

BSAC Working Party on Antimicrobial Susceptibility Testing
Summary of the minutes of the meeting held on Wednesday 17 January 2007
at the BSAC Headquarters in Birmingham

Present:

Dr. D. Brown (Chairman)	DB	HPA, Addenbrooke's Hospital, Cambridge
Mrs. J. Andrews (Secretary)	JA	SMDC, City Hospital, Birmingham
Professor A. MacGowan	AM	Southmead Hospital, Bristol
Dr. R. Howe	RH	NPHS Microbiology, Cardiff
Dr. J. Perry	JP	Freeman Hospital, Newcastle
Dr. D. Livermore	DL	AR, Colindale
Professor G. Kahlmeter	GK	Klinisk Mikrobiologiska Laboratoriet, Vaxjo, Sweden
Professor C. Gemmell	CG	Glasgow royal Infirmary, Glasgow
Dr. T. Winstanley	TW	Hallamshire Hospital, Sheffield
Dr. N. Damani	ND	Craigavon Area Hospital, Belfast
Mr. C. Booth	CB	Oxoid, Basingstoke
Mr. J. Hobson	JH	Mast Laboratories, Merseyside
Ms. R. Walker (Observer)	RW	SMDC, City Hospital, Birmingham
Dr. N. Brenwald (Observer)	NJB	SMDC, City Hospital, Birmingham

<p>1. Apologies Dr. N. Brown (NB), Dr. I. Morrissey (IM) and Mr. C. Teale (CT).</p>
<p>2. Minutes of the meeting held on Tuesday 5 September 2006. Agreed a true record.</p>
<p>3. Matters arising</p> <p><i>a. Susceptibility testing anaerobes</i> Extended recommendations are available in version 6 January 2007. Suggested that all organisms resistant by BSAC methodology should be sent to the Anaerobe Reference Laboratory in Cardiff for confirmation.</p>
<p><i>b. Amendments to the guidelines</i> Version 6 January 2007 is available on the BSAC website.</p>
<p><i>c. i. Workshops</i> Dates for 2007 to be arranged.</p>
<p><i>c. ii. User Days</i> Agreed that meetings in 2007 would be held in London in June and Belfast in October /November. Memberships of the BSAC and registered users of the BSAC method to be asked for suggestions for topics to be included at forthcoming meetings.</p>
<p><i>d. PowerPoint presentation of the BSAC method</i> The presentation is available on the BSAC web site.</p>
<p><i>e. Review of the recommendations for Acinetobacter</i> Recommendations are in a separate table for <i>Acinetobacter</i> spp. in version 6 January 2007. The EUCAST committee had not suggested an MIC BP for ceftazidime because most organisms were either I or R and there were only a very small number that were S. Discussions are ongoing.</p>
<p><i>f. Selection of primary reference medium for use with the BSAC standardized methods of susceptibility testing</i> Meeting to be arranged with media manufacturers to discuss the Manufacturer's Protocol for testing lots of media for use with BSAC methodology.</p>
<p><i>g. Clindamycin recommendations for β-haemolytic streptococci</i> Recommendations are available in version 6 January 2007.</p>

h. Minocycline/doxycycline recommendations for staphylococci

Recommendations will be available in version 6 January 2007.

i. Control NCTC P. aeruginosa v 10 µg meropenem disc

The acceptable range has been revised to 26-33 mm in version 6 January 2007.

j. EUCAST committee on expert rules

The group has made good progress. A symposium will be held at ESCMID 2007 to discuss the harmonization of expert rules.

k. Azithromycin for the treatment of typhoid

No further progress since the last meeting.

l. Temocillin breakpoint recommendations

The following recommendations agreed:

Systemic

Organism	MIC BP (mg/L)		Disc content µg	Zone diameter BP (mm)	
	> R	≤ S		≤ R	≥ S
Enterobacteriaceae ¹	8	8	30	19	20

UTI (uncomplicated)

Organism	MIC BP (mg/L)		Disc content µg	Zone diameter BP (mm)	
	> R	≤ S		≤ R	≥ S
Enterobacteriaceae ¹	32	32	30	11	12

Footnote to table:

¹The distribution for ESBL and AmpC producers straddles the zone diameter breakpoint. Organisms that appear resistant by disc testing should have resistance confirmed by an MIC.

m. Zone diameter breakpoints for tigecycline.

Recommendations are available in version 6 January 2007.

n. Penicillin MIC BPs for isolates from endocarditis

A footnote is included in version 6 January 2007.

o. Ciprofloxacin resistant nalidixic acid susceptible N. gonorrhoeae

Amended recommendations are available in version 6 January 2007.

p. S. aureus controls for cefoxitin disc diffusion testing

Amended recommendations are available in version 6 January 2007.

q. S. aureus with dissociated MLS resistance

The footnote in the staphylococcal table modified in version 6 January 2007.

r. Recommendations for Listeria species

Discussions are ongoing.

s. EUCAST breakpoints introduce more intermediate categories

A leading article for JAC to explain the process of the BSAC implementing EUCAST BPs will be published. A talk on EUCAST breakpoints will be included in the programme for the User Group meetings in 2007.

t. Reporting N. gonorrhoeae with LLR to tetracycline

The current recommendations are based on data where zone diameter distributions have been used to differentiate S, low level chromosomal resistance and high level plasmid mediated resistance. The Reference Laboratory at Colindale consider that the issue is more complicated and suggests the following:

S = MIC ≤ 0.25 mg/L; 0.5 – 1 mg/L (LLR) probably clinically susceptible; 2-8 mg/L chromosomal and not highly resistant, but probably clinically resistant; ≥16 mg/L plasmid mediated high level resistance.

Tetracycline is not used to treat gonorrhoea, but used in conjunction with ciprofloxacin to treat NSU. The activity of tetracycline is only important if the organism is ciprofloxacin resistant. However, in Africa tetracycline may be used to treat *N. gonorrhoeae*.

The following was agreed:

Keeping the existing MIC BP of 1 mg/L and removing from the footnote the reference to the use of zone diameters to differentiate between chromosomal and plasmid mediated resistance.

Organism	MIC BP (mg/L)		Disc content µg	Zone diameter BP (mm)	
	> R	≤ S		≤ R	≥ S
<i>N. gonorrhoeae</i> ¹	1	1	10	26	27

u. Reporting antibiotic susceptibility testing for significant pathogens.

Issue to be raised at the BSAC Council meeting.

v. Linezolid zone diameters with control strains

Recommendations are available in version 6 January 2007.

w. Review of the MIC BP for trimethoprim v staphylococci

Recommendations are available in version 6 January 2007.

x. New mechanisms of FQ resistance in S. typhi

Nalidixic acid susceptible ciprofloxacin resistant *S. typhi* isolates are becoming more common. Agreed that the footnote to the table now read:

¹¹*For ciprofloxacin, there is clinical evidence to indicate a poor response in systemic infections caused by Salmonella spp. with reduced susceptibility to fluoroquinolones (ciprofloxacin MICs 0.125-1 mg/L). It is recommended that a ciprofloxacin MIC should be determined for all Salmonellae from invasive infections.*

y. Review of the recommendations for N. meningitidis

Recommendations available in version 6 January 2007.

z. Aztreonam MIC BPs for Pseudomonas

Recommendations are available in version 6 January 2007.

4. Drugs under development

Ceftibiprole, Doripenem, Televancin, Dalbavancin, Faropenem and Iclaprim are all thought to be close to submission to EMEA for licencing.

5. European issues

EUCAST breakpoints for penicillins and macrolides.

Under discussion.

6. NEQAS

No major issues. There will be a NEQAS user group meeting on 7 December 2007 that will concentrate on antibiotic-related topics.

7. Questions and answers relating to the BSAC method

No major issues.

8. Any other business

a. Amoxicillin/ampicillin MIC BPs for H. influenzae.

An enquiry arose from a poster from the respiratory surveillance of resistance survey. The poster reported resistance rates of co-amoxiclav 12%, ampicillin 13% and amoxicillin 28%. Ampicillin and amoxicillin have similar activity, so the discrepancy in resistance rates is large. BSAC resistance surveillance data for the last few years indicate technical variation with MICs shifting up one dilution, resulting in false

resistance. The amoxicillin breakpoint is not incorrect. It is inevitable that such variation will happen when breakpoints are close to susceptible populations as MICs fluctuate by \pm one dilution. It is not true resistance.

b. Annual review of the recommendations – should data be made available on the web site for new agents before the next annual review.

Agreed that the recommendations would be changed only once a year. However, a 'News' section on the website would be used for recommendations for new agents and also topics of interest.

c. Version 2 of the template programme.

The BSAC is not prescriptive of the type of discs used for testing. And there are several applicators available to laboratories. A programme for all of the available formats is now available on the BSAC website. The programme can also be used for monitoring the performance of controls i.e. ensuring that they are within the acceptable range. There was also a facility for adding free text.

d. Acceptable ranges for the control N. gonorrhoeae NCTC 12700 (ATCC 49226)

Recommendations are available in version 6 January 2007.

e. Business plan for the SMDC

Current funding for the SMDC at City Hospital in Birmingham and educational projects ends in April 2008. A business plan will be prepared for the BSAC Council requesting further funding to support the SMDC at City Hospital in Birmingham and for educational activities i.e. User Days and Workshops.

f. Referral of isolates to the Antibiotic Reference Laboratory at Colindale

In the near future there will be an article in the ARMRL Newsletter about reading reports from automated systems and also the data needed by the Reference Laboratory when submitting organisms for further investigation.

9. Date and time of next meeting

Wednesday 16 May 2007 at 11 am at the BSAC Headquarters in Birmingham.