

Background and importance Digital health is the concept that incorporates information and communication technologies into healthcare services. Nowadays, and favoured by the SARS-CoV-2 pandemic, hospital pharmacy has been forced to adopt digital technologies and tools to improve patient care.

Aim and objectives If any area of hospital pharmacy has gained prominence in recent years, it is the area of digital health. Therefore, it was decided to analyse current clinical trials in relation to technological devices or wearables.

Material and methods Descriptive study of current clinical trials on technological devices from the pharmacological aspect. The following filters were applied: active trials, devices in digital pharmacy, all phases, all ages and both sexes. The type of device was analysed as intervention, pathology, location, and study topic. Both observational and interventional studies were included. The tool used for evaluation was the ClinicalTrials.gov clinical trials registry.

Results Nineteen current active phase clinical trials were analysed. The phases of the projects were: phase I-7, phase II-3, phase III-2 and phase IV-7. The main pathologies of the clinical trials were: musculoskeletal disorders (6), chronic obstructive pulmonary disease (3), Parkinson's neurodegenerative diseases (3), oncology (2), autism (1), renal system (1), cardiac system (1) and self-injection devices (1). The main countries conducting clinical trials were: United States (13), Europe (4), Asia (1) and Oceania (1). Seven projects were detected in the patient recruitment phase.

Conclusion and relevance Although the use of wearables in the field of hospital pharmacy is a little known topic, it is increasingly gaining prominence in the literature and in scientific research. Digital health is the driver of change towards new models of care between patients and healthcare professionals. Therefore, it is necessary to continue with research and clinical trials to promote digitisation in hospital pharmacy.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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Conflict of interest No conflict of interest

4CPS-080

EFFICACY AND SAFETY OF THE CONTINUOUS INFUSION OF VANCOMYCIN IN PAEDIATRIC PATIENTS: A SYSTEMATIC REVIEW

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Background and importance In adults, continuous infusion of vancomycin (CIV) has been evaluated as an alternative to intermittent infusion (IIV) with potential advantages. The limited evidence in the paediatric population has not allowed the routine use of CIV.

Aim and objectives To identify and assess the available evidence on the safety and efficacy of CIV in paediatric patients.

Material and methods A systematic review of the literature indexed in PubMed and EMBASE databases and published before November 2020 was conducted, in accordance with the PRISMA Statement. The search terms included: 'Vancomycin' AND 'Paediatric OR Child OR Children OR Infant' AND 'Continuous infusion'. The inclusion criteria were: clinical

trials (CTs) and observational studies that assessed the clinical efficacy and/or attainment of plasma concentrations of vancomycin (pharmacokinetic efficacy) in paediatric patients treated with CIV. The exclusion criteria were: adults and the neonatal population and studies in a language other than English or Spanish. The data collected included: year of publication, type of study, characteristics of population, as well as efficacy and safety data on CIV.

Results A total of 359 articles were identified, of which 7 met the inclusion criteria. The studies included were published between 2012 and 2019. Regarding the type of study, there was 1 CT, 3 case series studies, 2 retrospective studies and 1 prospective study. The analysed population (n=460) consisted of critical paediatric (n=34), cystic fibrosis (n=3), onco-haematological (n=94), and osteomyelitis and pneumonia (n=15) patients, as well as various subpopulations (n=314). All the articles (n=7) assessed the attainment of plasma concentrations of vancomycin. The percentage of patients with concentrations within the therapeutic range varied among the different studies from 0% to 100% of the total study population. Only 3 studies assessed clinical efficacy, but none of them were designed for this purpose. Only 2 of the 6 studies observed cases of nephrotoxicity with 11% (n=10) and 12% (n=3) of the total population, respectively.

Conclusion and relevance The best administration method for this antibiotic within the paediatric population is still unknown due to limited evidence. However, studies conducted thus far suggest pharmacokinetic advantages for CIV. Further investigation is required, in particular CTs comparing IIV with CIV for clinical efficacy and safety outcomes

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SUBCUTANEOUS FUROSEMIDE INFUSION USING ELASTOMERIC INFUSION PUMPS IN A TERTIARY HOSPITAL

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Background and importance Congestive heart failure (CHF) management in outpatients is often complicated. Increasing oral diuretics or combining drugs to improve a patient's symptoms is not always effective enough. To avoid hospital admissions, furosemide subcutaneous administration has been proposed as a useful alternative. Comparing intravenous with subcutaneous infusion of furosemide, the latter is supposed to increase diuresis using lower furosemide doses, reduce hospital stays and minimise re-entry rates.

Aim and objectives Our aim was to describe furosemide subcutaneous infusion by portable pump (FPP) use in a tertiary hospital.

Material and methods Retrospective study in which all outpatients treated in 2020 and 2021 with FPP, monitored by the cardiology unit, were included. Pumps which provided an infusion flow rate of 0.5 mL/hour were used. Length of infusion was 7 days/pump. The formulation's pH was 8.7. Once prepared, FPP could be stored for 84 days at room temperature or in a refrigerator and protected from light. Demographic data, diagnosis and clinical results were collected.