**Objectives:**

A number of recent reports have described clusters of *Trichophyton mentagrophytes* ITS-genotype VII (TMVII) infections among men who have sex with men (MSM) in mainland Europe1,2, with growing evidence to support the anthropophilic transmission of emerging TMVII and its spatiotemporal expansion in Europe3,4 and Unites States5. Here we report the first four cases of TMVII infection identified in the National Mycology Reference Laboratory (MRL), United Kingdom, during 2021–2025.

**Materials and Methods:**

To identify potential isolates of TMVII, we searched the MRL laboratory records for all dermatophytes referred for identification and/or antifungal susceptibility testing. Isolates suspected of being members of the *T. mentagrophytes* complex were subjected to sequencing of the entire internal transcribed spacer (ITS) regions of rDNA gene as previously described6. Confirmed isolates then underwent antifungal susceptibility testing using the CLSI broth microdilution methodology. Finally, whole-genome sequencing (WGS) was performed on the four isolates using a combination of Illumina and Oxford Nanopore technologies to enable de novo genome assembly.

**Results:**

Four isolates were definitively identified as TMVII by rDNA sequence analysis. based on their phenotypic characteristics. All isolates were collected from men (age range 27-71 years) with first detection in December 2021 in a patient from Southeast London. Three isolates were collected in London hospitals, and one was referred from Edinburgh. Where known, patients were MSM with significant past histories of diverse STIs. Lesion sites were consistent with sexual acquisition (perioral and/or perianal). All isolates displayed low minimum inhibitory concentrations (MICs) to itraconazole and terbinafine.

The results of WGS and de novo assembly, together with genome comparisons to the other recently emerged member of the *T. mentagrophytes* complex (*T. mentagrophytes* genotype VIII, now renamed as *Trichophyton indotineae*) will be presented.

**Conclusions:**

TMVII is present in the UK and is circulating in MSMs as has been described for other major cities across mainland Europe. Unlike *T. indotineae*, the UK isolates of *T. mentagrophytes* genotype VII analysed to date show *in vitro* susceptibility to terbinafine, with very low MIC values. Clonality amongst isolates of *T. indotineae* and TMVII is noteworthy.

**340 words**

**FIGURE 1. Phylogenetic tree of the entire ITS1-5,8S-ITS2 region of selected members of the *T. mentagrophytes* complex.** Sequences were subjected to phylogenetic analysis using the online package available at NGPhylogeny.fr (Lemoine et al., 2019). Sequences were aligned in MUSCLE, alignments and gaps curated using BMGE and phylogenies inferred using PhyML with Smart Model Selection with the final tree gene generated in Newick. The equivalent sequence from *Trichophyton quinkeanum* (KY680503) was used as outgroup for tree rooting. Scale bar represents substitutions per site.

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