

Abstracts' Service

Wishing Away Plagiarism in Scientific Publications! Will it Work? A Situational Analysis of Plagiarism Policy of Journals in PubMed

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Background. Plagiarism remains a scourge for the modern academia. There are inconsistencies in the plagiarism policy scientific journals. The aims of this study was to analyze types of published articles on 'Plagiarism' available on PubMed over last two decades against a backdrop of the plagiarism policy of the journals publishing such articles.

Methods. A literature search on PubMed (<https://www.ncbi.nlm.nih.gov/pubmed>) was made using the search term "plagiarism" from 01 January 1997 till 29 March 17. All publications having 'plagiarism' in the title formed the study group. The following were noted: types of articles published, ethical and plagiarism policy of the journal as available in the Instructions to authors and or in the journal home page.

Results. A total of 582 publications from 320 journals were studied. Editorials (165, 28.3%) and Letters to the Editor (159, 27.3%) formed the bulk. Research articles (56, 9.6%), Review articles (51, 8.7%) and Commentaries (47, 8%) formed the remainder. Detailed ethical guidelines were present in 221 (69%). Outline ethical guidelines only were present in 15 (4.7%) journals. 49 (15.3%) journals did not have any ethical guidelines. Detailed description of the policy on plagiarism was found in 80 (25%) journals. Only an outline description was found in 29 (9%) journals while a plagiarism policy/statement was totally absent in 176 (55%) journals.

Conclusion. There is a need to have a well defined plagiarism policy/statement for all scholarly journals easily visible on their home pages on the internet and also in their Instructions to Authors.

The Preprint Debate: What are the Issues?

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The debate surrounding preprints is increasing. Preprint proponents claim that preprints are a way to shore up trust in academic publishing, that they provide an additional 'quality' screen prior to traditional peer review, that they can assist with the replication crisis plaguing science in part by making negative or contradictory results public, and that they speed up the publishing process because fundamental results can be presented early, serving as timely reports for the purposes of tenure or grant funding. Preprint skeptics and critics claim that preprints may represent a risk and a danger to quality-based academic publishing because they are documents that have not been carefully and thoroughly vetted prior to their release into the

public domain. Thus, academics who cite invalid, poorly vetted, or false facts could cause harm, not unlike the unscholarly 'predatory' open access movement. Feedback on work from lesser-known groups, or on less glamorous topics, may be null or worse than from traditional peer review, annulling an initial key objective of preprints. Although there is no widespread empirical evidence or data yet regarding some of these issues, academics should be aware of the ideological, financial, and political tug-of-war taking place before deciding if they wish to publish their important findings as a preprint prior or simultaneous to submitting to a regular journal for peer review.

***Mycoplasma pneumoniae*: A Significant but Underrated Pathogen in Paediatric Community-acquired Lower Respiratory Tract Infections**

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Lower respiratory tract infections are considered a common cause responsible for morbidity and mortality among children, and *Mycoplasma pneumoniae* is identified to be responsible for up to 40 per cent of community-acquired pneumonia in children greater than five years of age. Extrapulmonary manifestations have been reported either due to spread of infection or autoimmune mechanisms. Infection by *M. pneumoniae* has high incidence and clinical importance but is still an underrated disease. Most widely used serologic methods are enzyme immunoassays for detection of immunoglobulin M (IgM), IgG and IgA antibodies to *M. pneumoniae*, though other methods such as particle agglutination assays and immunofluorescence methods are also used. Detection of *M. pneumoniae* by

nucleic acid amplification techniques provides fast, sensitive and specific results. Utilization of polymerase chain reaction (PCR) has improved the diagnosis of *M. pneumoniae* infections. Besides PCR, other alternative amplification techniques include (i) nucleic acid sequence-based amplification, (ii) Q β replicase amplification, (iii) strand displacement amplification, (iv) transcription-mediated amplification, and (v) ligase chain reaction. Macrolides are used as the first-line treatment in childhood for *M. pneumoniae* infections; however, emergence of macrolide-resistant *M. pneumoniae* is a cause of concern. Development of a safe vaccine is important that gives protective immunity and would be a major step in reducing *M. pneumoniae* infections.

Molecular Detection of *bla*_{NDM-1} (New Delhi Metallobetalactamase-1) in Nosocomial *Enterobacteriaceae* Isolates by Nested, Multiplex Polymerase Chain Reaction

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Background. Carbapenems are considered “drugs of last resort” in many life-threatening infections. Advent of carbapenemases like KPC, OXA-48, VIM, IMP, and NDM have greatly affected the efficacy of these drugs, posing serious threat to global health and infection control. NDM bears special significance to the India subcontinent, labeled as place of origin and reservoir. NDM tends to escape detection by routine phenotypic methods, requiring molecular confirmation. This study utilizes nested, multiplex polymerase chain reaction (PCR) for reliable detection of *bla*_{NDM-1} in nosocomial *Enterobacteriaceae* isolates.

Methods. This study was conducted to detect prevalence of *bla*_{NDM-1}, *bla*_{IMP}, *bla*_{VIM} and *bla*_{KPC} genes by multiplex PCR among multidrug/carbapenem-resistant nosocomial *Enterobacteriaceae* isolates. From March 2013 to April 2014, 100 consecutive non-repeat isolates of *Enterobacteriaceae* from various inpatient clinical samples were analyzed. Imipenem-resistant isolates identified by Kirby Bauer disk diffusion method with Clinical and Laboratory Standards

Institute guidelines were further subjected to nested, multiplex PCR to simultaneously detect *bla*_{NDM-1}, *bla*_{IMP}, *bla*_{VIM} and *bla*_{KPC} genes.

Results. Out of 100 isolates, 17 (17%) were found to be imipenem-resistant. *bla*_{NDM-1} was detected in all 17 isolates by nested, multiplex PCR. *bla*_{VIM} was co-carried in 4 isolates while one isolate co-harbored *bla*_{IMP} with *bla*_{NDM-1}. Imipenem resistance and NDM-1 carriage was predominant amongst *Klebsiella* isolates. Maximum NDM-1 producers were isolated from the intensive care unit (70.6%).

Conclusion. NDM-1 prevalence in nosocomial *Enterobacteriaceae* isolates in our hospital was found to be 17%. A nested, multiplex PCR was used for rapid detection of various carbapenemase genes with high sensitivity and specificity which is essential not only for favorable patient outcome but also for timely implementation of appropriate infection control practices to prevent further spread of such organisms.