Background

- Tuberculosis (TB) is an infectious disease causing morbidity and mortality in the United States.  
- A key TB elimination strategy is to treat latent TB infection (LTBI) in contacts of TB cases and other high-risk groups. In Houston, Texas, high-risk groups include the:  
  - Foreign-born  
  - Homeless  
  - Immunocompromised  
- Traditional LTBI treatments are:  
  - 9 months of once daily Isoniazid (INH)  
  - 9 months of twice weekly Isoniazid (INH)  
  - 4 months of once daily Rifampin (RIF)  
- A 12-week regimen of once weekly Isoniazid and Rifapentine (3HP) is an LTBI treatment alternative recently approved by the US Food and Drug Administration.  
- The ability of a shorter regimen to improve LTBI completion rates in a large diverse city like Houston has not been evaluated.

Objectives

- Start eighty (80) eligible patients on 3HP.  
- Improve the LTBI completion rate by 5% over the year prior through the introduction of 3HP.

Methods

- This study was conducted from October 1, 2013 – September 30, 2014.  
- LTBI populations (N= 347) were identified:  
  - 130 patients started 3HP treatment  
  - 217 patients started traditional LTBI therapies (INH or RIF)  
- Inclusion criteria for 3HP included otherwise healthy foreign-born and/or congregate setting contacts diagnosed with LTBI.  
- All other LTBI patients were placed on traditional therapies (INH or RIF).  
- LTBI completion rates from the project period were compared with that of the year prior (October 1, 2012 – September 30, 2013) to determine any benefit of the introduction of 3HP.

Results

The combined LTBI completion rate (INH, RIF, and 3HP) was 83.6% (290/347) during the project period.  

- **3HP**: Of the 130 who started, 121 completed therapy (93.1%).  
- **INH/RIF**: Of the 217 who started traditional LTBI therapies, 169 completed (77.8%).  
- The LTBI treatment completion rate for the year prior was 69.8%.  
- With the introduction of 3HP, the LTBI treatment completion rate was 83.6%, an increase of 13.8%.

Conclusion

- The introduction of the 3HP regimen improved the overall LTBI completion rate in the target population.  
- As 3HP use increases, the overall LTBI completion rate should continue to improve, potentially reducing future TB morbidity and mortality.  
- It is recommended that 3HP use be explored in other TB programs.

References


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