Bad things do happen in medicine, including in anaesthesia: it is not difficult for the public to view these as reflecting negligent practice, and for the law to respond accordingly. A contrary view holds that it is normal for things to go wrong in complex systems, and that system of healthcare is not only complex, but at times arguably in chaos. Glouberman and Zimmerman have divided problems into simple, complicated and complex. Much of what anaesthetists do for patients involves processes that are really only complicated, and should therefore be amenable to established tools of process engineering. Nevertheless, complex problems do occur regularly, and decisions must often be made under severe constraints of time. Emphasis on algorithms and somewhat deterministic concepts of human cognition may under-rate the complexity of the human brain. Perhaps it is not in understanding the system but rather in understanding the way in which humans deal with it that concepts of chaos become important. Important empirical work providing insight into human decision making may have been somewhat overlooked in the literature related to human factors in anaesthesia.