

# What guidelines say and what actually happens

## A survey of UK physiotherapy practice in the management of non-tuberculous mycobacterial pulmonary disease

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### OBJECTIVES

Physiotherapy review, advice on sputum clearance, sputum surveillance and lifestyle management are guideline-recommended approaches to managing non-tuberculous mycobacterial pulmonary infection and disease (NTM). Despite this, a recent national survey<sup>1</sup> found that less than 50% of clinicians managing NTM had access to physiotherapy services.

There are no UK data on clinical physiotherapy practices for patients with NTM. The NTM Network UK Physiotherapy Interest Group wanted to better understand:

1. the current physiotherapy management of people with NTM respiratory infection and disease
2. why the recommendations for physiotherapy in NTM guidelines are not being met by >50% of services.

<sup>1</sup>November 2021. *Thorax* 76(Suppl 2):A81.1-A81

### METHODOLOGY

A physiotherapy-specific national survey was developed and distributed by the NTM Network UK Physiotherapy Interest Group via the Associations of Chartered Physiotherapists in Cystic Fibrosis (ACPCF) and Respiratory Care (ACPRC) to respiratory physiotherapists with involvement in the care of children and/or adults with NTM. The survey was open February – April 2022.

We specifically asked about physiotherapy involvement in the NTM care pathway, including:

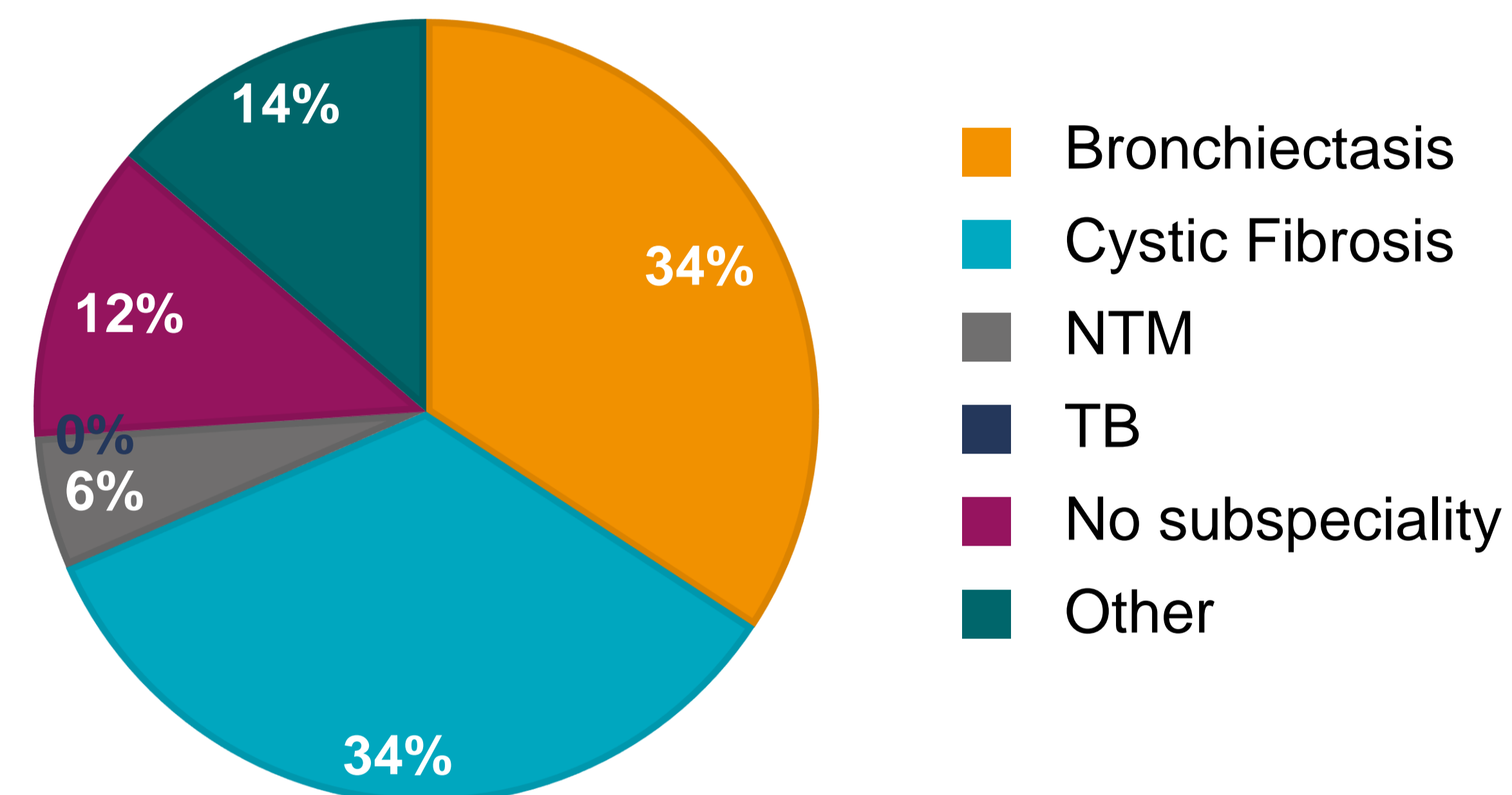
- referrals to physiotherapy
- airway clearance provision/advice
- sputum microbiology surveillance
- current physiotherapy patient management



### RESULTS

Of 53 responses, 80% were from University hospitals or Cystic Fibrosis (CF) units and 20% from District General hospitals. Two-thirds of respondents treated adults, and almost half had a sub-speciality interest in bronchiectasis or CF (Figure 1).

Figure 1. What is your sub-speciality?

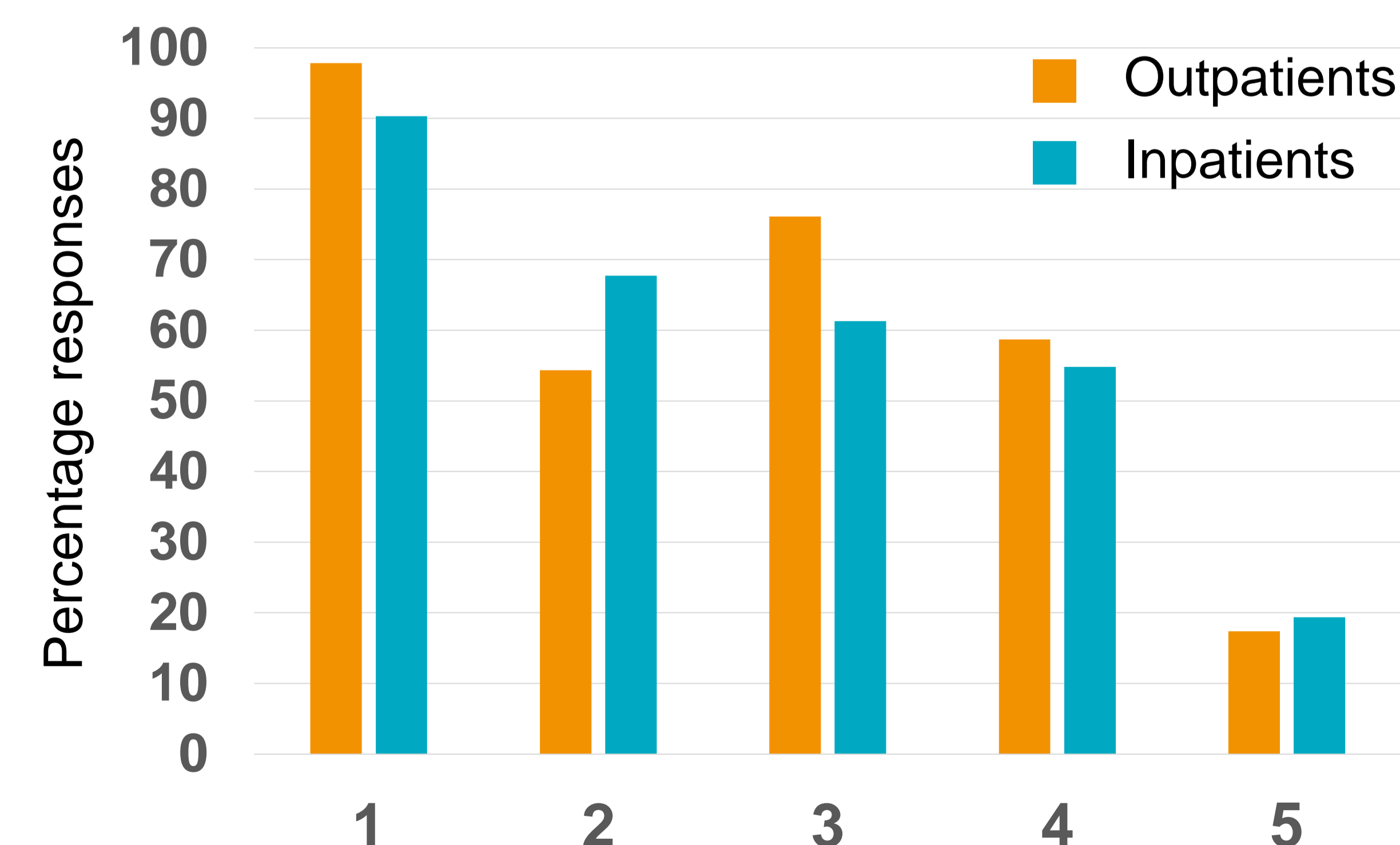


One third of new patients and 40% of established NTM diagnoses had no routine outpatient physiotherapy review

When it did take place, it was scheduled:

- Every 1–3 months for around 40% of new NTM patients (defined as NTM identified <6 months ago)
- For established NTM patients, every 1–3 months in most cases (with annual review as a minimum)

Figure 2: Why are patients with NTM respiratory infection referred for physiotherapy?



1 For treatment related to sputum clearance  
2 For treatment related to mobility/exercise  
3 For nebuliser trials  
4 Sputum Induction  
5 Other

62% of inpatients and 82% of outpatients were referred to physiotherapy services by medical staff; with nursing & ward staff including allied health professionals responsible for up to 35% of referrals.

Indications for physiotherapy referral are shown in Figure 2.

**Sputum surveillance** was performed routinely by 75% of respondents for both in- and out-patients, and included obtaining 2–3 mycobacterial cultures plus bacteriology.

**Airway clearance techniques** plus device provision depended on funding (>40% of survey respondents reported experiencing funding issues) and experience of the physiotherapist. Breathing techniques predominated followed by Positive Expiratory Pressure devices (PEP) or oscillatory PEP devices (OPEP).

52% of physiotherapists were involved in **nebulised antibiotic challenges** including adherence monitoring.

Where standards of care or guidelines (including for Infection Prevention & Control) were reported as available, **lifestyle and management advice** was predominantly extrapolated from CF/BTS or ERS statements. These included room ventilation, decontamination of environments, segregation practices and timing of interventions.

### CONCLUSION

UK physiotherapy service provision for people with NTM respiratory infection and disease varies widely.

Although considerable experience and patient input were reported by many respondents, this may not reflect the patterns of care where most NTM is managed, ie outside of specialist units. Funding for staff and resources, plus lack of national guidance and experience, were highlighted as barriers to service provision.

Through NTM Network UK we are developing **national quality physiotherapy standards**. These aim to support physiotherapists, promote health-care provider education, and ensure that patients with NTM can access high-quality services wherever they are managed in the UK. Additionally, we will use the standards to drive improvements in services including staffing, access to appropriate funding for equipment, opportune surveillance and review.