

Improving TB Assessment and Screening by Nurse Practitioners: A Clinic-Based Quality Improvement Project

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Background

- One-third of the world's population is infected with Tuberculosis (TB).
- Health care providers may have knowledge deficits regarding TB assessment and screening that could impact patient outcomes.
- Inappropriate use of TB screening methods and inaccurate assessment may lead to unnecessary radiation exposure, delay of treatment, or costly medical expenses.

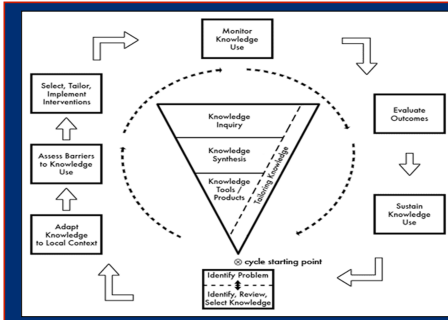
Purpose

- This quality improvement project will:
 - Increase identification of high-risk TB groups by nurse practitioners (NPs)
 - Increase adherence to CDC TB screening guidelines by NPs
 - Increase appropriate selection of CDC approved TB screening methods by NPs

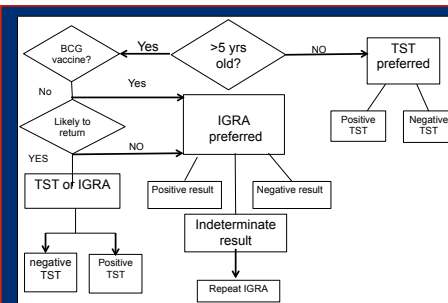
Primary Hypothesis

- A TB educational session, TB risk assessment questionnaire, and TB screening algorithm will increase the appropriate selection of approved CDC TB screening methods by NPs.

Knowledge to Action Framework



TB Screening Algorithm

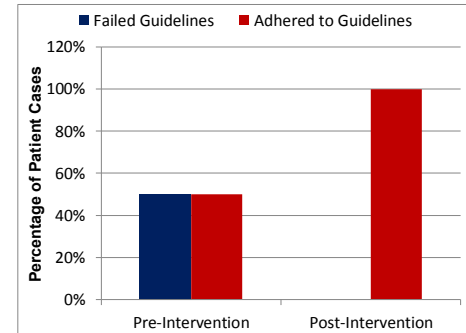


Methodology

- Participants: Certified nurse practitioners in an indigent care clinic
- TB risk assessment questionnaire implemented to screen for high-risk TB groups.
- TB screening algorithm implemented to assist APRN with selection of CDC approved TB screening method.
- 10 retrospective charts were used as the pre-intervention data and 20 charts were used as the post-intervention data.
- Data was entered into Excel with descriptive statistics analyzed using Excel 2010 and the Fisher Exact Test was conducted using GraphPad Software at an alpha of .05.

		Pre-Intervention chart audit (N=10)	Post-Intervention chart audit (N=20)
Data Available	Age	100%	100%
	Medical History	80%	100%
	Social History	80%	100%
	Vaccination History	50%	100%
	Variables needed to identify high-risk TB groups		

Results



The intervention training significantly affected adherence patterns at $p=.009$.

Conclusion

- The intervention used for this clinic-based quality improvement project effectively guided and improved adherence to CDC TB screening guidelines.
- The intervention served as a framework for meeting the needs of a clinic that screens high-risk TB groups.
- The interventions increased knowledge on approved CDC TB screening methods.