

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

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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 (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

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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 Aztreonom 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

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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