

**00439 Factors Associated With Recurrent Admissions for Bronchiectasis Exacerbation in Asians**

Sandra Hui<sup>1</sup>, Isaac Fong<sup>2</sup>, Low Teck Boon<sup>3</sup>, Anthony Yip<sup>3</sup>

<sup>1</sup>Singapore General Hospital, <sup>2</sup>SingHealth, <sup>3</sup>Changi General Hospital

**Aims:** Few data exist on risk factors for bronchiectasis exacerbations in Asia, where disease burden is high. The aim of the study is to elucidate the risk factors for recurrent hospital admission due to exacerbation in a cohort of Singaporean bronchiectasis patients.

**Methodology:** Longitudinal observational study of patients presenting to Changi General Hospital Singapore between 2010-2017 with exacerbation of bronchiectasis. The rate of subsequent admissions for exacerbation was tracked over the study period and modelled using Poisson regression.

**Result:** 148 patients were followed up for a median of 21 mo (interquartile range 11-40 mo). Age at first admission was 63±9y, 84 (56.8%) were male. The most common aetiologies of bronchiectasis were idiopathic (61.4%) and post-tuberculosis (TB) (30.1%). Factors associated with increased rate of subsequent admissions for exacerbation were greater no. of affected lobes (rate ratio [RR]: 1.7, 95% confidence interval [CI]: 1.2-2.4, p=0.002), presence of *Pseudomonas* (RR: 10.5, 95% CI: 5.7-19.5, p=0.008), *Klebsiella* (RR: 1.8, 95% CI: 1.01-3.3, p=0.044) or viruses (RR: 2.7, 95% CI: 1.1-6.3, p=0.025) in respiratory specimens, and previous TB (RR: 2.6, 95% CI: 1.01-6.6, p=0.048). Age, FEV<sub>1</sub>, mMRC breathlessness score were not associated with frequent admissions. In multivariate analysis, presence of *Pseudomonas* in respiratory specimens was independently associated with readmission (RR: 4.3, 95% CI: 1.7-10.8, p=0.002).

**Conclusion:** No. of affected lobes, previous TB, and presence of *Klebsiella*, *Pseudomonas* or viruses in respiratory specimens were associated with increased risk of recurrent hospitalization for bronchiectasis exacerbations in this cohort of Asian bronchiectasis patients.