Questions & Answers

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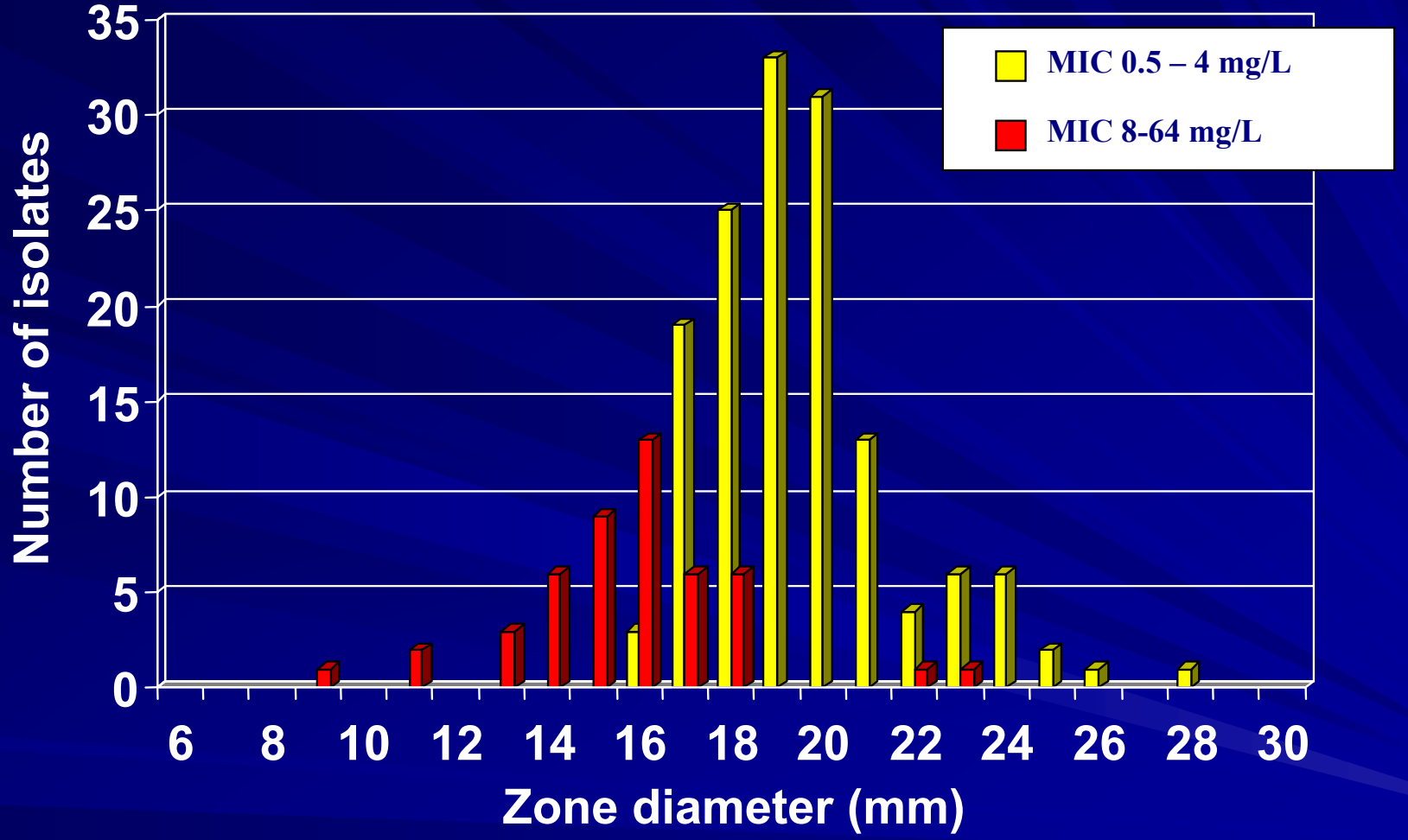
Reliability of teicoplanin disc testing for coagulase negative staphylococci

Teicoplanin 30 ug disc with CNS - Cambridge



Current MIC BPs 4/8 mg/L

Interpretation of cefuroxime and co-amoxiclav for β-lactamase negative ampicillin resistant *H. influenzae*

Interpretation

B-Lactamase	Ampicillin	Co-amoxiclav	Cefuroxime
+	R	S	S*
-	R	R	R

***Bristol have reported isolates that are cefuroxime R. Also because of altered PBPs it might be prudent to report co-amoxiclav as R.**

Why no zone sizes for some antibiotics and organisms

MRSA-discrepancies between Vitek 2 & BSAC (cefoxitin)

Reporting penicillinase-hyperproducers

S aureus 7876, Dist 2020

Oxacillin MIC 0.5-1 mg/L, *mecA* negative, Susceptible

Guideline	Cefoxitin		Oxacillin	
	n	%S	n	%S
BSAC*	33	100	138	83
CLSI*	38	100	372	91
NWGA*	1	100	3	100
SRGA*	29	100	29	97
All*	120	100	619	88

NB. * = Disc testing methods

Preliminary results using Vitek

- 6 isolates cefoxitin S and oxacillin R
- The system modifies the report for cefoxitin to R and suggests a latex test to check for a HPP
- 5/6 were latex negative 1 latex positive
- bioMérieux suggest that 3% of these isolates are likely to be MRSAs
- Two other laboratories have contacted me because they are seeing these isolates fairly regularly
- Latex is an added test that was not needed when we used cefoxitin disc testing

Why are there no zone sizes for topical antibiotics?

Topical recommendations

- No National Committee gives recommendations except for mupirocin
- No clinical data supporting concentration at site of infection and susceptibility
- If available use systemic recommendations
- BSAC propose looking at MIC distributions for the “wild type”

Campylobacter susceptibility testing

Microscan Susceptibility Testing

New Format for the Recommendations

- The abstract contains a summary of the changes in the current version.
- The footnotes to the tables have been removed and the notations added to the end column. It is hoped that this change will avoid confusion in interpretation.
- Antibiotics have been separated into groups e.g. β-lactams, aminoglycosides etc
- The interpretative tables will be separated from the main document and will be available on the web site.

New Format for the Recommendations

- UTI recommendations have been removed for most agents except for those that are administered solely for the treatment of uncomplicated UTIs or where there are limited recommendations for specific organisms e.g. trimethoprim
- For agents that previously had dual recommendations, systemic recommendations remain and the intermediate category can be used for interpretation for UTIs because intermediate susceptibility infers that the infection may respond as the agent is concentrated at the site of infection. This change will also avoid errors in interpretation when an organism is isolated from multiple sites, for example blood and urine.

Table 6. MIC and zone diameter breakpoints for Enterobacteriaceae (including *Salmonella* and *Shigella* spp.)

Urinary tract infections (UTIs) [1-6]

[1]UTI recommendations are for organisms associated with uncomplicated urinary infections only. For complicated UTI systemic recommendations should be used.

[2]If an organism is isolated from multiple sites, for example from blood and urine, interpretation of susceptibility should be made with regard to the systemic site (e.g., if the blood isolate is resistant and the urine isolate susceptible, both should be reported resistant irrespective of the results obtained using interpretative criteria for urine isolates).

[3]For agents not listed, criteria given for systemic isolates may be used for urinary tract isolates. Intermediate susceptibility infers that the infection may respond as the agent is concentrated at the site of infection.

[4]Direct susceptibility tests on urine samples may be interpreted only if the inoculum gives semi-confluent growth.

[5] In the absence of definitive organism identification, use the recommendations most appropriate for the presumptive identification, accepting that on some occasions the interpretation may be incorrect. A more cautious approach is to use the systemic recommendations.

[6] Coliforms = On-line Medical Dictionary March 2000: *"A common name for E. coli that is used as an indicator of faecal contamination of water, measured in terms of Coliform count. Occasionally used to refer to all lactose fermenting bacteria."*

Table 6	MIC breakpoint (mg/L)				Interpretation of zone diameters (mm)			
Antibiotic	R >	I	S ≤	Disc content (µg)	R ≤	I	S ≥	Comment
Aminoglycosides								
Amikacin	16	16	8	30	15	16-18	19	*Salmonella* spp. should be reported resistant to these agents, irrespective of susceptibility testing result, as they are inactive against *Salmonella* spp. *in vivo*. Individual aminoglycoside agents must be tested; susceptibility to other aminoglycosides cannot be inferred from the gentamicin result and *vice versa*. For streptomycin, the zone diameter breakpoints are valid only for *Escherichia coli*, *Klebsiella* spp. and *Proteus mirabilis*.
Gentamicin	4	4	2	10	16	17-19	20	
Tobramycin	4	4	2	10	17	18-20	21	
Streptomycin	8	-	8	10	12	-	13	

Cystic fibrosis isolates