# INFECTION PREVENTION & CONTROL COMMUNICATION FORM

## PART 1: ISSUE & RECOMMENDATIONS

***Issue:***

Air safety criteria for isolation of an individual with infectious *Mycobacterium tuberculosis* in a home-like setting in the Winnipeg Health Region are required. This will support care that is "close to home", patient centered, and improves patient flow by decreasing ALC/improving availability of AIIR beds to appropriate individuals.

***Recommendations:***

1. 'Air environment' requirements for the provision of home isolation to an individual with infectious tuberculosis (TB)
   Residential unit(s) will:
   i. NOT have a common eating area shared with NON-household person(s)
   ii. NOT have a common bathroom facility shared with NON-household person(s)
   iii. NOT be considered a congregate setting (i.e., homeless shelters, rooming houses)
   iv. Not have been a single residence at one time and now converted into multiple households unless inspected and approved by the Regional Director, Facilities Management, WRHA or his designate.

2. Necessary clinical (not behavioural) characteristics of other **ADULTS** living in the setting
   ALL the following criteria must be met:
   i. All household members have been previously exposed to the patient/TB case
   ii. Immune compromised individuals 5 years and older must be evaluated for TB and, if deemed appropriate by the examining specialist, be receiving prophylaxis (LTBI) or treatment for active TB disease, and
   iii. The patient/TB case must be receiving appropriate TB treatment.

3. Necessary clinical (not behavioural) characteristics of **CHILDREN** living in the setting
   ALL the following criteria must be met:
   i. All household members have been previously exposed to the patient/TB case
   ii. Infants and children under 5 years old must be evaluated for TB and, if deemed appropriate by examining specialist, be receiving prophylaxis (WPP or LTBI) or treatment for active TB disease, and
   iii. The patient/TB case must be receiving appropriate TB treatment.

## PART 2: BACKGROUND: DISCUSSION OF ISSUE, OPTIONS AND ANALYSIS & REFERENCES

***Discussion of Issue:***

- During the Discovery Project – *Outpatient Management and Isolation in a Non-Hospital Setting for Adults with Infectious Tuberculosis* - it was learned "the application of the Winnipeg Regional Health Authority (WRHA) policy for Home Isolation of Adults with Active TB Disease is disconnected from daily operations, and there is lack of agreement between stakeholders regarding its application"
- The WRHA Project Management Office submitted a report on current practices with patients with infectious TB and home isolation. The report, titled "Outpatient Management and Isolation in a Non-hospital Setting for Adults with Infectious Tuberculosis – Response for Next Steps – Patient Flow for Supporting Appropriate Isolation" noted current decision making is largely based on personal experiences rather than evidence-based guidelines or protocols. It further states there is a lack of agreement between stakeholders regarding the application of home isolation application
- *The Outpatient Management and Isolation in a Non-hospital Setting for Adults with Infectious Tuberculosis – Response for Next Steps – Patient Flow for Supporting Appropriate Isolation* (March 2014) document identified developing criteria for air safety for isolation of an individual with infectious TB in a home like setting as a critical next step in the cascade of items to address the recommendations from the project

- No studies on the effectiveness of home isolation, alone or in comparison with hospital-based isolation, for the prevention of TB transmission have been found in a recent literature synthesis provided by the Canadian Agency for Drugs and Technologies in Health
- Ambulatory care treatment of patients with active TB, including home-based isolation, has been the norm in the developed world for several decades, although initial diagnosis may occur in hospital. Home-based treatment appears to be effective for treating TB (based on low quality evidence)
- The Canadian TB Standards 7th edition (February 2014) recommends home isolation for most TB patients as long as requirements regarding the suitability of the home environment are met and patients, caregivers, and health care providers comply with various protocols

***Options and Analysis:***

Possible options include:

1. Implement home isolation for patients who meet the criteria identified above in the Recommendations section. This is the most favorable option as it allows for consideration of the household, the household members, as well as the patient with infectious TB.
2. Continue current practice where the vast majority of patients with active infectious TB are admitted to hospital until deemed non-infectious, which is a minimum of 2 weeks. This does not align with recommendations within the 7th edition Canadian TB Standards.
3. Do not integrate any home isolation into the TB patient care plan and admit ALL patients with active infectious TB until deemed non-infectious, which is a minimum of 2 weeks. This is not a favorable option due to the ongoing and increasing demand for acute care beds throughout the WRHA and the aim to provide the right care at the right place in the right time.
4. Limit consideration of home isolation to those living alone in stand-alone dwellings. This is not a favorable option as restricting home isolation to this criterion would substantially reduce the number of patients eligible for home isolation despite being medically stable and otherwise suitable.
5. Do not admit any patient with infectious TB to hospital, regardless of his/her housing situation, unless there is a medical condition present that requires intervention/support. This is not a favorable option. In providing safe care, there must be consideration of others in the environment (i.e., identify those at risk) where a patient with active infectious TB may be placed.

***References:***

1. Infection Control. NICE Clinical Guidelines. National Institute for Health and Clinical Excellence.2010. Available at: https://www.nice.org.uk/guidance/conditions-and-diseases/infections/tuberculosis.
2. Home Isolation Package, Appendix G. Tuberculosis Prevention and Control Guidelines for Alberta. June 2010. Available at: http://www.health.alberta.ca/documents/TB-Prevention-Control.pdf
3. California Department of Health Services and Executive Committee, California Tuberculosis Controllers Association. Guidelines for the Assessment of Tuberculosis Patients Infectiousness and Placement into High and Lower into High Risk and Lower Risk Settings. Available at: http://ctca.org/fileLibrary/file_52.pdf
4. Canadian TB Standards, 7th Edition, 2013.Ottawa: Public Health Agency of Canada; February 2014. Available at: http://www.respiratoryguidelines.ca/sites/all/files/Canadian_TB_Standards_7th_Edition_ENG.pdf
5. The Outpatient Management and Isolation in a Non-hospital Setting for Adults with Infectious Tuberculosis – Response for Next Steps – Patient Flow for Supporting Appropriate Isolation (March 2014). Winnipeg Regional Health Authority Project Management office.

Review Date:

Communication Form Contact: Frann Martins Da Ponte