

Question: How many times higher is the gun death rate in the US compared to Germany?

- A) The same B) 5X C) 10X D) 15X E) 20X

Hospital at Home

The concept of being able to provide hospital-level care at a person’s house has been around for a few years but testing of the concept has been limited to small demonstration projects. A large team of investigators, with their research under the watchful eyes of the Center for Medicare and Medicaid Services, engaged 277 hospitals across 37 states to assess how patients fared when hospitalized at home.¹ There are stringent regulatory requirements for the home-hospital, primarily dealing with the interplay of the home-hospital and the brick-and-mortar hospital staff. There must be a daily visit by a clinician and twice daily visits from registered nurses.

In the study, 11,200 patients participated from 2021 to 2023. The median stay in the home-hospital was 5 days. During the study, 7 % of the patients had to be returned to the original hospital. Thirty-eight unexpected deaths occurred, most due to worsening COVID infection. Only 3 patients died while in the home-hospital. The three most common conditions of patients approved for home-hospital were respiratory infection with inflammation, heart failure and shock, and septicemia. The authors opine that more study is needed to develop best practices

for those able to be ‘discharged’ to a home-hospital. If such an offer is made to you or someone you are caring for, you must ask many questions. In my opinion, there is much to be gained by being at home during hospital level treatment, but there are potential risks that would not be present in a brick-and-mortar hospital.



Pharmacy Benefit Managers

Occasionally, I read an article that has importance for general understanding, but this time I found understanding Pharmacy Benefit Managers (PBMs) to be a walk in the jungle. Understanding how these operate and how they can game the system for more profits is quite complicated. I’ll try to capture some of the specific concerns described by the writers.² PBMs are at the interface between pharmacies, healthcare plan sponsors, drug makers, and drug wholesalers. Profits accrue when PBMs can

obtain drugs at a lower cost and then sell them at higher price to entities that are more-or-less retailers of the drug. PBMs also play a growing role in mail-order drug purchases.

There are a variety of ways that PBMs can manipulate the ‘system’ to maximize profits. They may negotiate for a portion of rebates on drug sales, which leads to more rebating profits. There is benefit in large PBMs’ ability to control rebates.

¹ <https://jamanetwork.com/journals/jama-health-forum/fullarticle/2811346>

² <https://pubmed.ncbi.nlm.nih.gov/37921745/>

PBMs can use advertising to favor pharmacies that they own, thereby reducing potential for competition. Especially for high cost (branded) drugs, the PBMs play a role in manipulating discounts to end sellers. The PBMs lack transparency when it comes to price manipulation. The authors conclude that ‘If we want regulation to serve the public interest, improving PBM market competition is the best way to do so.’

If this area of our broken healthcare industry interests you, perhaps because you have wondered why drug prices in the US are so much higher than in other countries, I would suggest you read this open access article. A federal comparison of our drug prices to other countries was published in 2022.³ The difference is obscene.

Vegan vs Omnivorous Diet in Twins

This study caught my eye because studies in twins can be extremely well controlled.⁴ On the other hand, I like my hamburgers, brisket, and prime rib, so I was wary of the studies’ conclusions. A large team of investigators identified 22 twin pairs and randomized them by selecting one twin in each pair to consume a vegan diet or a healthy omnivorous diet. The unselected twin consumed the other diet. The study lasted 8 weeks and diets were strictly controlled in the first 4 weeks and relaxed a little in the final four weeks.

Vegan diet participants had the following results compared to those eating a healthy omnivorous diet: LDL cholesterol down 14 mg/dL, fasting insulin down 3 μ IU/dL, and body weight down 2 kg. The mean age of the twins was 40 years and 77% were females. The authors conclude that ‘At a population level, wide adoption of a culturally appropriate dietary pattern that is higher in plant foods and lower in animal foods can promote health and environmental benefits.’ So, maybe I’ll eat smaller chunks of meat than usual.

³ <https://aspe.hhs.gov/reports/international-prescription-drug-price-comparisons>

⁴ <https://pubmed.ncbi.nlm.nih.gov/38032644/>

Gun Fatalities in the US 1990-2021

A group of investigators, noting that gun fatalities had reached a 28-year high in the US, searched the CDC database (n = 1,110,400) of fatalities for associations that could explain specific areas of most increase.⁵ They looked at deaths by sex, age, race, ethnicity, and urbanicity. They plotted this data in ‘heat diagrams’ that provide a visual representation of where the greatest portion of fatalities occur. My observations from their diagrams on homicide were as follows:

- The homicide curves are ‘U’ shaped, with highs in the 1990s and again around 2020, with a low in the early 2000s.
- Older individuals (55+) are murdered far less often than younger people (15-39).
- Females are far less often victims of homicide.
- Black (non-Hispanic) men and women are more likely to be victims than White (non-Hispanic) and White (Hispanic) groups.
- Murders are more common in metropolitan areas than non-metropolitan areas.

My observations of the suicide deaths were as follows:

- Older males are more likely to commit suicide than younger males.
- Females are much less likely to commit suicide than males.
- White (non-Hispanic) males are much more likely to commit suicide than other groups.
- Overall, non-metropolitan people commit suicide more often than their metropolitan counterparts.
- The suicide rates do not show the ‘U’ shaped pattern seen in homicide rates.

The authors suggest that changes in deaths over the study period and the concentration in specific groups may give us targets for reducing deaths. Maybe. In any case, gun deaths in the US are astronomical compared to other countries.⁶

⁵ <https://pubmed.ncbi.nlm.nih.gov/36445703/>

⁶ [\(30\) The U.S. Is in the Midst of a Public Health Crisis: Gun Violence | LinkedIn](#)

Dangers in the Emergency Department (ED)

Hospitals are naturally dangerous places to spend time as a patient. The last place you want to be is the ED, which is arguably the most dangerous place in any hospital. A couple of physicians commented on a study in France and suggested three ways the ED of hospitals could be made safer.⁷ The study looked at the outcomes in 97 hospitals during a ‘triple’ surge of visits to ED in 2020. The outcomes of 707 elderly patients who were held in the ED for an average of 23 hours were compared with the outcomes of 891 elderly patients who were discharged to a ward before midnight. Their average length of stay in the ED was only 7 ½ hours. The mortality was 16% in the first group and 11% in the latter group.

Although this study was small and was conducted during a ‘triple’ surge, there are three things hospitals could do to reduce risk to patients. The first was to create a holding area that is quiet and away from the chaos of the core ER. This way patients could rest while waiting to be taken to a ward. The second was to improve the monitoring of patients held in the ED while awaiting delivery to a ward. Thirdly, hospital ‘command centers’ need to be created to optimize patient flow so that wards are staffed sufficiently to welcome patients from the ED in a timely way. In my opinion, with hospitals being captured by capitalists’ profit goals, these changes are unlikely to happen anytime soon.

From a patient’s point of view, one should have an assertive and cognizant advocate present to insist on adequate monitoring during the ED stay and rapid discharge to the appropriate ward.

Got an Itch?

I am certain that everyone reading this has had itching at one time or another. There is a plethora of causes of itching. Three experts wrote an ‘insights’ article about one common type, neuropathic itching.⁸ This is usually caused by

damage to nerves involved in transmission of itch signals. The causes of this damage include mechanical injury, inflammation, and metabolic disturbance. Sometimes the itch comes with stinging or burning sensations. Less common is neuropathic itch due to the central nervous system problems. My quick, online search suggests that this may be difficult to diagnose given the many other causes of itch.

The authors suggest a 3-stage approach to treatment. The first line of treatment involves topical agents, including menthol or anesthetics. These can be used in shampoos if the itch is on the scalp. The second line of treatment, which is for severe neuropathic itch may employ medications that have potential side effects. These are primarily voltage-gate channel inhibitors. The third line of treatment, which is for ‘intractable’ itch includes more powerful drugs. These include drugs that modify opioid receptors.

The message here for people with lots of need to scratch is that you might consider asking your dermatologist for a workup on potential causes. Ask about neuropathic itch as a possible cause. This could be due to side effects of drug or illness, such as diabetic itch.

Large Language Models (LLMs) Take a Test

Three experts wished to determine how well two LLMs performed on a simulated neurology board examination when compared to the average score of humans taking the examination, which consisted of almost 2,000 questions.⁹ Their core finding was that LLM1, an earlier version of the ChatGPT, scored 68%, and the latter ChatGPT (LLM2) scored 85%. The human average was 74%. Training the LLMs involves 45 terabytes of information. The authors note that compared to other specialty examinations, the neurology exam consists of larger narratives, and from these the ‘reader’ must discover subtle clues that require a nuanced understanding of neuroanatomy, neuropathology, and neurophysiology. The exam taker must form this into a diagnosis and subsequent

⁷ <https://pubmed.ncbi.nlm.nih.gov/37930671/>

⁸ <https://jamanetwork.com/journals/jamadermatology/article-abstract/2809352>

⁹ <https://pubmed.ncbi.nlm.nih.gov/38060223/>

treatment options. Apparently, the LLMs tend to state inaccurate answers with too much confidence.

You may choose to be worried by such findings or encouraged by them. The promise of LLMs is great, but do humans have the collective wisdom to use and control them in ways that serve humankind and not special interests and the privileged? Is this just another realm where crooks will use their talents to swindle unprotected persons? Each of these questions apply to how LLM may be used in healthcare.

Interesting Links

Florida free kill of patients (8 Minute video):

<https://www.wtsp.com/video/news/investigations/10-investigates/whats-brewing/florida-free-kill-law-medical-malpractice-law/67-09476d5a-f38a-4116-8994-21916c07fa3c>

Profemur hip replacements breaking long before they should:

<https://kffhealthnews.org/news/article/profemur-artificial-hips-malfunction/>

Becker's Hospital Review lists collection of lawsuits it has found since November 20th: [10 recent hospital lawsuits, settlements \(beckershospitalreview.com\)](https://www.beckershospitalreview.com/lawsuits/settlements)

Why do we have drug shortages (NYT):

https://www.nytimes.com/2023/12/06/opinion/drug-shortages-pharmaceuticals.html?campaign_id=2&emc=edit_th_20231207&instance_id=109516&nl=todaysheadlines®i_id=81032066&segment_id=151932&user_id=d19d16795f576e3b105e74b644c35e77

Overuse of vascular procedures is harming patients:

<https://www.propublica.org/article/researchers-warned-of-possible-vascular-procedure-abuse-doctors-pushed-back>

Arizona medical board fails to protect patients from predator doctor: <https://www.azcentral.com/story/news/local/arizona-investigations/2023/12/13/michael-ridge-doctor-misconduct-allegations/71783514007/>

Mapping the grant money flow (\$6 billion) from big Pharma to advocacy groups: https://www.citizen.org/article/mapping-the-pharma-grant-universe/?utm_campaign=wp_the_health_202&utm_medium=email&utm_source=newsletter&wpsrc=nl_health202

High Malpracticing doctors go to work for insurance companies (ProPublica):

<https://www.propublica.org/article/malpractice-settlements-doctors-working-for-insurance-companies>

California hospital's \$30 million, secret settlement now made public:

<https://www.vcstar.com/story/news/health/2023/12/15/los-robles-regional-medical-center-patient-death-settlement/71923601007/>

Gun violence deaths in the US are astonishingly higher than in other developed countries: [30\) The U.S. Is in the Midst of a Public Health Crisis: Gun Violence | LinkedIn](https://www.linkedin.com/pulse/the-us-is-in-the-midst-of-a-public-health-crisis-gun-violence-linked-in)

CDC information by state and race on infant mortality:

<https://www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.htm>

Deep flaws in medical device regulation: [KFF on devices](https://www.kff.org/health-equity/policy-report/2023/12/14/deep-flaws-in-medical-device-regulation/)

Hospital Corporation of America puts profits over patients:

<https://www.nbcnews.com/health/health-care/hca-hospitals-telemetry-vital-signs-hearts-rcna129517>

My colleague, Bob Oshel, just got an important letter in the Washington Post on opening up the National Practitioner Data Bank to the public:

<https://www.washingtonpost.com/opinions/2023/12/22/public-trust-open-database/>

Rise and fall of the Tik-Tok Doc; podcast:

https://omny.fm/shows/tik-tok-doc/update-new-records-surface?in_playlist=podcast#sharing

Adverse events higher in private equity hospitals:

<https://jamanetwork.com/journals/jama/article-abstract/2813379>



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Answer to the Question: D) 15X, ref 6

Find past newsletters:

<http://patientsafetyamerica.com/e-newsletter/>

