

5 ANTIMICROBIAL RESISTANCE

The Johannesburg and Cape Town Antimicrobial Resistance Reference Laboratories (AMRRL) of the Centre for Opportunistic, Tropical and Hospital Infections (COTHI) at NICD/NHLS have been testing referred isolates of suspected carbapenemase-producing Enterobacteriaceae (CPE) for the presence of selected carbapenemase genes. For September 2014, a total of 52

Enterobacteriaceae isolates was received. Twenty-seven isolates were screened, 12 of which were carbapenemase-producing Enterobacteriaceae. Twenty-five isolates were not processed due to issues experienced with the ordering of reagents. Most isolates were *Klebsiella pneumoniae* (16) followed by *Enterobacter cloacae* (6) (Figure3).

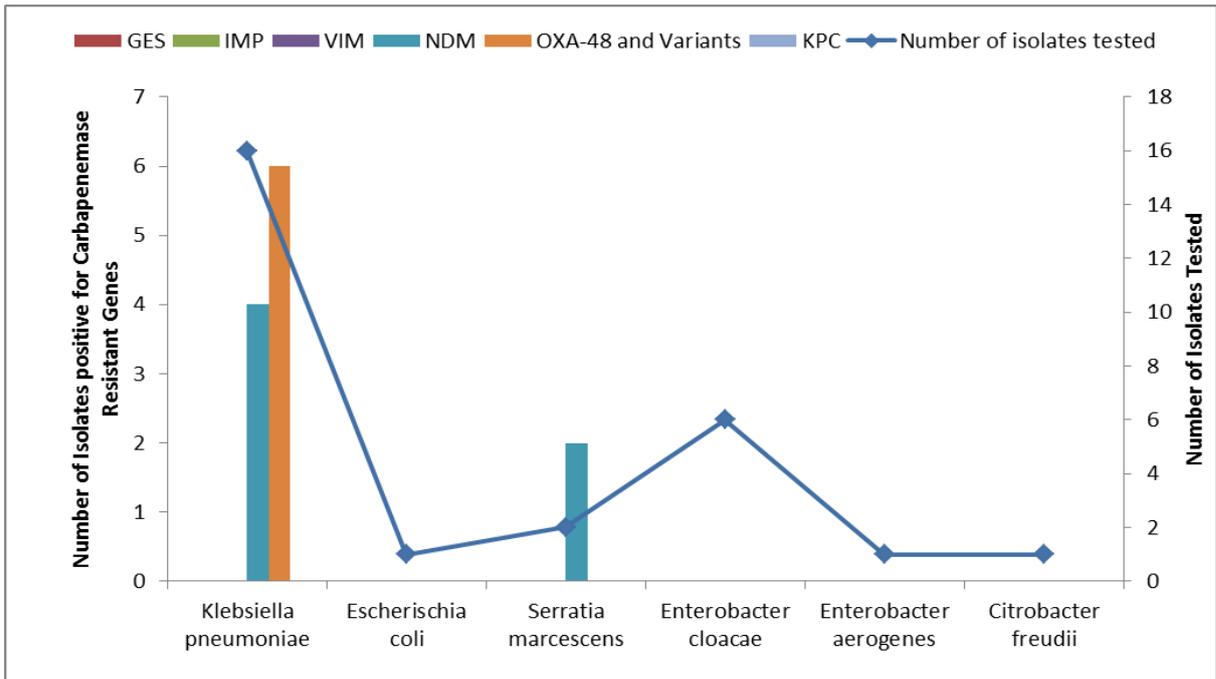


Figure 3. Enterobacteriaceae isolates screened (n=27) and confirmed CPE (n=12) during September 2014 at AMRRL (NICD-NHLS)

Six NDM-positive isolates were identified. Four of these were from private hospitals – three from KwaZulu-Natal and one from the Western Cape. Two NDM-positive isolates from public hospitals in Gauteng and the Western Cape were identified. Another six OXA-48-positive isolates were identified; two from a private hospital in Gauteng and four from the public sector – three from the Eastern Cape and one from the Western Cape (Figure 4).

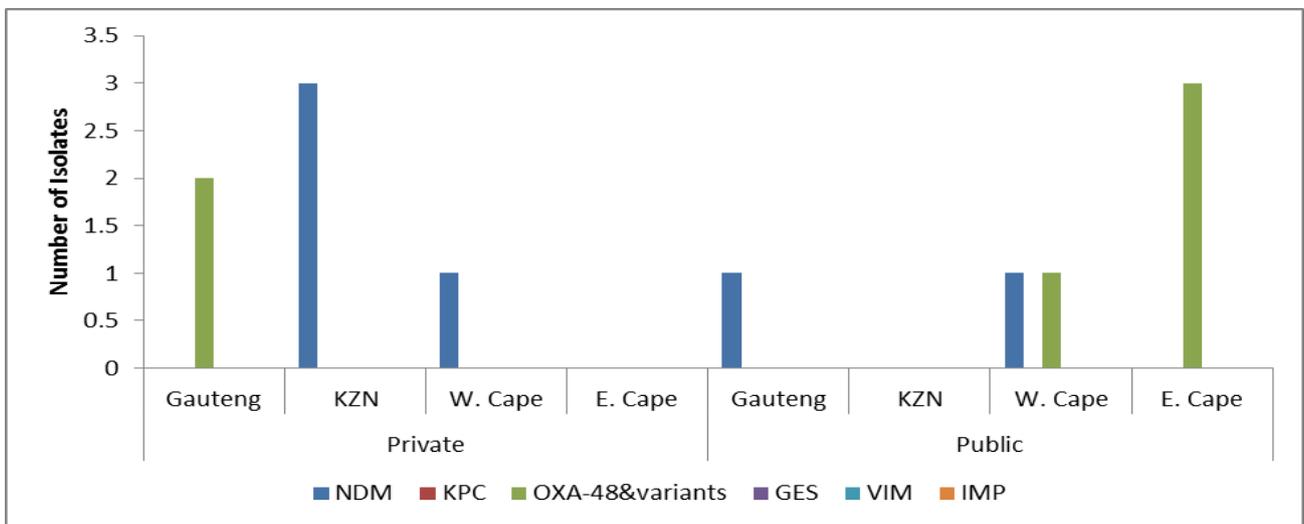


Figure 4. Distribution by province of CPEs (n=12), September 2014

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 Infections, NICD-NHLS