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<u>Question</u>: According to the Centers for Disease Control and Prevention, how many Americans died from opioid overdose in 2016?

<u>a) 10,000 b) 2</u>0,000 c) 30,000 d) 40,000 e) 50,000 f) 60,000

Eliminate Unnecessary Laboratory Tests

A team of experts, mostly MDs, took on the task of creating evidence based guidelines to curtail repeated laboratory testing of patients while they are hospitalized. The authors note the unsustainable growth in health-care expenditures over the past few decades, a time in which annual costs grew at nearly 8% per year. They not only target the reduction of excess phlebotomy and laboratory testing as a chance to save money, it is also a chance to save harm to patients. I had never heard of "hospital acquired anemia" before reading this study. The writers cite a study showing that 20% hospitalized patients experienced "moderate to severe anemia" as a result of repeated, and presumably, unnecessary blood draws. acquired anemia has been associated with increased transfusions, longer stays, higher costs, and increased mortality. It's not just about the cost of over testing!



The authors suggest 3 general approaches to reducing unnecessary laboratory testing. Clinician education, feedback on the clinician's ordering habits, and restrictive ordering dictated by the

electronic medical record system. The authors provide a massive table describing published studies in which attempts were made to reduce the ordering of laboratory testing. In general, the interventions resulted in reductions in testing and associated costs from 5% to about 20%. Although this article was targeted to clinicians and hospital leaders, I was disappointed that no role was mentioned for patients or their advocates. An empowered patient will know why laboratory tests have been ordered and why repeated testing is necessary. Questioning may persuade the clinician and phlebotomist to leave more blood inside the you where it belongs.

Obesity and Cancer Risk

Three experts addressed the opportunities and challenges for clinicians when faced with patients experiencing obesity and excessive weight gain. The statistics are alarming – two thirds of adults (me included) and one third of children and adolescents are overweight or obese. In 2014 more than 600,000 Americans were diagnosed with cancers that have been associated with being overweight. There is a trend to these diagnoses being given to younger people. Clinically, the U.S. Preventive Services Task Force recommends that adults diagnosed as obese should undergo "intensive behavioral interventions" over 12 to 16 sessions. Apparently, Medicare covers this sort of counseling, but it has not been much used to reduce obesity. It seems that primary care physicians need better education in dealing with patients that are overweight, obese, or are gaining weight. It is no secret that maintaining weight loss requires intense and sustained effort by clinicians and patients. If you feel that you need intervention to lose weight, then ask your doctor to help you or refer you to someone who can help. HAPPY HOLIDAYS.

Obesity and Maternal Morbidity and Mortality

A large team of investigators asked if obesity is associated with increased <u>maternal morbidity and mortality</u>. Given the recent problem with increases in maternal mortality in the U.S. and increasing obesity, this is an important question. The study

population was almost 750,000 women who gave "singleton" birth in Washington State from 2004 to 2013. Birth certificates and hospital files were linked to discern any relationships. The weight categories follows: were as underweight, normal weight, over weight, obesity class 1. obesity class 2, and obesity class 3. Respectively, the rates of severe

Age-adjusted Prevalence of Obesity and Diagnosed Diabetes
Among US Adults

Obesity (BMI ≥30 kg/m²)

1994

2000

2015

No Data 14.0% 14.0% 18.0% 21.9% 22.0% 25.9% 26.0%

Diabetes

1994

2000

2015

No Data 3.4.5% 4.5% 5.5% 6.0% 7.4% 7.5% 8.9% 29.0%

CDC's Division of Diabetes Translation. United States Surveillance System available at bittp.//www.cdc.gov/diabetes/data

National Institute of Health.

morbidity and mortality per 10,000 women were as follows: 172, 143, 160, 168, 178, and 203. Note that being underweight is associated with about the same rate as class 2 obesity (172 vs. 178). Only 3 % of the women were in the "underweight" category and only 4% were in the "obesity class 3" category. Severe morbidity included the following: sepsis, shock, cardiovascular events, cerebrovascular events, acute kidney failure, and other serious complications. The authors note that the increase associated with underweight and extreme obesity may be statistically significant, but the actual amount of increased morbidity and mortality is small. I might disagree with that view. If the Washington population is representative of the U.S., then the absolute number of American women in obesity class 3 who experience severe complications or death over the same number of normal-weight women is nearly 1,000. In other words, if all obesity-class 3 women were in the normal-weight category, there would be 1,000 fewer serious complications or deaths in the entire U.S. each year.

An <u>editorial</u> reviews this study in larger perspective. In 1991, 12% of Americans were obese,

but by 2013 the prevalence of obesity was 38%. The editorialist calls this a pandemic. One model of the effect of obesity on health-care costs estimated that for a 70-year-old person who is obese, the excess medical costs are \$3800 per year when compared to a person who is not obese.

The editorialist points out that the excess risk for class 3 obesity may be due to the inherent risk

and perhaps the increased difficulty of delivering high quality obstetric services to help seriously obese women. Class 3 obesity is a bodymass-index of 40 more. This or means a woman who is 5 foot 8 inches tall would have to weigh 264 pounds to qualify for this group. Find your **BMI** on a site from the

National Institute of Health. The writer calls for more concerted efforts to blunt the obesity pandemic. For example, employers could encourage nutritional eating and exercising. In my opinion, financial incentives should be offered for those who manage their weight. To my knowledge, no one has performed a study in which a graduated scale of financial incentives, say in insurance premiums, can be used to impel people to manage their body weight on a sustained basis. Studies have shown that short-term monetary incentives do work. If I were to receive a few hundred bucks off my Medicare part B premiums each quarter for losing 20 pounds and keeping it off, I would do that.

Waste in Health-Care Services

It's no secret that there is a great deal of waste in the way health care is delivered in the U.S. A pediatrics professor highlighted some of the current understandings of the <u>cause of that waste</u>. First he noted a study in which physicians were asked what fraction of health-care is wasted – their response – about 20%. The reason the doctors claim for this waste is "defensive medicine," which is the

nice way of saying fear of malpractice suits. However, studies have shown that in states with severe malpractice barriers, the overuse changes little.

The author notes that the "elephant in the room" is money. Many doctors have financial conflicts of interests in decision making about the services patients ought to receive. Overall, in our system more revenue is generated as people are impelled to consume more services In addition, he points out that such care is not without risk to patients that receive too many services. The Institute of Medicine estimated in 2013 that about \$210 billion is wasted each year on unnecessary services. Solutions may originate from informed patients that question the need for each service, and from insurance providers that deny coverage for unnecessary testing. Of course, I would note that what is necessary is not always obvious.

A study that examined the causes of increases in health care spending from 1996 to 2013 found that half of the increase of \$933 billion was due to increases in service price and intensity. The definition of "service and price intensity" varied by condition. For example, during hospital or nursing-home care this was defined as spending per bed day. For ambulatory care and emergency room care "service and price intensity" depended on the spending per visit. The authors postulate that focus on better control of service price and intensity may hold promise for reducing costs in medical spending.

The Affordability Index for Health Care

The increases in health care costs noted above only matter if those costs are indexed against the income of workers that must pay for health care. Three experts proposed the affordability index, which is the ratio of the mean cost of an employersponsored family health insurance policy to household income. The authors show how their proposed index would have changed from 1999 to 2016. In 1999 the index would have been 14%, but it increased to just over 30% by 2012, at which point it leveled off, more or less. In 2016, the mean employer-sponsored family insurance premium was just over \$18,000 per year, including employer contributions. The authors point out that in 2015 the mean amount spent by families for food, including meals out of the house, was just over \$7,000.

Clearly there is something deeply troubling about this difference.

I would propose that health care costs are so high compared to food, for example, because with food, the consumer has plenty of transparency and many choices. This is not true with health care. This industry, including the insurance companies and Medicare, is notable for its opacity to consumers and its lack of choices in many instances. What will an insurance company pay for when you get cancer - who knows? What choices will one have for physicians and hospitals. Another factor is that if you obtain food that you do not like, you simply do not buy it next time from the same restaurant or grocery store. With healthcare, we do not often purchase "big ticket" care. If we do not like the care we received, we may have no alternative choice the next time we need serious care. Of course thorough cost and outcome transparency would help health care consumers, but this may never happen.

Reducing Injurious Falls in the Elderly

In the last few years of my father's life he experienced 4 falls, two of which were quite serious. He wanted to live at home, but the multi-level nature of his house with its 2 to 3 step-level changes invited falls. Try as we might to block his access to steps, he managed to find them and fall. We were not as successful as we would have liked in reducing his fall risk.

My father's example is not atypical. The scope of this problem and potential solutions were presented in an <u>editorial in the JAMA</u> that examined the implications of a well-done <u>meta analysis</u> on the cause of falls. The editorialist noted that in 2014 the incidence of falls in those 65 and older was 672 per 1000 and in those older than 85, it was 820 per 1000. For those older than 65, falls are the leading cause of injuries and death.

Various strategies may mitigate the risk of falls. A modest, graduated regimen of exercise will reduce the risk of falls. A variety of clinical measures, including especially vision assessment and supplements to improve bone strength may reduce the injurious consequences of falls. Environmental assessments may point to changes needed to prevent falls, such as in my father's case where a multi-level house increases risk. Finally, there needs to be broad engagement in health-care systems and communities on reducing fall risk. This

can be a challenge. I have tried to persuade my community to fix irregularities in our sidewalks, but it cannot be bothered to implement a plan of repairs. I personally know two people who have tripped over irregularities and been injured, one seriously. The statistics in this editorial have caused me to redouble my efforts to improve the sidewalks in my community, which may be seen below.



Oral Contraceptives and Increase in Breast Cancer Risk

An editorial in the *New England Journal of Medicine* examined the implications of the association between <u>hormonal contraceptives</u> and breast cancer risk. You may have seen this risk published in the media recently, even though the findings are not new. The study, which involved women 50 and younger in Denmark, found a 20% higher risk of breast cancer in those women using hormonal contraceptives. The key to understanding what this may mean for a specific woman is to know that the absolute risk of breast cancer increases substantially as a woman ages.

Thus, for the whole study population, the absolute, increased risk of breast cancer associated with hormonal contraceptives was 13 per 100,000. But for women younger than 35 years of age the absolute risk increase was only 2 per 100,000. The writer notes that these increases in risk must be balanced against the apparent *reduction* in risk of cancers of the <u>endometrium</u>, ovary and colon later in

life if a woman has used hormonal contraceptives for 5 or more years. In my opinion, women 40 and older should be considered at risk for breast cancer if they use hormonal contraceptives; thus, they should undergo breast cancer screening.

Tisagenlecleucel (Tgl)- What's This?

"Tgl" is a newly developed drug for treatment of acute lymphoblastic leukemia in children and young adults. It was approved in August by the FDA. Three MDs from Memorial Sloan Kettering expressed their view on this newly approved drug in the JAMA. The drug represents a new approach to cancer therapy in which the patient's T cells are removed, genetically modified to respond to markers on the cancerous cells, and then infused back into the patient. The modified T cells then destroy the cancer cells by releasing inflammatory cytokines. Unfortunately, the latter process can destroy normal cells if the modified T cells see markers on normal cells that are like the ones on the cancer cells. This may lead to a nasty syndrome in about half the patients. In the drug's favor, the positive response rate is about 80%; long-term success however, has not been demonstrated.

The cost of a single infusion of Tgl is priced at \$475,000. The Institute for Clinical and Economic Review (https://icer-review.org/) will examine the cost effectiveness of the drug early in 2018. This process is not satisfactory, in the opinion of the authors, because it compares the cost of the new treatment with existing treatments, which may already be priced sky-high. They note that due to the novelty of the drug, information released to the public tends to overstate the value of the drug and understate its toxicity. The word "cure" should not be used in discussions of Tgl.

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Answer to question: Best answer (d). Actual number is just over 42,000. Source: CNN