

# **Injury Prone Syndrome**

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# If today is a an average day in the United States of America

- 444 people will die of injuries
- 5200 people will be discharged from a hospital after treatment related to nonfatal injuries
- Over 177,000 people will visit a physician office, hospital emergency or outpatient department for injury related health problems

CDC, 2008

# Scope of the Injury Problem

- Leading cause of death in individuals 1-44 years of age.
  - In people 10-34 years old injury is responsible for more deaths than all other causes combined.
- For those over age 65, injury is the 9<sup>th</sup> leading cause of death.
- Each year, injury related medical expenses cost \$117 billion in USA alone.

# Scope of the Problem

- Leading causes of injury deaths (2003)
  - Motor vehicle traffic 43,340 deaths
  - Firearm 30,136 deaths
  - Poisoning 28,700 deaths
  - Fall 18,044 deaths
  - Suffocation 12,992 deaths

CDC, 2008

# Injury

- Any intentional or unintentional damage to the body resulting from acute exposure to thermal, mechanical, electrical or chemical energy or from the absence of such essentials as heat or oxygen.
  - » National Committee on Injury Prevention and Control, 1989
- Occurs during a short period of time (as opposed to cumulative effects of repeated exposures)

# Causes of Injury

- Intentional
  - Self-inflicted violence
  - Homicide
  - Assault and battery
    - Sexual Assault
  - Abuse
    - Child
    - Elder
    - Intimate partner
- Unintentional
  - Motor vehicle injuries
  - Falls
  - Poisonings
  - Fires and burns
  - Drowning
  - Asphyxiation
  - Sports and occupational injuries

# Injury as a Nursing Concern

- Nurses are concerned with human experiences and responses across the lifespan [including] promotion of health and safety. (ANA Social Policy Statement, 2003)
- Injury prevention is fundamental to the promotion of safety.

# Injury in the NANDA-I Taxonomy

- Domain 11 Safety/ Protection
  - Class 2 Physical Injury
    - Risk for injury
    - Risk for falls
    - Risk for trauma
    - Risk for suffocation
    - Risk for aspiration
    - Ineffective protection

# Injury in the NANDA-I Taxonomy

- Domain 11 Safety/ Protection
  - Class 4 Environmental hazards
    - Risk for poisoning
    - Risk for contamination
  - Class 6 Thermoregulation
    - Risk for imbalanced body temperature
    - Ineffective thermoregulation
    - Hypothermia
    - Hyperthermia

# Risk for Injury Diagnosis

- At risk for injury as a result of environmental conditions interacting with the individual's adaptive and defensive resources.
- Risk factors
  - External (biological, chemical, human, mode of transport, nutritional, physical)
  - Internal (abnormal blood profile, biochemical, developmental age, immune, malnutrition)

# Risk for Trauma Diagnosis

- Accentuated risk of accidental tissue injury (e.g. wound, burn, fracture)
- Risk factors
  - Accessibility of guns
  - Bathing in very hot water
  - Entering unlighted rooms
  - Large icicles hanging from the roof
  - Use of cracked dishware
  - 68 risk factors in all

# Ineffective Protection Diagnosis

- Decrease in ability to guard self from internal or external threats such as illness or injury.
- Related factors
  - Abnormal blood profiles
  - Alcohol abuse
  - Cancer
  - Drug therapies
  - Extremes of age
  - Immune disorders
  - Inadequate nutrition
  - Treatments

# Issues with Current Injury Diagnoses

- Combine external threats (falls, MVA) and internal threats (autoimmune reactions, altered clotting)
- Specific diagnoses for some types of injury (falls, poisoning, aspiration, etc.) but not for others (burns, MVA, drowning)
- Some individuals have risks for multiple types of injury.

# The Syndrome Diagnosis

- Current
  - A cluster or group of signs and symptoms that almost always occur together. Together, these clusters represent a distinct clinical picture.
- Proposed
  - A syndrome diagnosis is a **cluster or group of nursing diagnoses** that almost always occur together. It describes a clinical picture of health conditions/ life processes that cluster together in a pattern of nursing diagnoses.

# Injury Prone Syndrome

- A state in which an individual is at risk for bodily harm from multiple types of sudden, unintentional, traumatic events.
  - Bodily harm—not psychological, emotional
  - Multiple sources of risk
  - Sudden and unintentional events

# Injury Prone Syndrome

- Clustered diagnoses
  - Risk for Falls
  - Risk for Suffocation
  - Risk for Poisoning
  - Risk for Aspiration
  - Risk for Thermal Injury \*
  - Risk for Dysfunctional Driving \*

\* Newly proposed diagnoses

# Injury Prone Syndrome

- Risk factors
  - Neuromuscular disorders (e. g. ALS, MS, Stroke, Parkinson's Disease)
  - Cognitive impairment (e. g. dementia, delirium, psychosis)
  - Sensory perceptual alterations (visual, auditory, tactile)
  - Developmental level (infants, aged)

# Injury Prone Syndrome

- Risk factors
  - Medication side effects (e. g. narcotics, sedatives, hypnotics)
  - Intoxication (alcohol, drug)
  - Lack of knowledge (self, caretaker)
  - Inadequate supervision
  - Unsafe environment
  - Impaired judgment

# Risk for Thermal Injury

- A state in which the individual is at risk for damage to skin and mucous membranes due to extreme temperatures.
  - Would not refer to ability to regulate body temperature
  - Would include both heat (fire, scald, contact) and cold injury (frostbite)

# Risk for Thermal Injury

- Risk factors
  - Neuropathy
  - Neuromuscular impairment (e. g. Stroke, ALS, MS)
  - Cognitive impairment (e.g. dementia, psychoses)
  - Lack of knowledge (self, caretaker)
  - Unsafe environment
  - Inadequate supervision
  - Developmental level (infants, aged)
  - Intoxication (alcohol, drug)
  - Fatigue
  - Inattentiveness

# Risk for Dysfunctional Driving

- A state in which a previously competent driver is at risk for bodily harm due to altered ability to operate a motor vehicle.
  - Dysfunctional ?
    - Not operating normally
  - Impaired ?
    - Damaged, weakened
  - Compromised ?
    - Damaged, made vulnerable

# Risk for Dysfunctional Driving

- Risk factors
  - Cognitive impairment (e.g. Dementia, psychosis)
  - Sleep disturbances (e. g. Sleep apnea, narcolepsy)
  - Neuromuscular impairment (e. g. Stroke, diminished reflexes)
  - Sensory impairment (visual, auditory)
  - Intoxication (alcohol, drug)
  - Fatigue
  - Inattentiveness (distraction)
  - Side effects of medical treatments
    - medications, surgery, splints, casts
  - Risk taking behavior

# Recommendations

- Eliminate Risk for Injury and Risk for Trauma from the classification list
  - Distinct nursing diagnoses are preferable when possible. (Schoenfelder & Crowell, 1999)
- Accept Injury Prone Syndrome for individuals at risk from a multitude of sources.
- Develop further distinct diagnoses as needed
- Rework Ineffective Protection?
  - Include those conditions in which an individual is unable to maintain adequate lines of defense.

# Conclusion

- Injury prevention is the focus of much of the teaching done by nurses.
- Increasing the specificity of nursing diagnoses benefits the profession
  - Communication, documentation
- Continued work needs to be done to fill out the NANDA-I Safety/ Protection domain
  - Firearm injury, drowning, sports injury