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EDITORIAL

Deprescribing in older people: why it matters in routine clinical practice

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Polypharmacy in older people presents a real threat to the health and welfare of older people globally, because of the close cause-and-effect relationship with inappropriate prescribing and adverse drug reactions (ADRs) and adverse drug events (ADEs). Given the phenomenon of population aging both in developed and developing countries, it is clear that the heightened risk of ADRs and ADEs from polypharmacy represents a major global public health problem.

Polypharmacy is traditionally defined (somewhat arbitrarily) as the intake of 5 or more daily drugs, with major polypharmacy usually meaning consumption of 10 or more daily drugs. The cause of polypharmacy in old age is clearly multimorbid illness, that is, more chronic medical conditions leading to more drugs being prescribed.\(^1\) The difficulty is that the risk of ADRs or ADEs rises in parallel with increasing medication, so that the risk of an older person experiencing drug adversity of one kind or another when taking 10 daily drugs is about 100%. It is therefore in older patients’ best interest to restrict the number of daily drugs they are prescribed. The difficulty for prescribers is that there is no agreed “safe limit” for the number of daily drugs. Most prescribers appreciate that it is very easy to add more drugs to the prescription of older persons with multimorbidity; it is much more difficult to remove drugs (or “deprescribe”) from their prescription list.

In the present issue of this journal, Bień and Bień-Barkowska\(^2\) retrospectively examine the changes in the prescriptions of 301 older people from admission to discharge from a specialist geriatric medicine unit in one hospital in Białystok, Poland. The mean age of the patients was 82.4 years and two-thirds were female, as expected for a geriatric hospital cohort such as this. They found a significant reduction in the number of drugs prescribed per patient from admission (average 7.53 drugs per patient) to discharge (average 6.25 drugs per patient) and that 57% of the patients experienced a reduction in medication. The patients who experienced the most deprescribing were those who had ADRs, recent falls, and diabetic patients with episodes of hypoglycemia. From a wide range of predictive factors, the number of drugs on admission, the number of comorbid conditions, age, solitary living status, and incident ADRs were the factors that in a multiple logistic regression model accounted for the significant deprescribing in these patients. Low body mass index also had a positive influence: the lower the BMI, the greater the degree of deprescribing by the attending physicians. The authors conclude that in-patient specialist geriatric assessment achieved significant deprescribing. Because of the retrospective nature of the study, it was not possible to determine what (if any) effect the deprescribing had on patients’ cognition or physical function or quality of life.

The findings of Bień and Bień-Barkowska\(^2\) may not be surprising. Specialist geriatricians are trained to examine multimorbid older patients’ medication lists carefully, given that polypharmacy engenders inappropriate prescribing and ADRs or ADEs.\(^3\) Deprescribing in specialist geriatric medical units arises through careful medication review, which has always been an integral part of comprehensive geriatric assessment, the cornerstone of specialist geriatric medical practice. Careful medication review and optimization in the context of comprehensive geriatric assessment (or “geriatric evaluation and management” in the study by Bień and Bień-Barkowska) in turn depends on specialist training and wide knowledge of drug-related problems in old age as well as the various and often nonspecific manifestations of ADRs and ADEs in older people. Geriatricians will also be keenly aware of “prescribing cascades”, that is inappropriate prescribing of new medication for presenting symptoms in multimorbid older people that are misinterpreted as symptoms of new medical conditions in these patients. For example, an older person with
The total average number of daily medications in the intervention groups compared with controls in the RCT by Dalleur et al, with PIMs at hospital discharge was significant. Although the proportion of intervention patients with the control cohort (mean [SD], 9.0 [3.3]) compared to the intervention cohort (mean [SD], 8.1 [3.2]) reduced by Frankenthal et al, the intervention was not significantly reduced in the control group at 1-year follow-up. With a slight mean (SD) increase of +0.1 (3.5) drugs per patient compared to a median of 7 medications at discharge, with less than 2% of deprescribed drugs needing to be represcribed at follow-up (median, 78 days). In contrast to the implicit deprescribing algorithm used in these RCTs, a software driven deprescribing algorithm showed a mean (SD) reduction of 1.9 (4.1) drugs per patient compared to a median number of 10 medications at hospital admission could be reduced to a median of 7 medications at discharge, with less than 2% of deprescribed drugs needing to be represcribed at follow-up (median, 78 days).

A small-scale RCT involving 47 older intervention patients and 48 control patients in 4 nursing homes in Western Australia using the same deprescribing algorithm showed a mean (SD) reduction of 1.9 (4.1) drugs per patient compared to a slight mean (SD) increase of +0.1 (3.5) drugs in the control group at 1-year follow-up. In contrast to the implicit deprescribing algorithm of Scott et al\(^\text{12}\) are the recently published 27 explicit deprescribing STOPP frail criteria.\(^\text{15}\) An RCT involving STOPP frail criteria as the intervention compared with standard pharmaceutical care in frail, multimorbid older people with poor survival prognosis is being conducted in our center. While the results of all these clinical trials are awaited, physicians should nevertheless
seek to deprescribe medication in frail multimorbid older people.

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