

Editorial

Quality Improvement through Medical Error Disclosure and Autopsy Findings

Kalra J* and Macpherson JDepartment of Pathology, University of Saskatchewan,
Canada***Corresponding author:** Kalra J, Department
of Pathology, College of Medicine, University of
Saskatchewan, Royal University Hospital, 103 Hospital
Drive Saskatoon, Sk, S7N 0W8, Canada**Received:** November 01, 2015; **Accepted:** November
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Medical error has been defined as a problem that arises during patient management. The two broad categories of medical error are: errors in performance and errors in planning [1-3]. In errors of performance, the correct medical treatment for a patient does not go as planned or is left incomplete. In errors of planning, the wrong medical treatment has been chosen for the patient, or the correct treatment has been chosen for the wrong reason. Medical errors are a major concern because they have the potential to cause Adverse Events (AEs). AEs are defined as injuries to a patient that are the result of medical treatment, not due to any underlying disease [2-5]. Many AEs are unavoidable, unpleasant side effects of drugs for example. On the other hand, avoidable AEs represent a failure of the healthcare system to ensure the safety of its patients, something that should always be its top priority.

It should, of course, be noted that not all errors lead to AEs, and that very few instances of medical error are due to physician negligence or incompetence. Previous studies have shown that systemic and environmental factors are the most important when it comes to predicting and preventing errors [3-6]. One frequently studied type of medical error is the discordant autopsy diagnosis, that is, cases where the clinical diagnosis given to a patient before they die in hospital, does not match their post-mortem diagnosis. Autopsy is considered to be the gold standard for diagnosing a patient's cause of death [3], as such, when autopsy results disagree with clinical diagnosis, it is assumed that the autopsy is correct. Discordant autopsy findings represent an error in planning. If the correct diagnosis for a patient is not known clinically, then the treatment the patient receives will either be incorrect for their actual diagnosis, or correct for the wrong reason.

The Goldman criteria for misdiagnosis are the most widely used system for categorizing discordant autopsy diagnoses [7]. In this system there are four classes of misdiagnosis. Class I misdiagnoses are the most serious, they occur when a diagnosis was missed that, if known, would have changed how the patient was treated and prolonged their survival. Class II misdiagnoses occur when a major

diagnosis was missed, but even if it were known, would not have changed the patient's treatment. Class II represents major errors in detection, not treatment. Class III are missed minor diagnoses, related to the cause of death, but having no impact on treatment or survival. Finally, class IV misdiagnoses are the most minor. They are minor missed diagnoses, unrelated to the disease that was the patient's cause of death that would not effect treatment or outcome. We can see that discordant autopsies, like any medical error, do not always lead to an AE. That being said, it is important that patients are made aware of any and all medical errors that occurred during their care.

Although it has been shown that the disclosure of medical errors is, in principle, the correct course of action [3,5,8-9]. There are many well-documented barriers that prevent this from happening [9]. First is fear, either of legal repercussions from patients or their families or of loss of reputation among colleagues. Uncertainty about who is responsible in errors involving multiple caregivers or systemic factors can also delay or prevent disclosure. Finally, in cases where errors are minor or go unnoticed, there concern that disclosure could cause psychological stress or strain the relationship with the patient, doing more harm than good in the end.

It has been suggested, that in order to overcome these barriers we need a fundamental change in how we handle and perceive medical errors. Some centers have introduced policies where disclosure of medical error is part of the standard of care. Where physicians will face professional and legal consequences if they do not disclose errors. Others have implemented "no-fault" or "no-blame" models for error disclosure, where the institution shoulders the blame, rather than the individual caregivers [3,5,6,8]. Hopefully with policies like these we can reduce some of the negative stigma surrounding medical errors and the people who make them, and create a system that focuses on making sure errors do not reoccur and supporting the patients affected by them.

In the professional field of medicine, putting the interest of the patient above all else is considered a hallmark of professionalism [8]. Patients and their families are often not aware when medical errors have occurred. In these cases, it is the duty of a physician to disclose these errors. When a doctor fails to disclose a medical error, they rob patients of their autonomy, one of the core values of patient-centered healthcare [3,5,8]. A truly autonomous patient needs all of the available information about their health to make informed decisions, when information about medical errors or AEs is withheld, this is impossible. In cases of discordant autopsy, the error can only be disclosed after an autopsy has been performed. Patients who die in hospital are not always required to have an autopsy. In-patient deaths may be autopsied at the request of the patient's family or their attending physician, but are not standard practice. This means that a physician wanting to avoid the disclosure of a potential error on their part can simply avoid the topic of autopsy. Patient families may

not even know they have the right to request an autopsy, and the error may go undetected. A doctor who attempts to avoid an autopsy when they are suspicious of a misdiagnosis is essentially the same as one who knowingly withholds knowledge of an error from a living patient. Although there are no further decisions to be made regarding the deceased patient's care, the information withheld from the family can potentially jeopardize their autonomy as patients in the future. If a clinician recognizes any factors that may contribute to misdiagnosis, personal or systemic, then they should see it as their duty to request an autopsy. Unfortunately, discordant autopsies are insidious errors because, most often, they occur without anyone realizing that they've happened. Rather than a doctor knowingly avoid autopsy, the most usual case is one wherein no one involved in patient management is aware of any error. With autopsy rates as low as they are [10-12], cases like these are unlikely to be detected. Although there was no intentional wrongdoing, the result is the same. The patient's family is left unaware of potential pertinent medical information, and true, quality care has not been provided.

Beyond ensuring the autonomy of our patients, the reason that disclosure of medical errors is so important is that it allows the healthcare system to make changes. We know that the majority of medical errors are the fault of environmental and systemic factors not individuals [3-6]. This means that when a medical error is disclosed it allows for changes to be made to healthcare that will, hopefully, prevent the error from happening again. In cases of autopsy discordance, failure to disclose is even more unfortunate. Autopsy allows us to link pre-mortem findings to an accurate post-mortem diagnosis. In doing so, we expand our clinical knowledge and hopefully make it easier to arrive at a correct diagnosis in the future. We miss out on both an opportunity to correct the external factors which led to the misdiagnosis and the chance to expand our knowledge about the true diagnosis.

As healthcare professionals, we can all agree that improving the quality of healthcare we deliver is in everyone's best interest. One of the first steps in this improvement must be to ensure that medical errors are reported. We need overcome the barriers to error disclosure by shifting the culture surrounding them from one of blame and shame to one that focuses on patient safety and systemic improvements. Discordance between clinical and autopsy diagnosis represent a unique challenge when it comes to the detection and disclosure of medical errors. They are easy to conceal, and may be made without anyone ever being aware of them. The only method for their detection, autopsy, is declining, and failure to detect them

prevents both hospital policy and clinical diagnostics from improving. The only way to detect and decrease these errors is by increasing the autopsy rate. It has previously been suggested, that this can be achieved by implementing a system where healthcare providers promote the value of autopsy data, and offer some kind of incentive to the families of deceased patients to allow autopsies to be performed [13]. Clinician's should begin to view the recommendation of autopsy as part of their duty, just as they should feel obligated to report any medical errors to their patients. Part of our duty to ourselves and our patients is ensuring that we make the most of every opportunity to improve, and serve them better.

References

1. Kohn LT, Corrigan JM, Donaldson MS, editors. Committee on quality of healthcare in America. In: *To Err is Human: Building a Safer Health System*. National Academy Press. Washington (DC). 2000.
2. Kalra J. Medical Errors: An introduction to concepts. *Clinical Biochemistry*. 2004; 37: 1043-1051.
3. Kalra J. The value of autopsy in detecting medical error and improving quality. In: *Medical Errors and Patient Safety*. De Gruyter. Berlin. 2011; 95-99.
4. Bates DW, Spell N, Cullen DJ, Burdick E, Laird N, Petersen LA, et al. The costs of adverse drug events in hospitalized patients. *Adverse Drug Events Prevention Study Group*. *JAMA*. 1997; 277: 307-311.
5. Kalra J, Kalra N, Baniak N. Medical error, disclosure and patient safety: A global view of quality care. *Clin Biochem*. 2013; 46: 1161-1169.
6. Kalra J. Medical errors: Impact on clinical laboratories and other critical areas. *Clin Biochem*. 2004; 37: 1052-1062.
7. Goldman L, Sayson R, Robbins S, Cohn LH, Bettmann M, Weisberg M. The value of the autopsy in three medical eras. *N Engl J Med*. 1983; 308: 1000-1005.
8. Kalra J. Medical Errors: Overcoming the Challenges. *Clin Biochem*. 2004; 37: 1063-1071.
9. Kalra J, Entwistle M. Medical error disclosure and professionalism: The right thing to do. *Annals of Clinical Pathology*. 2014; 2: 1022-1023.
10. Entwistle M, Kalra J. Barriers to medical error disclosure: An organizing framework and themes for future research. *Austin J Pathol Lab Med*. 2014; 1: 1-6.
11. Burton JL. Clinical, educational, and epidemiological value of autopsy. *The Lancet*. 2007; 369: 1471-1480.
12. Roulson J, Benbow EW, Hasleton PS. Discrepancies between clinical and autopsy diagnosis and the value of post mortem histology; a meta-analysis and review. *Histopathology*. 2005; 47: 551-559.
13. Wood MJ, Guha AK. Declining clinical necropsy rates versus increasing medicolegal necropsy rates in Halifax, Nova Scotia. *Arch Pathol Lab Med*. 2001; 125: 924-930.