Is a pound of prevention better than an ounce of prevention?

Conventional wisdom has historically dictated that when starting a new medication it is best to “start low and go slow” with escalation. But in this month’s issue, Dr. Peter Jones points out that with this approach many patients with coronary heart disease never receive statin doses high enough to achieve the recommended lipid goals. He proposes that when using a relatively safe drug to treat a potentially lethal disease, it may be better to start at a higher dose, which is more likely to attain the desired effect.

This new paradigm rests on several propositions: that the disease is currently commonly undertreated, that the frequency of serious side effects would be acceptable with higher dosing, and that earlier aggressive therapy matters to the individual patient.

Physicians do not follow guidelines. This is no revelation. Nor is underdosing unique to the treatment of hyperlipidemia: it is also seen in patients with gout and hyperuricemia, hypertension, and diabetes.

Some physicians may not believe that the guidelines are sound, and treat to a different target. Some patients may have comorbidities or potential drug interactions that limit dosing. What is alarming, though, is how often physicians do not monitor treatment to ensure that target values are reached.

This last phenomenon is of particular concern because there is no reason to believe that toxicities will be monitored more closely in patients initially treated with higher doses of statins. Patients treated as per Dr. Jones’ suggestion are more likely to reach the target low-density lipoprotein cholesterol concentration, but are also more likely to develop liver or muscle toxicity. (Statin-associated myopathy is discussed by Dr. Robert Wortmann in an editorial in this issue.)

Whatever approach we take when modifying a physiologic or biochemical abnormality, we must remember to establish a target a priori. We must periodically check that the target is reached, and adjust medications if it is not. We must realize that the likely cost of aggressive dosing is a higher frequency of side effects, and these too should be monitored, especially when patients are taking medications capable of pharmacokinetic interactions.

Hopefully, “smart” medical records will facilitate adherence to these principles—if we remember to include such reminders in the software.

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REFERENCES