

# The ED Is a Safer Place... and Can Be Safer Still



Improving medication accuracy, transitions of care, health information technology, and other ED patient-safety strategies are offered in this month's *Emergency Medicine* cover article, "Patient Safety in the Emergency Department," by emergency physician (EP)/toxicologist Brenna M. Farmer, MD, a colleague for many years.

As Dr Farmer notes in her introduction, patient safety—in the ED and elsewhere—has received a great deal of attention since the publication of the two landmark Institute of Medicine (IOM) studies in 1999 and 2001 that documented an enormous number of medical errors and recommended improvements in medical care. More than a decade and a half after their publication, is there any evidence that these reports have led to a reduction in the number of serious adverse effects and deaths due to medical errors?

Although most EPs believe that ED safety measures have reduced the overall number of errors, there is a scarcity of published data demonstrating a *direct* cause-and-effect relationship in reducing the number of adverse events and deaths. A recent analysis of National Hospital Ambulatory Medical Care Survey data by EPs Kanzaria, Probst, and Hsia (*Health Aff [Millwood]*. 2016;35[7]:1303-1308) found that ED

death rates dropped by nearly 50% between 1997 and 2011. Most of this reporting period includes the years following the IOM reports before the implementation of the Affordable Care Act measures. One might reasonably assume that the decrease in ED death rates since 1997 is at least partly due to the safety measures described by Dr Farmer. However, Kanzaria et al hypothesize that the reduction is probably due to palliative and prehospital care efforts which "shift the locus of deaths," to recent advances in emergency critical care, and to public health successes in smoking cessation, motor vehicle safety, etc. Conspicuously absent from their list of possible measures responsible for the reduction in ED death rates are ED safety measures.

If Kanzaria et al are correct in attributing the reduction in ED deaths to measures taken by others to decrease the number of dying patients brought to EDs, then it may be reasonable to look for the benefit of eliminating serious ED errors to a decrease in death rates after patients leave the ED for inpatient services. Though inpatient death-rate data is available only since 2005, Kanzaria et al report no significant change in the inpatient death rate between 2005 and 2011. It is possible, however, that the improvements in ED critical care hypothesized by the au-

thors to be partly responsible for reducing ED death rates enable sicker patients to survive longer and ultimately succumb to their serious illnesses as inpatients. If so, this could offset any evident reduction in inpatient mortality from the avoidance of serious errors in the ED.

In any case, Dr Farmer does present direct evidence that safety measures are effective in reducing morbidity, and probably mortality. For example, in one study cited, medication errors were 13.5 times less likely to occur when an ED pharmacist was present, and clearly, avoiding doubling the doses of potent cardiac medications or sedative hypnotics, avoiding dangerous drug interactions, and choosing the correct type, dose, and time of administration of antibiotics and all meds must be responsible for reducing morbidity and ultimately mortality. It is also worth recalling that with respect to patient safety, emergency medicine is undoubtedly the safest medical specialty ever created, pioneering from its inception 24/7 bedside attending presence and mandatory recertifications, years to decades before other specialties adopted these practices. Thanks to these efforts, EDs are much safer than they had been previously, and by implementing the measures described by Dr Farmer will be safer still. ■