Summary

- Figure 26.1 illustrates how the risk assessment would proceed using the methods described in this chapter.
- Patients with a hip or vertebral fracture almost certainly have a high risk of subsequent fractures and can be treated even if BMD measurements are not available.
- In patients without an obvious history of fracture, the prevalent vertebral fracture index (PVFI) can help determine when to obtain spine radiographs to look for undiagnosed vertebral fractures.
- In patients without fractures, the Osteoporosis Self-assessment Tool (OST), the Osteoporosis Self-assessment Tool for Asians (OSTA), and other tools such as the Simple Calculated Osteoporosis Risk Estimation (SCORE) can help determine whether BMD should be measured.
- After measuring BMD, fracture probability can be calculated to decide whether treatment is warranted.
- If BMD is not available, consider treatment if body weight is low and the patient is over 65 years of age, or if the patient is classified as high-risk based on one of the other non-BMD risk indices.
- Patients receiving treatment should have regular follow-up visits to encourage adherence to treatment.
- Other patients should be re-evaluated at least every two to five years to see whether their fracture status or risk status has changed.

The focus of this chapter is on assessing the risk of osteoporosis and fractures related to skeletal fragility. Thus, the emphasis is on identifying patients with low BMD and those who have already had a fracture and then using this information to estimate the risk of future fractures. An algorithm is provided in Figure 26.1 to assist the reader in deciding when to use each of the tools described below for evaluating patients. Although falls are an important factor in increasing the risk of fractures among patients with osteoporosis, the etiology and interventions to prevent falls are generally independent of skeletal fragility and therefore receive less attention here.
Identify Patients with Fractures

Patients who have already had a fracture have at least twice the risk of subsequent fractures compared with other patients. For patients with existing vertebral fracture, the risk of subsequent vertebral fractures is at least four times greater, and many such patients will experience a new fracture within one to three years. Identifying patients with prior fractures seems so rudimentary that it should not need mention, but the fact is that most fracture patients (even those with recent fractures) are not receiving adequate diagnosis and treatment for osteoporosis in many communities.

In particular, only one out of every three to five women with a radiographic vertebral fracture is aware of the fracture. A simple questionnaire has been devised to help identify patients who are more likely to have existing vertebral fractures and who

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*Figure 26.1 Algorithm for deciding when to use the risk assessment tools described in Chapter 26.