

What You Need to Know

Testing to reduce infections during transplants, getting an accurate reading on your pulse oximeter, looking at 10 conditions doctors often miss, and more.

Solving One Problem but Creating Another?



One of the challenges in organ transplantation is making sure the donor organ is free of diseases that could make the recipient sick. Chances of catching infections early are high when transplanting a human organ to a human patient (allotransplantation), and we know how to treat many of them; however, it's more difficult in the brave new world of animal-to-human transplants (xenotransplantation), typically using organs from pigs genetically modified for maximum compatibility.

Though screening procedures are already in place for human organs and most diseases are well known, there are a lot of question marks in the developing area of transplanting organs from animals, which [may harbor novel diseases or pathogens that are still poorly understood](#). Without tried-and-true methods of identifying and managing them, the risk increases for failure of the transplanted organ, and even death.

It's a catch-22: Scientists and doctors have been making promising headway in experimenting with xenotransplantation, but the lack of reliable testing is a barrier to approving clinical trials—which could give them more information to answer these questions and make the procedure safer for patients.

Source: PopSci

Patient Perspective — The Problem With Pulse Oximeters



A long-standing but underrecognized flaw of the pulse oximeter in getting accurate oxygen readings from people with dark skin has become a significant concern during the pandemic, as healthcare providers rely heavily on the device in treating COVID-19 patients.

Pulse oximeters clip on to a finger and shine light through it, which gets absorbed by hemoglobin (the protein in red blood cells which carries oxygen). The device measures the amount of hemoglobin in the blood to calculate the amount of oxygenation. However, dark skin *also* absorbs light, **which may cause the pulse oximeter to indicate more oxygen than there is**. Since most pulse oximeters are calibrated for white patients, this has resulted in missed diagnoses and delayed treatment for patients of color with dangerously low oxygen levels.

The U.S. Food and Drug Administration has issued a warning about the problem and is funding and initiating research to address it. Meanwhile, scientists and engineers have been working to improve pulse oximeters, by designing devices that use a different kind of light which is not absorbed by skin pigmentation, or that apply more light if it detects darker skin.

Source: NPR

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Improving Diagnosis — Diagnosing Misdiagnosis



Doctors don't always get things right. But what are the most common conditions that they miss? Researchers pored over data and reports on patient safety errors and recently published their [top 10 list of missed or delayed diagnoses](#) in *JAMA Network Open*. The top three: colorectal cancer, lung cancer, and breast cancer.

As many as 12 million Americans may be misdiagnosed in outpatient settings each year, and 40,000–80,000 die annually from diagnostic error in U.S. hospitals. There are many reasons why these mistakes happen, including miscommunication between the patient and their care provider, patients presenting with atypical symptoms, or inherent uncertainty in diagnosis.

Fortunately, patients can help doctors make the correct diagnosis by being involved in their own care—come prepared with the reason for your visit; ask questions and make sure you understand the diagnosis and treatment; follow up after your appointment; maintain a list of your current medications; and keep track of your test results, referrals, and hospital admissions.

Source: AARP

Medication Safety — Reproductive Health Restrictions Deny Meds to Those in Need



Since the Supreme Court overruled *Roe v. Wade* in June, leaving abortion rights up to states, the anticipated restrictions on reproductive healthcare services may leave many without drugs they rely on to treat conditions like migraine, multiple sclerosis (MS), and epilepsy.

According to a perspective piece in *JAMA Neurology*, standard-of-care treatments which may affect contraception, cause fetal harm, or even induce abortion may become unavailable or prescribed less often. [This shift in what and how care is provided could lead to fewer treatment options and more complications](#), including additional health problems, disabilities, and perhaps death. For example, methotrexate, a drug used to treat autoimmune disorders like MS and myasthenia gravis, already has been banned in some states.

Dr. Riley Bove, a co-author of the article, says, “In many settings, women with MS are treated with less effective therapies, because these medications are perceived to be safer in pregnancy ... The reversal of *Roe v. Wade* may reinforce decisions to stick with the less effective therapies, which may result in irreversible disability for some women with MS.” The authors suggested that the availability of reproductive health is closely linked with providing optimal outcomes for patients with complex neurological conditions.

Source: University of California San Francisco

Mental Health — Fighting Depression With Style



Whom would you rather talk to, your doctor or your barber? The Confess Project was created with the idea that many African Americans are more comfortable talking with Black barbers in their own community than healthcare providers, especially when it comes to mental health.

The program [trains barbers, beauticians, and hairstylists to recognize customers who may need help with mental health illnesses](#) like trauma, depression, and addiction, and direct them to Black providers, resources, and peer groups who can help. So far, the Confess Project has reached 44 cities and counting, bridging a large gap in healthcare for Black patients. Dontay Williams, chief executive officer of Confess Project, says that mental illness is often stigmatized and misunderstood in African American communities, and a lack of cultural understanding and Black providers in healthcare—including mental health workers—contributes to misdiagnoses and insufficient care and support.

It's all about building trust and a much-needed culture of mental health: a safe place where barbers can listen to their customers' troubles, and customers will listen to them when they offer advice. As one barber and program ambassador told the *StarTribune*, "Advice is taken a little bit better from people who have been through it."
Source: StarTribune

Surgery — Are Anesthesiologists Doing Too Much?



If you've had a major surgery, you probably know how important anesthesia is. It allows you to sleep, pain-free, during the operation and allows surgeons to perform delicate procedures and monitor your condition to keep you safe. An anesthesiologist—or a clinician under their direction, like a certified registered nurse anesthetist (CRNA) or anesthesiology resident—is always in the operating room to deliver care. But with growing demand for surgeries, the anesthesiologist may be managing two or more ongoing surgeries at the same time.

[To assess whether the number of overlapping procedures has an impact on patient safety](#), a team of researchers at University of Michigan analyzed data from the Multicenter Perioperative Outcomes Group electronic health record registry. They looked at 570,000 surgical cases involving an anesthesiologist directing a CRNA or anesthesiology resident, at 23 hospitals from 2010 to 2017. Of the cases which resulted in postsurgical complications, they found a 14% higher complication rate when the anesthesiologist was managing 3–4 overlapping surgeries versus an anesthesiologist managing 1–2 overlapping procedures.

Although further research is needed, these early findings underscore what many anesthesiologists have been saying: that directing four overlapping procedures should be done rarely and only when they think it is safe. It is also a reminder to find out how anesthesia care is managed at your hospital before you go into the OR.

Source: M Health Lab

Pediatrics — Finding the Inner Causes of Asthma

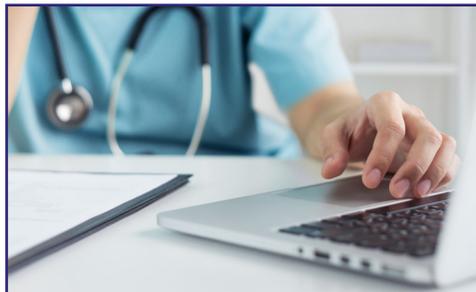


Did you know that children living in inner-city neighborhoods are at greater risk for uncontrolled asthma? Air pollution is a contributing factor, but a study in *Pediatrics* that looked at data on 15,000 children age 2–17 with asthma in Washington, D.C., found that **kids in areas with high violent crime and fewer high school graduates were more likely to need emergency care for asthma attacks.**

There could be several reasons for this correlation, including toxic stress, low health literacy, and health inequities. New York-based Dr. Kevin Fiori also points to other social determinants of health, such as unstable housing or poor housing conditions like mold, which may exacerbate asthma.

One way to improve the health of kids with asthma is better communication between patients and providers. Parents should let their child’s pediatrician know about their living conditions, and providers can be proactive in helping families find solutions and directing them to resources to reduce the factors that worsen asthma.

Source: HealthDay



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