

Chemotherapy preparation errors in a centralized IV admixures unit

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BACKGROUND

Chemotherapy-related preparation errors (PE) can have serious consequences to patients so its necessary to implement different ways to minimize them. The aim of this study is to identify systematic PE and to stablish PE rate as an internal assistencial quality parameter.

METHODS

Prospective observational study during April to October 2001. PE were registered an classified in two main categories major (which could induce toxicity or reduction of effectivity) and minors, each one divided in different types.

RESULTS

12331 chemotherapy-related preparation were validated and 55 PE were recorded. Results are shown in the following table:

Major PE	Nº Errors (%)	Minor PE	Nº Errors (%)
Wrong dose	26 (47.3)	Compatible diluent	17 (30.9%)
Wrong drug	5 (9.1)	Final volume	0
Wrong administration system	3 (5.5)	Final presentation	0
Labelling	2 (3.6)	Solvent of reconstitution	0
Incompatible diluent	2 (3.6)	Compatible set/bag	0
Incompatible set/bag	0	Total	17 (30.9%)
Total	38 (69.1)		

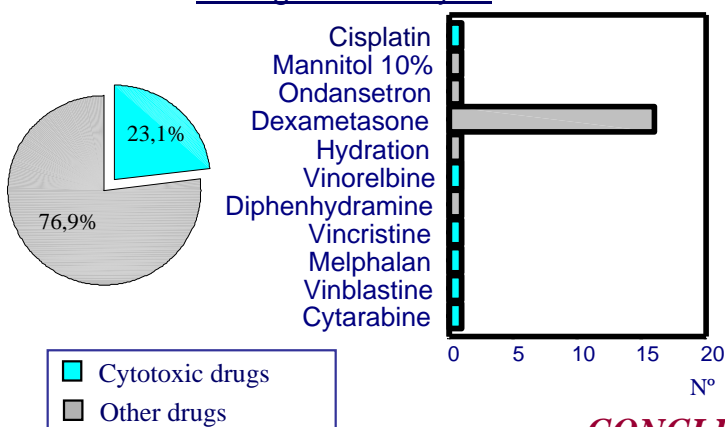
PE types frequencies analysis detected and corrected two latent errors:

⇒ Reduction of the standar dose of Dexametasone (protocolized preparation of 20 mg) for individual patients, increased errors (61.9% of wrong dose PE)

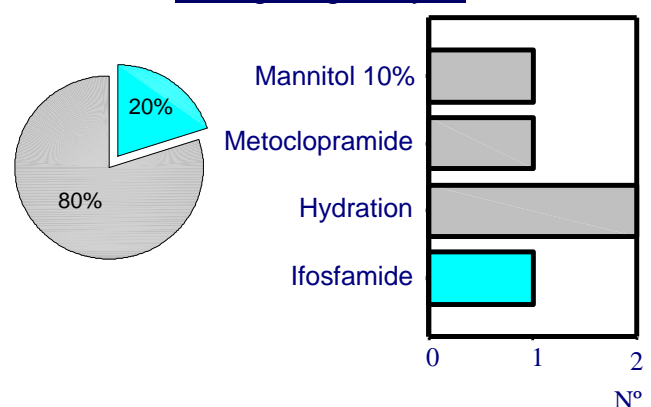
⇒ A same drug is prepared in different diluents (70.6% of minor PE).

PE of total preparation ratio was 0.44% (95% IC: 0.34 to 0.58) that is not significantly different than published data¹ (0.45% 95% IC: 0.38 to 0.53) p=0.09%.

Wrong dose analysis



Wrong drug analysis



CONCLUSION

Chemotherapy-related preparation errors policy allows detect systematic errors and to stablish interdisciplinary strategies to reduce them. PE rate regular following will show the assistencial quality improvement.