C. Regarding the five oral route group (three hazardous medicines), reconstitution is required for three, which can be done in the PD. The other two are sold in sachets, so we plan to develop a handling protocol.

D. Directly proposed to prepare them in the PD.

Finally, we encourage implementing safe handling recommendations to achieve the goal of a safety plan for workers.

REFERENCES AND/OR ACKNOWLEDGEMENTS
We acknowledge all pharmacy and nursing staff.
No conflict of interest.

IMPACT OF SERIALISATION ON RECEPTION OF MEDICINES AND ACTIVITY SMOOTHING
P Lacassagne*, Intern in Pharmacy, 31270, Cugnaux, France
10.1136/ejhpharm-2020-eahpconf.100

Background and importance In February 2019, EU regulation 2016/161 made serialisation compulsory to improve the safety of medicines. This new regulation caused a major change in our practice of receiving medicines. Indeed, because of the high number of boxes received, we will install a robot to decommission all the medicine boxes.

Aim and objectives To identify the modifications in our reception process with the new regulation.

Material and methods Reception data on our managing software (Copilote) for the last 23 weeks were exported and analysed by Excel.

Results The new regulation will reorganise our process of reception by creating three different flows instead of one. The three identified flows are: serialisable+robot (SR); serialisable +no robot (SNR); not serialisable+no robot (NSNR).

SR products will be handled by the robot whereas SNR will be decommissioned when received. We need to change our analysis method, from lines of product received to number of medicine boxes received, in order to assess the required volume of storage of our new robot. The main flow is SR (71%), followed by SNR (28.5%), whereas NSNR is negligible (0.5%). We observed that the number of drug boxes received was not smooth, with peak activity every 8 weeks.

Conclusion and relevance We identified the major changes caused by the new regulation and changed our analysis method to fit the new regulation. We will now analyse the largest laboratory orders to try to smooth out activity. Therefore, we will change the order calendar. Consequently, we expect an improvement in activity in order to stock the medicine boxes in the robot and reduce the delay in reception.

REFERENCES AND/OR ACKNOWLEDGEMENTS
No conflict of interest.

SO D IUM BENZOATE SUS PENSION IN NON- KETO TIC HYPERGLYCAEMIA: A CASE REPORT
S Immaulada, F Vallente Borrego*, M Muros, N Lucas, MA Sarabia, MA Rodriguez, J Ramos, I Alarcon. Hospital De La Vega Lorenzo Guirao, Pharmacy, Murcia, Spain
10.1136/ejhpharm-2020-eahpconf.101

Background and importance Non-ketotic hyperglycaemia (NKH) is a rare inborn error of glycine metabolism characterised by accumulation of glycine in body fluids and tissues, resulting in neurometabolic symptoms of variable severity. Sodium benzoate is the sodium salt of benzoic acid that conjugates with nitrogen containing glycine to form the molecule hippurate. Hippurate can be excreted by the kidneys, reducing plasma glycine levels. N-methyl-D-aspartate receptor antagonists may ameliorate neurological symptoms although it remains to be established whether they improve long term outcome. Lack of authorised presentations for treatment of rare diseases is an important obstacle that is usually resolved by hospital pharmacy formulations, especially in children.

Aim and objectives The aim was to provide an adequate, stable and well accepted oral sodium benzoate formulation for a patient with NKH, to improve her general status.

Material and methods A 4-year-old girl with severe NKH needed oral treatment with sodium benzoate, although there is no standard oral formulation for children. To find an optimal and suitable solution, a literature search was carried out in the National Library of Medicine’s (MEDLINE) database, including terms ‘sodium benzoate/chemistry’, and ‘administration, oral’ with no other filter. Our national and regional formulation databases were also checked.

Results The patient was initially treated with 16 mL, three times a day, sodium benzoate syrup 112.5 mg/mL, but the volume needed was impossible to swallow by the patient due to her clinical status. Subsequently, 2 g sodium benzoate sachets were given with meals (four times a day) but they were not well tolerated.

We then dispensed a 250 mg/mL suspension in Ora-Sweet with a stability of 90 days. Despite it being a new formulation for our pharmacy service, glycine levels were reduced from 900–1000 µL to 500 µL over 2 months. Currently, her clinical situation is stable, and the patient receives 8 g/24 hours of sodium benzoate which is well tolerated.

Conclusion and relevance Sodium benzoate oral suspension dispensed with Ora-Sweet seemed to be an adequate solution to NKH treatment in our patient. Although the formulation is a basic operation for hospital pharmacy services, it is essential, especially in children with rare diseases that need orphan drugs.

REFERENCES AND/OR ACKNOWLEDGEMENTS
No conflict of interest.

EXPERIENCE WITH THE NEW DIRECT ACTING ANTIVIRAL AGENTS IN A THIRD LEVEL HOSPITAL IN 2018
S Nuñez Bracamonte*, MH García Lagunas, E Conesa Nicolás, A Lloret Llorca, C Juez Santamaría, CN García Matillas, FM Fernández Martínez, JM Montoya Egea. Hospital General Universitario Santa Lucía, Farmacia Hospitalaria, Cartagena, Spain
10.1136/ejhpharm-2020-eahpconf.102

Background and importance The new direct acting antivirals (DAAs), indicated in chronic hepatitis C (HCV), show a sustained virological response at 12 weeks (SVR12) >90% in clinical trials, with worse results in patients with genotype 3.

Aim and objectives To analyse the effectiveness of the new DAAs in a real cohort of HCV patients during 2018, and establish if there are differences between genotypes.

Material and methods This was a retrospective observational study including all patients treated with DAAs in 2018. The
variables collected were: age, sex, HCV/HIV coinfection, geno-
type (G), degree of fibrosis (F), previous treatments, basal 
rectal load (BVL), treatment duration, viral load at 12 weeks 
pustreatment, adherence and adverse effects (AEs). Effective-
ness was evaluated according to SVR12.

**Results** Ninety-one patients (57.1% men) received treatment 
with DAAs, with a mean age of 55.6±10.4 years; 20 (22.3%) 
were coinfected with HIV, and 55 (60.4%) had BVL >800 
000 UI/mL. The genotype distribution was: 29 (31.9%) G1a, 
28 (30.8%) G1b, 1 (1.1%) G2, 15 (16.5%) G3 and 18 
(19.8%) G4. Degree of fibrosis: 27 F0-F1, 16 F1, 10 F2, 15 
F3, 2 F3-F4 and 14 F4; 7 (7.7%) patients were without data 
(WD). There were 75 (82.4%) naive patients; 6 had received 
treatment with DAAs (2 with two different lines).

Treatment distribution was: 36 (39.6%) glecaprevir/pibrent-
asvir, 28 for 8 weeks and 12 for 12 weeks; 29 (31.9%) elbas-
tir, 28 for 8 weeks and 12 for 16 weeks; 23 
(25.3%) sofosbuvir/velpatasvir for 2 weeks, 2 with ribavirin; 1 
(1.1%) ledipasvir/sofosbuvir for 8 weeks; 2 (2.2%) sofosbuvir/ 
velpatasvir/voxilaprevir for 12 weeks, after both re-lapse to 
treatment with two different lines with DAAs.

The response observed was: glecaprevir/pibrentasvir 32 
SVR12, 3 WD and 1 treatment suspension because of the 
patient’s poor clinical condition; elbasvir/grazoprevir 26 
SVR12 and 3 WD; sofosbuvir/velpatasvir 17 SVR12, 3 WD, 1 
died (sepsis) and 2 virological failure (VF) (both G3, 1 F3, 1 
relapsed to DAAs); ledipasvir/sofosbuvir: 1 SVR12; 
sofosbuvir/velpatasvir/voxilaprevir 2 SRV12. Of the total evalu-
able responses (n=80), 78 (97.5%) SVR12 and 2 (2.5%) VF 
were observed.

**Conclusion and relevance** Our data confirm the effectiveness of 
the new DAAs, with SVR12 >95%, and are consistent with 
clinical trials which show that patients with G3 have the 
worst SVR12 rates.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

**4CP-003 LIRAGLU TIDE IN CHRONIC INTESTINAL FAILURE: 
OVERVIEW AND CASE REPORT**

1 M Szakalafer*, 1 E Castellana, 1 M Ippolito, 2 F De Merlo, 1 U Almaso, 1 A De Francesco, 
1 F Cuttolo, 1 AOUCitta’ Della Salute E Della Scienza Di Torino, Pharmacy, Turin, Italy; 
2 AOUCitta’ Della Salute E Della Scienza Di Torino, Internal Medicine 3 U, Turin, Italy; 
2 AOUCitta’ Della Salute E Della Scienza Di Torino, Dietetics and Clinical Nutrition, Turin, Italy

Background and importance Chronic intestinal failure (CIF) is 
a rare pathology, included in the 2013 Orphanet list. Parent-
teral nutrition is a lifesaving and often lifelong therapy 
because of nutrients loss and electrolyte and fluids imbalance 
related to impairment in intestinal absorption and high 
daily stoma output. Antimotility and antisecretory drugs can 
reduce faecal output and promote better nutrient and fluid 
absorption. An impaired hormonal ‘ileo-colonic brake’ may 
thus worsen imbalance in patients with end jejunostomy 
short bowel syndrome (SBS-IF). Intestinal adaptation can 
occur in the remaining part of the bowel through secretion of 
gut trophic peptide hormones, such as glucagon-like pep-
tide (GLP) 2 and 1. With large enteral resections, GLP 
secretion is virtually absent, and treatment with GLP ana-
alogues could be useful. Liraglutide is a GLP-1 analogue 
which reduces gastric hypersecretion and slows gastric em-
pyting. In an open label, 8 week pilot study, liraglutide sig-
nificantly reduced the ostomy wet weight output by 474 
±563 g/day (p = 0.049).

Aims and objectives The primary aim of the study was to eval-
uate the effect of liraglutide on faecal output in patients with 
SBS-IF and a high faecal output.

A multivariate analysis was performed, including in the 
model parameters with a value of p < 0.2 in the previous uni-

variate analysis. The impact of continuous laxative treatment 
at discharge on the risk of re-attendance was evaluated. Statis-
tical analysis was carried out using Stata V2.0.

**Results** A total of 104 patients were included (mean age 77.1 
(±14.6) years): 47 patients (56.6%) were classified as having 
a high cholinergic burden, 30 (36.1%) an intermediate burden 
and 6 (7.2%) a low burden.

In the univariate analysis, the variables associated with 
readmission at 30 days were age >80 years, women, diabetes, 
residence destination, dementia and high cholinergic burden.

In the multivariate analysis, age >80 years (0.34 (0.12– 
0.97)), a high anticholinergic burden (4.21 (1.07–16.5)) and 
dementia (3.26 (1.11–9.50)) were associated with readmission 
after 30 days.

Laxative prescription at discharge in the high burden group 
patients was not associated with a reduction in re-attendance 
(OR (95% CI) 0.86 (0.48–3.27)). In the intermediate burden 
group, a reduction in income was observed (OR (95% CI) 
0.13 (0.015–0.99)).

**Conclusion and relevance** A high anticholinergic burden at 
discharge from the emergency department in elderly patients 
who consult for constipation was closely related to re-attend-
ance at 30 days. Hence these patients must be considered 
high risk and specific interventions established.

REFERENCES AND/OR ACKNOWLEDGEMENTS

1. Hilmer SN. Calculating and using the drug burden index score in research and 

No conflict of interest.

**4CP-002 ANTICHOLINERGIC BURDEN IN CONSTIPATED 
PATIENT ADMITTED TO AN EMERGENCY DEPARTMENT**

1 A Plaza Diaz*, 1 J Ruiz Ramos, 1 A Juanes Borrego, 1 M Blazquez Andion, 1 L Lopez Vinardell, 
1 MA Mangues Bafalluy. 1 Hospital Sant Pau, Pharmacy, Barcelona, Spain; 1 Hospital Sant 
Pau, Emergency Department, Barcelona, Spain

Background and importance Intestinal obstruction and constipa-
tion are frequent causes of attendance at the emergency serv-
ces. Multiple studies have linked a high anticholinergic 
burden with constipation in elderly patients. However, its 
impact on patients attending the emergency department has 
not yet been clearly established.

Aim and objectives To evaluate the anticholinergic burden in 
patients who come to the emergency services for constipation, 
as well as its impact on re-attendance to these units.

Material and methods This was a retrospective observational 
study. Patients who consulted the emergency department for 
constipation or intestinal subocclusion were included (Septem-
ber 2018–June 2019). Drugs were collected from the elec-
tronic prescription. The anticholinergic burden of the 
médication was calculated using the anticholinergic burden 
index scale. 1

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