Why do patients take a lower-than-prescribed dose?

It is easy for some people to forget taking one’s medication as prescribed, and many patients need to be reminded. The use of pill boxes and other reminders are discussed in the next chapter, and advice on making up for a skipped dose is mentioned in Chapter 44. Discussed below are many of the common reasons why patients take a lower-than-prescribed dose of their medications.

**What are the reasons for intended under-treatment?**

One reason is the high cost of prescription medications. Patients who can’t afford to buy their medications do not fill the prescriptions. In Chapter 20, we discuss ways to lower medication costs.

Also, patients may not be convinced that they need the prescribed medication. This could be a result of inadequate communication with their physicians, sometimes because the time for questions is limited during a typical physician visit. Additionally, as many studies have shown, a large amount of what a physician says is forgotten when the patient leaves his or her office. In addition, physicians may have a different perspective, valuing effectiveness more and the risk of adverse effects less than the patient. Such patients may prefer to self-medicate and choose to use unproven natural health products rather than FDA-approved prescription medications.

In addition, patients may not notice any change in their health status or well being when taking medications for prevention of a condition and interpret this lack of change as a lack of effect. Studies show that two-thirds of persons prescribed a statin for the prevention of a first heart attack have stopped their statin within two years of initiation of treatment.

Finally, another subtle reason is the patient’s perceptions. A medication is more likely to be taken and be effective if it is given with positive, enthusiastic information (see Chapter 24). Adherence also is linked to a trusting patient-physician relationship, typically built up over many years of positive interactions.

**What do patients typically do?**

Unless patients have adverse reactions to a medication, they seldom openly discuss their low adherence problems with their physicians. Moreover, physicians do not even know when a prescription is not filled. Studies from Sweden show that an average of 12 percent of prescriptions are never filled, in
spite of low co-payments. Adherence rates are typically low for osteoporosis, hypertension and high cholesterol. Adherence is seldom a problem for medications linked to dependence such as benzodiazepines.

Non-adherence to antipsychotic medications in schizophrenia leads to increases in hospitalization rate, hospital days, or hospital costs. The estimated national cost for increased re-hospitalizations was estimated at $1.5 billion in 2005.

**What are the costs of low adherence?**

As discussed in the previous chapter, the main “cost” to the individual could be a lack of a highly desirable benefit. Added are the societal costs, which can be enormous in terms of increased need of care, and more physician visits, sick leave, and hospitalizations. This is an area where health-care providers and
the pharmaceutical industry have a common interest. How do we get patients to take their medications as prescribed? Much more research is needed to find simple and effective methods.

**Key messages**

- A large number of patients do not take their medications as prescribed.
- A proportion of patients may not even fill their prescriptions.
- The reasons for low adherence include high cost, patients not being convinced of the need for treatment, and not noticing any improvement.
- Low adherence may be costly to patients and society.