

TITLE: Errors in the Operating Room: Considering Human Factors in Medical Litigation

When errors occur during clinical operations, many malpractice lawsuits allege breaches from standard of care on behalf of the personnel involved. In these situations the actions of surgeons and surgical teams are often criticized, and in some cases even highly trained and experienced operating room staff are accused of not following standards of clinical care and practice applicable with their training. However often little focus is given to the underpinnings behind *why* certain errors involving these personnel can occur - issues surrounding surgeon perception and cognition, team dynamics, and device and technology interactions all play a role in the occurrence of specific errors in the operating room, many of which are well-documented in the scientific literature. Given that many malpractice issues surround the actions of a surgeon or surgical team, considering issues surrounding human behavior, limitations, and interactions in these situations is vital to understanding why medical errors and complications can happen. This presentation will explore the science of these and other such human factors surrounding errors involved in medical environments and elsewhere.

TITLE: Surgeon Perception and Error in Minimally-Invasive Surgery

Surgeries and medical procedures involving minimally-invasive techniques have been steadily increasing, as these types of procedures are less obtrusive to patients, resulting in reduced bodily trauma and discomfort as well as decreased recovery time. However, these types of procedures are prone to different classes of medical errors by the nature of their design: surgeons do not interact directly with internal bodily tissues, resulting in diminished perception of the tissue environment. As a result, surgeon visual and tactile sensory capabilities are compromised, which can negatively impact their interactions and lead to errors. Medical litigation surrounding these types of procedures often fail to consider impairments to surgical perception, or acknowledge that many of these types of perception-related errors are well-documented in scientific literature. This presentation will address the types of perception-related challenges that surgeons face during minimally-invasive procedures and the types of complications they are associated with, as well as explore other related behavioral and perceptual issues in the operating room and elsewhere.