PSA

Patient Safety America Newsletter

December 2010 http://PatientSafetyAmerica.com John T. James, Ph.D.

Question: According to a report from the Office of Inspector General of the DHHS released last month, what fraction of Medicare patients experiences a serious adverse event while hospitalized?
a) 1/1000 b) 1/300 c) 1/100 d) 1/30 e) 1/7 f) 1/4

Polypharmacy

Have you ever watched an older adult with several chronic illnesses gather together their morning pills? Have you ever done this yourself and wondered if you really needed all those pills? Chances are very good that you do not need all those pills and that you would be healthier without some of them.

In the September 2010 newsletter I posed the question: what portion of hospital admissions of older people is due to inappropriate medications. Answer: Approximately one in six admissions of older adults is directly caused by the medications they are taking.[1] I was shocked to hear of this research finding. It is an example of more medicine becoming bad medicine.

In this month's reading I came across an article entitled "Feasibility study of a systematic approach for discontinuation of multiple medications in older adults."[2] This was part of the new "Less is More" series in *Archives of Internal Medicine*. The investigators examined the medications being used by community dwelling elderly persons with an average age of 83 years. These elderly folks were using an average of 8 medications each. To identify those drugs that should be discontinued, the investigators used a drug discontinuation protocol that had proven to be effective in a population of disabled patients in nursing homes in Israel.

On average the number of drugs discontinued was just over 4 per patient. Roughly half the drugs the patients were taking were discontinued without harm. The patients were followed for an average of 19 months. None of the deaths in the study population could be attributed to discontinued medications. Most remarkably almost 90% of the patients reported that their health improved after discontinuation of the medications.

In a related commentary in the *JAMA* an MD pleads for better policies for the use of medications in older adults.[3] He points out that the federal government is the single largest purchaser of prescription drugs; however, "many aspects of the US healthcare system act to discourage optimal prescribing." He laments the lack of geriatrics courses in medical education and the under representation of older adults in drug studies. He asserts that despite the new healthcare law, little was accomplished to organize healthcare. This leaves older adults at the mercy of our chaotic healthcare industry with its many opportunities for dangerous prescribing misadventures.

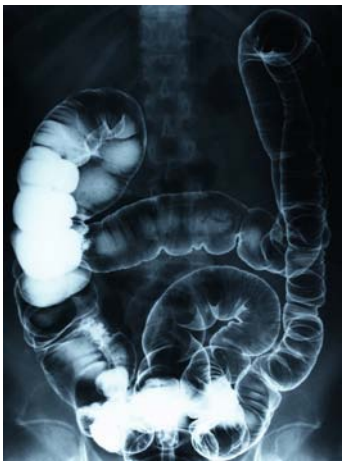
He points out that other countries have well-developed requirements for geriatrics education. These should inform policies in the United States.

He sees promise in the adoption of electronic medical records since these could provide evidence based prompts to warn physicians against certain prescriptions. Finally, he observes that the availability of medication data for patients enrolled in Medicare part D offers an opportunity to discover the risks and benefits of many drugs used in older adults.

There is a strong message here for older patients. If you are taking four or more drugs, then ask your primary care doctor if you really need all those medications and if he would help you quit taking so many of them. Ask him to affirm that any interactions between the drugs you are taking would be of no consequence. Ask if any of them are prescribed to you "off label," that is, not approved by the FDA for your age or illness. Do your own *careful* research on the drugs as well.

Risks from GI Tract Examinations

OK, you have put it off long enough; you have finally decided that you should have another endoscopic examination of your gastrointestinal tract. Depending on the purpose the examination the probe may enter your mouth and be eased down as far as your upper small intestine or inserted in your anus and gently pushed "upward" through your large intestine. You do not expect either approach to be much fun, but did you know that there is about a 1/130 risk that the procedure will put you in the emergency room?



This is one of the conclusions of a study called "The incidence and cost of unexpected hospital use after scheduled outpatient endoscopy."[4] A team of eleven investigators asked how many hospital visits had occurred within 14 days of an endoscopy in a group of 18,000 patients (average age in their late 50s). The patients were seen as outpatients in 2007 at a teaching hospital affiliated with the Harvard Medical School. They found that 142 adverse events from the endoscopic procedures occurred with an average time-to-occurrence of 5-6 days. The risk of an adverse event was roughly the same for either type of endoscopic examination.

The vast majority of the adverse events were detected by an automated tracking system that identifies patient visits to the emergency room by their medical record number. This approach detected almost all the total adverse events given above. Strikingly, the standard, voluntary reporting system used by physicians listed only 31 of the 142 adverse events. This helps explain why the adverse event rate found in earlier studies that used physician reporting is much lower than the one revealed by the present study.

The authors also attempted to estimate the cost of the adverse events. Over the 9-month period of the study, the cost of unplanned hospital visits related to endoscopic complications in this hospital totaled just over $1 million. If this result is typical of the United States (it is probably low because this is a top-quality hospital) and we know that about 18 million endoscopic examinations are done each year, then the cost across the country is well over a billion dollars.

The message you should take home is that serious adverse events associated with endoscopic examinations are not trivial. The risks are compounded for the individual patient who may decide to have several examinations during his high-risk years. You need to have a forthright discussion with your doctor and do your homework before agreeing to multiple endoscopic examinations. Patients with no risk factors may want to forgo screening, or at least be screened at long intervals.

Obesity Epidemic

Arguably, the most serious health threat we Americans share is our tendency to overeat and gain weight. We battle this tendency daily as each social occasion seems to present tempting food, folks at work bring in goodies to share, and meetings are periodically interrupted for breaks that offer tasty calories. If you have decided that you should lose some weight, then you must be able to resist strong temptations. Is there hope for obese folks short of surgical intervention?

As you might expect, the answer is a qualified "yes." First, the question you should ask is

whether you actually need to lose weight. Be aware that about 8% of us who are obese misperceive our body sizes and this denial builds a barrier to weight loss.[5] Do not fool yourself into supposing that you do not need to lose weight. Use a quality scale to pinpoint your weight and track changes.

Now, if you have gotten past misperception; what can be done to reduce your body weight? A research study that addressed the effects of diet and exercise on heart-disease risk factors in obese patients encouraged me.[6] Investigators helped 100 severely obese people lose weight over a one-year period. Half the subjects started on exercise and diet, whereas the other half did not start to exercise until half way through the year. At the end of the year those doing exercise and dietary restraint for a full year lost 27 lbs and those who started exercise after 6 months and practiced dietary restraint lost 22 lbs. Risk factors for heart disease were improved in both groups. The diet was highly structured with an intake on average of about 1600 kcal/d. The exercise plan called for a gradual increase to the equivalent of one hour of brisk walking 5 days per week. There was outside support through group meetings and phone contact. An editorial reflecting on the above study pointed out that even with the level of success reported, third-party payers are generally unwilling to reimburse for this sort of care, and this policy needs to change.[7]

In another study involving about 400 overweight and obese women, the investigators used commercial prepackaged meals and half the amount of exercise as in the above study. Three levels of support were provided and follow up lasted for two years.[8] The support in general was one of the following: 1) weekly at a treatment center, 2) weekly primarily by telephone, or 3) monthly by patient check in. The average weight losses after 2 years were 16 lbs in the center-based group, 14 lbs in the telephone group, and 4 lbs in the check-in group.

The lesson here is clear. If you are serious about weight loss, then enroll in a support program in addition to practicing diet and exercise interventions. An editorial suggested that commercial weight-loss programs should be provided free to the patient if it allows her to avoid much more expensive bariatric surgery, which insurance companies will generally pay for.[9]

Are there "bad guys" behind this epidemic of obesity? A commentary in the *JAMA* suggests that the food and beverage industry may be bad guys.[10] It points out that the industry maintains "front" organizations reminiscent of those fostered by the tobacco industry to protect their interests. For example, addition of vitamins to sweetened breakfast cereals helps little and can involve deceptive claims. Marketing sugar-laden foods to children is certainly counterproductive. The food and beverage industry has much to change if it hopes to avoid a crackdown by regulators.

What can obese persons do to lose a significant amount of weight? Inspect package labels to avoid the temptations promoted to you by the food and beverage industry. Don't even go into the junk food aisles. Enroll in a structured and supportive diet program, and once you start feeling more like exercising, begin an easily-performed exercise program. Walk with friends, listen to music, and gradually increase the calories you burn. If you will do this and stick with it, you will add years to your life. You could put a picture of a grandchild on your meal table and in bold letters ask the question: will you be at my graduation grandma? Read this to learn the effect of obesity on your life expectancy:
http://www.sciencedaily.com/releases/2009/03/090319224823.htm

Your Right to Know

You may have a serious illness and want to choose the best doctor and hospital for your care that you can afford. But there is very little reliable information available on the quality of specific doctors and hospitals. Public reporting of the quality of healthcare delivered by physicians and hospitals is in its infancy in the United States. That infant is

finally starting to grow and mature.

A perspective article called "Public release of clinical outcomes data – online CABG report cards" makes reference to the Consumer's Union reporting of coronary artery bypass grafting (CABG) outcomes in approximately 20% of such programs in the United States.[11] The authors refer to this as a watershed event.

The revelations stem from a database kept secret from the public by the Society of Thoracic Surgeons until now. The public gets to see the quality of each CABG program that is willing to submit to public disclosure. The ratings are given as stars for meeting a set of 11 performance measures endorsed by the National Quality Forum. One star is significantly below average, two stars means the program is within the bounds of average, and three stars means the program is better than average. Of the 221 reporting programs 50 have received 3 stars and only 5 have received one star. The authors of the report feel that those programs that refuse to report will now feel pressure to allow reporting. The implication is that if a CABG program refuses to report, then it must be afraid that it may not measure up to performance standards.

This is an exciting development brought to you by Consumers Union and all those patient safety advocates who have worked tirelessly for more transparency and safer care. You can get to the ratings through:
http://www.consumerreports.org/health/doctors-hospitals/surgeon-ratings/heart-surgery-ratings/surgery-groups/index.htm.

Risky Healthcare

If you have paid any attention to patient safety issues, you have probably heard the oft-quoted estimate from the Institute of Medicine that 98,000 Americans die each year from medical errors in hospitals. This estimate from 1999 uses results from medical record reviews from the 1980s on patients treated in New York State. It is far past time to abandon this estimate and get a new one based on contemporary data. The Office of Inspector General (OIG) of the Department of Health and Human Services has just given us fresh insight into nationwide medical errors.[12]

The OIG investigators examined the hospital medical records of 780 Medicare patients selected to be representative of the entire country.[12] The records were associated with patients discharged in the month of October, 2008. Physicians examined the records and determined many things including whether an adverse event had contributed to the patient's death. The rate of lethal events was so high that if it were extrapolated to the entire Medicare population, the death rate would be 15,000 persons *per month*. That is equivalent to 180,000 human lives lost per year. Furthermore, only one third of all hospitalizations involve Medicare patients. No investigators to my knowledge have recently studied the deaths among non-Medicare, hospitalized patients.

The adverse events that led to death as reported by the OIG were medication errors (7), blood stream infections (2), aspiration pneumonia/cardiac arrest (2), and ventilator-associated pneumonia (1). Of the 128 total adverse events (lethal and non lethal) 40 were medication related, 36 due to poor patient care, 33 from surgery and invasive procedures, and 19 due to infections. The three-step review method used by the OIG (ending with physician review of medical records) does not readily detect errors of omission or diagnostic errors, both known to be major contributors to patient harm.

This OIG report only begins the count of lethal adverse events. To the OIG total one would have to add non-Medicare patients who die from adverse events in hospitals, and all patients who die as the result of misguided outpatient care. One

would have to add errors of omission of life-saving care, lethal diagnostic errors, fatal communication errors, and failure in duty-to-warn of life-threatening conditions.

Finally, a recent scientific study showed that evidence of serious adverse events is often missing from hospital medical records. The investigators confirmed 32 serious adverse events based on patient interviews in a group of 1000 patients; however, only 11 of these were evident from the medical records.[13] We know that all adverse events are not preventable, yet if reasonable adjustments to the OIG estimate were considered, the number of *lethal medical errors* occurring *now* in American healthcare is likely in the range of 300,000 to 500,000 per year. This makes medical errors the third leading cause of death in the United States. Such a frightening assertion was made a decade ago by a public health expert writing in a major medical journal.[14] This carnage simply cannot continue.

References

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Answer to question this month: e) one in seven patients experience serious adverse events[12]

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