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**ePoster Viewing**

**Resistance surveillance & epidemiology: Gram-negatives**

**High prevalence of undetected highly resistant microorganisms among residents of long-term care facilities in Amsterdam, the Netherlands**

Aletta Tholen<sup>\*1</sup>, Peter Molenaar<sup>2</sup>, Ina Willemsen<sup>3</sup>, Tineke Roest<sup>4</sup>, Marjolein Damen<sup>5</sup>, Paul Gruteke<sup>5</sup>, Paul Oostvogel<sup>6</sup>, Cees Hertogh<sup>7</sup>, Daan Uitenbroek<sup>6</sup>, Christina Vandenbroucke-Grauls<sup>8</sup>, Maarten Scholing<sup>6</sup>

<sup>1</sup>*Vu Medical Center, Amsterdam, Netherlands*

<sup>2</sup>*Ggd, Amsterdam, Netherlands, Amsterdam, Netherlands*

<sup>3</sup>*Amphia Hospital, Breda, Netherlands*

<sup>4</sup>*Farmadam, Amsterdam, Netherlands*

<sup>5</sup>*Olvg, Amsterdam, Netherlands*

<sup>6</sup>*Ggd, Amsterdam, Netherlands, Amsterdam, Netherlands*

<sup>7</sup>*Vu University Medical Center, Department of General Practice & Elderly Care Medicine, Amsterdam, Netherlands*

<sup>8</sup>*Dept Medical Microbiology & Infection Control, Vu University Medical Center, Amsterdam, Netherlands*

**Background:** Dutch national guidelines for infection control measures for carriers of Highly Resistant Microorganisms (HRMO) in Long Term Care Facilities (LTCFs) were published late 2014. A recent study in Amsterdam (2010) showed a prevalence of extended-spectrum beta-lactamase producing Enterobacteriaceae (ESBL-E) of 10.6% (9.7–11.5 95% CI) in patients with gastrointestinal symptoms. Our aim was to study the prevalence and risk-factors of carriage of HRMO among residents of LTCFs in Amsterdam.

**Material/methods:** We performed an observational cross-sectional study in which we determined the prevalence of HRMO-carriage in residents of LTCFs in Amsterdam. Swabs from nose and faeces were cultured for phenotypical analysis of meticillin-resistant *Staphylococcus aureus* (MRSA), faecal swabs were analysed for multidrug-resistant Gram-negative organisms (MRGN) and vancomycin-resistant enterococci (VRE) according to the Dutch guidelines.

**Results:** From November 2014 to august 2015, 385 residents from 12 LTCFs were enrolled of whom 355 could be analysed for MRSA colonization, 346 for rectal carriage of MRGN and 347 for rectal carriage of VRE. Prevalences for MRSA, MRGN and VRE were 0.8% (range 0-7%), 18.2% (0-47%), and 0% respectively. 47 Out of 346 (13.6%, 10–17.2 95% CI) samples yielded ESBL-E. In total, 68 MRGN strains were cultured from 63 residents; 50 (74%) were ESBL-E, of which 13 strains were as well resistant to fluoroquinolones and aminoglycosides and one strain harboured also carbapenemase. Of the remaining strains 17 were Enterobacteriaceae resistant to the combination of aminoglycosides and fluoroquinolones and one strain was identified as *Pseudomonas aeruginosa* additionally resistant to piperacillin.

Infection control measures were only applied in 9 out of 59 (15%) carriers of HRMO at the time of sampling.

**Conclusions:** Our data shows that the prevalence of MRSA and VRE in Amsterdam LTCFs is low. The carriage rate of MRGN in LTCFs is at least as high as in the general population. If we consider the infection control measures taken in patients, the majority of MRGN-carriers (85%) are currently undetected. Therefore continuation of infection control measures without surveillance or additional screening for HRMO seems inappropriate.