

**EV0303**

**ePoster Viewing**

**Resistance surveillance & epidemiology: MRSA, VRE & other Gram-positives**

### Ten-year surveillance of antimicrobial resistance of *S. pyogenes* in Russia

Oksana Sivaya<sup>1</sup>, Roman S. Kozlov<sup>\*2</sup>, Marina Sukhorukova<sup>3</sup>, Natali Ivanchik<sup>3</sup>, Alexey Kuzmenkov<sup>2</sup>

<sup>1</sup>Smolensk State Medical University, Institute of Antimicrobial Chemotherapy, Smolensk, Russian Federation

<sup>2</sup>Smolensk State Medical University, Institute of Antimicrobial Chemotherapy, Smolensk, Russian Federation

<sup>3</sup>Institute of Antimicrobial Chemotherapy, Smolensk State Medical University, Smolensk, Russian Federation

**Background:** To study the antimicrobial resistance of *Streptococcus pyogenes* in different regions of Russia from 2004 to 2013.

**Material/methods:** Clinical isolates of *S. pyogenes* have been collected for ten years and stored in the central laboratory of Institute of Antimicrobial Chemotherapy in Smolensk at -70°C. MALDI-TOF MS (Microflex-LT, Biotyper System, Bruker Daltonics, Germany) was used for identification of the isolates. MIC of 13 antimicrobials were determined by broth microdilution method using cation-adjusted Mueller-Hinton broth (BBL, USA) supplemented with 5% lysed horse blood and 20 mg/L  $\beta$ -NAD (MH-F broth) according to EUCAST guidelines (version 5.0, 2015).

**Results:** A total 1094 of non-duplicated isolates of *S. pyogenes* were enrolled in the study for ten-year period (2004-2013). The susceptibility testing results (I/R, %) are presented in the Table.

	I,%	R,%	I,%	R,%	I,%	R,%
Antimicrobial	2004-2005 (n=373)		2006-2009 (n=575)		2010-2013 (n=146)	
Penicillin	0	0	0	0	0	0
Erythromycin	4	4.8	0.4	3	0.7	5.5
Azithromycin	2.7	9.6	1.9	11	2.1	4.1
Clarithromycin	1.6	2.9	2.1	3.3	2.1	3.4
Clindamycin	0	0.3	0	0.9	0	0
Tetracycline	0.8	47.2	3	39	1	27.4
Chloramphenicol	0	12.6	0	12.5	0	8.9

C-trimoxazole	0	0.3	0	0	0	0
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**Conclusions:** No resistance of *S. pyogenes* to  $\beta$ -lactams has been detected. Macrolides and clindamycin have shown high *in vitro* activity against all tested isolates. Tetracycline has been poorly active against *S. pyogenes* and therefore it should be avoided in clinical practice.