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Prevalence of blaNDM-1-producing *Escherichia coli* in Asia: A systematic review and meta-analysisMasoud Dadashi<sup>1</sup>, Bahareh Hajikhani<sup>1</sup>, Parviz Owlia<sup>2</sup>, Ramin Pouriran<sup>1</sup> and Ali Hashemi<sup>1</sup><sup>1</sup>Shahid Beheshti University of Medical Sciences, Iran<sup>2</sup>Baqiyatallah University of Medical Sciences, Iran

**Background & Aim:** NDM-1 gene (blaNDM-1)-producing *Escherichia coli* is allegedly perceived as one of the most indispensable multidrug-resistant bacteria causing infections in hospitals and clinic domains. In numerous Asian countries, sporadic studies have been conducted to investigate the prevalence of blaNDM-1-producing *E. coli*. The nobility of the present study was to determine the precise prevalence of blaNDM-1-producing *E. coli* in different parts of Asia indeed.

**Methods:** Several international databases including Medline, Embase and Web of sciences were searched from March 2005 to Jan 2016 to discern studies addressed the prevalence of blaNDM-1-producing *E. coli* in Asia. Comprehensive meta-analysis (V2.2, Biostat) software was used to interpret the data.

**Results:** Of the 588 records identified from the databases, 15 studies fulfilled the eligibility criteria ostensibly. The analyses manifested that the prevalence of blaNDM--producing *E. coli* was 30.7% [95% confidence interval (95% CI) 16.2-50.2] in the analyzed Asian countries. Hence, the further stratified analyses indicated that the prevalence of blaNDM-1-producing *E. coli* was higher in the probes, particularly after 2010.

**Conclusion:** It was magnificently attained that the relatively high prevalence of blaNDM-1-producing *E. coli* merit in our analysis. Moreover, regular surveillance for hospital associated infection, monitoring antibiotic sensitivity pattern, and formulation of definite antibiotic policies advocates viable roles for prevention and control of blaNDM-1-producing *E. coli* certainly.

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