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| **Malignant pleural effusions: gestalt, yield and outcome** |
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| **Introduction/Aim:** Malignant pleural effusions (MPE) upstages most solid organ malignancies, however the diagnostic yield from suspected MPEs is variable and affected by tumour type, clinical conditions and cytologist experience. Furthermore the recently developed LENT and PROMISE scores have been show to predicted survival in patients with malignant effusions. We investigated the diagnostic yield of a cohort of patients with suspected MPEs to assess local yield and calculated both the LENT and PROMISE scores to get local data regarding applicability.**Methods:** Retrospective cohort study using records obtained from a tertiary public hospital pathology laboratory for all pleural fluid specimens between 01 August 2018 and 22 September 2023. Individual charts were examined to collect demographic, diagnostic and clinical data. Where MPE was identified the LENT and PROMISE scores were calculated.**Results:** 148 pleural fluid samples from 135 patients were analysed in the time period. 48 patients had a high clinical suspicion for malignancy, with 36/48 (75%) patients ultimately diagnosed with malignancy. 19/37 (51%) had malignant cells identified in the pleural fluid at the time of aspirate, and 3/37 (8%) had malignant cells as an unexpected finding. 36/37 and 23/37 patients had sufficient data for LENT and PROMISE score calculation respectively.

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| **LENT**  | **n** | **Actual (expected) median survival** | **PROMISE (clinical)** | **n** | **Actual (expected) 3 month mortality** |
| 0-1 | 1 | 912 (319) days | 0-20 | 7 | 14% (<25%) |
| 2-4 | 21 | 175 (130) days | 21-27 | 8 | 50% (25-50%) |
| 5-7 | 14 | 23 (44) days | 28-35 | 5 | 60% (50-75%) |
|  |  |  | >35 | 1 | 100% (>75%) |

**Conclusion:** Clinician gestalt for a malignant effusion is high, with 75% of patients whose effusion was expected to be malignant subsequently being demonstrated. Of all patients with malignancy, approximately 50% of those with effusions had malignant cells on examination. Whilst we are limited by small numbers, the accuracy of both the LENT and PROMISE scores appear applicable to our health district. **Grant Support: NIL** |

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