

Question: What percentage of hospitalized patients receive a diagnosis of malnutrition?

- a) 1% b) 3% c) 5% d) 10% e) 15%

Nutrition During Hospitalization

Sometimes issues come to my attention from unexpected sources. As it so happened, I was contacted by a person advocating for Malnutrition Awareness Week later in September. As part of the campaign, I became educated on the problem of malnutrition before, during and after hospitalization. Not surprisingly, malnutrition is often overlooked as a patient safety issue.



An [article](#) in *Journal of Hospital Infection* from 2016 surveys the relationship between malnutrition and hospitalization. About one in three patients admitted to the hospital is malnourished. During hospitalization malnutrition may be a risk from restricted diet, inflammatory conditions that increase the need for nutrients, or limited ability of the patient to ingest nutrients. The authors cite a massive study showing that malnourished patients are twice as likely to get a surgical-site infection, four times as likely to get a pressure ulcer, and five times as likely to get a catheter-associated urinary tract infection. The writers indicate that there are

guidelines pertaining to hospital nutrition, but these are often not followed.

An [article](#) from 2015 in the *Joint Commission Journal on Quality and Patient Safety* painted a broader picture of the adverse effects of malnutrition. It surveyed the history of attention given to the problem in hospitalized patients starting in 1983 at the behest of the American Society for Parenteral and Enteral Nutrition (ASPEN). In part, ASPEN declared “It [malnutrition] is associated with an increased incidence of wound infection, fluid and electrolyte imbalances, depressed ventilator response, decreased response to certain chemotherapy programs, decreased tolerance to some therapeutic regimens, depressed immune mechanism, all of which translate into an increase in medical care cost and increase in morbidity and mortality.” According to the authors of the article, that understanding pertains to today. Accreditation standards now require a nutrition screening within 24 hours of admission.

This requirement has personal implications for me. In the case of my son who died in 2002 from unrecognized potassium depletion, he never had a nutrition screen. I am certain because of his food preferences, that his diet was poor in potassium. He was also an avid runner in the hot climate of Texas summers. Profuse sweating, which his cardiologists observed, is a known way to deplete potassium. Although quite athletic, he was in fact malnourished. This caused heart arrhythmia that led to his sudden cardiac death.

Returning to the article, the authors note that obese persons may be malnourished. In addition, of surgery patients who return within 30 days after hospital discharge, the third leading cause of that return is failure to thrive and malnutrition. Based on

coding data on malnutrition, the authors suggest that the problem of malnutrition is substantially underreported. The authors go so far as to propose that failure to assess a patient's nutritional status during hospitalization should be a never event.

In my journal reading this past month, I was struck by an [article](#) in the *New England Journal of Medicine* that addressed modifiable risk factors for a patient anticipating elective surgery. It listed risk factors such as obesity, smoking and diabetes as modifiable factors that increase the risk of poor outcomes and higher costs. The thrust of the article was how the surgeon might persuade the patient to modify his or her risk factors before surgery. This is the ethical thing to do through a process of shared-decision making. I was disappointed that malnutrition was not explicitly mentioned as a modifiable risk factor prior to elective surgery, although obesity is often associated with malnutrition.

The idea of preoperative improvement of nutrition begs the question, "How is one supposed to do this." Three experts addressed this [issue](#) on a national level. What do we as Americans need to do to improve our nutrition? They focus foremost on our astonishing obesity rate (40% in adults and 18% in youth). Then they attack our high sodium intake, finally reporting that dietary factors were associated with 530,000 deaths in the U.S. in 2016. To "reinvigorate" the discussion on dietary disease, they assert we need to do the following: tax sugar-sweetened drinks, reduce sodium in processed foods, require front-of-package nutrition labels, stop any marketing of unhealthy food to kids, subsidize healthy purchases by low-income people, improve restaurant food, and mount a national campaign to foster healthier eating. I hate to be cynical, but I do not think Americans would go for much of this.

What is a patient or their advocate supposed to do with the problem of malnutrition? Make certain that a nutrition screening has been performed before hospitalization for elective procedures. Ensure adequate nutrition during hospitalization, and make certain the discharge and rehabilitation plan contains elements of good nutritional behavior for the patient. Special attention must be given to

patients with a history of poor nutrition prior to hospitalization.

Atrial Fibrillation Detection

Anyone watching evening TV will know the term A-Fib and be subjected to information about some medication designed to prevent it or at least manage the risk of stroke with an anticoagulant. How do you know if you have A-Fib? A [team](#) of researchers completed a study using an electrocardiogram, skin patch to continuously monitor a patient's heart rhythm to determine if A-Fib occurs. Within the first 2 weeks of patch application, about 4% of the wearers showed A-Fib. It must be noted that the participants were selected to be at risk of having A-Fib in the first place.

A commentary placed this finding in [perspective](#). A-Fib is an important problem, but the framework of diagnosis has changed. Formerly, when A-Fib was detected by spot checks, you were diagnosed, period. However, with continuous monitoring such as that offered by the patch, the frequency of A-Fib can be discerned, thereby estimating the importance of dealing with it. The new, wearable badge seems to offer early detection of A-Fib, but it is unclear whether this will lead to enhanced treatment and ultimately, to a reduction in adverse events such as stroke and death. Another issue is whether the badge is cost effective relative to other available technologies.

It appears that the badge is not yet available, although given the apparent success of the trial, I would expect it to be marketed soon. Ask your cardiologist about this. If you wish to assess whether you are at risk for A-Fib go to [Afib](#).

Oral Health

In the *JAMA*, two [experts](#) extoll the virtues of a healthy mouth as a key component to a healthy body. They suggest that primary care physicians perform a 5-minute screen of a patient's oral cavity to detect oral disease and discover pointers to any general health issue. The important diseases that might be detected include oral or pharyngeal cancer, joint problems, and gum disease. Dental cavities are common and may be detected. Although this may be

important in kids, I will swear that my pediatric dentist managed to fill every tooth in my mouth with metal, eliciting adverse, long term consequences. Limited insurance coverage for dental care may work against screening for oral diseases. A final observation was that systematically compiled findings may impel research on issues related to oral health screening. I might have added that primary care doctors may need targeted training to perform thorough screenings.

Thyroid Cancer

Two MDs [writing](#) in the *New England Journal of Medicine* express their view that “small papillary cancers” in the thyroid are being over treated. The incidence of thyroid cancer has increased 3-fold in the past 25 years, perhaps reflecting early detection. Despite this increase in incidence, the death rate from thyroid cancer has remained very low and constant. This suggests that overtreatment is happening. In those 25 years, approximately 200,000 Americans have undergone total removal of the thyroid in the face of small papillary cancers. The authors indicate that a patient’s choices are (1) watchful waiting, (2) lobectomy, and (3) thyroid removal. The latter has more serious complications than the lobectomy. The authors suggest part of the overtreatment may be due to the fossilized practices extolling the virtue of total removal of a cancerous organ, and also to the fact that revenue streams may be adversely affected by less invasive treatments.

Patients should know that there is a [decision aid](#) to help in making choices about treatment. If you are diagnosed as having papillary thyroid cancer, which is by far the most common type, and is much more common in women, make certain you know your options and their consequences. It seems also that thyroid operations are not too common, so you must assess the experience of your surgeon before accepting his scalpel.

Off-label Prescribing of Drugs

A medication is off-label if it has not been approved by the FDA for treatment of the patient’s medical condition or his age group. Off-label

prescribing is common and may carry more risk of adverse reactions than drugs prescribed on-label. A letter and response comment gave interesting perspectives to doctors prescribing off-label. The key points made were that a physician must know when there is reliable information supporting safe and effective, off-label use. Clinicians must not solely depend on information from the drug manufacturer. They must offer sufficient information to a patient receiving an off-label prescription, that they can make an informed decision within the framework of shared-decision making. The message for patients is to ask if a drug prescribed to you is off-label and if it is, then ask what scientific information is available to support the off-label use in your body.

Antibiotics Cause Many Pediatric ER Visits

A [team](#) of investigators asked the extent and cause of visits to the ER due to adverse reactions to antibiotics prescribed to children 19 years old or less. Approximately 70,000 annual visits occurred in the years 2011-2015. The authors begin by noting that about one-third of antibiotics prescribed to children are unnecessary. For children 9 years old or less, amoxicillin was the most common cause of an ER visit. Sulfamethoxazole-trimethoprim was the most common cause of an ER visit in children 10 to 19 years old. The rate of ER visits for adverse drug events declines as children age. The cause of the visits was generally an allergic reaction to the drug. The reaction was mild in most of the cases, but in roughly one-fourth of the cases the reaction was classified as moderate to severe. Only 3 % of the children were admitted, transferred or held for observation by hospital clinicians.

Breakthrough Drugs – Beware

Three experts published a [research letter](#) in the *JAMA* asking about the quality of data used by the FDA for approval of breakthrough drugs from 2012 to 2107. During that time 46 drugs were given approval based on 89 trials. The most common drugs targeted cancer and infectious diseases. About half were considered “first in class.” After compiling the basis for approvals, the authors noted,

“That pivotal trials supporting these approvals commonly lacked randomization, double-blinding, and control groups, used surrogate markers as primary end points, and enrolled small numbers of patients.” They point out that clinicians and patients should not be naïve about the strength of evidence behind approval of break-through drugs. Post marketing studies should help resolve the ultimate value of such drugs.

The overall message to patients contemplating prescription drugs involves the following questions: what will the drug do for me, how will it interact with other drugs I am taking, is it off-label, does it have a black box warning, and finally, is it classified as a break-through drug?

Patients Right to Know

A bill has reemerged into the California legislature involving the right of patients to know if their doctor has been sanctioned by the state’s medical board. This will be the third time around for the bill. The outcome may have ripple effects into other state laws if the legislation is successful. An MD writing in the *JAMA Forum* placed his support firmly behind approval of the legislation. A Consumer Reports study involving 1200 adults found that 82% want to know if their doctor is on probation. Presently, probation is disclosed on the California Medical Board’s website, but there is no requirement that the doctor on probation ensure that his patients know of his probation.

The author lists several of the push-backs doctors and the medical board voiced in defense against the legislation. These include the following: disclosure will erode the patient-doctor relationship, it takes time away from patient care, and is duplicative because the information is on the medical board website. Several studies have shown correlation between initial probation and the likelihood of recidivism. Here we are talking about doctors with drug and alcohol abuse, sexual misconduct or avoidable medical errors. My experience with the latter suggests that medical

boards protect their own when it comes to avoidable medical errors. That aside, the bill has passed two committees of the state senate. The author regards the chances of ultimate passage as “guarded;” however, he asserts that the patient’s right to know must not be denied.

Microbes in Your Pool

Splashing in a swimming pool is almost a necessity if one is going to be outside during the long summers we have in Texas. A large team of investigators published a Morbidity and Mortality [Report](#) in May 2018 that was just picked up in the *JAMA* “News from the CDC” section. From 2000 to 2014 there were 27,000 reported cases of infectious sickness with 363 identified outbreaks, and with 8 deaths. Almost 60% of these outbreaks were caused by *Cryptosporidium* (Crypto), a parasite that causes primarily gastrointestinal problems. The main outbreaks were at hotels, motels, and lodges. Recommended levels of chlorine are 1ppm or more, but this level, while quickly killing most microbial threats, is very slow to kill Crypto. That bug may enter the water from accidental fecal discharges. This is why swimmers are required to leave a pool by lifeguards if feces enter the water. Crypto is contracted by oral ingestion of contaminated water. If you would like to know more about this nasty, little parasite go here: [Crypto](#) or [CDC](#).

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Answer to question: c) 5%, reference: <https://www.ncbi.nlm.nih.gov/pubmed/28416434>