

HEALTH POLICY

MORTALITY DUE TO UNINTENTIONAL INJURY

Yousaf Ali, MD, MS

Dr. Ali (Yousaf_Ali@URMC.Rochester.edu) is professor of medicine and director quality, Hospital Medicine Division, Department of Medicine University of Rochester Medical Center.

Unintentional injury/accident is the third most common cause of death in the United States after heart disease and cancer. Age adjusted death rate for this cause has further increased by 4.2% from 2016 to 2017 based upon the most recent data published.¹ Common causes of mortality related to unintentional injuries are poisoning, motor vehicle accidents, and falls—additional causes include homicide, Alzheimer’s disease, and Parkinson’s disease. We treat patients with heart disease and cancer, and to discuss prevention strategies for these diseases is an important aspect of our job. It would make sense to also pay specific attention to the common causes of unintentional injuries in order to try to mitigate the effects on mortality.

According to the Center for Disease Control, the total number of deaths due to unintentional injury in 2017 was 169,936; this translates into 52.2 deaths per 100,000 populations that are attributed to unintentional injuries. Within this group, most deaths are related to poisoning (64,795), followed by motor vehicle traffic (40,231) and fall (36,338) deaths. These are all alarming numbers especially when we note that number of unintentional injuries is increasing for the second year in a row. The United States is spending billions of dollars on the treatment for these conditions for example it is estimated that there were 39.5 million visits to physician offices and 29.2 million emergency room visits for unintentional injuries in 2017.

Based upon national vital statistics, the life expectancy at birth decreased from 78.9 years in 2014 to 78.6 years in 2017. One of the main explanations is increased mortality from unintentional injuries; such injuries/accidents have now exceeded chronic lower respiratory diseases as cause of death.¹ Although these numbers give rise to many questions, the most important one is what can be done to reduce these numbers. Internists, ER physicians, and hospitalists can play a special role to help reduce the number of unintentional injuries given their central role in the management and counseling for these injuries.

Many unintentional poisoning deaths are related to opioid overdose. It is a well-known fact that many adults who use prescription opioids eventually become addicted to heroin. Currently, this opioid crisis is being tackled at national and state levels. Electronic prescription of controlled substances is one such step forward with mandated electronic prescription of narcotic medications for pain management in many states. Early reports show the efficacy of this strategy. In addition, naloxone training is being offered to many patients and their loved ones to prevent poisoning deaths. Treatment of pain with mindfulness-based interventions and physical therapy may reduce opioid dependence and misuse.⁴ Physician themselves are being mindful of these facts while prescribing opioids for chronic pain, thus playing a vital role in de-escalating the opioid crisis and eventually reducing mortality.

Another important cause of unintentional injury is trauma due to motor vehicle accidents. Due to nature of the mechanism of injury and the fact that about half of these deaths occur within a short time after the injury, prevention should be the main strategy. Most people pay attention to their primary care doctors regarding disease prevention recommendations; therefore, one of the best advices given to patients could be wearing of seat belt while driving. Physicians are providing effective resuscitation in the emergency department. They can also be an advocate for road safety regulations, seat belt use, and keeping medically unfit drivers off the road.³ Encouraging use of seat belt is the single most effective way of helping drivers reduce mortality from motor vehicle accidents.⁵

Deaths caused by falls have been increasingly recognized since median age of the population is increasing over time. Each year, more than one in four older adults 65 and over will fall. Many of these falls will ultimately lead to death due to trauma, bleeding, lack of mobility, or resulting infection. Falls result in more than \$31 billion in annual Medicare costs. CDC has made STEADI

continued on page 2

HEALTH POLICY (continued from page 1)

(Stopping Elderly Accidents Deaths & Injuries) an important initiative in this regard.² This important initiative helps PCPs to follow established guidelines and use effective strategies to address fall risk.

Because of the physician-patient relationship and profound impact of patient trust on their physicians, these small steps can make a real change in safety culture in our society. We should be able to alter the trend of increased unintentional injuries by working together with state and federal agencies to regulate the use of opioid, advocating for road safety measures, encouraging the use of seat belts and preventing falls at home, nursing facilities and

hospitals. These measures will certainly help to reverse mortality from unintentional injury.

References

1. Kochanek K, Murphy S, Xu Jm, et al. Deaths: Final data for 2017. *Natl Vital Stat Rep*. https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_09_tables-508.pdf. Published June 24, 2019. Accessed December 15, 2019.
2. CDC. Keep on your feet— Preventing older adult falls. <https://www.cdc.gov/features/older-adult-falls/index.html>. Accessed December 15, 2019.
3. Redelmeier D, Tien H. Medical interventions to reduce motor vehicle collisions. *CMAJ*. 2014 Feb 4; 186(2): 118–124. doi: 10.1503/cmaj.122001.
4. Garland EL, Howard MO, Zubieta JK, et al. Restructuring hedonic dysregulation in chronic pain and prescription opioid misuse: Effects of mindfulness-oriented recovery enhancement on responsiveness to drug cues and natural rewards. *Psychotherapy and Psychosomatics*. 86(2):111-112, 2017.
5. Cummings P, Wells JD, Rivara FP. Estimating seat belt effectiveness using matched-pair cohort methods. *Accid Anal Prev*. 2003 Jan;35(1):143-9.

SGIM