Nursing Home Antibiotic Prescribing

In a study of nursing home residents in Ontario, a team of investigators asked how often residents were given a course of antibiotics that lasted more than 7 days, which is generally the practical limit of effectiveness for most antibiotic treatments.\(^1\) This is an important question because overuse of antibiotics promotes the emergence of resistant and deadly infectious agents such as *Clostridium difficile*, which can lead to severe gastrointestinal distress and death.

The investigators found that 45% of the prescriptions were for more than seven days. Furthermore, longer term prescribing was associated with “prescriber preference.” This means that certain physicians tended to prescribe antibiotics for longer times. Specifically, 20% of the 2600 prescribers issued 80% of the long-term prescriptions. In a companion commentary, two experts noted that the drug group most prescribed, fluoroquinolones, is known to be associated with increased *Clostridium difficile* infections.\(^2\) They recommend that more caution be exercised when this class of drugs is prescribed to nursing home residents.

Antibiotics are often prescribed to nursing home residents by physicians over the phone without examination of the patient. Dangers associated with this practice can be mitigated by folks who are looking after their elderly family members. When visiting a relative in a nursing home, ask the staff if they have been given antibiotics. Inspect their medical record if necessary. If a course of antibiotic treatment has gone on for more than a week for common infections, ask about the purpose of that prolonged treatment.

Off-label Prescribing of Modafinil (Provigil)

A non-amphetamine stimulant called Modafinil has been approved for treatment of narcolepsy, sleep apnea, and other sleep disorders. However, the drug has been linked to hypersensitivity reactions, neuropsychiatric disorders, and multiple sclerosis. A team of 4 investigators asked how much off-label prescribing of this drug has changed from 2002 to 2009.\(^3\) To put this in perspective, the number of patients receiving this drug increased 10-fold from 58,000 in 2002 to 560,000 in 2009.

The investigators used a nationally-representative sample of records of out-patient visits during the years 2002 through 2009. They found that the on-label use increased 3 fold during that time and the off-label use increased 15-fold. The authors noted that almost half of those receiving Modafinil were receiving treatment for depression, a well-known side effect of this drug. In 2008 the company marketing this drug paid multi-million dollar fines to several states that had sued it for off-label marketing of the drug. The authors conclude that Modafinil is being prescribed to patients with multiple health problems, a population that may be especially vulnerable to harm from off-label use. Read more: Drowsiness drug.
On Leaving Stuff in Your Body Too Long

We have all heard about objects unintentionally being left behind after surgery; however, there is another way that medical things can be left in your body far too long. Here’s the way it happens. You are in the hospital and a physician determines that you are at risk of a pulmonary embolism (blood clot in the lung). These have been estimated to kill about 200,000 Americans each year. You may not be a candidate for anticoagulant therapy, so your doctor recommends that a retrievable inferior vena cava (IVC) filter be placed in you to seize clots that might be headed to your lungs. Maybe this is a good thing for the time being, but how long does this thing have to be inside you?

Three MDs asked how often between 2003 and 2011 retrievable IVC filters were being left in medical-center patients too long after insertion, thus placing them at risk of harm. The investigators identified 679 instances of retrievable IVC filter insertions, of which only 9% were successfully removed. Unretrieved filters carry risk of deep vein clots, organ penetration, and filter fracture. The FDA recommended in 2010 that IVC filters should be removed once the risk of a blood clot to the lung has passed.

In a companion article by 3 MDs, they ask why IVC filters are being used so often when no one has demonstrated their efficacy. The authors note that the history of approval of such devices by the FDA since 1976 has always involved the 510(k) process (FDA approval) in which these filters are approved by similarity to other approved filters. In 2011 the Institute of Medicine recommended that this approval process be discontinued. The MDs conclude that IVC filters should be placed in patients only after they are told of the evidence of harm during the insertion procedure and over time as the device remains in place. Patients should be further advised that there is no evidence of benefit of such filters. Learn more about IVC filters: IVC filters.

Let’s Make a Video

Video recording of events as they are happening can provide compelling evidence of guilt, such as was apparent after the bombing near the finish line of the Boston Marathon. Marty Makary, MD, a champion of safer medical care, writes in the JAMA on the benefits of video recording of various activities in patient-care venues. He notes that wide variations in quality of care and in compliance with evidence-based care are well recognized.

Makary cites an example of improvements in hand-washing compliance in a hospital from 6% to 82% when cameras were installed to view hand-washing. Marked improvements in performance of colonoscopies were noted when the physicians performing the procedure knew their procedure was being recorded and peer reviewed. Video recording may also increase accountability and reduce unnecessary procedures; for example, a Baltimore cardiologist lost his license to practice after installing about 600 unneeded cardiac stents. Dr. Makary postulates that if patients had a received a recording of their procedure, even patients themselves could have detected the overtreatment.

Disruptive behavior is common in hospitals and Dr. Makary believes that cameras placed in key locations are likely to reduce such behavior. Patients seem to like the idea of video recording of their procedures and are willing to pay for these. I’m in favor of video recording of procedures and also so called “informed consent” discussions. My personal experiences and what I have read in the medical literature suggest that patients often receive insufficient information from their doctors to make genuinely informed decisions about major medical procedures. A wise patient will ask for complete information on their procedure and for a video recording of their procedure.

Let's Make a Video
**Medicare Dumb**

I’m an advocate for a single-payer medical care system because it works well in many other developed countries and the choices citizens have to make about insurance and medical care are much less complex. I tend to favor a government-run system, but I find difficulty advocating for that when Medicare continues to maintain dumb policies. One of those dumb policies came to light recently in a perspective article in the *New England Journal of Medicine* written by 4 experts. The writers noted that under Medicare, injectable drugs are covered *only if* they are administered in a hospital. Payment is denied for home injections when such drugs are *usually* administered in a hospital.

Thus, even if doctors believe Medicare patients would be better off giving injections at home to themselves, they continue to give them in a hospital or office because they do not get paid otherwise. The rule is self-fulfilling and can compromise patient safety. For example, a drug used to treat myelodysplastic syndrome, a condition that typically appears only in older adults (Medicare age), is supposed to be given consecutively for 7 days, according to FDA guidelines. But only 20% of patients receive this course because most physicians’ offices are closed on weekends. Their course of treatment must be truncated to 5 days or split by 2 days off on weekends.

The writers estimated that this one drug alone costs $0.6 to $2.4 billion per year to administer according to the self-fulfilling Medicare rules. The writers point out that they have had good success allowing self-administration of drugs at M.D. Anderson Cancer Center when patients are covered by insurance other than Medicare. One would hope that the common sense of using selected injectable drugs at home would spill over into Medicare policies. For now, it’s your tax dollars being misspent.

**Scoring Cardiac Care Units**

We have all been part of organizations that are poorly managed. In most cases this results in inefficient operations, frustrated customers and disgruntled workers. Poorly organized medical care delivery can result in higher risk of harm and death of patients. This was recently shown by a team of 5 investigators who scored the way cardiac-care units utilized management and organizational practices common in manufacturing. They looked at 18 measures in 4 categories: standardizing care, tracking performance indicators, setting targets, and incentivizing employees, in almost 600 cardiac-care units that performed interventional cardiac catheterization.

The cardiac units were scored on a 5-point scale and sorted in quartiles. The main statistically-significant finding was that the 30-day mortality rate was slightly higher in the bottom quartile than in the top quartile. The difference was not large – slightly less than 3%. Only 20% of the hospitals scored a 4 or 5 on more than 9 of the 18 measures, suggesting to me that there is plenty of room for improvement.

On balance, the investigators suggest that their methods are likely to have underestimated the effect of high-quality management, but the arguments they offer are not proof of this. Compare hospital quality, including cardiac care on a Leapfrog website: [http://www.leapfroggroup.org/](http://www.leapfroggroup.org/) or more generally on a government site: [Hospital Compare](http://www.hospitalcompare.com).

**Contextual Medical Errors**

We are sometimes disappointed because our doctor has not taken time to listen to us, but does this have an effect on the quality of our care? A newly-published study suggests that indeed it does affect healthcare outcomes. An investigation team asked if Patient-Centered Decision Making (PCDM) was apparent during 774 surreptitiously-recorded encounters between patients and their veteran’s affairs physician. They were looking for contextual errors, which occur when a physician develops an
inappropriate care plan because he did not pay adequate attention to the life circumstances and behavior of a patient.

The patient may disclose red flags that should trigger the physician to probe further into the patient’s context. For example, a pattern of missing appointments requires exploration by the physician to determine a cause. The patient may be suffering cognitive disability (forgetfulness) or may have lost a way to get to appointments. One study has shown that physicians are prone to contextual errors, but the remaining question is whether such errors genuinely affect patient outcomes. In our example, a favorable outcome would be the patient keeping her next appointment, whereas a poor outcome would be missing the next appointment.

The investigators identified 157 contextual factors of which 96 were addressed by PCDM and 61 were not. Healthcare outcomes were improved 71% of the time when PCDM was addressed and only 46% of the time when PCDM was not addressed. This demonstrates that PCDM through physician probing for appropriate information and patients volunteering that information improves health outcomes. **The message for patients is to expect your physician to ask at least a few probing questions and you must be prepared to give succinct, honest answers.** In the context of our example of missed appointments, if you are forgetting appointments and other important engagements, or your children took away your car keys, then tell your doctor that.

References


Answer to question this month: b) 7 days

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