

3 ANTIMICROBIAL RESISTANCE

a Update on carbapenemase-producing Enterobacteriaceae

The Johannesburg and Cape Town Antimicrobial Resistance Reference Laboratories (AMRRL) of the Centre for Opportunistic, Tropical and Hospital Infections (CO THI) at NICD/NHLS, test referred isolates of suspected carbapenemase-producing Enterobacteriaceae (CPE) for the presence of

selected carbapenemase genes. For December 2013, a total of 42 isolates was screened, 16 (38%) of which were CPE. Most isolates were *Klebsiella pneumoniae* (25/42, 60%) followed by *Enterobacter cloacae* (9/42, 21%) (Figure 5).

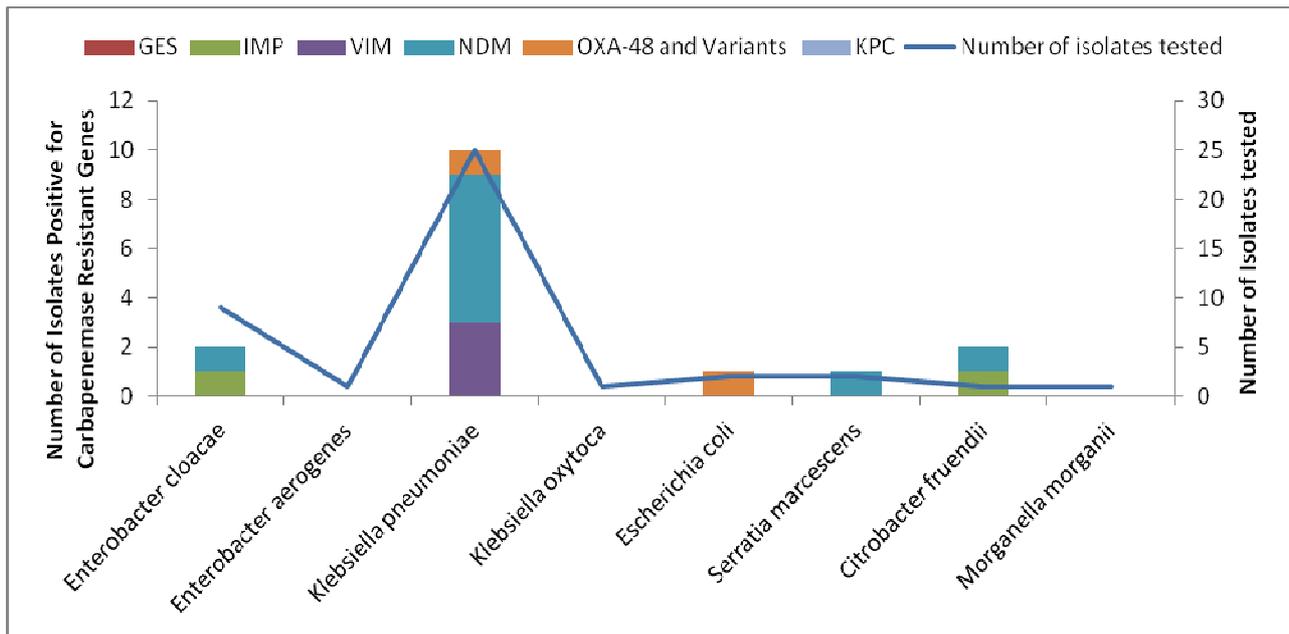


Figure 5. Enterobacteriaceae isolates screened (n=42) and confirmed CPE (n=16) during December 2013 at AMRRL (NICD-NHLS)

Nine NDM-positive isolates were identified (3 from patients in private hospitals and 6 from patients in public hospitals). Two OXA-48 positive isolates from patients in one private hospital in Gauteng Province were identified. Two IMP-positive isolates from private sector patients and 3 VIM-positive isolates from public sector patients were identified (Figure 6). All CPEs were from patients in Gauteng and KwaZulu-Natal provinces only.

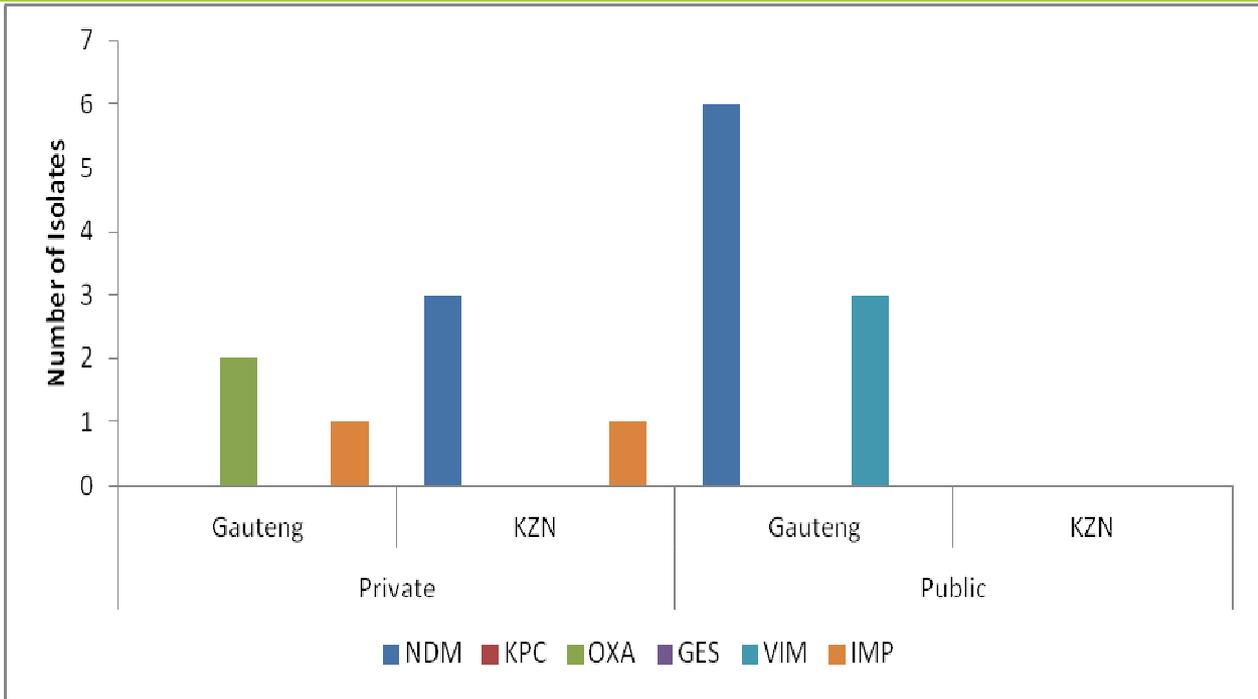


Figure 6. CPEs confirmed at AMRRL (NICD-NHLS), by province and healthcare sector, December 2013

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 reporting 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.

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