

TB Drug Therapy: Investigations and Monitoring

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Background

TB medications can carry significant morbidity and it is vital that appropriate screening tests are carried out before commencing therapy.

Blood borne viruses can alter hepatic metabolism and response to drug therapy.

Pulmonary and extra pulmonary TB can coexist and be transmitted if not detected in a timely manner

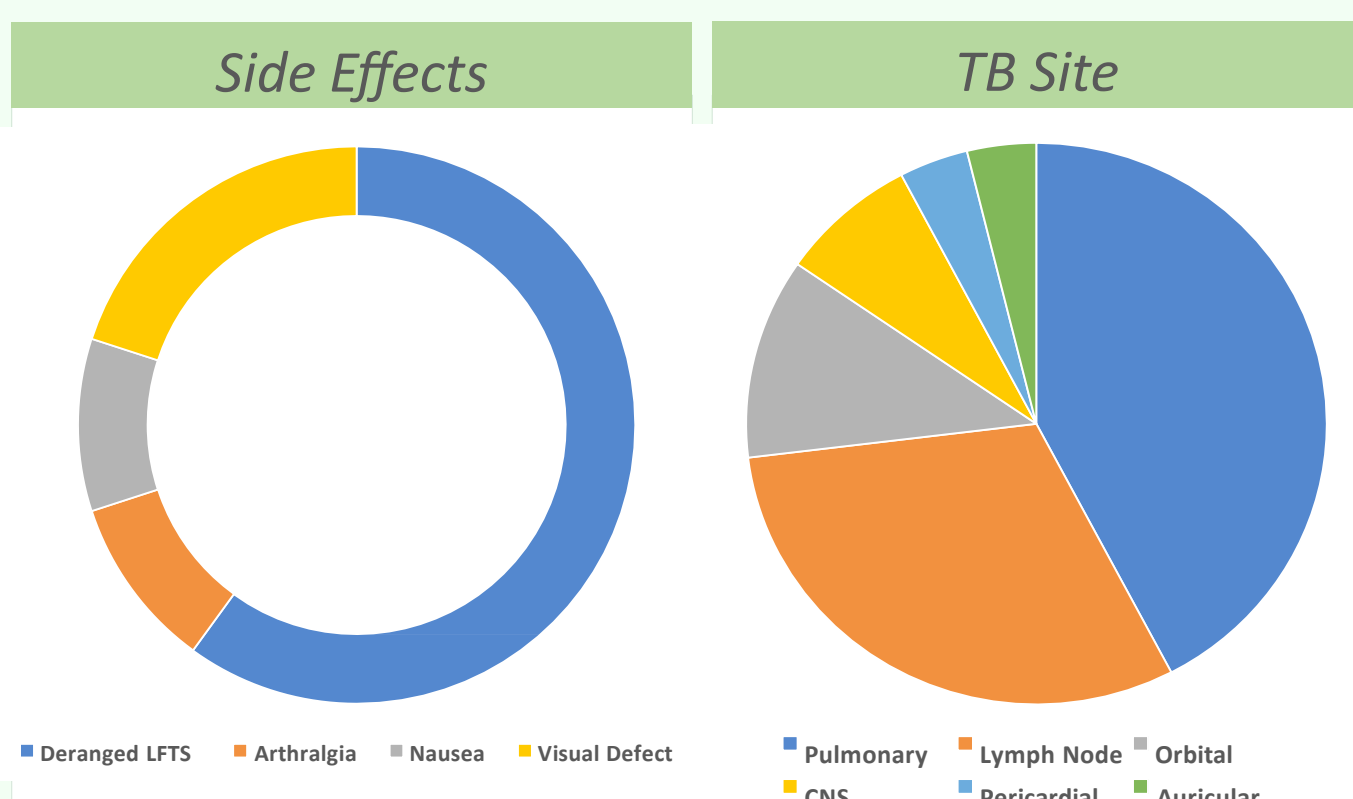
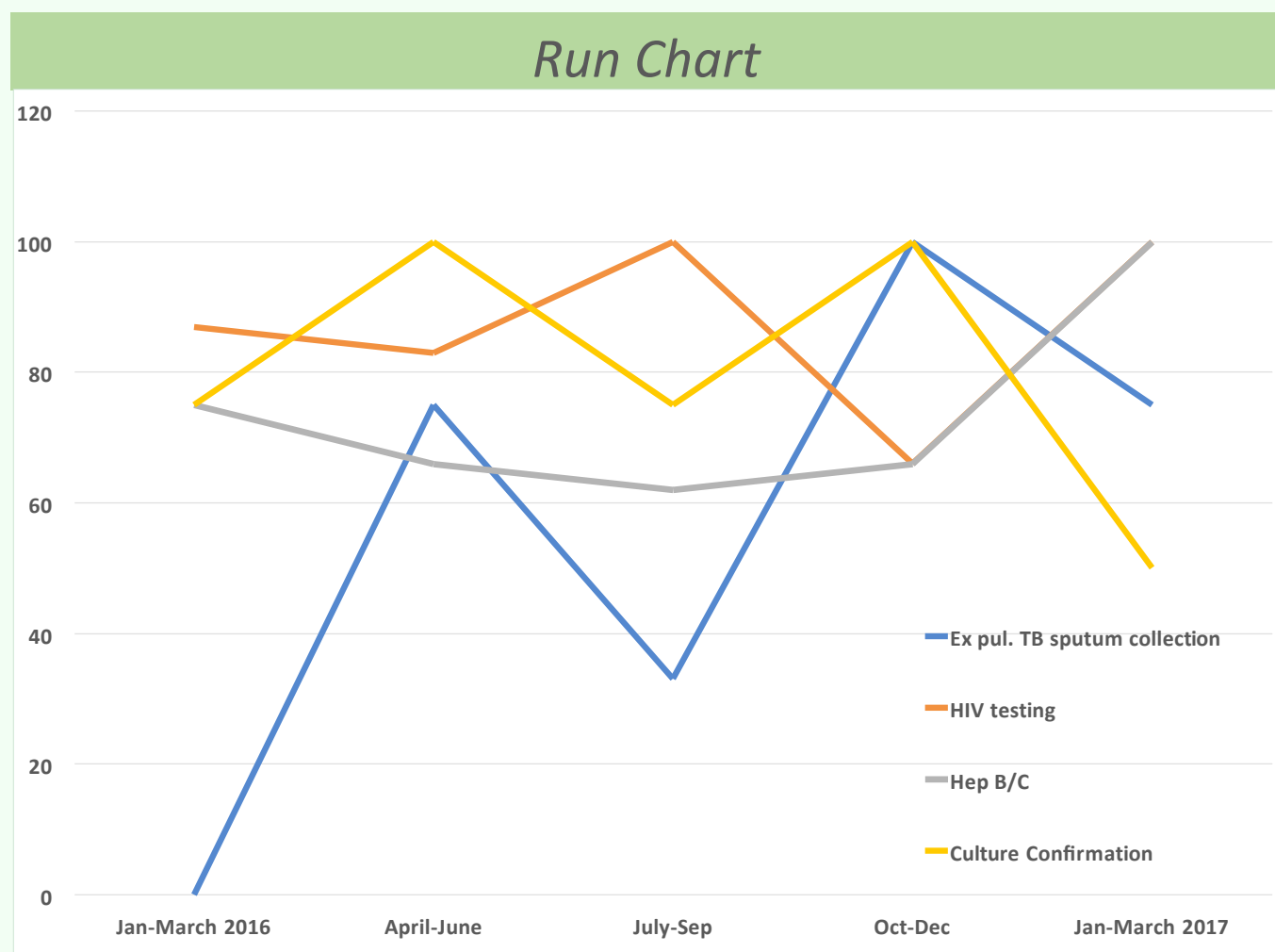
Aim

The aim of the project was to ensure the Belfast Trust was compliant with the 2016 NICE guidelines concerning TB treatment.

The project focused on the new changes to practice surrounding baseline blood investigations and TB culture collection.

Variables included:

1. Blood borne virus testing – HIV/Hepatitis B and C
2. TB culture confirmation rate
3. Extra pulmonary TB sputum culture
4. Treatment side effects



Method

All patients treated for TB in the Belfast Trust during 2016 were analysed to ensure baseline mandatory culture and blood tests were being performed when commencing treatment.

The standard was to ensure 100% of patients were being tested for blood borne viruses and TB sputum culture.

For TB culture confirmation, a 80% target was set as it is not possible to culture every site. Significant drug side effects were also analysed.

The data was discussed at the trust TB meeting during December 2016 and a checklist for clinic agreed upon.

From Jan-March 2017 all new patients were re-analysed and compared to the pre-intervention sample.

Results

Post intervention HIV and hep B/C testing increased from 66% to 100%.

Culture confirmation reduced from 100% to 50% however this included a case of orbital TB where obtaining a culture was not feasible.

Extra pulmonary TB sputum collection fell from 100% to 75%.

Change to practice

A new checklist to use at clinics will act as a prompt and ensure necessary investigations are performed.

This will help to detect blood borne viruses and improve patient safety.

By ensuring sputum samples are collected on every patient, TB transmission can be reduced and disease burden reduced in Northern Ireland.

Future Considerations

Develop registry for drug side effects and explore the reasons that HIV serology is not performed in all patients.

The checklist could be trialled in other trusts to aid compliance.

References
NICE. 2016. Tuberculosis [online] Available at:
<https://www.nice.org.uk/guidance/ng33/chapter/Recommendations#preventing-tb>.
[Accessed: 30th June 2017]