

**Purpose** Our objective was to identify modifiable factors related to inadequate AT in the EDOU by performing repeated point prevalence surveys (PPS).

**Material and methods** PPS of all antimicrobial prescriptions for non-trauma patients admitted to the EDOU were performed daily for 5 consecutive weeks starting in February 2015. The main outcome variable was the rate of inadequate ATs, when any of the following criteria were not optimal according to local guidelines. Data included demographics, clinical assessment performed by the prescriber (syndrome, source, severity at onset, type of acquisition), microbiological samples taken and antimicrobial prescriptions including the drug, dose and route of administration, if empirical or targeted, and mono or combination. Multivariate analysis was performed using logistic regression.

**Results** Overall, 406 ATs were analysed. The most frequent syndromes were pneumonia (24%), urinary tract infections (22%) and non-pneumonic lower respiratory tract infections (22%); 51.5% (n=209) AT were inadequate (26% of them: drug with a reasonable spectrum was prescribed despite not being recommended as first line, 45% antibiotic not needed, 25% 'inadequate spectrum' and 4% others). In multivariable analysis, microbiological samples before AT (OR: 1.9; 95% CI: 1.2 to 2.8; p=0.004), specification of the source of infection in patient's charts (OR: 2.0; 95% CI: 1.1 to 4.2; p=0.05) and severe sepsis or shock (OR: 1.9; 95% CI: 1.2 to 2.9; p=0.003) were independent predictors of adequate AT.

Abstract 5PSQ-102 Table 1

		% Global	% IN	P	Rr (95% CI)
Acquisition	Community healthcare	66.5	52	0.5	
	nosocomial	32.3	52	-0.4	
		1.2	60		
Samples taken	No	53.9	61	<0.01	1.5 (1.2-1.8)
	yes	46	41		
Combination therapy	Yes	13-5	53	0.9	-
	no	86-5	52		
Antimicrobial (mono)	P/T	11-7	59	0.05	
	Ertapenem levofloxacin	2-6	22	-0.3	
		14-3	40		

**Conclusion** Half of the prescriptions were inadequate using very strict criteria. Interventions aiming at improving antibiotic use in this Unit should include education and promotion of optimal clinical procedures for antibiotic prescribing. Quality indicators such as taken microbiological samples and the description of source of infection in the medical chart were predictors of better AT.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

#### 5PSQ-103 PHARMACOLOGICAL STUDY OF HIV PATIENTS ENTERED INTO THE HOSPITAL

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**Background** HIV patients constitute a group of patients to whom strict control of their pharmacotherapy must be carried out. They have risk of interactions and their adherence to treatment is essential. A hospital admission can cause imbalances that affect the patient.

**Purpose** To study the main characteristics of HIV patients admitted to the hospital, analysing: reason for admission, virological and immunological status at admission, ART used during admission, possible drug interactions and adherence to treatment before and after admission.

**Material and methods** All patients diagnosed with HIV infection and admitted to the hospital during the period August 2017–December 2017 were selected. For each of them was checked: the medical history, the medical prescription during the admission and the dispensation records of the computer program of outpatient pharmaceutical care. Adherence to treatment was calculated in the 3 months before and after admission. A scientific literature search was performed to identify potential drug interactions.

**Results** A total of 48 patients were analysed. The causes of admission were very varied, highlighting cardiovascular (25%) and respiratory (14%). The ART was modified to 20% of the patients during the admission, mainly due to inefficiency and the appearance of resistances. In five cases, the patient did not take any antiretroviral treatment and was instituted at the time of admission. Patients had an average adherence before admission of 94%. However, after admission, the adherence of all patients was lower. Even in seven patients the adherence dropped more than 10%. Regarding drug interactions, 18 relevant clinical interactions were found. The most common were associations of protease inhibitors with benzodiazepines (12 patients). In three patients were detected combinations of drugs not recommended in the clinical practice guidelines because of increased risk of QT interval. This was the case of darunavir/salmeterol association.

**Conclusion** The hospital admission of HIV patients is mostly related to the poor virological and immunological status of the patient. Adherence is affected in some cases, which leads to an important adherence control after admission to this type of patient. The incidence of adverse effects is also important, as greater attention from the pharmacist is required.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3615262/>

No conflict of interest.

#### 5PSQ-104 INVESTIGATING ERROR REPORTING RATES BY ALL PHARMACY STAFF IN THE PHARMACY DEPARTMENT OF A GENERAL HOSPITAL

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**Background** Errors, including near misses, occur in everyday practice. Our previous study in 2015 showed that using educational tools improves error reporting rates (ERRs).

The last year has shown a decrease in ERRs, suggesting the previous study's positive effect has not been maintained. Other studies have concentrated mostly on medication errors, and have not covered all errors made within the

pharmacy department by both qualified and non-qualified staff.

#### Purpose

- To determine the present ERR and identify the difference in ERRs between this and the previous study.
- To identify the reasons for under-reporting errors.
- To produce a protocol for error reporting and to measure the effect.

**Material and methods** Staff received a pre-study questionnaire as a tool to document their reasons for not reporting, and received an explanatory tool showing the importance of error reporting.

The study covered two 3 month periods.

- Staff received a personal monthly report showing their ERRs.
- A protocol for error reporting was introduced at the end of the first period.

#### Results

- The first period of monthly reports initially increased, then decreased (17 > 29 > 18).
- The second period started lower and remained static (11 > 10 > 11).
- The previous study produced 12 reports during the first period and 46 during the second. (380% increase),
- This study produced 64 and 32 respectively \*(50% decrease).
- 2.The two commonest reasons for not reporting were:
  - a. No need to report an error if immediately corrected (33%).
  - b. Not wanting a colleague reprimanded (19%).
- \* Introducing the protocol did not increase ERRs.

**Conclusion** The initial rise of ERRs in the first period was probably due to the study having a positive behavioural influence. The second period decrease was probably due to a holiday effect. Those deputising had an increased workload, and less time or inclination to report. Advanced planning is required. Constant reminders of the importance of reporting are required to improve and maintain ERRs. Reasons for not reporting need to be further addressed.

The protocol had no positive effect. The method of introducing the protocol needs reviewing.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

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No conflict of interest.

5PSQ-105

#### EFFECTIVENESS AND TOXICITY PROFILE ANALYSIS OF ANTIFIBROTIC AGENTS IN IDIOPATHIC PULMONARY FIBROSIS

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**Background** Nintedanib and pirfenidone are the only antifibrotic agents commercialised for the treatment of idiopathic pulmonary fibrosis (IPF). Both were approved after being compared to placebo, so comparative studies are needed.

**Purpose** To evaluate the effectiveness and safety of nintedanib and pirfenidone in patients with IPF in real clinical practice.

**Material and methods** A retrospective observational study including all patients with IPF who started treatment with nintedanib or pirfenidone (March 2015–June 2018) was carried out.

Demographics (age, sex), clinical (forced vital capacity (FVC)) and safety (dose reductions, adverse effects (AEs)) variables were collected. Differences in FVC at the end of the study were evaluated with the *t*-student test.

Statistical analysis was carried out using Stata® 14.

**Results** Throughout the study 67 patients (70% males, median age 71.4±8 years, median FVC 70%±19%) started treatment with nintedanib (n=25) or pirfenidone (n=42). Six patients with nintedanib and five with pirfenidone were excluded for lack of monitoring.

The median FVC percentage change at the end of the study was -4.1±9.9% in the nintedanib group and -2.1±10.2% in the pirfenidone group (p=0.48).

Nine patients (47%) showed an improvement in FVC during treatment with nintedanib and 17 (46%) with pirfenidone, with a median change of 4.9%±4.6% and 6.6%±6%, respectively. In the other patients, FVC value decreased with a median change of -11.7±6.4% (nintedanib) and -9.5±6.5% (pirfenidone).

Five patients treated with nintedanib and nine with pirfenidone would be candidates to discontinue treatment due to a lack of effectiveness, according to discontinuation criteria established at the hospital (absolute decrease of ≥10% in FVC during the first year of treatment).

The most frequent AEs related to nintedanib were diarrhoea (60%, n=15), weight loss (32%, n=8) and hepatotoxicity (32%, n=8), whereas with pirfenidone, hepatotoxicity (38%, n=16), gastrointestinal intolerance (33%, n=14) and cutaneous toxicity (26%, n=11).

Dose reductions were necessary to manage AEs in 16% of the patients treated with nintedanib and in 26% with pirfenidone.

Twelve per cent of the patients discontinued nintedanib due to diarrhoea (n=1), gastrointestinal intolerance (n=1) and cutaneous toxicity (n=1), and 26% pirfenidone due to cutaneous toxicity (n=5), hepatotoxicity (n=3), asthaenia (n=2) and gastrointestinal intolerance (n=1).

**Conclusion** In our study, nintedanib and pirfenidone have similar effectiveness. Differences in toxicity may be decisive in the choice of either treatment.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

5PSQ-106

#### FOCUSING AUDITS ON PATIENT SAFETY

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**Background** Pharmacy practice is evolving to incorporate a patient-centred approach to the scientific background. Regulatory audits often take the form of a policing exercise. This method may not always produce optimal outcomes. In parallel with the pharmaceutical patient advice process, advancing from compliance, adherence to concordance, an exercise is carried out to examine the application of this concept in regulatory policies to enhance patient safety.