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Directive CC03-05
December 7, 2003

DIRECTIVE TO ALL COMMUNITY CARE ACCESS CENTRES AND COMMUNITY SUPPORT SERVICES UNDER OUTBREAK CONDITIONS

This Directive replaces the outbreak sections of the following Directives:

- *Directives to all Community Care Access Centres – Directive CC03-04(R), June 17, 2003.*
- *Directives to all Community Care Access Centres – Directive CC03-04, May 13, 2003.*

This document directs Community Care Access Centres, (CCACs), and Community Support Service Agencies, (CSSs) to undertake the following practices in the event of another SARS outbreak. It applies to service providers who have contracts with CCACs and community support service agencies that provide direct services to clients in the home and other community based settings (including homemaking services provided by municipalities under the Homemakers and Nurses Services Act, personal support and attendant care).

All Community Care Access Centres and Community Support Service Agencies should comply with existing and updated recommendations for infection control, such as from Health Canada – *Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Health Care*; <http://www.hc-sc.gc.ca/pphb-dgspsp/publicat/ccdr-rmtc/99vol25/25s4/index.html>.

For additional information, CCACs and CSS agencies are advised to refer to the Directive to Health Care Providers in Community Settings and Hospital-Affiliated Ambulatory/Outpatient Clinics Under Outbreak Conditions, which can be found on the Ontario Ministry of Health and Long-Term Care website: <http://www.health.gov.on.ca>

Notification about SARS outbreaks will originate from the local public health units.

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1 SYSTEM PRACTICES

1.1 Communication

Public Health Units, (PHUs), Community Care Access Centres, (CCACs), and Community Support Services, (CSSs), must ensure ongoing effective communication as to the current status of SARS and other communicable diseases in their communities and region.

PHUs and health care providers must have an ability to access appropriate electronic means (i.e., fax or email) to ensure that they can receive the most current information.

CCACs and CSS agencies are responsible for notifying their local public health unit in writing of their current contact information, including address, phone, fax and email.

1.2 Hand Hygiene and Healthy Behaviour Promotion

CCACs, service providers, and CSS agencies must promote hand hygiene and awareness of healthy behaviours (i.e., if you are feeling unwell, especially with fever, cough or diarrhea do not come to work or attend public events).

Hand hygiene and healthy behaviours using an alcohol-based hand sanitizer or soap and water should be performed when entering and leaving the home, office or centre, as well as before and after client contact.

Reinforce hand hygiene using signage at the entrance and throughout the office or centre. Ensure that the signage is designed to meet the needs of your clients, staff and community.

1.3 Education and Quality Control

CCACs should maintain regular and specific educational and quality assurance programs to ensure all who carry out services understand and can comply with these measures.

1.4 Environmental Cleaning

All client care areas must be cleaned regularly using a hospital-grade disinfectant (See Section 2.5). This includes horizontal surfaces, frequently touched areas (e.g., door knobs, light switch), and client equipment. Floors do not require the use of a disinfectant.

The CCAC case manager will decide the most appropriate arrangement to ensure that environmental cleaning is performed.

2 SARS OUTBREAK CONTROL MEASURES

When the local public health unit has declared a SARS outbreak health care providers and direct service staff must use the following SARS outbreak control measures. Providers must limit visits to only essential care and services. Additional measures may be communicated to providers as required.

Essential care and services refer to the home and community care services provided by a community support service agency, CCAC case manager and/or contracted service provider, that cannot be suspended in the event of an outbreak because the lack of this care and service would immediately jeopardize the health of the client and/or cause the client to seek out health care services in another part of the health care system. CSS agencies and CCACs will assess client vulnerability and prioritize services and visits on that basis. Each client will be assessed on an individual basis to determine if they are vulnerable and at risk.

2.1 Organization Procedures

2.1.1 Staff

Only staff essential to providing care should be in contact with/in close proximity to clients in the home or clinical setting.

Direct service providers must wash their hands using alcohol-based hand sanitizer or soap and water when entering a home or office, as well as before and after client care.

All direct service providers are directed to use Respiratory and Contact Precautions (see Glossary of Terms, Appendix 1) when caring for patients with fever or respiratory illness or a contact history, as determined by the SARS Risk Factor Screening Tool, (Appendix 2) until SARS has been ruled out by medical assessment. See also Appendix 3, SARS Risk Management Algorithm For Community and Outpatient Setting Under SARS Outbreak Conditions.

2.1.2 CCAC and CSS Offices, Centres and Program Sites' Entry Control

- Control entry to each site.
- Restrict access to one entrance for each building, if possible.
- Post an appropriate person at each entrance to administer the SARS Risk Factor Screening Tool.
- All persons entering the office, centre or program site must perform hand hygiene.
- Restrictions of use and entry to the office or program by community and professional groups are at the discretion of the organization.

2.1.3 Daily Log

All organizations must maintain a daily log, which records all persons (i.e., all staff, clients and visitors) entering the facility. The log must record the printed name, date of visit and contact phone number. At minimum, the log must be kept on record in the organization until the outbreak is declared over by the local public health unit.

2.1.4 Posting of SARS notices

Post SARS notices at all entrances with the key messages of SARS screening in effect and restricted access, (Appendix 5).

2.2 Screening

When a SARS outbreak is declared by the local Medical Officer of Health, all persons entering CCAC and CSS offices, centres, and programs sites, including healthcare workers, and visitors, must have a valid reason for entry and must be screened using a current SARS Risk Factor Screening Tool (Appendix 2).

CCACs and CSS agencies must require all direct service providers who deliver home and community care to implement a screening protocol at the beginning of each shift, using the SARS Risk Factor Screening Tool (Appendix 2).

2.2.1 Screen Positive

When a person has a positive response to the SARS Risk Factor Screening Tool (i.e., answers yes to any of Sections A or B or C), the health care provider may continue to provide the care for which the visit was initiated and take appropriate Respiratory and Contact Precautions (See Appendix 1, Glossary of Terms). These clients must also have a medical assessment for SARS.

2.2.2 Screen Negative

If a person screens negative on the SARS Risk Factor Screening Tool (i.e., does not have symptoms, fever, or contact history), use Routine Practices, (See Appendix 1, Glossary of Terms)

2.2.3 Screening Clients Who Arrive On Site

Direct service workers must maintain a high index of suspicion when assessing any patient for new onset of fever or respiratory symptoms (e.g., new or worsening cough, shortness of breath or difficulty breathing). During an outbreak, fever alone must be considered as a sign of potential SARS infection even in the absence of other signs or SARS contact history.

Surgical masks must be available for clients who report feeling feverish or have respiratory symptoms. Apply surgical masks after clients have washed hands.

A client who screens positive must put on a surgical mask and be placed at least one meter from other persons whenever feasible.

Patients with fever or respiratory symptoms or contact history must be managed using Respiratory and Contact Precautions, until SARS is ruled out by medical assessment. (See Appendix 3, SARS Risk Management Algorithm For Community and Outpatient Settings Under SARS Outbreak Conditions).

Process for Respiratory and Contact Precautions:

During a SARS outbreak, any client with a fever or respiratory illness or a SARS contact history, requires the following precautions:

- Isolate the client immediately from other clients and staff.
- If tolerated, the client must wear a surgical mask when he/she is in a public setting or when other persons are in the same room.
- While with the client, use Respiratory and Contact Precautions (gown, gloves, protective eyewear and N95 mask or equivalent).
- Assess the client or arrange for physician assessment.
- Contact the local public health unit.
- If SARS is possible or if hospitalization is required arrange for the client to be taken to an Emergency Department for evaluation (call ahead).
- Transportation for medical examination must be by private vehicle¹ or medical transport with the client wearing a surgical mask during transport.
- After there is no further contact with the patient, remove personal protective equipment (PPE) in the following order:
 - Remove gloves, clean hands, remove gown, clean hands, remove eye protection and finally the N95 or equivalent mask.
 - Wash hands carefully after removing the final PPE.
 - Avoid touching other objects or people until after removing PPE and washing hands.
 - Avoid touching your own eyes, nose and mouth until after removing PPE and washing your hands.

2.2.4 Screening Health Care Providers/Direct Service Staff

Staff who know that they will screen positive on the SARS Risk Factor Screening Tool must not come to work or have client contact until they are assessed medically and found to not have SARS.

Staff who screen positive on the SARS Risk Factor Screening Tool when arriving at work must be directed to take action as per the SARS Risk Management Algorithm, (Appendix 3). If they need to travel to a SARS assessment clinic (if available) or Emergency Department to obtain this evaluation, then other staff will arrange for this transfer, and will advise the receiving facility. The health care provider must use a private vehicle or medical transport with the provider wearing a surgical mask during transport. The local public health unit and the employer's joint health and safety committee must also be advised.

Staff who develop a fever or respiratory symptoms while at work should immediately stop work, put on a surgical mask, and notify their supervisor. Occupational Health and Safety or other designated staff should arrange for the staff member's transfer to a SARS

¹ Private vehicle refers to the client's vehicle. Clients directed to a SARS Assessment Clinic or Emergency Department for a medical assessment must travel unaccompanied in the private vehicle. If the client is unable to operate a vehicle, then arrange for medical transport.

assessment clinic, if available, or Emergency Department (as per the paragraph above) for medical assessment and advise the receiving facility. The local public health unit and the employer's joint health and safety committee must also be advised (See Appendix 8, Follow-up Instructions for Patients with Fever or Respiratory Illness).

Staff working for other agencies or in other facilities will be limited by the category level of the respective facility (See Appendix 6). Staff from Category 0-1 facilities may work in other Category 0-1 facilities and in Category 2 facilities in areas not affected by unprotected exposure.

2.2.5 Screener Protection

The person screening during a SARS outbreak must wear an N95 mask or equivalent, protective eyewear, gloves, and gown. The screener must have hand hygiene facilities or supplies immediately available for his/her use.

If there is any further contact with a person who screens positive on the SARS Risk Factor Screening Tool, then take appropriate Respiratory and Contact Precautions.

2.3 Personal Protective Equipment (PPE)

CCACs and CSSs will provide their own staff, service providers and volunteers with the required personal protective equipment (PPE).

Health care providers must wear an N95 or equivalent mask and protective eyewear when assessing and caring for persons with fever or respiratory symptoms (unexplained new or worsening fever, cough, and shortness of breath or difficulty breathing).

Health care providers expected to wear N95 or equivalent masks in outbreak settings, should be qualitatively fit tested to ensure maximum effectiveness. (See NIOSH website at <http://www.cdc.gov/niosh> - publication No. 99-143, and CSA Standard Z94.4, October 2002). (See Appendix 9, Guidelines for Safe and Proper N95 Mask Use).

Personal protective equipment must be properly used and maintained consistent with the *Occupational Health and Safety Act* Reg. 67/93 s.10.

2.3.1 Removal of PPE

After there is no further contact with the client, remove PPE in the following order:

- Remove gloves, wash hands, remove gown, wash hands, remove eye protection and finally the N95 mask.
- Wash or disinfect hands carefully after removing the final PPE.
- Avoid touching other objects or people until after removing PPE and washing hands.
- Avoid touching your own eyes, nose and mouth until after removing PPE and washing hands.

2.4 Cleaning

When discarding personal protective equipment, remove gloves, clean hands, remove disposable gowns, clean hands and then remove mask. All may be discarded with routine waste.

The person who is cleaning must wear gloves, protective eyewear and N95 mask.

Disinfectants that may be used should be hospital grade and include stabilized accelerated hydrogen peroxide products, phenolics, quaternary ammonium compounds, or freshly-mixed 1/100 dilution of household bleach. Equipment should be checked for compatibility to the type of disinfectant and provisions must be made to ensure that the equipment is not damaged by the cleaning.

Disinfect non-disposable equipment which has touched clients (e.g., stethoscope, therapy equipment, testing equipment) and anything the client used or touched, before they are used for other clients.

If reusable protective eyewear is worn, it can be washed with soap and hot water, or cleaned with disposable disinfectant wipes and then rinsed.

For further information on Health Canada's Infection Control Guidelines, for infection control in a variety of health care settings, including community settings, refer to: "Hand washing, cleaning, disinfection and sterilization in health care", published in December 1998, in the Canada Communicable Disease Report, Volume 24S8, pages 1-55. It can also be downloaded from the Health Canada website (See Section 3).

2.5 Client Screening in the Home

Staff must use the current version of the SARS Risk Factor Screening Tool to screen all new clients referred for in-home, school, and placement services, and all CSS Services.

For home visits by CCACs, their service providers, CSS staff and volunteers, persons in the home must be screened using a current SARS Risk Factor Screening Tool, (See Appendix 2), either by calling ahead and/or immediately upon arrival in the home. If screening on arrival, the person who is screening must wear an N95 mask or equivalent, and protective eyewear. Those screened must include any visitors or family who will be in contact with the health professional during the visit.

If the client answers no to all of Sections A, B, **and** C on the SARS Risk Factor Screening Tool, then the client screens negative, and care should be provided using Routine Practices (See Section 3.2, Infection Control).

For care of clients with fever or respiratory symptoms or contact history, all CCAC staff and service providers are directed to use Respiratory and Contact Precautions (Section 2.2.3) until SARS has been ruled out by medical assessment.

If anyone in the home answers yes to any of Sections A or B or C on the SARS Risk Factor Screening Tool, then the direct service staff may continue to provide the care for which the visit

was initiated and take appropriate Respiratory and Contact Precautions. The client (or applicable family member) must be given a surgical mask. The direct service staff must contact her/his supervisor who will contact the local public health unit. Respiratory and Contact Precautions must be used by CCAC staff, their service providers, CSS staff and volunteers until SARS has been ruled out by medical assessment.

2.6 Client Care

Clients should be instructed on the use of hand hygiene agents, or hand washing before and after eating, and after using the washroom, and when hands are obviously dirty.

Clients who screen positive on the SARS Risk Factor Screening Tool (contact history or currently under quarantine within the last 10 days), and who do not have symptoms, must wear a surgical mask during assessment/treatment and following the visit. The health care provider should also use an N95 mask, or equivalent, protective eye wear, gloves and gown. If the person is receiving care outside of the home (e.g., at a clinic or community health centre), the provider must notify the local public health unit and send the person home into quarantine if there is a SARS Contact History only, or for further SARS related assessment, if symptomatic, using a private vehicle or medical transport. (See Appendix 7, Risk Identification and Management of New SARS Occurrences).

2.7 Persons Under Quarantine

If fever or respiratory symptoms develop in a person under quarantine, he/she must be referred to the nearest Emergency Department or SARS assessment clinic, with advance notification. Transportation must be by private vehicle or medical transport service with the person wearing a surgical mask.

If CCAC case managers or direct service providers have concerns about the suitability of a location in which a client was placed under quarantine (e.g., a shelter) then they should contact the local public health unit.

Persons under quarantine who do not have symptoms of SARS or a fever and who require care that cannot wait beyond the quarantine period may be provided care at home or in a clinical setting. Clients must wear a surgical mask and remain isolated. Health care providers in contact with the quarantined person must wear an N95 or equivalent mask and protective eyewear. Further additional protection (gown and gloves) must be used when procedures warrant it, (e.g., changing client's diapers). Transportation must be by private vehicle or medical transport service with the person wearing a surgical mask.

2.8 Clients Referred to CCACs or CSS Agencies After Being Discharged from Hospital

2.8.1 From Category 0 or 1 Hospitals

- CCACs and CSS agencies will provide services to clients admitted to home care, and CSS programs.
- CCAC staff and service providers and CSS staff and volunteers will practice Routine Practices as part of client care.
- For clients convalescing from SARS, see Section 2.10 below.

2.8.2 From Category 2 Hospitals

- For clients discharged from a Category 2 hospital, the CCAC and CSS agency will confirm with the hospital that the SARS Risk Factor Screening Tool has been completed.
- Unless otherwise directed, CCAC and CSS staff will provide service to clients discharged from a Category 2 hospital who have screened negative on a current SARS Risk Factor Screening Tool, administered by the hospital, or who have been medically assessed and no SARS is suspected. Clients will be discharged with written instructions from the hospital to self-monitor for symptoms for a period of up to ten days.
- CCAC staff and service providers and CSS staff and volunteers will practice Routine Precautions as part of client care.
- If fever or respiratory symptoms develop, use Respiratory and Contact Precautions.
- For clients convalescing from SARS see Section 2.10 below.

2.8.3 From Category 3 Hospitals

- For clients discharged from a Category 3 hospital, the CCAC and CSS agency will confirm with the hospital that a current SARS Risk Factor Screening Tool has been completed.
- In-home isolation or quarantine is required.
- CCAC staff, their service providers and CSS agency staff are required to use Respiratory and Contact Precautions for all direct and indirect client care, and during related visits in the home, until the CCAC or CSS agency receives written/fax notification that the period of home isolation has been lifted by the local public health unit.

2.9 Clients Convalescing From SARS and Receiving In-Home Service

For clients recovering from SARS in hospital for whom community services are required, discharge planning must involve the attending clinician, the local public health unit, and the CCAC Case Manager.

Hospitals and CCACs must consult with the local public health unit if there is a concern about the suitability of the home to which the client is to be discharged. Refer to “Public Health Management of SARS Cases and Contacts” from the Health Canada website at <http://www.hc-sc.gc.ca>

Upon discharge, the hospital will provide the client with:

- 48-hour supply of surgical masks
- Thermometer or disposable thermometers
- Contact information for the local public health unit

After 48 hours, the CCAC will provide the client with surgical masks and other essential medical supplies as required for care.

Clients will receive daily surveillance instructions from the local public health unit upon discharge from hospital including:

- Daily symptom screen
- Daily compliance assessment
- Monitoring household members for symptoms of SARS

The convalescent stage is considered to be finished 10 days **after** the resolution of fever (without antipyretic medication) with resolving (or resolved) cough. The local public health unit in consultation with the attending clinician will determine, based on new or ongoing symptomatology, whether continuation of isolation beyond the 10-day period is warranted. This acknowledges uncertainty regarding the transmissibility of this illness in the elderly.

CCAC staff and their service providers must use Respiratory and Contact Precautions when providing services to a recovering SARS client on home isolation until the CCAC receives written/fax notification that the period of home isolation has been lifted by the local public health unit.

CCAC and service providers will maintain daily logs of all their contacts with convalescing SARS clients.

2.10 Volunteer Practices

Only volunteers essential to client care should be allowed entrance to the home or centre.

All volunteers must be screened on entry using the SARS Risk Factor Screening Tool. A log of their visit must be maintained (See Section 2.1.3).

Volunteers must adhere to the organization's infection control policies and practices and must practice hand hygiene. Volunteers must wash their hands using alcohol-based hand sanitizer or soap and water before and after each client contact.

Volunteers who care for clients with fever or who have SARS respiratory symptoms or contact history must adhere to Respiratory and Contact Precautions.

Any volunteer who develops fever or respiratory symptoms while in the home or centre must notify the office or program supervisor, put on a surgical mask and prepare to leave the home immediately. The office or program supervisor must direct the volunteer to a SARS assessment clinic or Emergency Department for medical assessment. Occupational Health and Safety, or other designated staff from the organization, will arrange for the volunteer's transport, will advise the receiving facility and contact the local public health unit.

2.11 Visitor Practices

All visitors to the organization or centre must be screened on entry using the SARS Risk Factor Screening Tool. A log of their visit must be maintained (See Section 2.1.3).

Reinforce hand hygiene using signage at the entrance and throughout the centre.

Any visitor who develops fever or respiratory symptoms while on site must be directed to leave the program immediately put on a surgical mask and go to a SARS assessment clinic or Emergency Department for medical assessment. The program supervisor will arrange for the visitor's transport, will notify the receiving facility and contact the local public health unit. The visitor must continue to wear the surgical mask during transport and must use a private vehicle or medical transport service.

Use of the organization's space by outside groups should be reviewed and limited at the organization's discretion.

2.12 Facility Directives

Health care providers operating in buildings associated with, but not physically part of an acute or non-acute facility (e.g., hospital) are subject to that facility's Health Care Facility SARS Category (e.g., From 0-3, see Appendix 6) and practices that stem from this classification, unless they can convincingly demonstrate to the facility's leadership (e.g., hospital CEO), the Medical Officer of Health, and where required the MOHLTC, that operations are distinct without possibility of cross contamination.

2.13 Duration of SARS Outbreak Control Measures

SARS outbreak control measures will remain in effect until directed by the local Medical Officer of Health in conjunction with the MOHLTC lifts the outbreak. This will normally happen after two full incubation periods have elapsed since the last identified case in the community or health care facility.

3 RESOURCES

3.1 SARS Information

- Ontario – <http://www.health.gov.on.ca>
- Health Canada – <http://www.sars.gc.ca>
- U.S. Centers for Disease Control – <http://www.cdc.gov/>
- World Health Organization – <http://www.who.int/csr/sars/en/>

3.2 Infection Control

- Health Canada – Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Health Care; Recommendations for Ambulatory Care – <http://www.hc-sc.gc.ca/pphb-dgspsp/publicat/ccdr-rmtc/99vol25s4/index.html>
- College of Physicians and Surgeons of Ontario – Infection Control in the Physician's Office – <http://www.cpso.on.ca/publicatopms/infect.htm>

3.3 Situation Reports

A list of areas with recent local transmission of SARS is available from:

- World Health Organization at <http://www.who.int/csr/sarsareas>
- Health Canada at <http://www.sars.gc.ca>
- Ontario Ministry of Health and Long-Term Care at:
<http://www.health.gov.on.ca/english/providers/program/pubhealth/sars/sarsmn.html>

4 LIST OF APPENDICES

- Appendix 1: Glossary of Terms
- Appendix 2: SARS Risk Factor Screening Tool
- Appendix 3: SARS Risk Management Algorithm for Community and Outpatient Settings Under SARS Outbreak Conditions
- Appendix 4: Case Definitions for Probable and Suspect SARS
- Appendix 5: Sample SARS Notice
- Appendix 6: Health Care Facility SARS Categories
- Appendix 7: Risk Identification and Management of New SARS Occurrences
- Appendix 8: Follow-up Instructions for Patients with Fever or Respiratory Illness
- Appendix 9: Guidelines for Safe and Proper N95 Mask Use

Original signed by

Dr. James G. Young
Commissioner of Public Safety

Original signed by

Dr. Colin D’Cunha
Commissioner of Public Health
and Chief Medical Officer of Health

APPENDIX 1

GLOSSARY OF TERMS

Active Surveillance Program: a term to describe surveillance activities for SARS within an acute care facility. The intent of such a program is the early detection of clusters of potential SARS cases requiring investigation.

ARDS: Adult Respiratory Distress Syndrome is the rapid onset of progressive malfunction of the lungs usually associated with the malfunction of other organs due to the inability to take up oxygen. The condition is associated with extensive lung inflammation and small blood vessel injury in all affected organs.

Cluster: a grouping of cases of a disease (e.g., respiratory illness indicative of SARS) within a specific time frame and geographic location suggesting a possible association between the cases with respect to transmission.

CXR: Chest x-ray (roentgenogram).

Droplet Precautions: (see also Routine Practices) The use of surgical or procedure masks and eye protection or face shields for patients who have respiratory infections especially if associated with coughing, sneezing, felt to be transmissible principally by large respiratory droplets particularly when within 1 meter of such a patient. Also used where appropriate to protect the mucous membranes of the eyes, nose and mouth during procedures and patient care activities likely to generate splashes or sprays of blood, body fluids, secretions or excretions (e.g., air way suctioning).

Febrile Respiratory Illness (FRI): temperature greater than 38⁰ C and new or worsening cough or shortness of breath. During non-outbreak conditions this includes a fever of greater than 38⁰ C **and** new or worsening cough or shortness of breath to increase the specificity of this designation. During outbreak conditions, to maximize the sensitivity to potential SARS infection, this includes a fever of greater than 38⁰ C **or** new or worsening cough or shortness of breath. The context in which FRI is determined must take the outbreak vs. non-outbreak conditions into account.

Hand Hygiene: hand washing with soap and running water or alcohol-based hand sanitizers.

Health Care Facility: a location where ill people are examined and assessed by health care workers and/or provided with direct health care services. Locations may range from private physician offices, ambulatory clinics or diagnostic facilities, to hospitals.

Health Care Facilities SARS Categories: a categorization system established by the Ministry of Health and Long-Term Care to determine precautionary measures to be taken during a SARS outbreak. The levels are as follows:

SARS Category 0: Health care facility has no known cases of SARS (suspect or probable).

SARS Category 1: No unprotected SARS exposure – staff and/or patients. Health care facility has one or more cases of SARS (suspect or probable).

SARS Category 2: Any unprotected SARS exposure within the last 10 days but without transmission to staff or patients. The health care facility may or may not currently have one or more cases of SARS (suspect or probable).

SARS Category 3: Unprotected SARS exposure with transmission to health care workers and/or patients. The health care facility may or may not currently have one or more case of SARS (suspect or probable).

High-Risk Respiratory Procedure: any procedure with the potential to generate respiratory droplets, including, but not limited to nebulized therapy, endotracheal intubation, bronchoscopy, bag-valve mask ventilation, non-invasive ventilation (CPAP, BiPAP), and ventilation using high frequency oscillation.

Home Quarantine: To prevent potential transmission of SARS virus by persons who have been in contact with a known, probable or suspected case of SARS and may be in the incubation period of illness.

Measures include but are not limited to the following:

- 1) Remain home during the period of quarantine
- 2) No visitors during the period of quarantine
- 3) A surgical or procedure mask to worn when in the presence of other persons. Masks should be changed approximately every 4 hours if worn for extended periods of time
- 4) Meals are to be taken away from other household members
- 5) Persons under quarantine should sleep alone in a separate room
- 6) Frequent hand washing is emphasized to all household members
- 7) Body temperature is to be taken twice daily. Any temperature reading 38 degrees Celsius is to be reported to the local public health unit right away
- 8) Any new onset of cough or shortness of breath is to be reported to the local public health unit right away

Non-Outbreak: *Non-outbreak* refers to the conditions once a SARS Outbreak is declared over by the local Medical Officer of Health (MOH) or in a region where no SARS outbreak has occurred. Facilities within the region may have one or more SARS patient(s), either local cases or those imported through travel activity, provided there has been no transmission within the hospital population.

Outbreak: For the purposes of SARS activity, an *outbreak* is defined as local transmission of SARS. The local Medical Officer of Health is responsible for declaring a SARS outbreak. An outbreak may be setting-specific (e.g., a hospital with transmission) or health unit wide (e.g. transmission in more than one setting or significant community exposure). In declaring an outbreak the local Medical Officer of Health takes into account global and neighbouring jurisdiction conditions and the potential impact of those conditions.

Personal Protective System (PPS): a full body suit or equivalent protective apparatus consisting of head, face and neck protection with or without enclosed body protection; or a powered air purifying respirator (PAPR). PPS is to be used for any health care worker involved in a high-risk respiratory procedure.

Respiratory and Contact Precautions (RCP): infection control procedures for institutional and community-based settings with the intent of protecting the health care worker from SARS.

1. Common Elements for both institutional and community-based settings:

A. Personal protective equipment, (PPE):

- Staff to use an N95 or equivalent mask, eye protection, gown, and gloves.
- Remove PPE after there is no further contact with the patient/client in the following order: Remove gloves, clean hands, remove gown, clean hands, remove eye protection and finally the N95 or equivalent mask. Wash hands carefully after removing the final PPE. Avoid touching other objects or people until after removing PPE and washing hands.
- Disinfect non-disposable equipment (e.g.: stethoscope, testing items) and anything the client used or touched before it is used for others.
- When the patient leaves the examining room it should be cleaned with a hospital grade disinfectant.

B. Patient Management:

- Isolate the patient/client immediately from other patients/clients and staff.
- Whenever the patient/client is in a public setting (e.g., in the hallway, or waiting room), in the same room with others, and during transport, the patient/client must wear a surgical mask, unless medically contraindicated.
- Limit visitation to the symptomatic patient/client except for essential or compassionate reasons. Visitors should wear PPE.

2. For Institutional Settings:

Patient Accommodation for Hospitals: Patients are to be placed as follows (in order of decreasing preference):

1. Single room with negative pressure ventilation, with at least 6 air exchanges per hour or 12 air exchanges if the building is a new facility, as per Canadian Standards Association, Sept 2001 (highest preference)
2. single room with HEPA filtration unit which achieves at least 9 air exchanges per hour
3. single room, with no special air handling
4. semi-private room, cohorted with patients with similar SARS risk factors and/or symptoms or diagnosis

3. For Community-Based Settings:

Includes physician's offices, community health practice settings, non-acute care facilities, and home and community care:

- Physician, or nurse practitioner, if present, to assess the patient
- If SARS is possible, or if hospitalization is required, arrange for the patient/client to be taken to an Emergency Department for evaluation (call ahead)
- Transportation for medical examination must be by private vehicle or medical transport with the patient/client wearing a surgical mask during transport.
- Contact the local public health unit, as appropriate

Respiratory and Contact Precautions (Enhanced) (RCP|E): an enhanced form of infection control procedures, which require the following in addition to procedures under Respiratory and Contact Precautions:

A. Personal Protective Equipment: also includes a full face shield and hair covering

B. Patient accommodation in hospitals: patients assessed to be at risk for having SARS, based on the SARS Risk Management Algorithms, have priority for the highest level of accommodation

Respiratory Symptoms: new or worse cough (onset within 7 days) OR new or worse shortness of breath (worse than what is normal for the patient).

Routine Practices (See also “Droplet precautions”): The Health Canada term to describe the system of infection prevention recommended in Canada to prevent transmission of infections in health care settings. These practices describe prevention strategies to be used with all patients during all patient care, and include:

- Hand washing or cleansing with an alcohol-based sanitizer before and after any direct contact with a patient.
- The use of additional barrier precautions to prevent health care worker contact with a patient's blood and body fluids, non intact skin or mucous membranes.

- Gloves are to be worn when there is a risk of body fluid contact with hands; gloves should be used as an additional measure, not as a substitute for hand washing.
- Gowns are to be worn if contamination of uniform or clothing is anticipated.
- The wearing of masks and eye protection or face shields where appropriate to protect the mucous membranes of the eyes, nose and mouth during procedures and patient care activities likely to generate splashes or sprays of blood, body fluids, secretions or excretions.

The full description of routine practices to prevent transmission of nosocomial pathogens can be found on the Health Canada website (http://www.hc-sc.gc.ca/pphb-dgsp/dpg_e.html#infection).

RSV: respiratory syncytial virus, a common respiratory virus especially common in winter months and recognized as a common cause of symptomatic respiratory infection in children, the elderly and individuals who are immunocompromised.

SARS Contact History: SARS contact history in a patient with febrile and/or respiratory illness is defined as any one of:

- Unprotected contact with a person with SARS in the last 10 days prior to the onset of this illness
- Were present in a health care facility closed due to SARS before the onset of symptoms, 10 days prior to the onset of this illness
- Instructed by the local public health unit to be in quarantine or isolation.
- Travel to a SARS affected area in the 10 days prior to the onset of illness

SARS Risk Management Algorithm: a tool to be used by health care workers to assist in the management of a patient based on information derived from the SARS Risk Factor Screening Tool. There are various algorithms to reflect patient care in different settings.

SARS Risk Factor Screening Tool: a tool to be used by health care workers during triage, admitting, and outpatient /ambulatory settings. This tool gathers information from the patient regarding temperature, respiratory illness, contact history and SARS risk factors.

SARS Risk Factors: SARS risk factors in a patient with febrile and/or respiratory illness are defined as:

- Travel (patient or household/close family) to a former or current SARS affected area in the last 30 days.
- Admission to a hospital* or long-term care facility* in the 10 days prior to the onset of this illness.
- Household members or other close contacts with fever or pneumonia.
- Health care worker with direct patient contact in a healthcare facility.

(*Only facilities in Toronto, York, Durham regions of Ontario or Taiwan, China, Singapore or Hong Kong are considered as positive risk factors.)

Working Quarantine: To prevent the potential transmission of SARS virus by persons who have been in contact with a known probable or suspected case of SARS and may be in the incubation period of illness and those who work in an area where exposures to SARS may have occurred. The precautionary measures are to be applied to those who meet the above criteria and whose work has been identified as essential (e.g., health care workers during a SARS outbreak).

Measures include but are not limited to the following:

- 1) Arrive at the workplace wearing a mask
- 2) Go directly to the quarantine workplace area
- 3) Take breaks and meals in the designated quarantine area
- 4) Use Respiratory and Contact Precautions, which include gown, gloves, N95 mask or equivalent, and eye protection, while working in the quarantined area
- 5) Leave work wearing a clean procedure mask
- 6) Avoid public transit
- 7) For persons who were exposed to SARS virus and considered contacts, follow home quarantine measures

APPENDIX 2

SARS RISK FACTOR SCREENING TOOL

Patient Name/Information

Date _____ Unit _____

SECTION A: SARS Symptoms			
Are you experiencing any of the following symptoms?			
• New / worse cough (onset within 7 days) OR	NO	YES	
• New / worse shortness of breath (worse than what is normal for you)	NO	YES	

SECTION B: Temperature			
Are you feeling feverish, had shakes or chills in the last 24 hours?	NO	YES	<i>If yes to symptoms in Sections A or B record temperature</i>
<i>RECORD TEMPERATURE</i> <input type="text"/>	Is the temperature above 38°C?	NO	YES

SECTION C: SARS Contact History			
1. Have you had contact with a person with SARS while not wearing protection against SARS in the 10 days prior to onset of this illness?	NO	YES	
2. Have you been in a healthcare facility designated as Category 2 or 3 in the last 10 days prior to onset of this illness? (insert facility)	NO	YES	
3. Has Public Health asked you to be in home quarantine or isolation in the 10 days prior to onset of this illness?	NO	YES	
4. Have you been to any of the following SARS affected areas in the last 10 days? (facility to insert areas)	NO	YES	If yes, identify area?

SECTION D: SARS Risk Factors			
1. Have you, or a member of your household or someone you have had close contact with, traveled within the last 30 days to China?	NO	YES	If yes, identify area? Who?
2. Have you been admitted to a hospital* in the 10 days prior to the onset of this illness?	NO	YES	If yes, name facility:
3. Does anyone in your household, or a close contact, have fever or pneumonia?	NO	YES	If yes, who?
4. Are you a healthcare worker with direct patient contact in a healthcare facility?	NO	YES	If yes, where?
5. Do you live in a nursing home* that has had a respiratory infection outbreak in the 10 days prior to the onset of your illness?	NO	YES	If yes, name facility:

Apply the appropriate Assessment Algorithm to data

Patient Signature

Interviewer Signature

Nurse Signature (required if admitted)

*Only facilities in Toronto, York, Durham regions of Ontario or Taiwan, Singapore or Hong Kong are considered as positive Risk Factors

APPENDIX 3
SARS RISK MANAGEMENT ALGORITHM
FOR COMMUNITY AND OUTPATIENT SETTINGS UNDER SARS
OUTBREAK CONDITIONS

For responses on the SARS Risk Factor Screening Tool:

If “Yes” to any question in Section A or B (symptoms or fever)

AND

“Yes” to any question in Section C (Contact History)

- Mask on patient
- Isolate as soon as feasible
- Use N95 mask, eye protection, gloves and gown when in contact with the patient
- Arrange for ED or SARS Clinical assessment (call ahead)
- Notify Public Health

If “Yes” to any question in Section A or B (symptoms or fever)

AND

“No” to all questions in Section C (Contact History)

AND

Irrespective of “Yes” or “No” to any question in Section D (Risk Factors):

- Mask on patient
- Isolate as soon as feasible
- Use N95 mask, eye protection, gloves and gown when in contact with the patient
- Arrange medical assessment
- Notify Public Health

If Yes to any question in Section C (Contact History):

- Quarantine applies
- Mask on patient
- Isolate as soon as feasible
- Use N95 mask, eye protection, gloves and gown when in contact with the patient
- Assess for health care problem, including symptoms of SARS
- If symptoms, arrange ED or SARS Clinical assessment
- Notify Public Health
- If not requiring admission, follow up in 72 hours
 - If worsening, consider ED or SARS Clinical assessment

If “No” to all questions in Sections A, B & C

- Routine practices
-

APPENDIX 4
SUSPECT SEVERE ACUTE RESPIRATORY SYNDROME (SARS)
CASE DEFINITIONS (HEALTH CANADA)

Revised 8 July 2003

Case:

A person presenting with:

- Fever (over 38 degrees Celsius)

AND

- Cough or breathing difficulty

AND

One or more of the following exposures during the 10 days prior to the onset of symptoms:

- Close contact² with a person who is a suspect or probable case
- Recent travel to an "Area with recent local transmission" of SARS **outside of Canada**³
- Recent travel or visit to an identified setting in Canada where exposure to SARS may have occurred (e.g., hospital [including any hospital with an occupied SARS unit], household, workplace, school, etc.).⁴ This includes inpatients, employees or visitors to an institution if the exposure setting is an institution.

OR

A person with unexplained acute respiratory illness resulting in death after 1 November 2002, but on whom no autopsy has been performed

AND

One or more of the following exposures during the 10 days prior to the onset of symptoms:

- Close contact² with a person who is a suspect or probable case
- Recent travel to an "Area with recent local transmission" of SARS **outside of Canada**³
- Recent travel or visit to an identified setting in Canada where exposure to SARS may have occurred (e.g., hospital [including any hospital with an occupied SARS unit], household, workplace, school, etc.).⁴ This includes inpatients, employees or visitors to an institution if the exposure setting is an institution.

² Close contact means having cared for, lived with or had face-to-face (within 1 metre) contact with, or having had direct contact with respiratory secretions and/or body fluids of a person with SARS.

³ This excludes airport transit through these areas

⁴ The list of potential SARS exposure sites in the province of Ontario can be obtained at the following address: http://www.health.gov.on.ca/english/public/updates/archives/hu_03/hu_sars.html

Probable Case:

A suspect case with radiographic evidence of infiltrates consistent with pneumonia or respiratory distress syndrome (RDS) on chest x-ray (CXR).

OR

A suspect case with autopsy findings consistent with the pathology of RDS without an identifiable cause.

Exclusion Criteria

A suspect or probable case should be excluded if an alternate diagnosis can fully explain their illness.

Comments:

- In addition to fever and cough or breathing difficulty, SARS may be associated with other symptoms including: headache, myalgia, loss of appetite, malaise, confusion, rash and diarrhea.

APPENDIX 5 - SAMPLE SARS NOTICE

STOP

Read Carefully Before Entering

Have you been in unprotected contact with a patient with SARS in the past 10 days? **OR**
In the past 10 days, have you been to a health care facility that is closed due to SARS?

If the answer to **EITHER** of these questions is **YES**, please contact your local Public Health Unit.

AND

If you have any of the following: unexplained muscle aches, severe fatigue, severe headache, a cough that started in the last week, shortness of breath worse than usual, or any fever, you should not enter the office and please go to the Emergency Department or SARS clinic.

(contact phone numbers)

Have you returned from [AFFECTED AREAS] in the past 10 days?

AND

Do you have any of the following: unexplained muscle aches, severe fatigue, severe headache, a cough that started in the last week, shortness of breath worse than usual, or any fever?

If the answer to **BOTH** of these questions is **YES**, you should not enter the office. You should go to the nearest Emergency Department or SARS Clinic immediately.

APPENDIX 6

HEALTH CARE FACILITIES SARS CATEGORIES

Health Care Facilities SARS Categories - a categorization system established by the Ministry of Health and Long-Term Care to determine precautionary measures to be taken during a SARS outbreak.

The levels are as follows:

SARS Category 0: Health care facility has no known cases of SARS (suspect or probable).

SARS Category 1: No unprotected SARS exposure – staff and/or patients. Health care facility has one or more cases of SARS (suspect or probable).

SARS Category 2: Any unprotected SARS exposure within the last 10 days but without transmission to staff or patients. The health care facility may or may not currently have one or more cases of SARS (suspect or probable).

SARS Category 3: Unprotected SARS exposure with transmission to health care workers and/or patients. The health care facility may or may not currently have one or more case of SARS (suspect or probable).

APPENDIX 7

RISK IDENTIFICATION & MANAGEMENT OF NEW SARS OCCURRENCES⁵

1. The local Medical Officer of Health, in consultation with the Public Health Branch of the Ministry of Health and Long-Term Care, will identify the appropriate SARS activity and response levels for his or her jurisdiction (health unit) based on an assessment of the reported SARS activity in the local and related / connected jurisdictions.

2. The Medical Officer of Health, in consultation with the Public Health Branch, is responsible for declaring an outbreak within the health unit jurisdiction as follows:
 - In a specific setting when there is evidence of unprotected exposure or transmission in that setting, or
 - Across the health unit, when there is more than one setting involved or there is significant community exposure from an outbreak in a defined setting.
 - For the purposes of the SARS directives, an outbreak is defined as local transmission of SARS, rather than as a single case or several imported cases.

3. When an unprotected SARS exposure or evidence of SARS transmission occurs in a health care setting, the facility's outbreak management team and the Medical Officer of Health, in consultation with the Public Health Branch, will decide on the measures to be taken in line with current directives and science. Depending on the circumstances, these may or may not be facility wide.

4. The Medical Officer of Health is responsible for informing health care providers when he or she activates additional local measures such as reintroduction of a SARS screening tool or declares an outbreak in their jurisdiction.

⁵ Courtesy: World Health Organization

APPENDIX 8

FOLLOW-UP INSTRUCTIONS FOR PATIENTS WITH FEVER OR RESPIRATORY ILLNESS

Follow Up Instructions for Patients with Fever or Respiratory Illness

My doctor has sent me home on self-monitoring. What does this mean and what should I do?

Your doctor feels that your symptoms are mild enough to send you home for observation. However, while at home it is important that you monitor your own health to be sure that your symptoms do not progress. In addition, you must take proper precautions so that you do not pass an infection on to others.

How do I self-monitor?

- Measure your temperature with your own thermometer twice a day over the next 72-hour period. Record the results on a piece of paper with the dates and times.
- If you develop a new fever (over 38° C/100.4° F), you should **call your doctor and/or Telehealth Ontario at 1-866-797-0000 (TTY 1-866-797-0007)** where you will be advised how to seek medical attention.
- If you begin to develop other new symptoms such as shortness of breath, difficulty breathing, or if your symptoms worsen, you should immediately **call your doctor and/or Telehealth Ontario at 1-866-797-0000 (TTY 1-866-797-0007)** where you will be advised how to seek medical attention.

What precautions do I take to prevent my family members and friends from becoming ill?

- Remain at home for the next 72 hours or until you are feeling better. Do not go to work, school or public places.
- Wash your hands frequently.
- Remind others in your household to wash their hands often, especially if they have spent time in the same room as you.
- Limit your contact with other people.
- Cover your mouth with a tissue when you cough or sneeze. Wash your hands immediately after covering your mouth, and after blowing your nose.
- Do not share personal items, such as towels, drinking cups, cutlery, thermometers, and toothbrushes.
- Dispose of used tissues directly into a garbage bag used only by you.
- Rest and drink plenty of fluids.
- Family members who become ill must stay home and call their physician.
- At the end of 72 hours, if you are feeling entirely well, you can return to work or school and resume normal activity. If your symptoms persist, call your doctor. If your doctor is unavailable, contact Telehealth Ontario at 1-866-797-0000.

APPENDIX 9

GUIDELINES FOR SAFE AND PROPER N95 MASK USE

Routine Practice

- Masks should be used and maintained according to manufacturers recommendations.
- Inspect the mask to determine that it is not moist, soiled or damaged.
- Check that the mask straps hold the mask tightly against the face. If not, discard the mask. Do not attempt to alter the fit of the mask by knotting or cutting the straps.
- Perform a seal test to assess whether air escapes around the borders of the mask.⁶ There must be a tight facial seal to effectively wear the mask. Facial hair (e.g., beards and sideburns) presents a higher risk of disease transmission as hair may interfere with the sealing surface of the mask and the face. The best solution is to remove all hair that may interfere with the mask and face seal.
- Always ensure that the mask is maintained in proper position when being worn; i.e. do not leave mask hanging around neck, to be re-applied when use is desired.
- Usual duration of use is approximately eight to twelve hours. Masks may be re-used on a single day, providing it is stored clean and dry in a labelled paper bag in between uses. Do not use the mask on multiple days. Do not store in a sealed plastic bag, as this traps moisture onto the mask surface. Humidity, dirt and crushing affect the efficiency of the mask.

For use concerning suspect or probable SARS patients

- If the wearer is entering a room with a SARS patient, a new mask must be used with each encounter.
- Masks must be discarded after there is no further contact with the patient, and before contact with other people. Wash hands after removing PPE.
- If the wearer is NOT in a room with a SARS patient, a mask need not be changed during the shift duration (up to twelve hours)

Eyewear

- Ensure that eyewear is worn in a manner that does not interfere with the face and mask seal.

Changes in Physical Condition of the Wearer

- Changes in the wearer's physical condition could affect mask fit (e.g., facial scarring, dental changes, cosmetic surgery, and obvious change in body weight). The user may have to change the size or make of the N95 mask as a result

Facial Structure

- Variations in facial structure may require the provision of more than one size, make or model to ensure that a properly fitting mask is available for all users. Masks may vary in size from manufacturer to manufacturer and users may be able to get a better fit by trying a mask made by another manufacturer.

⁶ Example method for cup face masks – Always follow manufacturers recommendations

- Place both hands completely over the mask, being careful not to disturb the mask's position, and exhale sharply
- If air leaks around your nose, adjust the nosepiece as required to ensure a closed fit.
- If air leaks at mask edges adjust the straps back along the sides of your head.