OPTIMIZATION OF HIGH-IMPACT MEDICINES IN PAEDIATRICS

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BACKGROUND

High economic impact medicines are used off-label pediatric situations, using adult presentations for lack pediatric form.

PURPOSE

Justify the making of the individualized needs of medicines for pediatric use adaptation to increase safety and efficiency.

METHODS

Retrospective review of high-impact medicines used in therapeutic individualization pediatrics.

- **Duration of study**: 4 years. The medicines are included according to the needs (Adalimumab 35 months, Anakinra 73 months and Pegfilgrastim 50 months).
- **Data collection sources**: Computer application in the pharmacotechnics area, software of outpatient dispensing and management system. Personnel times are collected according to the Catalogue of Products and Billing (2nd edition 2009) and costs according to the Analytical Accounting Service.

As it is a standard sterile formula the time and cost of personnel were considered:

- ❑ Pharmaceutical ➡ standard operating procedure of a new product and validations
- ❑ Nurse ➡ production
- ❑ Technician ➡ material preparation, labeling and packaging

Comparing the cost of the dispensation:
COMPLETE PHARMACEUTICAL FORM vs INDIVIDUALIZATION COSTS THROUGH STERILE REPACKAGING.

- **Variables studied**: patients, different types of dosages, number of syringes made, number of syringes consumed and associated costs. For economic valuation the cost of the commercial presentation and the personnel involved in the making were considered.

RESULTS

Drug/ Pathology	No. of patients treated	No. different dosages	Syringes made	Syringes consumed	Costs full dosage form	Costs individualization	Saving
Adalimumab/ Rheumatoid Arthritis	3	2	70	35	33.971,00€	17.519,31€	16.451,69€
Anakinra/ Artiritis Juvenile Idiopathic	6	9	2274	809	58680,57€	34.804,94 €	23.875,63€
Pegfilgrastim/ Congenital Neutropenia	1	1	148	74	92.352,00€	47263,84€	45.088,16€

CONCLUSIONS

Individualization of dosage represents an optimization of resources and increased patient safety. The development of repackaging improve volume management difficult to measure, avoiding manipulation in unsuitable conditions by the patient.

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