drugs involved according to the anatomical therapeutic chemical (ATC) classification, type of PI and acceptance rate. PIs were classified into seven groups: dosage adjustment, pharmacokinetic monitoring, stopping treatment, switching to equivalent therapeutic drug or pharmaceutical form, information about drug administration, duplicity and other (eg, date and time of administration).

Results A total of 430 patients were admitted to the ICU during the study period. We performed 115 PIs in 66 patients (1 intervention/3 patients admitted): 13.9% were related to dosage adjustment, 24.4% to pharmacokinetic monitoring, 12.2% to stopping treatment, 2.6% to switching to an equivalent therapeutic drug or pharmaceutical form, 16.5% to drug administration information, 18.3% to drug duplicity and 12.2% other. Regarding ATC classification, 42.6% of PIs were related to group J, 13.9% to group B, 12.2% to group H, 6.1% to groups N and C, 4.4% to groups A and R, and 10.5% to group V. The acceptance rate was 94.5%.

Conclusion and relevance The clinical pharmacist integration into the ICU enhanced pharmacotherapy optimisation of critical patients, especially through pharmacokinetic monitoring and interventions related to anti-infective drugs. The acceptance rate was >90%, which indicated a considerable concern by the ICU team.

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No conflict of interest.

4CPS-187 PROGNOSTIC VALUE OF HAEMATOLOGICAL INFLAMMATORY MARKERS IN PATIENTS WITH METASTATIC NON-SMALL CELL LUNG CANCER TREATED WITH PEMBROLIZUMAB

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Background and importance Proinflammatory status has been associated with worse outcomes in patients treated with immunotherapy.

Aim and objectives To evaluate the prognosis role of haematological inflammatory markers in patients with metastatic non-small cell lung cancer (mNSCLC) treated with pembrolizumab.

Material and methods This was an ambispective study that included mNSCLC patients with PD-L1 expression level $\geq 50\%$ treated with firstline pembrolizumab between January 2017 and June 2019. Data collected included age, gender, PD-L1 expression level, baseline Eastern Cooperative Oncology Group (ECOG) performance status (PS), baseline absolute neutrophil count (ANC), lymphocytes, leucocytes, monocytes and platelets. Neutrophil to lymphocyte ratio (NLR; ANC/lymphocyte count), lymphocyte to monocyte ratio (LMR; lymphocyte count/monocyte count) and platelet to lymphocyte ratio (PLR; platelet count/lymphocyte count) were calculated. $NLR \geq 5$, $LMR < 1.7$ and $PLR > 144\ 000$ were considered as cut-off values. We analysed response rate, progression free survival (PFS) and overall survival (OS). The Kaplan–Meier method was used to estimate PFS and OS and multivariate Cox proportional hazard modelling.

Results Forty-two patients were included (71.4% men, $n=30$) and mean age was 67 years (± 8.2). PD-L1 expression levels were $\geq 90\%$ in 31% of patients ($n=13$). Most patients had an ECOG PS of 0–1 ($n=30$). Partial response, stable disease and disease progression were recorded in 31% ($n=13$), 28.6% ($n=12$) and 19% ($n=8$), respectively. The remaining 21.4% died before response evaluation. Median PFS and OS were 5.4 months (95% CI 0–11.1) and 10.3 months (95% CI 8.9–11.7), respectively. In the multivariate analysis, $NLR \leq 5$ was identified as an independent predictor of PFS (hazard ratio (HR)=0.73; 95% CI 0.14–0.97) and OS (HR=0.16; 95% CI 0.052–0.52). ECOG performance status score of 0–1 was also significantly correlated with a higher SLP (HR=0.24; 95% CI 0.082–0.73) and SG (HR=0.20; 95% CI 0.058–0.72). $PLR \leq 144$ was only an independent predictor of PFS (HR=0.21; 95% CI 0.065–0.67).

Conclusion and relevance Baseline NLR and ECOG were correlated with PFS and OS in patients with mNSCLC treated with pembrolizumab as firstline therapy. $PLR > 144$ was also an independent predictor of PFS, but not OS. NLR might be a cost effective prognostic biomarker for firstline pembrolizumab treatment in mNSCLC patients.

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No conflict of interest.

4CPS-188 PHARMACEUTICAL INTERVENTION TO REDUCE THE ANTICHOLINERGIC BURDEN IN OLDER HOSPITALISED PATIENTS

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Background and importance Anticholinergic burden has been associated with cognitive and functional impairment, risk of falls, hospitalisations and morbidity/mortality, especially in older patients.

Aim and objectives To study the anticholinergic burden in older patients in a hospital setting and to reduce the use of drugs with anticholinergic effects (DACE) in those patients with a high anticholinergic risk (HAR).

Material and methods A cross sectional study was conducted in patients aged ≥ 65 years of age, admitted to the internal medicine department. The study was scheduled once a week for 4 weeks between August and September 2019. Patients with palliative care and readmissions were excluded. Gender, age, length of hospital stay and the number of drugs prescribed were registered. The anatomical, therapeutic and chemical (ATC) classification was used to classify drugs. Anticholinergic burden was calculated using the drug burden index (DBI) calculator (available at: <http://anticholinergicscales.es/patients>). Ophthalmic drugs and medication ‘as needed’ were not assessed. The medication plan of patients with HAR was reviewed together with their physicians in order to reduce the anticholinergic burden through reducing the dose, stopping treatment or changing the DACE.

Results Eighty-two patients (70% women, 85 ± 8 years old) were included. Median length of hospital stay and number of