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Letter to The Editor

How 'pill for every ill'-alarming source of polypharmacy in elderly patient

Sir,

According to WHO there is one elderly person i.e., age 60 year or older in every nine people and this value is expected to increase by 2050 accounting for about half of the total growth of the world population.[1] This demographic transition poses a significant challenge for health care authorities as the age advances multiple chronic disease such as hypertension, DM, arthritis, chronic heart disease, renal disease come in to scenario. For the above-mentioned disease an elderly patient has to take life-long medications this leads to polypharmacy.

Term polypharmacy is commonly defined as using 5 to 10 drugs per prescription other than those clinically indicated leading to unnecessary and unwanted drug use.[2] Elderly patients have more complicated chronic conditions and respond differently to medication therapy or develop more severe adverse reactions due to differences in pharmacokinetic and pharmacodynamic parameters as compared to younger patients.

Polypharmacy in geriatric population leads to increase ADRs, increased out of pocket expenditure, poor compliance ultimately leading to increased mortality. Elderly patient usually indulges in self-medication with easily available over the counter medication also they completely lack awareness and understanding of ADRs and drug interactions of these medications. There is a tendency amongst geriatric population to consult multiple physicians for each comorbid condition and then they continue with each prescription without proper therapeutic reconciliation. There is a general myth that ayurvedic and herbal medicines are devoid of any ADRs which has led to increased conviction in these drugs. This results in cross-pathy and often concomitant use of such medication causes polypharmacy. Polypharmacy may sometimes lead to "prescribing cascades".[3] Prescribing cascade occurs when sign and symptoms of an ADR is misdiagnosed as a disease and a new treatment is again added to the previous prescription. This further develops more ADRs and more drug interactions leading to prescribing cascades.

For prevention of increased mortality and morbidity among elderly due to prescription of potentially inappropriate medications Beer's criteria created. It was released in 1997 and last updated in 2012.[4] It is based on common concord of experts from different specialties like geriatrics, psychopharmacology and clinical pharmacology. It includes medication to be avoided in elderly patient and also the drug that needs to be avoided for any particular diagnosis. Beer's criteria classify inappropriate prescriptions into high/low severity depending on severity of ADRs that may occur from prescription. Beers criteria had certain shortcomings so it has led to evolution of newer tools like screening tool of older persons prescription (STOPP) and screening tool to alert doctors to right treatment (START) for appropriate prescriptions.

In order to safeguard elderly from deleterious effects of polypharmacy it is advisable to use above mentioned tools like (STOPP) and (START) for appropriate prescriptions.[5] Whenever possible treatment should be started with single drug instead of multiple drugs for a particular disease. In most of the non-critical situations initial low dose should be given and then the dose is titrated upwards. Once daily dosing should be preferred over twice or thrice daily dosing. Mandatory training can be introduced in medical curriculum on medication safety. Various patient's centric approaches like mobile applications, reminders and labels can be used to increase compliance. To reduce incidence of crosspathy proper history should be taken to know about self- medication. Monitoring of patient's drug regimen needs to be done periodically.

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