Abstract Group: 10.1. Respiratory Infections
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Title: Analysis of nontuberculous mycobacteriosis deaths in official statistics, 1970-2010, and a recent clinical cohort study for the estimation of prevalence rate in Japan

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Body: Background: Pulmonary nontuberculous mycobacteriosis (pNTM) has been reported to increase in recent decades, but only a few papers have demonstrated the actual mortality rate and its yearly trend during a long time span. Objectives: To clarify the yearly trend of NTM mortality and to estimate the prevalence rate of pNTM disease in Japan, present studies are conducted. Methods: The yearly death numbers and regional distribution of NTM deaths in Japan were studied using the yearly published Vital Statistics. The crude and age-adjusted mortality rates were calculated from the same data with a use of the Census. A 5-year follow up study on 309 pNTM patients, visited and registered at our institute from 2004 to 2006, was conducted to obtain 5 year’s prognosis with an annual death rate. Results: Three NTM disease deaths were reported for the first time in 1970 and thereafter showed a marked increase until 2010 (1121) with female predominance. The crude death rates of both genders have been constantly increasing since 1970, and females were predominated than males in recent years. The age-adjusted rates for both genders also showed a gradual increase until 2010. Analysis on the regional difference revealed high crude death rates in the middle and western Japan, particularly in the southern coast regions along the Pacific Ocean. From a clinical follow up study, pNTM-caused mortality rate was found to be nearly 1-2 % annually. The prevalence rate of pNTM was estimated to be 33-65 per 100,000 in 2005. Conclusions: A constant and steady increase of NTM deaths in Japan with particular geographical distribution is apparent.