REVIEW

Adherence to tuberculosis care in Canadian Aboriginal populations
Part 2: a comprehensive approach to fostering adherent behaviour

Pamela Orr

Departments of Medicine, Medical Microbiology and Community Health Sciences,
University of Manitoba, Winnipeg, Canada

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ABSTRACT

Objectives. In a 2-part series, the current literature with respect to adherence to tuberculosis care among Canadian Aboriginal populations is reviewed. In the current paper, which comprises part 2 of this review, strategies to remove barriers to TB adherence and to sustain and improve adherence are explored.

Study design. Literature review.

Methods. The biomedical and social science literature, including electronic databases (PubMed, PsychINFO, MEDLINE, Native Health Database, Scopus, Social Science Citation Index) were searched and reviewed with regard to relevant studies on adherence to health care, and to tuberculosis care specifically.

Results. The majority of published studies of interventions to remove barriers to TB adherence are focused on the health service system and on the individual. The former include enhanced programs of directly observed therapy and directly observed preventive therapy, as well as “permeable” health services that require minimal negotiation. At the personal level, effort must be made to develop a shared knowledge of and care plan for TB, which includes Indigenous and Western scientific health beliefs and practice. The quality of the relationship between health care provider and patient is critical to the outcome of educational efforts that support adherence. Few studies address interventions within the social context, and few have used participatory methodologies in partnership with families and communities. Social supports such as assistance with childcare, transportation and shelter have been shown to be associated with improved adherence to care for other conditions. TB programs may wish to use techniques used in other health programs, such as the identification of patient “sponsors” or mentors, or the use of verbal and/or written “contracts.”
**Conclusions.** Many of the interventional studies addressing health system barriers to TB adherence are grounded in the view that the problem rests with the patient. What is required is an approach that is responsive to the patient's needs while holding the patient to his or her personal and societal responsibilities. Adherence to therapy is unlikely to improve in a substantial way unless Indigenous beliefs about causation and care are incorporated into a program which has meaning for the patient.  
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**Keywords:** Aboriginal, tuberculosis, adherence, compliance, public health, self-efficacy, Indigenous

**INTRODUCTION**

The incidence and prevalence of tuberculosis (TB) infection and disease remains high in the Canadian Aboriginal population, defined as treaty status First Nations individuals, non-treaty status persons who self-identify as First Nations/Aboriginal/Métis and those who self-identify as Inuit. Although this population is not homogeneous, in 2008 the incidence of TB disease was 28.2 cases per 100,000 in the Aboriginal population, compared to 0.8 per 100,000 in the Canadian-born non-Aboriginal population. It is therefore appropriate to examine all aspects of care for both TB infection (Latent TB) and TB disease in our Aboriginal population (1).

Adherence to TB care (which includes both diagnosis and therapy for TB infection and disease) is not a characteristic that is associated with ethnicity or race. It is a crucial requirement for a functional and efficient control program in any region of the world, within any population. Poor adherence to therapy for disease is the most common cause of initial treatment failure and disease relapse, which in turn lead to morbidity, mortality, transmission of infection and drug resistance. Poor adherence to therapy for TB infection is associated with disease development, transmission and drug resistance.

Adherence to TB care is fostered through culturally appropriate interventions at the level of the health system, the individual and the community. In part 1 of this 2-part review, adherence to TB care in Canadian Aboriginal populations was defined, and issues of measurement, responsibility and barriers to care were discussed (2). In part 2, strategies to improve adherence are explored.

**How can we improve adherence in Aboriginal patients and communities?**

In order to sustain and improve adherence to TB therapy in Canadian Aboriginal patients and communities we must apply lessons learned from studies in these and other populations. Most of the published studies of interventions to remove barriers to TB adherence are focused on the health service system and the individual. Few studies address interventions within the social context, and few have used participatory methodologies in partnership with families and communities (3).

**Health system interventions**

Many of the interventional studies addressing health system barriers to TB adherence are grounded in the view that the problem of adherence rests with the patient (3,4). What is required is an approach that is responsive to the patient's needs while holding the patient to his or her personal and societal responsibilities.
Health systems that blame patients for non-adherence must first take a close look in the mirror. It is imperative that TB control programs adhere to recommended guidelines and standards, set appropriate objectives and targets, undertake regular program evaluations (and disseminate the results) and make improvements based on those evaluations. Otherwise there is no reason for the patient, family or community to trust or have faith in the message or actions of the health care provider.

The major health system intervention used to promote adherence to therapy for TB disease, in Canada and worldwide, is enhanced DOTS. In 1994, WHO described DOTS (directly observed therapy, short course) as a 5-point program: direct microscopy of smears, the supervised swallowing of medication (DOT), therapeutic monitoring, short-course chemotherapy and political commitment. Since 1994, the strategy of “enhanced DOTS” was developed by adding systematic interventions to prevent and deal with non-adherence (4). These include some or all of the following:

- Establishment of a knowledgeable, skilled and well-resourced multidisciplinary team with clear lines of authority and responsibility. The team members are accountable to the patient, to each other and to the program.
- At the centre of this team is the case manager. In Canada this position is usually filled by a nurse. The case manager is responsible for “connecting the dots” of the patient on his or her journey with tuberculosis (5–7). It is the activities of the case manager, coordinated between the needs of the patient and the responsiveness of the health system, that create and sustain an environment and “culture” that make adherence possible.
- Provision of dedicated TB physician support and oversight.
- Creation of “permeable” health services – defined as requiring minimal “negotiations” or power to use. Permeable health services encourage patients to feel that they are valued, respected and the focus of care, and engender cultural safety.
- Bringing care closer to the patient – providing services (e.g., DOT, venipuncture) in locations that are convenient to the patient.
- Provision of holistic care that attends to, rather than competes with, other patient priorities.
- Efficient care through the development of reminder and follow-up mechanisms, database linkages, simplification and harmonization of protocols, reduction of referral times, etc.
- Assistance and counselling, use of cultural advocates and creative educational programs for patients, families, communities and HCWs.
- Use of incentives (small rewards to encourage the patient): e.g., food, clothing, vouchers, personal care items, laundry services.
- Use of enablers (things that make it possible or easier to adhere): e.g., money, tokens, vouchers and/or assistance with transportation, child-care, housing, income.
- The existence of clear public health legislation that balances the rights of individuals and society, and promotion of the understanding of this legislation among patients, families and communities.

Several studies have shown improved adherence to TB therapy in North American Aboriginal (and non-Aboriginal) populations through the use of enhanced DOTS and DOPT (directly observed preventive therapy), compared to
self-administered therapy. In Saskatchewan, enhanced DOTS and DOPT were introduced in 1989 and 1991, respectively (8). Adherence to therapy for disease rose from less than 20% to over 85%, and drug resistance decreased from 10% to 2%. In a study in which British Columbian Aboriginal patients were offered a choice between directly observed versus self-administered therapy for LTBI, completion rates were significantly higher for the former (9). Adherence to a 6-month DOPT program of INH and Rifampin in Saskatchewan from 1992–1995 was 82% compared to 19% for a 1 INH daily self-administered program that previously existed from 1986–1989 (10). The rate of TB disease over a 6-year follow-up period was 0.9/1000 patient-years in the DOPT group, compared to 9/1000 patient years in the self-administered group.

A recent meta-analysis of 10 randomized controlled trials comparing self-administered with directly observed therapy for TB disease concluded that there was no statistical difference in the number of patients that were cured or completed treatment (11). Not all the trials were comparable, as they utilized different types of observers (including family members). However, the major conclusion to be drawn from an analysis of these studies is that many were conducted within weak TB control programs that did not fulfill the elements of DOTS, let alone enhanced DOTS. Drs. Bayer and Wilkinson have noted that “these…trials do confirm that direct observation of treatment can, as with any health initiative relying on human effort, be implemented ineffectively” (12).

The role of the health care worker (including community health worker, nurse, doctor, lab worker and others) in the promotion of TB adherence, whether to self-administered therapy or DOT, is of primary importance. HCWs must be knowledgeable and skilled in all aspects of TB care, and receive continuing medical education on an ongoing basis. Patients lose faith with the treatment when the cognitive, behavioural and professional skills of the HCW are inadequate. For example, patients frequently cite the experience of TB medication side effects, as well as the perceived inability of HCWs to advise and manage these side effects, as a reason for non-adherence (13,14). Programs may consider creating positions for pharmacists within their teams, with roles in the teaching of patients, communities and staff, provision of consultative advice, program evaluation and research (15–17). In terms of behavioural and professional skills, the quality of the relationship between health care worker (nurse, doctor, community worker) and patient is central to promoting adherence to any health care intervention. HCWs must use understandable language, show genuine warmth and concern, solicit the beliefs, concerns and suggestions of the patient and foster a sense of control on the part of the patient with regard to their health and therapy (18–21). Identifying what patients perceive to be obstacles in following therapy, and problem-solving with patients around this, encourages adherence.

Sabate and others have recommended the development of “adherence counselling toolkits” and specific training in adherence management for TB and other health conditions (4,22). Such training would include the acquisition of skills in cross-cultural and empathic care, and acknowledgement of the psychological, emotional and social needs of the patient. Workshops that involve role playing to teach techniques in working with angry, anxious or
depressed patients, and which use videotapes for self-assessment, are useful in this regard.

HCWs must have clear and accessible consultative and referral mechanisms when problems arise that are beyond their skill level. Support for HCWs at all “levels” within TB programs is required – both material support in terms of educational and equipment needs, and less tangible but no less important emotional and psychological support in order to maintain motivation.

Community health workers (CHWs) who are Aboriginal and who share the same community affiliation as their clients are part of the health care team in many, but not all, TB programs for Aboriginal people in Canada. In places where they are utilized, their roles may involve one or more of the following:

- observation of therapy in enhanced DOTS programs and enquiry regarding medication tolerance
- selected health care tasks (e.g., weighing patients)
- provision of incentives, enablers and/or social support within self-administered or enhanced DOTS programs
- patient/family/community teaching
- translation services
- being a health and community advocate
- being a culture “broker”

CHWs may play a powerful role in the promotion of TB adherence when they are provided with the training, skills, support, job descriptions, clear lines of responsibility and authority that allow them to act as educators, advocates and cultural brokers (23,24) (Lester L, Indian Health Service, The Federal Health Program for American Indian and Alaska Natives, USA. Telephone communication, 2008 Nov 14). However, it is the unfortunate experience of many programs that in the absence of these conditions, the CHW is often cast in the role of “just another pair of hands” (25).

Within DOT and DOPT programs, the optimal ratio of therapy observers (who may or may not be CHWs) to patients is unclear. In the Navajo program in Arizona, 1 worker provides DOT or DOPT to approximately 10 patients; the job involves driving long distances to provide care in patient homes (Lester L, Indian Health Service, The Federal Health Program for American Indian and Alaska Natives, USA. Telephone communication, 2008 Nov 14). In the East Hastings Vancouver program, 1 worker provides DOT or DOPT care to approximately 18 patients (Indigenous and non-Indigenous) of whom a large percentage are homeless and burdened with co-morbid illnesses (Elwood K, Director, Division of TB Control, British Columbia Centre for Disease Control, Vancouver Canada. Personal communication 2008 Apr 10). What is clear is that the ratio of worker to patient must allow for the time required to “meet” the patient physically, but also at an emotional and psychological level or “space,” in order to develop a meaningful, trusting and respectful therapeutic relationship.

TB care can take place in a clinic or under bridges, on the streets, in bars or in any other location. In determining the location and nature of the clinical interaction that occurs, TB programs should endeavour to provide “permeable” care – access and care that does not require negotiation on the part of those who lack power, voice and material means (26). This is not to say that the health care system must cater to every desire of a patient, but the point is to recognize that actions that may seem simple and easy, such as registering at the front desk of a clinic, may for a variety of reasons be exceedingly difficult for some patients (27). TB programs that provide care to Aborig-
inal patients should evaluate the health system factors that act as barriers to adherence for their patients, with a problem-solving mindset that asks “how can we change our system to increase adherence?” rather than “how can we change patients to fit within our system?” Adherence to TB improves in programs that shorten wait (including referral) times, ensure that services are both accessible and are accessed by patients, develop reminder and follow-up systems for patients and HCWs, ensure that patients are informed about the infection or disease, provide knowledgeable and skilled care in managing the disease and medication side effects, promote respectful and trusting therapeutic relationships and provide for the cultural safety of the patient (10,28–32).

HCWs must be attuned to “hear” the verbally or non-verbally expressed needs of the patient that impact on adherence, such as drug addiction or homelessness, and have mechanisms in place to address those needs. This is not to say that a TB program must itself meet all the needs of the patient. However, messages to the patient that “I’m here to treat your TB, so don’t talk to me about your childcare concerns” will undermine adherence and successful therapy.

The variety of mechanisms and levels of government responsible for health services, including TB care, for Aboriginal people in Canada may itself provide a barrier to TB adherence in certain circumstances (33–35). In many regions, Aboriginal people are highly mobile, migrating back and forth between villages and cities, reserves and non-reserve communities, north and south. Systems for public health and clinical care may fail to track or follow up with patients who move between jurisdictions (34,35). In an analysis of TB occurring from 1990 to 2000 in Inuit communities in Quebec, Nguyen et al. noted that TB transmission between villages may be unrecognized when contact tracing is performed at the village level, highlighting the limitations of TB control in “watershed” areas between public health jurisdictions or units (34). Maintenance of therapy is also a challenge for those who move within or between communities or health jurisdictions. TB programs should endeavour to focus on information sharing through the creation of database linkages, joint analysis of clinical and epidemiologic data within and between jurisdictions, the availability of “cached” medication in communities for mobile patients who may appear unexpectedly, processes to ensure that patients are not lost to follow-up and harmonization of TB protocols between jurisdictions. These activities and characteristics are best provided within regionalized TB programs (34,35).

Various strategies may minimize the complexity of therapy, thereby improving adherence. The packaging of TB medication in blister calendar packs is associated with improved adherence within a program of self-administered therapy (36,37). Shorter course regimens are usually, although not always, associated with improved adherence. The treatment programs for TB disease in Canada are standardized, but variation occurs in the duration of therapy for LTBI (38). In Alberta and Saskatchewan, DOPT in some Aboriginal communities involves therapy with INH and Rifampin twice weekly for 6 months. In other jurisdictions such as Manitoba, patients in reserve communities receive INH by DOPT twice weekly for 9 months. Although adherence might be expected to improve with shorter courses of therapy, increased side effects or venipuncture and monitoring protocols may have a negative influence on adherence.

Increasing evidence indicates that incentives such as the provision of food or food vouchers, transportation tokens and cash have a positive
influence on TB adherence (14,29,30,39). For many patients, what we may call incentives would more accurately be described as enablers – the provision of a resource that makes it possible to adhere. For example, food is an enabler when it mitigates gastrointestinal upset for a patient who cannot afford to buy his or her own breakfast.

**Personal and social interventions**

Interventions to improve adherence to TB therapy must focus on both the individual patient and on his or her self-defined community or “people.” This is true for Aboriginal and non-Aboriginal people. The motivation to be healthy requires an appreciation of identity – of “who I am.” For many Aboriginal people, identity begins with an understanding of “who are my people?” (40–43). For this reason, interventions at the personal and societal levels cannot be easily separated.

Knowledge of TB infection and disease is an important, but not sufficient, condition for adherence (44–46). The word education has been previously applied to a didactic cognitive methodology. It is now seen as any intervention that empowers an individual to manage his or her health or illness (34). Educational interventions must start with listening to the patient tell the story of his or her illness and its meaning in their life (23,40,47,48). From this narrative it is possible to explore the patient’s belief about his or her current health, desire and motivation to change and belief in the power to achieve change. Educational programs that embrace a non-didactic, patient-centred and culturally appropriate approach have been shown to be effective in improving adherence to TB therapy in Aboriginal and non-Aboriginal populations (45,49,50).

The following lessons may be learned from the literature on education and adherence to therapeutic regimens among Indigenous peoples in Canada and other countries:

- TB programs for Indigenous people expect patients to adhere to what (51)? Adherence to therapy for TB and other medical conditions is unlikely to improve in a substantial way unless Indigenous beliefs about causation and cure are incorporated into a program which has meaning for the patient (47,51–53). Research is required regarding the causation, transmission and meaning of TB in the lives of patients and their communities. Efforts must be made to develop a shared knowledge and understanding of TB which includes Indigenous and Western scientific health beliefs and practices (51).

- Aboriginal communities and people are not all the same. They have different beliefs, values, forms of expression and viewpoints regarding health and illness (52). Health education strategies that are developed for 1 group of people may not be applicable for others.

- Through his work among Indigenous populations in Australia, Dr. Stephen Bryce has noted that “[t]he process of developing a list of key ‘language concepts’ is central – it is an important relationship building process between Health Workers and…health staff as well as providing the conceptual basis for communication…Aboriginal health workers often feel like second class members of health teams. Developing the key language concepts gives them an opportunity to take some ‘ownership’ of the clinic’s work and is a powerful way to demonstrate that their input is essential” (52). In many Aboriginal communities in Canada we use the words “sleeping” TB and “germ.” We should engage patients and communities in a discussion regarding how these words are trans-
lated and whether they are appropriate (24).

- For many individuals and cultural groups the use of visual and experiential aids (high quality models, photographs, illustrations, videos) brings life to concepts that remain otherwise unclear, irrelevant or unreal (52). In the case of TB, it is difficult to convey the concepts of bacteria, latency and the number and duration of medications for treatment of the disease (10). The use of key language concepts developed within the culture, along with visual aids, is encouraged. “Real time” visual cues are helpful in educational programs; for example, providing pregnant women with pictures of the ultrasound of their foetus may promote empowerment, bonding and increased adherence to prenatal care. Microscopes have been used in Australian clinics to show Indigenous patients the bacteria and pus cells in microbiologic specimens in order to increase adherence to antibiotics (52). It may be possible to show patients their mycobacterial smears over the course of their diagnosis and therapy in order to bring a sense of reality and meaning to the concept of bacteria.

- Educational efforts at the individual and community levels can use creative methods that are meaningful within the culture, such as “zines,” comic books or photonovels to which the patient can add their own photographs or stories (49), popular music, role playing, theatre, dances, film, athletic and entertainment events and the involvement of leaders and mentors. The message should be “cued” to the targeted age group and culture.

- Evidence shows that the quality of the relationship between the health care provider and the patient is critical to the outcome of educational efforts that support adherence. Adherence improves when patients believe in the message but also in the messenger (21). Effective education conveys cognitive messages as well as affective messages of empathy, openness, concern and respect. Respect from an Aboriginal perspective encompasses the willingness to listen actively, the acceptance of those who are different, the capacity to treat people as inherently worthy and equal in principle, sincerity and sharing of control (18).

While health behaviour theories provide insight into the processes determining behavioural changes, evidence of the effectiveness of specific interventions on increasing self-efficacy or social coherence in order to improve TB adherence is not available. However, self-efficacy-based interventions have been developed and used with some success for diabetes and HIV care in Aboriginal and non-Aboriginal patients (40,54). It is recommended that such interventions in relation to TB care be developed, implemented and studied in partnership with patients, families and communities.

A variety of studies suggest that TB therapy should not “compete” with addictions, as they will usually “lose out” in any battle for priority in the patient’s attention (55). Adherence to TB care does not require abstention from alcohol and/or illicit drugs. A harm-reduction framework may be used along with prevention counselling and treatment services for both TB and addictions.

For some individuals, the use of traditional healing practices including smudging, talking and drumming circles and sweat lodges contribute to self-efficacy, empowerment and
self-determinations (56). Studies suggest that becoming a healthy person from an Aboriginal viewpoint means regaining balance. In a study of urban Aboriginals attending a city clinic, Hunter and colleagues noted the perception that the mainstream health system provided care for the physical self without sufficient regard for the emotional, mental and spiritual realms (56). Sharing experiences relating to health and illness is viewed by many Aboriginal people as participation in the “Circle of Life” – a means to meet obligations to one’s self (self-care), family and community, and to draw on the strengths that are inherent to and available from these sources.

TB programs may wish to utilize techniques used in other health models, including those for addictions, in which patients identify a sponsor, companion or mentor who accompanies them on their journey to health (21). This individual provides emotional and psychological support within a personal relationship of mutual honesty, accountability and responsibility.

Verbal and written commitments or non-legal “contracts” between patients and HCWs have been used in Canada and other countries as symbols of a commitment to the therapeutic process on the part of both provider and patient (4,57). It is often difficult to know whether improved adherence is attributable directly to incentives/enablers, or to the positive social interaction (attention, communication, trust) that usually occurs at the same time.

In a meta-analysis of 122 studies of social support interventions to improve adherence to various types of medical treatment, DiMatteo et al. found a significant positive effect for patients receiving practical social support – such as assistance with childcare, transportation and shelter (58). Councils or groups of men, women, youth and elders may exist, or be created, in communities to provide support. “Breakfast clubs” for patients have been used in some communities in order to improve nutrition and tolerance of medication, and to promote kinship and social support (59).

TB programs should not attempt to compete with other priorities, such as economic security, in the lives of patients and families. Creative solutions for patients and families must be found in order to support adherence as well as employment. TB programs may consider the possibility of identifying responsible individuals to deliver DOT to patients “on the land,” or the use of available telecommunication systems or electronic medication bottles.

Local governments and band councils have an important role to play through the provision and/or promotion of social support (e.g., transportation, housing, childcare, etc.), education, leadership and mentoring (e.g., when leaders who have TB disease or infection make their condition known and publicly adhere to therapy). Canadian First Nations and Inuit leaders within communities and political organizations have been actively engaged over the last several years in advocacy for improved TB control, both nationally and internationally (60–62). However, to be sustainable, Aboriginal and non-Aboriginal leadership in public health can and should be taught, nurtured and modelled. The University of Western Australia’s Aboriginal Leadership in Public Health Scholarship stands out as one highly successful example (63).

If patients are expected to adhere to therapy, they will also have a reasonable expectation that their health workers, leaders, governments and societal institutions will advocate for, and work...
towards, reduction and correction of the social determinants of TB, including poverty, racism and stigma, crowded and poor quality housing and ineffective health systems (64,65). To focus on the patient without addressing the broader determinants of TB transmission is a common betrayal that has been richly chronicled in the writing of Peter Bryce, Georgina Feldberg, Paul Farmer and others (64–67).

In Canada, band and municipal councils do not have access to the names or identifiers of individual patients with active or latent TB, due to privacy concerns. In some – but not all – regions of Canada, First Nations and Inuit Health, or territorial Departments of Health, provide the anonymized numbers of cases of active TB or treated contacts with latent infection to band or municipal councils. Whether First Nations band councils should have access to the names of patients is an issue. Local governments do not require the names of individual patients in order to provide general social and health care supports and advocate on behalf of those they represent. However, more specific and personal interventions to support and ensure that individual patients adhere to TB care would require that local Aboriginal governments have identifying information. Issues of privacy concerns and the legal jurisdiction of First Nations communities are relevant. An open discussion of these issues is encouraged in order to better define the role of local governments in TB control. An exploration of models of health information sharing within TB control programs among other Indigenous populations, including the Navajo Nation in the United States, may be of help (68,69).

**What guidelines should be followed for recalcitrant patients?**

The term “recalcitrant” is most appropriately used for patients who through their words or actions indicate that they no longer agree to care for their TB disease, in circumstances in which interventions have failed to reverse this decision. The use of legal interventions must be considered for recalcitrant patients in order to protect the public from the risk of TB transmission. It is generally understood that legal means are used when all other reasonable means of establishing agreement regarding care, and adherence to care, are exhausted. The interpretation of “reasonable” will depend on the availability of resources within a particular health care system and community. Although this paper has described many strategies to establish, maintain and promote adherence, their availability and cost-effectiveness must be considered in context.

For those who do not complete therapy for LTBI, who are at high risk for development of TB disease or who are untreated contacts of multi-drug resistant TB, regular follow-up for 2 years is recommended by the Canadian Tuberculosis Standards (38,70). A similar recommendation has been made in other countries, such as New Zealand (71), and is based on consultative opinions in those countries in the absence of research evidence of cost-effectiveness. The form of follow-up (e.g., clinic visits, outreach care, telephone or mail contact), investigations utilized (e.g., chest radiograph) and contact intervals are not specified in the Canadian Tuberculosis Standards. Decisions in this regard depend on the availability of resources and an assessment of risks and benefits to the patient and society. Examples of those with LTBI who are at high risk for progression for LTBI to TB disease include recent contacts and those with HIV infection.
DISCUSSION

In the context of TB care among Canadian Aboriginal people, key messages regarding the definition of adherence and potential barriers to care include the following:

- Adherence behaviour is influenced by complex interactions between health system, personal factors and societal factors, rather than directly from individual factors acting independently.
- Many of the interventional studies addressing health system barriers to TB adherence are grounded in the view that the problem of adherence rests with the patient. What is required is an approach that is responsive to the patient’s needs while holding the patient to his or her personal and societal responsibilities.
- The primary health system intervention used to promote adherence to therapy for TB disease, in Canada and worldwide, is enhanced DOTS.
- In determining the location and nature of the clinical interaction that occurs, TB programs should endeavour to provide “permeable” care – access and care that does not require negotiation on the part of those who lack power, voice and material means.
- Patient adherence is closely linked to the quality of interactions with all members of the health care team. These interactions must nourish a partnership between patient and HCW based on respect and cultural safety.
- Community health workers must receive sufficient training and support to function as educators and advocates for patients and communities. Lines of authority, responsibility and accountability must be clear.
- Health care workers underestimate the desire of patients for information about their condition. Educational programs that embrace a non-didactic, patient-centred and culturally appropriate approach have been shown to improve adherence to TB care.
- Adherence to therapy for TB is unlikely to improve in a substantial way unless Indigenous beliefs about causation and care are incorporated into a program which has meaning for the patient.
- Little research has focused on interventions to overcome personal and family barriers to TB adherence, to increase self-efficacy and sense of coherence and to mobilize family and community support for TB patients. In light of their importance, particularly within the Aboriginal view of health and illness, research and action in these areas must be priorities for TB programs.
- If patients are expected by society to adhere to therapy, they may have a reasonable expectation of societal effort to reduce and correct the social determinants of TB infection and disease.

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Dr. Pamela Orr
Room GC-430, Health Sciences Centre
820 Sherbrooke Street
Winnipeg, Manitoba R3A 1R9
CANADA
Email: POr@hsc.mb.ca