

Analysis of antifungal use and cost in a specialist hospital during the last three years (2009-2011)



M.T. Gomez de Travededo, A. Almendral, R. Gavira, P. Gomez, M. Lobato, R. Gonzalez, M.T. Moreno, F. Gomez, R. Gazquez y J.P. Diaz. Hospital SAS of Jerez, UGC Farmacia, Jerez de la Frontera, Spain.

BACKGROUND

Although antifungal constitute a small part of the antimicrobial drugs utilized in hospitals, proportionally their cost result high. Therefore, utilization antifungal analysis is important in order to achieve optimal clinical outcomes by a suitable management of resources.

PURPOSE

To analyze antifungal use and cost in a specialty hospital during last three years (2009-2011).

MATERIALS AND METHODS

Study period: 2009-2011

Data:

- Utilization data of
 - J02AA-antibiotics antimycotics for systemic use
 - J02AC-triazole antimycotics for systemic use
 - J02AX-other antimycotics for systemic use
- Stay-days data
- Consumption economics values

Antifungal consumption was analyzed in economics terms and Defined Daily Doses number (DDDs).

Whole hospital and broken down by clinical unit data was processed.

WHO-ATC/DDD Index 2012 was used for DDDs calculations. Results were expressed in DDD/100 Stay-days (DDD/100SD)

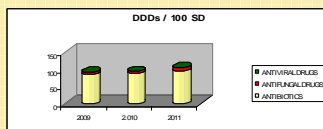
Stay-days data were obtained from hospital healthcare activity records.

Consumption values were extracted from pharmacy management SINFHOS computer-application.

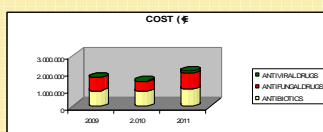
DDDs calculation was automatically made using EDUS_SUR application.

DDD (WHO-ATC Index 2012)		
	DRUG	DDD
J02AA	Amphotericin-B	35 mg
J02AC	Fluconazole	0,2 g
	Itraconazole	0,2 g
	Voriconazole	0,4 g
	Posaconazole	0,8 g
J02AX	Caspofungin	50 mg
	Micafungin	0,1 g

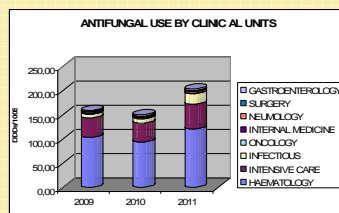
RESULTS



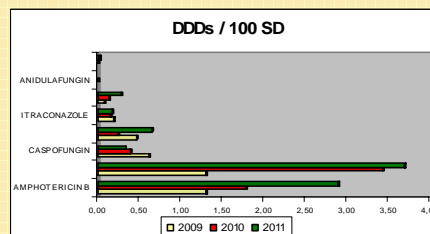
During last three years, antifungal use expressed in DDDs/100SD was 6,72%, of anti-infective drugs utilization.



Antifungal cost represented 43,59% of total antimicrobial cost.



Antifungal use raised especially in Infectious, which increased from 7,74 DDDs/100SD in 2009 to 21,72 DDDs/100SD in 2011.



Antifungal selection evolution was observed: fluconazole use increased from 1,31 to 3,71 DDDs/100SD, and amphotericin-B use raised from 1,31 to 2,90 DDDs/100SD, while caspofungin use decreased from 0,63 to 0,33 DDDs/100SD.

CONCLUSIONS

- Systemic Antifungal cost represents nearly half of anti-infective drugs expense in our hospital.
- Efforts in order to assure optimal use of antifungal must be reinforced In Haematology, Intensive Care, Infectious and Oncology, by proposing prophylaxis and treatment clinical guides or protocols use.

