**Phenotypic test positive for carbapenemase production**

If no molecular testing is performed

Resistant to one or more carbapenems (minimum inhibitory concentrations of ≥4 mcg/mL for meropenem, imipenem, and doripenem or ≥ 2 mcg/mL for ertapenem)

Performed phenotypic or molecular testing for carbapenemase production using a recognized test*


Note that if relying on Modified Hodge, NC DPH requests isolate submission regardless of these results.

Phenotypic test negative for carbapenemase production

Molecular test negative for known carbapenemase (KPC, IMP, NDM, OXA, or VIM)

Molecular test positive for known carbapenemase (KPC, IMP, NDM, OXA, or VIM)

Phenotypic test positive for carbapenemase production**

**If no molecular testing is performed

Reporting Carbapenem-Resistant Enterobacteriaceae (CRE) to NC DPH

Escherichia coli, Enterobacter species, or Klebsiella species

YES

Performed phenotypic or molecular testing for carbapenemase production using a recognized test*


Note that if relying on Modified Hodge, NC DPH requests isolate submission regardless of these results.

Phenotypic test* negative for carbapenemase production

CRE with negative Modified Hodge results are reportable in the absence of additional testing

Molecular test negative for known carbapenemase (KPC, IMP, NDM, OXA, or VIM)

Molecular test positive for known carbapenemase (KPC, IMP, NDM, OXA, or VIM)

Phenotypic test positive for carbapenemase production**

**If no molecular testing is performed

Infection prevention measures necessary

Positive for KPC production

Positive for IMP, NDM, OXA, or VIM production

If isolate not tested by SLPH, send to SLPH for confirmation

Request isolate be sent to State Laboratory of Public Health (SLPH) for carbapenemase testing

ISOLATE SENT

YES

Resistant to one or more carbapenems (minimum inhibitory concentrations of ≥4 mcg/mL for meropenem, imipenem, and doripenem or ≥ 2 mcg/mL for ertapenem)

Request isolate be sent to State Laboratory of Public Health (SLPH) for carbapenemase testing

ISOLATE NOT SENT

NOT REPORTABLE

Infection prevention measures may still be necessary

NOT REPORTABLE

Infection prevention measures may still be necessary

NOT REPORTABLE

Infection prevention measures may still be necessary

REPORTABLE

Infection prevention measures necessary

NOT REPORTABLE

Infection prevention measures may still be necessary

NC DPH

December 2018