NZ NAC New Zealand National Antimicrobial Susceptibility Testing Committee

Guidance for standardisation of laboratory antibiogram data

The aim is to have broad agreement of how to standardise the antibiogram data tables published by laboratories across New Zealand. This will allow for comparison of data between regions.

Recommendations:

1. Antibiogram data to be published by laboratories on an annual basis.
2. Report percentage susceptible for each organism type, including the new EUCAST "I" category in the susceptible category.
3. Include clinical isolates only, exclude screening samples.
4. Colour coding of susceptibility percentages, for ease of susceptibility interpretation, as follows:
    a. >90% susceptible = green
    b. 70-89% susceptible = amber/yellow
    c. <70% susceptibility = red
5. Include detail for different infection types (e,g, meningitis vs non-meningitis) or dosing (e.g. parental vs oral) where differing breakpoints exist.
6. Indicate whether EUCAST or CLSI breakpoints are used.
7. Include isolates where >30 organisms have been reported for the given year, or indicate where there are <30 isolates for a given organism if deemed to be important for reporting purposes. Alternatively, cumulative isolates can be reported for a period longer than the preceding 1 year.
8. Use generic names and antibiotics in actual clinical use (e.g. report flucloxacillin against *S.aureus* rather than cefoxitin).
9. Use only recommended and current terminology for organisms.
10. Do not report susceptibilities for antibiotic-organism combinations for which a particular organism may apparently test as susceptible in vitro but which are not recommended, for example cefuroxime for *Enterobacter cloacae,* aminoglycosides for *Salmonella* spp.
11. Community and hospital data to be reported separately, where possible and indicated as such. The capability for this may differ between laboratory providers, depending on the laboratory information system in place.
12. Divide reported antibiotics into "first line" (i.e. commonly tested and reported antibiotics) and "second line" or "restricted" (i.e less commonly tested and reported) agents. Provide an explanatory footnote for "second line" antibiotics stating briefly the circumstances under which second line testing is carried out. Suggested first line and restricted/second line antibiotics are listed in Table 1 below (not all antibiotics listed will be appropriate for reporting for all organisms included in the antibiogram).
13. Laboratories to submit the completed antibiogram by 1st April each year for publication on the NZNAC website (or provide NZNAC with a link to where the antibiogram can be viewed).

Additional considerations:

1. Laboratories where able can consider reporting separate antibiograms for specific patient populations, for example urine isolates in >65 yrs, separate DHB or geographical regions served by a particular laboratory, long-term care facility etc.
2. Include first patient isolates and remove duplicates if this is possible.

Table 1. Suggested "first line" and "restricted/second line" antibiotics for antibiogram reporting.

Source	**First line**	**Restricted/second line**
Urine	Trimethoprim	Ciprofloxacin
	Nitrofurantoin	Fosfomycin
	Cephalexin	Ceftriaxone
	Amoxicillin	Meropenem
	Co-amoxiclav	Gentamicin
Skin/soft tissue	Penicillin	Clindamycin
	Flucloxacillin	Fusidic acid
	Erythromycin	
	Doxycycline	
	Co-trimoxazole	
Bacteraemia	Amoxicillin	Ciprofloxacin
	Co-amoxiclav	Ceftazidime
	Cefuroxime	Piperacillin-tazobactam
	Ceftriaxone	Meropenem
	Co-trimoxazole	Vancomycin
	Flucloxacillin	