Background: Antibiotic de-escalation is considered a safe strategy that reduces costs and the risk of multi-drug resistant infections. However, its prevalence and associated factors in real-life practice were not reported in patients with cirrhosis in Latin-America.

Aims: To estimate the prevalence of antibiotic de-escalation in patients with cirrhosis in real life-practice, and to explore its associated factors.

Methods: We performed an analysis of the multicenter prospective cohort study of cirrhotic patients with bacterial infections throughout Argentina and Uruguay (clinicatrials.gov NCT03919032). Patients who died in the first 72 hs from the diagnosis of the infection were excluded. In accordance with guidelines, de-escalation was defined as changing the initially antimicrobials to a narrower spectrum regimen, or suspending one or more of the empirical antibiotics, according to culture results or to other clinical reasons, either in patients with culture-positive or culture-negative bacterial infections. We used inverse probability weighting (IPW) of having a culture-positive infection to estimate its causal effect on de-escalation.

Results: We included 450 patients. Most frequent infections were SBP (30.4%), and urinary tract infection (12.9%). Overall, 243 (54%) infections were culture-positive, and 207 (46%) culture-negative. De-escalation was reported in 85 patients (18.9%: 95% CI 15%-22%) at a mean of 3.3 ± 2.4 days from treatment initiation and was more frequent in culture-positive than culture-negative infections (28.4% vs 7.7%, p< 0.001). The table shows the crude analyses of variables associated with de-escalation. Culture-positive infection was strongly and independently associated with de-escalation (OR_{IPW} 6.08; 95% CI: 2.90-12.70; p < 0.001).

Conclusions: Antibiotic de-escalation was reported in one-fifth of in-patients with cirrhosis. Given that having a culture-positive infection had a strong effect on de-escalation, efforts should be made to increase the likelihood of obtaining adequate culture samples in a timely manner.

Table
Univariate analyses of factors associated with antibiotic de-escalation (n=450).

Variable	All (N=450)	Non de-escalated (N=365)	De-escalated (N=85)	OR (CI 95%)	p
Age (years), media (SD)	57.6 (12.6)	57.5 (12.8)	58 (11.6)	1.01 (0.98-1.02)	0.819
Male gender, num (%)	299 (66.4)	249 (68.2)	50 (58.8)	0.66 (0.4-1.1)	0.100
Cirrhosis etiology, num (%)[a]					
Viral	70 (15.6)	59 (16.2)	11 (12.9)	Ref	Ref
Alcohol	193 (42.9)	157 (43.2)	36 (42.3)	1.23 (0.59-2.57)	0.583
NASH	92 (20.5)	73 (20)	19 (22.4)	1.39 (0.62-3.16)	0.424
Cryptogenic	60 (13.4)	47 (12.9)	13 (15.3)	1.48 (0.61-3.61)	0.385
Other	34 (7.6)	28 (7.7)	6 (7.1)	1.14 (0.38-3.42)	0.803
Diabetes, num (%)	142 (31.7)	111 (30.5)	31 (36.9)	1.33 (0.81-2.18)	0.256
Child-Pugh score, media (SD)	9.8 (2.3)	9.9 (2.3)	9.8 (2.4)	0.98 (0.9-1.1)	0.713
MELD-Na Score, media (SD)[b]	19.8 (7.1)	19.7 (7.1)	20 (7.1)	1.01 (0.9-1.01)	0.711
SIRS at infection, num (%)[c]	134 (30.1)	98 (27)	36 (43.9)	2.11 (1.29-3.47)	0.003
Hospitalization in critical unit, num (%)[d]	100 (22.4)	76 (20.9)	24 (28.6)	1.51 (0.88-2.58)	0.132
ACLF, num (%)	127 (28.2)	100 (27.4)	27 (31.8)	1.23 (0.74-2.05)	0.421
Type of infection, num (%)					
Community acquired	237 (52.7)	202 (55.3)	35 (41.2)	Ref	Ref
HCA	98 (21.8)	74 (20.3)	24 (28.2)	1.87 (1.04-3.35)	0.035
Nosocomial	115 (25.6)	89 (24.4)	26 (30.6)	1.69 (0.96-2.97)	0.070
Site of infection, num (%)					
SBP	137 (30.4)	124 (34)	13 (15.3)	Ref	Ref
UTI	112 (24.9)	84 (23)	28 (32.9)	3.18 (1.56-6.49)	0.001
Pneumonia	58 (12.9)	49 (13.4)	9 (10.6)	1.75 (0.70-4.36)	0.228
Spontaneous bacteremia	33 (7.4)	21 (5.8)	12 (14.1)	5.45 (2.19-13.55)	<0.001
Other	110 (24.4)	87 (23.8)	23 (27.1)	2.52 (1.21-5.25)	0.013
Culture-positive infection, num (%)	243 (54)	174 (47.7)	69 (81.2)	4.73 (2.64-8.46)	<0.001
Adequate initial antibiotic, num (%)[a]	358 (79.7)	289 (79.4)	69 (81.2)	1.12 (0.61-2.04)	0.713
Infection by MDRO, num (%)	98 (21.8)	77 (21.1)	21 (24.7)	1.23 (0.71-2.13)	0.468

SD: Standard deviation. NASH nonalcoholic steatohepatitis. MELD-NA: Model for End-Stage Liver Disease-Sodium. SIRS: systemic inflammatory response syndrome. ACLF: Acute-on-chronic liver failure. HCA: Health care associated. SBP: Spontaneous bacterial peritonitis. UTI: Urinary tract infection. MDRO: multidrug-resistant organism. a) Available in 449 patients. b) Available in 442 patients. c) Available in 445 patients. d) Available in 447 patients. Univariate logistic regression was used for comparisons.

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P-69 RELATION BETWEEN CLINICAL AND ELASTOGRAPHIC CHARACTERISTICS OF CIRRHOTIC PATIENTS WITH ENDOSCOPIC VARICEAL LIGATION: A SINGLE-CENTER EXPERIENCE IN LIMA, PERU

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Background: Endoscopic variceal ligation (EVL) is the first-line therapy for one of the most frequent causes of mortality in liver cirrhosis, the gastrointestinal bleeding. Child-Pugh, MELD-Na score and transient elastography are noninvasive evaluation of liver cirrhosis. The purpose of the study is to describe and analyze the relation between clinical and elastographic features of cirrhotic patients with EVL.

Methods: Observational and analytical study. Clinical, biochemical, etiologic and elastographic characteristics of 153 cirrhotic patients with EVL admitted to the Gastroenterology Service of Hospital Nacional Arzobispo Loayza between 2017 and 2019 were analyzed using Kruskall Wallis and Mann-Whitney test.

Results: Among the 153 patients treated with EVL, 51.6% were male and 59.6% were older than 60 years. NAFLD (59.5%) was the most frequent cause of liver cirrhosis. Complications of all EVL sessions represented 5.88% (transient chest pain). Child-Pugh B (30 kPa, $p = 0.0016$) and MELD-Na score ≥ 15 (32.90 kPa, $p = 0.0003$) showed greater values of liver stiffness. No statistical difference was found in the liver stiffness measurements in relation to etiology of liver disease.

Conclusions: Decompensated cirrhosis with EVL has greater values of liver stiffness.

Keywords: Liver Cirrhosis, Esophageal Varices, Elastography, Endoscopy

Table
Comparison of the liver stiffness measurement in relation to etiology, Child-Pugh and MELD-Na score

	Transient Elastography (kPa)**	*P value**
Etiology		
NAFLD	24.00 (16.90)	0.3063
ALD	26.30 (25.90)	
Autoimmune hepatitis	18.20 (9.20)	
Viral hepatitis	25.80 (15.60)	
Child-Pugh		
A	21.15 (16.50)	0.0016*
B	30.00 (23.90)	
C	27.00 (11.50)	
MELD-Na score		
< 15	21.30 (17.60)	0.0003†
≥ 15	32.90 (23.20)	

* Kruskal-Wallis test
** Median and interquartile range
† Mann-Whitney test
NAFLD, Non-alcoholic Fatty Liver Disease; ALD, Alcoholic Liver Disease; MELD-Na, modified Model for End-Stage Liver Disease including sodium

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