Chapter VII

Review of French data on bacterial resistance published in 2003 (destinated to AFSSAPS)

French data generated by the networks federated in ONERBA can be completed by data published in the literature and especially data on:
– antimicrobials that did not belong to the standard list, as established by the French committee for antibiogram (CA-SFM);
– bacterial species that are not frequently isolated.

The convention of partnership signed with the AFSSAPS in 2001 envisages the development of synthesis cards based on the analysis of the literature.
A group of bibliographical analysis, placed under the direction of Pr J.D. Cavallo (Hôpitaux des Armées), was created for that purpose.

1 Criteria of selection

– French multicenter study or European multicenter study including France.
– Published in the last 5 years.
The studies will be described using predefined variables (period of the study, studied population, method used for the tests of susceptibility...).

2 Worksheet

In order to standardize the procedure of analysis, a standardized questionnaire was developed for each bacterial species (or groups of species).

The questionnaires allow the collection of statistical data generated by each study:
– average percentages (and range) of strains susceptible, intermediate, or resistant to the tested antimicrobials;
– MIC 50, MIC 90 and range.
Eleven other variables are also systematically collected during the analysis process.

3 Sources of publications

Sources used to collect data are:
– the most important journals devoted to clinical microbiology *(Antimicrob Agents Chemother, J Antimicrob Chemother, J Clin Microbiol, Eur J Clin Microbiol Infect Dis, Clin Microbiol Infect, Clin Infect Dis, Med Mal Infect);*
– proceedings of meetings: ICAAC, RICAI, ECCMID;
– Medline (keywords: resistance, antibiotic, antimicrobial, multicenter, Europe, France).

For the year 2003, ten publications responding to the predefined criteria have been selected, analysed, and results of analysis have been posted on the ONERBA's website library with a controlled access reserved to AFSSAPS.

1. *Jones ME, Blosser-Middleton RS, Critchey IA, Karlowsky IA, Thornsberry C, Sahm DF. In vitro susceptibility of Streptococcus pneumoniae, Haemophilus influenzae and Moraxella catarrhalis: a European multicenter study during 2000-2001. Clin Microbiol Infect 2003;9:590-9.*

- European multicenter study including 8 French centres.
  Susceptibility of *Streptococcus pneumoniae, Haemophilus influenzae*, and *Moraxella catarrhalis* to 15 antimicrobials.

2. *Maugein J, Fourche J, Brachet-Castang C et al. Épidémiologie et résistance aux antibiotiques de Streptococcus pneumoniae en Aquitaine en 2001. Med Mal Infect 2003; 33:247-53.*

- French multicenter study including 19 centres.
  Susceptibility of *Streptococcus pneumoniae* to 14 antimicrobials.

3. *Drugeon H, Juvin ME, Bensalah A, Moniot-Ville N et le Groupe d'étude multicentrique. Épidémiologie de la résistance aux antibiotiques des pathogènes respiratoires en France en 2000-2001; apport de la télithromycine. Med Mal Infect 2003;33:104-9.*

■ French multicenter study including 30 centres. Susceptibility of *Streptococcus pneumoniae* to 5 antimicrobials, and of *Haemophilus influenzae* and *Moraxella catarrhalis* to 4 antimicrobials.

4. *Decousser JW, Pina P, Picot F, Delalande C, Pangon B, Courvalin P, Allouch P, COL-BVH Study Group. Frequency of isolation and antimicrobial susceptibility of bacterial pathogens isolated from patients with bloodstream infections: a French prospective national survey. J Antimicrob Chemother 2003;51:1213-22.*

■ French multicenter study including 105 centres. Distribution and susceptibility to antimicrobials of bacterial species isolated from blood cultures.

5. *Kahlmeter G. An international survey of the antimicrobial susceptibility of pathogens from uncomplicated urinary tract infections: the ECO-SENS project. J Antimicrob Chemother 2003;51:69-76.*

■ European multicenter study including 41 French centres.
Susceptibility to antimicrobials of bacterial species isolated from non-complicated urinary tract infections. French data are given for *Escherichia coli*.

6. *Critchley IA, Draghi DC, Sahm DF, Thornsberry C, Jones ME, Karlowsky JA. Activity of daptomycin against susceptible and multidrug-resistant Gram-positive pathogens collected in the SECURE Study (Europe) during 2000-2001. J Antimicrob Chemother 2003;51: 639-49.*

■ European multicenter study including 40 centres, but the number of French centres is not given.
Susceptibility to antimicrobials of *Staphylococcus aureus*, *Streptococcus pneumoniae*, and enterococci.

7. *Soussy CJ, Nguyen J, Goldstein F, Dabernat H, Andremont A, Leclercq R, Drugeon H, Cavallo JD, Chardon H, Etienne J, Rio Y, Courvalin P. In vitro antibacterial activity of moxifloxacin against hospital isolates: a multicentre study. Clin Microbiol Infect 2003;9: 997-1005.*

■ French multicenter study including 11 centres. Susceptibility of numerous bacterial species to moxifloxacin.

8. *Leclercq R, Soussy CJ, Weber P, Moniot-Ville , Dib C, le Groupe d'étude multicentrique. Activité in vitro de la pristinamycine vis-à-vis des staphylocoques isolés dans les hôpitaux français en 1999-2000. Pathol Biol 2003; 51:400-4.*

■ French multicenter study including 35 centres. Susceptibility to pristinamycin, and other antimicrobials of 863 strains of *Staphylococcus aureus* and 787 strains of coagulase-negative staphylococci.

9. *Decousser JW, Pina P, Picot F, Allouch PY. Comparative in vitro activity of faropenem and 11 other antimicrobial agents against 250 invasive Streptococcus pneumoniae isolates from France. Eur J Clin Microbiol Infect Dis 2003;22:561-5.*

■ French multicenter study including 72 centres. Susceptibility to 12 antimicrobials of 250 strains of *Streptococcus pneumoniae* isolated from invasive infections.

10. *Decousser-Ovetchkine P, Collignon A, Chaplain C, Estrangin E, Fremaux A, Reinert P, Foucaud P, Ghnassia JC, Cohen R, Gaudelus J, Allouch PY. Multicentre study of the molecular epidemiology, serotypes and antimicrobial susceptibility patterns of invasive Streptococcus pneumoniae isolated from children in the Ile-de-France area. Eur J Clin Microbiol Infect Dis 2004;23:27-33.*

■ French multicenter study including 72 centres. Susceptibility of *Streptococcus pneumoniae* isolated from invasive infections in children.