

## Criminalizing medical care: Overview

Prasutr Thawornchaisit<sup>1,\*</sup> and Archie A. Alexander<sup>2</sup>

<sup>1</sup>Bureau of Medical Laws, Department of Medical Services,  
Ministry of Public Health, Bangkok 10500, Thailand

<sup>2</sup>Faculty of Law, Thammasat University, Bangkok 10200, Thailand

### Abstract

Criminal medical negligence and manslaughter (unintentional killing) are legal causes of action in civil law and common law countries. They strike fear into the minds of health care providers worldwide. The authors performed a scoping review of electronic literature to learn whether countries are criminalizing medical care and if potential relationships exist among common and civil law jurisdictions applicable to Thailand. A natural language keyword search (base: crime, provider, medicine, negligence, gross, wanton, willful, and manslaughter) using a modified scoping review (Arksey and O'Malley) methodology. Searchers utilized a commercial or an open source browser (Google Chrome™ or Mozilla Firefox®) and a single internet search engine (Google™ (e.g. Web, Scholar, and News plus News Archives) or Microsoft Bing® per query or a metasearch engine (DuckDuckGo®)), if either single search engine (Google™ or Bing®) failed to return items (N = 0 attempts). Sources included public (Google, Google Scholar, EBSCO, and Medline) and private (Lexis) databases. Authors mined text for information to analyze qualitatively. Searchers identified 57 potential articles for review. Of the 57, 40 (~70%) reviewed articles consisted of peer-reviewed journals (N = 34: Legal Journals (N = 20) v. Nonlegal Journals (N = 14: Medical = 9 v. Policy/Safety = 5) and non-peer reviewed publications (Gov't Reports = 2; Chapters = 2; and nonacademic, scholarly website Articles = 2). The decades for increased publication were 2000–2009 (N = 19) and 2010 - 2016 (N = 11). Published authors reported upward trends in criminalizing medical care related to direct patient care based on a variety factors. One author found physicians reduce chances of a criminal charge by (1) keeping their skills, training, and knowledge current while endeavoring to remain within the scope of their practice, (2) avoiding repetition of problems with same or different patients, (3) intervening to avoid harms to a patient, and (4) avoiding the appearance of financial or self-interest-based motives in caring for patients. The best way to avoid a claim may be a reduction in medical errors and avoidance of outrageous conduct departing from a recognized standard of care.

**Keywords:** criminal medical negligence, manslaughter, prosecution

**Article history:** Received 1 December 2016, Accepted 11 April 2017

### 1. Introduction

Criminal charges against health care providers (HCPs) occur, because they are people, and they can and do commit “bad acts” that trigger criminal charges and prosecutions [1]. In health care, criminal actions may arise when HCPs violate laws and regulations during their (1) health care business operations (e.g. violating fraud laws, fraud, diverting controlled substances, or falsifying documents) or (2) direct patient care (e.g. extracting sexual favors for health services, performing illegal abortions or euthanasia, or providing substandard care) [1, 2]. Criminal prosecutions of HCPs for fraud-based business crimes are much more common in the US than those arising out of direct patient care. US

federal prosecutors are more likely to opt for civil sanctions and fines for fraud-based crimes, but they can and do file criminal charges against HCPs if their fraudulent activity leads to an injury or death [2]. Recent articles on HCP-based crime point out prosecutors focus on waste, fraud, and other abuses, especially in matters concerning federal and state health insurance programs, because they want to conserve money to protect these programs that provide care. Not only will fraudulent health activities in the US trigger federal crime laws, but also they may cause state authorities to join and aggressively pursue these cases. To be sure, crimes related to the business of health care are more common in the US, and any conviction arising from them may be

\*Corresponding author; e-mail: prasutt@yahoo.com

catastrophic [1]. Nevertheless, this study focuses on prosecutions for acts and omissions during direct patient care, because HCPs, especially physicians, seem to fear them more than business-related crimes.

Criminal prosecutions for violations during direct patient care are not new, but what may be new is an increasing trend for prosecutors and citizens to take action [1]. Upward trends in criminal investigation and prosecutions for medical errors related to substandard care began during the 1990s, especially in the US and UK. Although they remain rare, they may become a real concern, if trends continue their present trajectory.

Presently, injuries and deaths during direct patient care attract the attention of the criminal justice system, when they involve a serious injury or death coupled with the commission of a “bad” or wrongful act [3]. To draw a criminal investigation and charge in common law, there must be a gross deviation from an accepted, requisite standard of care, where gross may qualify as a lack of care [4 - 6]. If a death results, then prosecutors are more likely to pursue an involuntary (unintentional) manslaughter charge, which constitutes a criminally negligent involuntary killing during a lawful act [5]. While any death is a tragedy, a death during direct patient care usually heightens emotional reactions from everyone, especially families, physicians, legal academics, and lay press. More often than not, one of these deaths will raise the specter of an HCP disregarding the basic principles of health care safety, which also draws heightened scrutiny from legal (e.g. prosecutors) and regulatory (e.g. medical boards or councils) authorities [5]. A death frequently challenges the trust patients place in their health care system and HCPs, and in turn, societies respond to protect them [4].

Because societies want to reduce or eliminate criminal misconduct in health care, especially during direct patient, some members of the medical profession and academics see trends in criminal investigations and prosecutions on the rise in common and civil law based countries, including Thailand as alarming [6 - 17]. The authors performed a scoping review of the electronic literature to learn whether countries are criminalizing medical care related to direct patient care and to identify potential relationships among common and civil law jurisdiction that might apply to Thai criminal medical negligence experience reported in the English-based literature.

## 2. Materials and methods

### 2.1 Modified scoping reviews

This study relies on a modified Arksey and O'Malley [18] scoping review (deleting steps 1 and 6)

of the electronic literature contained with public and private databases. Deletion of step 1 (identifying a research question) followed from *a priori* setting of the research questions to (1) learn whether countries are criminalizing medical care related to direct patient care and (2) identify potential relationships among common and civil law jurisdictions that might apply to the Thai criminal medical negligence experience as reported in English-based literature. The authors excluded Step 6 (consulting key stakeholders), because it was not part of their study. The remaining steps of (2) locating relevant sources, (3) selecting articles based on inclusion and exclusion criteria, (4) sorting, organizing, and studying information, and (5) collating, summarizing and reporting information enabled the authors to rapidly map the literature for peer and non-peer reviewed electronic literature. A major limitation arises from this study design, because relevant, non-English-based articles may be absent from English-based electronic databases.

The authors also imposed criteria for (4) currency of publication on a topic, where accepted criteria may vary (clinical research reviews stale  $\geq 5$  years). Authors set their range from 1990 to 2016 *a priori* to generate documents covering nearly 3 decades of discussion on criminal medical negligence and manslaughter. These authors chose this range, because a preliminary review of the literature suggested criminal cases were rare, but trending upward more recently. Thus, articles were likely to present electronically during this range, but their numbers could low. Because the number was lower than expected, they included articles  $\geq 5$  years, but they gave precedence to timeliness of the publication dates ( $< 5$  years), if multiple articles returned containing the same or similar information content.

### 2.2 Search format

The authors performed English-based, natural language keyword search of base terms: crime, provider, medicine, negligence, gross, wanton, willful, and manslaughter. Sources included public (Google, Google Scholar, EBSCO, and Medline) and private (Lexis) databases. Terms and combinations queried depended on returns and their relevancy. The authors defaulted to a Boolean search routine using terms and connectors when natural language did return items ( $N=0$  attempts). Searches utilized an open source browser (Google Chrome™ or Mozilla Firefox®) and a single internet search engine (Google™ (e.g. Web, Scholar, and News plus News Archives) or Microsoft Bing® per query, or a metasearch engine (DuckDuckGo®)),

if either single search engine (Google™ or Bing®) did not return items (N=0 attempts). Sources included peer-reviewed legal or medical journals; nongovernmental organization (NGO) white papers or commentary; internet-based news, blog, and non-peer reviewed professional site articles (e.g. law firm website article), and proprietary legal database (Lexis Advance®) containing law reviews and journals.

The authors retained only items addressing criminal medical negligence and manslaughter arising from direct medical care deemed grossly negligent, reckless, wanton, and willful deviations from a required standard of care resulting in criminal investigations, charges and complaints, or trials and convictions [19]. Excluded items included e-publications focusing on non-direct care crimes, such as health care provider fraud, theft, personal physical crimes (e.g. assault, battery, and sexual assault), and other similar crimes.

### 2.3 Media and language exclusion

The authors excluded print media sources, unless an item existed only in print media. The authors relied on English-based source rather than non-English-based materials. These limitations reduced the time required to identify, retrieve, review, and analyze databases and their holdings. Otherwise, their inclusion may defeat the purpose of a scoping review. But these choices create a major risk the authors did not access and analyze all relevant sources of information (Print media sources = 0).

### 2.4. Qualitative analysis

This study relies on text mining to provide information for qualitative review and analysis [20]. The authors did not employ text mining software tools. The factors sought included: (1) information sources, (2) primary origins of articles on topic, (3) countries criminalizing medical care and utilizing a law family similar to Thailand (e.g. common law (e.g. Australia (AU), Canada (CA), New Zealand (NZ), United Kingdom (UK) or United States (US)) or civil law (e.g. France (FR), Germany (GDR), and Japan (JN)), and (4) articles identifying circumstances favoring or disfavoring filing of a criminal cause of action related to medical errors and substandard care. Because this study reviews literature and commentary, it is qualitative, not quantitative, and thus, it presents a descriptive analysis of commentary and utilizes descriptive statistics, when possible.

## 3. Results and discussion

### 3.1 Search results

Criminal medical negligence manslaughter cases began appearing in the legal systems of the US and

UK during the 1800s [5]. Cases arising from medical care related to direct patient care were so rare legal communities considered them judicial oddities. Trends during the past two decades suggest their frequency may be increasing, although criminal medical negligence cases remain rare compared to civil counterparts [6]. Based on the search protocol, the authors identified 57 potential articles for review, where 40 (~70%) came from peer-reviewed journals (N = 34: Legal Journals (N = 20) v. Nonlegal Journals (N = 14: Medical = 9 v. Policy/Safety = 5) and non-peer reviewed publications (Gov't Reports = 2; Chapters = 2; and nonacademic, scholarly website Articles = 2). The remainder (N = 17) consisted of publications, internet news or legal or medical professional blog postings focusing on matters outside the scope of the topic and excluded. The majority of peer-reviewed articles came from British or American common law family jurisdictions (N = 28) of the US = 14, UK = 11, AU = 1, CA = 1, and NZ = 1, whereas a minority came from civil law jurisdictions (N = 6) consisting of FR = 1, GDR = 1, and Japan = 4. Regardless of the source, the primary decades for publication were 2000 - 2009 (N = 19) and 2010 - 2016 (N = 11) decades (N = 30 or 77%). The authors recognize their search methodology may not retrieve every publication during the search period, so their study and report have limitations.

### 3.2 Criminal medical negligence trends

Reviews of the literature on criminal actions for medical care related to direct patient care reported investigations (pre-charge events), charges or complaints (e.g. formal state-base accusation), or criminal cases (e.g. criminal trial proceedings) against HCPs, especially physicians [19]. One US publication focused on cases (Appellate Cases: 1809 - 2000 (N = 15), which reflects a more advanced, post-trial proceedings and lower number of "criminal events" than reports from the UK, which also cite charges (pre-trial or -case stage) against physicians (1795 - 2005 (N = 85). Criminal actions reported from the US and UK may be slightly higher than those reported for physicians in CA, NZ, and AU, where differences may be due to reporting criteria rather than criminal propensities [5, 10 - 12]. Publishing authors also encountered problems with identifying a large number of criminal cases within the legal reporters and databases covering their jurisdictions, which might explain the lack of robust number of publications on this topic, at least in the English-based literature. Alternatively, common law-based prosecutors may be less likely to pursue criminal actions against physicians for injuries or deaths related to direct patient care, unless they can

prove a gross deviation from a requisite standard of care. Hence, they may defer to their civil justice system to address direct care-related claims.

Conversely, authors reviewing Japan, a civil law-based country, saw a historical tendency for Japanese citizens and authorities not to pursue criminal medical negligence prosecutions [13, 14]. One explanation for this historical reluctance is the Japanese belief their physicians are authority figures, and thus, they enjoy high status and respect in their society. This mindset may be changing after several high profile physician-based medical misadventures in the 90s and early 2000s. The outrageousness of subsequent events related to care, attitudes, and blame avoidance so shocked the conscience of many Japanese citizens that their lawmakers enacted several laws requiring persons with knowledge of suspicious health care related injuries and deaths to report them [13]. Currently, more Japanese citizens are reporting and filing complaints, which means authorities conduct more criminal investigations. Likewise, Japanese families may file criminal and civil suits, because they are (1) angry at their HCPs and system, (2) unhappy with the inadequate responses of their HCPs, or (3) dissatisfied with attempts to falsify events and avoid consequences.

Germany, like Japan, is a civil law country that allows both citizens and prosecutors to initiate criminal medical negligence proceedings against physicians and other HCPs [15]. German citizens can and do file criminal actions against their physicians for injuries and death related to direct patient care [15]. One author reported data from 2008 suggesting at least 3,000 criminal investigations for medical errors open yearly. Most investigations close without further criminal proceedings, which is similar to common law jurisdictions.

German physicians causing an injury or a death by medical error may be investigated and charged under provisions in the German Penal Code. [15] Sec. 229 of the StGB.'0 applies to criminally negligent bodily injuries or negligent manslaughter under sec. 222. The degree of injury, unlike common law cases in the UK or US need not be severe or involve greater levels of carelessness, such as grossly negligent, wanton, or willful misconduct. The good news for German physicians is most cases end before a formal charge or trial. But cessation of criminal proceedings does not bar a civil medical negligence case. In fact, the author of this publication makes a very important observation, which might apply in other countries [15]. That is—German citizens threaten a criminal

charge as a way to pressure a physician into settling a damage claim. It is a tact generally unavailable in the US, where criminal proceedings are matters under the control of a state or federal prosecutor [1 - 3]. While civil and criminal cases may occur simultaneously in the US, one of the parties generally asks for a continuance or delay of the civil proceeding until the conclusion of the criminal trial.

Like Japan and Germany, the French criminal justice system permits its citizens, as patient-victims, to actually join the prosecution as “*partie civile*” [16]. This option allows them to seek justice when they may be unable to advance a civil case for lack of money. Because civil medical negligence cases are both complex and expensive, authors saw an advantage in patients seeking the aid of prosecutors and judges within the French criminal system. Even if a French criminal prosecutor fails to act, then the system allows an aggrieved party to file a charge directly. In either case, once a case enters the French criminal system, it must bear the costs for representation and production of experts. French law also allows judges to assist with fact finding, which can assist prosecutions, and criminal judges may reach a better result even if this pathway requires a higher level of “*fault*” or results in a lower award compared a private-based civil justice system. Unlike contingency fee-based medical negligence cases in the US, French citizens must finance their cases upfront and out of their personal pocket. In short, the criminal system may be the best or only option for some French parties who suffer harms related to direct patient care but cannot afford the costs of a civil case.

### 3.3 Thai criminal medical care trends

Thailand is a mixed law system containing elements of common and civil law. Thai citizens may file cases within their civil (Thai Civil and Commercial Code Sec. 420 and the Consumer Case Procedure Act of 2551 and Consumer Protection Act) and criminal (Thai Penal Code Secs. 288 - 305) systems [7, 21]. Since 2008, Thai patients, as consumers, file under the Act, because it waives fees and leads to quicker outcomes. Cases under the Thai Penal Code involve offenses against life and body committed within 20 years of filing, if death results. Sections of the Code provide sanctions based on a range of bodily harms and death. According to a factsheet published by Thai National Health Commission (NHC) in 2010, 9 criminal (civil medical negligence cases = 66) actions were filed against Thai public sector health care providers between 2007 and 2010 [7]. Of these cases, Thai prosecutors obtained

convictions in only two. Both cases arose from a death resulting from over medication. The number of civil and criminal cases during this period led the NHC and the Thai medical community to suggest increasing strife within the physician-patient relationship may be underlying cause for filings. Efforts are underway to improve them, but they remain a work in progress.

### 3.4 Potential reasons for criminalization

The study authors do not claim trends reported in the literature with respect to criminal filings, investigations, charges, prosecutions, or convictions related to medical care in direct patient care are generalizable across countries in this study group or any country. Clearly, criminal filing propensities may depend on (1) who files (state versus citizen), (2) criminal justice systems and their procedures, and (3) perceptions of citizens in a given country and their views on the effectiveness of their regulatory and legal systems for addressing health care safety and quality. One key factor may be the type of legal system, where civil law based systems like Japan, Germany, and France, may afford their citizens more ways engage their criminal system to prosecute these cases. Thailand is a mixed law country containing features of civil and common law, where its civil law roots enable its citizens to directly file a criminal case against a physician. The author covering the German system raised the possibility that its citizens saw their ability to file a criminal charge as an opportunity to pressure physicians into a financial settlement [15]. Although no studies queried identified factual support for its role as a settlement tool, it could explain the tendency for criminal filings in these countries. Whether citizens in Thailand use it for similar purposes or not is unclear, since no English-based authors on this topic mention this possibility. It is unlikely tactic in common law jurisdictions, like the US, where parties often delay their civil cases until the conclusion of criminal proceedings, when civil litigants might use findings in a civil case.

Another possible explanation for a rise in criminal cases, especially in the US, may be a greater willingness of prosecutors to tackle these complex cases. US-based authors also saw prosecutors tending toward prosecution, because there is a rising negative perception of the ability of their medical professionals to self-police [23]. The French experience may also support this explanation, where the lack of action led the French system to make investigators available to citizens [16]. This tendency to prosecute may be buttressed by citizens who become dissatisfied with

members of their medical profession generally, especially if their conduct is egregious or appears indifferent to outrageous events. Similar sorts of societal perceptions and pressures may apply to the rising trends in the UK and the US, physicians may be taking notice of the upward trend in criminal cases [5, 6, 9, 17, 22]. In some ways, the Thai experience with its medical claim during run up to its 2007 drafting of a Law on Health Service Affected Person Protection reflects physicians concerns for criminal cases [7, 21].

A major underlying factor contributing to the rising trends in criminal cases may be the number of adverse events and medical errors occurring within a modern health care system [23]. They are major sources of morbidity and mortality in health care systems worldwide [24]. Very few of them arise from substandard care, and an even lesser number of them will result in a criminal medical negligence claim or manslaughter charge. Adverse events represent any undesirable occurrence in a patient related to the use of a medical product, while a medical error is (1) an error of execution (failing to execute a planned act properly) or (2) an error in planning (executing the wrong plan properly) [24, 25, 26]. Even if one of them arises from substandard care it rarely reaches a level which qualifies a grossly negligent. Ultimately, the key to avoiding civil and criminal proceedings arising from medical related to direct patient care may be reducing or eliminating adverse events and medical errors that lead to unsafe medical care.

In fact, some authors reviewed pointed out a major reason for the rising number of criminal medical negligence and manslaughter cases may be a perception by the general public they are unsafe and their HCPs cannot reduce or eliminate adverse events and medical errors [27]. That is—unsafe citizens may believe their regulatory systems allow unqualified HCPs, especially physicians, to practice without sanctions or loss of practice privileges. Addressing these perceptions may not be so easy, because no one knows their true incidence or impact on health systems and global costs. The problem is most countries, especially those with developing or emerging status, do not track or accurately report adverse event and medical error data in their health systems [23, 24]. Although most authors quote the 1999 *To Err Is Human* statistic of 44,000 to 98,000 hospital deaths per year, it may be between 210,000 and 440,000 hospital deaths [30]. These statistics apply to the US hospitals, and they may not be generalizable to other countries. Moreover, a recent

study estimates nearly 43 million patients suffer medical care related injuries per year worldwide [28 - 30]. So, this lack of uncertainty over events and errors may explain why public perceptions for health care safety are what they are, and why citizens may rely on their courts to address problems they believe their health care systems cannot correct.

As above, differences in the criminal proceedings within a civil law versus a common law system may account for difference. Criminal medical negligence and manslaughter are causes of action available in both civil and common law systems worldwide [16]. Both systems support medical negligence causes of action in their civil (medical negligence or malpractice and criminal (criminal medical negligence and manslaughter) systems. One key distinction between civil and common law criminal actions is common law criminal medical negligence and manslaughter cases usually require higher levels of fault and state action [3]. Criminal prosecutors in common law jurisdictions, such as the US or UK, may look for mental states showing indifference to the welfare and safety of others, such as grossly negligent, reckless, wanton, or willful conduct, which fulfill the requisite *mens rea* or culpable mental state. A culpable mental state must fit with a bad or wrongful act, which is culpable (*actus reus*). These heightened levels of mental culpability need not be present in civil systems of France and Germany [15, 16]. Facts and circumstances suggesting criminal misconduct will trigger criminal justice systems in civil and common law systems to investigate, and they qualify as complex, expensive, and cases, regardless of the system [16, 31, 32]. They are expensive because they may require medical experts, especially for matters a lay juror or judge may not understand.

At least one UK study raises concern over the quality of testifying experts, because some of them may not understand the requisite levels of conduct necessary to support a charge of medical manslaughter [27]. Although this study is only one, which also relies on subjective opinions of experts from the UK, it highlights why some U.S. medical organizations and boards want oversight of the medical experts in these cases [33]. In short, these cases are complex, high-stake cases that may tax the civil or common law criminal systems in a variety of ways. Consequence may be severe, and thus, there may be a tendency for criminal prosecutors to shy away from them. The calculus might be slightly different for countries with a civil law system, such as France, Germany, or Thailand, where citizens may file a criminal case for

different reasons, which may include pressuring settlement from a HCP.

Conversely, these cases would enter the U.S. criminal justice system for different reasons, which may include (1) reliance on state action and (2) differences in goals (e.g. deterrence, rehabilitation, and retribution) [1]. As mentioned above, US prosecutors are more willing to pursue charges and criminal proceedings, but some question whether it is best forum or achieves its goals, because health care providers, especially physicians, may lack awareness for the substantial risks and dangers their actions [3]. They may be unable to appreciate the dangerousness of their acts or omissions. If they cannot, then the criminal justice system may be unjustly imposing sanctions that deprive individuals of their liberty. It may also unfairly stigmatize them, whether a conviction results or not. Major medical associations, such as the World Medical Association and American Medical Association, also believe criminalizing medical practice and decisions are counterproductive for achieving quality care [33 - 35]. In fact, some believe criminalization of medical practice may actually diminish health care access and quality [1].

### 3.5 Avoiding criminalizing medical care

Most criminal negligence and manslaughter cases, especially in common law countries identified in this study, begin with a bad outcome (e.g. serious injury or death) coupled with outrageous conduct on the part of a physician or health care provider. At least one author noted in criminal cases in the US involving a jury, jurors may forgo key sequential elements associated with this proceeding (determining the standard of care, breach, and causation) to jump to culpability based on their impression of the physician's state of mind [22, 27]. It may follow a quote from a famous British commentator who asked: "did the accused Give a Damn?" [22]. If they employ it, then it may short circuit legal inquiry into whether the act or acts were grossly or flagrantly deviant from an accepted, requisite objective standard of care. If they were, then the next step should be an analysis of a causal link between the conduct and harm. Only then should the inquiry shift to a determination of the *mens rea* or mindset of the defendant to ascertain the culpable mental state. A criminally medical negligent defendant disregards a substantial risk of harm, and it is a risk he or she should be aware of, but was not, at the time of the harm. Whereas, the reckless defendant is aware of the risk(s) and harm(s) but proceeds anyway. In either case, the act or omission represents a gross or flagrant

deviation from the standard of care that a reasonably prudent physician would exercise under the same or similar circumstances (noting this statement for the standard of care is a general one for the locality rule and the standard of care for US states vary) [36]. In the UK, Prof. Quick notes getting to “gross negligence” for health care providers may be a complex process involving police, prosecutors, and family members searching for answers [32]. So, there are different events and perspectives in play, and more importantly, the concept of gross negligence may be vague among all parties, especially experts [37].

Prof. Filkins’ analysis of US criminal medical negligence cases in 2001 may offer insights into patterns of physician conduct putting them at risk for a criminal prosecution [5, 27]. First and foremost, physicians must “avoid harm” by practicing within their expertise and scope of practice. They must maintain any requirements for lawful practice, and they must obey any and all restrictions or limitations on their licenses or practice activities [27]. Exceeding the scope of practice may serve as an indicator of a gross or flagrant deviation from accepted practice. Second, physicians must avoid the appearance of *ignoring the same or similar problem(s) with the same or different patients* [27]. A trier of fact or juror may infer knowledge or awareness from a failure to corrected repeated problems. Third, physicians should *timely intervene to avoid harm*. If they do not, then it may serve as an inference of culpability based on the—a *give a damn or not* analysis. Physicians must follow patients, maintain adequate safety precautions, and keep safety equipment available, especially as emergency support for outpatient procedures. Any injury or death related to their absence is the quickest pathway to a criminal charge. Fourth, physicians should avoid conduct tied to improper motives, especially monetary gains. Finally, physicians should avoid deliberately concealing mistakes or errors or falsifying entries. If they do, and they appear self-dealing, and such acts may incur other penalties. Self-interests over patient interests will sway jurors toward a guilty verdict. Because jurors may be swayed by these and other factors, independent expert review ensures analysis of all elements and claims are just.

#### 4. Conclusions

Based on this English-based review of the literature, the authors found a limited number of peer and non-reviewed publications discussing criminal medical negligence and manslaughter cases from jurisdictions with civil and common families

contributing to Thai law. Several authors reviewed noted the incidence of these cases was rising within the countries they studied. At least one author reviewed identified practice patterns HCPs, especially physicians, should avoid to help them diminish their risks for criminal prosecution. The presence of one or more of them could help a juror or judge answer whether a HCP-defendant gave a damn or not. Prof. Filkins believes health care providers would be wise to (1) keep current in their skills, training, and knowledge while endeavoring to remain within the scope of their practice, (2) avoid ignoring or repeating problems with same or different patients, (3) timely intervene to avoid harms to a patient, and (4) avoid giving the appearance of financial or self-interest-based motive in caring for patients. Because adverse events and medical errors occur more than studies may reveal or health care systems may report, the ultimate solution may be contingent on reducing them to a level where citizens feel safe. Until then, all HCPs face a potential day in criminal court, especially if they provide medical care in direct patient care that falls grossly below a requisite standard of care. More study is required to learn whether there are additional factors or elements influencing behavior or whether not comparisons may be extrapolated across countries and jurisdictions.

#### References

- [1] Hoffman DE. Physicians who break the law. **St Louis L. J.** 2009; **53**: 1049-1088.
- [2] Hyman DA, Silver C, Medical malpractice and compensation in global perspective: How does the US do it. **Chi-Kent L. Rev.** 2012; **87**: 163-198.
- [3] Monico E, *et al.* Criminal prosecution of medical negligence. **IJLHE.** 2007; **5**: 1-6.
- [4] Rapp G. The wreckage of recklessness. *Wash. U. L. Rev.* 2008; **86**: 111.
- [5] Filkins J. “With no evil intent,” The criminal prosecution of physicians for medical negligence. **J. Leg. Med.** 2001; **22**: 467-499.
- [6] Yueng K, Horder J. How can criminal law support the provision of quality in healthcare? **BMJ Qual. Saf.** 2014; **23**: 519-24.
- [7] National Health Commission, Doctor-patient relationships: A chronic problem which must be Cured. **Fact Sheet NHC [internet]**. 2010. [cited 1 December 2016]. Available from: [http://en.nationalhealth.or.th/sites/default/files/fromNHCThailand/data/Factsheet\\_D-P.pdf](http://en.nationalhealth.or.th/sites/default/files/fromNHCThailand/data/Factsheet_D-P.pdf)

- [8] Ferner RE, McDowell SE. Doctors charged with manslaughter in the course of medical practice, 1795-2005: A literature review. (2006) 99 **JRSM**. 2006; **99**: 309-314.
- [9] Kim CJ. The trial of Conrad Murray: Prosecuting physicians for criminally negligent over-prescription. **Am. Crim. L. Rev.** 2014; **51**: 517-540.
- [10] McDonald F. The criminalization of medical mistakes in Canada: A review. **Health L. J.** 2008; **16**: 1-25.
- [11] Skegg PDG. Criminal prosecution of negligent health professionals: The New Zealand experience. **Med Law Rev.** 1998; **6**: 220-246.
- [12] Dobinson I. Medical manslaughter. **UQ Law J.** 2009; **28**: 101-112.
- [13] Leflar R, Iwata F. Medical error as a reportable event, as tort, as crime: A transpacific comparison. **J. Japan L.** 2006; **22**: 39-76.
- [14] Starkey LJ, Maeda S. Doctors as criminal: reporting of patient deaths to police and criminal prosecution of healthcare providers in Japan. **BMC Health Serv Res.** 2010; **10**: 1-5.
- [15] Stauch MS. Medical malpractice and compensation in Germany. **Chi-Kent L. Rev.** 2011; **86**: 1139-1167.
- [16] Periera AGD. Medical liability: Comparing “civil law” and “common law. In: Beran RG. Editor. **Legal and forensic medicine**. Berlin Heidelberg: Springer-Verlag; 2013.
- [17] White P. More doctors charged with manslaughter are being convicted: Survey shows. **BMJ [internet]**. 2015. [cited 1 December 2016]; **351**: h4402. Available from: <http://www.bmj.com/content/351/bmj.h4402>
- [18] Levac D, *et al.* Scoping studies: advancing the methodology. **Sci Implement [internet]**. 2010. [cited 11 December 2016]; Available from: [www.implementationscience.com/content/5/1/69](http://www.implementationscience.com/content/5/1/69)
- [19] O’Conner V. **Practitioner’s guide: Common and civil law proceedings**. INPROL [internet]. 2012. [cited 2 December 2016]. Available from: <http://www2.fjc.gov/sites/default/files/2015/Common%20and%20Civil%20Law%20Traditions.pdf>
- [20] Thomas J, *et al.* Application of text mining within systematic reviews. **Res. Syn. Meth.** 2011; **2**: 1-14.
- [21] Mitchell A, *et al.* **Medical malpractice. UPDATE [internet]**. 2014. [cited 2 December 2016]. Available from: [http://issuu.com/Germanthaichamber/docs/update\\_q12014\\_medical\\_technology\\_a](http://issuu.com/Germanthaichamber/docs/update_q12014_medical_technology_a)
- [22] Monks P. Frankly my dear, I don’t give a damn. **Med. Sci. Law.** 1996; **36**: 185-186.
- [23] Oyeboode F. Clinical errors and medical negligence. **Med Princ Pract.** 2013; **22**: 322-333.
- [24] Jha A, *et al.* The global burden of unsafe medical care: Analytical modeling of observational modeling. **BJM Saf. Qual.** 2013; **22**: 809-815.
- [25] Sohn D. Negligence, genuine error, and litigation. **IJGM.** 2013; **6**: 49-56.
- [26] Grober E, Bohnen J. Defining medical error. **Can. J. Surg.** 2005; **48**: 39-44.
- [27] Filkins J. Criminalization of medical negligence. In: Sanbar S, *et al.* editors. **Legal medicine**. 7<sup>th</sup> ed, Mosby Elsevier; 2007.
- [28] Kohn L, *et al.* **To err is human: Building a safer health system**. Washington D.C., National Academy Press, Institute of Medicine; 1999.
- [29] Davey S, Davey A. Medical error in practice which medical fraternity must not forget: A critical look. **IJHSDM.** 2013; **1**: 190-193.
- [30] James J. A new, evidence-based estimate of patient harms associated with hospital care. **J. Patient Saf.** 2013; **3**: 122-128.
- [31] Bal S. An introduction to medical malpractice in the United States. **Clin. Orthop. Relat. Res.** 2009; **467**: 339-347.
- [32] Quick O. Expert evidence and medical manslaughter: Vagueness in action. **J. Law Soc.** 2011; **38**: 496-518.
- [33] Committee on Liability and Risk Management, American Academy of Pediatrics, Policy statement-expert witness participation in civil and criminal proceedings. **Pediatrics.** 2009; **124**: 428-438.
- [34] American Medical Association, AMA Policy H-160.954, **Condemn the Criminalization of Medical Practice**. RHEDI [internet]. 2007 [cited 1 December 2016]. Available from: [http://www.reproductiveaccess.org/wpcontent/uploads/2014/12/2007\\_criminalization\\_med\\_practice.pdf](http://www.reproductiveaccess.org/wpcontent/uploads/2014/12/2007_criminalization_med_practice.pdf)
- [35] World Medical Association, WMA resolution on criminalization of medical practice. **WMJ.** 2013; **59**: 178-179.
- [36] Lewis M. The locality rule and the physician’s dilemma. **JAMA.** 2007; **297**: 2633-2637.
- [37] Hubbeling D. Criminal prosecution for medical manslaughter. **JRSM.** 2010; **103**: 216-218.