

EV0696 - Antibiotherapy of community-acquired urinary tract infection (CUI) due to multi-susceptible *Escherichia coli*: also a challenge for Infectious Disease Referrers ?

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Results (Table 1)

Objectives

- ❑ We conducted a targeted audit of antibiotic treatment of multi-susceptible *E. coli* CUI in adults.
- ❑ Primary objective: to assess the adequacy of antibiotic prescriptions to the 2014 french guideline for CUI care in adults (2014FGCUI).
- ❑ Secondary objective : to adapt the educational messages and awareness actions carried by the Réso-Infectio PACA-Est.

Material/Methods

- ❑ Prospective survey, 1 week (2015), 75 associated-community labs, South-East France.
- ❑ Half of significant urinalysis with multi-susceptible *E. coli* randomly selected.
- ❑ Data collected from lab. files, anonymized and analyzed by an expert committee in view to clinically classify the type of CUI and establish adequacy of treatment
- ❑ Prescribers asked about (i) knowledge of the 2014FGCUI, (ii) opinions about restricted AST, (iii) expectation about opportunity and how to access advices and information.



Table 1 : Comparative analysis of the groups, depending on antibiotherapy adequacy to the 2014 french guideline for CUI care in adults (2014FGCUI).

	Adequacy, n (%)	Inadequacy, n (%)	Total, n (%)	p, univariate analysis	p, multivariate analysis
Population characteristics	n=45 (53)	n=40 (47)	85		
Age (mean +/- SD)	55 +/-18	53 +/- 18	54+/- 18	0,669	
Sex ratio (M / F)	0,1	0,43	0,23	0,024	
Geographical location AM	34	26	60 (70,6)	0,343	
Geographical location V	11	14	25 (29,4)	0,343	
Pregnancy	0	2	2 (2,4)	0,22	
Renal failure	1	0	1 (1,2)	>0,999	
Immunosuppression	0	0	0	-	
Urinary tract functional abnormality	1	0	1 (1,2)	>0,999	
Clinical classification	n=45 (53)	n=40 (47)	85		
Asymptomatic bacteriuria	0	4	4 (4,7)	0,045	
Cystitis without complication risk	33	22	55 (64,7)	0,112	
Cystitis with omplication risk	5	1	6 (7,0)	0,207	
Acute pyelonephritis	3	2	5 (5,9)	>0,999	
Male urinary tract infections	4	11	15 (17,6)	0,044	
Antibiotherapy	n=45 (53)	n=40 (47)	85		
Probabilist	27	24	51 (0,6)	>0,999	
After AST	18	16	34 (0,4)	>0,999	
Duration (days)	4,6 +/-5,5	7,6 +/- 4,2	6+/-5	<0,001	0.05
Use of cefixime	1	14	15 (17,6)	<0,001	0.032
Use of fosfomycin	25	2	27 (31,8)	<0,001	<0.001
Use of fluoroquinolones	9	9	18 (21,2)	>0,999	
Adequate indication	45	38	83 (98)	-	
Adequate choice of molecule	45	12	57 (67)	-	
Adequate dosage	45	12	57 (67)	-	
Adequate duration	45	0	45 (53)	-	
Prescribers interviews	n=42(54)	n=36(46)	78		
2014FGCUI knowledge	23	10	33 (42)	0,022	0,002
Agreement for limited AST	37	30	67 (86)	0,749	
Agreement for a link to Reso on lab.report	38	29	67 (86)	0,329	

SD:Standard Deviation; AM:Alpes Maritimes ; V:Var; AST:Antimicrobial Susceptibility Testing; Réso:Réso-Infectio PACA-Est

- ❑ 85 cases, of which 55(64.7%) cystitis without complication risk
- ❑ Probabilist antibiotherapy: n=51(60%), no re-evaluation.
- ❑ Treatment inadequacy: n=40(47%): no indication (n=2), inadequate molecule (n=26), inadequate length of treatment (n=12).
- ❑ Ignorance of the 2014FGCUI, use of cefixime and a long duration of treatment significantly related to inadequacy.
- ❑ Use of fosfomycine significantly associated with adequacy
- ❑ 42% of the practitioners know about the 2014FGCUI; 86% support the provision of limited AST as well as a direct link from lab. report to online resources such as the Réso website.

Conclusion

- ❑ Antibiotherapy of multi-susceptible *E. coli* CUI in adults may be improved.
- ❑ We evidenced a link between proper use of antibiotics and knowledge of guidelines.
- ❑ Most prescribers agree to adhere to these guidelines, but ask for facilitation.
- ❑ Restricted AST and direct link from lab. report to real-time advice can provide new strategies for the Réso network.