Improving outcomes for tuberculosis patients in the Torres Strait - Papua New Guinea border region

Initiative Type

Service Improvement

Status

Deliver

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Summary

Fearful of the foothold that Tuberculosis (TB) may take in Papua New Guinea (PNG) villages during the closure of international borders between Australia and PNG, and the TB transmission risk this

poses to residents of the Torres Strait, the Torres and Cape TB Control Unit (TBCU) have undertaken extraordinary measures using locally-derived data to improve TB service delivery in their region.
Throughout the process, the absolute importance of community consultation and utilising Indigenous Health Workers was a high priority.
Although working from home, the TBCU was cohesive with an unfailing commitment to improve outcomes for patients.

Key dates

Mar 2020

Jun 2021

Implementation sites

Torres Strait Islands

Key Contacts

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Aim

To use locally derived research outputs and turn them into evidence-based practice in our program to improve TB patient outcomes.

Benefits

- implementation of advanced diagnostic technology
- reduction in time patients need to remain in either home or hospital isolation
- increased confidence for clinicians who may have never known that TB exists in Australia, let alone been involved in its management
- reduction in numbers of patients needing to travel to Cairns for diagnostic procedures that can be done by Torres and Cape HHS clinicians with the right training
- improved quality of specimens collected
- reduction in costs associated with 'no-tests' - cost to patients who need to remain in isolation until three quality specimens have been collected, sent to Brisbane and the results received, as well as reduced HHS and Pathology Queensland costs.

Background

The outbreak of COVID-19 resulted in the closure of the international border between Australia and Papua New Guinea (PNG) in 2020. There was great fear of the foothold TB may take on PNG villages during this time and the TB transmission risk this poses to residents of the Torres Strait.

Solutions Implemented

- statistically significant improvement in time to treat TB patients (huge reduction in time from onset of symptoms to treatment commencement)
- statistically significant reduction in poor outcomes for TB patients (less people dying / less people transmitting TB to others / more people completing treatment)
- 100 per cent of TB patients completed treatment since TBCU implemented incentive program
- zero 'no-tests' since clinician education package in specimen collection were provided by TBCU
- quantifiable screening mechanism to identify malnutrition in children with TB using middle upper arm circumference and World Health Organization age/weight markers
- new clinical pathways (routine monitoring of biomarkers that were found to be statistically significantly associated with poor outcomes in our patients)
- cost reduction - change to local policy as two specimens are sufficient to diagnose TB in our region (don't need three)
- TCHHS TBCU paediatric (de-identified) data to be shared with World Health Organization to assist

with global knowledge base
- fun TB education delivered in schools in high-risk areas
- video directly observed therapy for patients on treatment
- specific education packages provided to clinicians based on TB transmission risk
- real-time cost analysis performed.

Evaluation and Results

Some results have been peer-reviewed and published in the Journal of Rural and Remote Health and presented to the Queensland TB Expert Advisory Committee and National TB Advisory Committee. Quality, safety and risk personnel in TCHHS were also made aware of some results and associated initiatives.

Lessons Learnt

Challenges encountered:
At the beginning of COVID-19, only public health and TB nurses were authorised contact tracing officers. TB nurses were also registered immunisation providers. This led to TB clinicians being moved from the TB Unit to the public health team to assist with COVID-19 activities. The temporary loss of two nurses form our small team to the COVID-19 team was challenging but necessary. Undertaking community consultation and utilising Indigenous Health Workers cannot be over-emphasised.

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