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BEST PRACTICE

Infection Prevention and Control Organizational Risk Assessment for Clinical Office Practice

1st Revision: November 2025

Introduction

Clinical office settings have ample opportunities for infections to be transmitted due to a variety of factors, both external (i.e., local epidemiology of infections) and internal (structure and functions of the setting).[1] As such, measures must be in place, not only in direct patient management but in handling of the clinical office environment following the hierarchy of controls (refer to Appendix B). This is relevant for clinical office settings with a single physician, or in larger settings with many health care providers.

Providers of clinical office care have a responsibility to have systems in place with established policies and procedures (P&Ps) that protect the health and safety of workers in their workplace. Employers ensure workers are informed about hazards and dangers by providing them with the information, instruction and supervision on how to work safely. They also have a responsibility for engagement of the Joint Health and Safety Committees or Health and Safety representatives, as appropriate. Preventing transmission of microorganisms in a clinical office practice is both a patient safety issue and occupational health and safety issue .[1,2]

An organizational risk assessment (ORA) is a systematic approach to identify potential internal and external infection risks in order to implement controls to mitigate the transmission of infections in the health care setting.

Conducting an Organizational Risk Assessment

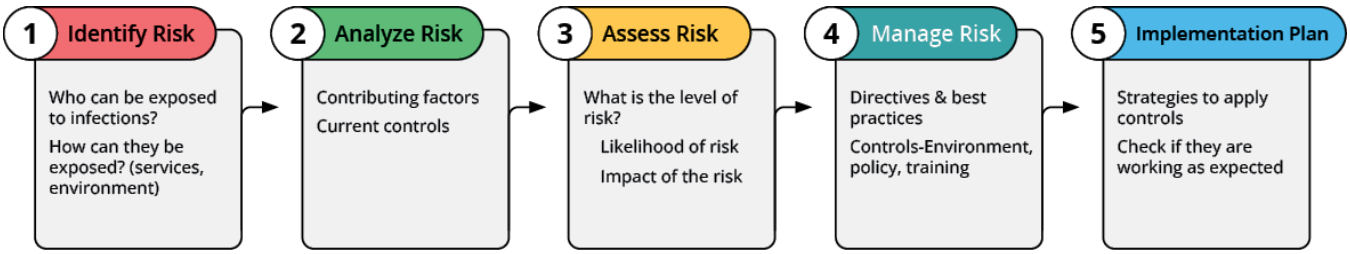
An ORA should be performed on an annual basis or as needed (e.g. when new threats emerge, when there are changes in services provided, or based on results of previous Infection Prevention and Control (IPAC) audits). This allows for the re-evaluation of the IPAC action plan and the effectiveness of existing control strategies. Having a current IPAC plan and a pandemic plan is important to be able to respond quickly and effectively to changing control measures. The principles of an ORA are applicable to smaller independent practices and to larger group practices.

This ORA should be completed by individuals who are trained in IPAC and are familiar with their clinical office's workflow and practices. Please refer to the Staff Education and Training section in the Provincial Infectious Disease Advisory Committee (PIDAC) Infection Prevention and Control for Clinical Office Practice[1] document for more information. Public Health Ontario's (PHO) Online Learning Modules for Health Care Workers is another excellent resource for basic IPAC training. Large group practices may consider forming a multi-disciplinary working group and appointing a lead for conducting an ORA. The composition of the working group should be representative of the various health professionals providing

care, office managers and other staff. In smaller practice settings, care providers can gather input from any staff they employ. Consider engaging with external partners such as local public health units (PHU), infection control practitioners (ICPs) from local hospitals, and IPAC leads from affiliated clinical offices to collect information on local epidemiology of infectious illnesses, IPAC best practices, and experiences in implementing those practices.

Steps for Organizational Risk Assessment

Figure 1: Steps for an Organizational Risk Assessment[3]



Step 1: Identify Risk

Identify risk(s) by conducting a walkthrough of different areas in the clinical office to determine how infections may be transmitted (i.e., modes of transmission) and who could be exposed (i.e., staff, patient or visitor). Consider the population served, the activities conducted, equipment used, and occupancy of each area within the setting. Examples include waiting area, reception area, exam room, reprocessing area, staff room, clean supply room, soiled utility room, patient washroom, etc. To learn more about the transmission mechanism of infections please refer to PIDAC: Routine Practices and Additional Precautions in All Health Care Settings.

Step 2: Analyze Risk

For each identified risk in an area, analyze how the contributing and existing control factors affect that risk. Refer to Appendices A and B for more information about contributing factors and infection control measures. This step will help identify additional control measures to further mitigate the risk(s) in Step 4.

Step 3: Assess Risk

It is important to assess the level of each identified risk, as it helps in setting priorities. The level of risk depends on the likelihood of each risk occurring and its potential severity/effect/impact to staff and patient(s). Factors that increase the likelihood of risk exposure/exposure to infectious agents can include increases in the number of patients seen in a day, infectious illness in the community, and the number of procedures/interactions. Patient/staff susceptibilities (level of immunity), staffing levels and adverse outcomes from acquired infections can help to determine impact. Levels of risk can be estimated as follows:

- High (H): high likelihood and high severity – immediate action required
- Medium (M): either likelihood or severity is high – make efforts to further reduce the risk
- Low (L): low likelihood and low severity – monitor and reduce the risk when feasible

Step 4: Manage Risk

For this step, individuals conducting an ORA need to review current Ministry of Health guidance (e.g., Directives), IPAC Standards and best practices to determine the most appropriate control measures for mitigating all potential risks. See Public Health Ontario's Clinical Office Practice[4] webpage, PIDAC's Infection Prevention and Control for Clinical Office Practice document, and the IPAC Checklist for Clinical Office Practice- Core Elements.

Control measures may need some customization relevant to the circumstances of each clinical office setting. For example, a patient may require a negative pressure room but if such a room is not available, then the patient can be seen in a single room keeping the door closed and window/s open if possible. If needed, PHO, your local PHU, or colleagues in other practices who have previously undertaken an ORA can be consulted. Multiple IPAC control measures are usually needed to manage the identified risks. For information on how control measures are applied effectively, refer to Appendix B.

Step 5: Implementation Plan

Implementation of new control measures (identified in Step 4) can be challenging especially if there are barriers present at the workplace and therefore require multi-modal strategies. These strategies usually range from making changes to the physical environment (or workflow), to adding policy and resources to support IPAC practices, staff training, and continuous monitoring (audits). Control measures such as hand hygiene, use of personal protective equipment (PPE), cleaning and disinfection, etc., can be implemented at the clinic level as these are effective for all the areas of the clinic.

Sample ORA

This is a sample of how an ORA can be conducted in a **waiting area/reception**. Each clinic varies so users will have to review their own risks and develop implementation plan specific to their circumstances.

Step 1: Identify Risks

Who could be exposed and how can they be exposed?

Patients can be exposed to infectious droplets of other patients with acute respiratory infections (ARI) through Droplet and Contact transmission.

Non-immune patients can be exposed to respiratory particles from a case of measles through airborne, droplet and contact route.

Step 2: Analyze the Risk

What could increase this risk of transmission and are there any control measures in place to prevent this transmission?

Contributing factors: Peak respiratory illness season and increase in number of measles cases in the community, clinic sees both elderly and pediatric patients, many children in the community are not up to date with their immunizations, and limited physical space.

Control measures in place: Alcohol-based hand rub (ABHR) and medical mask available at the entrance.

Step 3: Assess the Risk

What is the likelihood of this risk and the impact of transmission?

Since the clinical practice is always busy with patients (including walk-ins) and there is an increasing number of respiratory illness and measles cases in the community, the likelihood of transmission is high.

Elderly patients with weakened immune system may get very sick if they contract ARI, so the impact of this risk is high.

Overall level of risk of transmission is high and will require immediate attention.

Step 4: Manage Risk

Can the risk be mitigated or reduced? What additional control measures are needed?

After reviewing IPAC best practices and the IPAC checklist for clinical office practice- Core Elements, additional control measures need to be implemented such as:

- Screening patients for symptoms of communicable diseases
- Install a physical barrier at the reception (e.g., Plexiglas barrier)
- Booking patients with infectious symptoms towards the end of the day or first thing in the morning
- Posting signage for hand hygiene, masking and respiratory etiquette at the entrance
- Immediately sending the infectious patient to the exam room (if possible using a separate exit), and keeping the door closed
- Schedule preventive maintenance of the ventilation system, increase fresh air ventilation or use portable air filtration

Step 5: Implementation Plan

How will these additional control measures be implemented? Who will be responsible? Is there a way to know if these control measures work as expected?

- Clinical office manager or healthcare provider develops a screening policy and a questionnaire for staff to follow when booking patients.
- Consult with public health or a professional association if a standard screening questionnaire and signage are available.
- Check standards (e.g., Canadian Standards Associations) and best practice recommendations for installing physical barrier and portable air filtration. Periodically audit documentation to ensure all the patients are screened and patients with infectious symptoms are scheduled at times when others are not exposed.
- Contact building maintenance team or professionals regarding ventilation system preventive maintenance.
- Set a timeline for making all the planned changes.

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Appendix A: Contributing Factors

Contributing factors are those factors that may increase or contribute to the identified risks. These are some considerations but not an exhaustive list (consider consulting with your local PHU):

External

- Patient demographics: Certain communicable diseases could be more common in populations the clinic serves (e.g., varicella and measles in children). Certain populations are more susceptible to infections (e.g., children <5 years, individuals >65 years, immune-compromised, pregnant)
- Local epidemiology of infections (e.g., high number of cases of respiratory illness)
- Low immunizations in patients (increases susceptibility)
- Outbreaks in local healthcare facilities

Internal

- Physical build of the clinic (e.g., room sizes, dedicated spaces, layout, heating, ventilation and air conditioning [HVAC])
- Staffing (e.g., fewer staff with multiple responsibilities)
- Proportion of staff up to date with vaccinations as recommended by Canadian immunization Guide[6]
- Medical procedures or services (medication or vaccine administration, testing, minor surgical procedure, use of endoscopes, spirometry, use of reusable medical equipment)[7]
- Staff not educated in basic IPAC skills and knowledge

Appendix B: Infection Control Measures

Infection control measures follow a hierarchy.[5] To be effective, a combination of multiple control strategies should be implemented and periodically assessed. The following are controls in order of effectiveness:

1. Elimination and Substitution (remove the risk or find alternative): e.g., vaccination
2. Engineering Controls (isolate the hazard): e.g., airborne infection isolation room, ventilation, physical barrier at reception, providing alcohol based hand rubs (ABHR) at point of care and entrance.
3. Administrative Controls (change the way people work): Achieved through having P&Ps based on IPAC best practices and IPAC training for staff. For example, health care worker vaccinations, sick leave policy, active screening, completing IPAC training such as PHO's Infection Prevention and Control Online Learning Courses.
4. Personal Protective Equipment (PPE): Availability and education on selection (e.g., point-of-care risk assessment) and use of protective gear to minimize exposure and prevent transmission.

Summary of Revisions

Changes in this revision are summarized in the table below.

Revisions Number	Date of Implementation	Description of Major Changes	Page
1	November 2025	Non-immune patients can be exposed to respiratory particles from a case of measles through airborne, droplet and contact route.	4
1	November 2025	Additional control measures need to be implemented such as: immediately sending the infectious patient to the exam room (if possible using a separate exit), and keeping the door closed	4–5

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