Using Self-Administered Rifapentine and Isoniazid (INH) 12-Dose Regimen to Treat Latent Tuberculosis Infection (LTBI)

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BACKGROUND

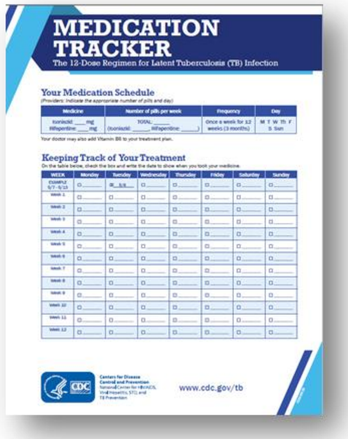
The objective for self-administered INH and Rifapentine 12-dose regimen was to improve treatment completion rates for LTBI. This short-course regimen is without the burden of resources needed for directly observed therapy (DOT) and includes monitoring of adherence rates.

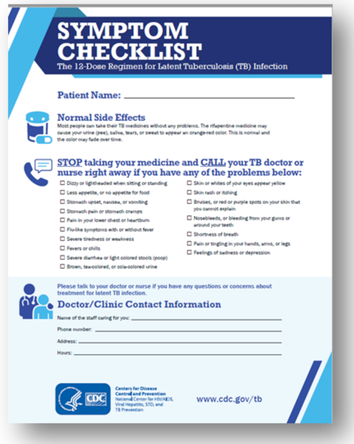
METHODS

- A comparison was done from patients started on the 12-dose regimen at the Lattimore TB Clinic TB from April 2018 through March 2019 clinic in Newark, NJ and compared to DOT data from a 2012 study where there was no significant difference in adherence giving INH/RPT self-administered vs DOT.
- Patients that were deemed eligible by the treating physician were given the first dose of INH/RPT 12-dose regimen in the clinic.
- The patients were provided education on how to take the medication and side effects.
- Patients were scheduled to return every four weeks for a nurse assessment and received a new four-week supply of medication.
  - They were instructed to stop all medication and call the clinic if they experienced any adverse effects
  - CDC medication fact sheets and 12 dose regimen medication tracker were given to the patient to record the dates medication was taken (Figure 1)
  - Patients were instructed to bring the medication tracking sheet with them at each visit for the nurse to review
- An MS Access® program for data collection was developed for evaluation of the INH/RPT program.

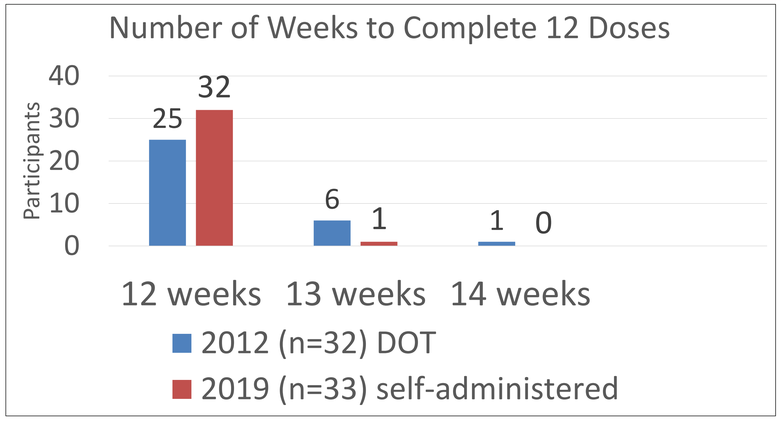
Human subjects exempt review determined by Rutgers IRB protocol Pro2019000217.

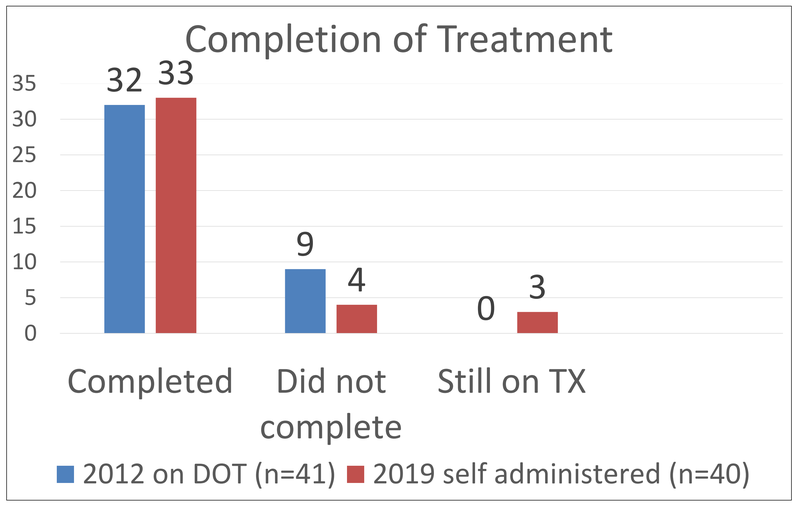
Figure 1: Medication Tracker





RESULTS





RESULTS

The self-administered cohort had 40 patients enrolled of which 33 completed.

- Thirty two completed in the 12-week time frame. One patient took 13 weeks to complete.
- Four patients did not complete. Two of the four had experienced side effects such as flu-like symptoms as headaches. One patient was lost to follow up and one was a contact to an index case that showed rifampin resistance.

The DOT cohort had 41 patients enrolled of which 33 completed.

- Twenty-five completed in 12 weeks, 6 completed in 13 weeks and 1 was 14 weeks.
- The delays in finishing treatment were related to missing DOT due to work, vacation, or not showing up to the clinic for DOT. Three of the patients took longer due a hurricane that prevented the DOT worker from traveling.
- Nine did not complete treatment - 6 had adverse reactions, 1 was pregnant, 1 had a false IGRA result, and 1 could not fit the DOT around work.

CONCLUSIONS

Patients that self-administered had a 90% completion rate. Compared to data presented in the poster, *Evaluating the Effectiveness of using INH and Rifapentine (INH/RPT) to Treat Latent TB Infection (LTBI)* presented at the 2012 National TB Association Conference, there was no significant difference in adherence giving INH/RPT self-administered vs DOT.
Although the adherence rate was similar for both groups the results suggest that DOT was a barrier to completing treatment in the appropriate time frame of 12 weeks.

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