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Russia

Role of alcohol Use in Tuberculosis Treatment, Adherence and Outcomes in Tomsk, Russia

Topic of Research and Countries Visited

Russia has a high incidence of tuberculosis (TB) (126 per 100,000 in 2002) and ranks eleventh among the top 22 high burden countries listed by the World Health Organization. The mortality rate reported in Russia is high despite TB therapy. Russia also has a high prevalence of alcohol related disorders. Among TB patients the prevalence of alcohol dependence and abuse is estimated to range from 24.3 percent to 69 percent. Understanding the scope and impact of alcohol dependence/abuse on TB treatment is a crucial issue, both in Russia and in other underserved areas. Alcohol use disorder in Russia are diagnosed only by a narcologist (addiction specialist) using the ICD-10 classification and code. Other methods/questionnaires have also been used in Russia.

Relevance and Contribution to Field

The Composite International Diagnostic Interview-World Mental Health is a systematic and detailed questionnaire prepared by World Health Organization and comprises of many modules. The substance abuse module- CIDI-SAM was derived using both the DSM-III-R and the ICD-10 criteria. The CIDI has been used before in Russia for diagnosing alcohol abuse and dependence. However, general practitioners and TB physicians must be formally trained in applying these criteria, and patients are instead routinely referred to an addictions specialist (termed narcologist) for evaluation. Several internationally accepted instruments could be administered by a non-specialist to identify patients with alcohol disorders including the Alcohol Use Disorders Identification Test (AUDIT). The calibration of such a tool in Russia may provide a means to improve alcohol management at the entry point into health services: TB practitioners could identify patients in need of referral to specialists. In particular, taking advantage of Russia's strong TB infrastructure to identify and treat patients with alcohol use disorders offers an important strategy to address alcohol use disorders in a country profoundly affected by both diseases. Furthermore, understanding the relationship between alcohol abuse/dependence and TB will help guide strategies to implement interventions aimed at improving TB outcomes.

Approach and Research Methodology

I conducted a prospective observational cohort study of all patients with TB, enrolled in the treatment program from November 1, 2005 through April 30, 2006.The study will be divided into two parts:

Part A: Calibration of AUDIT, a brief screening instrument to identify alcohol disorders and measurement of the prevalence of alcohol abuse/dependence among TB patients using ICD-10 criteria.

Part B: Assessment of the effects of alcohol abuse/dependence on non-adherence, acquisition of drug resistant TB and mortality during TB treatment.

The research objectives were:

1. To measure the prevalence of alcohol disorders among TB patients in Russia using the Composite International Diagnostic Interview- Substance Abuse Module (CIDI-SAM).

2. To calibrate a brief screening instrument for diagnosing alcohol abuse/dependence- Alcohol Use Disorders Identification Test (AUDIT) compared with the gold standard of the CIDI.

3. To determine if alcohol abuse/dependence increases TB therapy non-adherence, acquisition of drug resistance, and mortality during the first six months of TB treatment.

The study occurred in the Tomsk Oblast of Western Siberia, comprising a population of 1,200,000. In 2003, TB incidence in Tomsk was 93.4 per 100,000 and TB mortality was 17.6 per 100,000. The Tomsk Oblast TB Services (TOTBS) provides DOTS and MDR-TB treatment, in collaboration with the Division of Social Medicine and Health Inequalities (DSMHI). In addition to providing clinical services, the TOTBS has a comprehensive database which houses clinical and demographic data on all TB patients and shares de-identified data with a DSMHI database via internet-based exchange. The TOTBS also has an extensive network of community-based support to carry out both clinical and research-related activities. There was also formal research collaboration with the Tomsk colleagues; all research is carried out with their participation and local ethics committee approval.

Inclusion criteria were all patients who 1) have newly diagnosed TB, clinically, radiographically or on the basis of sputum smear or culture results, and 2) start TB treatment between November 1, 2005 and April 30, 2006. We excluded patients who decline to sign the consent, are less than 18 years, and/or have started TB treatment while in the prison sector.

Summary of Research Findings and Preliminary Conclusions

Currently, Russian approaches to treating alcohol are based on a vertical system of care and relies on substance abuse specialists, the introduction of internationally-accepted measures of alcohol-related disorders and the validation of a brief screening tool has the potential to shift the focus of care to the front-line providers, in this case TB physicians. The identification of alcohol dependence/abuse by general practitioners has broader implications in treating other chronic diseases (in Russia and other resource-poor settings) where treatment adherence is of primary importance. This includes both non-infectious comorbid conditions such as cardiovascular disease, diabetes and infectious diseases, chiefly HIV/AIDS. When anti-retroviral therapy becomes widely available in Russia, effective treatment adherence will require effective identification of alcohol abuse or dependence and timely application of appropriate behavioral interventions.

During my trip, I worked with Tomsk TB physicians on AUDIT, training them as well as integrating AUDIT into regular practices. The physicians were also trained in the Russian translation of CIDI PAPI version 5. The physicians found these interviews very helpful in increasing their understanding of alcohol and substance abuse among their patients. They were also able to learn more about alcohol and substance abuse diagnosis. Once all the TB physicians are trained in AUDIT, and it is completely integrated into TOTBS program, we will start enrollment of patients for the calibration of optimal AUDIT cut-off score using CIDI questionnaire.

Suggestions for Future Research Agendas

Currently, Russian approaches to treating alcohol are based on a vertical system of care and relies on substance abuse specialists, the introduction of internationally-accepted measures of alcohol-related disorders and the validation of a brief screening tool has the potential to shift the

focus of care to the front-line providers, in this case TB physicians. The identification of alcohol dependence/abuse by general practitioners has broader implications in treating other chronic diseases (in Russia and other resource-poor settings) where treatment adherence is of primary importance. This includes both non-infectious comorbid conditions such as cardiovascular disease, diabetes and infectious diseases, chiefly HIV/AIDS. When anti-retroviral therapy becomes widely available in Russia, effective treatment adherence will require effective identification of alcohol abuse or dependence and timely application of appropriate behavioral interventions.

Recommendations for US Policy Community

Developing a collaborative relationship between physicians in Russia, other Republics of Former Soviet Union and physicians in United States in diagnosing and treating alcohol and substance use disorders is essential to improve healthcare for patients with alcohol use and chronic diseases. Studying the barriers to access healthcare will enable policymakers understand and develop the public health care infrastructure for underserved and resource-limited populations in US and abroad.