the change in the antibiotic consumption profile between both periods.

Microbiological diagnosis consisted of simultaneous detection of glutamate dehydrogenase and toxins and enzyme immunoassay test. Positive results were confirmed by PCR.

Statistical treatment: to compare the CDI incidence between the two periods the rate ratio was calculated. Antibiotic consumption comparison was performed using independent samples Z-test.

Results

Parameter	2019 (pre-pandemic period)	2020 (pandemic period)	*P value*
Total/mean (patient-days)	74.012/10.16	72.742/9.2	
Age (years) gender (male%)	8146.5%	7948.5%	
Incidence CDI/10 000 patient-days	6.35	2.47	*RR= 0.39, p<0.001*
Antibiotic consumption DDD/ 100 patient-days			
Ceftriaxone	11.68	21.75	*p<0.01*
Amoxicillin/ clavulanic	14.96	10.44	*p<0.01*
Quinolones	13.67	9.07	*p<0.01*
Carbapenems	4.39	4.48	*p=0.4*
Piperacilin/ tazobactam	5.13	4.71	*p<0.01*

Conclusion and relevance Changes in antimicrobial use related to the outbreak suggest that clinicians overprescribed first-line CAP-focused antibiotics.

CDI incidence reduction was related to a marked decreased use of quinolones and amoxicillin/clavulanic despite the fact that consumption of third-generation cephalosporins has doubled.

Another implemented protocol such as more comprehensive cleaning and hand-washing hygiene could have contributed to the marked CDI decrease.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

4CPS-211 REDUCTION OF FLUSHING VOLUME AND INCOMPATIBILITIES BY A CLINICAL PHARMACIST IN A PAEDIATRIC INTENSIVE CARE UNIT

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Background and importance Incompatibilities of drugs administered via the same Y-site can have serious consequences. Therefore, incompatible drugs should be administered through different infusion lines. If separate administration is not possible, flushing should be performed between drug administrations. However, children in critical care units have a high risk for fluid overload which is associated with a higher morbidity. Consequently, unnecessary fluids should be avoided [1].

Aim and objectives The aim of our study was to evaluate the intervention to reduce flushing volume without increasing incompatibilities in a paediatric intensive care unit (PICU).

Material and methods We performed an intervention study in our 13-bed PICU in Kassel to determine the flushing volume (S1P0 January–July 2020; S1P1: October 2020–August 2021). Patients with ≥2 IV drugs, stay >24 hours, and age 0–18 years were included. As part of this study two 4-week bedside observations were conducted to survey compatibility of coadministered drugs (S2P0 July 2020; S2P1 October 2020). As an intervention, patient-specific compatibility and flushing charts were created by a clinical pharmacist. The Mann–Whitney U test was used for quantitative variables and the χ^2 test for categorial variables. The analyses were performed using R version 4.1.1.

Results 170 patients (85 patients per period) were included in the intervention study. 23 (S2P0) and 24 (S2P1) patients with 504 (S2P0) and 523 (S2P1) drug combinations were part of the bedside observation. The median of the flushing volume was significantly reduced from 0.68 mL/kg/day (Q25/Q75 0.31/1.33) to 0.35 mL/kg/day (Q25/Q75 0.08/0.74); p<0.001). Also, the number of daily flushing processes decreased (S1P0 median (Q25/Q75) 2.60 (1.33/3.40), S1P1 median (Q25/Q75) 1.44 (0.67/2.33); p<0.001). Furthermore, the observational study demonstrated a 51% reduction in the number of administered incompatible combinations (S2P0: 8.93%, S2P1: 4.39%, χ^2= 7.46; p=0.002). Combinations without literature data were administered in both periods, and again the number could be reduced (S2P0: 8.13%, S2P1: 3.82%, χ^2=8.96, p=0.003).

Conclusion and relevance Our results show that incompatibilities are very common in PICU and that relevant compatibility data, especially for children, are still lacking. A pharmaceutical intervention can not only help to reduce flushing volume but can also reduce incompatibilities.

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4CPS-213 A COMPARATIVE RISK ANALYSIS COMPARING THE CONVENTIONAL AND FULLY AUTOMATED MANAGEMENT OF CLINICAL TRIALS IN AN ONCOLOGY PHARMACY

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Background and importance A software module (APOTECA-trial) was introduced in clinical practice to manage clinical trials and investigational drugs, thereby minimising manual activities and ensuring maximum traceability (1). APOTECA-trial was developed in accordance with the Good Clinical Practice (GCP) guidelines, in particular with regard to subject safety, outcome reliability, characteristics of electronic systems/data, and quality management with a risk-based approach.

Aim and objectives The objective of this study was to assess the risk associated with the pharmacy-based management of