

**P0671**

**Paper Poster Session**  
**The MDR enterococcus**

**Clonal spread of vanA-positive *E. raffinosus* in a Belgian nursing home**

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**Background:** Outbreaks of vancomycin-resistant Enterococci (VRE) usually occur in hospital settings, e.g., haematology wards or clinics, with severely debilitated, immunocompromised patients. The majority of VRE outbreaks is caused by *E. faecium* and *E. faecalis*, whereas vancomycin-resistant organisms of other species appear only sporadically. Only a few studies described the clonal spread of vancomycin-resistant *E. raffinosus* so far. Thus, *E. raffinosus* is usually represented by few isolates in VRE survey studies or collections. Here we describe the clonal spread of *vanA* positive *E. raffinosus* in a Belgian nursing home.

**Materials/Methods:** Species identification of isolates sent to the Belgian National Reference Centre for Enterococci was confirmed by MALDI-TOF Mass Spectrometry and by *sod/ddl/16S* rDNA-PCR and sequencing. Antibiotic susceptibility was determined by using standard bacteriological procedures according to EUCAST. The following antibiotics were tested: ampicillin, vancomycin, teicoplanin, linezolid and tigecycline. PCR was applied to identify VRE genotypes. Typing was done by using PFGE. The following *E. raffinosus* strains were used as control strains: reference strain LMG12888T, clinical isolates O8L1270, 111-005886 (own collection) and 8991/64, UW11260, UW7358, UW10887, C-31135 kindly provided by R. Willems, G. Werner, K. Hegstad, and P. Damborg).

**Results:** In the spring of 2015, the NRC received 2 *E. raffinosus* strains for confirmation of vancomycin resistance from 2 different hospitals from the same region. The 1<sup>st</sup> strain was isolated during a screening procedure due to an outbreak of *vanA* positive *E. faecium* in hospital 1. Due to this *E. faecium* outbreak, hospital 2 implemented VRE-screening and isolated the 2<sup>nd</sup> strain from a hemodialysis patient. Further investigation indicated that both patients resided in the same nursing home (NH). Public Health Authorities were contacted. Screening from most exposed contacts was performed and resulted in the identification of an additional case in the NH. All 3 colonized residents lived on the same floor of the NH and used a collective care infrastructure. The strains were sent to the NRC. PFGE-typing indicated clonal spread of a *vanA* positive *E. raffinosus* clone. Additional screening of less exposed residents didn't result in detection of extra cases. Compliance with hygiene procedures was optimized and no further cases appeared.

**Conclusion:** *E. raffinosus* may be an important reservoir of van-genes and may contribute to the dissemination of vancomycin resistance. Therefore, *E. raffinosus* should be taken into consideration when implementing control procedures for enterococcal infections. Furthermore, such strains should be submitted to the NRCs for confirmation and surveillance.