factors for the time to first flatus, start of feeding and discharge were analysed (eg, taking promotility agents, such as metoclopramide), but no significant differences were found between the two groups (p=0.375, 0.162, 0.960).

Conclusion and relevance Could evidence based medicine lead to an equally satisfying practice? The implementation of the interprofessional team was essential (eg, the core physician team had not participated at the beginning and thus missed many possible cases).

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-181 BUDGETARY IMPACT OF BIOSIMILAR PRESCRIPTION IN THE TREATMENT OF RHEUMATIC DISEASES

A Linares*, C Fernandez Cuerva, R Asensi Diez, I Muñoz Castillo. *Hru Carlos Haya, Pharmacy, Malaga, Spain*

10.1136/ejhpharm-2020-eahpconf.282

Background and importance Biological medicines for the treatment of rheumatological diseases requires a large budget in our hospital as the number of patients and drugs involved increase each year, making it essential to implement containment policies. Our pharmacy service has promoted biosimilar prescriptions in order to improve the efficiency of our health system.

Aim and objectives To evaluate the economic impact on the cost per patient of the use of biological products in the area of rheumatology since the implementation of biosimilar drug prescriptions.

Material and methods A retrospective analysis of pharmaceutical expenditure for biological drugs prescribed for rheumatological pathologies was conducted from January 2016 to December 2018. Data collected were budget, biological therapies and number of patients treated. Data were collected from electronic prescribing and economic software (Athos).

Results During the study period, 1704 patients received biological drugs prescribed by the rheumatology service, which supposed an expenditure of 13 904 349.46€. Therapies prescribed were: etanercept (36.03%), adalimumab (18.99%), golimumab (14.43%), tocilizumab (12%), infliximab (9.31%) and certolizumab (6.24%); abatacept, ustekinumab, rituximab and anakinra were prescribed in <1% of patients.

In 2017, biosimilar prescriptions in rheumatology were promoted in such a way that the start of treatment (naive patients) had to be performed with a biosimilar medicine. This strategy began with infliximab and etanercept, and supposed a growth in the percentage of prescribed biosimilars. In 2018 versus 2017, the percentages of inliximab biosimilar were 35% versus 18%. In 2018 versus 2017, the percentages of etanercept biosimilar were 55% versus 21%. By the end of 2018, adalimumab biosimilar started to be prescribed, reaching 2% of all prescriptions of adalimumab.

Abstract 4CPS-181 Table 1

	2016	2017	2018
Budget (€)	4 888 129.59	4 526 851.82	4 489 368.05
Patients	671	704	819
Cost/patient/month (€)	607.07	535.85	456.79

Table 1 shows the evolution for biologics expenditure in rheumatology.

Conclusion and relevance Biosimilar prescription strategies in rheumatology have led to an increase in the number of patients treated with a cost/patient/month reduction of approximately 25%. More patients have been treated each year with the same annual budget which reinforces the importance of the biosimilar prescription.

REFERENCES AND/OR ACKNOWLEDGEMENTS

1. Grupo de trabajo de la GUIPCAR. *Guía de Práctica Clínica para el Manejo de Pacientes con Artritis Reumatoide*. Madrid. Sociedad Española de Reumatología. 2019. (Accessed October 2019). Available at: https://www.ser.es/wp-content/uploads/2019/04/Guia-de-Practica-Clinica-para-el-Manejo-de-Pacientes-con-Artritis-Reumatoide.pdf

No conflict of interest.

4CPS-182 PRELIMINARY DESIGN OF HOSPITAL TELEPHARMACY

[1]K Nikou, [2]V Papandreou, [3]AA Volakaki, [4]SA Koufopoulou, [5]C Allagianni, [5]D Makridaki*. *[1]General Hospital of Chest Diseases 'Sotiria', Pharmacy, Athens, Greece; [2]Evangelismos Hospital, Pharmacy, Athens, Greece; [3]Panarkadiko Hospital, Pharmacy, Tripoli, Greece; [4]Naxos Hospital, Pharmacy, Naxos, Greece; [5]General Hospital of Attica 'Sismanoglio-Amalia Fleming', Pharmacy, Athens, Greece*

10.1136/ejhpharm-2020-eahpconf.283

Background and importance Due to the economic crisis, many hospitals in our country, especially those located in remote areas and on the islands, have limited hospital pharmacist coverage (one hospital pharmacist per hospital). Telepharmacy addresses the shortages of pharmacists in rural areas.

Aim and objectives To ensure that inexperienced hospital pharmacists, working in small rural hospitals, are sufficiently supported and educated by their experienced colleagues.

Material and methods In this preliminary study, two inexperienced hospital pharmacists interacted on a daily basis with three experienced colleagues employed in tertiary hospitals, analysing administrative duties and sharing best practice approaches for a period of 1 year to establish a common working framework. The methods of communication included calls, teleconference/video calls and emails. The experienced hospital pharmacists were available for immediate contact.

Results Over 1 year, 672 communications via telephone or email (regarding 168 problems, average 4 communications per problem) were recorded for both rural hospitals. Twice monthly, scheduled teleconference/video calls were conducted to stabilise the procedures and check on the follow-up of the interventions. In total, 21 video calls were conducted.

Problems were categorised into four main fields: (1) pharmacy management (38%) (eg, daily practice, shortages, procurement, IT problems); (2) administrative issues (28%) (eg, SOPs, personnel duties, out of pharmacy collaborations; (3) scientific issues (23%) (eg, pharmacovigilance, antibiotic stewardship, risk assessment and safety problems); and (4) patients' and healthcare professionals (HCPs)' education and consultancy (11%). From the 168 problems discussed, 106 (63%) were successfully resolved, 43 (26%) are still ongoing but positively progressing and 19 (11%) remained unresolved and difficult to overcome, as they may demand consent of other HCPs, hospital manager and/or the Ministry of Health. The study interviewees completed questionnaires every 3 months, assessing the following indexes: response time (reduced), the percentage of resolved problems (increased, mostly for those

Eur J Hosp Pharm: first published as 10.1136/ejhpharm-2020-eahpconf.283 on 24 March 2020. Downloaded from http://ejhp.bmj.com/ on April 18, 2024 by guest. Protected by copyright.

from the first two categories) and experienced stress at workplace (reduced).

Conclusion and relevance Telepharmacy may allow hospital pharmacists of smaller hospitals learn and benefit from experienced colleagues. Following these results, a broader plan for hospital telepharmacy should be designed and supported by national authorities.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-183 SELECTION OF A POPULATION PHARMACOKINETIC MODEL OF ADALIMUMAB IN PATIENTS WITH INFLAMMATORY BOWEL DISEASE SUITABLE FOR THERAPEUTIC DRUG MONITORING

[1]P Mas-Serrano*, [2]R Nalda-Molina, [2]A Ramón-López, [2]S Marquez-Megías, [1]M Díaz-González, [1]J Selva, [3]A Gutiérrez, [1]C Colomer. *[1]Hospital General Universitario De Alicante, Clinical Pharmacokinetic Unit-Pharmacy Department, Alicante, Spain; [2]Miguel Hernández University, Division of Pharmacy and Pharmaceutics, Alicante, Spain; [3]Hospital General Universitario De Alicante, Digestive Department, Alicante, Spain*

10.1136/ejhpharm-2020-eahpconf.284

Background and importance Adalimumab is an anti-TNFα monoclonal antibody used in inflammatory bowel disease (IBD). Its efficacy can benefit from therapeutic drug monitoring (TDM). However, because there are several population pharmacokinetic models (PopPK) published, it is necessary to perform an evaluation of these models in the target population before being used in clinical practice.

Aim and objectives To evaluate the predictive performance and adequacy of four PopPK of adalimumab in adult patients diagnosed with IBD, using TDM in a clinical setting.

Material and methods A retrospective observational study (2014–2018) was conducted. Inclusion criteria were adult patients with IBD treated with adalimumab, with at least one trough concentration (TC). Four different PopPK were evaluated: Mod-A (FDA-2007), Mod-B Ternant-2015, Mod-C Sharma-2015 and Mod-D Berends-2018. The models were implemented in NONMEM V.7.3.

The individual and population predictions of TCs were estimated from the four PopPK models. Two datasets were created; DATASET-1 was used to evaluate the model adequacy, all patients and TCs were included, and their population predictions were compared with the observed TCs; DATASET-2 was used to assess the predictive performance and only patients with two or more TCs were included. Only the first TC of these patients was used to estimate the Bayesian estimates, and the individual predictions were compared with observed TCs.

To validate these models, bias and precision of estimated concentrations were calculated as the mean predictive error and the mean square predictive error in the population, respectively.

Abstract 4CPS-183 Table 1

	DATASET-1		DATASET-2	
	Bias (95% CI)	Precision (95% CI)	Bias (95% CI)	Precision (95% CI)
Mod-A	−5.26 (−5.95; −4.57)	7.61 (6.8; 8.42)	−0.906 (−1.99; 0.175)	4.80 (2.97; 6.63)
Mod-B	−2.88 (−3.47; −2.29)	5.52 (4.88; 6.16)	−0.666 (−1.71; 0.376)	4.59 (2.83; 6.35)
Mod-C	−3.71 (−4.34 ;−3.01)	6.26 (5.52; 7.00)	−2.84 (−3.95; −1.72)	5.63 (4.22; 7.04)
Mod-D	−3.06 (−3.66; −2.46)	5.67 (4.92; 6.41)	−1.77 (−2.89; −0.643)	5.20 (3.56; 6.85)

Results A total of 171 patients with 245 TCs in DATASET-1 and 55 patients with 74 TCs in DATASET-2 were included; 5.85% of patients in DATASET-1 and 3.64% in DATASET-2 developed anti-adalimumab antibodies.

Conclusion and relevance Mod-B performed better both in the evaluation of adequacy (DATASET-1) and for predictive performance (DATASET-2). All four models overestimated TC although Mod-B had better bias and precision (ie, closer to zero). Implementation of this PopPK in clinical practice should be done with caution.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-184 EVALUATION OF A CLINICAL PHARMACY SERVICE ON AN INPATIENT WARD IN AN ACUTE HOSPITAL

[1]C Mc Gann*, [1]B Love, [1]J Carr, [2]E Dolan, [2]M O'Connor. *[1]Connolly Hospital, Pharmacy Department, Blanchardstown, Ireland; [2]Connolly Hospital, Medicine for the Elderly, Blanchardstown, Ireland*

10.1136/ejhpharm-2020-eahpconf.285

Background and importance Intensive clinical pharmacy input from admission to discharge has been shown to improve patient outcomes. The clinical pharmacy service in our institution has historically been under-resourced.

Aim and objectives The study aim was to develop a ward based clinical pharmacy service and to evaluate its impact using a number of clinical, safety and financial metrics.

Material and methods A clinical pharmacist was assigned to provide pharmaceutical care to patients on a medicine for the older person ward. Over an 8 week period, the pharmacist prospectively recorded her interventions/activities. To assess impact on patient care, interventions were graded according to the Eadon criteria. The potential cost avoidance associated with interventions was estimated using two methods identified in the literature. Both define costs related to medication errors and calculate cost avoidance associated with clinical interventions based on prevention of harm. Medication incident reporting was analysed to assess the impact on patient safety.

Results

- Eighty–four patients received a pharmacist review. Across a spectrum of activities, a total of 267 pharmacist interventions were recorded: 87% of patients had at least one pharmacist intervention.
- A total of 90% of interventions requiring follow–up with the medical team were accepted and resulted in a change to patient care.
- Eadon grading of interventions deemed that 81% of interventions improved the standard of patient care.
- Two different methods were used to estimate potential cost avoidance: one estimated annual savings of € 154 103–€ 344 926; the other estimated these at € 174 373. Given current pharmacist salary costs, this equates to a cost–benefit ratio of

Eur J Hosp Pharm: first published as 10.1136/ejhpharm-2020-eahpconf.283 on 24 March 2020. Downloaded from http://ejhp.bmj.com/ on April 18, 2024 by guest. Protected by copyright.