(37.5%)). Bacteria causing chronic infection was *P aeruginosa* in BC (n=7;100%), and in LT, *P aeruginosa* (n=6; 75%) and *Proteus mirabilis* (n=2; 25%).

AZLI treatment duration was 20.6±14.2 months (BC) and 10.1±9.7 months (LT). Respiratory function tests during AZLI (mean values of the population) are shown in table 1.

Abstract 4CPS-033 Table 1

	Diagnosis	FVC (%)	FEV_1 (%)	FEF25–75 (%)
Baseline	BC	56.5±13.6	49.2±8.8	25.3±9.3
	LT	48.1±13.6	41.0±17.0	25.0±13.4
Mean follow-up	BC	58.0±10.1	47.1±4.0	21.4±7.3
	LT	48.6±14.5	45.2±13.9	33.5±12.7

Comparing BC with LT, a statistically significant improvement was observed in FVC (p=0.011) and FEF25–75 (p=0.005) but this was not clinically relevant. BC annual emergency admissions were 0.07 before and 0.42 during AZLI; annual rates of hospital admissions were 0.44 and 0.55, respectively. Remission data (negative results in sputum burdens) were: BC (n=2, 28.6%) and LT (n=1, 12.5%). The most commonly reported treatment emergent adverse effects (AE) were dyspnoea, bronchospasm and arthralgias in BC (n=3; 42,9%). There were no AE in LT and no deaths in either group.

Conclusion and relevance The results suggest that off-label use of AZLI in complicated chronic infected patients could control gram negative infection and neutralise sputum burdens in some cases, while maintaining lung function and decreasing accelerated clinical deterioration.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-034 IS IT POSSIBLE TO RATIONALISE ANTIBIOTIC USE AMONG HOSPITALISED PATIENTS BY CLINICAL PHARMACIST ACTIVITY?

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Background and importance Many hospitalised patients require antibiotic therapy as a result of either community acquired or nosocomial infections. The consequences of inappropriate antibiotic use carries the risk of undesirable side effects and facilitates the selection of resistant bacteria. Therefore, it is important to prioritise targeted therapy and to encourage switch therapy.

Aim and objectives We performed a pilot study with the aim of monitoring the nature of antibiotic prescribing on a ward with a gastroenterology and endocrinology profile in the First Department of Internal Medicine, Semmelweis University. In addition, we wanted to prove that the help of a clinical pharmacist in a systematic review of therapies is an important part of patient centred care.

Material and methods Our prospective study took place in two 3 month period in 2018–2019, based on patient medical records. The medications of 50–50 randomised patients, of all patients receiving antibiotic therapy were analysed.

In the first phase of the study, the use of antibiotics was analysed without counselling of a pharmacist. In the second phase, all observations regarding therapy were reported to the responsible physician. We compared the periods based on specific indicators, such as therapy choice (empirical or aimed), duration of antibiotic therapy and costs.

Results Empirical therapy was the dominant therapy in both phases (71% vs 74%). The most frequently prescribed antibiotics were ceftriaxone, piperacillin/tazobactam, metronidazole and clarithromycin. Duration of intravenous treatment was reduced by 11% in the second phase, while oral therapy showed a small increase as a result of the promotion of switch therapy. There was also a decrease in the total number of treatment days, and consequently antibiotic treatment costs were reduced by 12%. In the second phase, we had suggestions for 38% of patients regarding modification of therapy. This represented 24 interventions of which 19 were fully or partially accepted. The rejections were explained by special instructions from the infectologist.

Conclusion and relevance As a result of monitoring, the appropriateness of antibiotic use increased. This study also confirms that the presence and counselling of a ward pharmacist could be helpful regarding the rationalisation of drug therapy.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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4CPS-035 CLINICAL PHARMACOKINETICS OF VANCOMYCIN IN NEUTROPENIC PATIENTS

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Background and importance According to the study by Bury D *et al*,[1] vancomycin dosage should be 25% higher than standard dosages in neutropenic patients due to increased clearance of vancomycin in this population. Renal hyperfiltration is considered a possible mechanism.

Aim and objectives We aimed to determine the prevalence of subtherapeutic drug exposure in neutropenic patients under therapeutic drug monitoring (TDM) and the subsequent TDM dosage adjustments.

Material and methods This was a retrospective and descriptive study from 2010 to 2019. Patients with haematological disease with neutropenia and receiving vancomycin TDM by pharmacists were included. Demographic variables, Cockcroft–Gault creatinine clearance (CrCl), initial dosage, dose adjustments and the first two trough levels were collected. Renal impairment was defined as CrCl <60 mL/min. Dosages of 15–20 mg/kg/dose and trough levels between 10 and 20 µg/mL were considered optimal for intermittent infusion schedules, according to international guidelines.[2]

Results Forty-one patients were included (58.5% men). Median age was 62.9 years (IQR 19.4–48) and 80% of patients had CrCl ≥60 mL/min. We found that 65.9% of patients did not achieve therapeutic levels in the first determination; most (77.8%) received a subtherapeutic initial dose. Also, 22.2% achieved a subtherapeutic level despite being treated with a