



# ACTUALFARMA

Jornadas farmacológicas

*Infundimos conocimiento*

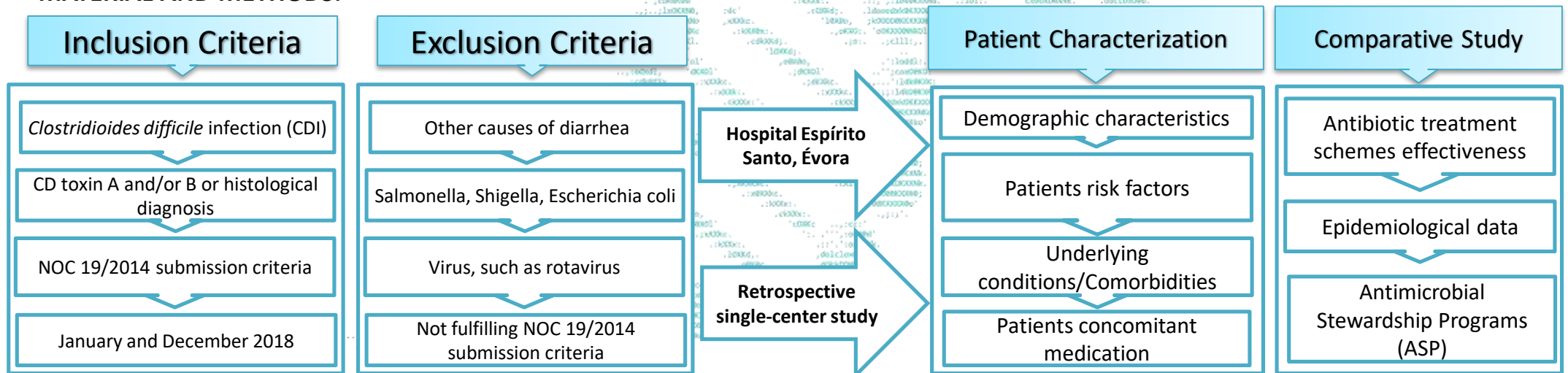
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# CLOSTRIDIoidES DIFFICILE INFECTION IN HOSPITALIZED PATIENTS - A RETROSPECTIVE EPIDEMIOLOGICAL STUDY

**INTRODUCTION:** *Clostridioides difficile* infection is the main source of healthcare and antibiotic-associated diarrhea in hospital institutions and continuing care units worldwide, showing significant morbidity and mortality and its incidence and severity has been increasingly reported. This study aimed to analyze the epidemiology, characterize and describe the severity and outcomes of this event in patients admitted to our hospital, in order to confirm this changing epidemiology and compare with other cohorts.

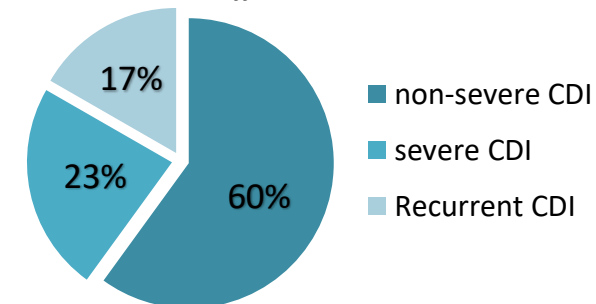
**OBJETIVES:** This study aimed to analyze the epidemiology and describe the severity and outcomes of this event in patients admitted to our hospital, in order to confirm this changing epidemiology and compare with other cohorts.

## MATERIAL AND METHODS:



**RESULTS:** 30 inpatients with CDI diagnosis were identified during 2018, representing 0.2% of all hospitalizations and an incidence rate of 20.7 cases/10000 admissions. Patient's sociodemographic characteristics, comorbidities and underlying disease, risk factors of interest for CDI development and CD diagnosis methodology, during in 2018, are summarized in Table 1 and the comparative study on Table 2. Regarding severity, 60.0% developed a non-severe episode, while 23.3% a severe episode. Recurrence occurred in 16.7% of cases and it was found to be more related with older patients, 80.0% were over 80 years, presented on Figure 1.

Figure 1. *Clostridioides difficile* infection classification



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**Table 1.** Patient's demographic characterization, risk factors, comorbidities and CDI diagnosis methodology

Demographic characteristics n=30, (%)		
Patient's Gender	Female	Male
	16 (53.3)	14 (46.7)
Average age = 76.4±12.9 years old		
Age of patients n=30 (%)	≥65 years	<65 years
	25 (83.3)	5 (16.3)
Patients risk factors n=30, (%)		
Antibiotherapy < 12 weeks		29 (96.7)
Age > 65 years old		25 (83.3)
Hospitalization < 8 weeks		19 (63.3)
Patients concomitant medication n=30, (%)		
Any antibiotic previous treatment		29 (96.7)
Proton-pump inhibitors or Gastric acid suppressants		18 (60.0)
Immunosuppressant drugs		6 (20.0)
Continuous NSAIDs		3 (10.0)
Underlying conditions/Comorbidities n=30, (%)		
≥ 1 Comorbidity of interest		29 (96.7)
Arterial hypertension/Cardiovascular disease		26 (86.7)
Surgery < 2 months		15 (50.0)
Obesity		5 (16.7)
Peptic gastric ulcer		6 (20.0)
Nasogastric Tube		5 (16.7)
Diabetes		14 (46.7)
Cancer/Neoplastic diseases		4 (13.3)

**Table 2.** Annual incidence of CDI and antibiotic consumption in other population's cohorts

Author's name Reference	Study time	Research location	Incidence rate of CDI	AMC (%)
Present study	2019-2022	HESE	23.1/10000 patients	-
Present study	2018	HESE	20.7/10000 patients	96.7
López E, et al	2018	Portugal	1.6/patient-day	-
Barbosa-Martins J, et al	2013-2018	HSO	4.8/10000 patients	68.4
Teixeira H, et al	2017	Porto	9.0/10000 admissions	-
Nazareth C, et al	2017	Portugal	20.2/10000 patients	86.0
Sintra S, et al	2010	CHUAC	21.6/10000 patients	95.8
Silva J, et al	2008	HESE	16.0/10000 patients	91.2
Vieira A, et al	2007	CHLO	15.4/10000 patients	82.0
Cardoso F, et al	2004	CGH	4.3/10000 patients	71.0
Almeida N, et al	2003	CHUC	1.2/10 patients-year	85.0
Silva J, et al	2000	HESE	2.0/10000 patients	91.2
Arsenio A, et al	2007	Spain	12.2/10000 patients	40.7
Bauer M, et al	2008	Portugal	13.0/10000	79.0

CHUAC: Coimbra University Hospital; HSO: Senhora da Oliveira Hospital - Guimarães; CHLN: North Lisbon University Hospital Center; HESE: Espírito Santo Évora Hospital; HFF: Professor Doutor Fernando Fonseca Hospital; CHLO: Western Lisbon Hospital Center; CHUALG: University Hospital Center of Algarve

**DISCUSSION/CONCLUSIONS:** Our study observed an incidence rate 5.5-fold the European average and over 10.4-fold the incidence identified in 2000 at the same hospital, showing an increase in healthcare-associated incidence in the last decade, according to literature.

REFERENCES:



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