

5 ANTIMICROBIAL RESISTANCE

Update on carbapenemase-producing Enterobacteriaceae

The Johannesburg and Cape Town Antimicrobial Resistance Reference Laboratories (AMRRL) of the Centre for Opportunistic, Tropical and Hospital Infections (COTHI) at NICD/NHLS offer testing of suspected carbapenemase-producing Enterobacteriaceae (CPE) isolates for the presence of selected carbapenemase genes. For May 2014, a

total of 34 Enterobacteriaceae isolates were screened, 65% (22/34) of which were confirmed to be carbapenemase-producing Enterobacteriaceae. The most common isolates referred for testing were *Klebsiella pneumoniae* (17/34, 50%) followed by *Enterobacter cloacae* (7/34, 20%) (Figure 1).

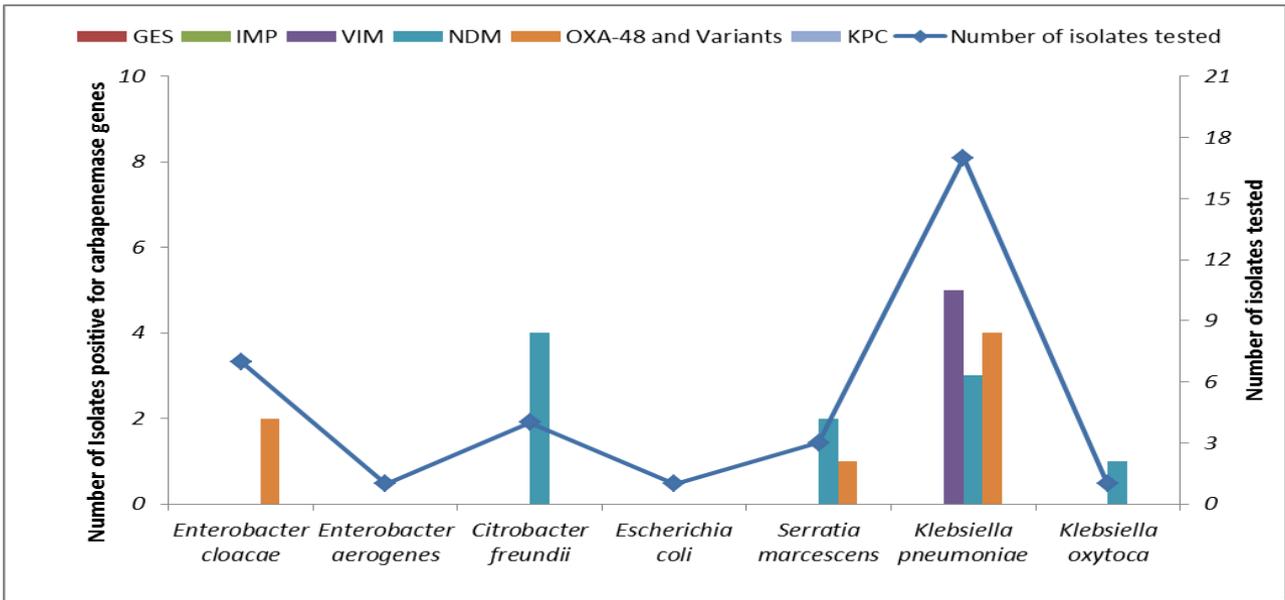


Figure 1. Enterobacteriaceae isolates screened (n=34) and confirmed CPE (n=22) during May 2014, AMRRL (NICD-NHLS)

Ten NDM-positive isolates were identified (six from private hospitals in KwaZulu-Natal Province and four from public hospitals in Free State and Western Cape provinces). Seven OXA-48-positive isolates were identified (six from private hospitals in

Gauteng and KwaZulu-Natal provinces, and one from a Gauteng Province public hospital). Five VIM-positive isolates were identified, all from the public sector in Gauteng Province (Figure 2).

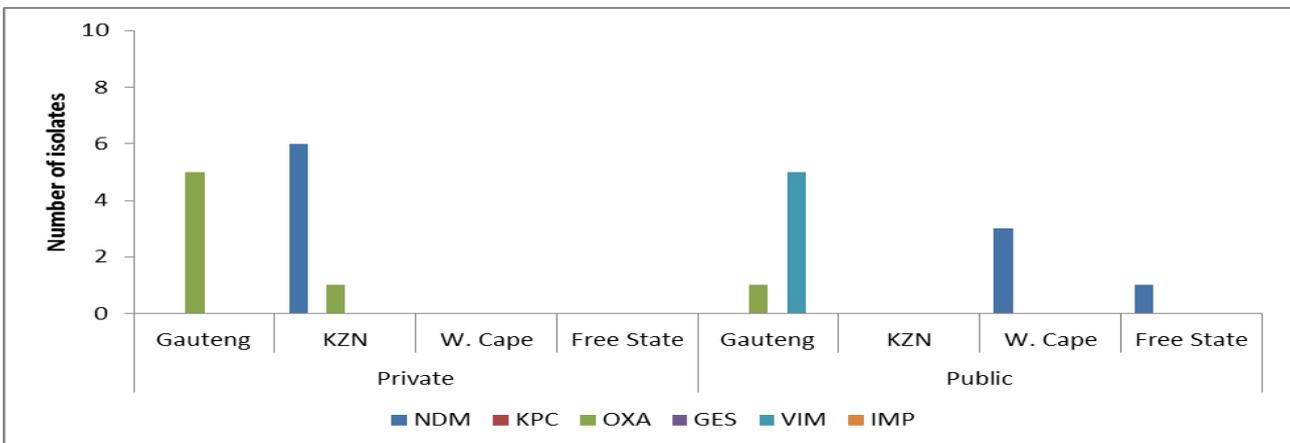


Figure 2. Distribution of CPE (n=22) by province and healthcare sector, May 2014, AMRRL (NICD-NHLS)

It is important to note that these figures do not represent the current burden of CPEs in South Africa. Given that CPE infections are currently not reportable or notifiable in South Africa, there is no platform for appropriate surveillance reports and consequently no locally representative data is available. This is of major concern, since meaningful data can inform public health policy and highlight priorities for action. Controlling the spread and limiting the impact of CPEs in South Africa will require intensive efforts in both the public and private healthcare sectors going forward. NHLS and

private laboratories are encouraged to submit suspected CPE isolates based on antimicrobial susceptibility testing (AST) criteria to the AMRRL, NICD/NHLS. Please telephone (011) 555 0342/44 or email ashikas@nicd.ac.za and olgap@nicd.ac.za for queries or further information. In the Western Cape area, please email colleen.bamford@nhls.ac.za.

Source: Centre for Opportunistic, Tropical and Hospital Infection, NICD-NHLS