An “unjust verdict”—Medical safety expert Bruce Lambert speaks against conviction of former Tennessee nurse RaDonda Vaught

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“I am saddened and disappointed to report that they convicted RaDonda Vaught of a lesser charge of criminally negligent homicide. Exactly what the sentence will be is unclear yet. As you can tell, I think this is an unjust verdict, and I think it will significantly worsen the existing nursing shortage if every nurse now believes that they could potentially go to jail for medication errors.” —Professor Bruce Lambert, medical safety expert at Northwestern University, March 25, 2022.

Professor Bruce Lambert is the director of the Center for Communication and Health at Northwestern University. He has written extensively on issues pertaining to health communications, medication errors and safety, as well as on health information technology, physician prescribing behaviors and medical liability reform.

He has had numerous publications in prestigious medical journals regarding his work on predicting and preventing drug name confusion errors. He has received the Cheers Award from the Institute for Safe Medication Practices (ISMP) and a Center Director’s Special Citation award from the US Food and Drug Administration.

He recently published an important YouTube video explaining why former Vanderbilt nurse RaDonda Vaught’s conviction was wrong and unjustified. It garnered 16,000 views, mainly from nurses and health care workers who have been radicalized by her prosecution and conviction.

Professor Lambert sat with the *World Socialist Web Site* to discuss the case and its ramification for health care in the US and nurses, in particular.

Before getting to the full interview posted below, let us review the main facts of the case. Charlene Murphey, 74, had been admitted to the neurology intensive care unit (NCU) at Vanderbilt University Medical Center (VUMC) on December 24, 2017 with complaints of severe headaches and loss of vision in her left eye. A magnetic resonance imaging (MRI) of her head revealed a bleed in her brain, possibly caused by a mass behind it. Murphey began to improve quickly, but prior to her discharge a full-body positron emission tomography (PET) scan was ordered to evaluate for cancer.

Due to the confining nature of the scanner and Murphey’s anxiety, she was prescribed Versed by her attending physician, a sedative also known by its generic name Midazolam. RaDonda Vaught, the help-all nurse on the day shift, was tasked with picking up the medication from the Automatic Dispensing Cabinet (ADC) and administering it to the patient who was waiting in the radiology suite.

Vaught, however, selected the wrong medication and gave the patient a paralytic agent called Vecuronium Bromide. Murphey subsequently went into cardiac arrest and suffered irreversible brain damage from lack of oxygen. Her family removed her from life support several hours later, and she died on December 27, 2017. [For a full account of the events, follow the link to the ISMP report published on January 17, 2019 and the chronicle by Professor Lambert in his video presentation. Additional links are provided to the WSWS coverage of the case: Link 1, Link 2, and Link 3.]

Subsequently, Vaught was terminated from her position. VUMC quickly settled with the family for an undisclosed amount with the stipulation that they were not to speak publicly on the matter. The hospital also misled the state’s medical examiner about the details of the death. Approximately 10 months later, an anonymous tip to the Centers for Medicare & Medicaid Services (CMS) led to an investigation, which found that VUMC policies and practices placed patients “in IMMEDIATE JEOPARDY and risk of serious injuries and/or death.” After the scathing public exposure, the Nashville District Attorney, who is also a professor at Vanderbilt, brought charges of reckless criminal homicide against Vaught. The Tennessee nursing board also revoked her license.

Due to the pandemic, the trial proceedings were delayed until recently. But on Friday, March 25, 2022, Vaught was found guilty on two counts of the lesser charge of criminally negligent homicide, rather than reckless homicide and impaired adult abuse. She faces sentencing on May 13, 2022, with the possibility of several years in prison. A petition for clemency launched by Change.Org has received more than 205,000 signatures thus far. However, Tennessee Governor Bill Lee has confirmed that he is not considering clemency for Vaught.

Professor Lambert, in his defense of Vaught, offered the following points for consideration against her prosecution and the revocation of her nursing license by the Tennessee nursing board. These were outlined in an article published in the journal *Institute for Safe Medication Practices* in August 2021.

1. The whole proceeding suffers from what is called “Outcome Bias,” that is, treating situations much differently and much more harshly when you know there was a bad outcome. The behaviors exhibited by Vaught—not carefully reading a label, not observing a patient closely after giving the medication, dispensing the wrong medication—happen commonly. Fortunately, most of the time patients are not significantly harmed. Lambert said, “When making judgments about people’s recklessness, we should not be overly influenced by the outcome. We should focus instead on people’s behavior and what was present at the time.”

2. The prosecutors and nursing board are not distinguishing between human error, at-risk behavior and reckless behavior. Lambert said, “We should focus on the system factors that put people in a position to make mistakes and try to make the system as safe as it can be. And make it resilient as it can be. … Vaught’s behavior was some combination of human error and at-risk behavior, but there’s very little evidence, in fact, I don’t think there’s any evidence, that she behaved recklessly…” [*See interview below for details on these terms*.]

3. There was a lack of a thorough investigation of what happens in normal circumstances. In other words, were Vaught's actions distinctly different from others at VUMC? One of the prosecution's primary arguments in the case against her was her use of the "override" function at the ADC to get the Vecuronium Bromide. The other main issue raised was that she did not monitor the patient after giving the medication. Had the prosecution investigated these issues, they would have learned that at VUMC overrides, even for Versed, are frequent, and patients are often left alone after being sedated. Additionally, it was only after the incident and the investigation by CMS that safety measures were put in place by VUMC to prevent these errors. These factors cannot be used after the fact to charge her with reckless behavior.

4. Prosecutors failed to address the numerous system failures that contributed to the situation where these tragic errors occurred. In fact, the prosecution made clear it was not going to look at these systemic issues and only consider Vaught's conduct. Lambert said, "This reflects a fundamental misunderstanding of how errors turn into harm in health care. … [t]he one thing we've learned from human factors and the study of human error and harm in complex systems is that it's almost always a combination of system factors that allows an error or an at-risk behavior to turn into significant harm. What this means is you could put any other nurse in that same situation, and they would be prone to make the same kind of error."

5. The prosecutors applied unreasonable expectations. What this means is that they expected Vaught to have behaved perfectly, despite the system failures that were present, in performing her duties. If they had observed the real work environments at VUMC, they would have understood that Vaught's behavior was not at all unusual. The "standard of perfection" they applied to her performance meant they "expected" Vaught to have moved Murphey to another patient care area because there were no bar code scanners in the radiology department. She should have also brought oxygen to radiology. She should have known that the ADC could only search for drugs by their generic name. These were not realistic expectations in a busy hospital demanding timely care that did not have any of these safety measures in place.

6. The Tennessee nursing board and prosecutors held her accountable to a standard which is not really what is called "the five rights of medication use." These are intended as goals to help prevent medication errors—right patient, right drug, right time, right dose and the right route. "The five rights really describe outcomes," Lambert explained. "They don't describe the procedure by which you achieve those outcomes. If health care workers are held dogmatically responsible for these 'five rights,' then the variety of system and procedural factors that influence getting the right drug to the right patient are not considered."

7. Prosecutors took her forthright admission of the events as an admission of guilt. Never did the prosecution consider the deep feelings of "shame, guilt and remorse" that weigh on the minds of health care providers when mistakes lead to harming their patients.

8. "Workarounds are exceedingly common." Lambert cited a 2018 study where researchers observed about 6,000 medication administrations in a hospital. In 60 percent of those situations a workaround was used, and the most common one was not scanning with a barcode scanner. Not once did the prosecution discuss how these workarounds are used to allow health care workers to efficiently care for and manage their patients. Given the massive staff shortages and patient volume that health care workers must face every day, workarounds become imperative to ensure health systems can function at all.

9. The ISMP fears that if such conduct is criminalized and health care workers fear they could go to jail if they make mistakes that harm their patients, nurses will leave the profession and recruitment into nursing will fall. The pandemic and the way nurses have been treated by their health systems have already created a marked exodus by these professionals. "If we criminalize errors that harm patients," noted Lambert, "it will be too frightening to become a nurse, and the nursing shortage will become much worse ... and without nurses, there is no health care."

10. Convicting and jailing Vaught will not have the effect to make health care safer. "This focus on individual fault, on shame, blame, and train, on punishment, instead of focusing on a just culture, system redesign, and making the safe thing the easiest thing to do, this kind of distorted focus is what makes health care dangerous."

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Interview with Professor Bruce Lambert

Benjamin Mateus (BM): Professor Lambert, thank you again for speaking on the issues surrounding former nurse RaDonda Vaught's recent conviction in Tennessee for the death of Charlene Murphey back in 2017. Vaught was convicted of criminally negligent homicide. You recently spoke on *ABC News* as an expert in the field of medical errors and safety issues.

You said during the interview, "Best estimates are 7,000 to 10,000 fatal medication errors a year. Are we going to lock them up? Who is going to replace them? If you think RaDonda Vaught is criminally negligent, you just don't know how health care works."

Responses by health care workers and nurses to the trial and conviction have been profound. Could you first expand on your statement? And then could you, from your perspective as a medical safety expert, comment on the Vaught trial and the conviction?

Bruce Lambert (BL): Thank you for having me. Just to start, that's a lot to comment on. … I just don't think that it's criminal. And if it is criminal and we're going to apply that standard uniformly and non-capriciously, then I think there are consequences for the health care system that none of us is prepared for, given the scale and frequency of the kinds of errors that led to this patient's death.

To begin with, I'm not an attorney. I'm a medication safety researcher. But that experience teaches me that the kind of behaviors that RaDonda Vaught engaged in and the kind of mistakes that she made and the kind of consequences this patient experienced are not rare. And I also don't think that her behavior rises to the level of criminal negligence, and there's clearly no intention. She did, however, engage in a variety of what medication safety experts would call *at-risk behaviors*.

[*According to the Institute for Safe Medication Practices (ISMP), human errors are inevitable, unpredictable, and unintentional failures in the way we perceive, think or behave. At-risk behaviors are different in that they are behavioral choices made when "individuals have lost the perception of risk associated with the choice or mistakenly believe the risk to be insignificant or justified." They end up taking shortcuts mainly because they have lost the ability to see the risk involved with the process.*

It is common in health care to find a workaround that health care professionals employ in the day-to-day routine to "get around system glitches, delays, and equipment failures" and other aspects that make their work difficult to accomplish. Research has shown that such "workarounds" are exceedingly common in all areas of health care in every hospital in the world.

The ISMP wrote, "Over time, the risk associated with the behaviors fades, and the entire culture becomes tolerant of these risks. Individuals are not choosing to put patients in harm's way; instead, they feel they are acting safely."

On the other hand, reckless behavior is the "conscious disregard of a substantial and unjustifiable risk." Those that engage in reckless behavior are aware that at the time they are consciously disregarding what they know to be a substantial and unjustifiable risk. The burden of proof requires determining that at the time the person reasonably foresaw that their actions or inaction would create a substantial and unjustifiable risk. In particular, this burden of proof was not established by the prosecution.]

These behaviors are not ideal and, obviously, can put patients at risk.

And in this case, these are behaviors that resulted in the tragic death of a patient. No one is disputing that RaDonda Vaught's behavior in the proximate sense is what caused this patient's death.

She withdrew the wrong medication from the automated dispensing cabinet. She didn't inspect the front of the vial [where the name of the drug is printed]. She inspected the back of the vile for reconstitution instructions. She then administered the medication but didn't stick around to monitor the patient. And that is the sort of narrow, superficial view.

And RaDonda Vaught herself from the very day that this happened admitted her mistakes … [e]ven while the patient was being resuscitated RaDonda Vaught was talking to the team of physicians and nurses performing CPR on Murphey explaining what had happened. Never for a moment did she deny that she had made a wrong drug error. And that's what caused this patient's death. I think that should be clear.

So, the question then becomes "Is it criminal?" And then there's a broader question of justice.

If we grant the benefit of doubt to the prosecutors, which I'm not sure we should. But if we did, and we say that what they want is to keep their community safe and what the jurors who convicted her wanted was to punish her to send a message to keep the community safe, I don't think there's any chance that it will have that effect.

4 billion prescriptions

BL: What we know about medication safety is that medication errors are probably the most common type of medical error. And that's because medication therapy is the most common kind of medical therapy we offer to patients. There are about 4 billion prescriptions dispensed in the outpatient setting every year and another billion or so doses inside hospitals.

So, we're talking about just an enormously common kind of therapy where even extremely small error rates result in large numbers of errors. Let's say that 99.9 percent of the time we get the "right" medicine to the "right" patient. That means 0.1 percent of the time we make a mistake. That's 1 out of 1,000.

You multiply that by 4 billion prescriptions in the outpatient setting and you get 4 million errors. And in the inpatient hospital settings that's a million wrong drug errors. Nobody can count these errors; nobody is counting these errors, specifically. They're too difficult to detect. But from studies, we know that they are extremely common, something like 1 in 1,000. It is a very reasonable estimate of how often we order tests or medications for the wrong patient and about how often people get the wrong drug.

This kind of error that Vaught committed is not rare. The behaviors like overriding the automated dispensing cabinet, that's not a rare behavior. I found a study from 2021 of a regional health system in Florida that tried to study how often there were overrides in their automated dispensing system. It was 6 to 7 percent.

And we know from the records in the RaDonda Vaught case that this patient [the deceased Charlene Murphey] had received at least 20 doses of medicine during her hospital stay that were the result of overrides. Overrides are not rare in general, and they were not rare at Vanderbilt at the time.

Now, the other grave sort of error was the failure to monitor, because Vaught was also convicted of this other charge of abandonment of an elderly person. The specific charge stemmed from her not monitoring the patient after administering what she thought was Versed.

So, then the question is … I don't think this was carefully investigated, but CMS found that Vanderbilt didn't have an adequate moderate sedation policy specifically with respect to Midazolam [generic name of Versed] …

BM: If I understand correctly from various news reports that Vaught and the radiology technician had discussed the question of monitoring. The technician told Vaught there was no such policy and so she didn't need to. I think she also had to go to the emergency department to help with a swallow study.

BL: I know from other experience with moderate sedation errors, that moderate sedation errors are, unfortunately, not rare. If you were to do either a direct observation or get honest survey results from nurses administering Versed, you would find that the vast majority of the time they are not doing careful monitoring. There is no capnography monitoring that measures carbon dioxide (CO_2) being produced by the patient. There's no pulse oximetry. Many patients are given midazolam to relax them in a variety of circumstances, and they're not carefully monitored. While these behaviors are *at-risk* and Vanderbilt should have been discouraging them, monitoring them, coaching people to stop them, they are not rare.

And even today in Vanderbilt or any other hospital in America, I guarantee you there are automated dispensing cabinet overrides. There are patients being given Midazolam without careful monitoring. And this patient had a terrible outcome, but a vast majority of the time, these *at-risk* behaviors don't produce any harm at all, or they produce minimal harm because of all the other safeguards.

We're basically punishing with criminal prosecution and potential loss of her freedom, these behaviors, which are typical, but in this case, because of mostly chance occurrences, resulted in a terrible outcome.

BM: I recently read medical errors are the leading cause of accidental deaths nationally. A report that appeared in *STAT NEWS*noted that such errors killed as many people each month in the US as COVID-19 did before the vaccines. This would make medical error deaths the third leading cause of death after cancer and heart disease. Can you comment?

BL: I think you're quoting a paper from Martin Makary and Michael Daniel. They said that there were 250,000 deaths per year … There's another great paper by Kaveh G Shojania, the former editor of the British medical journal of quality and safety, which I highly recommend you look at because it challenges the 250,000 deaths per year figure. [*The report is linked for the reader's interest. Important issues are raised in Makary's methodology and the critical need for reliable and validated metrics to capture medical errors and address them.*]

So, I don't accept that at face value the idea that 250,000 people are dying per year from medical errors. But let's say it's 100,000, which is the number from the Institute of Medicine's report from 1999. That's still way too high. We would never accept a 100,000 people dying from plane crashes a year, and only about 40,000 people die from car crashes a year.

So, why? That's the question that if I knew the answer to, I'd be stopping it.

The sort of superficial answer is that there is overwhelming complexity, fragmentation and dynamism [in health care]. There also many dimensions to this complexity. There are so many drugs. There are so many devices. Patients have so many diverse problems. And patients in the hospital are sicker than they've ever been with multiple complex disease states.

They are receiving powerful drugs of all sorts of different types. It's not unusual for a chronically ill patient with multiple chronic illnesses to be on 8, 10, 12 or even 20 medications. There's complexity in the number of medications, the types, the dosage forms, the routes of administration.

And then when patients get sick, their kidneys and livers may not work very well, making medical management with pharmaceuticals that much more challenging. And then every medication you add is potentially interacting with 19 or 20 other medications.

And here we're just talking about medication errors. I'm not even

talking about errors in diagnosing or procedural errors like where we operate on the wrong side of the body or errors involving infections or falls and things like that.

So, I think that the most obvious answer is that it is just an inherently high-risk industry where the errors are consequential because people are frail, because the substances we use are powerful, because the interventions are risky, even when they go well, even when there's no mistakes, these interventions are dangerous a lot of the time.

For instance, we give people chemotherapy drugs. And even at the correct dose, these drugs make people very sick. We give people anti-coagulants, which even at the correct dose are extremely dangerous and have lots of risks. Take insulin or opioids, these drugs are intrinsically risky to use, and they have a very narrow margin of safety. Add to it the complexity and fragmentation of the care delivery. Then you have to consider the work environment, which does not prize safety as the highest possible goal, even though organizations may say that. In practice at-risk behaviors are tolerated to get the work done.

All of these things, the inadequate prioritization of safety, lower culture of safety, of prioritization of profits over safety at times, and in some organizations, then complexity and fragmentation lead to the situation where despite almost every individual being conscientious, well-motivated and dedicated, it's inevitable that these mistakes happen. And we haven't been able to systematically reduce the risk in health care like we have in aviation.

It's getting better in some ways, by some measures like with the introduction of computers to order medications that decreases the probability of getting an overdose error. Computers can check for drug contraindications better. We can reduce drug-drug interactions and allergies better. But all that's imperfect.

The throughput of patients and doses is so high that even very low rates of errors produce high numbers of events. I think that's basically what's going on.

BM: You mentioned 4 billion prescriptions per year, is that correct?

BL: In the outpatient setting like retail pharmacies, like CVS, Walgreens and Walmart.

BM: Do you also monitor outpatient medication errors?

BL: My work has been mostly focused on a certain kind of wrong drug error, that is, where drug names look and sound alike. And the best estimates there, the one that I normally quote, is about 1 per 1,000 prescriptions are the wrong drug. And this seems to hold true, both in the inpatient and the outpatient settings. We don't have great very recent studies in the outpatient setting for that.

There's a great observational study of 50 retail pharmacies from 2003 that showed there was 1 drug error per 1,000 prescriptions. And I've looked at other studies where they all tend to center on both in inpatient and outpatient settings, about 1 wrong drug per 1,000.

My colleague Jason Edelman at Columbia studies "wrong patient" errors, which is not when you're ordering the wrong medication, but a medication, or test, or anything ordered for the wrong person. And the "wrong patient" rate is also about 1 per 1,000. Now, even if we can improve this by 90 percent and errors occur at a rate of 1 per 10,000, you still have 400,000 wrong drug errors a year rather than 4 million. In absolute terms, these will still happen frequently.

BM: Returning to RaDonda Vaught, in a hypothetical or ideal situation, what should have happened at Vanderbilt to avoid this tragic death? How should have VUMC handled the situation with Vaught after the deadly event? And finally, are errors by physicians or nurses more common, and are they handled differently by health systems?

BL: I'll take the last question first. I don't have good data on hand to say who makes more errors, but physicians and nurses make different kinds of errors, because they have different roles in the health care system.

Physicians most of the time rarely administer drugs anymore. Nurses do almost all the administration of drugs. So, almost all drug administration errors are nursing errors. Physicians make the overwhelming majority of diagnoses with the exception of nurse practitioners and PAs in some settings; physicians are doing almost all the diagnosing and we know that the diagnosis error rate is about 1 out of every 20 outpatient diagnoses. It's much higher than the 1 per 1,000 wrong drug error rates.

We can say diagnosis is more complex, and that's why the error rate is higher. Physicians make tons of diagnosis errors. And of course, physicians, because they're almost always doing the procedures, they also make the vast majority of the procedural errors. There are no nurses making wrong-site surgery errors because nurses don't get to do surgery, or they don't lead the surgery at least.

As to these errors being handled differently ... there's an underlying power dynamic in medicine. It is very hierarchical, and physicians are at the top of the hierarchy. And then maybe, physicians have different levels of trainings. They have attendings and then residents and then medical students. And then there are nurses, pharmacists, and you keep going down the totem pole.

But I have not seen a ton of evidence that health care systems, for example, react very differently to a physician error than to a nursing error. I have seen examples and heard of examples where let's say you have a transplant surgeon or a neurosurgeon who brings in tons of money to the hospital. They can sometimes get away with things, including the way they treat patients and maybe even mistakes that a primary care doctor who doesn't bring in nearly as much money for the system might not get away with. But this is mostly sort of speculation. I don't think there's great data about this and that isn't generally what I've observed.

What I've observed most of the time is health care systems are motivated to avoid malpractice claims. So, the classic approach to an error in a health care system is to deny and defend, which is you deny that you made a mistake, and you hire a defense attorney to defend yourself against the malpractice claim.

The risks in medical treatment

BL: I've been associated with an advocacy about doing things differently, which is to tell the truth to patients and families after there's been a medical error or unexpected harm. And a lot of unexpected harm—I think one thing for your readers to understand—a lot of unexpected harm in health care is not the result of errors. We take old, sick, frail patients, and we do risky things to them. We give them risky medications, ask them to undergo risky procedures. And even when things are done perfectly, the right dose, the right drug, the correct procedure done skillfully without error, sometimes patients still have bad outcomes.

Say we have a patient who has cancer, but they also have heart disease. And we must operate on them to take the cancer out, but their heart is very weak and they're a bad surgical risk. And sometimes they die in surgery, or we take a patient who has cancer and needs chemotherapy, but their kidneys are very bad, and we give them medicine that's toxic to their kidneys to try to cure their cancer.

And sometimes we end up damaging their kidneys. All sorts of harm occurs; sometimes it's the result of inappropriate care, and sometimes it is not.

So, how should RaDonda Vaught been treated? The hospital, if it had adopted this thing called "just culture," which is what we advocate for to respond to these kinds of errors, should have been taking seriously these at-risk behaviors.

The hospital should have been doing surveillance so they can understand what kind of at-risk behaviors were happening, and that would include

things like monitoring after moderate sedation, allowing overrides in automated dispensing cabinets, and even in the way they handle paralyzing drugs.

There's an organization called the Institute for Safe Medication Practices (ISMP), and in 2016 they wrote an article about safe medication practices for paralytic drugs. They laid out all these safe practice guidelines, one of which was *don't put these paralyzing drugs in automated dispensing cabinets*. Or if you do put them in a locked drawer of the automated dispensing cabinet, put them in special overwrap, put warnings in the computer that don't just say "this is a paralytic agent," but something like "this can only be administered to a patient on mechanical ventilation." One of the safe practices they required was dual independent verification that this paralytic drug was ordered for this patient.

And Vanderbilt had none of those things in place. They hadn't done any of those even though in 2016, at least a year prior to the event, ISMP had promulgated all these recommendations. So, the hospital should have been on top of these risks before this patient died. Even this error—Versed being mistaken for Vecuronium—it has happened before.

The Pennsylvania state patient safety authority collects medication errors. In 2009, they published a list of 57 errors involving paralytic drugs. Even wrong drug errors involving paralytic drugs are not rare. There were 57 in Pennsylvania alone between 2005 and 2009, 27 of which were wrong drug errors that reached the patient and harmed them. And one of them was a Versed-Vecuronium error.

One of the tragic things we know about medication safety and medical errors in general is there's nothing new under the sun. If an error happens at your hospital, if you look closely enough, it's almost certainly the case that same error happened at another hospital.

That's why it's critical ... and this is something individual nurses and doctors like nurse Vaught couldn't have done anything about the policy for Vecuronium being in a locked cabinet in the automated dispensing cabinet. She couldn't have done anything about the override policy. She couldn't have done anything about the moderate sedation policy at the hospital or the requirements for independent dual verification.

These are all policies that are not an individual nurse's or physician's responsibility but belong to the medication safety committee, the moderate sedation committee, and head of the hospital, of the board. … They have to take at-risk behavior seriously. And then the idea is that in a "just culture," if someone engages in at-risk behavior, which normally harms no one but occasionally harms someone badly, you comfort and coach them. You don't arrest them and try to put them in jail.

BM: Why did they go after Vaught, in your opinion?

BL: I don't know. You're asking the wrong guy. The District Attorney has made public statements about this. Vanderbilt …

This particular case has all sorts of strange facts, which may not be useful for the broader issue because this nurse initially went … first of all, she admitted her error immediately. She never denied it or tried to hide it. She had admitted that it was her mistake. She went before the board of nursing in Tennessee, and the first time they did nothing, they found that her behavior was completely appropriate.

Then an anonymous whistleblower reported her to the Tennessee board of nursing and that same whistleblower reported Vanderbilt to CMS. Then CMS came in nine months after the event and made an unannounced visit. They produced this 105-page report indicting Vanderbilt for all the dozens and dozens of policy failures they had made.

And then the local prosecutor got wind of it and charged Vaught. Now this happens occasionally. There are hundreds of thousands of these medication errors, maybe the 10,000 that are serious and maybe even fatal. I hear of like fewer than 5 or 10 of these prosecutions per year. It's a quite rare.

And so normally it's about the prosecutor. It's not about the particular nurse in question. Equally tragic and more tragic things happen in medicine with some frequency and people don't get prosecuted. This prosecutor is up for reelection. I've read subsequently he must've thought that this would appeal to a tough-on-crime constituency or something. And so that's my speculation about why they did it. And of course, this, for Vanderbilt, diverts some of the attention away from them. But I don't think Vanderbilt could control who this prosecutor indicted.

BM: A couple of things—the anonymous tip was reported, if I understand correctly, to the CMS about 10 months after the event, which prompted the unannounced visit by the CMS to VUMC. The second is that the DA, Glenn Funk, is an associate professor at Vanderbilt. This implies there is a significant conflict of interest in the case.

BL: I've read about that just recently. ISMP wrote an analysis of the trial, and I read it there. But I don't really have a comment about that. That is an apparent conflict of interest just from hearing the facts. But I don't know. I have no special expertise to comment on.

BM: Perhaps this is not related, but Charlene Murphey, the deceased, on the day of the event was scheduled for a PET CT Scan. These are not routinely done for a patient with a brain bleed, but rather for looking at cancers or suspected cancers. Do you know why they had ordered the scan?

BL: This gets me a little bit out of my depth clinically and about the facts. But what I do remember from the facts is that she came into the hospital with symptoms of a brain bleed. She had some sort of altered state of consciousness, headaches, blurred vision, something like that. They were working her up for the brain issue, and I think they began to suspect that she had a mass in her brain that caused the bleed.

I think the issues relevant for medication safety or safety in general … Vaught was a floating nurse and had a student under her wing. The issues around floating mean there are staffing issues. Is floating always safe? And there's the issue about supervision, meaning should she have been engaging in some high consequence behaviors while she was talking to a student? But those are at-risk behaviors which relate to policies.

BM: She became a nurse in 2015, meaning she was young and possibly inexperienced by comparison to more senior nurses.

BL: Right! And from what I've read, she hasn't had any previous disciplinary history. But some people are piling on saying that this is just a bad nurse. But these comments are coming through the retrospect-o-scope, right? Of course, she made a mistake that killed the patient. We're tempted to see her as a bad nurse. But knowing what I know about what happens in hospitals every day, these behaviors are not rare.

I was talking to a colleague who was telling me about a medication error that they knew of very recently. There was a mistake with a test that came back on a patient that made it seem like the patient needed this dangerous, relatively risky medication. And it was unusual. It was an unusual test result for this kind of patient, but nevertheless, they needed to give this medication, given this test result. A curious resident investigated more closely, and it ended up being a wrong-patient error.

The test from another patient had been attributed to this patient. And this patient was given a medication, which they in fact didn't need and carried a lot of risks. Now it turned out the error was discovered, and the patient did fine.

But the only thing often that separates at-risk behavior from one of these tragic outcomes is chance. There are many layers of safeguards that protect patients. There are many nurses, many physicians and many people looking to make sure nothing bad happens. And occasionally something slips through past all the safeguards, but it's mostly random chance.

So, we ended up prosecuting someone because of a random sequence of events, whereas the same behaviors—overrides, failure to monitor—most of the time they're happening, and no one's getting hurt. Had anyone just walked in on this patient, if the PET scan technologist had just walked in

10 minutes earlier, they might've been able to resuscitate her with no brain injury. All of that is just chance. And yet we're going to prosecute this person because of that.

How nurses should respond to the Vaught trial

BM: Does the Vaught trial set a new precedent, and what are you hearing from health care workers on this particular case?

BL: Every major nursing organization, medical organization, patient safety organization, health care quality organization has come out against this. Many nurses commented on my YouTube video, and many of them are simply terrified.

They all know, especially the experienced ones, that they have either made or engaged in similar at-risk behaviors. They've made wrong drug errors, and they basically think, "There, but for the grace of God, go I."

I say that because they know these errors are not rare. They know these behaviors are common, and they know it's just luck that an error they made was caught or there was a save and the patient wasn't harmed badly. So, people are terrified. The pandemic has caused a lot of traumas, and the sheer workload is pushing many out.

And there's an age thing. There's a lot of older nurses who are the most experienced nurses who could probably retire if they wanted to but who are staying out of a sense of commitment and meaning in their job. And a lot of them will probably leave if they feel like they're going to be subject to capricious prosecution.

I wanted to add the following as this is going into a socialist newspaper. There is a concept of a kind of work action called work-to-rule.

Work-to-rule is something short of a strike that workers can do where they follow every policy, every safety protocol to the letter. What it does is it grinds every organization to a halt because there are so many rules and regulations and policies that we routinely ignore, because we know we can never get our work done if we adhere to every single rule.

Hospital policies are literally these three-ring binders that are a foot tall. Many commenters to the video I made said she should have just followed the rules. But they don't understand.

They don't understand the production pressure that's on a lot of health care professionals to just get the work done: to skirt, to do workarounds, to do overrides, to get their work done!

There is a nurse who works in the PACU (post-surgical recovery phase) who told me that she had to override the ADC every single day at work to get her patients agonizing in pain more opiates. They've just had surgery, and they're just waking up and they are in a tremendous amount of pain. She said she's not going to do that anymore [after the Vaught conviction]. She said, "Let them suffer ... God forbid if one of my overrides cause the patient to have respiratory distress or something like that." She doesn't want to be responsible.

If nurses are interested in protesting this, I think work-to-rule is a very intriguing possibility. Because I say, okay, if this is the standard now where we have to refuse to engage in any behavior, which violates a policy, let's see how that works.

BM: Has the pandemic affected these statistics on medication errors and safety? And what precedent does the Vaught case set?

BL: I think we don't know yet. There's always a lag in publication. I was engaged in patient safety research during the pandemic, but it was hard to get any work done because all of my clinical colleagues who collaborate with me were called into new clinical service. A lot of research was put on the back burner because COVID took priority. It was difficult to access patients and clinical areas because of all the safety protocols.

I think we will see retrospective studies that will be coming out to try to look at error rates, malpractice, and claims during COVID. There were so many other things happening during COVID that there were fewer patients being seen in a lot of settings. There was a lot less cancer screening, for instance. There's probably at least a year where there appeared to be fewer cancer cases because fewer patients were getting outpatient oncology appointments, fewer patients getting screened. There are many confounding factors, but generally I don't think we know any trends in terms of the impact.

I was worried about the impact before. I was worried about the greying of the nursing workforce and how we're going to face a lot of retirements among older experienced nurses who have tons of institutional knowledge. I think this will accelerate that.

I think the trauma … I go into a lot of hospitals, and I teach peer support to doctors and nurses because they have just witnessed a lot of terrible things, a lot of acute suffering, a lot of sudden emergences of bad news, having to give people terrible diagnoses. And it's really traumatic. I've taught a lot of health care professionals how to do peer-based, emotional support. And I think before the pandemic, people were skating on thin ice in terms of their mental health, their ability to cope.

The combination of COVID and all the trauma they saw, how many patients died, how they had to work without good PPE, and they felt the systems didn't care for them was extremely traumatic. And now if they must worry that the kind of mistakes that the system forces them to make are going to cost them their freedom, they are going to say, "The hell with it!"

And I think that was one last point I wanted to make, which is that people think it's individuals who are lazy, inattentive, not conscientious. And of course, there's a few of those in any large group, but generally it's not that. It is people being put in positions where it is almost impossible not to make errors.

You could put RaDonda Vaught in there and she makes a wrong-drug error. But you bring somebody else in there and because of the way that things are organized that person will make the same mistake.

People don't like it when we say, "the system is to blame," because it seems like we're avoiding responsibility, that this is a strategy to avoid individual accountability. A lot of lay people think that, but we must do a better job of educating the public about all of this. If people don't want delays in health care delivery in all its complexity, then you're forcing health care professionals to work in a way which is error-prone.

And if you insist … if you force them to work in an error-prone situation, and then you say, we will prosecute you for your errors, people are gonna say, "That's a bad deal. I don't want that deal. Either you're going to put me in a situation which is extremely safe, or you're going to give me some grace and mercy if I make a mistake. Instead, you put me in an error-prone situation where anyone would make a mistake."

BM: Do you think the business of medicine is largely to blame for these kinds of errors? Repeatedly, for 50 years, they've been talking about errors in medicine. And if we had more nurses, we had better systems in place, but as you said, it affects production.

BL: It's hard to quantify, but I think that the profit motive in American medicine is partially to blame. I think it's partially to blame for staffing ratios, for trying to increase the throughput to the very breaking point. There's a legitimate connection between the profit motive [which] works against a safety culture.

It's hard to have a commercial culture where profit is prized and revenue and so on and a safety culture where we would put people and safety above profits. Those things come into conflict. However, you can go elsewhere in the world where they have nationalized health systems, which is almost everywhere else in the developed world, and you still see relatively high rates of medication errors.

That is a fact that has to be grappled with, if we want to blame it all on

the US health care system and the way we finance things as private, for-profit and stuff, but you can go to the National Health Service in England, and they make mistakes too. There aren't great comparative data, but high rates of medication errors and diagnosis errors occur everywhere you go.

BM: Any final thoughts, particularly on RaDonda Vaught?

BL: These prosecutions are rare. If we accept that 7,000 to 10,000 medical errors lead to deaths each year, there are only a handful of these prosecutions every year. I don't think there's suddenly a cascade of extremely common prosecutions for fatal medications. I haven't seen it. People will be on the lookout for it, but it requires a zealous prosecutor to go after them and one who doesn't really understand the culture of medicine.

If I were a nurse, I would be extremely vigilant. If I were an older nurse who could retire, I might retire because it's a bad bargain even to take that chance. But generally, I would be attentive to the environment and see if this gets any more common.

I hope the RaDonda Vaught case gets appealed. I don't think she got a very good defense. Many of the arguments I've made, the ISMP has made, there's so much evidence of system failure that could have been brought in to mitigate her responsibility, which wasn't effectively brought in. So that's unfortunate.

I suspect she'll probably serve some time, and it's really a personal tragedy for her, and I hope that the nursing associations, with the resources that they have in the national reach, do lobbying at the state, local and federal levels, and use their advocacy to help people understand the situation.

Almost everybody knows—their neighbors, their families and friends—that nurses are extraordinary people who often make big personal sacrifices to do what they do. And the idea that we're going to scapegoat them for a system where errors and at-risk behavior are endemic, it just doesn't make any sense. It will not serve justice.

Some of my YouTube commenters are so self-righteously angry at RaDonda. They yell, "She made a mistake. She killed that patient. She should pay." And I say, "I get the self-righteous anger, but you think locking her up is going to make you safer? It won't, you are not safe." This is the thing that people don't want to accept, that errors are common.

BM: There's been for a long time now in American culture a belief in individual exceptionalism. People miss the impact of the infrastructure on their behavior and focus on individuals. They don't recognize that the impact the pressure to produce has on that culture.

A pharmacist was explaining they were trying to process a prescription. Then they were getting a call. Another customer is trying to speak to them. They haven't had a chance to use the restroom. But if they don't multitask …

BL: The patients will be irate if they have to wait so long! The people who are self-righteously indignant at RaDonda Vaught, if they had to wait a half an hour more for their procedures, they'd be self-righteously indignant about that.

And if health care was work-to-rule, then patients would really find out what the system would be like. If health care professionals were as cautious as they claim they want them to be, but they don't want caution. What they want is speed and safety ... which we don't know how to deliver.

BM: Professor Lambert, thank you for your comments and taking the interview.

BL: It's been my pleasure. Take care.