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Question: Depression is a risk factor for dementia. True or False?

Response of Meniscal Tears to Surgery

Two experts updated the data from a trial called ESCAPE in which two sets of patients were given surgery for meniscal tears or sham surgery and physical therapy.¹ The trial started 5 years ago, and it was compared to earlier results. The question was whether patients needed surgery to repair knees with degenerative meniscal tears and osteoarthritis. Studies of this type were first published in 2002, and several since then have shown that arthroscopic surgery offers no benefit over conservative treatment. Unfortunately, surgical practices have not responded to the data. The experts note that arthroscopic surgery is expensive and has been called the 'ultimate placebo.'



That means that healing happens because the patient thinks he has been given proper surgery. The healing is the same when the surgery is no more than a sham. The authors question why the procedure has not been discontinued. In my opinion, the answer is simple: Patients do not know to ask about the effectiveness of this surgery compared to other options, and the surgeons make more money when they can sell arthroscopic surgery to patients.

Obesity Tops List of Modifiable Risk Factors for Dementia

In News from the JAMA Network, a writer updates data on the importance of various modifiable factors to limit dementia.² Midlife obesity is now the top modifiable risk factor. It now tops the other risk factors – physical inactivity, smoking, low education, diabetes. midlife hypertension, depression, and hearing loss. In 2011 the highest risk factors were inactivity, depression, and smoking. I suspect the change may be due to the rise in obesity of Americans in the past decade. My readers may wish to exercise more self-discipline to reduce their risk of dementia later in life. In my opinion, effective treatments for dementia are decades down the road. The Aduhelm debacle is a clear example of that.

Choosing Wisely at 10 Years

I have written about this campaign several times. The intent was for experts in various medical disciplines to identify procedures that are overused and ineffective. After a decade in place, the campaign has generated more than 600 such recommendations.³ The idea that more treatment is

³ <u>https://jamanetwork.com/journals/jama-health-forum/fullarticle/2793643</u>

¹ <u>https://pubmed.ncbi.nlm.nih.gov/35802378/</u>

² <u>https://jamanetwork.com/journals/jama/article-</u> <u>abstract/2793840</u>

better treatment has been shown to be mistaken. The campaign has been lauded and criticized. The authors note that a decade ago only 34 Englishlanguage, peer-reviewed articles were published on overuse; however, last year 674 such articles were published. Response to the Choose Wisely campaign has been mixed. Some healthcare systems have embraced it and others have ignored it. One of the key goals of the campaign was to limit patient harm from unnecessary procedures. Although the campaign was aimed at clinicians, there are clear implications for patients. In my opinion, this points directly to the need for shared decision-making between clinicians and patients. A smart and clinician-educated patient will be able to wisely choose whether to have a procedure or not.

Risk of Closure of Rural Hospitals

In the past 10 years approximately 100 rural hospitals have closed. One question a group of investigators asked is whether independent rural hospitals struggling with debt may be able to survive if they are placed into a larger hospital system.⁴ The percent of independent hospitals declined from 70% to about 50% from 2007 to 2019. The investigators found that integration into a larger healthcare system "was not consistently a protective factor against closure." Financially distressed hospitals tended to benefit from integration into a larger system, but rural hospitals that were financially stable did not. In some cases, hospital closure was a business decision, ignoring the needs of patients in the area. If you or a loved one lives in an area served by an acute care, rural hospital, stay on top of how financially stable it is and whether business interests are seeking to acquire it. Push-back from patients in an area served by a rural hospital could protect against closure.

Hospital Administrative Harms

A physician vents his frustration in a "Medicine and Society" paper published in the

*NEJM.*⁵ A patient needed smoking cessation treatment after hospital discharge. The clinician was shocked to discover that he could not make a referral for post-discharge into such a program because after a decade of availability to patients, the program was discarded by administrators in a budgetary decision. He likens such a change to "administrative malpractice." One may never know if the patient would have stopped smoking because of access to the program, but studies have shown that such programs are effective. The doctor argues that hospital administrators need to be better integrated into the patient care team so that they may weigh the consequences of their decisions on patient care.

I know that some of my readers serve on patient safety boards associated with hospitals. I hope these individuals will draw attention to the harm to patients that may stem from administrative decisions. When the balance between the bottom line and patient-care conflict, the bottom-line wins.

Medicare Value-Based Payments and Hospital Performance

Three experts surveyed the rankings of 2725 US hospitals that participate in Medicare's valuebased programs.⁶ There are three of these as follows: Hospital Readmissions Reduction Program (HRRP), Hospital Value-based Purchasing Program (HVBP), and the Hospital-Acquired Condition Reduction Program (HACRP). They identified hospitals that performed well and those that performed poorly based on 2020 data (reflecting performance from 2015-2018). Across all three programs, only 3.2 % were consistently high performing and 2.7% were consistently low performing.

The low-performing hospitals were more likely to be larger, for-profit, and safety net. Hospitals serving socially vulnerable populations tended to be poor performing. A 'dot map' of the US in which low and high performing hospitals were located showed that Houston has two lowperforming hospitals and no high-performing hospitals. Low -performing hospitals may be

⁴ <u>https://www.healthleadersmedia.com/clinical-care/study-</u> gauges-risk-closure-independent-and-affiliated-rural-hospitals

⁵ <u>https://pubmed.ncbi.nlm.nih.gov/35731659/</u>

⁶ <u>https://www.ncbi.nlm.nih.gov/books/NBK338758/</u>

penalized up to 6% of Medicare revenue, which the authors note is a large hit given the slim profit margin of most hospitals.

Patient-Centered Climate Action

In a rather convoluted way, three experts suggest ways that the US healthcare industry could take substantive action to reduce their carbonfootprint, and thereby enable what they call 'patientcentered' action.⁷ They cite a study estimating that over the past 5 years climate change has cost the US about \$147 billion. Only 38 % of the 50 largest US hospitals have a plan to mitigate their emissions that affect the environment. They describe actions such solar power to operate hospitals in areas where alternative power sources are unreliable. An example in Laramie, Wyoming was given.

There is a racial equity issue involved. Black and Hispanic people on average inhale air that is about 40% more polluted than white Americans. Obviously, most of the pollution comes from sources outside the healthcare industry. The authors venture into the idea that less overuse could reduce the emissions from hospitals. In my opinion, in the scheme of things, healthcare makes a small input into climate changing emissions. Perhaps, the healthcare industry should focus more on the harm unprecedented heat is causing on vulnerable people. They are not patients, but they are likely to become patients if more is not done to mitigate climatechange harm to health. For example, mental health problems increase with increased heat.⁸

Reducing SARS-CoV-2 in Indoor Air

In my years at NASA my main job was to ensure that air quality in spacecraft was safe for human respiration based on the quantity of volatile contaminants. Engineers built systems to remove volatile and microbial contaminants from the air as astronauts exhaled or shed these contaminants. In a viewpoint article in *JAMA*, three CDC experts express their view that we could do much more to improve indoor air to limit the spread of the SARS-CoV-2 virus.⁹ They focus on virus laden particles that remain indefinitely suspended in room air, perhaps long after the human source of the particles has left from the room.

Air is made safer through ventilation, filtration, and disinfection. The authors cite a study from Georgia in which the incidence of COVID-19 was substantially less in elementary schools that simply improved ventilation. The best way to do this is to open windows, although this is not a workable option unless the outside temperature is compatible with reasonable comfort. In spacecraft we used HEPA filters to remove particles, and these are available for room and systems air. Germicidal irradiation is available to specifically attack viral particles. The authors noted that carbon dioxide monitors may be used to assess the effectiveness of ventilation strategies. We used these in spacecraft.

Naturally, there is a balance between the cost of air quality improvements and the impact on the health of those occupying a building. Schools are certainly a good target, but business establishments, industrial settings and low-income housing can also be targets for improvement. The action for adults is to ensure that students have safe air while in school.

Racial Differences in Pulse Oximetry

Pulse oximetry is that clothespin like device medical people like to hook on your index finger. It measures an important parameter – oxygen saturation of your blood. According to an editorial in *JAMA Internal Medicine*, if the measurement is in error, then the patient may not get the treatment they need.¹⁰ A much more invasive procedure, the gold standard, is to do blood gasses on an arterial sample of blood. When the two methods have been compared in Black, Asian, and Hispanic people, the pulse oximetry method tends to over-estimate oxygen saturation, resulting in what the authors call occult hypoxemia. In essence, the patient has low oxygen saturation that should be treated, but the

 ⁷ <u>https://jamanetwork.com/journals/jama/fullarticle/2794469</u>
<u>8 https://www.sciencedaily.com/releases/2022/02/220223111</u>
<u>307.htm</u>

⁹ https://pubmed.ncbi.nlm.nih.gov/35671318/

¹⁰ <u>https://pubmed.ncbi.nlm.nih.gov/35639397/</u>

pulse oximeter has given a falsely high reading suggesting that no treatment is needed.

Improved pulse oximeters have been developed that use a wider range of wavelengths, but widespread use has not happened. The authors ask why this racial bias has not been addressed by the healthcare system. Their answer is racial and ethnic bias that leads to inattention in non-white populations. They characterize current pulse oximeters as flawed devices and wonder why this important flaw remains uncorrected. In my opinion, this would be a good question to ask the FDA department that approves medical devices

Links of interest

KHN on advocates pushing back against forgetting hospital accountability during the pandemic:

https://khn.org/news/article/hospital-safety-recordstransparency-pandemic-pause-cms/

Medicaid and care disparities:

https://www.commonwealthfund.org/blog/2022/reducingdisparities-among-medicaid-enrollees-what-can-states-do

Evidence for masks for COVID: <u>https://www.fast.ai/2022/07/04/updated-masks-evidence/</u>

KNN on medical debt of cancer victims: <u>https://khn.org/news/article/in-america-cancer-patients-</u> <u>endure-debt-on-top-of-disease/</u>

Beer's list for meds that seniors should avoid (much detail, but worth your health): <u>https://thecarepartnerproject.org/wpcontent/uploads/The-Beers-</u> List.pdf?mc_cid=dc282adee6&mc_eid=b42160e1fd

Money Magazine partners with Leapfrog to rate hospitals: <u>https://money.com/best-hospitals/?ref=/best-hospitals-in-america-right-now/</u>

Sweeping article on the behavior of hospitals during the pandemic years (Kevin Kavanagh, MD): <u>https://www.courier-journal.com/story/opinion/2022/07/11/how-risk-patient-harm-hospital-increased-during-pandemic/10012556002/</u>

Trends in adverse events in hospitals 2010-2019: https://jamanetwork.com/journals/jama/articleabstract/2794055 Relevant editorial: https://harlan-

krumholz.medium.com/new-federal-study-evaluates-thesafety-of-us-hospitals-and-the-answer-is-3c4a23af232

American men much more likely to dislike healthcare than men in other developed countries:

https://www.commonwealthfund.org/publications/issuebriefs/2022/jul/are-financial-barriers-affecting-health-carehabits-american-men

Medicare Advantage Plans gaming system for profits: https://www.brookings.edu/blog/usc-brookings-schaeffer-onhealth-policy/2022/07/13/profits-medical-loss-ratios-and-theownership-structure-of-medicare-advantage-plans/

Drug wholesalers affect availability and price of drugs: https://www.commonwealthfund.org/publications/issuebriefs/2022/jul/impact-pharmaceutical-wholesalers-drugspending

Individual scientists who publish negative drug findings are intimidated by big Pharma & academia:

https://www.jospi.org/article/36564-davids-versus-goliathspharma-and-academia-threats-to-individual-scientists-andclinicians

Early deaths in the US compared to other developed countries:

https://www.theatlantic.com/health/archive/2022/07/us-lifespan-mortality-

rates/670591/?fbclid=IwAR1AT_0MNq3cK00bCmzV8pgXqrYt OaPGW50knjNLNixosUEJy7_G2XwAHzY

Washington State upholds doctor as a 'learned intermediary' between drug makers and patients:

https://www.policymed.com/2022/06/washington-statesupreme-court-rules-on-industrys-need-to-warnpatients.html?utm_source=feedblitz&utm_medium=FeedBlitz Rss&utm_campaign=policymed

FTC launches inquiry into pharmaceutical benefit intermediaries: <u>https://www.policymed.com/2022/06/ftc-</u> <u>launches-inquiry-into-pharmacy-benefit-manager-</u> <u>industry.html?utm_source=feedblitz&utm_medium=FeedBlitz</u> <u>Rss&utm_campaign=policymed</u>



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