler system** |  |  |  |
| **Fire in the operating room** |  |  |  |
| **Compressed gases** |  |  |  |
| **Fire extinguishers** |  |  |  |
| **Evacuation plans/drills** |  |  |  |
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**RISK ASSESSMENT FORM**

**EC RISK AREA: Medical Equipment POC: DATE:**

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| **RISK ELEMENT DESCRIPTION** | **OCCURRENCE PROBABILITY****(1-5)** | **OCCURRENCE IMPACT****(1-5)** | **TOTAL IMPACT SCORE****(PROBABILITY X IMPACT)** |
| **Medical equipment malfunction:** |
|  **Diagnostic** |  |  |  |
|  **Therapeutic** |  |  |  |
|  **Life support** |  |  |  |
|  **Sterilizers** |  |  |  |
|  **Renal dialysis water systems** |  |  |  |
| **Adequate type of medical equipment based on patient population** |  |  |  |
| **Adequate number of medical devices**  |  |  |  |
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**RISK ASSESSMENT FORM**

**EC RISK AREA: Utilities POC: DATE:**

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| **RISK ELEMENT DESCRIPTION** | **OCCURRENCE PROBABILITY****(1-5)** | **OCCURRENCE IMPACT****(1-5)** | **TOTAL IMPACT SCORE****(PROBABILITY X IMPACT)** |
| **Interruption of critical utility services:** |
| **Electricity** |  |  |  |
| **Emergency generators** |  |  |  |
| **Water** |  |  |  |
| **HVAC** |  |  |  |
| **Piped medical gas** |  |  |  |
| **Steam/boilers** |  |  |  |
| **Elevators** |  |  |  |
| **Chilled water/chillers** |  |  |  |
| **Natural gas/oil** |  |  |  |
| **Communications** |  |  |  |
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