



Check-Points Health's microarray assay finds more antibiotic resistance genes than conventional molecular techniques, recent study shows

Wageningen, The Netherlands, February 9, 2015 – Within a period of just three years carbapenem resistance in *Klebsiella pneumoniae* has nearly doubled in the EU from 4.6% in 2010 to 8.3% in 2013 according to a press release issued last November by the European Centre for Disease Prevention and Control (ECDC)¹. Check-Points Health B.V. today releases data demonstrating how one of its molecular *in vitro* diagnostic assays can help uncover the complex epidemiology of this emerging healthcare threat.

In this study² presented at the most recent ICAAC meeting in Washington DC, researchers from Mayo Clinic reported that Check-Points Health's *Check-MDR CT103* microarray assay was able to find more antibiotic resistance genes than conventional molecular techniques. Specifically, in 39% of isolates tested (42 out of 109) the highly multiplex detection offered by Check-Points Health's microarray assay enabled the identification of additional resistance genes originally not known to be present.

"By casting such a wide net the microarray assay is a truly unprecedented tool for gaining broad insight into the molecular epidemiology of these resistant bacteria within just one working day. We believe, as the experts in Gram-negative resistance detection, that building a detailed picture of this issue is an important first step in fighting the antibiotic resistance threat. But we don't want to stop there", says Check-Points Health's CEO and founder Joost Thijssen.

"To reduce the emergence and spread of carbapenem-resistant bacteria, European³ and US experts⁴ recommend implementing rapid and accurate methods for preventive screening of at risk patients in healthcare facilities. For this reason we have recently introduced the Check-Direct CPE, a CE-IVD marked real-time PCR assay for use in every hospital and with multiple real-time PCR systems, specifically designed to deliver rapid (2 hour) carbapenemase screening results."

About Check-Points Health B.V.

Check-Points Health is a privately held developer and manufacturer of *in vitro* diagnostic assays based in Wageningen, the Netherlands. Founded in 2008 as a part of Check-Points B.V., Check-Points Health aims to improve the control and prevention of antibiotic resistance in Gram-negative bacteria – such as carbapenemases, ESBLs and AmpCs – through combining its unique know-how of this field with its molecular detection technologies. The CE-IVD marked products range from a proprietary microarray system for comprehensive identification of resistance genes to assays for rapid screening in as fast as 2 hours based on real-time PCR.

For further information, please visit: www.check-points.com

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1. ECDC, 17 November 2014. <http://ecdc.europa.eu/en/press/Press%20Releases/EAAD-2014-antimicrobial-resistance-resistance-to-last-line-antibiotics.pdf>
2. Cunningham SA, Johnston B, Vasoo S, Johnson J, Patel R. Evaluation of Check-Points Check-MDR CT103 PCR-Microarray Kit for Detection and Classification of ESBL, AmpC and Carbapenemase Genes. Presented at: 54th ICAAC; 2014 Sept 5 -9; Washington, DC. Accessible via: http://www.check-points.com/downloads/Cunningham_et_al_ICAAC_2014.pdf
3. ECDC, 13 September 2011. http://ecdc.europa.eu/en/publications/Publications/110913_Risk_assessment_resistant_CPE.pdf
4. CDC, 2012. <http://www.cdc.gov/hai/pdfs/cre/cre-guidance-508.pdf>

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