

Texas Center for Infectious Disease (TCID): 2013



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Introduction

- Community-based directly observed therapy (DOT) remains the standard for Tuberculosis (TB) care.
- Successful outpatient TB care is hindered by people with Human Immunodeficiency Virus (HIV), diabetes, psychiatric illness, criminal involvement, homelessness, cultural differences, alcohol and illicit drug use, and resistant forms of TB.
- Nationally, 1 in 5 patients with TB are involved in heavy alcohol use, illicit drug use, or both.¹
- U.S. persons with TB who use alcohol and illicit drugs remain contagious longer because of frequent treatment disruptions.¹
- Texas ranks second in the U.S. in the number of new TB cases annually, likely due to a higher incidence (compared to other states) of:
 - Alcohol dependency (19.9% vs. 12.4%)
 - Non-injecting illicit drug use (10.6% vs. 7.6%)
 - TB in corrections facilities (9.5% vs. 4.3%).²

Methods / About TCID

- Texas Center for Infectious Disease is fully accredited by Joint Commission and is a Medicare Certified Long-Term Care Hospital. TCID manages hard-to-treat TB cases by providing additional structure and monitoring.
- TCID began operation in 1953 as an inpatient hospital for patients with TB.
- In 2011, TCID occupied a uniquely designed 75-bed specialty hospital with integrated air quality and security systems, which was built on the original South San Antonio campus.
- Each private room/bath is designed to prevent TB transmission and enhance the patient experience during a prolonged hospital stay (6 months to 2 years).
- Staff and facilities demonstrate efficacy of design, construction and programs focused for successful treatment completion.



Methods (continued)

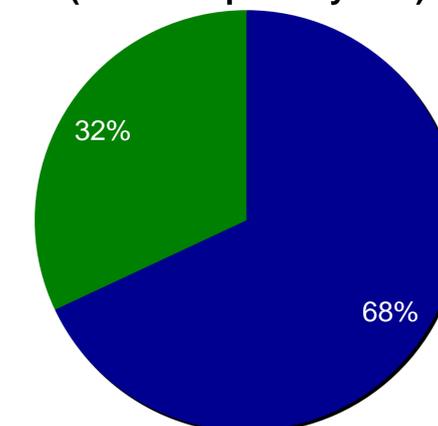
- TCID patients have unlimited campus freedom of movement, including availability of a secure environment, if needed.
- Care is patient centered, physician-led and multidisciplinary.
- Staff receive periodic respirator mask fit testing and special competency training to provide evidence-based care, protection and prevent unnecessary fear among staff.
- Staff educate the patients with the devastating fact that unsuccessfully treated TB results in death, along with providing patients with survival tools, structure (including any needed, negotiated or court ordered boundaries), compassion, support and encouragement to stay for the long duration of TB treatment.



- “Virtual” hospital concept provides on-site services, over 100 contracts, 25 shared programs, electronic health records, and networking systems to provide specialized medical consultations and services such as psychiatric care, dental care, optical, hearing, and women’s health to address medical co-morbidities.
- TCID employs a full-time psychologist, two social workers, diabetic educator, chaplain support, recreational therapist, dietitian, pharmacist, 24/7 nursing personnel, and a substance abuse counselor - all to provide support for many of the issues that prevented successful community-based therapy in the past.
- Patient incentives to remain in treatment:
 - Large campus-unlimited access to outdoor activities
 - Day/weekend passes for voluntary patients
 - Paid patient work program
 - Educational resources for patients to learn employment, job skills and interview techniques
 - Diversional, musical, and recreational activities on/off campus.

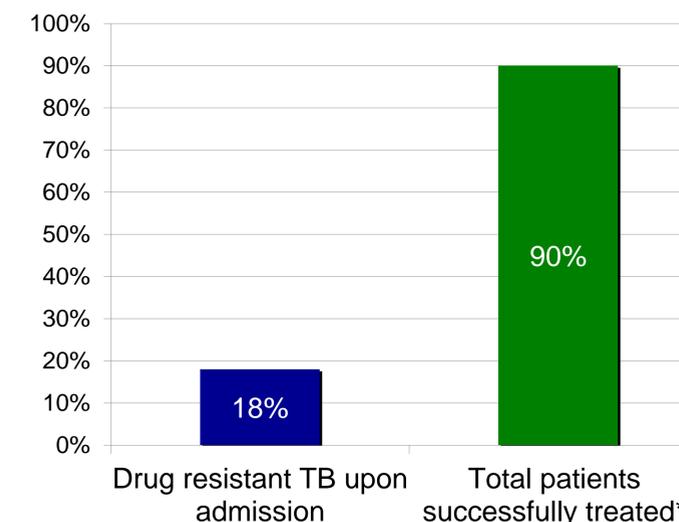
Results

TB Patients Admitted to TCID (N=147 in past 2 years)



■ Substance Abuse ■ No Substance Abuse

Characteristics of TCID Patients



(*the remaining 10% were voluntary patients who left against medical advice)

Results (continued)

- All new patients with TB continue in respiratory isolation until laboratory studies prove that each person is not contagious.
- Average length of stay for a TB patient during the 2 year period was 182 days.
- No patient acquired a further resistant strain of TB.
- No staff member had a tuberculin skin test conversion or developed active TB.
- TCID’s operating budget is appropriated from state revenues. The all-inclusive rate for inpatient services is \$965 per day.
- Total cost of new construction, fees, equipment, and renovations to five existing buildings was \$34M.
- Cost of new 60,000 square foot patient care facility including all new patient care furnishings and equipment was \$26.7M.

Conclusions

- Substance abuse is common in patients with Tuberculosis (TB) in the U.S. and is common in patients admitted to TCID.
- Direct observed therapy (DOT), patient-centered care with an interdisciplinary approach, facility factors to incentivize patients to remain in treatment, assisting patients to balance personal freedoms within treatment boundaries (such as community visits while avoiding the use of drugs or alcohol), enhanced medical monitoring for patients with drug resistant TB or other co-morbidities, consistent preventative measures, and life skills training are all part of routine TCID practices.
- TCID patient care practices resulted in improved cure rates, containment (no spread) of drug-resistant TB, and no staff conversions to a positive skin test or active TB.
- Voluntary or court-ordered inpatient TB care in a facility like TCID is necessary to cure TB for some people with one or more factors (such as substance use) that hinder successful outpatient DOT.

References:

- Oeltmann JE, et al. Arch Intern Med. 2009;169(2):189-197.
- <http://www.cdc.gov/tb/statistics/reports/2011/pdf/report2011.pdf>