Screening for Latent TB among Migrants in Italy

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Conflict of interest
In the last year I have been a consultant or I presented talks for:
Janssen
Qiagen
Quidel

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LTBI definition from a pragmatic point of view

Agenda
1. The rationale for Italy to screen for latent TB in migrants
2. Address the choice of diagnostic test/algorith, latent TB therapy, and linkage to care processes in place to ensure screening uptake and treatment completion.
Screening for LTBI in adult migrants in Italy

The TST offer is recommended or, alternatively, the IGRA test (in cases of previous vaccination) to all asymptomatic subjects from high TB endemic countries (estimates of incidence of TB>100/100,000), guests at reception centers with a stay of at least 6 months. (NICE 2016; HPSC 2015; WHO 2015; PHA 2014; Sanneh et al. 2014; Pottie et al. 2011; Ministero del Lavoro, della Salute e delle Politiche Sociali 2010) Grade A

Screening for LTBI in children migrants in Italy

Screening must be performed using TST in children <5 years of age. (ASID, RHeaNA 2016; NCEZID / CDC 2012) Grade A

In those TST+ and/or IGRA positive: chest xRay procedures in migrants in Italy

TST positive subjects (diameter ≥10mm) or IGRA must undergo X-ray radiography chest (and any further diagnostic tests) to exclude active tuberculosis. The diameter ≥5mm is considered clinically significant in cases of severe malnutrition and HIV seropositivity. (ASID, RHeaNA 2016; NCEZID / CDC 2012; Ministry of Labor, Health and Social Policies 2010) Grade A

Treatment for LTBI in adult migrants in Italy

Treatment for latent tuberculosis infection should be offered to all TST-positive or IGRA-positive individuals with a chest X-ray negative for active TB lesions, to prevent new cases of illness. (ASID, RHeaNA 2016; PHA 2014) Grade A

Agenda

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2. Address the choice of diagnostic test/algorithm, latent TB therapy, and linkage to care processes in place to ensure screening uptake and treatment completion.
TB incidence and QFT-IT positivity by country of origin

Barcellini et al, IJTLID, 2018 in press

What is E-DETECT TB about?

“A practical programme of translational research”

It brings partners together, share their experiences and exploit new technologies and advances in knowledge to TB control.

Main message...

The application of Italian National Guideline which recommend screening for LTBI in migrants from countries with a TB incidence more than 100 per 100,000 persons-year would leave undiagnosed and at risk of reactivation about the 30% of our population.

A research approach

Asylum seekers arrive in Brescia

Province of Brescia
Early detection and integrated management of tuberculosis in Europe: E-detect TB

Work-package 5: To reduce the TB prevalence in asylum seekers at their first arrival on Italian coasts by early TB detection (active TB and LTBI)

To develop and implement a digital recording and reporting system on TB and LTBI screening activities among asylum seekers in the province of Brescia to measure:
- Indicators of performance
- Indicators of impact

Screening and treatment of the infection

Testing strategy
- IGRA, TST, or sequential IGRA after TST

Treatment regimens
- Isoniazid daily for 6 months,

Brescia: screening for LTBI in a replacement area. Results of a retrospective analysis 2015-2016

LTBI screening is offered at a first site, and screening positive individuals are referred to a second site for chest X-ray.

LTBI screening was based on the administration of the tuberculin skin test (TST), with 5 IU of PPD

TST was considered positive with induration of >10 mm

Individuals with positive TST and no radiological abnormalities were considered and eventually offered preventive therapy (INH 6Mo).

Additional investigation are conducted on a third site

Brescia: screening for LTBI in a replacement area. Results of a prospective analysis 2018

LTBI screening (TST) performed at a centralized site and asylum seekers are asked to return for reading.

Those with positive TST are immediately tested with IGRA and checked with Chest X-ray at the same site.

Those with a positive IGRA and negative chest X-ray are considered and eventually offered preventive therapy (INH 6Mo).

Results (data censoring May 2017)

144 asylum seekers tested

141 completed the screening process

- Screening pick-up from 49% to 98% (100%)

Of 41 eligible asylum seekers 36 initiated treatment

- Treatment initiation rate from 48% to 88% (83%)
WP5 - Key achievements to date

- LTBI screening and treatment uptake initially affected by significant losses, mainly attributable to the fragmentation of health care services coupled with the absence of a recording and reporting system
- The health services structure should be modified in order to achieve high screening completion rate and treatment initiation rate

Conclusion

- Declining TB incidence determines concentration of the disease in hard-to-reach populations eliciting innovative prevention and management strategies
- Political commitment declines requiring persistent efforts to keep TB on the political agenda
- The E-DETECT project combines:
  - Efforts from most robust research and public health institutions in Europe
  - Translational research in the area of new tools (WP4, WP5) with implementation research in public health interventions (WP4, WP5, WP6)
  - Impact on policymakers at national and regional levels (WP7)

GRAZIE!

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