Management of Difficult Tuberculosis Cases In an Inpatient Setting

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Overview

- Tb cases managed at Texas Center for Infectious Disease
- Criteria for requesting admission
- Admission process
- Patient overview
- Case Study

TCID……..What are we, Where are we?

- A 72 bed inpatient facility for the treatment of tuberculosis
- A division of the Texas Department of State Health Services
- Located in south central Texas, the city of San Antonio
Our Staff

- Three physicians
- Psychologist
- Nursing
- Pharmacist
- Respiratory Therapy
- Two Social workers
- Substance abuse counselor
- Dietitian
- Pastoral
- Laboratory

Our Tb cases

- All of the Tb cases admitted are “difficult” to manage
- Patients are admitted for a variety of reasons:
  - Drug intolerance
  - Drug resistance
  - Hepatotoxicity
  - Safety
  - Co morbidity
  - Social issues
  - Non-compliance

Admission Process

- Case Manager receives a request for admission:
  - Health Department:
    - Local
    - Region
    - State
  - Private sector:
    - Primary care provider
    - Hospital
    - Consultant
Admission Process

- Admission packet is submitted and reviewed
- Once approved patient is admitted:
  - Unit 514 - safety and quarantine unit
  - Unit 515 - volunteer unit
- Nursing assessment completed:
  - Referrals:
    - Social services
    - Substance abuse
    - Psychologist
    - Dietitian
    - Pastoral services
- Physicians assessment

Admission Process

- Each new admission is assigned a staff physician
- The Multidisciplinary Case Conference meets weekly:
  - Discuss new patient and develop a plan of care
  - All cases are reviewed every 90 days
  - All patients pending discharge are reviewed
- Multidisciplinary Team:
  - Meet weekly with patient the first 30 days
  - Then monthly

Resources

- Network for outside hospital services:
  - Radiology: interpret chest films, CT scans, MRI
  - Emergency services: cardiac care, surgery
  - Dialysis
  - Dental
  - Vision
  - Psychiatry
  - Podiatry
Programs

• Social services:
  ▫ Each patient is assigned a Social Worker
  ▫ Assist patient with applying social services available
  ▫ Substance Abuse counselor
  ▫ Smoking cessation program
  ▫ Alcohol counseling: AA meetings
  ▫ Drug counseling: group or individual
  ▫ Music therapist
    ▪ Twice weekly
  ▫ Recreational therapy
    ▪ Daily programs: crafts, games, movie night, walking group, exercise room
    ▪ Patient work program

Programs

• Psychologist
  ▫ Twice weekly group
  ▫ Individual counseling
• Dietitian
  ▫ Diabetes education
  ▫ Special Diets
  ▫ Food/drug interactions
• Community Relations
  ▫ Volunteer program, Annual fund raiser, Christmas Party for Patients, provide patients with clothing and personal items.

Overview of our Patients

• Co morbidity
• Social History
• National origin
• Age
• Men
• Women
Where do our Patients Originate

- Mexico
- Central America
  - Guatemala
  - Peru
- Sudan
- United States
  - Texas
  - New Mexico
  - Louisiana
- Russia
- China
- Thailand
- Vietnam
- Laos
- Burma
- Korea
- Philippines
Age and Sex of our Patients

- Patient ages range from 18 to 80 years
- Current Census: 35
- Males: 25
- Females: 10

Case Study

- 49 year old female
- Presents to ER 3/06 with c/o abscess to scalp.
- Admit to hospital
- Symptoms noted after admission: cough, yellow sputum, fever, chills, night sweats
- Tst: result 15mm
- Chest x-ray: right upper lobe opacity
- Bronchial & Alveolar washings: AFB Smear & Culture positive, Pan sensitive MTB
- RIPE therapy start: 3/31/06
- Discharged home, Local Health Dept (LDH) to monitor DOT

Case Study

- LHD initiated home visits for DOT
- Patient had very poor living conditions (no electricity, walls coming down)
- Patient experienced frequent episodes of nausea with TB meds with elevation of ALT/AST
- LHD submitted request for admission to Texas Center for Infectious Disease (TCID)
Case Study
- Patient admitted to TCID 4/20/06
- Admission diagnosis: PTB
- Co-morbidities: Diabetes Mellitus (uncontrolled) coronary artery disease (CABG 1993) HCV & adjustment disorder(undiagnosed bi-polar disorder)
- History of substance abuse: tobacco, alcohol, marijuana, cocaine, IV drugs
- Disabled since 1995
- SSI and VA benefits
- Education: 9 ½ years
- Large open abscess to scalp: MRSA
- Weight 126lb. Height 5’4”
- Labs: A1C-11.4; AST26 ALT 32, Bili 1.0, Alk Phos 100
- V/S stable, Lung: CTA

Case Study
- Recommendation to complete a total of 6 months anti-tuberculosis treatment for non-cavitary PTB
- Sputum conversion with in first 2 months
- Nausea resolved, ALT/AST improved
- 6/19/06 patient c/o headache and chest pain radiating to left arm
- Patient transferred to ER for evaluation
- Admitted to acute care facility for treatment of CAD
- Patient stabilized, remained in inpatient facility for 4 days
- Returned to TCID to complete anti-tuberculosis treatment

Case Study
- Patient completed anti-tuberculosis treatment
- Clinical and radiographic improvement
- Weight gain of 39lbs
- A1C improved from 11.4% to 7%
- DM better controlled
- Outside Consultations while and inpatient at TCID:
  - Psychiatric: 2, Dental: 7, Substance Abuse: 2
- Medical testing performed outside of TCID:
  - Electrocardiogram: 3, MRI: 1, Mammogram: 1
- Discharged 9/09
- Length of stay 158 days
Future

- In 2008 the Texas State Legislature approved the funding to build a new hospital for the treatment of tuberculosis
- The new building is located on our campus which will allow us to stay in the San Antonio Area
- Our new facility will have 75 negative pressure rooms, which will allow us to accept a greater number of admission requests

Thank You

QUESTIONS?

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