The Prudent Prescriber

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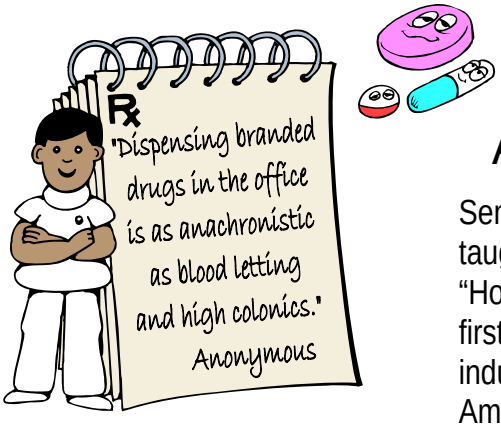

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Pharm Reps ≠ Rational Prescribing
(PR) **(RP)**

Adding Value to Our Medical Care

Semi-annually over the last couple of years, I have taught an adult education class for seniors entitled, "How to Navigate Our Mangled Medical Milieu." In the first class, I outline the big picture—how among 11 industrialized nations, we in the United States of America rank 11th in quality of care and are more than twice as expensive per capita as any of the other ten nations. (Commonwealth Fund, 2014) The students register disbelief, while I express my guilt and frustration at our health care delivery system that has run amok.

This month's Prudent Prescriber focuses on three concepts that we physicians can adopt and implement to improve the quality of our medical care and decrease costs… i.e. deliver increased VALUE.

CHF?

Think:
Ace
Aldactone
B-blocker
Dig
Diuretic

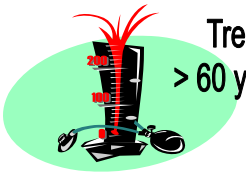
Antibiotics do NOT

help acute bronchitis

Avoid these expensive "me-too" drugs:

Intermezzo
Vimovo
Livalo
Pristiq
Viibyrd
Edarbi
Daliresp

ß-blockers in post-MI save lives



Treat patients > 60 years to 150/90

Pill splitters save BIG

Over-diagnosis: the diagnosis of a "disease" that will never cause symptoms or death during the patient's lifetime. If the patient is over-diagnosed, therapy can have no benefit, only harm. Over-diagnosis is a concept that has established its credibility in the last four or five years. The poster child for over-diagnosis, Prostate Specific Antigen (PSA) screening, taught us that most of the PSA diagnosed prostate cancers did not progress to metastases and death. The victims of this testing would have been better off never knowing about their over-diagnosed cancer and subsequent useless, but harmful treatments. (Andriole, PLCO & Schroeder, ERSPC).

Then, Welch and Bleyer published a study (NEJM, November 22, 2012) demonstrating a similar phenomenon with screening mammography. The bottom line is that for every woman diagnosed by screening mammogram with a life threatening breast cancer, two women (others suggest a higher number) are over-diagnosed. They are exposed to the emotional trauma of being labeled with a malignant diagnosis and over-treated, exposed to the side effects and financial costs that can only harm.

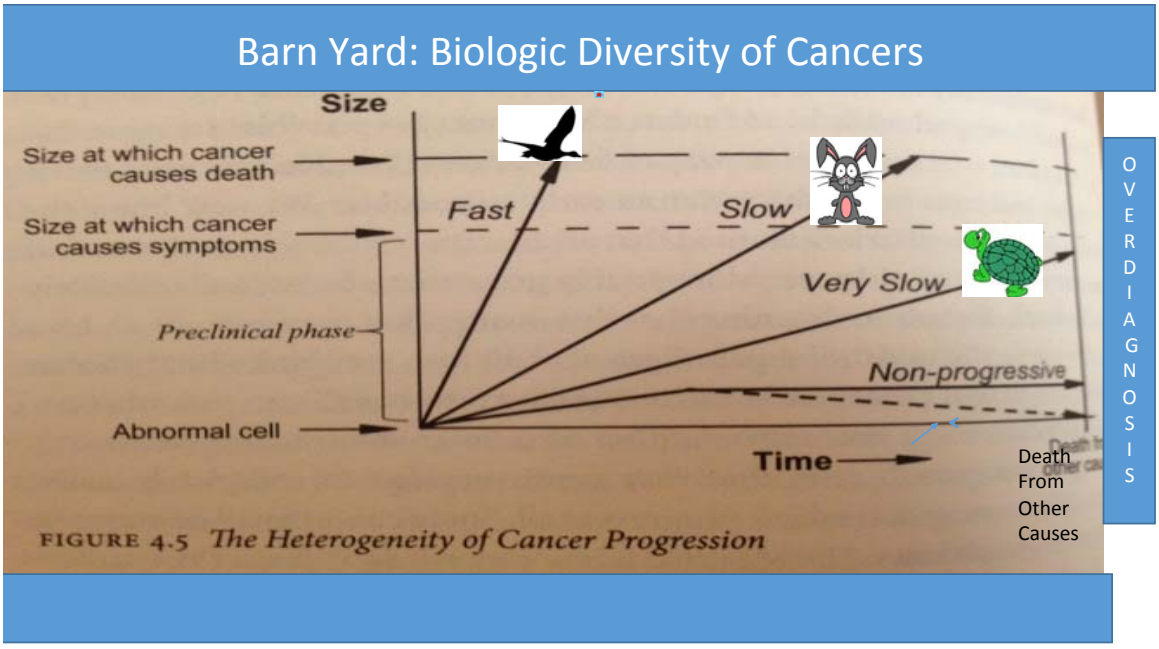
There are multiple problems in terms of understanding the over-diagnosis concept.

Ψ First, over-diagnosis values are constructed by looking at large populations of patients and finding that screening results in finding multiple new small "cancers," but with no significant change in mortality rates.

Ψ Second, we are unable to discern which of these tumors will go on to enlarge and metastasize and which will regress or stay dormant. Therein, we treat everyone!

Ψ Finally, multiple studies have demonstrated that both physicians and patients consistently overestimate the prevalence of cancer, as well as the efficacy of screening tests in terms of saving lives. Fifty year old women were presented with the following scenario: one thousand 50 year old women are screened annually over 10 years. On average, these queried women believed that if unscreened, 160 of the 1000 women would die from breast cancer over that the 10 year period and that mammography would save 80 of those 160 lives. **The reality is that unscreened, five of the 1000 women would die of breast cancer over the 10 year period and that screening would save only one of those five women.** In other words, you must screen 1000 fifty year old women annually for 10 years (10,000 mammograms) to prevent one breast cancer death. (International Journal of Epidemiology 2003;32:816-821)

In a culture where screening is as American as mother, the flag and apple pie, having discussions about the cons of screening is difficult. The barnyard analogy has been helpful for my understanding of the concept of over-diagnosis. Patients also seem to respond to the idea of three types of animals (cancers) in the barnyard: there are turtles (they plod around the barnyard forever, the benign tumors that regress), the eagles (they fly away quickly; these are the extremely aggressive tumors where no amount of screening changes the outcome) and the rabbits (they hop around the barnyard for a while before escaping; these are the tumors that we want to find.)



The focus here is not to disparage screening in general, but to make the case that patients who undergo screening tests understand the downsides … false positives, false negatives and overdiagnosis before they submit to screening. We would not consider trucking patients off to the O.R. without informed consent. In the light of the knowledge we have about the operating characteristics of PSA (deplorable) and screening mammography, the simple pat on the back, "go get your mammogram" or the reminder letter ("mammograms save lives") from our offices or the mammography facilities is no longer acceptable.

Enter the concept of **shared decision-making.** It's a three legged stool of physician experiences and beliefs, clinical evidence and patient preferences, desires and fears. Decision-making aids are available for screening tests to facilitate the process. The bottom line, however, is that, if done well, shared decision making involves a significant discussion with the clinician. Some patients will opt for a screening test no matter what the downsides. Others, who confront the issues of over-diagnosis, false positives and false negatives, will consider a more nuanced approach i.e. decreasing the frequency of screening or not screening at all.

The third concept is to bury that long standing sacred cow, the **Annual Physical Exam.** (Annual exam = annual physical = periodic health exam = executive physical = "annual" = "physical" = "pap and breast exam")

- In 2012, the Cochrane Collaborative published a review of 14 different studies -183,000 adults who had undergone a general health check. They found that these exams:
  - had no effect on death rates or serious illnesses, like heart attacks and strokes.
  - had no effect on patient hospitalizations or absences from work.
  - had no effect on patient disability or worry.
  - did increase the number of diagnoses (hypertension and hypercholesterolemia) and increased the number of BP meds prescribed.
  - did make patients feel that they were healthier.
- In 2013, the Society of General Internal Medicine, as part of the Choosing Wisely program, recommended against the annual physical.
- In 2014, the American College of Physicians told doctors to quit doing routine pelvic exams. Later that year, the AAFP endorsed that recommendation.
- The American College of Obstetricians and Gynecologists (ACOG) continues to recommend the annual pelvic exam while acknowledging a dearth of data to support doing so.
- The Swiss Medical Board advised in 2013 that no new mammography programs be started in that country and that those in existence have a limited, though unspecified, duration. (NEJM 370; 21, May 22, 2014)

So why do physicians continue to do annual exams, pelvic exams, lab tests and x-rays on healthy persons?

1. Multiple surveys reveal that docs really believe that these interventions help patients. In a survey among primary care physicians in Denver, 90% believed that every adult should have an exam of their heart, lungs, belly, reflexes, pelvis and rectum annually.
2. "Out of habit"
3. Our patients expect it. Failing to do an exam or ordering lab work may be perceived by the patient as inattentiveness or negligence on the part of the clinician.
4. It's about money! The system is set up to reward us for checking off 12 body parts in our EMR.

What are the downsides of exposing your patients to a traditional annual exam?

Without demonstrated benefit, the traditional annual physical:

- Adds to overall health care costs.
- Adds to the anxiety of both patients and doctors when a part of the physical exam or a lab test is found to be abnormal, but on further evaluation, everything is fine. **False positive**

or worse

- I examine my patient's neck and find a little irregular bump in her thyroid and → an ultra-sound → a needle biopsy → diagnosis of thyroid cancer, but in truth it is a cancer that would never have harmed her in any way. **Over-diagnosis**

A ritual that needs to go……let's take the "physical" out of the annual exam

- In preparation for this revolution, sell your stock in exam gowns, lubricants, rubber gloves and anoscopes.
- The data overwhelmingly support NOT DOING PHYSICAL EXAMS—looking in ears, listening to lungs, feeling bellies and examining genitalia---in persons who do not have symptoms.

- In 4 decades and thousands of physical exams, I can recall 0 incidents where I discovered something really important on an exam in a patient with no symptoms.

So what should the periodic health visit of the future look like?

1. The patient keeps her clothes on and you do not touch your otoscope, stethoscope or K-Y jelly.

2. Engage the patient in dialogue: "What's going on in your life right now?" "What do you fear?" "What do you value?" "What's your style when there is uncertainty with the diagnosis?" In short, you build, strengthen, and solidify the doctor-patient relationship! There are lots of data to support the concept that enhancing the doctor-patient relationship results in:
   - Doing more shared decision making
   - Better patient satisfaction
   - Better adherence to taking medications
   - Better biological outcomes
   - Greater placebo effect of the physician and his staff

3. You teach the patient the pros and cons of screening tests that are appropriate or inappropriate to consider.

   USPSTF says "No" for screening for these cancers in normal risk, asymptomatic persons: ovary, bladder, testicle, prostate and pancreas.

   Consider screening for cancers of breast, cervix, colon and lung and osteoporosis.

4. You coach the patient on best practices about low dose aspirin (maybe, a long shot with CHD, promising with colon cancer), multi-vitamins (usually not), self-breast exam (USPSTF "D" = no), routine CBC, CMP, TSH, urinalysis (nope). Teach them NOT to seek out the visiting ultra-sounding marauders who offer 5 screenings at a church near you for only $149.

5. You review the patient's medications, ever remembering how good most of us are in starting medicines, but how poorly we perform in stopping medicines.

6. Your staff updates the patient's immunizations.

My Take:

Ψ We clinicians need to get our heads around the concept of over-diagnosis and learn to teach it to our patients.

Ψ We also need to recognize then our patients vary greatly in their preferences for care. Shared decision-making is common sense in the post-paternalistic era of medicine.

Ψ Taking the "physical exam" out of the periodic health visit offers time to have these value-based discussions.

Ψ In the era of payment reform in medicine, implementation of these big concepts offers opportunities to provide increased value to our patients.

Ψ How often the periodic health visit?

Astronomy is not Biology!

- For a 20-40 year old male, a health visit every year on Jupiter (11.9 earth years)
- If you are a 21-65 year old woman, pap smear every three earth years
- If you are a 40-60 year old man, maybe once a year on Mars (687 days)
- If 60-75 years of age, an earth year may be about right
- If you're an octogenarian or older, maybe a year or two on Mercury (88 days per earth year)

Decision Tool

Screening Mammography  : A Close Call

- Screening has both benefits and harms.
  It's a gamble."
- The benefit is the potential to lower breast cancer mortality. *"There **may** be a few big winners."*
- The harms are false alarms and over-diagnosis. *"There are many small losers and a few that lose a lot."*

Decision Tool: (from Welch and Bleyer)

Quantifying the Benefits and Harms of Screening mammography

So for 1000 women aged 50 years who are screened annually for a decade:

- ❑ 0.3 to 3.2 will avoid a breast cancer death.
- ❑ 490 to 670 will experience at least 1 false alarm (70-100 will have biopsy)
- ❑ 3 to 14 will be overdiagnosed with breast cancer and needlessly treated

Decision Tool for Colon and Breast Cancer Screening

http://eprognosis.ucsf.edu/

"There must be something the matter with someone who goes to see a doctor when there is nothing the matter." (Barsky AJ "Worried sick: our troubled quest for wellness. "Boston: Little, Brown, 1988.)