

Increasing tuberculosis case detection and reducing gender disparities through sputum submission instructions: a randomised controlled trial in Pakistan

Submission date

13/09/2005

Recruitment status

No longer recruiting

☐ Prospectively registered

☐ Protocol

Registration date

03/11/2005

Overall study status

Completed

☐ Statistical analysis plan

☒ Results

Last Edited

06/07/2007

Condition category

Infections and Infestations

☐ Individual participant data

Plain English summary of protocol

Not provided at time of registration

Contact information

Type(s)

Scientific

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Additional identifiers

Protocol serial number

N/A

Study information

Scientific Title

Study objectives

Giving women instructions on how to provide sputum samples will increase the yield of smear positive tuberculosis diagnoses in a chest clinic.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Not provided at time of registration

Study design

Randomised controlled trial

Primary study design

Interventional

Study type(s)

Diagnostic

Health condition(s) or problem(s) studied

Tuberculosis

Interventions

Patients in the intervention arm were referred to a designated room at the TB centre where they received guidance from a female health worker who was trained by the researcher and a senior TB control officer to provide sputum submission instructions. The female health worker was not involved in recruitment or randomisation. The following points were explained in detail to patients:

1. The importance of submitting sputum rather than saliva, and a description of visual difference between the two
2. The technique that should be used to produce a good sputum specimen (take three deep breaths, followed by a deep cough to bring up sputum from your lungs)
3. The necessity of filling at least one-quarter of the container (5 ml), shown by pointing out the required level on a demonstration container
4. The importance of providing one spot specimen and returning the next day with another specimen which has been expectorated on awakening that morning

Following instructions, which lasted between 2-3 min, patients in the intervention group were directed to the laboratory to obtain sputum submission containers.

Control group: usual procedure

Intervention Type

Other

Phase

Not Specified

Primary outcome(s)

The primary outcome measure was specimen smear-positivity.

Key secondary outcome(s)

The secondary outcome, specimen quality, was determined by visual assessment of specimens and microscopic assessment of Ziehl-Neelsen (ZN) stained smears, using a modification of the rating system of Bartlett.

Specimens with a purulent/mucoid/blood-stained visual appearance and/or containing polymorphonuclear neutrophils (PMNs) on microscopic inspection were designated sputum.

Specimens with a clear/watery appearance containing squamous epithelial cells, but no PMNs were designated saliva.

Completion date

01/09/2005

Eligibility**Key inclusion criteria**

New male and female tuberculosis (TB) suspects, who were referred by TB centre physicians for initial diagnostic sputum testing, were eligible to participate in the trial. According to the National Tuberculosis Control programme guidelines, the criteria for enrolment were:

1. History of a cough for >3 weeks and/or fever for 1 month
2. Blood in sputum
3. Night sweats
4. Weight loss
5. Loss of appetite

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

All

Key exclusion criteria

1. Age over 75 or below 14 years
2. History of TB diagnosis or treatment
3. Intake of oral steroids in the 3 months leading up to presentation

Date of first enrolment

01/07/2005

Date of final enrolment

01/09/2005

Locations**Countries of recruitment**

United Kingdom

England

Pakistan

Study participating centre

Keppel Street

London

United Kingdom

WC1E 7HT

Sponsor information

Organisation

London School of Hygiene and Tropical Medicine (UK)

ROR

<https://ror.org/00a0jsq62>

Funder(s)

Funder type

Government

Funder Name

Department for International Development (DFID) (UK) - Knowledge Programme on Tuberculosis

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration

Study outputs

| Output type | Details | Date created | Date added | Peer reviewed? | Patient-facing? |
|---------------------------------|---------|--------------|------------|----------------|-----------------|
| Results article | Results | 09/06/2007 | | Yes | No |