 Older Canadians represent the fastest-growing segment of our population and are the largest users of prescription drugs. Many seniors take prescription drugs over the long term to manage chronic conditions such as diabetes, osteoporosis or high cholesterol. In 2009, Statistics Canada found that more than ¼ of Canadians over 65 had taken some medication in the past two days; 13% of seniors in private homes took 5 different medications simultaneously.

Polypharmacy is of concern in the elderly. Prescribers must be vigilant to optimize pharmacotherapy and in reconciling medications. The risk of drug interactions and adverse drug reactions is several-fold higher for seniors than for younger people. This phenomenon is associated with increasing age, changes in renal and hepatic function, increased sensitivity to drugs and multiple medical problems. In older persons, adverse drug reactions are often complex and may be the direct cause of hospital admissions for acute care. Cognitive and affective disorders, for example, may be due to adverse reactions to sedatives or hypnotic drugs.

Optimal prescribing by the physician plays a fundamental role in preventing adverse drug reactions among all patients.

There has been considerable interest in determining which factors affect prescribing behavior and how best to influence these factors. Strategies that improve prescribing practices include evidence-based drug information provided through academic detailing; objective continuing medical education; accessible, user-friendly decision support tools available at point of care; and electronic prescribing systems that allow physicians access to their patient’s treatment and medication profiles.

The following principles define the basic steps to appropriate prescribing for seniors.

• Know the patient
• Know the diagnosis
• Know the drug history
  o Keep a medication list for each patient and review, update (reconcile) and evaluate compliance at each visit. Instruct the patient to bring all prescription and over-the-counter medications, including medications prescribed by other physicians, and natural health products, to each office visit. In some provinces, pharmacists can conduct annual medication use reviews for patients on public drug benefit programs.
• Know the history of use of non-medical drugs such as alcohol, tobacco and caffeine.

• Consider non-pharmacologic therapy
  o Diet, exercise, psychotherapy or community resources may make a difference.
  o Continuing medical education in specific non-pharmacologic therapies is valuable.

• Know the drugs
  o Critically evaluate all sources of drug information and use multiple sources such as textbooks, clinical practice guidelines, medical journals, Internet sites, conferences, colleagues, continuing medical education, regional drug information centres.
  o Monitor patients continually for adverse drug reactions.
  o Appropriate drug dosage depends on factors such as age, sex, body size, general health, concurrent illnesses and medications, and hepatic, renal and cognitive function (older people are particularly sensitive to drugs that affect the central nervous system).

• Keep drug regimens simple
  o Avoid mixed-frequency schedules when possible.
  o Try to keep the number of drugs used for long-term therapy under five to minimize the chance of drug interactions and improve compliance.

• Establish treatment goals
  o Determine how the achievement of goals will be assessed.
  o Regularly re-evaluate goals, adequacy of response and justification for continuing therapy.

• Encourage patients to be responsible medication users
  o Verify that the patient and, if necessary, the caregiver, understands the methods and need for medication.
  o Recommend the use of daily or weekly medication containers, calendars, diaries or other reminders, as appropriate, and monitor regularly for compliance. The Canadian Medical Association, Canadian Pharmacists Association and Canada’s Research Based Pharmaceutical Companies have developed Knowledge is the best medicine, a patient resource and medication record for safe medication use. It is available by calling 800 363-0203.
  o Strongly encourage the use of one dispensary.