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| **Variability in bronchoscopy for immunocompromised patients** |
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| **Introduction/Aim:** Pulmonary infection is a leading cause of morbidity and mortality in immunocompromised patients. Bronchoscopy is commonly used in the assessment of this but there remains a lack of evidence on how best to optimise diagnostic yield and the impact on clinical outcomes, leading to significant variation in clinical practice. This study aims to identify variability in bronchoscopy for immunocompromised inpatients in a Victorian tertiary center. **Methods:** An audit was done of all inpatients at Monash Health who underwent bronchoscopy for suspected pulmonary infection between January 2022 and December 2022. Data was collected retrospectively from electronic medical records. The immunocompromised cohort was further evaluated for referral source, timing, infectious disease consultation, antibiotic use, diagnostic yield, complications, and change in clinical management. **Results:** In total 73 standard inpatient bronchoscopies were conducted at Monash Health in 2022. 27% (n=20) were immunocompromised patients of which 65% (n=13) had hematological malignancy, 15% (n=3) were on biologic immunomodulator therapy, 10% (n=2) were on systemic chemotherapy, and 10% (n=2) had previously received a solid organ transplant. Main source of referral was from Haematology (65%, n=12). Infectious diseases were consulted in 85% of cases (n=17) and 90% of patients (n=18) were already on antibiotics peri-procedurally. Median time from referral to procedure was 2 days. Only 1 case had complications of worsening hypoxia and hypotension. 40% of procedures yielded a positive result (n=8). Bronchoscopy convincingly led to a change in management in 55% of cases (n=11) that involved consolidating anti-microbial plans, commencing steroids for inflammatory causes, and removing culprit drugs.**Conclusion:** There is significant variability in bronchoscopy for immunocompromised patients, reflected by a lack of evidence-based guidelines. More robust data is required to determine the clinical utility and how best to optimise diagnostic yield, particularly with regards to procedural timing and sample collection. **Grant Support:** Nil |

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