

Management and control of tuberculosis control in socially complex groups: a research programme including three RCTs

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Declared competing interests of authors: Alistair Story leads the Find&Treat service that manages the video-observed treatment. Peter White reports grants from the Medical Research Council and NIHR during the conduct of the study and grants from Otsuka Pharmaceutical Co., Ltd (Tokyo, Japan) outside the submitted work. Richard Garfein established SureAdhere Mobile Technology, Inc. (San Diego, CA, USA), which provides a smartphone application for video-observed treatment. Ibrahim Abubakar is a member of the Health Technology Assessment Commissioning Board (2017 to present).

Published October 2020

DOI: 10.3310/pgfar08090

Plain English summary

Tuberculosis control in socially complex groups

Programme Grants for Applied Research 2020; Vol. 8: No. 9

DOI: 10.3310/pgfar08090

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Plain English summary

Tuberculosis is a serious infection spread by breathing. When people are infected, tuberculosis can lie dormant (latent infection). Treating latent infection can prevent active disease from ever developing. Active tuberculosis often affects the lungs, and signs of this can be seen on a chest radiograph. Microbiology tests can identify tuberculosis in phlegm to confirm the diagnosis. Tuberculosis treatment takes at least 6 months. Failing to take treatment consistently leads to poor outcomes and the spread of disease to others. Directly observed treatment (where a health-care worker observes each dose being taken) is used to support patients who have difficulty taking treatment. People experiencing homelessness, prisoners and drug users are at a high risk of tuberculosis infection, are often diagnosed late and often find it difficult to take treatment regularly.

We studied how tuberculosis can best be diagnosed and treated in these groups. In the group studied, 17% of people experiencing homelessness and 13% of prisoners had latent tuberculosis infection and could benefit from testing and treatment to prevent active tuberculosis. This would be good value for money. In addition, 10% of people experiencing homelessness and 4% of prisoners were infected with hepatitis C but very few were being treated. Radiographic screening was very difficult for prisons to organise. Even with additional investment, a prison screened only 43% of eligible prisoners. People with experience of homelessness were no better or worse than NHS staff at persuading people experiencing homelessness in hostels to be screened for tuberculosis. We introduced a mobile microbiology diagnostic laboratory alongside mobile radiographic screening of people experiencing homelessness; however, it was not possible to conduct a trial of its effectiveness in this setting. Video-observed treatment, in which patients have their treatment observed using a smartphone application (app), was more effective than face-to-face, directly observed treatment. It was also cheaper and preferred by patients.

Programme Grants for Applied Research

ISSN 2050-4322 (Print)

ISSN 2050-4330 (Online)

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Editorial contact: journals.library@nihr.ac.uk

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This report

The research reported in this issue of the journal was funded by PGfAR as project number RP-PG-0407-10340. The contractual start date was in September 2008. The final report began editorial review in September 2018 and was accepted for publication in January 2020. As the funder, the PGfAR programme agreed the research questions and study designs in advance with the investigators. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The PGfAR editors and production house have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the final report document. However, they do not accept liability for damages or losses arising from material published in this report.

This report presents independent research funded by the National Institute for Health Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, CCF, NETSCC, PGfAR or the Department of Health and Social Care. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, NETSCC, the PGfAR programme or the Department of Health and Social Care.

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