knowledge when performing continuous infusion of cefepime in syringe. In elastomeric devices, cefepime solution at 50 mg/mL in 0.9% NaCl stored at 37°C was unstable. These preparations are not recommended. In view of these results, the stability of cefepime in D5W in elastomeric devices was not studied.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

3PC-005 PHYSICOCHEMICAL STABILITY OF CEFAZOLIN IN POLYPROPYLENE SYRINGES AND IN ELASTOMERIC DEVICES

¹E D'huart*, ¹N Sobalak, ¹J Vigneron, ²A Charmillon, ¹B Demore. ¹University Hospital of Nancy, Pharmacy Department, Vandoeuvre Lès Nancy, France; ²University Hospital of Nancy, Infectious and Tropical Diseases Department, Vandoeuvre Lès Nancy, France

10.1136/ejhp-pharm-2020-eahpconf.52

Background and importance Cefazolin is an antibiotic used to treat methicillin susceptible *Staphylococcus aureus* infections. The usual dose of cefazolin is 6 g/day. For β -lactam antibiotics, studies have demonstrated that continuous administration is the preferred mode of administration. To the best of our knowledge, no stability data for cefazolin solutions at 125 mg/mL (6 g in 48 mL) in syringes or at 50 mg/mL (12 g in 240 mL) in elastomeric devices have been published.

Aim and objectives The objectives were to study the stability of cefazolin solutions (1) at 125 mg/mL, diluted in 0.9% sodium chloride (0.9% NaCl) or 5% dextrose (D5W), in polypropylene syringes at 20–25°C and (2) at 50 mg/mL, in the two solvents, in elastomeric devices at 37°C, after preparation and after storage for 6, 24 and 48 hours.

Material and methods Three preparations for each condition were made. For each analysis, three samples from each preparation were taken and analysed by high performance liquid chromatography coupled with a photodiode array detector. The method was validated according to the International Conference on Harmonisation Q2 (R1). Physical stability was evaluated by visual and subvisual inspection (turbidimetry by UV spectrophotometry, as recommended by the European Consensus Conference). pH values were measured.

Results For each solvent, cefazolin solutions at 125 mg/mL and at 50 mg/mL retained more than 90% of the initial concentration after 48 hours. During the study, pH values increased with the addition of more than 1 pH unit after 48 hours at 125 mg/mL and after 6 hours at 50 mg/mL. Absorbance values were rapidly modified for solutions stored in elastomeric devices and were stable for solutions in syringes up to 24 hours.

Conclusion and relevance In view of the results and despite the fact that solutions retained more than 90% of the initial concentration, we propose to limit the stability of cefazolin in 0.9% NaCl and D5W at 125 mg/mL to 24 hours in polypropylene syringes at 20–25°C. These stability data of concentrated solutions provide additional knowledge in performing continuous infusion of cefazolin in polypropylene syringes. In elastomeric devices, cefazolin solutions at 50 mg/mL stored at 37°C were unstable after 6 hours. These preparations are not recommended.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

3PC-006 PHYSICOCHEMICAL STABILITY OF AZTREONAM IN POLYPROPYLENE SYRINGES AT HIGH CONCENTRATION FOR INTENSIVE CARE UNITS

¹YE Nisse*, ¹J Vigneron, ¹F Blaise, ¹E D'huart, ²A Charmillon, ¹B Demoré. ¹Chru Nancy, Pharmacy, Vandoeuvre-Lès-Nancy, France; ²Chru Nancy, Infectious Diseases Department, Vandoeuvre-Lès-Nancy, France

10.1136/ejhp-pharm-2020-eahpconf.53

Background and importance Atreonom is an antibiotic used to treat severe infections, such as in intensive care units (ICUs). The dose of atreonom can vary from 2 to 8 g/day. In ICUs, continuous administration is the preferred mode of administration and a minimum volume is used for patients requiring fluid restriction, leading to high concentrations of atreonom.

Aim and objectives The objective of the study was to assess the stability of atreonom solutions at 125 mg/mL, diluted in 0.9% sodium chloride (NS) or 5% glucose (D5W), in polypropylene syringes not protected from light, after preparation, and after storage for 6, 24 and 48 hours at 20–25°C.

Material and methods Three syringes for each condition were prepared. For each analysis, three samples from each syringe were analysed by high performance liquid chromatography (HPLC) coupled with a photodiode array detector at 270 nm. The method was validated according to the International Conference on Harmonisation Q2 (R1). The stability indicating capability was evaluated by analysing forced degraded pemetrexed solutions. Physical stability was evaluated by visual and subvisual inspection (turbidimetry). pH values were measured.

Results Three syringes for each condition were prepared. For each analysis, three samples from each syringe were analysed by HPLC coupled with a photodiode array detector at 270 nm. The method was validated according to the International Conference on Harmonisation Q2 (R1). The stability indicating capability was evaluated by analysing forced degraded pemetrexed solutions. Physical stability was evaluated by visual and subvisual inspection (turbidimetry). pH values were measured.

Conclusion and relevance Aztreonam 125 mg/mL at room temperature not protected from light in D5W or NS in polypropylene syringes was stable for 24 hours. These stability data of highly concentrated solutions provide additional knowledge to assist ICUs in their daily practice. Highly concentrated atreonom solutions are stable after a 24 hours of storage and can be administered as a daily infusion.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

3PC-007 LEVOFLOXACIN 0.05% EYE DROPS: A CASE STUDY

M Martín Marqués, A De Dios López, J Del Estal Jiménez, PA López Broseta, MÁ Roch Ventura*, A Sanjuan Belda, S Jornet Montaña, E Esteve Pitarch, M Vuelta Arce, M Mendoza Aguilera, L Canadell Vilarrasa. Hospital Universitari Joan XXIII, Pharmacy, Tarragona, Spain

10.1136/ejhp-pharm-2020-eahpconf.54

Background and importance Because of the absence of appropriate pharmaceutical forms, pharmaceutical compounding is necessary in paediatric patients.

Aim and objectives The aims of the study were to describe an eye drop formulation of levofloxacin 0.05% and to evaluate

the effectiveness and safety of the eye drops in a premature infant.

Material and methods Case description: a premature infant (26 weeks' gestation) was diagnosed with conjunctivitis due to *Stenotrophomonas maltophilia* multi-resistant, sensitive to levofloxacin. The neonatal intensive care unit requested the manufacture of levofloxacin based eye drops.

The pharmacy service initiated a bibliographic search to find out the indication, dosage, manufacture and stability of levofloxacin 0.05% based eye drops.

Results We decided to prepare it with injectable levofloxacin 500 mg/100 mL, taking into account the physical and chemical characteristics an ophthalmic drug should have:

- non-contraindicated excipients (injectable excipients: water, HCl and NaOH);
- acceptable pH (4.4–5.5) and osmotic concentration (300–310 mOsm/l).

We packaged the parenteral solution in a horizontal laminar flow cabin, filtering it with a 0.22 µm filter, in a light protected eye drops bottle. We checked whether it was clean and particle free. The validity period was established: 9 days inside a refrigerator, according to the risk matrix for sterile preparations included in the 'Guía de Buenas Prácticas de Preparación de Medicamentos'.

The patient was started on treatment with levofloxacin 0.05% eye drops with the following dosage regimen: 1 drop every 6 hours. We recommended including the nasolacrimal canal for at least 2 min in order to avoid systemic absorption of the eye drops when administered via the eyes and to decrease any systemic adverse reactions. The patient showed good progress, so we decided to interrupt the treatment after 7 days due to symptomatic improvement with no conjunctivitis secretion. The eye drops were well tolerated.

Conclusion and relevance To manufacture eye drops it is necessary to know the physical and chemical characteristics of the active substance (pH, osmotic concentration and excipients), to ensure that it is effective, safe and stable.

The eye drops were effective and well tolerated in this premature infant, which means that it can be considered as a good option for other patients.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

3PC-008 INTRAVENOUS PERFUSION OF CEFTOLOZANE-TAZOBACTAM USING ELASTOMERIC INFUSION PUMPS

S Rotea*, M García, B Feal, C Fernández, V Giménez, I Martín. *Hospital Pharmacy, Complejo Hospitalario Universitario A Coruña, A Coruña, Spain*

10.1136/ejhp-pharm-2020-eahpconf.55

Background and importance Ceftolozane-tazobactam (CT) intravenous infusion using portable elastomeric infusion pumps (EIP) is useful, especially in patients infected with resistant bacteria.

Aim and objectives The aim of the study was to describe CT infusion using EIP (CT-EIP) and analyse the healthcare costs avoided versus hospital admission.

Material and methods This retrospective study included all patients treated with CT-EIP. The study period was January 2017 to October 2019. Recorded data were clinical data obtained from patient electronic medical records. For the

economic evaluation we considered costs of the EIP, nurse working time needed for preparation and cost of the hospital at home care unit (HHU). The cost of the medication was not included as it was the same whether the patient was in hospital or at home. Physician and pharmacist working time was not analysed as it was considered that hospital admission and management by the HHU were equivalent.

For the calculation of hospital admission costs, the regional normative was considered: a day at the HHU costs € 80.70, and the cost per hospital admission day is € 528.95. Nursing work needed for preparation of the EIP costs € 15.81/hour (a nurse prepares an average of 10 EIP/hour).

Baxter Healthcare Corporation manufactured the EIP used: 24 hour duration devices (240 mL/24 hours, flow rate 10 mL/hour) for continuous perfusion or 30 min duration devices (100 mL/30 min, flow rate 200 mL/hour) for intermittent perfusions.

The unit cost of EIP was € 25.63 for the 240 mL/24 hour devices (needed 1/day) and € 15.40 for the 100 mL/30 min one (needed 3/day). Average cost per day of treatment with CT-EIP were € 35.91 (range € 25.63–46.20/day).

Results A total of 220 CT-EIP were prepared for 10 patients (5 men, 5 women; mean age 58.1 years (range 19–90 years) with hospital acquired pneumonia (6), off-label situations (2), severe abdominal infection (1) and severe urinary infection (1). Microorganisms isolated were *Pseudomonas aeruginosa* (10/10 patients); *Staphylococcus aureus* (2/10); and *Escherichia coli* (1/10). Eight of 10 patients were treated with concomitant antibiotic. Treatment took an average of 13 days (range 7–29) per patient with CT-EIP.

Seven of 10 patients were managed by HHU and the rest had ambulatory care after hospital discharge. Successful progression occurred in five patients. Five patients died due to other severe pathologies (cancer, cystic fibrosis, acute rejection, etc).

The avoided estimated cost was € 55 856.26.

Conclusion and relevance CT-EIP was a cost effective alternative, which enabled patients to stay at home, avoiding unnecessary hospital admission and improving their quality of life.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

3PC-009 TREATMENT OF RECURRENT OTOMYCOSIS WITH LOCAL APPLICATION OF A COMPOUNDED FORMULATION OF VORICONAZOLE EAR DROPS: CASE SERIES

¹L Carrasco Piernavieja, ¹E Zhan Zhou*, ¹M Dominguez Bachiller, ¹AM Martín De Rosales Cabrera, ²MS Marcos Salazar, ¹M Perez Encinas. ¹Hospital Universitario Fundación Alcorcón, Hospital Pharmacy, Alcorcón, Spain; ²Hospital Universitario Fundación Alcorcón, Otorhinolaryngology, Alcorcón, Spain

10.1136/ejhp-pharm-2020-eahpconf.56

Background and importance Otomycosis is a suppurative fungal infection that affects the external auditory canal. Patients have a high rate of recurrence and are prone to invasive fungal infections after receiving limited therapeutic options with low response.

Aim and objectives The aim of the study was to describe the use of a sterile formulation of topical voriconazole ear drops