despite having potentially curative disease. A spotlight audit suggested a third of these chose not to have treatment, however the reasons behind this are unclear.\(^1\)

**Methods** We performed a mixed methods study to identify reasons people may decline treatment. People with early-stage NSCLC who refused surgery or radical radiotherapy and lung cancer healthcare professionals (HCPs) were interviewed. Results were analysed using the Framework method. Additionally, analyses of medical records for people with stage I-II, performance status (PS) 0–2 NSCLC from 4 local hospitals between 2016–19 were performed.

**Results** 1183 people with PS 0–2, stage I-II NSCLC were identified for quantitative analysis. 50% were male; median age 73. 65% received surgery, 21% radiotherapy and 2% systemic therapy. 12% did not receive any active treatment. In 18% (24 people) this was personal choice, 37% inadequate lung function and 33% co-morbidities. Age ≥80, PS >0, FVC <80% and TLCO <80% all significantly reduced the odds for receiving surgery. Hospital location did not affect the odds.

15 HCPs were interviewed resulting in thematic saturation. HCPs felt most people were keen for any treatments available. 3 sub-themes regarding treatment refusal were identified: infrastructure and practicalities; patient beliefs; and health status. HCPs supported people to treatment by inspiring confidence, giving time between appointments, and encouraging appointments with treating clinicians. Pressure on resources and HCP education were barriers to care.

Patient recruitment was challenging with 6 people interviewed. 4 sub-themes of refusal reasons were identified: fear; negative healthcare experience (particularly cancer treatments); futility; symptoms. Participants all felt care was person-centred. Barriers to healthcare were health literacy, social isolation, and hospital parking – although transport itself was less limiting.

**Discussion** In this cohort, treatment refusal was less common than previously found. Most people were unfit for curative intent treatment, which was not adequately captured by stage and PS. Refusal reasons were individualised but suggest previous negative experience is important. Socially isolated people may benefit from increased practical and emotional support.

**REFERENCE**

1. NLCA. Spotlight audit on curative intent treatments, July 2020.

Please refer to page A288 for declarations of interest related to this abstract.

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### Abstract P10 Figure 1

Direct quotes from patient participants and healthcare professionals regarding refusal of potentially curative treatment for lung cancer

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**P11**

**THE RELATIONSHIP BETWEEN SYSTEMIC INFLAMMATION AND SURVIVAL IN GOOD PERFORMANCE STATUS IN PATIENTS WITH ADVANCED, INOPERABLE NSCLC: A COMPARISON OF COMPOSITE RATIOS AND CUMULATIVE SCORES**

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**Background** Systemic inflammation has been adversely associated with survival outcomes in patients with advanced, inoperable non-small cell lung cancer (NSCLC). The aim of the present study was to examine the relationship between systemic inflammation, defined using composite ratios and cumulative scores, and survival in good performance status (ECOG-PS 0/1) patients with advanced NSCLC receiving radiotherapy with palliative intent.

**Methods** Prospectively collected data from patients with advanced NSCLC, undergoing radiotherapy with palliative intent at our institution, between 2011–2016, was
retrospectively analysed. Pre-radiotherapy venous bloods were used to calculate composite ratios including neutrophil-lymphocyte ratio (NLR), platelet-lymphocyte ratio (PLR), lymphocyte-monocyte ratio (LMR), C-reactive protein albumin ratio (CAR) and the cumulative scores including the neutrophil-lymphocyte score (NLS), platelet-lymphocyte score (PLS), lymphocyte-monocyte score (LMS), neutrophil-platelet score (NPS) and modified Glasgow prognostic score (mGPS). The primary outcome of interest was 6-month survival. The relationships between systemic inflammatory composite ratios/ cumulative scores and 6-month survival were examined using binary logistic regression.

Results A total of 479 patients met the inclusion criteria. 48% (n=231) were male and 71% (n=338) were ≥65 years of age. 56% (n=270) patients had metastatic disease. 52% (n=251) of patients were alive at 6-months following radiotherapy. On univariate analysis, age (p<0.05), TNM stage (p<0.05), neo-adjuvant chemotherapy (p<0.05), ECOG-PS (p<0.05), NLR (p<0.001), mGPS (p<0.001), PLR (p<0.05), CAR (p<0.05), NLS (p<0.001), PL (p<0.05), LMS (p<0.001), NPS (p<0.05) and mGPS (p<0.001) were significantly associated with 6-month survival. On multivariate analysis, age (p<0.05), LMR (p<0.05) and mGPS (p<0.05) remained significantly associated with 6-month survival. In patients who were mGPS 1 and 2, LMR was significantly associated with 6-month survival (p<0.05 and p<0.05, respectively). In patients who were LMR<2.4, mGPS was significantly associated with 6-month survival (p<0.05). Conclusion mGPS and LMR would appear to have independent, prognostic value to survival in good performance status patients with advanced NSCLC. The combination of these markers further stratified survival.

Poster sessions

**P12**

**THE RELATIONSHIP BETWEEN 18F-FDG-PETCT-DERIVED TUMOUR METABOLIC ACTIVITY, TNM STAGE, SYSTEMIC INFLAMMATION, SERUM LDH AND SURVIVAL IN PATIENTS WITH ADVANCED, INOPERABLE NSCLC**

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**Background** 18F-FDG-PET CT-derived measures of the tumour metabolic activity have been adversely associated with survival outcomes in patients with non-small cell lung cancer (NSCLC). However, the relationship with TNM stage, systemic inflammation and serum lactate dehydrogenase (LDH) is unclear. Therefore, the aim of the present study was to examine the relationship between 18F-FDG-PETCT-derived tumour metabolic activity, TNM stage, systemic inflammation, serum LDH and survival in patients with advanced, inoperable NSCLC.

**Methods** Prospectively collected data from patients with advanced NSCLC, undergoing radiotherapy with palliative intent at our institution, between 2011–2016, was retrospectively analysed. PET-CT derived measures included maximum standard glucose uptake (SUVmax) and total lesion glycolysis (TLG). Systemic inflammation was defined using the neutrophil-lymphocyte ratio (NLR) and modified Glasgow prognostic score (mGPS). Serum LDH values were grouped as <250/≥250 Units/L. The primary outcome of interest was 6-month survival. Relationships were examined using the chi-square test.

**Results** A total of 114 patients met the inclusion criteria. 47% (n=54) were male and 68% (n=77) were ≥65 years of age. 37% (n=42) of patients had metastatic disease. 76% (n=87) of patients had an NLR>3 and 74% (n=84) an mGPS≥1. 40% (n=46) of patients had an LDH ≥250 Units/L. 81% (n=92) of patients had a high SUVmax and 86% (n=98) a high TLG. On univariate analysis, a high SUVmax was significantly associated with TNM stage (p<0.05), high TLG (p<0.05) and 6-month survival (p<0.05). On univariate analysis, a high TLG was significantly associated with TNM stage (p<0.05), high SUVmax (p<0.05) and 6-month survival (p<0.05). When adjusted for stage, a high SUVmax was significantly associated with a high TLG (p<0.05), mGPS (p<0.05) and 6-month survival (p<0.05). When adjusted for stage, a high TLG was significantly associated with a high SUVmax (p<0.05) and 6-month survival (p<0.05).

**Conclusion** Tumour metabolic activity, quantified using 18F-FDG-PET CT measures was significantly associated with disease stage, systemic inflammation and survival in patients with advanced NSCLC undergoing radiotherapy with palliative intent.

**P13**

**PATIENT SURVIVAL WITH MALIGNANT PLEURAL EFFUSIONS (MPE): A RETROSPECTIVE COHORT STUDY LOOKING AT LENT AND CLINICAL PROMISE SCORE CATEGORIES AND SURVIVAL**

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**Introduction** The LENT¹ and clinical PROMISE score² predict survival for patients with MPE, however the original validation studies comprised of patients treated roughly 10 years ago. With advances in cancer management, updated evidence describing survival in these patients is needed.

**Methods** This was a retrospective cohort study of patients with MPE (followed up for a minimum of 15 months or until death) managed by the pleural team at a tertiary care hospital in 2021. The LENT and clinical PROMISE scores and survival were investigated.

**Results** 110 patients were included in this study, mean age was 71.69 SD 12.83 years and 50.9% of the patients were female. Median survival was 284 (95% CI 230 – 415) days and 44.5% patients survived 12 months. Underlying malignant diagnoses included lung cancer (28.2%), mesothelioma (19%), breast cancer (16.4%), gynaecological cancer (12.7%), haematological malignancy (9%) and Gastro-Intestinal (GI) cancer (8.2%). Forty four patients (40%) received best supportive care while 57 patients (51.7%) received some form of systemic anti-cancer treatment (SACT). Patients with GI cancers had the worst survival of 29 (95% CI 1 – 145) days.

Categorisation according to LENT and clinical PROMISE score was possible for 103 and 99 patients respectively. Survival analyses showed that survival was significantly different between LENT categories high, moderate and low risk (log rank test p<0.0001) and clinical PROMISE categories A, B and C (log rank test p<0.0001). However, the survival of this cohort was better than either score predicted (figure 1a and b). Clinical PROMISE category D was excluded as this category had only one patient.