



The “Big O” Osteoporosis screening – the fast track to dubious drugs

The ‘Osteoporosis Game’ works in five simple steps: 1) Be fearful. 2) Take a test. 3) Get a diagnosis. 4) Take drugs. 5) Potentially ruin your life by taking the drugs.

Be fearful

In 2011, according to an executive of a large Manhattan PR firm, almost no one had ever heard of osteoporosis 20 years ago. In interviewing this woman for a radio documentary I put together on the making of a disease, she described her research from consumer focus groups that attempted to find out what people knew about the so-called ‘Silent Killer.’

Known as osteoporosis, this disease is caused by porous bones and it seemed like the unwashed masses didn’t know much about it. She advised her clients – a coalition of pharmaceutical makers, medical device companies and patient groups – that they needed to do some serious “awareness-raising.” After all, how were you going to sell a drug for a disease that people didn’t know or fear?

Her firm, one of the largest PR firms in the world

and a world leader in bringing various diseases out of closets, reconfigured osteoporosis from a rare disease, which only struck old ladies who were close to death, to something anyone of any age could get. And behind it all was pharmaceutical giant Merck, a key player in the remake of osteoporosis. In 1995, Merck launched Fosamax, the first of a revolutionary new class of drugs called bisphosphonates, designed to treat this disease.

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After people became aware of the disease, however, there was a problem. Doctors needed to test for it because without a test and a diagnosis, there would be no Fosamax market. That meant the PR people not only had to convince the population there was this silent

killer stalking middle-aged (and younger) women, but they also needed governments to pay for the test and doctors to perform it. It helped that the makers of the bisphosphonates bought and distributed thousands of bone density tests to clinics everywhere, thus creating an enormously successful disease by selling the test.

Let me be clear that hip fractures are a public health problem. According to the Osteoporosis Society of Canada, “... at least two million Canadians are affected by osteoporosis” and “... one in four women and many men over the age of 50 have osteoporosis.” Sounds dire, but how do we really know if it is true?

Take a test

That’s easy. If you are able to define a disease broadly enough, you can capture as much of the population as you want. With many early researchers funded by drug makers and a key meeting of World Health Organization in 1995, drug company executives were at the table defining who had this disease. As it turned out, the definition of the disease was so broad it meant 50 percent of post-menopausal women or about 44 million American women had it. *continued p.10 ...*

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The message that flows from popular medical press strongly suggests even the healthiest people should be worried about falling and breaking a hip due to the weakening of their bones. This worry then causes them to get their bone density ‘tested’ as the best way to thwart an early demise. After all, isn’t being proactive about your body the healthy thing to do? Now, wouldn’t it be nice if those of us who are found to have weakened bones could just take a drug, avoid becoming a hip fracture statistic – about 30,000 hip fractures happen in Canada every year – and live our lives better? The question is this: “Is submitting to a bone density test the right thing to do?”

Get a diagnosis

You have to remember screening healthy people is only justified on a population-wide level if the test is safe, accurate and inexpensive and if the results would actually make a difference in a person’s subsequent treatment. So how does bone mineral density (BMD) testing merit on these considerations?

For starters, the thinning of bones happens to many people naturally as they age, much like grey hair or wrinkles. The difference, of course, is that grey hair or wrinkles can’t really hurt you, whereas osteoporosis might.

If you consult independent experts around the world – those not selling mass bone screening programs or marketing osteoporosis drugs – they will tell you a pretty similar story: BMD testing is often inaccurate, can’t predict with any validity who will go on to break a bone and applies a label that leads to inappropriate drug therapy. Further, the test directs funds away from measures that could actually significantly reduce the rate of hip fractures, such as promoting weight bearing exercise, quitting smoking, limiting alcohol and the intake of sleeping pills and increasing access to Vitamin D and calcium.

The research shows about 60 percent of women who have hip fractures have *normal* bone density. Knowing this, the question changes from “How do I prevent

porous bones?” to “How do I prevent myself from falling and breaking a hip”? But since the focus is on your bone density, the solution looks a lot like a drug.

Take drugs

You may be offered a drug like alendronate (Fosamax), ibandronate (Boniva) or risedronate (Actonel), all of which are promoted and prescribed on the basis of their ability to reduce hip and other kinds of fractures. One thing all of these drugs have in common is the misleading statistics and exaggeration employed to convince your doctor to prescribe them. An example from the mid-90’s, which turned on a light bulb for me, were the ads in medical journals promoting Fosamax, stating the drug could “reduce the rate of hip fractures by 50 percent.”

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That sounds pretty good, but if women with defined osteoporosis and at high risk of a hip fracture are followed for four years, only two percent of them will actually have a hip fracture. If they took the drug instead of the placebo, it would be one percent. This difference is expressed as a whopping 50 percent relative reduction – one is 50 percent of two – but the absolute difference is one percent, meaning 100 women would have to take this drug for four years to prevent one hip fracture.

Potentially ruin your life

If the drugs are only marginally effective, how safe are they? Sadly, the safety of the bisphosphonates, despite the denials of the manufacturers, only grows

worse with time. In the first full year on the market, Fosamax, which comes with strict recommendations about how to take it due to its corrosiveness to the throat, was the top drug on the list of Suspect Drugs in 1996 as part of the US’s Postmarket Adverse Drug Experience (ADE) reporting system, where over 6,000 adverse drug reports were made. This class of drug can cause throat or chest pain, difficulty swallowing and heartburn. About 10 percent of patients have some kind of irritation of the esophagus. The more serious stuff includes abnormal heart rhythm, wrenching bone, joint and muscle pain, bone loss in the jaw (osteonecrosis) as well as an increased risk of thighbone fractures.

In the hullabaloo over what to do about osteoporosis, we seem to forget the thinning of our bones happens naturally with age. The density of your bones is about as relevant to whether you fall and break a hip as the greyness of your hair or the number of wrinkles you have. In other words, it is a pretty irrelevant measurement.

We know there are cheap and simple solutions to prevent falls – which cause over 95 percent of hip fractures – such as fixing our sidewalks and making sure we use them, for instance getting some weightbearing exercise through walking. At the end of the day, those promoting bone density testing or drugs for osteoporosis are the same people lobbying our government to pay even more for these drugs.

Consumers don’t need more expensive and questionable health interventions marketed to them. As for the question “Should you or should you not take a bone density test?” it’s useful to ask yourself other questions such as “Am I scared?” “Will the bone density test reduce my fear?” “Will a drug make things better?” If you answer no to these questions, maybe it’s better to leave well enough alone. ◀

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