
Panel Session: Management/Education

Patient Counseling for Osteoporosis Prevention

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Synopsis

Counseling techniques and methods are more important parameters than message content for

ensuring that a desired change in behavior occurs. Knowledge is necessary but not sufficient for behavior change, and teaching should not be confused with learning. The education of patients with osteoporosis poses two problems: patient involvement in deciding whether to initiate treatments such as estrogen replacement therapy, calcium supplements, and weight-bearing exercises, and assuring that the patient adheres to the prescribed regimen. The physician, while adequately outlining the risks of treatments, should also simplify the explanation to assist patients in making a decision about treatment. Guidelines are provided to aid the clinician in this task. Indicators of potential nonadherence should be evaluated, and obstacles to nonadherence removed by suggesting behavior modifications that will ensure the patient's continuation of the prescribed regimen.

FORMERLY, I TAUGHT family practice residents, and spent some of my time observing the residents as they saw patients. I recall some residents who would perfunctorily advise their tobacco-dependent patients to "watch the smoking." In contrast, other residents would set a quit-smoking date, identify specific quit-smoking techniques, and elicit some of the reasons the patient had for wanting to quit. Obviously, the resident who used the second approach was far more likely to induce behavior change. This example highlights the fact that counseling *techniques* and *methods* are more important than the message *content* in bringing about behavior change.

Why is this true? We know that knowledge is necessary but not sufficient to change behavior. One of the patient education fallacies that relates to this particular principle comes from one of my favorite Tiger comic strips: The first panel shows two boys and the dog, Stripe. One boy boasts, "I taught Stripe how to whistle." The second boy responds, "I don't hear him whistling." The first boy retorts, "I said I taught him. I didn't say he learned it."

Typically, we confuse *teaching* with learning, and with behavior change. In this paper, I will emphasize the *techniques* and the *process* of how we convey the osteoporosis message in a way that improves adherence to the regimen. I will not touch on the research basis of patient education. At last count, there were over 2,500 empirical studies in this area. I cannot do

the research justice, but I will mention two salient publications. One was a special theme issue of Preventive Medicine, the November 1985 issue, which deals entirely with patient education research. Also, the October 1987 issue of Patient Education and Counseling features a 10-year update on nonadherence research. An extensive patient education research base does exist, and this paper will focus on the clinical and practical implications of that research.

Educating patients about osteoporosis brings two fundamental challenges. One is the informed consent problem: how to obtain patient input in deciding whether to initiate measures such as estrogen replacement therapy (ERT), calcium supplements, and weight-bearing exercise, which can entail substantial financial costs, inconveniences, and medical complications. The second patient education challenge is regimen nonadherence. Up to 80 percent of all patients discontinue ERT within 5 years, and up to one-third of patients never obtain the prescription in the first place. Thus, there is an enormous non-adherence problem that we need to consider as well.

Informed Consent

We know that ERT involves a number of risks, including increased chance of endometrial cancer, gallbladder disease, thromboses, and others. Thus,

the line of reasoning of a clinician speaking to a 50-year-old woman might be something like this: "Your chances of having a hip fracture are about 15 percent at some time in your life, but if you take one estrogen pill a day for the next 20 years, you will reduce the chances of having a hip fracture, although we are not exactly sure by how much. You should be aware, however, that taking these pills will increase the chances of experiencing a variety of problems, including a three- to eightfold increased risk of developing endometrial cancer. You may have some bleeding, and we will need to biopsy your uterus every year. You may need to take a total of up to 10 estrogen, progestin, calcium, and vitamin D pills every day. Unfortunately, Medicare will not pay for all the expenses."

Working through the probabilities, costs, and benefits of each one of these outcomes would pose substantial difficulties to statisticians who are trained in formal decision-making algorithms. How much more difficult is this decision-making progress for clinicians and patients! When we factor in the intriguing research about how people make decisions in the face of incomplete information, uncertain outcomes, high anxiety, and limited time constraints, we have to marvel that anyone is able to come to an informed choice on this issue.

Six guidelines for clinicians to follow to assist physicians to weigh these courses of action, and make an informed decision, are:

1. Avoid describing every slight risk that has occurred with a 1 in 10,000 probability; only the most important risks and benefits need to be disclosed. With many patients, the discussion can be limited to the three or four most important risks.

2. Develop a flow diagram, showing the various treatment alternatives and the respective risks and benefits.

3. Encourage the patient to ask questions, and provide understandable answers. Additional information is readily available in the form of brochures, telephone hot lines, and consumer books.

4. Attempt to simplify the decision to consideration of two competing alternatives. For example, the clinician might say, "Basically, the choice is between a 15 percent chance of getting a hip fracture and the surgery that it would require, versus the less than 1 percent chance of getting uterine cancer, which we know is usually curable."

5. Give the patient adequate time to consider the decision, at least one day. Encourage the patient to discuss the decision with her family, friends, and spouse.

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6. Emphasize that this is not an irrevocable decision. The patient can take the estrogen pills on a trial basis to see how the regimen works out, being made aware, of course, that long-term therapy is required to achieve improvements in bone density.

Patient Nonadherence

Managing patient adherence is daunting for most clinicians. A growing body of research and clinical experience, however, demonstrates effective adherence management strategies for use in office practice.

The first step is to decide whether the patient is at risk for nonadherence. The most important indicators are denial, sensory or physical handicaps, low social support, complex regimen, and previous nonadherence.

It is essential that the clinician assess previous nonadherence in a nonjudgmental way, and phrase the questions correctly: "How did you take your pills yesterday?" "What calcium-rich foods did you eat in the past 2 days?" "Did you miss any of your medications during the past week?" Contrast the wording of these questions, which are behavior-specific and time-limited, to these leading and nonspecific questions: "Are you taking your pills as I told you to?" "What diet are you on?" "How are you taking your medicines?"

When asked, "What diet are you on?" many patients will interpret the question to pertain to what dietary regimen was previously recommended.

Because of the complexity of many osteoporosis prevention regimens, we can assume that most, if not all, ERT candidates are at high risk for nonadherence. Then the clinician must proceed to the next step to determine the *obstacles* to the behavior change.

These are some of the questions that have been found useful in making this behavioral diagnosis: "What gave you the problems in taking the pills?" "What has been the hardest part about following the high-calcium diet?"

Sometimes the clinician must ask a more indirect question, such as, "What have you heard before about osteoporosis?" In some cases, it is appropriate to alter the phrasing: "What do you expect might be the problem in taking estrogen pills?"

Table 1. Barriers to adherence to osteoporosis regimens

<i>Regimen</i>	<i>Common barriers</i>	<i>Adherence-enhancing methods</i>
Estrogen, 1 tablet 25 days per month	Concern about bleeding	Reassurance, listening
	Concern about increased risk of cancer, etc.	Explain risks, reassurance, offer to increase frequency of visits
	Cost	Encourage bulk purchases
	Asymptomatic, do not feel at risk	Emphasize that risk increases with age, and that osteoporosis itself is not painful
Calcium-rich foods	Distaste	Try other calcium-rich foods, add other flavoring to milk
	Fear of excess calories	Change to skim or low-fat milk
	Social unacceptability	Consume milk when friends not present, change to acceptable foods
	Forgot	Use behavior modification methods, such as contracting, self-monitoring, etc.
	Lactose intolerance	Eat yogurt
Calcium and vitamin D supplements, up to 6 tablets per day	Cost	Change brands, use generic brands increase milk intake
	Inconvenience, forgot	Cue with other daily activities, ask family member to assist
Weight-bearing exercise, 30-60 minutes, three times per week	Discomfort, tiredness	Begin exercise program slowly
	Fear of injury	Get medical check-up, exercise in group
	General reluctance	Exercise with friends
Avoid falls:	Unaware of risk of falls	Instruction
Not wear high heels	Physical limitations	Arrange for visit by social worker, home health aide
Increase lighting		
Move electric cords in busy areas	Lives alone	Arrange for home visits, checks by family, move to group home
Avoid sedating drugs	Lack of social support	Arrange for home visits, make telephone calls, discuss with family members, form self-help groups

Once the clinician has accomplished the behavioral diagnosis step, he or she can use the most appropriate, effective, and efficient educational strategies. Table 1 illustrates the logic of this approach. For each element of an osteoporosis regimen, the most common behavioral obstacles, and the corresponding adherence-enhancing strategies, are listed. For example, for patients who are on estrogen therapy, some of the most common concerns are about

breakthrough bleeding, increased risk of cancer, and cost, and the fact that many patients do not feel ill. They are asymptomatic, and they do not perceive that osteoporosis is a major problem.

For a patient who is concerned about bleeding, two useful approaches are listening to the patient's concerns and fears, and providing reassurance. If the obstacle is concern about the increased risk of endometrial cancer, the appropriate counseling

approach is explaining the low degree of risk. It may also be helpful to offer to increase the frequency of visits as a means of early detection of problems. If cost is a problem, encourage bulk purchase or generic medications. What if the patient does not perceive that this is really a problem of concern? In this instance, the clinician can emphasize that risk increases with age, that osteoporosis itself generally is not symptomatic, and the patient's perception of risk may be understated. This same diagnostic approach applies to the other aspects of the osteoporosis prevention regimen.

Last on the list of barriers is lack of social support. This obstacle is presented separately because it can apply to *all* aspects of an osteoporosis regimen. Typically, patients who live alone, or who for other reasons have low social support, can experience far greater problems in remembering and staying motivated to follow the regimen. Arranging for home visits, making telephone calls, discussing with family

members, or forming self-help groups are ways to deal with this barrier to adherence. Admittedly, the adherence-enhancing methods indicated in Table 1 are not esoteric. They are, indeed, common sense. The point is that many patient education efforts are approached in a disorganized, desultory fashion. Taking 1 or 2 minutes to first perform the behavioral diagnosis will, in fact, make the counseling far more effective and efficient.

Conclusion

By approaching these problems of informed consent and nonadherence management in a systematic manner, we can substantially reduce the burden of osteoporosis among elderly women. Although the counseling techniques themselves are not difficult, their routine application in medical practice has proven to be one of the greatest challenges the clinician can face.

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The Awareness of Osteoporosis Among Health Professionals, Consumers, and Journalists

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Synopsis

A survey of physicians, consumers, journalists, and experts on osteoporosis showed that the level of awareness, particularly among consumers and physicians, regarding osteoporosis and calcium supplementation is high. Professionals and consumers

alike agree that osteoporosis is a serious disease. Most think that the disease is preventable, although serious. Most women are aware that osteoporosis may begin years before symptoms become evident, and that they may be subject to the disease. Most consumers and professionals believe that the ideal time to begin osteoporosis prevention is adolescence. If prevention does not begin during that age, some physicians suggest that any steps toward prevention taken premenopausally are beneficial.

Nearly all of those surveyed believe that calcium as well as exercise helps prevent osteoporosis. Although about 90 percent of the physicians surveyed agreed that estrogen replacement therapy (ERT) alleviates osteoporosis; only 48 percent of postmenopausal women believe that ERT is helpful. The majority of the professionals who responded believe that most women do not get enough calcium in their diets, and that most women do not exercise enough.

Although in most instances the consumers responding to this study were slightly less informed about the risks and factors associated with osteoporosis than were the professionals, the opinions of the four groups surveyed were similar for most of the topics discussed.

PHYSIANS AND THE PUBLIC have been deluged in recent years with information about osteoporosis,

but at times that information has been contradictory, confusing, or incomplete. In order to evaluate the