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Educating the Healthcare Community About Safe Medication Practices

Criminalization of human error and a guilty verdict: A travesty of justice that threatens patient safety

On March 25, 2022, most of the healthcare community were shocked and dismayed after learning that RaDonda Vaught had been convicted of criminally negligent homicide and gross neglect of an impaired adult following the 2017 death of Charlene Murphey.¹ A full description of the error can be found in our January 17, 2019, newsletter (www.ismp.org/node/1326). RaDonda is a former registered nurse who was fired from Vanderbilt University Medical Center after making a fatal medication error and then stripped of her professional nursing license by the Tennessee Board of Nursing (www.ismp.org/node/26713). During her 3-day trial, RaDonda faced a charge of reckless homicide, but the 12-member jury found her guilty of a lesser charge, negligent homicide. Sentencing will occur on May 13, 2022; until then, RaDonda remains free on bond. According to sentencing guidelines, RaDonda faces 3 to 6 years in prison for felony neglect and 1 to 2 years for negligent homicide.²

First and foremost, our heartfelt condolences go out to the Murphey family for their tragic loss. Next, discussions about this case are dominating the healthcare community—from social media to headline-grabbing news reports.^{1,7} In addition, several professional and patient safety organizations have issued statements about the negative impact of the criminalization of human error and the guilty verdict, including the:

- American Association of Critical-Care Nurses (www.ismp.org/ext/886)
- American Nurses Association and Tennessee Nurses Association (www.ismp.org/ext/866)
- American Hospital Association and American Organization for Nursing Leadership (www.ismp.org/ext/867)
- Academy of Medical-Surgical Nurses (www.ismp.org/ext/885)
- American Society of Health-System Pharmacists (www.ismp.org/ext/882)
- Institute for Healthcare Improvement (IHI) and IHI Lucian Leape Institute (www.ismp.org/ext/880)
- Outcome Engenuity and The Just Culture Company (www.ismp.org/ext/883)

Leadership at some hospitals and health systems have also issued statements to staff in response to the guilty verdict, reinforcing their commitment to stand with staff in the wake of an error, stress-

ing the importance of transparency and error reporting, and noting their ongoing focus on learning and system redesign, not individual blame. ISMP would be remiss to not share what we perceive to be our most significant disappointments with the inadequate way the trial was handled, the unfairness of the trial and the guilty verdict, and the verdict's negative impact on the healthcare community.

Inadequate Handling of the Trial

Lack of evidence about the system failures. It appears that, in deciding to charge RaDonda, the prosecution chose to ignore the fact that the error was a culmination of multiple system failures throughout the medication-use process that contributed to Charlene Murphey's death. During the trial, the defense failed to fully educate the jury about these system failures. Examples include access to a neuromuscular blocking agent via override in an automated dispensing cabinet (ADC) after entering just the first two letters of a drug's name; inability to search simultaneously by brand and generic drug names; unsafe ADC storage of a neuromuscular blocking agent outside of a sealed box or rapid sequence intubation (RSI) kit; allowing medications to be ordered by a brand name, Versed, that has long been discontinued (2003); lack of barcode technology in the radiology unit; disallowing a family member to accompany the patient to radiology; and so many more. Instead, the prosecution singled out the individual nurse closest to the final step of the event, RaDonda, and repeatedly accused her of not following the "five rights," not reading the vial label, disregarding warnings on the vial and ADC, and abandoning the patient after administration of the drug, which the prosecution's nursing "expert" erroneously termed "conscious sedation" because midazolam (Versed) is sometimes used for that purpose, but not in this case.

While RaDonda has never once shirked responsibility for the error, she has often noted that the blame is not hers alone,⁴ and ISMP fully agrees with her. But in the trial summation, the prosecution claimed that the event "is not an issue of systematic errors" and even implied that certain conditions, such as the absence of barcode technology in radiology, was not a system failure but merely a need for nurses to rely on the "five rights." There was no discussion (and likely no jury understanding) about the latent failures that allowed this error to happen—only the active failures of one nurse, RaDonda. In the end, the defense failed to educate the jury about the complexity of healthcare errors so they could make an informed decision regarding RaDonda's conduct. This lack of critical information distorted the jury's image of RaDonda and made her a scapegoat for this tragic error.

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Truthful reporting and harsh self-blame used to incriminate RaDonda. RaDonda is the poster child for event reporting, transparency, and disclosure that organizations, through their patient safety-focused transformation, have spent more than 20 years cultivating. Her immediate disclosures were made to the treatment team to help mitigate consequences to the patient. She further contributed her knowledge—sharing both her actions and her mindset—many times with her employer, investigators, and the Tennessee Board of Nursing. The notion that she should take action to protect herself did not occur to her until criminal charges were filed. Unfortunately, it seems that all the prosecution took from RaDonda's transparency was an admission of guilt. Thus, the prosecution introduced into evidence repeatedly that RaDonda admitted to every single misstep she made that led to this event.

Sadly, all practitioners involved in a fatal error hauntingly play back the event in their heads over and over again, asking what they could have done differently to avoid the tragic outcome. They are baffled how they failed to see what they now see in plain sight. So, in hindsight, of course RaDonda might have felt that she should have paid more attention, should have called the pharmacy, should have avoided using the override function to access the medication in the ADC, should have double checked the front of the label to make sure it was the right medication, should have considered it a red flag that the medication needed to be reconstituted, and so on. She also fell on the sword of guilt, remorse, self-doubt, and a wish to make amends, which are all common symptoms of the deeply personal, social, spiritual, and professional crisis experienced by those who make fatal errors (www.ismp.org/node/728). RaDonda is often quoted as saying, "I know the reason this patient is no longer here is because of me." She left no stone unturned and was quite transparent in her harsh self-analysis of every misstep that led to the tragic error. The prosecution did not appear to acknowledge the self-blame and psychological pain RaDonda is still experiencing after making a fatal error.

RaDonda's defense included testimony from only one witness. While the prosecution called 16 witnesses to testify at the trial, the defense called a single witness, a nurse educator who knew and had worked with RaDonda. RaDonda decided not to testify, but the defense showed a 2-hour video of RaDonda being interrogated by the Tennessee Bureau of Investigation (TBI). While awaiting the verdict (www.ismp.org/ext/868), RaDonda explained that she did not want to take the stand and allow the prosecution to demean her again, as the TBI investigators had done while she fully admitted and relived the missteps she took on that day.

However, we do wonder why the defense did not call further witnesses, perhaps a human factors expert who could explain why RaDonda failed to consciously process the warnings, or perhaps a medication safety officer to testify about the many system issues that contributed to the event and why the "five rights" of medication use are merely broadly stated goals that offer no procedural guidance on how to achieve them, perpetuating the mistaken belief that nurses can be held individually accountable for achieving these goals (www.ismp.org/node/909).

To be clear, nurses cannot be held accountable for achieving the "five rights;" they can only be held accountable for following the processes that organizations have designed and upheld as the best way to verify the "five rights." There was also minimal discussion about the concepts of a Just Culture and how reckless conduct differs from our natural tendency to drift into at-risk behavioral choices, which the jury should have been made to understand.

The prosecution misled the jury regarding recklessness.

In the opening and closing statements, the prosecution offered an accurate definition of the term recklessness: "To consciously disregard a *substantial and unjustifiable RISK* that the alleged victim will be killed; a gross deviation from the standard of care that an ordinary person would exercise *under all the circumstances as viewed from the accused person's standpoint.*" Yet, throughout the trial, the prosecution claimed that RaDonda was acting recklessly when she consciously disregarded certain policies, procedures, the usual standard of practice, or a safety protocol, but did **not** establish that she consciously disregarded a *substantial and unjustifiable RISK* associated with her choices. Policy, procedure, practice standard, and protocol violations are more often at-risk choices rather than reckless choices, where the **RISK** is not seen or mistakenly believed to be insignificant or justified. Reckless behavior requires the conscious disregard of a perceived significant **RISK**.

The prosecution kept dwelling on the fact that RaDonda was a trained nurse and knew what she was required to do to keep her patients safe. She knew how to read medical orders, safely access medications from an ADC, read vial labels, assess and monitor patients; however, the prosecution repeatedly claimed that RaDonda consciously disregarded all of her training; consciously disregarded the label, vial, and ADC warnings; consciously disregarded that midazolam should not be reconstituted; made a knowing choice to walk away after administering the drug to the patient; and so on. Although they maliciously attacked her intent, saying that RaDonda "couldn't be bothered to pay attention," they utterly failed to prove that RaDonda consciously disregarded any substantial or unjustifiable **RISK** associated with her choices.

So did it creep into RaDonda's conscious thoughts that she was taking a substantial and unjustifiable risk with her patient? Likely not. RaDonda's risk monitor—that little voice that knocks on the door of our conscious thoughts and lets us know we may be endangering the lives of those around us—was likely silent as she moved through an otherwise normal day. For example, while RaDonda made a knowing choice to walk away from an otherwise stable patient after administration of what she thought was 1 mg of midazolam, the prosecution failed to prove that RaDonda saw a substantial and unjustifiable **RISK** associated with that choice. Furthermore, the jury was never asked to consider the *circumstances of those choices as viewed from RaDonda's standpoint*, particularly the conversations she had with others about not needing to monitor the patient, as well as the system vulnerabilities that led to her choices. In a Just Culture, RaDonda would have likely been consoled around the human

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error of administering the wrong drug to the patient and coached around a series of at-risk behaviors.

ISMP understands that the admission of policy violations in health-care is distressing. It is one thing to publicly disclose that people make mistakes; it is wholly another to disclose that healthcare providers choose to violate rules. Too often, there is no middle ground. Thus, because RaDonda allegedly chose to violate safety policies, regardless of the underlying reason and despite not seeing a substantial **RISK** associated with that choice, she was prosecuted and convicted. But according to the tenets of a Just Culture, she was **NOT** reckless.

The event should have been prevented. In 2016, a full year before RaDonda's fateful error, ISMP published a feature article about errors with neuromuscular blocking agents (www.ismp.org/node/247), encouraging all healthcare organizations to reassess the safety of neuromuscular blocking agents in their facilities and offering many recommendations that likely would have avoided this error. Also in 2016, ISMP released a **Targeted Medication Safety Best Practice for Hospitals** that aims to promote safe storage of neuromuscular blocking agents (Best Practice 7, www.ismp.org/node/160). Regrettably, healthcare organizations tend to turn a blind eye to both risky systems and risky choices, believing patients are safe if bad outcomes—meaning harmful or fatal errors—do not happen to them. However, this type of error could happen anywhere given the current system vulnerabilities frequently found in hospitals, particularly when using ADCs. In fact, ISMP has observed many of the same system vulnerabilities in other hospitals, and they are frequently at the root of a variety of medication errors reported to the **ISMP National Medication Errors Reporting Program** (ISMP MERP). Make no mistake—this type of error has happened in other hospitals.

Previous to the tragic error that led to Charlene Murphey's death, events involving the inadvertent selection and administration of a neuromuscular blocking agent to an unventilated patient had been reported to ISMP, many of which were linked to practitioners overlooking or not understanding the warnings on the vial cap or ferrule. While the caps and vial ferrules note, "**WARNING: Paralyzing Agent**," these warnings were not consistently effective and sometimes were unheeded, misunderstood, or missed altogether. In fact, errors that were eerily similar to the event that led to Charlene Murphey's death and RaDonda's prosecution were reported to ISMP before (and since) the event, including incorrectly retrieving vecuronium from an ADC after searching for Versed by entering just the first two letters, VE. It was not disclosed if similar errors had occurred at RaDonda's hospital prior to the event; allegedly, the jury was not permitted to know about any similar errors that had previously occurred at that hospital.⁵

Thankfully, many healthcare providers, including the hospital where RaDonda made the error, have now implemented risk-reduction strategies that will decrease the chance of this type of error from happening again. For example, many hospitals now

place red shrink wrap warnings over the vials of neuromuscular blocking agents; they have moved the vials to a secure RSI kit; they require barcode scanning technology prior to medication administration in radiology; they changed the nomenclature by adding "paralyzing agent" before the drug name on electronic prescribing systems, ADCs, and labels; they use special break-away packaging so an extra step is required when accessing the drug; they added midazolam to their high-alert medication list with risk-reduction strategies including monitoring guidelines; and they now place much clearer auxiliary labels on storage bins and/or ADC pockets and drawers that contain neuromuscular blocking agents that state, "**Warning: Causes Respiratory Arrest – Patient Must Be Ventilated**."

In addition to the longstanding warning statements on the cap and ferrule, in 2018 the US Food and Drug Administration (FDA) asked manufacturers to add another warning statement, "**WARNING: Paralyzing Agent**" in red, bold font to the principal display panel on the carton and vial. Manufacturers were also requested to add a warning statement to the side panel in red, bold font: "**WARNING: Paralyzing Agent. Causes Respiratory Arrest. Facilities must be immediately available for artificial respiration**," and to add warnings in the prescribing information about inadvertent administration to patients for whom the drug is not intended. Also, in 2020, at least one ADC vendor made it possible for organizations to require ADC users to enter the first five letters, instead of the first two letters, of a drug name during searches via override (www.ismp.org/node/30932). But these risk-reduction strategies were implemented *after* the event. In this tragic case, Charlene Murphey is dead and RaDonda faces jail time, but the error might never have happened had hospital leadership learned from previously published, similar errors and improved or proactively redesigned their systems.

Unfairness of the Trial and the Guilty Verdict

Offensive attribution of RaDonda's behavior as "driving drunk" and "driving with her eyes closed." The prosecution used an expert witness, a legal nursing consultant with 47 years of experience, to testify that RaDonda had several chances to recognize the error but did not. At one point during her testimony, she likened RaDonda's behavior to someone who is driving drunk, perhaps not intending to kill someone but recklessly proceeding. This testimony was from a paid nursing "expert" who had never heard the term, Just Culture, in practice, knew little about the system-based causes of errors that ISMP and others have been publishing for decades, and was unaware of the investigative report from the Centers for Medicare and Medicaid Services (CMS) (www.ismp.org/ext/881) that initially drew attention to this event after an anonymous tip.

To make matters worse, the prosecution then added that RaDonda's actions were worse than "driving drunk" and more like "driving with her eyes closed." Nothing could be further from the truth! Drunk drivers and drivers who close their eyes are making a conscious choice to disregard a substantial and unjustifiable risk of causing a harmful accident. While they might not intend to

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cause a harmful accident, they recklessly proceed knowing that their actions will likely result in a harmful consequence. They knowingly cause, although do not intend, the harm by driving drunk or driving with their eyes closed, which is a highly culpable and reckless behavioral choice. But in all of RaDonda's behavioral decisions on the day of the error, she likely did NOT see the risk she was taking, or mistakenly believed the risk was insignificant or justified. For example, she knew that using the override function to access medications in the ADC was allowed and used every day by nurses in her facility. Charlene Murphey had received almost two dozen medications via override from various nurses in the days prior to her death. It is highly unlikely that RaDonda (or any other nurse) perceived a significant or unjustifiable risk with obtaining medications via override. None of RaDonda's behavioral choices that day rose to the culpability level of knowingly harming her patient, so the characterization of her behavior as "driving drunk" or "driving with her eyes closed" is offensive and wrong.

Prosecution's mocking contempt for RaDonda. While ISMP knows that it is the prosecution's job to portray RaDonda as "the bad guy," the ugly words used by the prosecution to describe RaDonda's character as a person and as a nurse were disgraceful. As healthcare practitioners, it was disturbing and frustrating to listen to the demeaning, mocking contempt in the prosecutors' voices when they talked about RaDonda, which honestly felt like a slap in the face for the profession of nursing and for those working in the field of medication safety:

- "The patient is dead because RaDonda Vaught couldn't bother to pay attention to what she was doing."
- "She was driving with her eyes closed."
- "She doesn't care."
- "She disregarded all of her training and stuck that needle into Charlene Murphey's neck and killed her."
- "Charlene Murphey was a disposable person to RaDonda Vaught, who didn't care about her."
- "Nothing...would have stopped RaDonda Vaught from killing Charlene Murphey with the vecuronium bromide."
- "Her actions are unconscionable."
- "She chose to disregard common sense."
- "She ignored her duty."
- "This is not the conduct of a competent, reasonable, prudent nurse."

Additionally, the prosecutors repeatedly mocked RaDonda's honest and factual responses to prior investigative questions about the event. To cite several examples, they mocked RaDonda for not knowing to look on the patient's medication administration record for the generic name of Versed, midazolam; and for concluding that the powder in the vecuronium vial was due to an alternative product being purchased for Versed, possibly caused by a drug shortage due to the long-lasting effects of Hurricane Maria in Puerto Rico in 2017. The prosecution mockingly said that it was "ridiculous" to think that drug shortages could be related to medication errors, even though the link between drug shortages and errors has been known for many years (www.ismp.org/node/316).

Prosecution outcome bias. In a Just Culture, the outcome or severity of an event should never determine or influence the response to individuals involved in the event. The problem with allowing the outcome to determine the course of action is that one can potentially overreact to a singular harmful event and mete out unwarranted disciplinary sanctions, as in RaDonda's case, or one can underreact to a potentially fatal system flaw simply because, by luck, it did not harm a patient. In this case, the prosecution's outcome bias led directly to the criminal charges. If the very same event had happened but had not resulted in a patient's death, it would not have resulted in criminal charges.

Recklessness of the prosecution. Throughout the trial, the prosecution focused exclusively on the missteps of one nurse, RaDonda, during the drug administration and monitoring phases of medication use, and claimed she had violated all of the safeguards for protecting patients' lives that she had learned in nursing school, thus recklessly killing Charlene Murphey. But it seems that **RaDonda was NOT reckless**—she was human, making a human error when selecting and administering the wrong drug, and making choices that turned out to be risky (at-risk behaviors) but at the time were thought to be prudent and made in good faith. On the other hand, it seems that the **prosecution WAS reckless** by bringing criminal charges against RaDonda and for their conscious disregard of the risks associated with not considering the well-known systemic causes of this medication error that were embedded in the design of systems and processes. **Even the defense failed to fully educate the jury** about human fallibility, confirmation bias, inattentive blindness, alert fatigue, the normalization of ADC overrides, and why it is human to make risky choices that, at the time, seem sensible (at-risk behaviors), which would have explained some of RaDonda's exceedingly human behavior. In fact, the entire trial underscores a disappointing failure and a troubling missed opportunity to educate the jury, the public, and skeptical providers who feel this error could never happen to them, about medication safety, how medication errors occur, and how to prevent medication errors.

Guilty Verdict's Impact on Healthcare

Negative impact on transparency, reporting, and patient safety. While our legal system allows for the criminalization of human error even in the absence of any intent to cause harm (www.ismp.org/node/30896), ISMP, along with other professional and patient safety organizations, believe the criminal charges and the guilty verdict against RaDonda set a dangerous precedent and have worrisome implications for safety, particularly for one of the key pillars of a culture of safety—reporting of medical errors. The guilty verdict will likely inhibit error reporting, undermine the creation of a culture of safety, accelerate the exodus of practitioners from clinical practice, exacerbate the shortage of healthcare providers, perpetuate the myth that perfect performance is achievable, and impede system improvements.

Of course, a small portion of nurses may assume they would never make the same mistake as RaDonda, usually because they do not realize they could.⁴ But most nurses are terrified of making

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an inevitable human error that could tragically harm a patient and lead to their prosecution. They know this type of error could happen any day, no matter how careful they are. They think, *I could be RaDonda; something like this could happen to me.* Adding the risk of criminal prosecution for errors to the risks that nurses face every day when caring for patients (e.g., personal injury from violent patients and visitors, infecting themselves and subsequently their families with viruses) makes nursing, already one of the most dangerous professions in our country, even more fraught with risk and stress.³

Furthermore, by instilling the fear of severe penalties if their errors are discovered, cover-ups are sure to follow in an era when more transparency is needed. Improvements in safety by analyzing errors and making systemic changes to prevent their recurrence will not happen if practitioners think they could go to prison for factually disclosing errors and describing the workarounds that set them up to make errors.⁶ For example, if an error happens when retrieving a medication via override but does not harm a patient, why would it ever be reported if the practitioner could be charged with a crime and it can easily be hidden? Even if errors are reported, effective event investigation and learning cannot occur in a culture of fear or blame, especially if the organization or licensing body is counting the frequency of individual errors (e.g., “three strikes and you are out”).

Although the prosecution insisted that the trial and verdict were not a condemnation of the entire nursing community but rather just one individual woman,⁷ a lot of nurses, as well as other healthcare practitioners, see it differently. Nurses and other healthcare practitioners are already at their breaking point after 2 years of caring for coronavirus disease 2019 (COVID-19) patients under extreme conditions. If healthcare practitioners now think that society, the community, and the judicial system hold them to a standard of perfection, why would they want to work in healthcare? Additionally, if they are already burdened by short-staffing, difficult patients, confusing and ever-changing technology, and complex tasks, an ongoing fear of prosecution may divert their attention even further from critical tasks and force them to focus instead on their own risk for criminal liability.³

Conclusion

ISMP pleads with those involved in prosecuting and sentencing RaDonda to reconsider their course and take actions that will be just and improve, not diminish, medication and patient safety. Likewise, ISMP implores organizations that use neuromuscular blocking agents to address all the system issues in this case, so the error is not repeated. Please refer to our 2016 article about

reassessing neuromuscular blocker safety in your facility (www.ismp.org/node/247) as well as our 2019 article specific to this event (www.ismp.org/node/1326) for recommended strategies. Otherwise, the death of Charlene Murphey and the guilty verdict against RaDonda Vaught are just a heartbreaking commentary on healthcare’s inability to truly learn from mistakes so they are not destined to repeat. Furthermore, ISMP encourages practitioners to continue to report medication errors, factually and completely, to their internal organization, to ISMP (www.ismp.org/MERP), and/or to a patient safety organization (PSO) to facilitate learning about the causes and prevention of medication errors.

Support for RaDonda

Chaunie Brusie, a nurse writer, and *Nurse.org*, a non-profit organization that publishes content and initiatives for nurses and nursing students, have compiled a list of ways to support RaDonda,⁵ including the following:

- **Sign a Change.org petition** (<https://chng.it/wwVbTdRnn2>) to grant RaDonda clemency (nearly 200,000 signatures so far)
- **Write a letter to the Tennessee Governor Bill Lee** (address: Bill Lee, Tennessee Governor, State Capitol, 1st Floor, 600 Dr. Martin Luther King Jr. Blvd., Nashville, TN 37243)
- **Write a letter to Judge Jennifer L. Smith** of the Davidson County Criminal Court Division IV (address: Judge Jennifer L. Smith, P.O. Box 128, Bethpage, TN 37033); include RaDonda Vaught’s Case Number (2019-A-76); explain what your job is and how this verdict impacts you
- **Attend the sentencing hearing** to support RaDonda on May 13, 2022, at 9:00 am at The Justice A.A. Birch Building, Courtroom 6D (must go through security), 408 2nd Avenue North, Nashville, TN 37122

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