

ECONOMIC IMPACT OF CENTRALIZING PEDIATRIC INTRAVENOUS ADMIXTURES

Prieto Romero A; García Moreno F; Pernia López M.S.; Carrillo Burdallo A; Vicente-Valor J; García López N; Herránz-Alonso A; Sanjurjo Sáez M.

Servicio de Farmacia. Hospital General Universitario Gregorio Marañón. Madrid, Spain

BACKGROUND AND IMPORTANCE

Most intravenous admixtures (IVA) are prepared on the wards just before their administration to the patient, discarding the spare volume left in vials afterwards. This wasted volume is especially significant in injectables used in pediatrics. To avoid this, hospital pharmacy Central Intravenous Additive Services (CIVAS) centralize the preparation of IVAs, reducing waste and saving costs.

AIM AND OBJECTIVE

To evaluate the economic impact of centralizing injectable pediatric antifungal drugs in a tertiary hospital CIVAS from January to December 2021.

MATERIALS AND METHODS

The cost incurred by the preparation of pediatric antifungals on the wards versus CIVAS was estimated. To do this, data was collected from the electronic prescribing system and the centralized preparation costs were calculated considering the number of vials, diluting agents, extra personnel time (0.90€/preparation) and clothing (0,11€ and 0,16€ in a non-hazardous cabin and hazardous cabin, respectively). Expenses on the ward were calculated based on what it would have cost were they not centralized. These calculations were based on the maximum ex-factory price plus VAT minus a national discount.

RESULTS

Table 1. Extra lab expenses for calculating total cost

Item	Cost (€)
Extra personnel time	0.90/preparation
Clothing (non-hazardous cabin)	0,16/day
Clothing (hazardous cabin)	0,11/day

Table 2. Number of IVA prepared and their associated savings

Drugs selected for centralization	Concentration	Number of admixtures prepared	Savings (€)
LAB	1 mg/mL	863	26.007
Micafungin	1 mg/mL	1531	72.627
Voriconazole	5 mg/mL	29	249
TOTAL	-	2423	96.409

CONCLUSION AND RELEVANCE

Centralizing antifungal drugs into CIVAS in hospital pharmacies is an efficient measure to reduce waste and costs. This is especially important for highly prescribed pediatric IVAs such as LAB and micafungin, and less so for voriconazole which is far less commonly prescribed in pediatrics, being mainly prepared in CIVAS for safety reasons.

