

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 (COTHI) at NICD/NHLS have been testing referred isolates of suspected carbapenemase-producing Enterobacteriaceae (CPEs) for the presence of selected carbapenemase

genes. For January 2014, a total of 62 isolates were screened, 44% (27/62) of which were carbapenemase-producing Enterobacteriaceae. The most common isolates referred for testing were *Klebsiella pneumoniae* (60%, 37/62) and *Enterobacter cloacae* (27%, 17/62) (Figure 3).

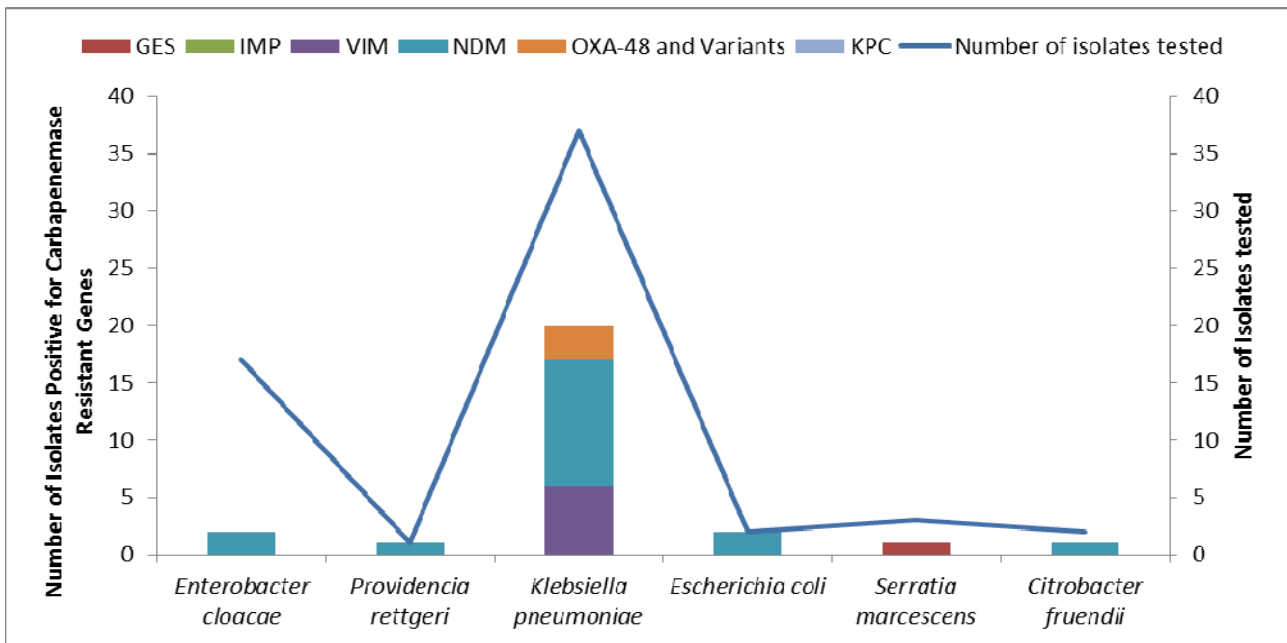


Figure 3. Enterobacteriaceae isolates screened (n=62) and confirmed CPE (n=27), January 2014, AMRRL (NICD-NHLS)

Seventeen NDM-positive isolates were identified (6 from private hospitals in KwaZulu-Natal Province and 11 from public hospitals in Gauteng Province). Three OXA-48-positive isolates from one private hospital in Gauteng Province were identified. Six

VIM-positive isolates and one GES-positive isolate were identified from the public sector and private sector respectively, all in Gauteng Province (Figure 4).

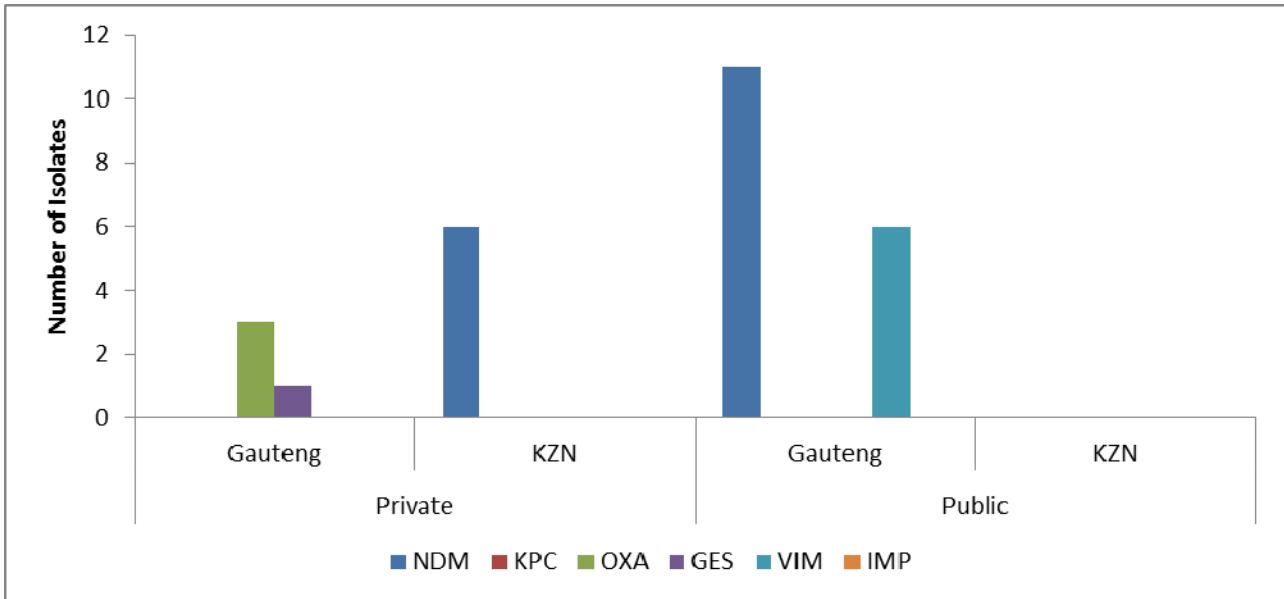


Figure 4. Laboratory-confirmed CPE isolates (n=27) per province and healthcare sector, January 2014, AMRRL (NICD-NHLS)

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.

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