

### 3.10 Return of the MAC ! A retrospective review of recurrent *Mycobacterium avium* complex infection over 16 years in St James Hospital.

Kate Hinchion<sup>1</sup>, Aaron Walsh<sup>2</sup>, Margaret Fitzgibbon<sup>3</sup>, Emma Roycroft<sup>3</sup>, Anne Marie McLaughlin<sup>1</sup>, Laura Gleeson<sup>1,2</sup>

<sup>1</sup>Respiratory Department, St James's Hospital, Dublin, Ireland. <sup>2</sup>School of Medicine, Trinity College, Dublin, Ireland. <sup>3</sup>Irish Mycobacterial Reference Laboratory, St James's Hospital, Dublin, Ireland

**Background:** *Mycobacterium avium* complex (MAC) infection is clinically challenging. Treatment involves multiple drugs administered for prolonged duration. When treated, culture conversion rate is 60%, and recurrence rate 50%. We reviewed recurrent MAC cases over 16 years. **Methods:** Irish Mycobacterial Reference Laboratory (IMRL) records were used to identify patients from whom at least two MAC isolates were cultured from January 2007 to December 2022, and chart review conducted for 20 patients. **Results:** 901 MAC isolates were identified. 551 isolates were from 138 patients with at least two recurrent isolates, of whom 37 attended SJH. Of 20 patients randomly selected, 14 (70%) were female with median age 61.6. 4/20 (20%) had a co-existent HIV diagnosis (all male). Of 16 non-HIV cases (14 female), 13 (81%) had underlying bronchiectasis with average FACED score 3. 13/20 (65%) received MAC-specific therapy, of whom 7 (54%) achieved initial culture conversion. Treatment was stopped prematurely in 5 (38%) due to adverse effects. At the time of recurrent positive isolate, 15/20 (75%) had persistent infection; 5/20 (25%) had symptomatic relapse. **Conclusion:** A third of recurrent isolates occurred after initial culture conversion, but recurrent culture positivity did not correlate with symptomatic relapse in the majority. **Conflict of Interest:** The author declares that they have no conflict of interest.