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 ELASTOMIC DEVICES

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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, diluted in 0.9% sodium chloride (0.9% NaCl) or 5% dextrose (D5W) in polypropylene syringes at 20–25°C is available. This study aims to assess the stability of cefazolin solutions at 125 mg/mL, diluted in 0.9% NaCl or 5% glucose (D5W), in polypropylene syringes at 20–25°C.

Aim and objectives The objective of the study was to assess the stability of cefazolin solutions at 125 mg/mL, diluted in 0.9% NaCl or 5% glucose (D5W), in polypropylene syringes at 20–25°C.

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 (turbidity). 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. This stability data of concentrated solutions can be used 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

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Background and importance Aztreonam is an antibiotic used to treat severe infections, such as in intensive care units (ICUs). The dose of aztreonam 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 aztreonam.

Aim and objectives The objective of the study was to assess the stability of aztreonam 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 (turbidity). 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 (turbidity). 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 can be used in performing continuous infusion of aztreonam solutions. Highly concentrated aztreonam solutions are stable after 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

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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 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 of the 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 secretions. 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.

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**3PC-009**

**TREATMENT OF RECURRENT OTOMYCOSIS WITH LOCAL APPLICATION OF A COMPOUNDED FORMULATION OF VORICONAZOLE EAR DROPS: CASE SERIES**

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**Background and importance** Otomycosis is a suppurrative 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