

Chapter IV

Working sessions of the Scientific Board in 2005

1

Organisation

The French National Observatory for Epidemiology of Bacterial Resistance to Antimicrobials (ONERBA) was founded in 1997 in order to:

- gather and analyse data regarding bacterial resistance to antimicrobials in France, and to compare these data with those obtained in other countries;
- provide data regarding bacterial resistance to antimicrobials to Health Authorities, Scientific Organisations, and Health Professionals, upon request;
- promote quality data collection and analysis;
- initiate research on less well-documented issues of public interest;
- participate in training activities associated with the issues noted above, particularly by means of presentations and publications.

In order to meet ONERBA's objectives, a Scientific Board (SB) was created in 1997. A number of the members of the SB were renewed in 2003, as is recommended in ONERBA's statutes. The activities of the SB and its relationship with the networks are described in the charter of the networks represented on the SB of ONERBA (see chapter V).

The SB meets during regular working sessions in order to:

- select topics of interest;
- define methods for collection and analysis;
- analyse and validate data;
- implement specific studies.

2

Calendar of the working sessions of the Scientific Board in 2005

January 27; March 10; April 14; May 19; June 30; September 15; November 17.

3

Summary of the working sessions of the Scientific Board in 2005

A detailed report of the working parties can be found in the french part of this chapter.

4

ONERBA trans-networks study

A retrospective survey carried out by ONERBA on erythromycin resistance of *Streptococcus pyogenes* (SGA) showed an average resistance rate of 28.3% among 1 375 strains isolated in 2002 (coming from 15 different sources, city and hospital). To confirm these data and gather resistance rates to other macrolides or lincosamides and new antibiotics, ONERBA set up a multicentre prospective survey through all its networks (so-called "trans-networks" survey). Resistance rates as well as MICs of macrolides, lincosamides and ketolides against *Streptococcus pyogenes*, were determined by sample sites: bacteraemia for ONERBA hospitals' networks (RHC, Île-de-France, Col-BVH, CCLIN Paris-North and CCLIN East), sore throats through hospital emergency departments which systematically use *S. pyogenes* rapid detection (RHA) or through private laboratories, and finally superficial or deep cutaneous infections for private laboratories. For all strains resistant to erythromycin, resistance mechanisms to macrolides were determined in collaboration with the National Reference Centre laboratory (Pr R. Leclercq, Caen).

Following the alert given by the French National Reference Centre for staphylococci (Pr F. Vandenesch) in 2003 regarding the emergence of community-acquired MRSA producing the Panton-Valentine toxin, ONERBA conducted a retrospective study among 12 of its affiliated hospitals to search for the typical phenotype of the French CA-MRSA clone (ST80, heterogeneous resistance to methicilline, resistance to kanamycin, neomycin, and fusidic acid, and susceptibility to gentamicin, tobramycin, and fluoroquinolones) among the 2000-2003 laboratory databases. A mean of 1% of MRSA displayed the typical phenotype during the 4-year period (*Clin Microbiol Infect* 2005; 11: 585-7). In order to confirm these retrospective results, ONERBA conducted a prospective study in 2004 during a 6-month period through all its networks. Participating laboratories had to collect strains with the typical ST80 CA-MRSA phenotype during the study period. A total of 38 hospitals and 21 private laboratories participated in the study. Among the 3901 MRSA strains isolated during the 6 months, 56 (1.4%) displayed the suspected phenotype and 54 were producing the PVL toxin (2 missing strains) and belong to the ST80 phenotype.

5

Sessions organised by ONERBA in National Meetings in 2005

■ ONERBA – JNI 2005, Nice: “Antibiotic resistance: numbers for rational use”

- Community Gram-negative bacilli (Jean-Marie Delarbre).
- Nosocomial Gram-negative bacilli (Anne Dubouix).
- Gram-positive Cocci (Jérôme Robert).
- The rational use of antibiotics: example in the urinary tract infection (François Caron).

■ ONERBA – RICAI 2005: “Streptococcus and Enterococcus: infections and antibiotics susceptibility (except Streptococcus pneumoniae)”

- Data from ONERBA: *Streptococcus* and *Enterococcus* antibiotics susceptibility (except *Streptococcus pneumoniae*) (A. Vachée).
- *Streptococcus pyogenes* invasive infections (Pr A. Bouvet).
- ONERBA's study 2005: antibiotics susceptibility of *Streptococcus pyogenes* (E. Garrabé).
- Which mechanisms of *Streptococcus* resistance to macrolides today? (Pr R. Leclercq).

6

Publications of ONERBA and ONERBA's networks

■ Publications of ONERBA

- Bertrand X, Costa Y, Pina P. Surveillance of antimicrobial resistance of bacteria isolated from bloodstream infections: data of the French National Observatory for Epidemiology of Bacterial Resistance to Antibiotics (ONERBA), 1998-2003; *Med Mal Infect* 2005 Jun; 35 (6): 329-34.
- Robert J, Etienne J, Bertrand X, ONERBA (Observatoire National de l'Épidémiologie de la Résistance Bactérienne aux Antibiotiques). Methicillin-resistant *Staphylococcus aureus* producing Panton-Valentine leukocidin in a retrospective case series from 12 French hospital laboratories, 2000-2003. *Clin Microbiol Infect* 2005 Jul; 11 (7): 585-7.
- Conseil scientifique de l'ONERBA. Bacterial resistance to antibiotics. Data from the National Observatory of Bacterial

Resistance Epidemiology (ONERBA). *Med Mal Infect* 2005 Mar; 35 (3): 155-69.

– Delarbre JM, Dubouix A, Robert J; Conseil Scientifique de l'ONERBA. Antibiotic resistance: from the results of ONERBA networks to good antibiotic use. *Med Mal Infect* 2005 Jun; 35 Suppl 2: S108-11.

■ Publications of ONERBA networks

– Robert J, Veziris N, Truffot-Pernot C, Grigorescu C, Jarlier V. La tuberculose multirésistante en France: surveillance et prise en charge, 1999-2002. *BEH* 2005; 17-18: 78.

– Groupe Surveillance des Bactériémies du Relais Régional d'Hygiène Hospitalière du CENTRE. Surveillance des bactériémies en région Centre, 2000-2004. *BEH* 2005: 16.

– van der Mee-Marquet N, Domelier AS, Girard N, Quentin R and the Bloodstream Infection Study Group of the Relais d'Hygiène du Centre. Epidemiology and typing of *Staphylococcus aureus* strains isolated from bloodstream infections. *J Clin Microbiol* 2004; 42: 5650-7.

– van der Mee-Marquet N, Blanchard M, Domelier AS, Quentin R and the Infection Survey study group of the Relais d'Hygiène du Centre. Virulence and antibiotic susceptibility of *Staphylococcus aureus* strains isolated from various origins. *Pathol Biol* 2004; 52: 579-83.

– van der Mee-Marquet N, Lina G, Quentin R, Yaouanc-Lapalle H, Fievre C, Takahashi N, Étienne J. Staphylococcal exanthematous disease in a newborn due to a virulent methicillin-resistant *Staphylococcus aureus* strain containing the TSST-1 gene in Europe: an alert for neonatologists. *J Clin Microbiol* 2003; 41: 4883-4.

– El Solh N, Davi M, Morvan A, Damon HA, Marty N, Jarlier V, Carbonne A, Bajolet O, Talon D, Ros A, van der Mee-Marquet N, Leclercq R, Désenclos JC. Characteristics of French methicillin-resistant *Staphylococcus aureus* isolates with decreased susceptibility or resistance to glycopeptides. *J Antimicrob Chemother* 2003; 52: 691-4.

– Decusser JW, Methlouthi I, Pina P, Allouch P, Col-BVH Study Group. In vitro activity of ertapenem against bacteraemic pneumococci: report of a French multicentre study including 339 strains. *J Antimicrob Chemother* 2005 Mar; 55 (3): 396-8.