Deprescribing: An oft-ignored Concept
Shehzad Ahmed Khan, MBBS; MD

Introduction
From time immemorial physicians have been helping patients through various modalities of treatment. Of these, drugs constitute the most important tool in the physician's armament. Prescribing drugs is probably as old as time. A physician cannot wait to prescribe a drug in order to expedite improvement in patient's condition. However, the medicines may cause more harm than benefit in certain circumstances. This is particularly seen in a scenario where in the quest to treat patients aggressively, they often indulge in polypharmacy rightly or wrongly. This can sometimes have serious consequences if the patient is not meticulously monitored in follow up for any adverse drug event (ADE). It is here that the art of deprescribing comes into play. It is the process of stopping or reducing drug dosage in order to improve patient outcome. A physician should not only know when to prescribe a drug but also when to withhold prescribing it or if prescribed when to discontinue it.

Definition
Deprescribing is defined as the systematic process of identifying and discontinuing drugs in instances in which existing or potential harms outweigh existing or potential benefits. It also includes tapering or reducing drug dose. This assumes importance for instance in the elderly where drugs notoriously cause ADE particularly if inappropriately prescribed. Besides in this era of polypharmacy one does encounter situations where patients are allowed to continue a number of drugs incessantly. During doctors' training program a lot of emphasis is laid on prescribing drugs based on evidence based medicine. But little is taught regarding the contrary. That is, how not to prescribe inappropriately or when to discontinue a medicine that is causing more damage than benefit.

The Problem
Appropriate prescribing of a drug is of prime importance in patient management. The risk benefit ratio has always to be kept in mind. Morin et al found that people with life-limiting illness often receive medications whose benefit is unlikely to be achieved within their remaining lifespan. Similarly Kutner et al have shown that stopping statins in patients with advanced illness and a limited life expectancy and with no recent active cardiovascular disease was safe and resulted in improved quality of life and reduced cost. It is often that we resort to polypharmacy in our clinical practice. This is especially seen in patients with multiple comorbid illnesses like diabetes, hypertension, coronary artery disease etc. Polypharmacy and inappropriate medication use among older adults can lead to adverse drug reactions, falls, cognitive impairment, noncompliance, hospitalization and mortality. Sometimes deprescribing guideline is difficult to sustain. For example in a study deprescribing guidelines applied to PPI (Proton Pump Inhibitor) usage was met with initial success for six months with a drop in PPI usage and a reduction in the cost of PPI prescriptions over time. However this was followed by return of PPI usage to baseline. Thus it is crucial to explore ways to sustain deprescribing guideline use.
Causes
As mentioned earlier, a patient on polypharmacy sometimes develops an ADE. Since the patient is on multiple drugs the doctor occasionally fails to keep an eye on the ADE of each drug and misses an ADE if any and sends the patient home back on the same drugs. More commonly however, he notices the event but overlooks it either due to therapeutic inertia or due to the fear of ‘rocking an otherwise stable ship’.

Recommendations
Deprescribing can be of immense benefit if timely and appropriately applied. It can prevent a lot of complications and also reduce morbidity and mortality. While deprescribing is feasible and relatively safe, clinicians find it difficult to carry out. Barriers include difficulty making decisions to stop medications (both from the clinician and patient perspective), worry about stopping medications started by others, limited knowledge about how to stop medications, and concern about medication withdrawal effects. It may be mentioned here that deprescribing should be done carefully to ensure positive and not adverse outcome. Additionally and importantly it should be done after dialogue with patients and/or their families.

An alert, well informed and astute clinician is the key to this art. Prescribing drugs based on evidence-based medicine and putting a patient on as few drugs as possible can prevent such situations where deprescribing is needed. For those on polypharmacy the physician should rigorously monitor them in the follow ups and shedding therapeutic inertia, should be alert to the development of any ADE. The fact that the physician should be well updated in the field of medicine cannot be overemphasized. A drug which is indicated one day for a condition could be contraindicated the next day. A drug should only be continued as long its benefits outweigh the risks. A modified Delphi approach included a literature review to identify potentially inappropriate medications for the elderly that clinicians believed would most benefit from deprescribing guidelines. The final five priorities were benzodiazepines, atypical antipsychotics, statins, tricyclic antidepressants, and proton pump inhibitors.

Very recently guidelines regarding PPI deprescribing have been released. It was recommended that for adults above 18 years of age with upper GI symptoms (especially gastroesophageal reflux disease or mild esophagitis), who have completed a minimum 4 week course of PPI treatment, resulting in resolution of upper GI symptoms, one could decrease the daily dose or stop and change to on-demand use (strong recommendation). Or alternatively, one can consider an H2 Receptor Antagonist as an alternative to PPIs (weak recommendation).

Scott et al proposed a deprescribing protocol comprising 5 steps:
A. Ascertain all drugs the patient is currently taking and the reasons for each one.
B. Consider overall risk of drug-induced harm in individual patients in determining the required intensity of deprescribing intervention.
C. Assess each drug in regard to its current or future benefit potential compared with current or future harm or burden potential.
D. Prioritize drugs for discontinuation that have the lowest benefit-harm ratio and lowest likelihood of adverse withdrawal reactions or disease rebound syndromes; and
E. Implement a discontinuation regimen and monitor patients closely for improvement in outcomes or onset of adverse effects.

Proper deprescribing will help a lot in alleviating adverse drug events, morbidity, and hospitalization. Though deprescribing is still in its infancy there is a great scope for more research to be conducted to make guidelines and incorporate it into policies. To conclude, the hallmark of an astute physician is not only in prescribing appropriately but also in deprescribing when the situation demands.
References:

4. Kutner et al. Safety and Benefit of Discontinuing Statin Therapy in the Setting of Advanced, Life-Limiting Illness A Randomized Clinical Trial. JAMA Intern Med. 2015 May; 175(5) : 691-700

Author Information: Dr. Shehzad A. Khan, MD is Consultant Internal Medicine, MOI Hospital, Riyadh, Kingdom of Saudi Arabia. He is Member American College of Physicians. Email: drsakhan34@gmail.com