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Medical Malpractice as Murder? Using Root Cause Analysis as a Guiding Framework for Criminal Medical Malpractice

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MEDICAL MALPRACTICE AS MURDER? USING ROOT CAUSE ANALYSIS AS A GUIDING FRAMEWORK FOR CRIMINAL MEDICAL MALPRACTICE

ABSTRACT

Unprecedented criminal prosecutions for medical errors have increased throughout the nation: A Tennessee nurse was charged with reckless homicide for an isolated medication error; two South Carolina nurses were charged with criminal neglect for failing to change a wound dressing for just two days; and an Ohio pharmacist was charged with involuntary manslaughter for failing to detect that a solution contained too much sodium. Introducing criminal charges for cases of typical medical malpractice, which are most often the result of system failures, will dismantle hospitals’ error-reporting systems and lead to long-term catastrophic results for patient safety. This Note applies system analysis framework, via root cause analysis, to clarify the boundaries between civil and criminal medical malpractice. Root cause analysis uses an undesired event as the starting place for analysis and considers all the contributing factors to make a bright line distinction between latent system errors, which are hidden errors between the system and healthcare provider interface, and active errors, which have a direct causal relationship between the deliberate act of the healthcare provider and the patient. Under this framework, latent system errors should not be criminally penalized. This analysis, with an emphasis on the mental state of the actor, will decrease the inappropriate criminalization of medical malpractice, so that system errors may be properly deterred from recurring. This Note will offer case illustrations to demonstrate when sufficient criminal culpability exists within the scope of medical malpractice to provide a framework that will assist judges, juries, and prosecutors in deciding when criminal charges for medical malpractice are appropriate.

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I. INTRODUCTION

Should a healthcare provider become a felon for an accidental medical error? RaDonda Vaught is a registered nurse who faced potential felony charges and jail time for accidentally administering the wrong medication.1 On the other hand, “Dr. Death” who lied about his training hours and performed dozens of surgeries on patients—the majority of whom were severely harmed—only faced criminal charges for serious bodily injury to an elderly individual,2 which is a lesser offense than Vaught faced. The actions of Vaught resulted from a series of system failures that failed to prevent an isolated error, whereas Dr. Death made a criminally culpable, conscious decision. Yet, both cases highlight the role of

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system errors. In Dr. Death’s case, it was only because of system failures that he was able to harm dozens of patients before any legal action was taken.\(^3\) Despite system errors playing a role in both cases, the key distinction for criminalization is criminal culpability versus a latent system error as the root cause of harm. The nurse acted with no criminal culpability whereas the doctor made a conscious decision to continue operating despite his knowledge that he had 100 times less than the required amount of training hours and remarkably poor patient outcomes.\(^4\) The law is repeatedly getting criminal medical malpractice charges wrong because judges, juries, and lawyers have difficulty distinguishing non-culpable system errors from culpable crimes in complex medical cases.

While there are instances in which it is warranted to hold healthcare professionals criminally liable for gross negligence or acts that were performed with some criminal culpability, many of the recent cases have crossed the line by imposing criminal charges for negligence involving common medical errors. Furthermore, many of the charges brought against interdisciplinary members of healthcare teams, such as nurses and pharmacists,\(^5\) have been the result of system errors rather than an extreme deviation from the standard of care. This Note argues that there is an overcriminalization of medical negligence resulting from system errors rather than acts with criminal culpability. Applying system analysis framework, via root cause analysis, will clarify the boundaries between civil and criminal medical malpractice. Root cause analysis uses an undesired event as the starting place for analysis and considers all the contributing factors to make a bright line distinction between latent system errors, which are hidden errors between the system and the healthcare provider interface, and active errors, which have a direct causal relationship between the deliberate act of the healthcare provider and the patient.\(^6\) This framework will assist judges, juries, and prosecutors in deciding when criminal charges for medical malpractice are appropriate.

Part II will introduce the prosecution of medical errors that are not criminally culpable. This section will introduce the concept of system errors, discuss a brief historical background of early cases of criminal medical malpractice, and provide a recent example of a nurse who was unjustly prosecuted for a system error. Part III will discuss the legal standards for medical malpractice in the civil system as well as the legal standards for some of the most common criminal charges for medical malpractice, including negligent homicide and involuntary manslaughter. Part IV illustrates the boundary between civil and criminal medical malpractice by providing a series of case illustrations categorized by those in which criminal prosecution was appropriate and those in

\(^3\) Id.
\(^4\) Id.
\(^5\) See infra Part IV(b).
\(^6\) See infra Part VI for a discussion of root cause analysis and its application.
which criminal prosecution crossed the line. These cases will highlight the pivotal role that system errors play in making the distinction between civil and criminal medical malpractice. Part V warns against the overcriminalization of medical malpractice that results from system errors because maintaining honest error reporting systems is crucial to improving patient safety. Finally, Part VI discusses in more depth how the criminal law can apply root cause analysis, a common method of medical error analysis used within hospitals, as a guiding framework to appropriately criminalize medical malpractice.

II. A BROKEN SYSTEM: THE CRIMINAL PROSECUTION OF NON-CULPABLE MEDICAL ERRORS

Medical malpractice is primarily handled by civil courts to provide victims with compensation and a day to be heard in court.7 In rare, but increasingly more common cases, medical malpractice is criminalized.8 Historically, drawing the line between civil and criminal malpractice was straightforward. In early cases of medical malpractice, one could readily discern criminally culpable acts from civil negligence because system errors rarely contributed to patient harm due to the absence of technology and the lack of complexity that the medical system boasts today. Modern medicine has blurred this line; and as a result, charges for criminal medical malpractice have recently increased.9 To better understand the complexities of how system errors impact modern medicine, a brief discussion of system errors will be introduced, followed by a discussion of the historical development of criminal medical malpractice.

A. Introducing System Errors

Errors in medicine were traditionally viewed as failures by individual providers.10 However, due to vast system and technological advancements within the medical field, most errors in the medical setting are now deemed to be caused by “human failings in the context of a poorly designed system.”11 System failures

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8 See R. E. Ferner, Medication Errors That Have Led to Manslaughter Charges, 321 BMJ 1212, 1212 (2000) (finding that the number of doctors charged with and convicted of manslaughter has increased appreciably in the past decade).
9 Id.
11 Id.
are flaws within a system that fail to prevent predictable human error. Although system errors are foreseeable, the timing and location of the errors are not precisely predictable; thus, system errors will occur repeatedly until the root cause of the error is identified and rectified. While individual providers ultimately make the error, the individual’s behavior is almost always precipitated, activated, or amplified by a wider systemic failure. Vaught’s case illustrates a hospital-wide system error that failed to be timely corrected and led to patient harm.

In 2019 registered nurse, RaDonda Vaught, made a fatal medication error at Vanderbilt Hospital by accidentally administering the intravenous (IV) drug, Vecuronium, instead of the prescribed drug, Versed. Medication errors are the most common type of error within the hospital setting and most often result from breakdowns in the complex, interdisciplinary healthcare system. A recent study found that IV medication administration has the highest error rate, with an estimated median rate between 48–53%. While it is the healthcare provider’s duty to comply with standards of care to prevent overt errors, the hospital system also plays a large role in preventing medical errors through risk management. Medical errors are reported and investigated by a risk management team so that appropriate policy or protocol can be implemented to prevent repeatable system errors.

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13 Id.
14 Id. To put things more concretely, system safeguards are responsible for preventing errors, making errors visible, and effectively mitigating harm when an error occurs. See Molly Billstein-Leber et al., Guidelines on Preventing Medication Errors in Hospitals, 75 AM. J. HEALTH-SYS. PHARMACY 267, 269 (2018). For example, requiring oral syringes that cannot be connected to IVs, requiring smart infusion pumps, implementing barcode technology for medication administration, standardizing medication concentration or container sizes, and improving the readability of labels are all examples of system improvements that can adequately prevent expected human error. Id.
15 Kelman, Former Nurse, supra note 1. See also infra Part IV(b)(4), discussing Vaught’s case in further depth.
17 Id. (considering the right timing, right dose, right route, right patient, and right medication as factors in determining the error rate).
18 See JOSEPH NICOLINI, JOEL MCGOWAN & AMANDA WOJAHN, RISK MANAGEMENT EVENT EVALUATION AND RESPONSIBILITIES 1 (2023) (defining risk management as the clinical activities undertaken to identify, evaluate, and reduce the risk of injury to patients, staff, and visitors and reduce the risk of loss to the organization itself by focusing on systemic policy changes rather than individual performance).
19 Id.
In Vaught’s case, Vaught was the scapegoat for a hospital-wide system error. Around the time of Vaught’s fatal medication error, a Center for Medicare and Medicaid Services (CMS) deficiency report established that Vanderbilt failed to implement “measures to mitigate risks of potentially fatal medication errors.” In fact, the very drug that killed Vaught’s patient, Vecuronium, was not listed in any hospital policy detailing its administration guidelines, even though it was listed as a high-alert medication. Vaught was able to pull the Vecuronium—a high-alert medication—by using an override feature on the electronic medication cabinet. Vaught testified that because updates to the medication system caused delays, Vanderbilt instructed its nurses to use the override feature as a work around to the system issue. After Vaught’s

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20 Another recent example of an institution’s error that led to the prosecution of an individual nurse is Michelle Heughins’s case. See Michael Hewlett, Michelle Heughins, Nurse Charged In John Neville’s Death, Asks That Trial In Civil Lawsuit Be Continued, WINSTON-SALEM J. (June 15, 2022), https://journalnow.com/news/local/crime-and-courts/michelle-heughins-nurse-charged-in-john-nevilles-death-asks-that-trial-in-civil-lawsuit-be/article_426b3054-ecbb-11ec-aa69-ef35544519d.html. In this case, Heughins was charged with involuntary manslaughter for the death of an incarcerated individual who died from lack of timely medical care. Id. However, Heughins was unable to tend to the patient because detention officers had the patient restrained for nearly an hour despite his statements that he was unable to breathe. Id. The detention officers did not allow Heughins in to provide timely medical care. Id. This error could have been preventable had the institution implemented proper policy and protocol that ensured medical providers could provide timely care for incarcerated individuals without the interference of dangerous restraint tactics. None of the detention officers were charged; prosecutors targeted Heughins on the basis that the nurse has the sole responsibility for providing medical care. Id.

21 DEPT OF HEALTH AND HUM. SERV. CTR. FOR MEDICARE & MEDICAID SERV., Statement of Deficiencies and Plan of Correction (Nov. 18, 2018), https://hospitalwatchdog.org/wp-content/uploads/VANDERBILT-CMS-PDF.pdf. When hospitals receive Medicare and Medicaid funding, they are required to follow a set of guidelines that dictate required minimum quality guidelines for participating state healthcare facilities. See 42 C.F.R. § 431.610(a)(1)–(3) (2023). In enacting the Medicaid Act, Congress gave the Department of Health and Human Services Secretary broad authority to promulgate rules and regulations, which focus on delivering quality care. See 42 U.S.C.A. § 1302 (West 2023). A hospital has the duty to be informed of the patient care being delivered at the time it is originally certified, and it also has a duty to ensure continued compliance. See, e.g., Estate of Smith v. Heckler, 747 F.2d 583, 590 (10th Cir. 1984). When continued compliance is breached, a CMS report is filed indicating the facility’s deficiencies, which must be timely corrected or else the facility risks losing its funding. See generally Part C and Part D Compliance Actions, CTRS. FOR MEDICARE & MEDICAID SERVS., https://www.cms.gov/Medicare/Compliance-and-Audits/Part-C-and-Part-D-Compliance-and-Audits/PartCandPartDComplianceActions (Sept. 6, 2023, 4:57 PM) (describing the different types of compliance actions that can be taken by CMS, such as notices of non-compliance and Corrective Action Plan requests).

22 Id.

23 Id.

error, Vanderbilt has since corrected the override feature to require approval for high-alert drugs, such as Vecuronium.25 Had Vanderbilt taken appropriate action before its CMS deficiency report, Vaught’s patient would still be alive today.

Vanderbilt took further action to shield its own liability by failing to disclose the error to the government or the public even though it was required to by law.26 Vanderbilt attempted to cover up the error by reporting to the local medical examiner’s office that the patient died of natural causes with no mention of the medication error.27 According to a lawyer from the Department of Health (DOH), Vanderbilt was not disciplined because “a malpractice error has to be gross negligence before they can discipline for it.”28 The DOH refused to hold the hospital accountable because the error did not rise to the level of gross negligence, yet the criminal justice system prosecuted Vaught under an even higher standard for reckless homicide. Cases like Vaught’s illustrate how the recent criminal prosecution of medical malpractice is inconsistent and often inappropriately criminalizes the acts of healthcare professionals.

B. The Historical Development of Criminal Medical Malpractice

The inconsistent prosecution of medical malpractice likely results from the medical field progressing much more rapidly than its legal doctrinal counterparts. Historical cases of medical malpractice illustrate a bright line distinction between accidental error and intentional harm. However, this bright line has become murky as healthcare systems have become increasingly complex over the past several decades. Even in some of the earliest cases of criminal medical malpractice, most medical providers were acquitted in cases that involved an isolated, honest mistake. For example, in 1844 a surgeon prepared a medication mixture that contained four times the standard dose of a medication, which caused the death of his patient; the surgeon was charged with manslaughter but acquitted.29 In 1874, a woman’s husband, who was also a surgeon, accidentally administered too much morphia (i.e., morphine) to his wife

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25 Kelman, Nurse’s Trial, supra note 24.
26 Id.
27 Id.
28 Id.
over a three-hour period and she died from overdose; the man was charged with
manslaughter but acquitted.  

On the other hand, a doctor was found guilty of manslaughter in 1859
when he delivered a baby while intoxicated, which resulted in the mother’s
death.  

In 1959, an anesthesiologist was found guilty of manslaughter after he
deliberately inhaled anesthetic before and during an operation, and his patient
died on the table from hypoxia, a lack of oxygen supply to the body’s tissues.  

These earlier cases appropriately excluded preventable human error, where the
individual was unaware of the risk created, and punished human error that
resulted from a criminally culpable act that knowingly created a considerable
risk to patients. Early cases of criminalization were likely more straightforward
with clear evidence of culpable, dangerous acts by physicians. However, prior to
the digital revolution, it was likely easier for the courts to distinguish criminally
culpable acts from system failures due to the lack of technology and simplicity
of the healthcare system.  

Medical practice has changed, not providers per se, and this is thus why
we must pause before the inappropriate criminalization of medical malpractice
gets out of hand. Medical institutions are now far more complex than they were
a century ago with the implementation of technology, evidenced-based practice,
hundreds of policies and protocols, and an overarching systems framework that
dictates how providers must deliver patient care. Providers are still delivering the
same care but are now expected to navigate alongside complex systems and
technology.  

But how do we differentiate the error of a system from the error of
a provider? System errors are a monkey wrench thrown in the proximate cause
chain. Although it may create kinks in the chain, it does not break it completely,
and developing an analysis that appropriately criminalizes medical malpractice
is possible. To understand how to appropriately draw the line between civil and
criminal medical malpractice, it is important to first understand the current legal
standards for civil and criminal medical malpractice actions.

30 Id.
31 Id. at 312.
32 Id.
33 The effectiveness of new medical technology, contrary to popular belief, may actually
increase rather than decrease potential liability. See Mark F. Grady, Why Are People Negligent?
Technology, Nondurable Precautions, and the Medical Malpractice Explosion, 82 NW. U. L. REV.
293, 294 (1988). While technology can aid in earlier detection and treatment of medical problems,
new technology such as heart monitors, brain scanners, blood-gas analyzers, and other
technological components create a complex interaction between the healthcare provider and the
patient, which creates a tremendous need for advertence. Id.
III. MEDICAL MALPRACTICE IN THE CIVIL AND CRIMINAL SYSTEMS

Medical malpractice is ordinarily handled by the civil system where a plaintiff may recover damages for physical and/or emotional harms. In addition to providing compensation to victims, the civil system also works to deter others from making similar negligent mistakes. Unlike the civil system, whose punishment goals are primarily deterrence and compensation, the criminal system focuses on punishing individuals for one (or more) of the following purposes: retribution, deterrence, rehabilitation, and incapacitation.

Punishment in the civil system is more of an individualized approach that only allows for monetary damages for the victim, while the criminal system’s punishment is much harsher in order to allocate moral blame and promote utilitarian efforts to create a safer society. If medical malpractice was committed by honest human error and could have been prevented by adequate workplace system protections, what purpose would be served by the criminal system that is not already addressed by the civil system?

A. Civil Medical Malpractice

Medical malpractice actions are based upon the legal theory of negligence. To recover on the theory of negligence, the injured plaintiff must show the following elements: duty, breach, causation, and harm. The duty of care owed by one individual to another individual differs depending on the extent of responsibility and expectation of carefulness the law places upon a person. For example, the default duty is an objective standard of reasonable care; that is, what would the person of ordinary prudence (a “reasonable person”) have done under similar circumstances? If situations create a greater amount of risk or individuals have specialized training that allows them to act with greater care

34 BARRY A. LINDAHL, 3 MODERN TORT LAW: LIABILITY AND LITIGATION § 24:110 (2d ed. 2023) (recognizing an array of factors that may contribute to damages awards including but not limited to compensatory damages, pain and suffering, and mental anguish). However, some jurisdictions have statutory caps on the types or monetary amount of damages that may be recovered in medical malpractice actions. See, e.g., LA. STAT. ANN. § 40:1299.42 (West 2023) (capping damages at $100,000 per provider incident with a $500,000 cap on total damages).
38 See generally STEVEN E. PEGALIS, AMERICAN LAW OF MEDICAL MALPRACTICE § 1:3 (3d ed. 2005).
40 RESTATEMENT (SECOND) OF TORTS § 283 cmt. c (AM. L. INST. 1965).
than that of a reasonable person, the law may impose a heightened duty of care. As discussed further below, medical professionals are held to a higher standard of care than that of the reasonable person, as they must comply with the standards of care followed by other professionals in their field.

The question of whether an individual breached their provided duty is decided on a case-by-case basis and is generally decided by a jury; although, medical malpractice typically requires the use of an expert witness to establish whether a duty was breached. To establish the duty of care in medical malpractice cases, the locality rule was historically the golden standard, though only a minority of states still follow the locality rule today. The locality rule dictates that a physician must possess the skills that another physician practicing in a similar locality, with no opportunity for larger experience, would ordinarily possess, and the physician is not bound to possess the higher degree of skills as those who practice in larger cities.

With the evolution of medical training and modern medicine, the duty of care for medical providers has similarly evolved to reject the locality standard for a national standard of care. Medical education and training are regulated through national standards and physicians are much more mobile now than they were in the past, as they are often able to practice in many different regions throughout the course of their careers. Therefore, it follows that the majority of courts have rejected the locality rule and adopted a nationalized standard of care to establish the duty and breach in medical malpractice cases. The national standard is generally articulated as follows: The physician when considering the circumstances of each patient, must use his or her medical knowledge to treat the patient with the reasonable diligence, skill, competence, and prudence as the minimally competent physician in the same field of practice who works under the same general facilities.

The criminal law does not have any actions specific to medical malpractice, but two of the most common charges, negligent homicide and involuntary manslaughter, are introduced below.

41 See id. § 315.
43 See Fed. R. Evid. 702.
45 Small, 128 Mass. at 132.
46 See generally Hall v. Hilbun, 466 So.2d 856 (Miss. 1985) (discussing the national versus the locality rule and holding that because medical education and training is nationalized and standardized, the law should follow suit).
47 Id.
48 See Donna Vanderpool, The Standard of Care, 18 Innovations in Clinical Neuroscience 50 (2021) (explaining that a majority of states follow the national standard and very few states have retained the locality standard).
49 Goldman v. Bosco, 120 F.3d 53, 55 (5th Cir. 1997).
B. Negligent Homicide and Involuntary Manslaughter

Criminally negligent homicide, punishable as a felony under state laws, occurs when an individual’s death is caused by criminal negligence. 50 To be charged with criminally negligent homicide, the State must show that there was an inattentive risk creation by the defendant and that the defendant should have been aware of his creation of a substantial and unjustifiable risk of death. 51 That is, the victim’s death must result from an act that is so negligent it rises to a criminal level by grossly deviating from the standard of care. 52 Criminally negligent homicide generally carries a sentence ranging from one to four years of imprisonment, with some states imposing harsher penalties of up to twenty years in prison. 53 When contrasted with manslaughter, criminally negligent homicide is a lesser offense because manslaughter often includes an additional, higher culpability mental state. 54

The elements required for involuntary manslaughter generally include “(1) an unlawful killing of a human being, and (2) with either the intent to commit a misdemeanor dangerous in itself, or an unreasonable failure to perceive the risk of harm to others.” 55 Unlawful acts include both voluntary acts or an omission or failure to act when one has the affirmative duty to do so. 56 Most jurisdictions require a minimum mens rea of recklessness, while some allow for criminal negligence. 57 Under the Model Penal Code, negligence requires that an

50 18 TEX. JURIS., CRIMINAL LAW: OFFENSES AGAINST THE PERSON § 39 (3d ed. 2023) [hereinafter TEX. JURIS.]. While this definition is taken from Texas state law, the statutes for criminally negligent homicide are quite similar from state to state with only minor changes in wording. The general elements remain the same. In states that have adopted the Model Penal Code, the Model Penal Code’s definition for the mental state of criminal negligence will apply. See MODEL PENAL CODE, infra note 58.

51 See TEX. JURIS., supra note 50. “A legally sufficient showing of criminally negligent homicide requires the State to prove that (1) the defendant’s conduct caused death of an individual; (2) the defendant ought to have been aware that there was substantial and unjustified risk of death from his conduct; and (3) the defendant’s failure to perceive risk constituted gross deviation from standard of care ordinary person would have exercised under like circumstances.” Id.

52 Id. (emphasis added).

53 See MONT. CODE ANN. § 45-5-104 (West 2023) (imposing a maximum state prison term of up to twenty years). But see ARIZ. REV. STAT. ANN. § 13-1102 (West 2023) (imposing jail time of up to one year and up to 3.75 years in custody).

54 See TEX. JURIS., supra note 50.


56 State v. Viens, 978 A.2d 37, 42 (Vt. 2009).

57 See, e.g., PA. STAT. AND CONS. STAT. ANN. § 2504(a) (West 2023) (specifying that a person may be found guilty of involuntary manslaughter when an unlawful act is performed recklessly or in a grossly negligent manner and causes the death of another person) (emphasis added). But see KAN. STAT. ANN. § 21-5405(a)(1) (West 2023) (specifying a minimum criminal culpability threshold of recklessness for involuntary manslaughter). Every crime must include a mental state,
individual should be aware of a substantial or unjustifiable risk that will cause a material element of a crime to result; this includes a gross deviation from the standard of care that a reasonable person would observe in the actor’s situation.\(^{58}\) Recklessness is a higher level of culpability that requires the actor to consciously disregard a substantial and unjustifiable risk that will cause a material element of a crime to result; this must be a gross deviation from the standard of conduct that a law-abiding person would observe in the actor’s situation.\(^{59}\)

In every criminal case, causation must be proven beyond a reasonable doubt.\(^{60}\) The causation element aids in increasing moral blameworthiness and punishment for actors that cause bad results.\(^{61}\) Causation is typically analyzed under a two-tiered definition: cause-in-fact and proximate cause.\(^{62}\) Cause-in-fact is a necessary condition test that requires the defendant’s actions to “make a difference vis-à-vis how the world would have been had she not done what she did.”\(^{63}\) Proximate cause is more difficult to articulate as a singular standard, but is generally understood to require that the defendant’s act must be a direct cause of the effect; the act cannot be remote from its putative effect.\(^{64}\) More pertinent to medical malpractice in particular is that the harm must be foreseeable to the actor.\(^{65}\) As illustrated in the next section, applying these concepts to modern medical malpractice is not necessarily as clear cut as it appears at first blush because latent system errors complicate the analysis.

### IV. Distinguishing Civil and Criminal Medical Malpractice

One of the major differences between the civil and criminal systems is that the former primarily acts as a compensatory system while the latter primarily acts as a punishment system. While both the civil and criminal system seek to deter unlawful behavior, the role of deterrence is amplified in the criminal system or mens rea, because the state of mind of the actor is what separates legal innocence from wrongful conduct. See Elonis v. United States, 575 U.S. 723, 736 (2015).

\(^{58}\) See Model Penal Code § 2.02(2)(d) (AM. L. INST. 1962). In the context of involuntary manslaughter, this would require the individual to be aware of a substantial or unjustifiable risk that will cause another’s death.

\(^{59}\) See id. § 2.02(2)(c).

\(^{60}\) Legal Info. Inst., Beyond a Reasonable Doubt, CORNELL L. SCH. (May 2020), https://www.law.cornell.edu/wex/beyond_a_reasonable_doubt.


\(^{62}\) Id.

\(^{63}\) Id.

\(^{64}\) Id.

\(^{65}\) Id.
due to the harsh punishments that result. In the criminal system, “to deter by suffering from inflicting suffering is not only possible, but the very purpose of penal justice.” This infliction of suffering also exacts punishment via retribution and society may find emotional satisfaction by punishing those who commit moral wrongs. Criminal punishment also acts to keep wrongdoers incapacitated from committing further crimes. It is important when deciding whether to punish a harmful act to consider whether any of the aforementioned theories of punishment will successfully deter unwanted behavior, creating a safer society.

In the context of criminal medical malpractice, if a patient’s harm resulted from an act where the healthcare provider knowingly created a risk of harm and intentionally ignored that risk, that is criminally culpable behavior that warrants harsher punishment. If the patient’s harm results from negligence, that negligence must be a gross deviation from the standard of care to reach the threshold of criminal culpability. However, if a latent system error that the healthcare provider was unaware of largely contributed to the patient’s harm, it should be left to the civil system and agencies that oversee healthcare providers’ professional discipline (i.e., the State Board of Nursing or Medicine) to initiate appropriate disciplinary action. Medical malpractice is unique compared to other forms of criminal negligence because healthcare providers’ risk-creating actions are solely confined to their place of work. Thus, the ultimate form of deterrence would be to revoke an individual’s license to practice so that they do not have an opportunity to harm future patients.

Moreover, the criminalization of common medical error does not provide any added benefit to society because healthcare providers that make unjustifiable mistakes can be removed from the profession by a medical disciplinary agency. When warranted, professional medical licenses may be revoked to prevent providers from causing any harm to future patients.

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68 Id.
69 Id.
70 See Model Penal Code, supra note 58.
72 Id.
73 See Drew Carlson & James Thompson, The Role of State Medical Boards, AMA J. Ethics (Apr. 2005), https://journalofethics.ama-assn.org/article/role-state-medical-boards/2005-04 (explaining that the state medical board has the authority to revoke a license to practice after a
Furthermore, as far as retribution is concerned, the second victim of a medical error should not be overlooked. Recent studies have found that medical providers “who believed they made medical errors were more than three times as likely to have considered suicide as those who didn’t.” For example, a nurse who committed a medical error resulting in the death of her patient committed suicide just months after the event. When preventable errors are committed by a medical provider acting with no criminal culpability, retribution via the prison system is unfit. This is especially true when system errors are a large contributor to patient harm because system errors take conscious deliberation away from the medical provider and shift some of the liability onto the institution as a whole.

A. Setting the Boundaries: Understanding System Errors’ Impact on Medical Malpractice

The reasonable person standard is utilized in both civil and criminal negligence cases to determine whether there was a deviation from the standard of care; the deviation in criminal cases, however, must meet a higher threshold to show a gross deviation from the standard of care. But who is the reasonable person? He is merely “a mythical character who was conceived by the judicial mind in an attempt to bring some semblance of perfection to a far too imperfect world.” The reasonable person is an ideal who is never for a moment forgetful. Within a medical field booming with rapid technological advancements, how can the reasonable person (or reasonable healthcare provider, that is) appropriately navigate digital platforms and interfaces that frequently take conscious deliberation out of the mind of the person and into the mind of the machine?

New technology, contrary to popular belief, may actually increase claims for negligence because “new machines and procedures take risk from nature and transform it into potential liability,” which becomes actual liability when systems inevitably fail and humans do not have zero margins of error.

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75 Id.

76 See, e.g., Montgomery v. State, 369 S.W.3d 188, 193 (Tex. Crim. App. 2012) (requiring a showing for criminal negligence that the defendant’s actions constituted a gross deviation from the standard of care an ordinary person would have exercised under similar circumstances).

77 Nicole D. Milos, *Can the Reasonable Person Navigate the Technological Storm?*, 62 No. 6 PRAC. L. 41, 42 (2016).

78 See Lindahl, supra note 34, at § 3:23.

79 See Grady, supra note 33, at 295.
This is not to say that technological advancements are bad; they are imperative to improving medical outcomes in the long run. But technology cannot wholly eliminate the risk created by natural human error and technology cannot improve if errors between the interface of the human and the system cannot be freely reported without fear of repercussion. When complex technological systems come into play, the ideal of the reasonable person becomes somewhat unreasonable because latent errors, hidden by the system, cannot be appropriately assessed and deliberated by the reasonable person.

System errors are unique because they often result from repeated and routine actions, so there is little conscious deliberation that occurs when these repeated acts become habitual. Thus, individual providers should not be used as the scapegoat to hide major system issues, which are often a large contributor to patient harm. Because of the amplified role of punishment in the criminal system, it is imperative in light of complex system issues to consider the mental state of the actor and criminalize only that conduct which carries moral blameworthiness. Simply because a negligent act results in death does not automatically make that act criminal. It is important to understand the standard of care and whether the negligent act rose to the lowest threshold of criminal culpability by grossly deviating from the standard of care. Patient safety experts similarly hold that penalizing individual workers is not the “answer to even the worst mistakes, unless they’re the result of repeated, willful flouting of established procedures or intentional harm.”

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81 This is often referred to as “just culture.” Hospitals are inherently imperfect systems and errors are almost always the result of a sequence of events with multiple opportunities for correction. See Linda Paradiso & Nancy Sweeney, Just Culture: It’s More Than Policy, 50 J. EXCELLENCE NURSING LEADERSHIP 38, 39 (2019). When preventable errors occur, usually at a point of interface between an individual and the technological system, those errors must be identified to correct gaps in the system. Id. Just culture provides a safe haven that encourages every error (and near miss) to be reported, so that the organization, rather than the individual, can be held accountable for correcting the system and design. Id.

82 It is important to highlight here that the civil system provides a large range of damages for victims to recover for negligence and/or wrongful death. The civil court system also provides the victims with a day for their voice to be heard in court. Furthermore, agencies such as the Board of Medicine and Board of Nursing are better equipped to conduct investigations into healthcare providers’ negligent actions, so that the most appropriate course of action ranging from continuing education to license revocation can be taken. Removing the criminalization of non-culpable behavior will not remove any remedies for the victims, it will simply avoid the criminal prosecution of civilly negligent errors.

83 See MODEL PENAL CODE, supra note 58.

84 See Aleccia, supra note 74.
However, the difficulty in explaining to a jury the difference between civil and criminal negligence has not gone unnoticed by the courts. This distinction is even more complex in the arena of modern medicine, which involves not only the defendant as a contributor to harm, but often system errors as well. One English court proposed that while it is proper to instruct a jury “to use words such as ‘culpable,’ ‘criminal,’ ‘gross,’ and ‘wicked,’ it should nevertheless be impressed on the jury that the issue is not negligence or no negligence,” but whether the negligence showed such “disregard for the life and safety of others as to amount to a crime against the state, and conduct deserving punishment.” This standard suggests that the focus of the inquiry must be on the individual’s mental state and whether the negligence was of such a severity that it constitutes criminally culpable behavior. In practice, distinguishing criminally culpable behavior from civil negligence is much more difficult than it appears at first blush, especially when system errors and individual actors both contribute to a resulting harm.

B. Case Illustrations: Drawing the Line of Appropriate Criminalization

The following case illustrations offer examples of when medical malpractice was appropriately criminalized and when criminalization crossed the line. The first three cases discuss the appropriate criminalization of medical malpractice, where the root cause of the harm can be traced back to a criminally culpable act. The remaining four cases demonstrate inappropriate criminalization of medical malpractice, where the provider’s act lacked criminal culpability and a system error largely contributed to the resulting harm. In the inappropriately criminalized cases, adequate system protections could have prevented the healthcare provider’s negligent action. Despite this distinction, system errors still contributed to the breadth of harms in the appropriately criminalized cases. This demonstrates the importance of shifting the focus to improving healthcare systems by preventing system errors as the best way to improve patient safety. Inappropriately criminalizing behavior resulting from non-culpable system errors will only prevent the development of adequate system safeguards.

1. Dr. Death – Appropriately Criminalized

Dr. Duntsch committed malpractice so severe that he earned himself the notorious nickname of “Dr. Death.” Duntsch appeared to boast impressive

85 See Donald C. Barrett, Homicide Predicated on Improper Treatment of Disease or Injury, 45 A.L.R.3d 114 (1972).
86 Id.
87 Laura Beil, Dr. Death, WONDERY, at 02:38 (Sept. 4, 2018), https://wondery.com/shows/dr-death/.
credentials of both an M.D. and Ph.D. from a top spinal surgery program.\textsuperscript{88} He maintained raving patient reviews online.\textsuperscript{89} Raving reviews did not equate to raving results, however. Out of the thirty-seven patients that Duntsch operated on, thirty-three of his patients suffered rare and severe complications ranging from nerve damage to death.\textsuperscript{90} Despite these jarring statistics, hospitals swept it under the rug to avoid legal consequences and allowed Duntsch to simply resign rather than firing him for a lack of competence.\textsuperscript{91} Furthermore, these hospitals failed to report Duntsch to any databases, such as those run by the U.S. Department of Health and Human Services, so potential employers and patients were never put on notice of Duntsch’s alarming history.\textsuperscript{92}

Multiple hospitals failed to take action against Duntsch due to fear of legal challenges and negative publicity.\textsuperscript{93} Even another avenue of recourse that could have been implemented by the medical board, by conducting internal investigations or requiring external agency investigations of Duntsch to revoke his license, failed because it took over a year for the medical board to even conduct a formal investigation of Duntsch and nothing was done to stop him from operating and harming more lives during that period of time.\textsuperscript{94} Despite the multiple systems designed to enhance safety, protect patients, and improve quality of care, the criminal justice system was the last resort for recourse because several systems repeatedly failed.

On July 25, 2012, Duntsch was formally indicted for “intentionally, knowingly, recklessly and with criminal negligence caus[ing] serious bodily injury to . . . an elderly individual” by mispositioning a medical device during surgery.\textsuperscript{95} It was not until the prosecutors began looking into Duntsch’s medical training history that it was discovered that he operated fewer than 100 times during the course of his neurosurgery residency—the average neurosurgery resident completes about 1,000 surgeries during the course of their training.\textsuperscript{96} Yet another system failure. The jury found Duntsch guilty and he was sentenced to

\begin{itemize}
\item[{88}] Beil, \textit{supra} note 2.
\item[{89}] \textit{Id.}
\item[{90}] \textit{Id.}
\item[{91}] \textit{Id.}
\item[{92}] \textit{Id.}
\item[{93}] \textit{Id.}
\item[{94}] \textit{Id}. Because the hospitals never reported Duntsch to databases and allowed Duntsch to resign, rather than fire him for lack of competence, medical boards were not given the adequate notice to initiate proper investigations.
\item[{96}] Beil, \textit{supra} note 2. The average of 1,000 surgeries performed during the course of a neurosurgery residency is provided by the Accreditation Council for Graduate Medical Education, which is the formal agency that handles accreditation for residency programs. \textit{See Neurological Surgery, Accreditation Council for Graduate Med. Educ.}, https://www.acgme.org/specialties/neurological-surgery/overview/ (last visited Oct. 3, 2023).\
\end{itemize}
life in prison. The appellate court upheld Duntsch’s conviction and held that Duntsch met the requisite mens rea of knowingly because at the time he performed the surgery on the patient, he was aware of the vast amount of complications from prior patients, and a trained neurosurgeon should and would have known that the amount and types of complications he encountered repeatedly was highly unusual.

In Dr. Death’s case, criminal charges were appropriate because Dr. Death’s care not only grossly deviated from the standard of care, but his repeated abnormally poor outcomes and lack of training demonstrate that he was aware of the unjustifiable risk he created by continuing to perform surgeries. He not only had a handful of patients with unusually poor outcomes, but almost all his patients suffered severe and unusual complications. Dr. Death wasn’t just an unskilled surgeon; he was an undertrained surgeon who cheated the residency system to graduate with far less than the acceptable amount of training hours. This act involved conscious deliberation by Dr. Death, showing criminal culpability, because he made the informed decision to lie about his hours knowing that he could later harm patients because of his severe lack of training. Here, the law appropriately criminalized the origin of the source that led to harm: Dr. Death’s decision to continue operating despite a gross lack of training.

2. Dr. Chacon and Nurse Lang – Appropriately Criminalized

Dr. Chacon and Nurse Lang worked together to provide elective and routine plastic surgery procedures. After a patient underwent a routine breast augmentation performed by Chacon and never awoke, Chacon and Lang were charged with involuntary manslaughter. Prior to surgery, it was known to Chacon and Lang that there was no anesthesiologist present, and the pair failed to disclose that information to the patient. Due to the absence of an

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97 Id.
98 Duntsch, 568 S.W.3d at 219.
99 Beil, supra note 2.
100 Id.
102 Id. California requires a minimum mens rea of negligence for involuntary manslaughter, stating that involuntary manslaughter is the unlawful killing of a human being without malice that may result “in the commission of a lawful act which might produce death, in an unlawful manner, or without due caution and circumspection.” See CAL. PENAL CODE ANN. § 192 (West 2023); see also People v. Anderson, 208 P. 324, 326 (Cal. Dist. Ct. App. 1922) (recognizing that lack of due caution and circumspection need not go to the extent of being wanton or reckless).
103 Kastner, supra note 101.
anesthesiologist, Lang, a registered nurse who had no adequate training to do so, administered the sedation to the patient. The patient went into cardiac arrest during the procedure and attempts to revive her failed. Rather than calling 911, Chacon called two anesthesiologists he previously worked with for advice but concealed to them how life-threatening the situation was—one anesthesiologist even offered to come in to help, but Chacon declined. The other anesthesiologist pleaded for Chacon to contact emergency services, so that the patient could be properly intubated, but Chacon never called despite the patient making gurgling noises and exhibiting seizure-like activity. Once the patient was finally brought to the hospital, she was declared brain dead and died five weeks later.

It took three years after the event for the State to bring charges against Chacon, and the Medical Board of California likewise did not file charges or publish any accusations for three years. During that three-year gap, Chacon and Lang continued to perform elective procedures. The public was not put on notice of the prior conduct that occurred because the medical board failed to investigate the incident. The medical board even commented in express disagreement to the necessity of providing the public with notice of such adverse events by stating that, “[t]o create a requirement for a physician charged with a crime to notify their patients would require the Legislature to pass, and the Governor to sign, a new law.” Again, like the hospitals in the Dr. Death case passed off liability, the medical board in this case is similarly attempting to evade liability by passing the torch to the legislature.

This case falls past the boundary of civil negligence and shows a gross deviation from the standard of care coupled with a willful decision to delay care even though the doctor knew such a delay of care could cause an unjustifiable risk of death to the patient. The doctor made a consciously deliberated decision with criminal culpability to serve his own interest to attempt to evade liability and avoid getting caught for his lack of anesthesia staffing. Allowing untrained

104 Id.
105 Id.
106 Id.
107 Id.
108 Id.
109 Id.
110 Id.
111 Id.
112 Id.
professionals to administer the anesthesia is just another unjustifiable risk taken here.

3. Charles Cullen, RN – Appropriately Criminalized

Charles Cullen, infamously referred to as “The Good Nurse” in Netflix’s top-performing documentary, admitted to intentionally administering fatal medication overdoses to roughly forty patients over the course of his career. Cullen was able to override the Pyxis (an electronic medication dispensing system) to withdraw common drugs, which made it possible for him to kill patients without drawing much attention. Cullen would then inject lethal doses of the drug into bags of IV fluids or directly into the patient, where it would go undetected until the patient’s death later resulted. Two of the cases of Cullen’s victims will be discussed below—one involving a death in the hospital setting and another involving a death in the nursing home setting.

In 1993, a ninety-one-year-old patient on Cullen’s unit was recovered and ready for discharge after surgery. A male nurse who was not assigned to her (the nurse later determined to be Cullen) told her son to leave the room so he could give an injection that the doctor ordered. When the patient was released the next day, she suffered sudden heart failure and died. Her son informed the prosecutor’s office of the nurse, who he was almost certain was Cullen, that came in to give the injection and the medical examiner confirmed that the injection was unprescribed. It was discovered through an autopsy that the patient was

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114 THE GOOD NURSE (Netflix 2022).
116 Id.; see also THE GOOD NURSE, supra note 114. Interesting to note is that currently not all hospital systems even safeguard insulin within a locked and traceable withdraw system, such as the Pyxis (an electronic medication cabinet that can only be accessed via fingerprint). It is often kept within the patient’s medication drawer or an unlocked refrigerator in the medication room. While some hospitals require a dual nurse sign off to administer insulin safely, not all hospital systems have these protocols in place to ensure safe insulin administration. See Tristan A. Moorman, Comparative Storage and Utilization Analysis of Insulin Across Inpatient Hospital Settings, UNIV. KY. UKNOWLEDGE 7 (2017), https://uknowledge.uky.edu/cgi/viewcontent.cgi?article=1277&context=mpampp_etds.
117 George et al., supra note 115.
118 Id.
119 Id.
120 Id.
121 Id.
given a fatal dose of digoxin, a common cardiac glycoside drug used to treat heart failure and heart arrhythmias.\textsuperscript{122}

Years later in 1998, a nursing home patient was rushed to the hospital by ambulance because his blood sugar dropped dangerously low, despite the fact that the patient was not supposed to be taking insulin.\textsuperscript{123} The nurse assigned to him insisted that she had not given the patient insulin but tipped off supervisors that she believed Cullen might have given the insulin since he was taking care of the patient’s roommate and was in and out of the room throughout the night.\textsuperscript{124} Furthermore, Cullen was being investigated by the nursing home at that time for stealing drugs and Cullen was recently fired from another hospital just a year prior for “poor performance.”\textsuperscript{125} The nursing home allowed Cullen to stay on staff until months later when the nursing home discovered Cullen entering an elderly woman’s room, to whom he was not assigned, with syringes in hand.\textsuperscript{126} The nursing home claimed to fire him for violating medication protocols but never reported Cullen to the state police or State Board of Nursing.\textsuperscript{127}

Despite a trail of suspicious deaths on every unit Cullen worked and frequent job-hopping, Cullen had no difficulty jumping from hospital to hospital for an entire decade after his first homicide accusation.\textsuperscript{128} While Cullen clearly possessed the requisite criminal culpability to be subject to prosecution, his continuation of harm was only possible because of system failures that occurred on many occasions and throughout many different levels.\textsuperscript{129} For example, medical examiners failed to order the correct tests, several coroners who believed a death was not accidental failed to alert authorities, several authorities that did investigate Cullen did not even investigate far enough to learn of any of the previous allegations against Cullen, and hospitals did not report him to other employers or any oversight agencies.\textsuperscript{130}

Finally in 2006, Cullen received 11 consecutive life sentences without parole after pleading guilty to committing 22 murders in New Jersey, seven murders in Pennsylvania, as well as murdering six others throughout the course of his 16 year nursing career.\textsuperscript{131} While the sentencing is justified in this example,

\begin{thebibliography}{9}
\bibitem{123} George et al., \textit{supra} note 115.
\bibitem{124} \textit{Id.}
\bibitem{125} \textit{Id.}
\bibitem{126} \textit{Id.}
\bibitem{127} \textit{Id.}
\bibitem{128} \textit{Id.}
\bibitem{129} \textit{Id.}
\bibitem{130} \textit{Id.}
\end{thebibliography}
many of Cullen’s murders could have been prevented had the hospitals reported Cullen’s suspected behavior, so that proper investigations could have commenced earlier. It is also common for employers to refuse to pass on negative information in fear of being sued and the state and federal systems for warning employers of bad healthcare professionals are weak because reporting requirements are so narrow. 132 Cullen ultimately failed to uphold his moral and ethical obligations to patients, but the hospital systems were also a large failure for these patients by allowing Cullen to work for so many years without any repercussion. Nonetheless, Cullen’s behavior is appropriately criminalized because the root cause of the patients’ harms were Cullen’s intentional actions to give fatal doses of medications to patients.

4. RaDonda Vaught – Inappropriately Criminalized

RaDonda Vaught is a registered nurse who made an isolated medication error that resulted in her patient’s death. 133 In 2019, Vaught was arrested and charged with reckless homicide and gross neglect of an impaired adult. 134 Her patient was scheduled to undergo an MRI for a brain injury and was prescribed Versed, a sedative, to calm her before the scan. 135 However, when Vaught pulled the medication from the Pyxis, the drug Vecuronium, a paralytic agent, was pulled instead. 136 The machine alerted but Vaught proceeded to administer the Vecuronium to the patient. 137 By the time the medication error was discovered, the patient was brain-dead. 138

132 George et al., supra note 115. Surveys have found that a substantial number of companies have policies prohibiting the release of any information about former employees other than verifying the dates of employment and job title because of fear of liability, largely via defamation suits. MARION CRAIN, PAULINE KIM, MICHAEL SELMI & BRISHEN ROGERS, WORK LAW: CASES AND MATERIALS 445–46 (4th ed. 2020). Regarding mandatory reporting requirements for the misconduct of interdisciplinary healthcare providers, the National Practitioner’s Data Bank only requires adverse clinical privileges actions, such as conduct that adversely affects the welfare of a patient, to be reported when a physician or dentist commits misconduct. See U.S. Dep’t of Health & Hum. Servs., National Practitioner Databank Guidebook, HEALTH RES. AND SERVS. ADMIN. E-31–32 (Oct. 2018), https://www.npdb.hrsa.gov/resources/NPDBGuidebook.pdf. If a registered nurse, for example, is terminated from a facility for incompetence or misconduct that adversely affected the welfare of a patient, the hospital’s decision to report the provider is only permissible, not mandatory. See id.

133 Kelman, Former Nurse, supra note 1.

134 Id. In Tennessee, reckless homicide is a Class D felony defined as “a reckless killing of another.” TENN. CODE ANN. § 39-13-215 (West 2023).

135 Kelman, Former Nurse, supra note 1.

136 Id.

137 Id.

138 Id. See also Kelman, Nurse’s Trial, supra note 24. An override refers to the process of pulling a medication from the electronic dispenser that is either not ordered for the patient or not
At trial, there was major dispute over key facts: There was considerable debate of whether the Vecuronium actually killed the patient or if the death was caused by the brain injury, it could not be verified how much Vecuronium was given and a small dose likely would not have been lethal, and the pharmacy was having technical difficulties with the medication system in the months leading up to Vaught’s medication error. Nevertheless, the prosecution argued that the mens rea of recklessness was met because Vaught “recklessly disregarded” warning symbols on the medication distribution system. But how could Vaught’s disregard of warning symbols truly be reckless if she followed Vanderbilt’s instructions to ignore the warning symbols as a work around to the hospital’s system issue? Vaught pulled and administered the medication with no knowledge or intent that the drug had the potential to cause severe harm to her patient. Furthermore, Vaught reported her error to the hospital immediately and admitted it to the Tennessee Board of Nursing at her hearing. Vaught was ultimately convicted by a jury on two counts: criminally negligent homicide and abuse of an impaired adult. These charges carried the possibility of up to eight years in prison. Ultimately, the judge gave Vaught a diverted sentence—if Vaught met the terms of her probation, the charges could potentially be wiped from her record down the road.

In Vaught’s case, there was a deviation from the standard of care when Vaught pulled the incorrect medication and failed to notice before administering it to the patient. At first blush, this case appears to verge close to the line of yet approved by the pharmacy. See Over-the-Top Risky: Overuse of ADC Overrides, Removal of Drugs without an Order, and Use of Non-Profiled Cabinets, INST. FOR SAFE MEDICATION PRACS. (Oct. 24, 2019) [hereinafter Over-the-Top Risky], https://www.ismp.org/resources/over-top-risky-overuse-adc-overrides-removal-drugs-without-order-and-use-non-profiled. It is the duty of the hospital to identify high-risk drugs, so that they may not be removed using this override function. Id. For patient safety, overrides are not recommended to be used as a workaround to system issues and should only be utilized under limited circumstances, such as pulling emergency medications. Id.

139 | See Kelman, Former Nurse, supra note 1. Because of the technical difficulties in the pharmacy, Vanderbilt instructed its nurses to use the override feature as a workaround to the systems issue. See Kelman, Nurse’s Trial, supra note 24.

140 | Id.


142 | Id.

143 | Id.

144 | A diverted sentence allows Vaught to avoid jail time. However, Vaught was still subjected to years of probation and suffered an impairment of her individual rights as a result of her medication error and subsequent felony status. See Mariah Timms, Ex-nurse in Tennessee Will Serve No Jail Time in Death of Patient After Medication Error, Judge Rules, USA TODAY (May 13, 2022), https://www.usatoday.com/story/news/nation/2022/05/13/radonda-vaught-gets-no-jail-time-medications-error-led-death-patient/9761895002/.
criminal culpability because of Vaught’s disregard of the machine’s alert. However, Vanderbilt instructed its nurses to use the override feature as a necessary work around to a systems issue with the hospital’s medication dispensing system. The key difference between this case and the prior ones (Dr. Death, Dr. Chacon and Nurse Lang, and Cullen), is that the negligence does not rise to a criminal level, and a large contributor that led to the patient’s death can be attributed to preventable system errors.

5. Eric Cropp, Pharm. D. – Inappropriately Criminalized

Eric Cropp, a pharmacist from Ohio, was found guilty of involuntary manslaughter and “sentenced to 6 months in prison, 6 months of home confinement with electric monitoring, 3 years of probation, 400 hours of community service, a $5,000 fine, and payment of court costs” because of one medication error that turned out to be fatal. When Cropp was inspecting a compounded chemotherapy solution that was prepared for a child, he failed to notice that the pharmacy technician prepared the base with too much sodium chloride. When the child received the chemotherapy solution, the child developed severe hypernatremia, which is an excess of sodium in the bloodstream, and it resulted in her death. On the day Cropp made this mistake, by failing to recognize an incorrect concentration of solution that was prepared by someone else, he was already set up for failure by the hospital system: the pharmacy computer system was down that morning, the pharmacy was short staffed that day, workers in the pharmacy did not get meal or work breaks, and a nurse had requested the chemotherapy solution earlier than it was prescribed.

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145 See Kelman, Nurse’s Trial, supra note 24.
146 See supra Part I for a detailed explanation of the hospital’s system errors that led to Vaught’s mistake. The medication error here is likely the result of expected human error that failed to be prevented because of latent errors in the system that Vanderbilt failed to adequately address. While this case does not rise to the threshold of criminal culpability needed for criminal negligence, it is certainly appropriately categorized as medical malpractice in the civil context.
147 Ohio Government Plays Whack-A-Mole with Pharmacist, INST. FOR SAFE MEDICATION PRACS. (Aug. 27, 2009), https://www.ismp.org/resources/ohio-government-plays-whack-mole-pharmacist. Cropp was initially charged with reckless homicide but plead no contest in a plea deal to receive the lesser offense of involuntary manslaughter. See Karen Berger, Eric Cropp Discusses Medical Error That Sent Him to Prison, PHARMACY TIMES (Mar. 21, 2018), https://www.pharmacytimes.com/view/getting-to-know-the-caring-eric-cropp. In Ohio, involuntary manslaughter is defined as follows: “[n]o person shall cause the death of another . . . as a proximate result of the offender’s committing or attempting to commit a misdemeanor of any degree, a regulatory offense, or a minor misdemeanor . . . .” OHIO REV. CODE ANN. § 2903.04(B) (West 2023).
148 Over-the-Top Risky, supra note 138.
149 Id.
150 Id.
While Cropp failed to adequately inspect the medication solution, this inaction has no criminal culpability associated with it. The fatal error here, while heartbreaking, is a civil negligence error that resulted largely from the hospital’s system failures that day. The cause of the death was not a gross deviation from the standard of care or conscious choice to overdose a child but was rather a series of system errors that failed to prevent an act of expected human error. An individual provider should not be used as the scapegoat for liability when their mistakes involved no criminal culpability and when those mistakes could have been prevented by adequate system protections in the workplace.

6. Julie Thao, RN – Inappropriately Criminalized

Julie Thao is a registered nurse from Wisconsin who worked in labor and delivery. Before the shift where her medical error occurred, she worked two consecutive eight-hour shifts and had to arrange to sleep at the hospital because she was scheduled to begin another eight-hour shift just seven hours later. During that shift, she was assigned two patients; one patient was being admitted for induction of labor. Once the patient got to her room, Thao spent almost an hour explaining the process and answering questions. They discussed an epidural and the evidence is conflicting: The patient’s mother claims that the patient wanted an epidural only as a last resort while Thao claims that the patient seemed interested in getting an epidural as early as possible. Later in the morning, the resident physician signed an order for IV antibiotics, IV and oral pain medication as needed, and oxytocin (a drug that improves labor contractions). Once the physician ruptured the patient’s membranes to begin labor, he did not order an epidural right away because his usual practice was to wait and see if it was needed and then order it at that time.

When Thao went to the medication room, she pulled the ordered medications and additionally pulled the epidural medications, so that it would be ready if an epidural would be ordered by the physician. She took these medications to the patient’s room and placed them on a counter—at this same time another nurse brought the IV antibiotic in and placed it on the same

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152 Id.
153 Id.
154 Id.
155 Id.
156 Id.
157 Id.
158 Id.
Both the epidural medication and the antibiotic were in a 250 cc bag of clear liquid and looked identical except for the labels. A new system of administering medications through the electronic medical record by scanning (the system widely used today) was just implemented three weeks prior to this incident. Thao took a bag of IV medication, which she believed to be the antibiotic, and connected it to the patient without first scanning the barcodes; that medication turned out to be the identical medication bag containing the epidural medication. As soon as the medication began running, the patient began seizing, so Thao pulled the medication immediately and called a code, where cardiopulmonary resuscitation measures were unsuccessful. An emergency cesarean section was performed and the baby was delivered.

The State charged Thao with one count of neglect of a patient causing great bodily harm, which is a felony charge. Meanwhile, the Wisconsin Board of Nursing only suspended her nursing license for a period of nine months with practice limitations thereafter that included imposing reasonable work-hour limitations, requiring Thao to give notice to employers, conducting quarterly performance reports, and completing continuing education credits. If Thao’s conduct truly rose to the level of culpability that it should be punishable by felony, then wouldn’t the nursing board’s decision—made by experts in the field of nursing—have matched the punishment if it was truly such an egregious mistake? If the mistake was so egregious that the only recourse would be severe deterrence to prevent Thao from causing harm to any other patients, wouldn’t the better course of action be to permanently revoke her nursing license? Mistakes such as accidental medication errors are readily discernable from the culpable acts, as described in the cases of Dr. Death and Cullen, for example, because a large contributor to patient harm in accidental, isolated mistakes is almost always the result of a latent system error that failed to prevent a healthcare provider’s predictable mistake.

159 Id.
160 Id.
161 Id.
162 Id.
163 Id.
164 Id.
165 See Wis. Stat. Ann. § 940.295(3) (West 2023) (requiring a minimum culpability of negligence but recognizing that the negligence provision does not apply to ordinary negligence and good faith errors—in such instances, the next higher culpability threshold of recklessness would apply).
7. Nurse Morris and Gowan – Inappropriately Criminalized

Morris and Gowan are licensed practical nurses that worked for a skilled nursing facility. On December 5, 2022, the two nurses were criminally charged with two counts of neglect of a vulnerable adult. These charges arose from incidents between September 9 and September 11, and the charges alleged that the nurses knowingly failed to provide care to residents by failing to complete a wound dressing change on a patient for two days. The investigators allege that the resulting harm—warranting criminal charges—was that the failure to change the wound dressings for two days caused the patients’ “wounds to increase in size, resulting in both victims suffering unnecessary harm and risk to their physical health.” If these two nurses are convicted, they will face a felony charge and be subjected to up to five years in prison.

What purpose is being served by subjecting these nurses to a felony charge for failing to change a wound dressing twice? Perhaps the investigators are aiming for deterrence to prevent lack of care elsewhere from slipping through the cracks. However, the civil courts would be more appropriate in this case because failing to change a wound dressing for merely two days does not rise to the lowest threshold for criminal culpability, which requires a gross deviation from the standard of care. While the nurses’ failure to change the wound dressings contributed to the patients’ harms, a large contributor to harm was also a result of system failures (short-staffing, inadequate resources, and perhaps poor documentation) that failed to provide the nurses with the adequate resources to perform timely care. The nursing home set its providers up for failure.

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168 Id. See IDAHO CODE ANN. § 18-1505-1505 (West 2023) (defining abuse as the “intentional or negligent infliction of physical pain”).

169 Limon, supra note 167.

170 Id.

171 Id.

172 See MODEL PENAL CODE, supra note 58.

173 Another example of a healthcare provider whose actions were inappropriately criminalized in the nursing home setting is the case of Sunkyoung Oh. See Caleb Hutton, Lynnwood Nursing Assistant Charged with Manslaughter, HERALDNET (Feb. 19, 2020, 1:30 AM), https://www.heraldnet.com/news/lynnwood-nursing-assistant-charged-with-manslaughter/. Oh was caring for a frail patient that required the assistance of two people to ambulate, as well as the use of a gait belt for stabilization, according to the care plan. Id. After the patient suffered a fall while attempting to stand up, Oh was charged with second-degree manslaughter because she failed to use the gait belt. Id.
V. CRIMINALIZING SYSTEM ERRORS LEADS TO CATASTROPHIC PATIENT OUTCOMES

Criminalizing acts of civil medical malpractice will create chilling effects within the healthcare system, especially when many of the recent cases have set a precedent that mistakes lacking criminal culpability may still be prosecuted. Boundaries must be set to prevent the inappropriate criminalization of predictable human error (typically system errors) while allowing the continued criminalization of errors that were made with malice intent or criminal culpability. Excess criminalization of system errors will prevent medical professionals from reporting honest errors and cause an already fragile healthcare system to crumble from its core. As Ferner and McDowell recognize in their literature review,

The criminal prosecution of a doctor is appropriate when there is clear evidence of violation of safety rules. However, human error is unavoidable in the course of care. Charging doctors with manslaughter following a medical error may be an emotionally satisfying way to exact retribution, but if individual doctors are singled out for punishment it will become much harder to foster an open culture. Faults in the system will remain hidden, and more patients will die.\textsuperscript{174}

The American Nurses Association similarly warns against the overcriminalization of medical errors, stating that it will have “a chilling effect on reporting and process improvement.”\textsuperscript{175} Healthcare is highly complex and involves the interplay of multidisciplinary practitioners, various platforms of technology, and the need for rapid response to societal and environmental factors.\textsuperscript{176} As a result, it is a high risk and error-prone system. When errors occur, it is vital that they are reported, so that the root cause of the error can be identified and rectified to prevent future errors of the same nature from recurring.\textsuperscript{177} The

\begin{itemize}
  \item Ferner & McDowell, \textit{supra} note 29.
  \item \textit{Id.}
  \item Patient Safety Network, \textit{Root Cause Analysis}, \textit{Agency for Healthcare Research and Quality} (Sept. 7, 2019), https://psnet.ahrq.gov/primer/root-cause-analysis. Root cause analysis is one of the most common methods used to analyze adverse events. \textit{Id.} This analysis works to identify both active errors that occur at the interface between humans and the complex system and latent errors that are hidden problems that contribute to adverse events. \textit{Id.} The first step in this process is data collection—if errors are not reported, data cannot be collected that could eliminate latent errors in the future. \textit{Id.}
\end{itemize}
“[t]ransparent, just, and timely reporting mechanisms of medical errors without
the fear of criminalization preserve[s] safe patient care environments.”178

Medication errors in particular are almost always attributed to system
errors.179 In fact, 68% of nurses make medication errors at some point throughout
their career.180 Administering the wrong medication to a patient is a deviation
from the standard of care by failing to complete the five medication checks,181
but it is not a gross deviation from the standard of care that warrants criminal
prosecution as these checks are merely guidelines that illustrate the gold standard
deviation, not necessarily the care that is deemed to be minimally competent. With
medication errors being so common, and most often the result of system errors,
criminalizing these errors that lack criminal culpability will create a slippery
slope whereby an absurd amount of the healthcare profession could be subject to
criminal liability for common mistakes. Furthermore, criminalizing non-culpable
medical errors will deter providers from reporting errors. Reporting accidental
errors is vital to improving healthcare systems to prevent the same type of error
from recurring in the future.182 According to the Federal Drug Administration
(FDA), in 2019 alone it was reported that the FDA received more than 100,000
reports associated with a suspected medication error.183 That statistic does not
even provide accurate insight to how many medication errors are reported (or go
unreported) within a hospital system and do not even make it onto the FDA’s
reporting statistics—the actual number is likely even much higher.184

178 Levine, supra note 175.

179 See WHO Launches Global Effort to Halve Medication-Related Errors in 5 Years, WORLD
related-errors-in-5-years (finding that most harm arises from system failures in the way care is organized and coordinated, especially when multiple health providers
are involved in a patient’s care).

180 Wudma Alemu, Asmamaw Demis, Niguse Tadele & Adam Wondmieneh, Medication

181 It is recommended that nurses complete five checks of medications upon administering
every medication. See Frank Federico, Five Rights of Medication Administration, INST. FOR
HEALTHCARE IMPROVEMENT, https://www.ihi.org/resources/Pages/ImprovementStories/FiveRightsofMedicationAdministration.aspx (last visited Oct. 3, 2023). These checks include, “the right patient, the right drug, the right
dose, the right route, and the right time.” Id. However, nursing safety institutes, such as the Institute
for Healthcare Improvement, recognize these five checks merely as a guideline that “should be
accepted as a goal of the medication process not the ‘be all and end all’ of medication safety.” Id.

182 See Levine, supra note 175.

183 Working to Reduce Medication Errors, U.S. FOOD & DRUG ADMIN. (Aug. 23, 2019),

184 One study based out of the University of Utah found that about 90% of all hospital mistakes
 went unreported. See New Study Finds Medical Error Rates are Underreported, PBS (Apr. 7, 2011),
Criminalizing system errors will not only deter medical providers from reporting their errors, but it may also dwindle a profession that is currently experiencing a national shortage on the brink of a crisis.\textsuperscript{185} If the fear of criminal prosecution for inevitable medical errors lurks behind healthcare workers’ backs, more workers will be pushed out of the field. Bedside nurses will leave the high-risk hospital setting for lower risk jobs. Poor staffing will lead to increased error rates and strain on the system.\textsuperscript{186} There’s a ripple effect that can stem from the inappropriate criminal prosecution of even one individual healthcare worker. The criminal justice system must walk along its tightrope carefully when choosing which medical errors are appropriate to criminalize.

Furthermore, harsh felony punishments will not fix a problem that was created by the systems in which healthcare providers work within. That is, the

\textsuperscript{185} As of 2022, the United States Bureau of Labor Statistics projected that more than 275,000 additional nurses are needed from 2020 to 2030 and employment opportunities are expected to rise by 9%. Employment and Training Administration, \textit{U.S. Department of Labor Announces S80M Funding Opportunity to Help Train, Expand, Diversify Nursing Workforce; Address Shortage of Nurses}, U.S. DEP’T OF LAB. (Oct. 3, 2022), https://www.dol.gov/newsroom/releases/eta20221003. Not surprisingly, studies have found that inequitable work distribution and burnout are some of the leading causes of nurse turnover. See Pavan Annamalai, Lisa M. Haddad & Tammy J. Toney-Butler, \textit{Nursing Shortage, STATPEARLS} (Feb. 13, 2023), https://www.ncbi.nlm.nih.gov/books/NBK493175/.

\textsuperscript{186} Skilled nursing facilities in particular have been hit extremely hard by nursing staff shortages; these shortages are so severe that nearly three out of four nursing homes are concerned that they will have to close their facilities as a result of staff shortages and more than 400 nursing homes could close completely this year due to the workforce crisis. See Dennis Thompson, \textit{Staffing Shortages Have U.S. Nursing Homes in Crisis}, U.S. NEWS (June 29, 2022, 1:31 PM), https://www.usnews.com/news/health-news/articles/2022-06-29/staffing-shortages-have-u-s-nursing-homes-in-crisis (reporting the results from a survey conducted by the American Health Care Association and National Center for Assisted Living). 87% of nursing homes are facing moderate to high staffing shortages and 98% of nursing homes report difficulty hiring staff. Id. It is not uncommon for direct healthcare providers, like nurses and care assistants, to be required to look after 20 or more residents during a shift, all of whom require around the clock care and assistance with activities of daily living. Id. Thus, it is not the healthcare providers who are intentionally failing their patients, but the nursing homes that are failing to provide their staff with the resources to provide adequate care. In a report from 2001, CMS found that to simply avoid bad outcomes, and not necessarily to provide the most optimum level care, nursing home residents should each receive at least 4.1 hours of direct nursing care per day. See Andrea Hsu, \textit{Nursing Home Residents Suffer from Staffing Shortages, but the Jobs Are Hard to Fill}, NAT’L PUB. RADIO (Apr. 6, 2022, 9:51 AM), https://www.npr.org/2022/04/06/108860155/nursing-home-minimum-staffing-labor-shortage-medicare-medicaid-nurses. However, no state in the United States meets the federally recommended nursing home staffing levels; Washington, D.C. is the only place that has even adopted the federal guidelines of 4.1 hours of care. Id.
nature of healthcare is not as susceptible to deterrent tactics like other areas of society, such as deterring violent crimes, because of the complex interplay of the healthcare system where many factors, such as staff and equipment shortages, can contribute to errors. Additionally, the need for quick reactions in emergency situations often does not allow for much conscious deliberation to occur. Thus, the ultimate target for deterring errors should be the healthcare systems themselves. “We must look beyond blaming individuals and focus on the multiple underlying system failures which shape individual behavior and create the conditions under which [] errors occur.”

Criminalizing errors caused by the systems designed to protect patients will only discourage system improvements and create a vicious cycle of criminalizing individual actors while preventing the deterrence of patient harm at the root cause: system errors.

VI. THE PROPER BALANCE: APPLYING ROOT CAUSE ANALYSIS TO CRIMINAL MEDICAL MALPRACTICE

Applying root cause analysis framework in criminal medical malpractice cases will appropriately criminalize bad actors, while allowing inevitable errors that result from system failures to be managed by the civil courts and agencies, where deterrence initiatives will be more successful. Root cause analysis uses an undesired event, or resulting harm, as the starting place for analysis. From there, root cause analysis does not simply look to the last action that most directly caused the harm but considers all of the contributing factors to determine the main contributor to the harmful result. Root cause analysis makes a bright line distinction between latent system errors, which are hidden errors between the system and the healthcare provider interface, and active errors, which have a direct causal relationship between the deliberate act of the healthcare provider and the patient. This analysis should be used as a framework in criminal medical malpractice cases to appropriately conceptualize the complex interplay

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188 Important to note is that this recommended framework does not simply let the provider off the hook for medical malpractice. Plaintiffs may still proceed with a civil case to seek relief for damages for cases of civil negligence. Furthermore, these plaintiffs should be advised of the option to file complaints with the State Board of Nursing or Medicine, so that additional relief and justice may be served by requiring agencies to discipline providers accordingly, whether that be probation, performance improvement plans, or licensure revocation.


190 Id.

191 Patient Safety Network, supra note 177.
of system errors in cases of accidental harm. Did the harm reach the patient because of a system error that failed to adequately prevent predictable errors, which lack criminal culpability, or was the harm the direct result of an intentional act with criminal culpability?

Root cause analysis was initially developed to analyze industrial accidents, but the healthcare system has now adopted it as a system analysis tool. The legal field too should adopt root cause analysis as a framework to guide the appropriate criminalization of medical malpractice. Criminal medical malpractice is unique because of the complexities of the healthcare system in which the error occurs. Hospitals are multifaceted institutions and may experience active errors at the point of interface between humans and the complex system or latent errors, which are hidden problems within the healthcare system that contribute to adverse events.

When applying root cause analysis to the appropriately criminalized cases (Dr. Death, Dr. Chacon and Nurse Lang, and Cullen), system improvements would not have prevented patient harm because these providers’ actions were deliberate and intentional. Although system failures allowed Dr. Death to continue to operate despite his gross lack of training, Dr. Death was aware of the risk he created, yet he made the conscious decision to continue operating. Likewise, Dr. Chacon faced a system issue of staffing but made the deliberate choice to prevent his patient from receiving adequate emergency care despite multiple experts making him aware of the dire need. Lastly, while system errors allowed Cullen to frequently change jobs without any notice of his suspicious behavior, adequate system protections would not have prevented most of his patients’ deaths because Cullen acted with deliberate intent to harm his patients.

When root cause analysis is applied to the inappropriately criminalized cases, the outcome is similarly justified. Had adequate system protections been put into place that prevented Vaught from accidentally pulling the incorrect, high-alert medication, Vaught’s patient would still be alive today. Vaught’s actions did not rise to the lowest threshold of criminal culpability and system errors largely contributed to the patient’s harm. In Cropp’s case, Cropp did not engage in any deliberate risk-creating action; rather, a series of system failures failed to prevent an act of predictable human error. System protections, such as safe-staffing, adequate breaks, and proper labeling likely would have prevented this error. In Thao’s case, had the medication bags been properly labeled, the new medication administration system training been more cohesive, and adequate work hour limitations been put into place, her mistake would have been

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192 See id.
193 Id.
194 See supra Part IV(b)(1)–(3).
195 See supra Part IV(b)(4)–(7).
preventable. Thao’s medication error was an inevitable human error that the system failed to prevent. Morris and Gowan’s failure to change their patients’ wound dressings for just two days was not a gross deviation from the standard of care demonstrating criminal culpability. This error was also attributable to the system failure of nursing homes’ short-staffing crisis, where nursing homes set providers up for disaster by failing to provide them with the adequate resources to perform their duties.196

While the ultimate solution to prevent repeatable medical errors is to target the reduction of system errors throughout the healthcare system, this will be a slow process that is constantly affected by unpredictable factors.197 The case illustrations in this Note highlight the role that system errors play in allowing harm to reach the patient, and root cause analysis framework provides a solution that prevents interference with system improvements while appropriately punishing bad actors. Even in the cases that involved criminally culpable acts by healthcare providers, system failures allowed the healthcare providers to continue to perpetrate harm repeatedly. Had the systems been repaired, many less patients would have been harmed.

Because of the complex circumstances that surround healthcare professionals’ actions, the criminal system must tread carefully in distinguishing non-culpable system errors from criminally culpable actions. Failure to do so will break down risk management systems because inappropriately criminalizing non-culpable system errors will dissuade healthcare workers from reporting errors. Furthermore, mistakes made in good faith are most likely to be reported. If a medical error resulted from bad actions on behalf of the healthcare provider, surely the provider will attempt to conceal their error rather than report it to improve the system. Thus, reported system errors should not be the target of criminal prosecution. Root cause analysis provides the necessary framework to assist judges, juries, and lawyers in appropriately distinguishing system errors from criminally culpable behavior.

196 See Thompson, supra note 186 for a more in-depth discussion of the nursing home national staff-shortage crisis and how this contributes to unsafe practices within the skilled nursing facility setting.

197 While it is outside of the scope of this Note to discuss the most appropriate liability to impose upon the institutions that contribute to system errors, this solution should not be overlooked. Holding institutions accountable to prevent foreseeable patient harm is critical. Individuals will continue to make predictable, preventable errors and institutions must create policy and protocol that appropriately diminish the frequency of these errors. Perhaps it is a matter of imposing greater penalties upon institutions for repeated, preventable system errors that lead to patient harm, or perhaps there is a need for greater regulation and standardization of hospital policy regarding technological system interfaces.
VII. CONCLUSION

Applying root cause analysis framework, with an emphasis on the mental state of the actor, will improve patient safety by deterring negligent errors at the source while promoting a proactive risk management system. Medical malpractice should not be criminalized unless a healthcare professional’s actions involve criminally culpable behavior where the healthcare professional engages in an unjustifiable creation of risk. Medical errors should not be analyzed solely by the last act that caused the ultimate harm; it should also be considered whether a system error contributed to patient harm by failing to prevent a predictable human error. Rather than inconsistently prosecuting individual healthcare providers for non-culpable mistakes, the focus should be on the reduction of medical error through system improvements.

The seemingly randomized prosecution of non-culpable medical malpractice will not effectively reduce medical errors because deterrence is only effective when consistently applied. The civil system and medical agencies are much better equipped to apply standardized punishment and deterrent tactics for non-culpable medical malpractice. If criminal liability continues to rise for non-culpable medical malpractice, most often resulting from system errors, there will be a chilling effect on hospitals’ risk management systems and patient safety will decline. Thus, prosecutors must consider the role of system errors when determining whether to bring criminal charges for medical malpractice. Root cause analysis provides the necessary framework for judges, juries, and lawyers to appropriately distinguish latent system errors from criminally culpable behavior.

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