

face many difficulties in providing age appropriate medicines regarding dose, suitability of the dosage form or excipient content. Compounding is the main solution.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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No conflict of interest.

3PC-049 IMIPENEM–CILASTATIN FORTIFIED EYE DROPS FOR THE TREATMENT OF CORNEAL ULCERS CAUSED BY CONTACT LENSES: DEVELOPMENT AND CHARACTERISATION

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Background and importance Corneal ulcers are a common problem that may appear more frequently in patients with inappropriate use of contact lenses. Unfortunately, it can be difficult to diagnose; its cause can be elusive and the consequences of an error in diagnosis or treatment can be severe.

Aim and objectives To describe the development of 0.5% imipenem–cilastatin eye drops and to evaluate the effectiveness and safety of this master formula.

Material and methods In February 2019, a 41-year-old woman presented to the emergency department for severe pain in the right eye. Commercial eye drops (0.3% tobramycin and 0.5% moxifloxacin) were being applied. The ophthalmology department diagnosed an infiltrated corneal ulcer with an epithelial defect. Microbiological culture of the contact lenses was requested and *Enterococcus faecalis* and *Achromobacter xylosoxidans* were isolated. The antibiogram revealed sensitivity to β -lactams and resistance to tobramycin and quinolones. The ophthalmologist contacted the pharmacy service to select the most appropriate treatment, deciding on the development of 5% ceftazidime and 0.5% imipenem fortified eye drops (1 drop every 2 hours). A corneal scraping was also carried out where growth of *Fusarium* spp was found. Therefore, therapy was completed with 1% voriconazole (1 drop every 2 hours) and 5% natamycin (1 drop every 4 hours).

A bibliographic search was made in PubMed and in the Spanish Society of Hospital Pharmacy, focusing on organoleptic characteristics, stability and pH. Effectiveness and safety were evaluated in the medical history (Selene).

Results We manufactured 5 mg/mL imipenem–cilastatin eye drops from the vial for intravenous use and water for injection, working in a horizontal laminar flow cabinet and following the standardised work procedure. A 0.22 μ m filter was used. We established stability at 2–8°C for 2 days, protected from light. It was verified that a completely transparent liquid with pH 7 had been obtained.

Conclusion and relevance Imipenem–cilastatin 0.5% eye drops proved to be a novel alternative in the treatment of corneal ulcers caused by *Enterococcus faecalis* and *Achromobacter xylosoxidans*. It produced a rapid and intense antibiotic effect that resulted in a reduction in eye inflammation. It was also easy to apply, which facilitated therapeutic compliance and contributed to a shorter hospital stay. Its safety and tolerance profiles were adequate.

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3PC-050 IMPORTANCE OF COMPOUNDING IN THE PAEDIATRIC HOSPITAL PHARMACY

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Background and importance Paediatric pharmacy often faces a lack of commercially available medicines suitable or even licensed for use in children. Children cannot be regarded as small adults or as a homogeneous group in themselves. As a consequence, paediatric medicines should be appropriately designed for the target age group. Compounding is the main solution to this problem, so the compounding area becomes essential in this type of centre. Given the high number of requests for these formulations, including the most commonly used compounded preparations in the pharmacy formulary as standard preparations (SP) is a possible solution.

Aim and objectives To highlight the importance of compounding for obtaining child friendly dosage forms and formulations in a referral paediatric hospital.

Material and methods All SP included in the pharmacy formulary were identified and research was conducted to ensure that a suitable or licensed commercial product for paediatric patients was unavailable nationally and internationally. Using our compounding software, we quantified all SP made in 2017 due to the lack of a commercially available product and classified these according to their route of administration.

Results Our formulary included 99 SP compounded in our pharmacy department (table 1). Oral liquid compounded formulations (52) represented 35% of the total oral liquid drugs available in our formulary (148).

Abstract 3PC-050 Table 1

Compounding form	Different active substances formulated	Prepared units per year
Oral liquid	52	8300
Solid	16	25000
Parenteral administration	12	1879
Ocular topical	5	524
Topical	13	1535
Rectal	1	22

Table 2 describes the reasons for compounding our 99 SP.

Abstract 3PC-050 Table 2

Commercially available with no child friendly formulation (dosage forms, administration volume, dosage form size)	Inappropriate excipient for children	Available for a different treatment indication	For stability/sterility requirements
81	2	3	13