STANDARDISATION IN THE PREPARATION OF INTRAVENOUS MIXTURES.

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BACKGROUND: To define the intravenous mixtures and the standardized optimal doses to be prepared in the pharmacy service according to the new regulations and available resources.

Methods:

- ✓ A review about all mixtures prepared in 2015 was carried out to find out the workload involved in the preparation of new mixtures
- ✓ After review of the list 2 and 3 was decided to prepare those drugs that provide added value (manipulator security, patient safety and cost optimization).
- ✓ Possible theoretical doses were calculated based on the dosage of the drug (real weight / adjusted weight / ideal weight).
- ✓ We analyzed whether the theoretical and the standardized dose was <10% and standardized doses were chosen.

2. Non-antineoplastic drugs that meet one or more of the NIOSH criteria for a hazardous drugNote that some of these drugs may also pose a reproductive risk for susceptible populations

3. Drugs that primarily pose a reproductive risk to men and women who are actively trying to conceive and women who are pregnant or breast feeding, because some of these drugs may be present in breast milk.

Results:

+ Antibiotics: 1567
+ Voriconazole: 466
+ Daptomycin: 552
+ Valproic: 388
+ Micofenolate:6

+ 2946

- Clindamycin: 3596
- Penicillin: 811
- Erythromycin:263

- 4670

The new proposal implies a decrease of 20% in the number of intravenous mixtures carried out annually (5 intravenous mixtures less per day).

- ✓ We decided to carry out a total of **96** standardized mixtures corresponding to **15 drugs.**
- ✓ **24%** of the defined preparations provided safety to the manipulator **(hazardous drugs).**
- ✓ **76%** improved patient **safety** and **optimization costs**.

Drug	Dosage	Number of standardized intravenous mixtures
Acyclovir	5-10 mg/Kg (PI)	13
Ganciclovir	5 mg/Kg (PA)	7
Foscarnet	90 mg/Kg (PA)	8
Abelcet®	3-5 mg/Kg (PR)	8
Ambisome®	5 mg/Kg (PR)	20
Caspofungin	Dosis fijas	3
Voriconazole	4-6 mg/Kg (PA)	6
Amikacin	15 mg/Kg (PA)	4
Gentamicin	5 mg/Kg (PA)	4
Tobramycin	5 mg/Kg (PA)	4
Vancomycin	15 mg/Kg (PR)	3
Daptomycin	6-10 mg/Kg (PR)	10
Valproic	15-25 mg/Kg (PI)	6
Micofenolate	Individual doses	-
Ciclosporin	Individual doses	-

- ✓ **No** defined preparation presents a variation between the theoretical and the standardized dose **higher than 10%.**

CONCLUSIONS: The normalization of intravenous mixtures allows a more efficient management of the elaboration area. It is also expected a reduction of the errors in the elaboration, a greater reutilization of the returned mixtures and, probably, a final saving in direct and indirect costs.

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