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Working with neuro-rehabilitation programs to address oral health in India

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Background: Several studies indicate high incidence and severity of oral diseases in individuals with neurologic impairments, including those due to traumatic brain injuries (TBI). Close to 1.6 million TBIs are sustained annually in India, representing 16% of the global TBI burden. Although oral condition is central to quality of life, including ability to eat, speak and express emotion, oral health is not systematically addressed in this population. This qualitative work was designed to identify best practice methods of integrating oral health and healthcare in neuro-rehabilitation systems in India by assessing the structure of the system and professional and lay caregiver oral health needs. These data will be used to inform training and policy designed to integrate oral health in existing systems of care.

Methods: Ten semi-structured key informant interviews with professional caregivers (physical therapists/occupational therapists/nurses) and environmental scans of three programs were conducted to assess the structure of the neuro-rehabilitation system. Structured interviews were conducted with a convenience sample of 46 lay caregivers of patients receiving care at neuro-rehabilitation programs in New Delhi and Jodhpur. Interviews were transcribed, coded, and analyzed for emerging themes.

Findings: 89% of lay caregivers are female, 17% have received oral health education, and 67% find providing daily oral care difficult; 63% of patients have never seen a dentist due to low caregiver perceived need. Professional caregivers recognize the importance of oral health but do not have the skills to address it, and policies around delivery of oral health and healthcare are not comprehensive. Thematic evaluation suggests that oral health can be integrated into neuro-rehabilitation programs through: co-delivery of neuro-therapy and daily oral care, and inclusion of oral health risk assessment in intake/ interval patient evaluations and patient referral systems.

Interpretation: Integration of oral health in existing neuro-rehabilitation systems can serve as a sustainable model of oral care delivery with high reach, but lay and professional caregivers must be trained and incentivized. The data will be used to inform development and evaluation of a training program for lay and professional caregivers.

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Diabetes and tuberculosis interaction in Kazakhstan

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Background: The global increase in diabetes prevalence highlights an urgent need to address diabetes interaction with tuberculosis (TB) prevention and treatment. In Kazakhstan where multi-drug resistant TB (MDR-TB) is serious, an estimated 26% of new TB cases have MDR-TB. Studies show that for individuals with TB, co-occurring diabetes is often associated with TB treatment failure which may lead to MDR-TB. The factors associated with the synergistic relationship between TB and diabetes is understudied in Kazakhstan. The aim of this paper is to examine factors associated with the co-occurrence of diabetes and TB in Kazakhstan using data from a population based study of the Social, Environmental and Genetic Factors Determining Susceptibility to Tuberculosis project.

Methods: Using a cross sectional study design, we collected data from 1600 participants consisting of TB positive individuals, household controls and community controls recruited from June 2012 to May 2014 from four regions in Kazakhstan: Almaty city, Almatinskaya oblast (province), Kyzylordinskaya oblast, and Kostanayskaya oblast. For this analysis, we focused on the TB positive individuals and used multivariate analysis to test the prevalence of co-occurring TB and diabetes as well as the associated multilevel risk factors.

Findings: Of the 562 TB positive individuals 7.1% report having concomitant diabetes. A significant proportion of new TB positive cases were associated with both diabetes and smoking — accounting for 28%. We found that major risk factors associated with co-occurring TB and diabetes include: age, education and living in a rural area.

Interpretation: To our knowledge, this is the first study on the co-occurrence of TB and diabetes in Kazakhstan. The high prevalence of co-occurring TB and diabetes has implications on screening index or TB positive cases as well as individuals with diabetes. National TB programs in countries like Kazakhstan should move towards integrated screenings for both diseases given the increasing prevalence of diabetes and its negative effects on TB treatment and management. Integrated screenings for both TB and diabetes in Kazakhstan is not only urgent but must address risk factors such as age, education and rural living. More evidence based research on co-occurring TB and diabetes is needed in high TB burdened settings.

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Hematological abnormalities among patients with systemic Lupus Erythematosus at Kenyatta National Hospital, Nairobi

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Background: Systemic Lupus Erythematosus (SLE), an autoimmune disease characterized by multi-organ failure, has been increasingly identified in clinics in African settings. Hematological abnormalities have been demonstrated to be common among SLE