My selfish Christmas wish

Christmas is a magical time for a child. Does anyone else remember the long-anticipated arrival of the Sears catalogue? My brothers and I would pour over the pages circling desired toys for my parents' later perusal. Unable to sleep on Christmas morning, we would lie in bed tortured by the slow movement of time until the anointed hour arrived and we were free to empty stockings and open presents. My parents seldom bought any of the circled items, explaining they looked cheap and wouldn't last. I am sure there was a lesson in there somewhere. Regardless, I was blessed to grow up in a home that could afford all the trappings of the holidays.

Over the years Christmas has become less about receiving and more about giving. The focus shifted to shopping for my spouse and children. This can be stressful, but the joy and happiness reflected through a gift well chosen warms the heart. I would rather watch a loved one's reaction to opening a gift than open one myself. Being with family, sharing food and drink during this time, is about as perfect as it gets.

"All I want for Christmas is you!"

As another Yuletide approaches, I find myself in an interesting position. My children are grown and my parents have passed on. Grandchildren are awesome and I love spoiling them on Christmas; however, I find myself restless and longing for the good old days. Therefore, I have decided that this Christmas should once again be all about me and my wants (don't judge me). So, what does an editor desire for the year ahead? To paraphrase Mariah Carey, "All I want for Christmas is you!"

Our journal's circulation is roughly 14 000, which includes practising and retired physicians, students, and residents. I have heard that every person has at least one good novel in them. I would prefer to think that each of you has at least one good essay, opinion piece, scientific study, theme issue, letter, or back-page feature floating around in your consciousness. So, for Christmas, that is what I want. Write them down, type them up, finish that last paragraph, and send them in. Don't be intimidated. Our journal is written by the physicians of BC for the physicians of BC, so that means you. Please do your part to make this aging editor's dream a reality this Christmas. You all have something valuable to share and I want to read it.

Happy Holidays. ■

—David Richardson, MD

New research on hormones and breast cancer: The headlines don't convey what women need to know

Researchers in the UK recently published the results of a worldwide analysis on menopausal hormone therapy and breast cancer risk in the *Lancet*.[1] The analysis included 58 studies, published between 1992 and 2018, of over 100 000 postmenopausal women with breast cancer. They found that women who had *ever* taken hormone therapy had a higher incidence of breast cancer than those who had not.

Now, these findings are significant and published in a reputable journal, but they are nowhere near as astonishing as the news media portrayed them to be.

Immediately after the results, sensational and fear-provoking interpretations appeared in the headlines. The *Telegraph* reported, "HRT raises breast cancer risks by a third, major Oxford study finds," and the *Guardian* read, "Breast cancer risk from using HRT is 'twice what was thought.'" The *Independent* conveyed, "Menopausal hormone therapy linked to greater breast cancer risk for more than a decade after use."[2-4]

These headlines might entice readers, but they certainly do not help women.

As doctors, we are continually challenged to interpret scientific research and then distill the relevant parts into language that our patients understand. Sometimes, however, we are merely a second opinion to the media. Like it or not, Dr Google has become the most accessible medical resource in the world. So when our patients get bad information online before they see us, it makes our job that much harder and, more importantly, it compromises their health care.

A brief history of menopause and hormone therapy is required to understand the impact of these recent titles. Menopause is a normal stage of life for women. A girl is born with a finite number of eggs that decrease over her lifetime until there are none left, and she enters menopause. On average this happens around 51 years old, but anywhere from 45 to 55 is normal.

While some women navigate this major life event without issue, 60% to 80% of women will encounter symptoms that worsen their quality of life.[5,6] Hot flushes, night sweats, trouble sleeping, memory problems, and depressed mood are some of the most common concerns. These symptoms stem from the abrupt loss of estrogen, normally produced by the ovaries, and the body's struggle to re-equilibrate. Although they are not life threatening, these complaints should not be dismissed as trivial.

For example, menopause in one of our patients, a lawyer, led to unpredictable sweats that caused her to appear distracted and nervous in the courtroom. She chose to take hormone therapy to help ease her body through the transition and credited it with keeping her fast-paced career on track. Another professional, a surgeon, could not practise because sweat from her face would drip into patients' open incisions. She also chose hormone therapy to allow her career to continue.

Hormone therapy mitigates menopausal symptoms by giving back a small dose of estrogen. Contemporary regimens most commonly involve an estrogen patch, gel, or tablet. Doctors individualize the amount to find the lowest effective dose for each woman. Unless the woman has had a hysterectomy, she would also be prescribed progesterone to limit the growth of the uterine lining, which could otherwise cause bleeding.

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In the 1990s hormone therapy was common. After the results of the Women's Health Initiative (WHI) study in 2002 and 2004, however, the number of women starting hormone therapy dropped from 1 in 12 to 1 in 20.[7-9] Furthermore, of the women already taking hormones when the WHI study was released, one in five stopped them. Among the main reasons they did so was media reporting.[9]

It is imperative that we step back and examine how we explain medical research to the public. Framing the results of a study with the appropriate context and magnitude can drastically change how people read them.

When we teach medical students about research, one of the most important principles of critical appraisal is interpreting the real-life risk. In statistical terms this is referred to as the absolute risk versus the relative risk. Relative risk is usually the less useful but more dramatic statistic—the one often cited in headlines. To illustrate with a simple example, a headline that reads, "double the risk of dying" (a relative risk of 2.0) might actually be referring to an absolute risk of 1% going up to 2%.

In this UK study, the relative risk conveys how often the event (i.e., breast cancer) happened in the hormone therapy group versus the group that did not take hormones. Women 50 to 54 years old currently using hormones had a relative risk of 2.1, which can be interpreted as being *twice as likely* to get breast cancer. That sounds pretty scary to most people. Fortunately, doctors are trained to rely on the absolute risk. It is much more meaningful as it refers to the probability of breast cancer in a *population* of women exposed to hormone therapy.

The authors of the *Lancet* study actually did an excellent job of stating the absolute risks on the front page. Unfortunately, media headlines did not focus on that paragraph. The conclusion was that taking estrogen and progesterone for 5 years was associated with *one additional breast cancer in every 50 women.*[1] To put things in perspective, that is actually a smaller risk increase than drinking alcohol, not breastfeeding, or being overweight.[5] Furthermore, as the North American Menopause Society emphasized, these results are observational associations rather than cause-and-effect conclusions, which are normally restricted to randomized controlled trial.[4,10]

The problem, as with our periodic "pill scares" related to birth control pills, is that bad news grabs a reader's attention but good news does not. In emphasizing an arguably small (and previously known) risk of breast cancer when framing a story about hormone therapy, we are missing the big picture. Menopausal women take hormone therapy because it makes their lives tolerable and their careers manageable, not because they really want to take it.

The commentaries that have appeared in response to this recent report all stress the importance of individualized decisions for women considering hormone therapy, and that's as it should be.[10,11] No menopausal woman should take hormone therapy without a careful assessment of her individual risk and the potential benefit, conducted with a knowledgeable care provider. Women and health care professionals should not be alarmed by the latest news. To quote a recent statistician's words in the *New Yorker*, "How impressed should we be by very strong evidence for a very weak effect?"[12] ■

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