

4 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 (CO THI) at NICD/NHLS offer testing of suspected carbapenemase-producing Enterobacteriaceae (CPE) isolates for the presence of selected carbapenemase genes. For June 2014, a total of 38 Enterobacteriaceae isolates was screened, 66% (25/38) of which were confirmed as carbapenemase-producing Enterobacteriaceae. The commonest referred isolates were *Klebsiella pneumoniae* (66%, 25/38) followed by *Enterobacter cloacae* (13%, 5/38) (Figure 3).

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.

Nineteen NDM-1-positive isolates were identified (three from private hospitals in KwaZulu-Natal Province, and 16 from public hospitals in Gauteng and KwaZulu-Natal provinces). Four OXA-48-positive isolates were identified (one from a private hospital in Gauteng Province and three from public hospitals in Gauteng and Eastern Cape provinces). Two VIM-positive isolates were identified, both from the public sector in Gauteng Province (Figure 4).

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

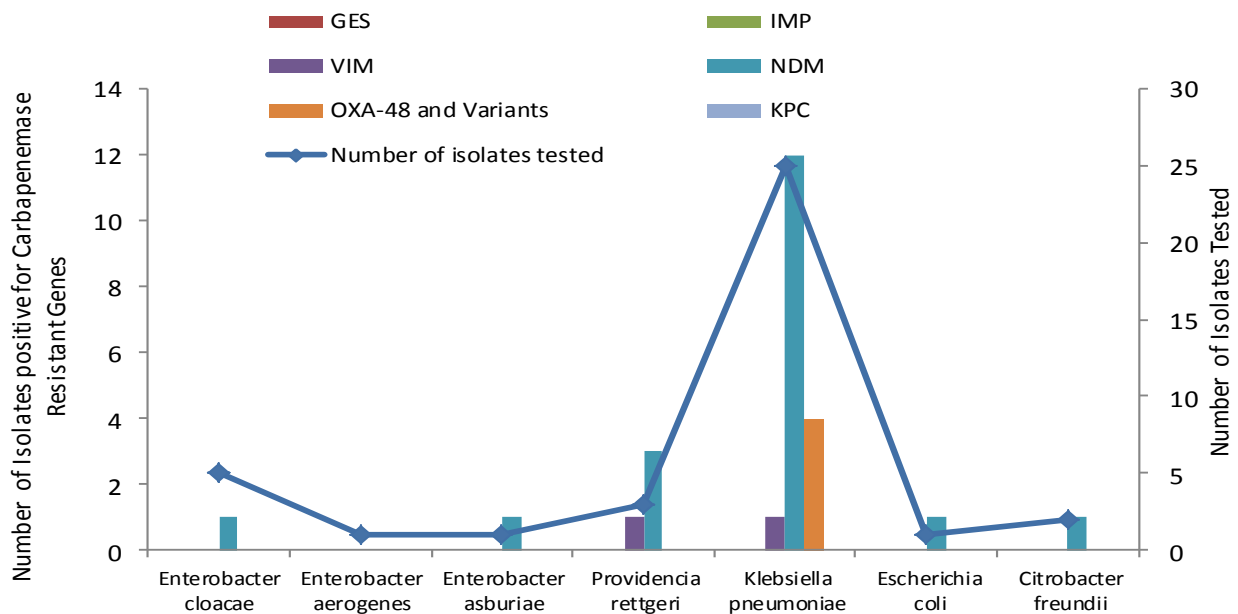


Figure 3. Enterobacteriaceae isolates screened (n=38) and confirmed CPE (n=25) during June 2014, AMRRL (NICD-NHLS)

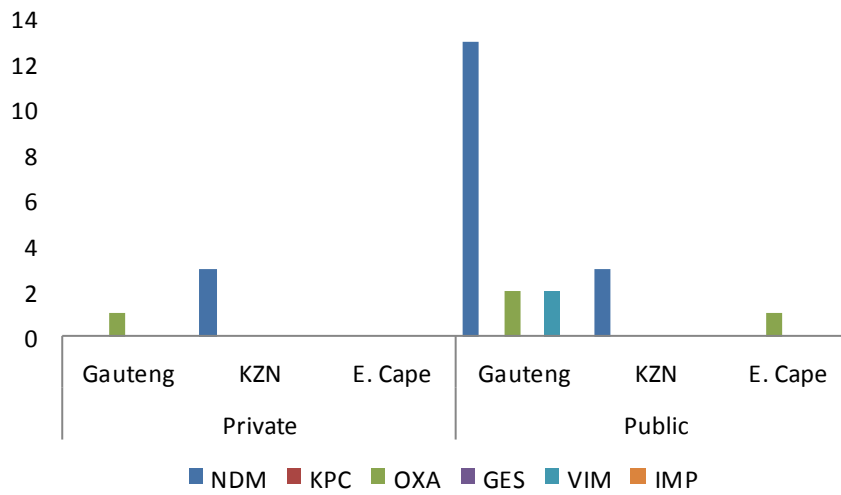


Figure 4. Distribution of CPEs by province and healthcare sector, June 2014, AMRRL (NICD-NHLS)