prescribing phase and those that occurred during the computerised phase. All steps of the process were assessed using a data collection sheet. Statistical analysis was performed by PSPP software.

Results Fifty pockets of parenteral nutrition were examined during both phases. This study showed a statistically significant improvement in considering both the sodium and fluid intake of the other drugs prescribed with: OR=0.40, 95% CI: 0.30 to 0.58, $p<10^{-3}$, OR=0.30, 95% CI: 0.19 to 0.45, $p<10^{-3}$, respectively.

Regarding the preparation step, the order of components introduced was significantly better when using the software: OR=0.12, 95% CI: 0.04 to 0.35, $p<10^{-3}$. The labelling was significantly more respected with computerisation: OR=0.22, 95% CI: 0.06 to 0.74, $p=0.017$.

No impact was detected in the transcription step when using the software with: OR=1.53, 95% CI: 0.53 to 4.42, $p=0.424$. Likewise, no impact was detected in the administration step with: OR=0.49, 95% CI: 0.04 to 5.58, $p=1$.

Conclusion The implementation of the prescribing software was beneficial in terms of error management, time and traceability. The computerisation of the process, from the prescription to the administration, is necessary to guarantee security and efficiency in the neonatal intensive care unit. Thus, it is recommended to generalise this pilot experiment in the interests of both prescribers and patients.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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No conflict of interest.

5PSQ-019 SWITCHING FROM INDIVIDUALISED NUTRITION TO STANDARDISED OR COMMERCIALISED NUTRITION IN NEWBORNS: ARE THERE ANY POSSIBILITIES?

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Background Newborns often require parenteral nutrition (PN). There are three possibilities from the least secure to the most secure: individualised, standardised and commercialised nutrition. New national guidelines for PN in newborns were published in April 2018.

Purpose To evaluate the substitutability potential of individualised nutrition by standardised or commercialised nutrition in a regional maternity hospital.

Material and methods This was a retrospective chart review of PN in newborns from August 2017 to January 2018. Requirements in the individualised nutrition were compared to the standardised formulations available in our hospital and to the commercialised nutrition adapted in preterm infants. Only glucose and electrolytes concentrations were compared because these are the only elements of our standardised nutrition formulations. Individualised PN were substitutable if the concentrations in standardised or commercialised PN were between -10% and +5% of the prescription. An addition was needed if a concentration was less than -10%. The individualised PN was not substitutable if one or more concentrations were greater than 5%.

Results This study included 2,285 PN prescriptions concerning 263 newborns. There was 1241 individualised PN concerning 130 newborns, including 89% preterm. Medium gestational age was 30 (24; 41) weeks and medium weight was 1462 g (580; 3770). Medium prescription duration was 13 (1–54) days. One-thousand and eleven (81%) individualised nutrition could not be substituted in standardised or commercialised PN because of the inappropriate concentration of glucose or low concentration of electrolytes. None of the individualised nutrition can be substituted without addition. Two-hundred and thirty (19%) individualised nutrition could potentially be replaced: 187 by standardised nutrition and 43 by commercialised nutrition. These standardised or commercialised nutrition bags need, on average, 3.4 adjuncts of electrolytes to maintain the needs of the newborns. Three additions were authorised according to guidelines, so only 108 (9%) individualised nutrition could be substituted.

Conclusion The individualised PN rate of our maternity hospital is in line with the national PN rate. All substitutable individualised PN need some addition but there is no protocol to do that in our hospital. They were then always justified. There are two ways of improvement: use software that suggest the most adapted PN product; or define with the neonatologist which type of addition should be prioritised.

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No conflict of interest.

5PSQ-020 SAFETY EVALUATION OF INJECTABLE POTASSIUM CHLORIDE PRESCRIPTIONS IN HOSPITAL

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Background Errors in the administration of injectable potassium chloride (KCl) is part of a list of 12 events described by ANSM (French drug safety agency). These events are called 'Never-Events', which should never occur in hospital if preventive measures are applied.

Purpose We wanted to know the level of safety of our injectable KCl prescriptions using ANSM safety criteria.

Material and methods We carried out a 2 week transversal-retrospective study. Between 1 July and 15 2018 each nominal prescription of injectable KCl was included using our pharmacy validation software (DXCare). All services were included except the ICU and emergencies. Then an intern in the pharmacy processed analyses of the following safety criteria. A double-check was made by a senior pharmacist. The reference guideline used for the safety criteria was the 2017 ANSM recommendations for injectable potassium chloride. For each prescription, recommended ANSM safety criteria related to intravenous KCl were assessed:

- Indication of severe hypokalaemia (<3 mmol/L) or inability to swallow.
- Prescription of KCl using specific units (g or mmol).
- Use of a slow infusion rate (≤ 1 g/h).
- Use of the available ready-to-use solution.
- Mention of the nature of the dilution solution to be used.

- Final concentration of the KCl infusion ≤ 4 g/L.
- Mention of the final volume of the KCl infusion.

Results One-hundred and four patients were included.

- 30.7% (95% CI: $\pm 8.9\%$) of the prescriptions were relevant in term of indication.
- 38.4% (95% CI: $\pm 9.35\%$) of the prescriptions used the correct specific units.
- In 99.1% (95% CI: $\pm 1.82\%$) of cases the correct slow infusion rate was prescribed.
- In 15.3% (95% CI: $\pm 6.9\%$) of cases a ready-to-use solution was prescribed.
- Mention of the nature of the dilution solution to be used was found in 84.6% (95% CI: $\pm 6.9\%$) of cases.
- Final concentration of the KCl infusion was ≤ 4 g/L in 73% (95% CI: $\pm 8.5\%$) of cases.
- Mention of the final volume of the KCl infusion was detailed in 82.6% (95% CI: $\pm 7.29\%$) of cases.

Conclusion Indications to use injectable KCl were not strictly applied, which may be explained by prescribing habits and the desire to quickly normalise hypokalaemia.

A very low utilisation of ready-to-use products which is probably due to insufficient information to prescribers concerning the available ready-to-use products.

Most prescriptions were not using the recommended units, and lack of knowledge of the prescriber of the need to prescribe in g or mmol may be the cause of this.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

5PSQ-021 PHARMACOGENETIC TESTING FOR PERSONALISATION OF STATIN THERAPY

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Background The solute carrier organic anion transporter family member 1B1 (*SLCO1B1*) protein facilitates the hepatic uptake of simvastatin. The *SLCO1B1* c.521T>C genetic polymorphism (rs4149056) decreases the function of *SLCO1B1* and is a strong predictor of simvastatin-induced myopathy. *SLCO1B1* genotyping and pharmacist interpretation of the results are a step forward in personalising statin therapy. Hospital pharmacists have an innovative role in the clinical implementation of *SLCO1B1* pharmacogenetic testing for statin therapy in the interests of patient safety.

Purpose To identify the presence of the *SLCO1B1* c.521T>C genetic polymorphism in a cohort of cardiac patients on simvastatin to correlate genotype results with myopathy risk.

Material and methods Patients (n=110) on simvastatin were recruited by convenience sampling from the cardiac catheterisation laboratory of an acute general hospital. An EDTA-blood sample was collected from each patient after informed written consent. Genomic DNA was extracted and real-time polymerase chain reaction genotyping to identify the

SLCO1B1 c.521T>C (rs4149056) single nucleotide polymorphism was performed using the Sacace biotechnology kits and Rotor-Gene 6000/Q for fluorescence detection. The patient cohort was classified into three genotypes: TT (homozygous wild-type – normal *SLCO1B1* function); TC (heterozygous – intermediate *SLCO1B1* function); and CC (homozygous variant – low *SLCO1B1* function). The 2014 Clinical Pharmacogenetics Implementation Consortium (CPIC) guideline, which suggests prescribing a lower simvastatin dose (20 mg/day) or consideration of rosuvastatin instead of simvastatin in patients genotyped as TC or CC, was used for genotype-based therapy recommendations.

Results The 110 patients (all caucasian, 90 males, mean age 65+1.02 years) were genotyped as TT (78.2%, n=86), TC (20.0%, n=22) and CC (1.8%, n=2). Fifteen patients genotyped as TC or CC were on a higher simvastatin dose (40 mg/day) than suggested by the CPIC guideline for *SLCO1B1* and simvastatin-induced myopathy.

Conclusion Patients genotyped as TC have mild risk of myopathy and patients genotyped as CC have a higher risk of myopathy compared to patients genotyped as TT or TC. Pharmacists should recommend *SLCO1B1* genotyping in patients on statin therapy, interpret test results and suggest therapy recommendations according to genotype to improve patient safety with respect to myopathy.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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No conflict of interest.

5PSQ-022 AN EVALUATION OF THE PHARMACIST INTERVENTION IN INTRAVENOUS MIXTURES' STABILITY

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Background The knowledge concerning intravenous mixtures' stability is important because their effectiveness and safety depends on it.

Purpose To evaluate a check of the replacement of the infusion bag in time, concerning dopamine and nitroglycerin to ensure their effectiveness and safety in different hospitalisation units.

Material and methods An observational prospective study was carried out during 3 months. Dopamine and nitroglycerin intravenous mixtures' prescriptions were selected from a pharmacy electronic prescription program. From the pharmacy department an information sheet was sent to the hospitalisation units, where patients were treated with any of the mixtures, with the following information: patient identification, intravenous mixture prescribed and the text: 'The stability of the mixture is 24 hour. Change the dilution every day at the same time.'

The variables studied were the infusion rate (<21 mL/h, >21 mL/h and =21 mL/h) and the time when the mixture was replaced. The information sources used were electronic medical files, nurse interviews and direct observation of the mixture.

Results Sixty prescriptions were studied: 48 mixtures were prescribed with an infusion rate of <21 mL/h, nine mixtures