

**JUST CULTURE
ANNOTATED BIBLIOGRAPHY
OCTOBER 2006**

Astion, M, Chou, D. Just culture and strong interventions at the point of care. *Point of Care*. 2005; 4(4): 154-157.

This discussion of the 'just culture' model focuses on appropriate responses to error-causing behaviors in healthcare settings. These errors are classified as honest mistakes, at-risk behavior, and reckless behavior. The goal of a differentiated approach is to encourage comprehensive error-reporting to trigger processes of error-correction and improving patient safety.

The article describes each type of behavior and the different types of interventions required. A key component of dealing with errors is the principle of strong intervention that is based on a thorough analysis of the situation. The more common response is weak analysis and intervention, for example in form of assigning blame for honest errors.

It is critical that the types of behavior and appropriate interventions are clearly differentiated, especially on the continuum between at-risk and reckless behavior. Whereas system failures are involved in at-risk behavior and need to be addressed as such, reckless behavior may require a range of interventions from coaching to dismissal.

Benner P. Creating a culture of society and improvement: a key to reducing medical error. *Am J Crit Care*. 2001;10:281-284.

Critical care units are analyzed, and the importance of "joint responsibility" and "no fault reporting" are highlighted in this article. No fault reporting is being used by the healthcare industry in recognition that "errors are often the result of a chain of events..." Benner discusses current literature on errors, covering three approaches that frame corrective actions: healthcare system; individual or team competence, which requires a culture of "speaking up, asking questions, and cross-monitoring"; and entire practice responsibility. Practitioners are called upon for added vigilance in error prevention with a reminder to make the patient and family the primary focus.

Beyea SC. Creating a just safety culture. *AORN J*. 2004;79(2):412-4.

The author emphasizes the importance of determining and understanding the causes of threats to patient safety, noting that just cultures value reporting and studying medical errors and near misses. She focuses on the role of system-based errors (eg, certain types of medication storage and labeling), drawing a distinction between them and errors caused by clinician recklessness. She recommends beginning error examinations at the level of managers and manufacturers and following the examination down to those who deal directly with patients. Finally, she suggests a few specific changes, such as using forcing and constraining functions, reducing the need for calculation, and reducing the number of hand-offs.

Clark PA. Medication errors in family practice, in hospital and after discharge from the hospital: an ethical analysis. *J Law Med Ethics*. 2004; 32: 349-357.

Medication errors are a significant subset of medical errors and are pervasive in primary care settings, hospitals, and after discharge from the hospital. To combat this problem, it must be recognized as systemic so as to identify causes and issue recommendations rather than assign blame. The systems approach has been shown to work in other industries, for example, in aviation, and should be applied to meet the medical professions ethical obligations, such as respect for persons, beneficence and nonmaleficence, as well as justice.

The most important mechanism for improvement is voluntary or mandatory reporting to develop a body of information that enables early alerts, analysis, and best practices recommendation. Additional recommended measures are using barcodes, working with patient simulators, reducing physician coverage hours, addressing the nursing shortage, including pharmacists, more effective

communication with patients after discharge, and additional research on the incidence of medical errors.

Cohen H, Fisher C. Nonpunitive culture helps prevent drug errors. *ED Nursing*. 2004 Dec; 8 (2): 21-22.

To increase reports of errors, near misses and hazardous conditions, ask nurses to report all occurrences. Invite nurses to share insights and make suggestions for improving patient safety. Analyze all reports and make appropriate system changes.

Cohen MM, Kimmel NL, Benage MK, Hoang C, Burroughs TE, Roth CA. Implementing a hospitalwide patient safety program for cultural change. *Jt Comm J Qual Saf*. 2004;30(8):424-31.

This authors of this case study analyzed a "newly reenergized" patient safety program at Missouri Baptist Medical Center, focusing on processes and initiatives that were instituted to change the hospital's culture regarding error from a culture that solely assigned blame and punishment to a culture that "justly" disciplines reckless or criminal behavior but uses other errors as occasions for learning ways to improve patient safety. The authors acknowledge at least half a dozen methodological limitations of the study; for example, the authors note that the program was not a controlled trial, making it impossible to determine which of the instituted changes were actually responsible for the increased number of event reports, the reduction in patient harm caused by medication errors, and greater staff satisfaction and awareness.

Cox PM, D'Amato S, Tillotson DJ. Reducing Medication Errors. *Am J Med Qual*. 2001 June; 16(3): 81-86.

Instead of blaming individual nurses, pharmacists, and doctors for medication errors, a teaching hospital developed four initiatives to improve processes. Implementing root cause analysis is the process recommended to all other hospitals. By "spending an hour or two with a half dozen colleagues ferreting out the series of missteps" that led to a near miss, the staff capitalizes on improving the rate of automated medication error reporting in the MIS and keeps the reports anonymous. Other processes include improving pediatric weight intervention rates, reducing the number of verbal orders, and adapting an older computer system to show better screens for pharmacy dose, route, and schedule adjustments. Pharmacy intervention reporting and incident report modification were also improved.

Defining reckless behavior hard with just culture. *Healthc Risk Manage*. 2006; 28(1): 3-4.

Defenders of the non-punitive approaches, for example, Grena Porto, a healthcare risk manager, point out that the 'just culture' approach as advocated by Amori and Curtin is does not necessarily answer the question of where to draw the line between negligence and reckless behavior. Careful analysis of the error context could find system issues even when on the surface reckless behavior appears to have occurred.

Frankel A, ed. *Strategies for Building a Hospitalwide Culture of Safety*. Oakbrook Terrace, IL: JCAHO; 2006.

This book brings together a collection of articles from the Joint Commission Journal on Quality and Patient Safety that focuses on improving patient outcomes and overall performance of healthcare organizations by developing and refining a "culture of safety." One of the key findings of efforts to reduce errors and prove patient safety is that strategies such as use of technology, workforce training, and process and system improvements are not as effective as a culture of safety that includes behavior accountability.

To achieve such an environment, one of the healthcare organizations discussed in the book took measures such as establishing safety as a core value, creating behavior-based expectations that are customized for different job roles, developing an in-depth analysis program, and simplifying

work procedures and documentation. The organization discussed also found that executive sponsorship and commitment to safety as a core value by embedding it in to strategic, incentive programs, policies, and operational goals, is a key to success. At the same time, staff involvement in the form of local safety initiative teams and a willingness to learn and implement proven techniques is also critical and overall better performance.

Greenall, J, Lam, DU, Lam, R. An effective tool to enhance a culture of patient safety and assess the risks of medication use systems. *Healthc Q.* 2005;8:53-58.

Canadian hospitals, through the Institute for Safe Medication Practices (ISMP) Canada, adopted the Medication Safety Self-Assessment (MSSA) tool, first developed and utilized in the U.S., to evaluate hospitals' medication systems in order to improve patient safety. Hospital results are presented via scores in the core characteristic categories and through the use of graphs, where individual hospitals are able to compare themselves to regional and/or national results. The data identify in which categories most of the hospitals did well, and what areas need action, i.e., labeling/packaging and drug name look-alikes, analysis of errors for system redesign, need for ongoing safe medication education for practitioners. Authors state their goal was to show the value of this survey tool "...for assessing risk issues and developing priorities for individual hospitals and for provinces and regions."

Horns KM., Loper DL. Medication errors: analysis not blame. *JOGN Nurs.* 2002;31:347-354.

Neonatal nursing errors are case studied and a call for system checkpoints to be evaluated when errors in medication are discovered, rather than attempts to point fingers. This article analyzes common causes for the errors that have occurred with neonatal medications and concludes that it is the responsibility of health care professionals to "...assess their (own) knowledge of medication administration..." Quality assurance, and other improvement programs should include error prevention issues. Sources of medication errors and system errors are differentiated, studied and presented.

Hume, M. Changing hospital culture and systems reduces drug errors and adverse events. *Qual Lett Healthc Lead.* 1999;11(3):2-9.

To eliminate medication-related mistakes by physicians, pharmacists, and nurses can only mean designing systems with "...forcing functions' that make certain errors hard or impossible to make." Identifying the cause of Adverse Drug Events (ADE)s which result in injuries to patients, plus the cause of Potential Adverse Drug Events (PADE)s, requires a system of reporting these instances. Discussion on the three areas on which to focus to prevent medical errors: culture change, high-leverage systems changes, and incremental changes in each task in the medication process. One program implemented made the reporting of medication errors a nonpunitive system and using other means to educate and coach those involved in the errors, while trying to provide a better system and supportive culture for this issue with staff and management. Results from hospitals that have changed their error reporting systems are presented. Also discussion of root cause analysis and action plans, the idea of a system and process that identifies why the error occurred so that changes and fixes can be made to eliminate the problem.

Just Culture Community, The. Available at: <http://www.justculture.org/>. Date accessed October 10, 2006.

Websites are meant to impart information, and the Just Culture Community website appears to do that, however, a nice looking website should not be confused with being a comprehensive website. Little is offered here other than an explanation to define 'just culture' and provide; membership; newsletters; forums to attend; and a chat line, called Community Forum. This site fails to mention their sponsoring organization. A membership fee is required, and unlike the Institute for Safe Medication Practices <http://www.ismp.org/about/Default.asp> which identifies its Board Members and

Staff, Just Culture Community wants to make you a member and charge you more for training, without defining credentials or syllabus. It is difficult to recommend this website.

'Just culture' model called better, allows discipline for reckless behavior. *Healthc Risk Manage.* 2006; 28(1): 1-3.

In the pursuit of improving patient safety, non-punitive approaches have been attempted but are perceived as problematic according to the results of a survey presented to ASHRM. The survey was conducted and presented by Amori and Curtin, consultants associated with the Risk Management & Patient Safety Institute. The non-punitive approach correctly focuses on systemic problems that can lead to errors, but can also lead to a lack of individual accountability. While the emphasis on correcting systemic problems as opposed to assigning blame is important, it is equally critical to be able to respond appropriately to different types of mistakes. The 'just culture' model has the potential of dealing with systemic failure and negligence as well as imposing punishment if errors are caused by reckless behavior.

Karow. H. Creating a culture of medication administration safety: laying the foundation for computerized provider order entry. *J Qual Improv.* 2002;28(7):396-402.

This article looks at using, (CPOE) computerized provider order entry, to reduce the numbers of preventable (ADE) adverse drug events. Karow, a Director of Surgical Services, addresses the use of these systems in university and large tertiary (third-stage) care hospitals, and she points out that little has been written about CPOE implementation in smaller hospitals. This article discusses the administrative changes necessary to move toward standardization, as well as why; vendor selection factors; and issues that address implementation.

Marx D. How building a 'just culture' helps any organization learn from errors. *OR Manager.* 2003;19(5):1, 14-5, 20.

This article focuses on the "just culture" theories of human error consultant David Marx, who defines a just culture as the mid-ground between a blame-free culture and a punitive culture. These levels are important, he writes, because organizations must make clear how a just culture will still hold clinicians accountable for their decisions and their errors. He identifies four types of threats to patient safety – human error, negligence, reckless conduct, and intentional rule violations – and the article notes that while organizations that adopt just cultures of error reporting may decrease their punitive response to human errors, they continue to firmly discipline employees for the negligence, recklessness, and rules violations.

Marx, D. Patient safety and the "just culture": a primer for health care executives. April 17, 2001. (Funded by a grant from the National Heart, Lung, and Blood Institute, National Institutes of Health, Harold S. Kaplan, MD, Principal Investigator). April 2002;16(2):86-102. Available from: Medical Event Reporting System, Transfusion Medicine.
http://www.mers-tm.net/support/Marx_Primer.pdf (from <http://www.mers-tm.net>)

This patient safety primer was designed for health care executives and sponsored by Trustees of Columbia University, with a grant from the National Institute of Health, and compiled and written by David Marx, a consultant in human error management. Well organized, this primer offers definitions to the errors that lead to disciplinary conduct then carefully applies these errors to a common error prone activity, transfusions. Then decision-making strategies are analyzed. This primer defines the current problems with singling out individuals, and carefully explains how error reporting can improve following "just culture" principles.

Milligan F, Bird D, Adverse health-care events: Part 4. Challenge of a blame-free culture. *Prof Nurse.* 2003;18:705-709.

A final paper that explored the reporting of adverse health related events and the importance of a 'blame-free' culture. Citing from governmental agencies on what percentage of improvements is

acceptable, or not, the authors finally focus on the fact that we cannot learn from our mistakes (near-miss events) if reports of such are not reported properly. New reporting systems such as (NRLS) in England, and a push toward an open culture, are discussed as methods to enhance patient safety. Continuance to blame individual professionals will lessen their reporting of errors and near-miss events, and slow the process to resolve the causes that threaten patient safety.

Milligan F, Dennis S. Building a safety culture. *Nurs Stand.* 2005;20(11):48-52.

In this first of a series of seven articles, the authors review previously published articles on patient safety and discuss them in the context of the National Patient Safety Agency's first of Seven Steps to Patient Safety: "creating a culture that is open and fair." Errors and near misses are inevitable, the authors assert, so it is important that nurses report them, then use what they learn to decrease the chances that they will happen again. The authors also acknowledge that while shifting a culture from one that blames individual practitioners to one that accepts patient safety as a communal concern is difficult, it is one of the only changes that will encourage event reports.

Morath J, Leary M. Creating safe spaces in organizations to talk about safety. *Nurs Econ.* 2004;22(6):344-51, 354.

This case study centers on the Children's Hospitals and Clinics in Minneapolis/St. Paul, which in 1999 established a patient safety agenda that in large part focused on established a community in which honest errors and accidents could be reported without fear of recrimination or punishment. According to the authors, the organization succeeded by including all pertinent groups (such as nurses, students, social workers, and chaplains) in discussions; establishing integrity between what management said it would do and what it did; ensuring that what the leadership meant to say was what everyone else actually heard; and emphasizing consistency. The organization also encourage narrative discussion of events rather than the simple checking of boxes on reporting forms, recognizing that discussion of an error is integral to preventing it from happening again. Finally, the authors note that research and focus groups conducted three years after the initiative found that safety reports and dialog had increased, medication safety had improved, and perceived barriers to safety had receded.

Pronovost, P, Wu, AW, Dorman,T, Morlock, L. Building safety into ICU care. *J Crit Care.* 2002;17(2):78-85.

This case study focuses on three findings from the Institute of Medicine's report, "To Err is Human" and takes them into an ICU environment. Evidence is then discussed on the relationship between organizational characteristics (systems) and improved patient outcomes. If safe systems are designed and followed, then patient safety improves. Based on other research in the literature, a framework for identifying system failures that contribute to adverse events among ICU patients was devised and utilized in this project, "to create an adverse event reporting system in which 30 ICUs are participating." Other case studies were presented focused on the associations between ICU organizational characteristics of ICUs and levels of resource use among ICU providers, plus risk-adjusted ICU patient mortality and morbidity. Some conclusions and recommendations included the benefits found from having an ICU physician on daily rounds, and an ICU nurse-to-patient ratio of 1:2.

Rex J, Turnbull J, Allen S, Voorde K, Luther K. Systematic Root Cause Analysis of Adverse Drug Events in a Tertiary Referral Hospital. *J Qual Improv.* 2000; 10:563-575.

Frequency and types, of (ADE) adverse drug effects, are presented with statistics in this article, with the hospital staff describing the methods, results, and conclusion in a case where root cause analysis was followed. The members of this hospital staff approached the analysis of fatal ADE cases by instituting a blame-free, "...quality improvement approach to the analysis of the root causes..." approach to this article. The tables and diagrams, provide easy reference to concise

information that was collected to implement the change, that would lead to greater patient safety, from this root cause analysis system.

Ringler, RD. A change in culture. *Nurs Spectr.* [serial online]. 2005;14(5):10-12. Available at: <http://community.nursingspectrum.com/MagazineArticles/article.cfm?AID=13664>

Provides examples, primarily from two hospitals that instituted safety risk programs, including no-fault medication-error reporting systems to create a "culture of safety". Implementation of an anonymous hotline as an integral part of their blame-free reporting system. Safety programs are now mandated by federal and state agencies, but prior to this mandate, some hospitals instituted a system and process that allows staff to view the reporting process (for errors and patient care issues) as a positive experience. With a focus of finding solutions, not fault or human error as the impetus to a new culture at the hospitals, answers were found and systems designed to improve patient safety.

Ruchlin HS, Dubbs NL, Callahan MA. The Role of Leadership in Instilling a Culture of Safety: Lessons from the Literature. *J Healthc Manage.* 2004 Jan-Feb; 49(1): 47-58; discussion 58-59.

This comprehensive literature survey covers the history of safety cultures as well as the steps to nurture leadership to create a safety culture. The first step is to engineer a reporting culture where all accidents and near misses are reported and the reports are effectively analyzed. The second step is to establish a just culture where staff members are encouraged and even rewarded for reporting. The third step is to create a flexible culture that can respond to emergencies. Finally, the fourth step is to support a learning culture where the medical staff and the institution can write Lessons Learned and everybody learns from the mistakes. Examples of safety culture initiatives in the U.S. Department of the Treasury, in General Electric Company and Motorola, and the Federal Aviation Authority underscore how much progress can be made with nonpunitive, confidential, independent, and systems oriented safety review cultures. An extensive bibliography and a "Practitioner Application" discussion are included.

Shaw. R. Patient safety: the need for an open and fair culture. *Clin Med.* 2004; 4(2): 128-131.

As the British healthcare system faces similar patient safety issues as American healthcare providers, a pilot study was conducted to investigate the reporting practices NHS staff. The conclusion drawn from the study is that staff is willing to report errors and admit mistakes if the existence of error-promoting conditions is acknowledged and errors are considered as an opportunity for improving patient safety. Acknowledgement of human fallibility supports a systems approach to error mitigation.

To support a culture of openness, appropriate policies are needed, as well as performance management processes and legal guidelines to be able to combine fairness with accountability. A culture of openness and honesty still has to retain the ability to discipline when needed.

Sim TA, Joyner JJ. A multidisciplinary team approach to reducing medication variance. *Jt Comm J Qual Improv.* 2002;28(7):403-9.

In this case study, the authors describe the success of a community hospital's newly formed Medication Safety Team in recognizing and decreasing the number of medication errors. The interdepartmental team first analyzed the hospital's medication variance reports, then used that information to develop and institute a collaborative medication-administration policy and a nonpunitive variance-reporting environment. As a result of the new policies and processes, the number of variance reports quickly doubled, and a subcommittee assumed responsibility for weekly reviews of the reports. Since then, the number of reports has stabilized and numbers of medication errors such as transcription and dosing errors has decreased. However, the authors also describe the biggest problems the team faced and its continuing obstacles in maintaining focus and momentum.

Stewart-Amidei C. Changing the culture of blame. *J Neurosci Nurs.* 2003;35(6):297.

In this editorial, Stewart-Amidei writes that approaching errors as reasons for blame rather than as opportunities for quality improvement will not decrease the number of such errors. She suggests several corrective actions that could potentially decrease the number of errors without assigning blame, including computerized orders, the opportunity to discuss mistakes, and the freedom to question orders.

Stump, LS. Re-engineering the medication error-reporting process: removing the blame and improving the system. *Am J Health Syst Pharm.* 2000;57(24)(suppl 4):S10-S17.

Yale-New Haven Hospital formed a task force to evaluate and design a better medication-error reporting process. Utilizing their new medication-use variance process, pilot test procedures and results, are presented along with the results of full implementation of the new system which increased dramatically the number of medication error reports received and the quality of information in those reports. Details and description of the chosen reporting system including an easy-to-complete form used by the entire hospital (sample cited) anonymous reporting, an evaluation category within the report itself asking for a judgment of why the error happened, reporting of "near-misses", and a name change to the entire process of "medication-use variation reporting" versus "medication-error" reporting. Positive results were attributed to seeing the medication-variance problem as often a system failure versus a human error, and getting the staff at the grassroots level to be an integral part of system improvements. This contributed to not only a change in the hospital culture of how to view medication "variances", but also a culture of safety for the patients and staff.

U.S. Department of Health and Human Services. Agency for Healthcare Research and Quality. AHRQ's Patient Safety Initiative: Building Foundations, Reducing Risk. Interim Report to the Senate Committee on Appropriations. AHRQ Publication No. 04-RG005, December 2003. Available: <http://ahrq.gov/qual/pscongrpt/>

In response to Senate Hearings, the Agency for Healthcare Research and Quality (AHRQ) published this report on identifying threats to patient safety and efforts to reduce medical errors. Following the awarding of multiple Medical Error Reporting Evaluation Grants, key observations, strengths, and limitations were highlighted. In this report, "just culture", a term coined to recognize an alignment of human resource policies and procedures with professional accountability, was recognized as one of the key issues included among observations highlighted for hospital and health care. Of the three major patient reporting systems, Spontaneous Active Reporting Systems, indicated organizational culture issues have both advantages and disadvantages. The Department of Health and Human Services stated they were committed to "...creating a culture of improvement and safety in the health care system..."

Vicente KJ. What does it take? A case study of radical change toward safety. *Jt Comm J Qual Saf.* 2003;29(11):598-609.

In this qualitative case study, the author presents a medical device manufacturer's shift in approach to patient safety in the context of human factors engineering and punctuated equilibrium theory. The article specifically explores the events surrounding a programming error that resulted in the death of a user of a patient-controlled analgesia device. Although the manufacturer initially placed the blame on poor nursing training, media, public, and government backlash caused the manufacturer to quickly change its leadership, add a human factors engineering manager to its staff, and educate all employees about the importance of human factors engineering. This response to crisis marked a shift from the manufacturer's response of placing the responsibility for error on those outside the company. Although the author of the article does present a timeline of events surrounding the device, he analyzes data regarding only the manufacturer, regulating agencies, associations, and public opinion, as information from lower management and general staff was not available.

von Thaden TL, Hoppes M. Measuring a just culture in healthcare professionals: initial survey results. Safety Across High-Consequence Industries Conference, St. Louis, MO. September 20-22, 2005. Available from:

<http://www.humanfactors.uiuc.edu/Reports&PapersPDFs/miscconf/vonhop05.pdf>

Published at the 2005 Conference for Safety Across High-Consequences Industries, Measuring a just culture in healthcare professionals, looks at both worker and public safety. The promotion of a culture that requires learning from mistakes, this research paper presents its study results from a broad discipline of "just culture" members. The five core indicators recognized included organizational commitment; managerial involvement; employee empowerment; accountability system; and reporting system. Comments from survey respondents may be of great interest to hospital administrators.

Wakefield, BJ, Blegen, MA, Uden-Holman, T, Vaughn, T, Chrischilles, E, Wakefield, DS. Organizational culture, continuous quality improvement, and medication administration error reporting. *Am J Med Qual.* 2001;16(4):128-134.

This study focused on researching how and why the medication error reporting is done through Continuous Quality Improvement (CQI) programs at hospitals, particularly the relationship between organizational variables and MAE reporting. Using the results of two large surveys of nurses related to Medication Administration Error (MAE) reporting and a subsequent culture and CQI survey correlations were drawn for the findings presented. Survey methods (design, sample/subjects, measures), results (provided in table format), and discussion and implications are detailed. Findings corroborated previous work "suggesting a relationship between group-oriented culture and CQI implementation and between CQI implementation and perceived impact on patient outcomes."

Wolf ZR, Serembus JF. Medication errors: ending the blame-game. *Nurs Manage.* August, 2004: 42-47.

A survey administered to nurses, pharmacists, and physicians on managerial reactions to the reporting of medication errors supports the findings reported in the literature that punitive reactions by managers to error reporting can lead to lower reporting rates. Actions taken include identifying names on an incident report, reprimands, and notations on personnel records. Respondents also experienced personal humiliation in the context of the incident. While not all reactions were punitive, the majority of them were experienced as punitive. Such findings lend greater urgency to the call for developing a culture that encourages error reporting without fear of retribution but with the goal of achieving overall improvements.