Conclusion and relevance Omeprazole is a well-tolerated drug, but when used for prolonged treatment it can cause serious problems, so its evaluation is decisive to correct a possible misuse of the drug. This analysis reveals that 45% of the centre's patients do not meet the appropriate criteria for the use of omeprazole.

REFERENCES AND/OR ACKNOWLEDGEMENTS
Conflict of interest No conflict of interest

5PSQ-112 HIDDEN HARM? ASSESSING MAGNITUDE AND COSTS OF INTRAVENOUS THERAPY ADMINISTRATION ERRORS VIA SMART PUMP REPORTS

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Background and importance Most reviews of intravenous therapy administration error have been undertaken in critical care. In our study wireless pumps gave access to smart pump therapy library log data from lower acuity areas of care such as oncology infusion centres, labour and delivery, and medical–surgical wards. Analysis of the magnitude and costs of errors in these areas has previously been lacking.
Aim and objectives To establish likely incidence of moderate and catastrophic intravenous therapy administration error via 'good catch' data in areas outside of critical care, to identify and classify the medications involved and to estimate likely costs of these errors.
Material and methods A review of 3 025 414 dose error reduction system protected infusions from adult units outside of critical care across the Middle East for the volume of averted dose/duration errors was undertaken, and a recognised grading of 'moderate' and 'catastrophic'[1] was applied. Projected savings from errors prevented was assessed against current intensive care unit (ICU) bed and medical ward costs in the Gulf region[2] and an average length of stay extension identified from the current literature.[1]
Results Catastrophic errors averted would cost, conservatively, US$114 503 per 10 000 infusions delivered. The average 1000 bed hospital delivery ≈750 000 infusions per annum.

Abstract 5PSQ-112 Table 1

	Moderate Totals n. (% vs. DERS Infusions) Magnitude: Times Maximum Rate/Dose	Catastrophic Totals n. Magnitude: Times Maximum Rate/Dose				All Catastrophic Totals n. (% vs. DERS Infusions)
Therapy Type	1.5 - 9.999	10	10 - 99.999	100	100+	
IV Fluids	35,572 (1.1758)	23	259	4	9	295 (0.0098)
Simple Analgesia	10,844 (0.3584)	62	641	4	53	760 (0.0251)
Antivirals, General Antibiotics and Antifungals	20,277 (0.6702)	84	950	33	67	1,134 (0.0375)
Blood Products	35,830 (1.1843)	325	20	0	4	349 (0.0115)
Chemotherapy and Cytotoxic	11,422 (0.3775)	37	166	4	31	238 (0.0079)
Anticoagulants	2,688 (0.0888)	12	305	24	60	401 (0.0133)
Insulin	313 (0.0103)	31	77	6	37	151 (0.0050)
Electrolytes (K^+ and Mg^{2+})	17,918 (0.5922)	114	725	0	18	857 (0.0283)
GI System	5,688 (0.1880)	153	1,187	5	11	1,356 (0.0448)
Labor and Delivery Meds	111 (0.0037)	6	33	0	5	44 (0.0015)
Aminoglycosides	2,286 (0.0756)	13	179	0	5	197 (0.0065)
Diuretics	549 (0.0181)	34	63	4	38	139 (0.0046)
Steroids	24 (0.0008)	0	0	2	0	2 (0.0001)
Total all Adult	143,522 (4.7439)	894	4,605	86	338	5,923 (0.1958)

Conclusion and relevance The study identified an incidence rate above those in many published studies; this may be because we 'cast the net wider' and because in the areas studied there was limited clinician experience of administration of some of the medications. Competency is difficult to maintain with limited exposure to a task. The presence of insulin, potassium preparations, and cytotoxics in our results is in line with other studies. The cost savings indicate the potential value of smart intravenous technology being deployed in every part of the hospital

REFERENCES AND/OR ACKNOWLEDGEMENTS
1. Manrique-Rodríguez, *et al*. Implementing smart pump technology in a pediatric intensive care unit: a cost-effective approach. *Int J Med Inform* 2014;**83**(2):99–105.
2. Khan, *et al*. Survival and estimation of direct medical costs of hospitalized COVID-19 patients in the Kingdom of Saudi Arabia. *Int J Environ Res Public Health* 2020;**17**(20):7458.

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5PSQ-116 MEDICATION-RELATED FOLLOW-UP OF OLDER PATIENTS AFTER HOSPITAL DISCHARGE: A MULTICENTRE RETROSPECTIVE CHART REVIEW

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Background and importance The discharge of older hospitalised patients is critical in terms of patient safety, and is partly related to transfer of information about medications from hospitals to the next healthcare provider in primary care. There are to our knowledge no previous studies evaluating information transfer and follow-up, at patient discharge, in a setting where a shared electronic health record (EHR) is used.
Aim and objectives To evaluate the prevalence of patients for whom hospitals sent adequate requests for medication-related follow-up at hospital discharge, the proportion of patients revisiting hospital because of inadequate information and follow-up requests, and the possibility of an association between medication reviews performed during hospitalisation and inadequate follow-up requests.
Material and methods We conducted a retrospective chart review. The study population was randomly selected from a cluster-randomised crossover trial which included patients 65 years or older admitted to four hospitals during 2017–2018. Our study was conducted in regions using a shared electronic health record between hospital and primary care. Each patient was assessed with respect to the adequacy of the request for follow-up. For patients with inadequate requests, data about unplanned hospital revisits were collected, and an assessment made whether the inadequate requests had contributed to the revisits. The association between medication reviews and inadequate requests was analysed with a Chi-square test.
Results A total of 699 patients were included. The patients' mean age was 80 years; an average of 10 medications were prescribed on hospital admission. The hospitals sent adequate requests for 418 (60%) patients. Thirty-eight patients (14%) had a hospital revisit within 6 months of discharge related to

an inadequate request. The proportion of inadequate requests did not differ between patients who had received a medication review during hospitalisation and those who had not (p=0.83).

Conclusion and relevance The prevalence of patients for whom the hospitals sent adequate follow-up requests on discharge was low. More than 10% who had an inadequate follow-up request revisited the hospital within 6 months of discharge for reasons related to the request. Medication reviews conducted during hospitalisation did not affect the proportion of inadequate requests sent. The implementation of a shared EHR did not solve this problematic communication gap.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

5PSQ-117 DETERMINATION OF GENETIC POLYMORPHISMS IN THE DIHYDROPYRIMIDINE DEHYDROGENASE GENE IN A PATIENT WITH GASTRIC ADENOCARCINOMA TREATED WITH FLUOROPYRIMIDINES: A CASE REPORT

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Background and importance Fluoropyrimidines are a foundational component of chemotherapy for solid tumour malignancies. The best-known cause of intolerance to fluoropyrimidines is dihydropyrimidine dehydrogenase enzyme (DPD) deficiency, which can result from deleterious polymorphisms in the gene encoding DPD (DPYD). Partial or total deficiency of this enzyme is related to severe toxicity and in some cases it can cause the death of the patient.

Aim and objectives To determine polymorphisms in the DPYD gene in a patient with gastric adenocarcinoma treated with fluoropyrimidines in order to avoid overexposure and toxicity associated with these drugs.

Material and methods A 66-year-old man was diagnosed with stage III gastric tubular adenocarcinoma. The treatment plan consisted of four cycles of neoadjuvant chemotherapy with the FLOT protocol: docetaxel 50 mg + calcium folinate 200 mg + oxaliplatin 85 mg + 5-fluorouracil (fluoropyrimidine) 2600 mg as a 24-hour intravenous infusion, every 14 days; followed by surgical intervention. Before starting the chemotherapy regimen, determination of DPD deficiency was requested.

Results The results showed mutation c.1236 G/A (HapB3) for the DPYD gene, which indicated overexposure to fluoropyrimidines and increased toxicity like diarrhoea, mucositis, neutropenia and neurotoxicity. Due to the polymorphism detected in DPYD gene, a 5-fluorouracil dose adjustment was required. The patient received four cycles of chemotherapy from April to June 2021 according to the dose recommendations of the oncology pharmacist. Treatment was started with a 50% dose reduction of 5-fluorouracil. After the first infusion, it was well tolerated with few reported adverse side effects such as low-grade fever, xerostomia and neutropenia. Neutropenia was successfully treated with granulocyte colony stimulating factors and the patient was able to continue the treatment, increasing the 5-fluorouracil dose by 25% in the last two cycles. Despite excellent tolerance to chemotherapy, the patient died after gastrectomy due to postsurgical complications.

Conclusion and relevance Genetic analysis for the determination of polymorphisms in the DPYD gene allows us to predict the potentially serious toxicity of fluoropyrimidines, encouraging the individualised use of these drugs. In our case, the patient was at risk of developing severe toxicity so a dose adjustment of 5-fluorouracil was required.

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5PSQ-118 LITHIUM THERAPY ON HOSPITAL ADMISSION

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Background and importance The narrow therapeutic window of lithium (serum concentration between 0.6 and 0.8 mmmol/L) makes it essential to monitor its plasma concentrations and to watch for possible interactions that may lead to changes in its pharmacokinetics. Many drugs can interact with lithium, and some are used by a high percentage of the population.

Aim and objectives The aim of this study was to assess possible interactions of lithium with angiotensin-converting enzyme inhibitors (ACEi), angiotensin receptor antagonists (ARA-II) or diuretics. To intervene when necessary, and to analyse the acceptance of such interventions by the physician on hospital admission.

Material and methods A prospective analytical study was performed in a second-level hospital for a period of 8 months (1 November–30 June 2021). Every patient admitted and on treatment with lithium was included.

Concomitant treatments were analysed to detect possible interactions and whether such treatments were initiated ambulatory or during the hospital stay. When interactions were detected, the pharmacist intervened by informing the physician via ATHOS-Prisma messaging and recommending a blood test for lithemia levels, in order to reduce or increase the lithium doses if necessary.

Results A total of 35 patients were included in the study; median age 47±15 and 20 are women, 28 had lithium prescribed at home.

Possible interactions were detected in 8 patients. Of these, 6 patients had both drugs interacting prescribed ambulatory and 2 had at least one of the interacting drugs prescribed by the specialist at admission.

Only the interventions in those 2 patients were accepted by the physician. Both interactions were between lithium and a drug that altered renal function (ACEi/ARA-II), increasing lithium levels above their therapeutic window.

Conclusion and relevance Pharmacists' interventions were only accepted when the drug was prescribed by the specialist contacted. When the drugs were prescribed ambulatory by another physician, interventions were not effective.

The fact that the patient had been taking the interacting drugs before admission does not make it less important, and in light of the results, the pharmacist should try another path to intervene, such as contacting the specialist responsible or his usual doctor at discharge.

In short, pharmacists are essential for detecting potential risks of toxicity due to high serum levels, and avoiding low doses, which could lead to a loss of efficacy.