DEATH INVESTIGATION IN US

• Diverse, no standardization

- County based
- Coroner system
 Elected official
 No specialized qualifications
 Medical examiner system
 Appointed position
 Has specialized qualifications

JURISDICTION OF ME/C

- Unnatural deaths
- Recent injury
- No medical attendance
- Suspicious for unnatural
- Sudden and unexpected
- Therapeutic complication
- Undiagnosed infectious disease

WHO REPORTS TO ME/C

- Police
- Hospitals, medical personnel, care facilities
- Emergency medical personnel
- Funeral homes, families
- Agencies: Adult Protective Services
- Prosecuting attorney
- Vital Statistics

ELDER DEATH INVESTIGATIONS

- Recent injuries
 - ➢Hip fracture
 - ≻Subdural hematoma
- Suspicions of homicide or mistreatment by caregiver
- Law enforcement or regulatory agency investigation
- Family concerns

DEATH CERTIFICATION

- Cause of Death
- Manner of Death

Natural, accident, suicide, homicide, undetermined

- Other significant conditions
- How injury occurred

DEATH CERTIFICATION (1)

- Cause of death:
 Dementia
- Other significant conditions:
 Pressure ulcers
- How injury occurred:
 Prolonged immobilization
- Manner:
 Natural

DEATH CERTIFICATION (2)

- Cause of death:
 Dementia
- Other significant conditions:
 Pressure ulcers
- How injury occurred: Caregiver neglect
- Manner: Homicide

PHASES OF INVESTIGATION

- Reporting and triage
- Scene response and investigation
- Investigation of circumstances
- Review of medical and other records
- Interviews with caregivers, family and other witnesses
- Postmortem examination (autopsy)

CASE RESOLUTION

Synthesis of information Law enforcement Medical examiner Medical records Investigatory, regulatory agency **Decision to prosecute**

ELDER DEATH REVIEW

Did abuse or neglect contribute to death?

- Did injuries or other unnatural or inflicted conditions contribute to death?
- Did caregiver(s) contribute to injuries, ulcers, or other conditions that lead to death?
- Did caregiver(s) fully understand and respond appropriately to the circumstances?
- Was there self-neglect?
- Was the decedent able to mitigate the circumstances?
- Other considerations

NATURAL DISEASE VS. NEGLECT

- How did neglect contribute to death?
- Examples: >Pressure ulcers >Poor hygiene ≻Malnutrition Renal failure and dehydration >Dementia and neglect (self-neglect) >Inadequate medical/nursing care

DID INJURIES OR OTHER UNNATURAL OR INFLICTED CONDITIONS CONTRIBUTE TO DEATH?

- Injuries (wounds)
- Ulcers
- Natural disease and age-related conditions
- Nutritional status, hydration
- Medications and toxicology

ASSESSMENT OF INJURIES (WOUNDS)

- Type of injury
- Number, location, distribution, planes of the body
- Age(s) of injury(ies)
- Evidence of inflicted injury
- Evidence of unintentional injury
- Evidence of medical therapy for injury
- Contribution to death

INJURY, WOUND AND ULCER

- **Injury** = harmful effect
- Wound = anatomic defect marker of injury Ulcer = blunt force injury
 - vascular damage pressure, shearing thermal chemical

ASSESSMENT OF ULCERS

- Type/etiology/stage
- Contributing conditions
- Distribution/location
- Age(s) of ulcer(s)
- Evidence of medical therapy for ulcer(s)
- Microbiology
- Associated sepsis, pneumonia, meningitis, other evidence of spread
- Contribution to death

Stage I:

Skin changes in one or more of the following: temperature (warmth or coolness), tissue consistency (firm or boggy and/or sensation (pain, itching). The ulcer appears as a defined area of persistent redness in lightly pigmented skin, whereas in darker skin tones, the ulcer may appear with persistent red, blue, or purple hues.

Stage II:

Partial thickness skin loss involving epidermis, dermis, or both. The ulcer is superficial and presents clinically as an abrasion, blister or shallow crater.

Stage III:

Full thickness skin loss involving damage to, or necrosis of, subcutaneous tissue that may extend down to, but not through, underlying fascia. The ulcer presents clinically as a deep crater with or without undermining of adjacent tissue.

Stage IV:

Full thickness skin loss with extensive destruction, tissue necrosis, or damage to muscle, bone, or supporting structures (e.g. tendon, joint capsule). Undermining and sinus tracts also may be associated with Stage IV pressure ulcers.

NATURAL DISEASES AND AGE-RELATED CONDITIONS

- Clinical and anatomic diagnoses
- Evidence of medical therapy
- Severity of dementia
- Correlation of dementia with neuropathology
- Contribution to death

NUTRITIONAL STATUS

- Anatomic assessment of nutritional status at death
- Documentation of nutritional status prior to death
- Evidence of adequate nutrition
- Was assisted diet necessary?
- Was prescribed diet followed?
- Did malnutrition contribute to death?

HYDRATION

- Clinical parameters (Sodium, BUN)
- Clinical renal function
- Anatomic postmortem assessment of hydration (skin, globes, feces)
- Renal pathology, gross and microscopic
- Vitreous electrolytes, VUN, creatinine



MEDICATIONS AND TOXICOLOGY

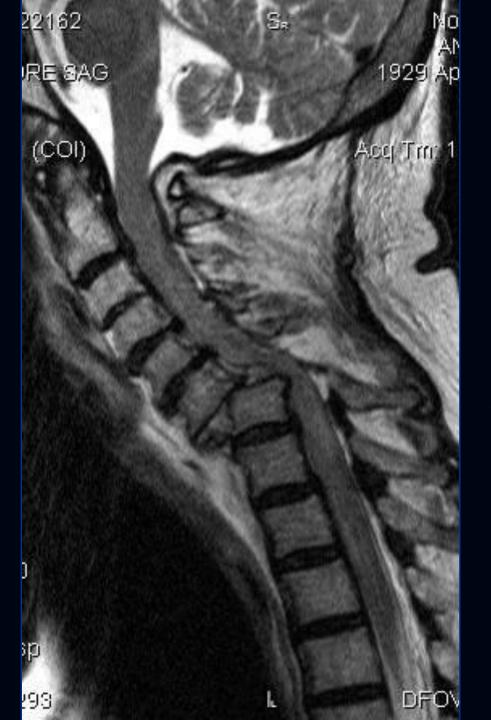
- Correlation of toxicology analysis with prescribed/administered medications
- Assessment of pharmacokinetics (e.g. with impaired renal function)
- Appropriateness of prescribed medications
- Did drugs/medications contribute to death?

COMFORT CARE

- Standards of palliative care that are published and generally accepted
 American Medical Association
 - "intent is to reduce suffering"
 "death may be an unintended consequence"

DID CAREGIVER CONTRIBUTE TO INJURIES, ULCERS, OR CONDITIONS THAT LEAD TO DEATH?

- Location of death
- Medical care at specific facility or residence
- Adequacy of care at specific facility or residence
- Provision of assistive devices at specific facility or residence
- Hygiene (skin, hair, nails, oral cavity, clothing) at specific facility or residence
- Living conditions at specific facility or residence



Concealed Abuse at Adult Family Home

LOCATION OF DEATH

- Location of death
- Length of time at that facility or residence
- Residences or facility(ies) prior to location of death
- Reason(s) for transfer
- Condition at time of transfer

MEDICAL CARE AT FACILITY OR RESIDENCE

- Documentation of medical care
- Treatment of injuries
- Treatment of ulcers
- Therapy and nutrition
- Medications administered

ADEQUACY OF CARE

- Documentation of medical conditions and therapy
- Documentation of skin conditions and therapy
- Other indicators (e.g. materials used in treatment)
- Quality of pharmacy records

ASSISTANCE DEVICES AT FACILITY OR RESIDENCE

- Adequate mobility devices (wheelchair, canes)
- Bath and toilet assistive devices (elevated commode, railing)
- Hearing aids, eye glasses, arthritic toothbrush

HYGIENE AT FACILITY OR RESIDENCE

- Skin, hair, nails, oral cavity, clothing
- Antemortem records
- Postmortem examination

LIVING CONDITIONS AT FACILITY OR RESIDENCE

- Water, HVAC, electricity, toilets, plumbing
- Temperature, thermostat setting
- Bedding/linens
- Squalor
- Infestations





DID CAREGIVER(S) UNDERSTAND AND RESPOND APPROPRIATELY?

- Type of residence or facility
- Level of care required
- Type of caregiver(s) at facility or residence
- Qualifications of caregiver(s)
- Contractual arrangement of caregiver(s) with decedent or family

TYPE OF RESIDENCE OR FACILITY

- Private home
- Assisted living facility
- Adult family home
- Nursing home
- Hospital
- Other

LEVEL OF CARE REQUIRED

• Self care

Assisted care

• Full care

TYPE OF CAREGIVER(S) AT FACILITY OR RESIDENCE

- Institutional nursing staff
- Adult family home staff
- Home care nurse or contracted caregiver
- Family member
- Other

QUALIFICATIONS OF CAREGIVER(S)

- Training/education/licensing
- Experience
- Employment history with decedent
- Mental and physical competence of caregiver

CONTRACTUAL ARRANGEMENT OF CAREGIVER(S) WITH DECEDENT

- Institution or agency employee
- Privately employed by family or decedent
- Written contract of duties
- Family member spouse, children
- Other

CAREGIVER(S) RESPONSIBILITIES

- Can it be disputed that the caregiver had a duty of care?
- Fulfillment of reasonable expectations for care?
- Failure of mandatory reporting?
- Did caregiver follow agency policies?
- Did caregiver reveal, in a timely manner, injuries to family, supervisor, care provider or agency?
- Did caregiver act to conceal injuries or ulcers?

WAS THERE SELF-NEGLECT?

- Evidence of self-neglect
- History of self-neglect
- Documentation of refusal of care
- Did decedent fully understand circumstances?
- Decedent's capacity for understanding and decision making
- Information provided to the decedent
- Evidence that decedent did not approve of the circumstances

WAS THE DECEDENT ABLE TO MITIGATE THE CIRCUMSTANCES?

- Physical condition of decedent at specific facility or residence prior to death
- Cognitive functions and communicative ability
- Mobility
- Isolation from sources of assistance
- Evidence that decedent refused care
- Did decedent have the capacity to refuse care?

OTHER CONSIDERATIONS

- Agencies involved
 - Law enforcement
 - Prosecutor's office
 - State investigatory or regulatory agency
- Findings from previous investigations

OTHER INDICATORS OF ABUSE/NEGLECT

- Financial exploitation
- Forced isolation
- Deprivation of basic necessities
- Deprivation of medical care
- History of domestic violence
- History of emotional or physical mistreatment
- Drug abuse by caregiver(s)
- Indications of sexual abuse

INVESTIGATOR TASKS

- Respond to scene
- Examine body
- Interview witnesses
- Summarize circumstances
- Construct timeline of events
- Identify facilities and caregivers
- Collect records
- Report death to ME/C and prosecutor
- Participate in Elder Death Review