ISSA Tip Sheet

Recommendations for RISK ASSESSMENT for the Cleaning and Disinfection in Response to COVID-19.

What is a risk assessment?

A "Risk Assessment" is a process that identifies hazards and risk factors that have the potential to cause harm. Assessing the risk associated with these hazards will help in determining ways to eliminate or reduce the risk to an acceptable level (risk mitigation).

What steps are included in the risk assessment?

The risk assessment process can be divided into five steps:

1. Identify the hazards. This might include surfaces that are contaminated with SARS-CoV-2, individuals that carry and shed the virus, chemicals that are used for cleaning and disinfection. All these and many more have the potential to do harm.

2. Identify the risk factors. For example, how likely is it that a contaminated surface will be touched, and the person might become infected? How likely is it that by applying a chemical through spraying, the chemical will be inhaled by the cleaning staff? What are the consequences if an exposure occurs and how severe are they? For example, with COVID-19, the outcome/consequence can be a fatal disease for high risk groups.
In essence, you are looking at the severity and the consequence. For example, handrails of an escalator or entrance doors/handles can become easily contaminated while people repeatedly touch them. The probability is high since these are high-touch surfaces. If they are contaminated with SARS-CoV-2, they can spread the virus to others with the potential of severe illness.

3. Prioritize the risks. Which of the identified hazards and risk factors are of a high priority (severe risk) and which ones are low (minimal risk)? The frequently touched contaminated handrails on an escalator have a high probability and a potential for severe consequence. Cleaning and disinfecting them can be considered a high priority. On the other hand, an office desk that is only used by one person, even if it might be contaminated, has a lower probability to spread the disease to other coworkers. Therefore, cleaning and disinfection might be done less frequently.

*4. **Determine your risk mitigation steps*** and look at ways to eliminate or reduce the risk. This can include a number of different approaches including the elimination or substitution of the hazard, engineering controls, administrative procedures and lastly provision of the correct personal protective equipment (see below).

5. Review and monitor your risk assessment and mitigation. It is a good idea to review your assessment for any details that have changed during and post pandemic since they might have a material impact on your mitigation efforts. Similarly, monitoring your mitigation efforts for success is also very important to determine if they are delivering the desired outcomes.

How are hazards and their potential harm identified?

Look at the work area (site assessment) and the proposed workflow and processes. Is there a history of accidents, incidents or near misses? Review the documentation of equipment (usage instructions), chemicals (safety data sheets). Consult with a health and safety professional and review public health advisories. Review any applicable legislative requirements or codes, etc. Look at your human traffic flow. Which areas are more frequently used, touched, or occupied and by whom? Are your staff, visitors, clients and customers pre-screened? What mitigation steps are already in place and used (e.g., hand sanitation stations)?

How are risks prioritized and why?

By ranking or prioritizing risks you will be able to determine which risks are the highest and might require to be controlled first. The severity can be determined by the degree of injury or harm caused. For example, getting sprayed with a mild detergent and water solution is less likely to cause harm than by a concentrated bleach solution. Prioritizing of risks will also help you to assign the resources and determine optimal processes.

What are risk mitigation tools and methods?

In general, control measures are ranked and grouped by their efficacy and should be considered in the following order.

1. Try to **eliminate or substitute the hazard**. For example, you have a choice of which disinfectant and application method you are using. Select the one that is less hazardous, like wiping vs aerosolizing. In addition, pre-screening and assessing clients, customers and staff entering your facility will potentially prevent the spread of the disease in the first place, thus avoiding getting SARS-CoV-2 into your facility.

2. Apply appropriate **engineering controls**. For example, use chemical application tools and or cleaning equipment that are appropriate and safe for the task at hand (e.g., vacuums with HEPA filters). Use physical barriers between people where needed and appropriate. Strategically place hand sanitizer stations. Touchless stations for payment, hand sanitizers etc. are example of engineering controls that avid getting items contaminated and prevent cross-contamination.

3. Use appropriate **administrative controls**. This includes for example, clear and concise standard operating procedures. Training and education of your workforce. Application of physical distancing, good hand hygiene practices, illness reporting, etc. Restricting access to certain areas and/or limit occupation, proper signage and communication, etc.

4. **Personal protective equipment**. PPE is considered the last line of defense and should not be used in substitution for any of the above-mentioned methods and tools, only in combination. If a PPE fails, exposure will happen. Select the PPE based on the hazard and risk identified. Review your local and/or regional legislative requirements for PPE to establish any necessary and required programs. And if you face difficulty acquiring the proper PPE, consider what adjustments that requires in your other steps to avoid putting workers at risk.

What documentation do I need?

Documenting your risk assessment is very important. If it is documented, it is done! Include in Element 20.

This will allow you to engage stakeholders, demonstrate due diligence and allow for communication and training. In addition, documented standard operating procedures (SOP), processes and other mitigation tools are needed for consistent application, verification of completion, training, continuous improvement and more. Risk assessment documentation is also needed for the GBAC Star Accreditation Program.

Eight-Step Risk Management Plan – Suggested How To Approach
1. Assemble a multidisciplinary team – facilities are using their GBAC Team
2. Establish goals and objectives for reducing risk – reduce pathogen transmission
    a. Use SMART approach
    b. Could include restoring certain services by a certain date and then maintaining them
3. Describe the flow and user experience for the event
    a. Describe the user experience from arrival at the building and through various functional locations within the building
4. Identify the hazards
    a. Identify space type and location in the building
    b. Identify primary hazard – biological e.g. SARS-CoV-2 virus
    c. Identify secondary hazards – physical, chemical, biological, psychological
5. Characterize the potential risk
    a. Provide short description of risk characterization
    b. Determine occupant risk level – employees and patrons
    c. Determine activity risk level
    d. Using risk characterization (description, occupant, and activity) the team determines if the risk is significant for each hazard identified at each building location
6. Using the hierarchy of controls, identify controls for each hazard determined in Step 4
    a. Elimination – can the hazard be physically removed
    b. Substitution – can the hazard be replaced
    c. Engineering controls – isolate people from the hazard
    d. Administrative controls – change the way people work
    e. Personal Protective Equipment policies and procedures for each hazard
7. Verify system hazard controls
    a. Describe protocols to verify that the controls as designed are maintained

        b.   Maintain a log for cleaning and disinfection of surfaces
8.   Validate system hazard controls
        a.   Assess whether actual controls are performing to meet the design intent
        b.   Perform testing to determine whether actual applied controls are performing to meet design intent

References and tools:

https://www.ccohs.ca/oshanswers/hsprograms/risk_assessment.html

https://www.hse.gov.uk/risk/

https://www.ecdc.europa.eu/en/all-topics-zscientific-advice/risk-assessments

https://www.cdc.gov/infectioncontrol/guidelines/healthcare-personnel/assessment.html

https://www.osha.gov/shpguidelines/hazard-Identification.html

https://www.who.int/ihr/alert_and_response/risk_assessment/en/

GBAC Risk Assessment Template