

Update on carbapenemase-producing Enterobacteriaceae (CPE)

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

presence of selected carbapenemase genes. For November 2013, a total of 84 isolates were screened, 51 (61%) of which were confirmed as CPE. The most common isolates referred for testing were *Klebsiella pneumoniae* (n=46) and *Enterobacter cloacae* (n=22) (Figure1).

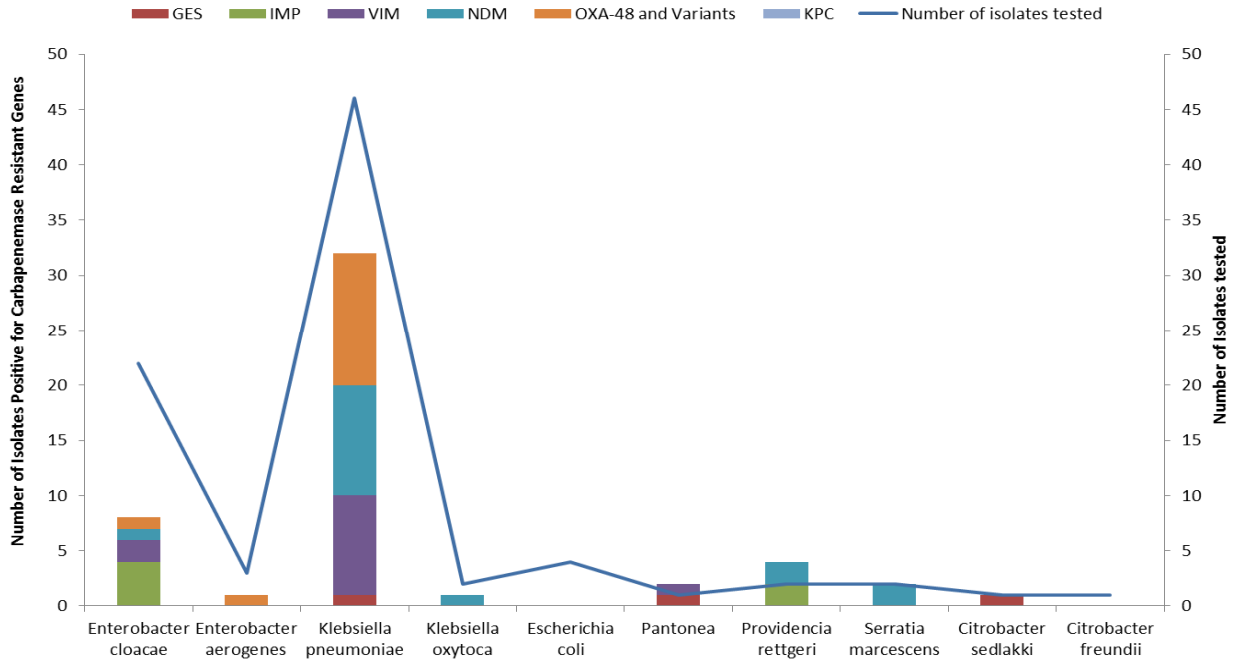


Figure 1. Enterobacteriaceae isolates screened (n=84), and confirmed CPE (n=51) during November 2013, AMRRL (NICD-NHLS)

Sixteen NDM-positive isolates were identified (9 from private laboratories and 7 from public (NHLS) laboratories). Fourteen OXA-48 positive isolates were identified, all from cases at a single private hospital. Six IMP-positive isolates (5 from NHLS laboratories and 1 from a private laboratory), 12 VIM-positive isolates (2 from private laboratories

and 10 from NHLS laboratories) and 3 GES-positive isolates (2 from private laboratories and 1 from an NHLS laboratory) were identified respectively. The majority of these isolates were from patients hospitalised in Gauteng (74%, 37/51) and KwaZulu-Natal (22%, 11/51) provinces (Figure 2).

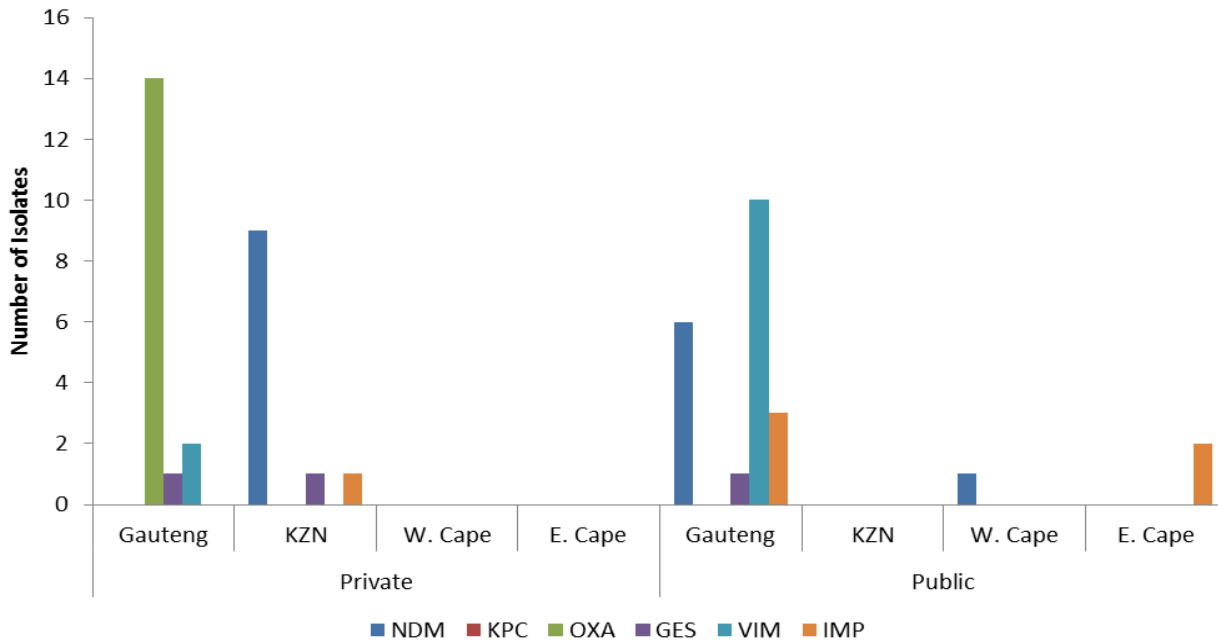


Figure 2. Laboratory-confirmed CPE per province and health sector, November 2013 (n=51),

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,

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