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Editorial

Quaternary prevention: The antidote to medical overuse!

Badrinarayan Mishra[1,*], **Nidhi D Sinha**[2], **Bidushi Mishra**[3]

[1]*Dept. of Community Medicine, R D Gardi Medical College, Ujjain, Madhya Pradesh, India*
[2]*Dept. of Dentistry, R D Gardi Medical College, Ujjain, Madhya Pradesh, India*
[3]*People's College of Dental Sciences, Bhopal, Madhya Pradesh, India*

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On a conventional note, Man has managed diseases through preventive approaches before the availability of any specific treatment modality. In fact, at the onset, most of the disease entities are handled through this method as there is a dearth of empirical knowledge. But, in recent time the field of medical sciences have expanded and developed many armors, especially for established disease entities. This when coupled with digital dissemination of information, wider coverage of the populace by health insurance schemes, and dented ethical morale of healthcare providers has created a new challenge; the issue of medical overuse.

In its' simplest form medical overuse represents the issues of unwanted investigation and overtreatment that lack patient benefit and in multiple instances is even counterproductive.[1] Overdiagnosis, over-testing, overtreatment, diagnosis of abnormalities unrelated to disease, unnecessary medical evaluation, incorrect practice, or unwanted care are some of them.[2] Additionally, risk factors are increasingly being addressed as diseases, asymptomatic groups with low risk are frequently screened, and pre-disorders are frequently classified as manifest diseases.[3,4] A good illustration is threshold lowering by relocating the line dividing health and sickness is serum cholesterol levels.[5]

Over time, there is a growing recognition of the fact that medical overuse includes unnecessary health care that provides no benefit to patients or puts them at risk of harm that outweighs any potential benefit.[6,7] More often than not, asymptomatic individuals are at risk of being labeled as patients. This brings in unnecessary anxiety and lowers the quality of life of those who are a victim of this malicious practice.[7] Furthermore, unnecessary medicine contributes to rising healthcare costs and a misallocation of scarce resources.[8,9] This increasingly visible situation has emerged as a significant healthcare issue, which is well substantiated by Barbara Stanfield's report in 2000, which has put iatrogenic events as the third leading cause of death in the United States.[10] Furthermore, in 2003, The World Organization of National Colleges, Academies, and Academic Associations of General Practitioners/Family Physicians (WONCA) and the World International Classification Committee (WICC) recognized medical overuse as a cause of concern and advocated Quaternary Prevention(P4) as the modality to handle this issue.[11]

Taking cognition of this and a growing number of studies and healthcare campaigns across the globe, different associations and agencies have risen up to the occasion. One such is the American Board of Internal Medicine, whose "Choosing Wisely" program (2015), is a distinct example of handling medical overuse by adopting the Quaternary

* *Corresponding author.*
E-mail address: badrinmishra@gmail.com (B. Mishra).

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Prevention(P4) strategy. The said program targets pointless medical procedures by providing top five evidence-based recommendation lists in collaboration with an increasing number of specialties groups.[12]

The concept of "quaternary preventive" was developed in primary care to shield patients from pointless tests and treatments (quaternary events) thereby reducing medical overuse in situations where the patient is ill in absence of disease, i.e., the patient is ill (illness exists), but the physician does not attribute the symptoms to any biological disease (absence of disease). For example, using a watchful waiting strategy for a young healthy patient with no cardiovascular risk or symptoms is concerned about his cholesterol level.[13] Thus quaternary prevention (P4) is a new phrase for an ancient concept: “first, do no harm". So, the core principle of P4 is to detect a patient at risk of overmedicalization, to shield him from additional medical intrusion, and to recommend to him interventions, which are morally acceptable.[14]

Over the years, the new definition of P4 has broadened its scope and gone beyond the concepts of illness and disease, focusing on all medical overuse situations and anchored on the principle of non-maleficence: "Action taken to identify a patient or a population at risk of overmedicalization, to protect them from new medical invasions, and to suggest to them interventions that are evidence-based and ethically acceptable".[15]

In compilation, it can be emphasized that a well-founded wait-and-see approach, medical education, a trusting doctor-patient relationship, the judicious and ethical use of health insurance schemes, the improvement of primary/health care structures, and the involvement of patients and society are all proposed strategies for reducing medical overuse.

References

1. Alber K, Kuehlein T, Schedlbauer A, Schaffer S. Medical overuse and quaternary prevention in primary care - A qualitative study with general practitioners. *BMC Fam Pract*. 2017;18. doi:10.1186/s12875-017-0667-4.
2. Carter SM, Rogers W, Heath I, Degeling C, Doust J, Barratt A. The challenge of overdiagnosis begins with its definition. *BMJ*. 2015;350:h869.
3. Djulbegovic B, Paul A. From efficacy to effectiveness in the face of uncertainty. Indication creep and prevention creep. *JAMA*. 2011;305(19):2005–6.
4. Heath I. Overdiagnosis: when good intentions meet vested interests. *BMJ*. 2013;347:f6361. doi:10.1136/bmj.f6361.
5. Starfield B, Hyde J, Gérvas J, Heath I. The concept of prevention: a good idea gone astray? *J Epidemiol Community Health*. 2008;62(7):580–3.
6. Gérvas J, Fernándezb MP. Genética y prevención cuaternaria. El ejemplo de la hemocromatosis. *Aten Primaria*. 2003;32(3):158–62.
7. Morgan DJ, Brownlee S, Leppin AL, Kressin N, Dhruva SS, Levin L, et al. Setting a research agenda for medical overuse. *BMJ*. 2015;351:h4534. doi:10.1136/bmj.h4534.
8. Brody H. Medicine’s ethical responsibility for health care reform - the top five list. *N Engl J Med*. 2010;362(4):283–5.
9. Chassin MR. Is health care ready for six sigma quality? *Milbank Q*. 1998;76:565–91.
10. Starfield B. Is US health really the best in the world. *JAMA*. 2000;284(4):483–5.
11. Bentzen N. WONCA International Classification Committee. Wonca international dictionary for general/family practice. Available from: http://www.ph3c.org/ph3c/docs/27/000092/0000052.pdf.
12. American Board of Internal Medicine Foundation (ABIM). Choosing Wisely Recommendations; 2015. Available from: http://www.choosingwisely.org/wp-content/uploads/2015/01/Choosing-Wisely-Recommendations.pdf.
13. Pencina MJ, Navar-Boggan AM, D’Agostino RB, Williams K, Neely B, Sniderman AD, et al. Application of new cholesterol guidelines to a population-based sample. *N Engl J Med*. 2014;370(15):1422–31.
14. Berwick DM, Hackbarth AD. Eliminating waste in US health care. *JAMA*. 2012;307(14):1513–6.
15. Alber K, Kuehlein T, Schedlbauer A, Schaffer S. Medical overuse and quaternary prevention in primary care - A qualitative study with general practitioners. *BMC Fam Pract*. 2017;18(1):99.

Author biography

Badrinarayan Mishra, Senior Professor https://orcid.org/0000-0001-6956-0469

Nidhi D Sinha, Professor

Bidushi Mishra, Final Year (BDS)

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