

**Annual Prevalence and Treatment Estimates of Nontuberculous Mycobacterial Pulmonary Disease in Germany:
A NTM-NET Collaborative Study**

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Background: The prevalence of nontuberculous mycobacterial pulmonary disease (NTMPD) is increasing in Germany; yet, comprehensive analyses and reliable estimates on treatment practices are lacking. Chart audits were performed to evaluate treatment practices in 5 European countries including Germany. German data will be presented here.

Methods: NTMPD patients (pts) diagnosed annually was estimated by a 2-round Delphi method. A representative sample of physicians extracted treatment information from records of NTMPD pts with a confirmed diagnosis of *Mycobacterium avium* complex (MAC) or *M. abscessus* pulmonary disease.

Results: NTMPD estimated annual prevalence in Germany is 6.5/100,000 with a higher prevalence rate in eastern compared to southern Germany (8.2 vs. 3.9/100,000), resulting in an estimate of >5300 pts/year diagnosed with NTMPD in Germany. Chart audits were performed for 211 NTMPD pts, 80% of which were caused by MAC. Diagnosing physicians were mostly pneumologists (37%) and specialists in internal medicine (35%); the treatment regimen were managed by pneumologists (49%), specialists in internal medicine (36%), and infectious disease specialists (32%). 63% (n=132) of the pts were treated at the time of the survey (Oct. 2013), mostly with oral antibiotics (80%). Pts in Germany were more likely to be treated as compared to French pts (logistic regression analysis; odds ratio 2.7). 93% (n=123) of treated pts with NTMPD were patients with MACPD, only 4% (n=5) of these were treated with a 3-drug macrolide regimen for ≥ 6 months.

Conclusions: In Germany, the number of pts diagnosed with NTMPD is estimated to be higher than those diagnosed with tuberculosis (n=4220 in 2012), with large regional differences. German NTMPD pts are diagnosed and treated mostly by pneumologists, however only a small minority is treated according to established guidelines. Critical gaps in appropriate treatment practices need to be addressed in the future, for example by the requirement to treat NTMPD pts by specialist physician groups constituted of an infectious disease specialist, a pneumologist, and a specialist in microbiology (plus/minus a pediatrician) as planned for the outpatient treatment of pts with tuberculosis and other mycobacteria by the Federal Joint Committee (G-BA) in Germany. Surveillance data are important to confirm these prevalence estimates, to monitor treatment outcome and to plan prospective treatment trials.