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## etymologia

### New Delhi metallo- $\beta$ -lactamase 1 [nū del'ē mē-tal'ō bāt'ə lak'tə-mās wuhn]

Surajit Chakraborty

New Delhi metallo- $\beta$ -lactamase 1 (NDM-1) is an Ambler class B  $\beta$ -lactamase enzyme named after the capital of India, New Delhi. This class of enzymes requires Zn<sup>2+</sup> ions for activity, hence metallo- $\beta$ -lactamase. The transmissible genetic element-associated *bla*<sub>NDM-1</sub> encodes NDM-1, which confers resistance to all  $\beta$ -lactam antibiotics except monobactams. The gene was first identified and reported in 2009 from a urinary tract infection-causing carbapenem-resistant *Klebsiella pneumoniae* isolate. Reportedly, the *bla*<sub>NDM-1</sub>-harboring *K. pneumoniae* strain (linked to sequence type 14) was isolated from an India-born patient in Sweden who acquired a urinary tract infection while visiting New Delhi.

NDM's eponymous association with New Delhi sparked anguish among authorities in India, who saw the terminology as a means to tarnish the country's growing medical tourism industry. Some suggested changing the term to PCM (plasmid-encoding carbapenem-resistant metallo- $\beta$ -lactamase). However, the sporadic concerns regarding nomenclature were never formally addressed, and the term NDM-1 eventually gained universal acceptance within the scientific community. By the end of 2025, >63 distinct NDM variants had been reported worldwide and sequentially designated NDM-1 through NDM-63.

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DOI: <https://doi.org/10.3201/eid3206.241434>