New Resistance Mechanism Identified

During January through June 2010, three isolates carrying a newly described resistance mechanism were identified from three U.S states. This is the first report of the New Delhi metallo-beta-lacatamase (NDM-1) carriage among Enterobacteriaceae in the U.S. The isolates, one each of Escherichia coli, Klebsiella pneumonia, and Enterobacter cloacae carried the gene that conveys resistance to all beta-lactam agents except aztreonam. In the United Kingdom isolate carriage of this gene has been closely linked to receipt of medical care in India and Pakistan. All three U.S isolates were from patients who received recent medical care in India.

The CDC is asking physicians to be aware of the possibility for NDM-1-producing Enterobacteriaceae in patients who have received medical care in India and Pakistan and specifically ask about this risk factor. Clinical laboratories identifying carbapenem-resistant Enterobacteriaceae isolates from patients who have received medical care within six months in India or Pakistan should forward these isolates to the state lab where they will be sent to the CDC for further testing. Physicians should notify their laboratory of these high-risk patients when submitting specimens to the lab for culture. Details and more information on these organisms as well as the CDC contacts for consultation can be found in the June 25, 2010, MMWR.