Identification of Inactive

_E. coli_

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_Escherichia coli_ and _Shigella_ species are genetically closely related and a specific situation exists which may provide a diagnostic problem for the clinical laboratory. This situation occurs when a lactose-negative, non-motile organism is recovered and identified by commercial assays as _Shigella_ species. We have encountered examples of mistaken identification by automated systems, although biochemical reactions did not follow the usual pattern and the data base indicated a low probability. Serotyping was helpful in identifying the organism as an inactive _E. coli_, also formerly called Alkalescens/Dispar. This biogroup of _E. coli_ is typically lactose-negative on screening media, however is generally not thought to be pathogenic. The issue may be brought to the laboratory’s attention when the clinician asks for clarification on an isolate reported as _Shigella_, but the patient is not experiencing continued diarrhea. The recognition of a mistaken identification may not be made until the major _Shigella_ serogroups A, B, C, and D are tested and found to be negative. Confirmatory identification can be made with the API system. Should an isolate suspected to be inactive _E. coli_ be found, NPHL will perform additional testing when requested for confirmation.