Massachusetts General Hospital Founding Member, Mass General Brigham

Consumption Junction, What's Your Function? Implementation of Structured Review for Suspected Tuberculosis Cases

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Background

- Tuberculosis (TB) evaluations are a time intensive task that requires communication of important epidemiological and clinical details to Infection Control physician leadership to determine if airborne isolation precautions can be discontinued.
- In the prior IP workflow (Figure 1), barriers to timely TB evaluation include:
 - gaps in communication among Infection Control (IC) team members
 - variable Infection Preventionist (IP) workflow
 - duplication of work

Methods

- IPs and IC physician leadership collaborated to develop a standardized template embedded in the electronic health records (EHR) which defined the TB case review process (Figures 2 and 3).
- A quantitative survey using a 5-point Likert scale was used to assess perceptions of the impact of the template.
- In a 30-day period, November 2023, 36 TB case reviews were created using the template.

Figure 1: Prior Workflow

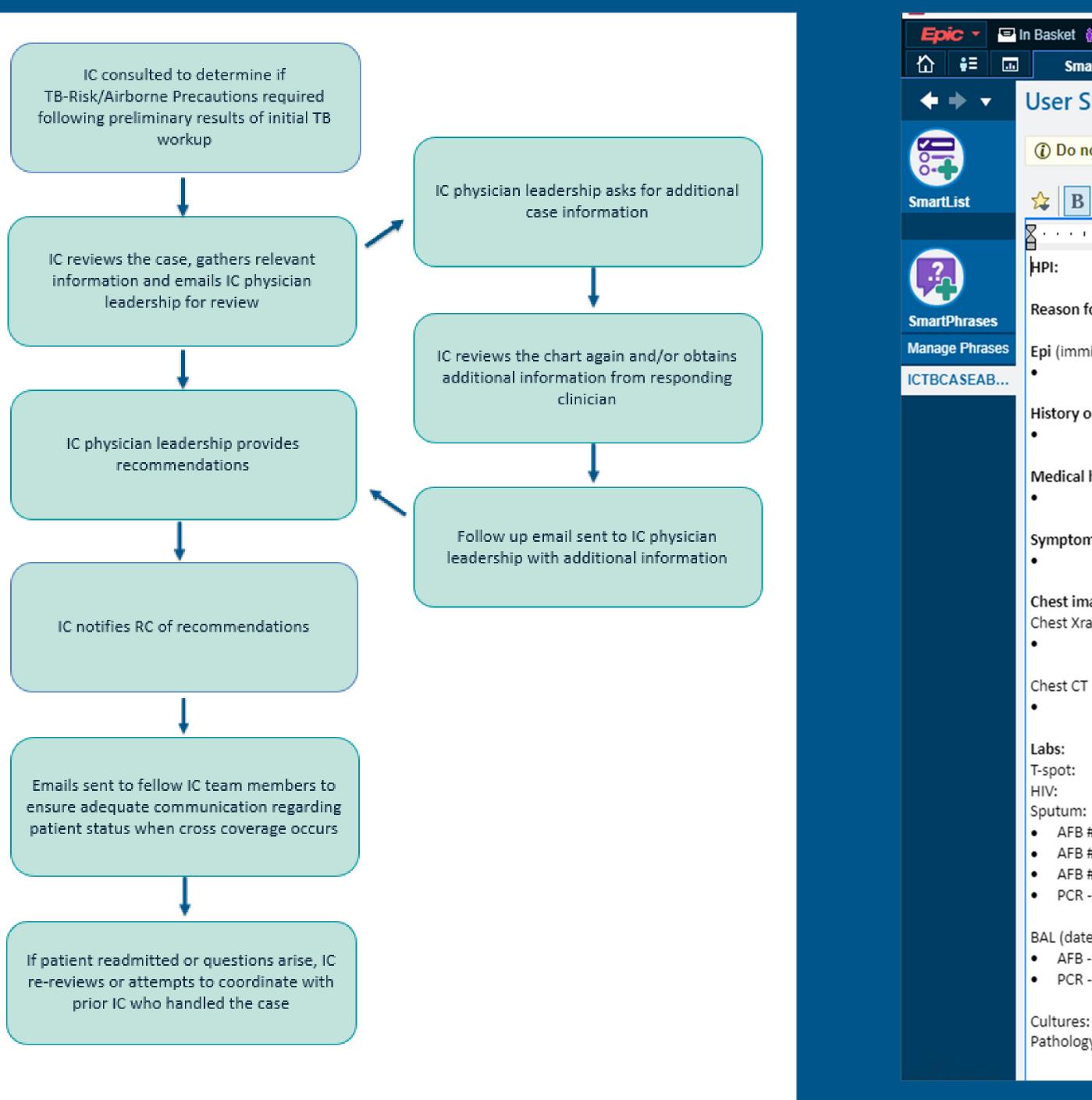


Figure 3: Workflow After Template Implementation

TB Risk patient identified prompting IP to create an Infection Case utilizing the standardized template

IC consulted to determine if TB-Risk/Airborne Precautions required following preliminary results of initial TB workup

IC sends the Infection Case to IC physician leadership for review and recommendation

Figure 2: TB Case Review Template

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ser SmartPhrase – ICTBCASEABSTRACTION [2542315]						
Do not include PHI or patient-specific data in SmartPhrases.						
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PI:						

Reason for TB rule out:

Epi (immigrant, travel, resided/employed in correctional facility, resided/employed in homeless shelter, close contact with person with active TB?):

History or active latent TB (positive TB IGRA, positive TST/PPD with induration of 5mm or more, treated for latent or active TB in past?):

Medical history / risk for disease (immunocompromised, underweight (BMI <18.5), COPD, active head/neck cancer, active tobacco smoking?):

Symptoms (cough, hoarseness, fever, night sweats, weight loss):

Chest imaging (CXR, CT) Chest Xray (date):

Chest CT (date):

T-spot: Sputum: AFB #1 - date/time/resu AFB #2 -AFB #3 -PCR -BAL (date): AFB -

Cultures: Pathology

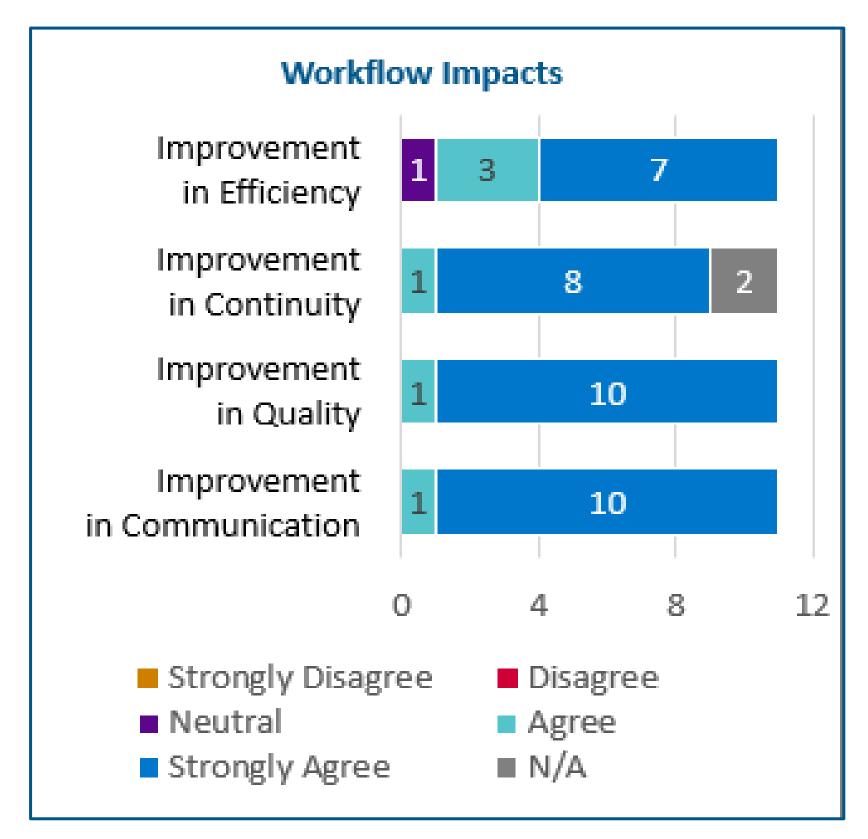
> IC notifies responding clinician of Case

The Infection Case remains a part of the nt chart and all IC team members have access to view and update at any time

Results • The mean time spent by 9 IPs creating each case abstraction was 24 minutes. 33% of case abstractions required 1 follow up with a mean follow-up time of 8 minutes. 9 out of 9 IPs completing the survey reported agreement or strong agreement that the template positively impacted their workflow related to communication, quality, continuity, and efficiency (Figure 4). 2 out of 2 IC physician leaders reported agreement or

strong agreement to improvements in communication, quality, and continuity (Figure 4).

Figure 4: Survey Results



Conclusion

The use of a standardized template to review patients undergoing evaluation for active TB resulted in:

- improvement in content quality
- improved IP efficiency and continuity of workflows
- more effective intradepartmental communication between IPs and IC leadership