Editorial

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Deprescribing: A New Paradigm in Healthcare

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Overtreatment and overmedication for simple diseases is a new epidemic.[1] Deprescribing has been defined as the process of tapering, stopping, discontinuing, or withdrawing drugs, with the goal of managing poly-pharmacy and improving outcomes.[2] It has also been defined as a planned and supervised process of dose reduction or stopping of medication that might be causing harm or no longer be of benefit.[3] Deprescribing is part of good prescribing: backing off when doses are too high, or stopping medications that are no longer needed.[3] Clinicians typically attempt to taper or stop agents on the basis of clinical experience and judgment, rather than using an approach guided by evidence.

Deprescribing is both a science and an art and involves a deep understanding of the patient as well as applied science so called personalized or precision medicine. In the high income developed countries the process of deprescribing is most often performed in out-patient clinics for older patients who have multimorbidity and are on multiple therapies.[1] As the patient gets old, poly-pharmacy becomes more prevalent and evaluation of appropriateness of medication use is important.[4]

Studies have reported that the risk for adverse drug reactions, falls, disability, and mortality rises significantly with each additional medication used.[4] In addition, using multiple medications increases the risk of adverse drug events, drug interactions, medication non-adherence, decreased functional status, and geriatric syndromes.[1,5] Several studies have reported the importance of reducing unnecessary medication use and polypharmacy and suggested deprescribing of medications.[6] A systematic review reported that specific classes of medications can be withdrawn in a substantial proportion of older people without generating any harm.[7] Another meta-analyses covering a wide range of conditions and medications concluded that deprescribing is often achieved without adverse changes in quality of life or health outcomes and might improve longevity.[8] A more recent meta-analysis that evaluated feasibility and safety of discontinuation medication, with a focus on studies that have been conducted in the community found that between 2005 and 2017 only a few studies examined the feasibility and safety of discontinuing medication in primary care settings.[9] The identified trials were heterogeneous, studying a wide variety of medications, with large differences in the number of participants, age, and follow-up time. There is a large difference between studies in the number of patients who successfully stopped medication, but most studies found that >50% of participants in the deprescribing group were able to successfully stop medication.[9] Clearly, we must consider deprescribing medicines among the elderly to improve general well being, prevent adverse drug reactions and drug-drug interaction.

In India and many lower-middle and low income countries, overdiagnosis and overtreatment is rampant not only in the elderly but also among the children and young adults.[10,11] Nobel laureate Amartya Sen has observed that in India the poor have either no access to healthcare, or if they do, are overburdened by overtreatment due to lack of diagnostic skills in healthcare providers and diagnostic services in health system.[12] Thus overtreatment is rampant in primary care. Even in secondary and tertiary care a massive burden of overtreatment requiring deprescribing is prevalent.[13] An example of overmedication was recently observed in a patient with stable ischemic heart disease. This 55 year old male patient was on tablets of Nitroglycerin SR 2.6 mg bd, Metoprolol XR 25 mg bd, Cilastozol 100 mg bd, Aspirin 75 mg od, Clopidogrel 75 mg od, Prasugrel 10 mg od and Carvedilol XR 10 mg od!! This type of overtreatment certainly needs better physician education and depre-scribing.

One way to reduce or eliminate overprescribing and promote deprescribing is prescription audit.[14] This happens in many developed countries where either health-system administrators and researchers periodically and randomly audit prescription e.g. in UK by NHS, or the

health-insurance personnel in USA.[1] Unfortunately both are absent in most low and lower-middle income countries where the physicians are not answerable to anyone (except to courts) and are free to write the medicines they wish to. Initiatives to audit the wasteful healthcare expenditure are needed.[15]

In the present era of physician mistrust, promotion of good patient-physician relationship is important for a promoting a healthy future of healthcare.[16] Multiple action items have been suggested.[17] These include: aligning physician engagement, administrative support, and the culture of the practice to effect change; prioritizing identification of opportunities for innovation; involving all the members of a team and rethinking the purpose of their work and the skills they bring to the practice; identifying key barriers to success; creating the role of coordinating physician; building a partnership with administration for long term success; and mobilizing specialty groups to change reimbursement to properly reward additional patient service.[15] I believe that deprescribing with use of evidence based medicine and eliminating redundant medicines would lead to better and long-lasting patient-physician relationship.

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