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Letter to the Editor

Impact of COVID-19 on NHS tuberculosis services: Results of a UK-wide survey

Dear Editor,

Xu et al. report in this journal the detrimental impact of COVID-19 on tuberculosis (TB) notifications in mainland China. They hypothesize that lockdown directives, including restricted access to hospitals, resulted in reduced opportunities for TB diagnosis.¹

As in other countries since the start of the COVID-19 pandemic, the UK National Health Service (NHS) has experienced unparalleled demand to manage waves of SARS-CoV-2 infection whilst attempting to maintain other services. Due to their key public health importance, TB services were directed to remain operational throughout.²

As members of the British Thoracic Society TB Specialist Advisory Group (BTS TB SAG—a multidisciplinary group working in TB from across the UK), we conducted an online survey looking at the effects of the first waves of the pandemic on UK TB services. This was sent via email to all identified TB service leads in the UK in autumn of 2021, with 274 distributed. Responses were received from 72 sites, covering all English regions and the devolved nations, representing both high and low TB incidence areas.

Eighty-three percent of responding TB services reported being adversely affected by COVID-19, with TB infection management most impacted. Almost two-thirds reported disruption to immediate contact tracing, with over 85% facing disruption to other latent TB (LTBI) activity. Face-to-face activity was also significantly impacted, with 68% describing this as moderately or greatly affected. Staff redeployment was experienced by nearly 70% of services. Laboratory support was the least impacted area (Fig. 1). Services reporting themselves to be 'not affected' tended to be based in areas of the UK with low TB incidence.

As of August 2021, 48% of TB services were fully restored to pre-pandemic levels. Thirty-six percent were partially restored with full restoration planned, with 16% partially restored and unlikely to be fully restored. Free text comments highlighted significant ongoing issues with medication supply and staff redeployment plus a backlog of LTBI cases.

Thirty-two percent of respondents thought that changes due to COVID-19 had resulted in long-term detrimental effects. Services reported a loss of clinical space during the pandemic with difficulties in regaining or replacing this and a reduction in staffing numbers, in particular nursing staff. Increased workload was a concern, with staff fatigue and risk of burnout highlighted. Delays in both patients presenting to healthcare and subsequent onward referral to TB services were reported.

Some changes were noted as potential positive effects. Many planned to continue utilizing telephone consultations and video observed therapy (VOT). Around a quarter planned to continue

enhanced pharmacy services, including home delivery of medications. Upskilling of nursing staff (adaptive roles) enabled clinics to run with less frequent physician input (Fig. 2).

This survey highlights the substantial and ongoing impact of COVID-19 on UK TB services. The majority of respondents reported significant disruption, with nearly a third anticipating long-term detrimental changes to their local service. Reductions in staffing levels and loss of clinic space were common negative impacts. Treatment of active TB disease was prioritized but preventative activities, including contact tracing and LTBI treatment, were badly affected. The risk of staff burnout when expected to fill TB and COVID-19 related roles or take on the workload of redeployed colleagues was highlighted.

Our results align with the 2021 UK Health Security Agency (UKHSA) data on TB control in England, which reported a significant reduction in LTBI treatment and also saw a fall in TB case notifications in England in 2020, with 4125 notifications compared to 4725 in the previous year.³ Although TB incidence has been declining in the UK, this abrupt fall is unlikely to reflect a true reduction in TB disease. As Xu et al. highlight, delays in identification of those with TB is concerning. Individually, this may lead to more advanced disease at presentation. On a public health level, delays in initiating treatment may result in increased TB transmission. Both were reported within this survey, emphasizing the crucial importance of maintaining TB services to ensure personal and public health. The recovery of TB services is the first priority of the UKHSA TB Action Plan for 2021–26.⁴

New ways of working and a greater use of remote consultations and treatment monitoring were reported as positive changes. Many felt that these would be maintained as they enhanced pre-existing practice. The crucial role of TB specialist nurses was highlighted, including the positive impact of upskilling nursing staff to run clinics more independently. Adequate support and funding are needed for this to continue and should be considered when future services are developed and commissioned.

There were disparities across the UK in the availability of key TB drugs and formulations during this period, which need to be addressed.⁵ Questions about disruption to drug supply were not explicitly asked in this survey, but free text responses have made it clear that this was of great concern to many. The maintenance of a reliable TB drug supply is crucial to treatment completion and warrants more attention at a national level.

Communications from national health bodies to local TB services across the UK were inconsistent during the pandemic. This survey was circulated through BTS and British Infection Association channels but it is uncertain if all TB services were reached, highlighting potential communication gaps. The BTS maintains a list of TB service leads, which should be regularly updated to ensure that information can be rapidly and consistently disseminated during a crisis.

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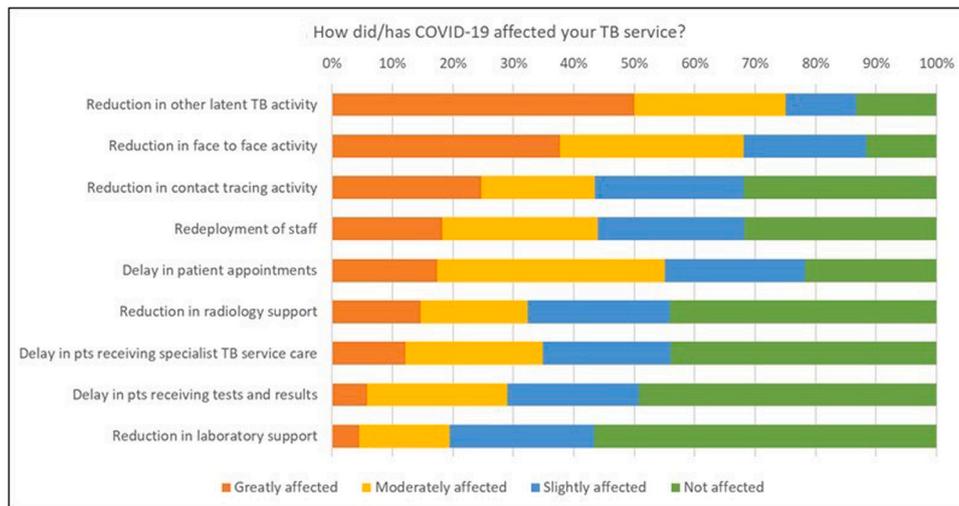


Fig. 1. Breakdown of activities affected by COVID-19, by percent of UK TB services. Pts = patients.

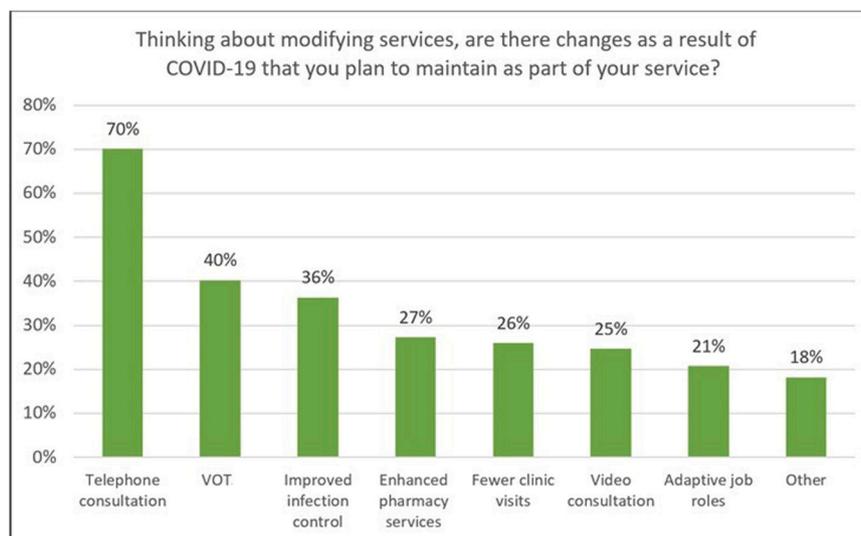


Fig. 2. Planned retention of changes resulting from COVID-19 by percent of TB services. VOT = Video Observed Therapy. Other category responses included increased support for patients in the community rather than in secondary care, better use of IT for virtual multidisciplinary team (MDT) meetings and closer working with other services, such as hepatitis screening services and combined infectious disease/respiratory TB clinics.

Based on themes identified, we highlight several key findings, which may be used to inform future planning to maintain and strengthen UK TB services.

Key survey findings

- Functioning TB services are a public health priority and maintaining them should be included in healthcare planning for resilience during emergency situations.
- To ensure effective communication between central bodies and local services, a comprehensive list of TB services and their leads needs to be maintained.
- The UK Joint Tuberculosis Committee and British Thoracic Society have key roles in providing UK leadership and communication with TB service providers.
- Digital infrastructure that enables remote consultations and mechanisms which ensure a consistent supply of drugs to patients can mitigate disruption of face-to-face services.

- TB services have a capable and resilient workforce who can respond to unforeseen challenges. It is important to ensure that the value of this important NHS asset continues to be recognized.

Overall, these results document the considerable disruption experienced even by services directed to continue during the pandemic. Strategies to maintain TB services must be included in healthcare planning for resilience during future emergency situations, and the momentum to achieve this must not be lost.

CRedit authorship contribution statement

JB, MD, HM, FP and MLI wrote the article. MD, MLI, HM, SP, FP RW and MLo designed and created the survey. MS, MD, FP and MLI collated the data and performed initial analysis. All authors critically reviewed and approved the final report.

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Conflicts of interest

None.

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Hazel Morrison *

Centre for Clinical Vaccinology and Tropical Medicine, Jenner Vaccine Trials, Churchill Hospital, Oxford, UK

Felicity Perrin

Department of Respiratory Medicine, King's College Hospital NHS Foundation Trust, Denmark Hill, London, UK

Martin Dedicoat

Department of Infectious Diseases, University Hospitals Birmingham, Birmingham UK & TB Unit, UKHSA, 61 Colindale Avenue, London, UK

Rizwan Ahmed

Department of Respiratory Medicine, Royal Bolton Hospital, Farnworth, Bolton, UK

James Brown

Department of Respiratory Medicine, Royal Free London NHS Foundation Trust, Royal Free Hospital, Pond Road, London, UK

Maria Loughenbury

British Thoracic Society, 17 Doughty Street, London, UK

Suman Paul

Department of Respiratory Medicine, Liverpool University Hospitals NHS Foundation Trust, Royal Liverpool University Hospital, Mount Vernon Street, Liverpool, UK

Miguel Souto

British Thoracic Society, 17 Doughty Street, London, UK

Richard Ward

Department of Respiratory Medicine, Homerton University Hospital, Homerton Row, London, UK

Marc Lipman

Faculty of Medical Sciences, University College London, Gower St, London, UK

Department of Respiratory Medicine, Royal Free London NHS Foundation Trust, Royal Free Hospital, Pond Road, London, UK

*Corresponding author.

E-mail addresses: hazelmorrison@doctors.org.uk (H. Morrison),

felicity.perrin@nhs.net (F. Perrin),

martin.dedicoat1@nhs.net (M. Dedicoat),

rizwanyahya@hotmail.com (R. Ahmed),

james.brown13@nhs.net (J. Brown),

Maria.Loughenbury@brit-thoracic.org.uk (M. Loughenbury),

suman_paul86@yahoo.co.in (S. Paul),

Miguel.Souto@brit-thoracic.org.uk (M. Souto),

richardward3@nhs.net (R. Ward), marclipman@nhs.net (M. Lipman).