Psychosocial

- May be related to:
  - Genetic predisposition/brain chemistry
  - Patient's personality style
  - Patient's crisis management, coping mechanisms

- Heavily influenced by environment:
  - Dysfunctional family
  - Alcohol/drug abuse
  - Sexual/Emotional neglect/abuse

Sociocultural

- Related to patient’s actions, interactions within society:
  - Being victimized or witnessing victimization
  - Death of a loved one
  - Loss of job
  - Poverty

General Assessment/Hx

- Limit patient contact to only necessary personnel
- Determine life-threats / ABC's

- Watch and observe for overt behavior and patient body language:
  - Posture - is the patient sitting or standing, tense, rigid or clenching hands?
  - Vocal activity - loud, obscene and erratic speech might indicate emotional stress
  - Physical activity - is the patient pacing or agitated - displaying protective or physical boundaries?

General Assessment/Hx

- Ask open-ended questions in a calm, reassuring tone
- Be supportive and professional
- Avoid sudden movements
- Get down on their level
- Limit interruptions
- Respect patient's space
- Approach slowly and confidently
- Be honest and don’t mislead the patient
General Management
• Maintain safety
• Treat all existing medical conditions
• Remain with the patient at ALL times
• Keep the patient informed
• Respond to the patient in a direct, simple manner
• Avoid use of unreasonable force or restraint, if possible
• Restraint?

Restraint Guidelines
• Make sure there are enough people
• Always explain options to the patient prior to applying force
• Subdue the patient with as little harm as possible
• Use appropriate devices to perform restraint

Better.....

Best
Chemical Restraints

• Last resort
  – haloperidol (Haldol)
  – chlorpromazine (Thorazine)
  – droperidol (Inapsine)

• Rarely necessary

What is it?

1. Disturbance of consciousness with reduced ability to focus, sustain or shift attention

2. The disturbance develops over a short period of time (hours to days) and consciousness tends to fluctuate during the course of the day

3. There is evidence from hx, PE or labs that the disturbance is caused by the physiological consequence of a medical condition

Clinical Cognitive Deficits

• Language difficulties: word finding difficulties

• Speech disturbances: slurred, mumbling, incoherent or disorganized

• Memory dysfunction: marked short-term memory impairment, disorientation to person, place, time.

• Perceptions: misinterpretations, illusions, delusions and/or visual (more common) or auditory hallucinations

Predisposing Risk Factors

• > 60 years of age
• Visual impairments
• Underlying pathology (stroke, tumor, trauma)
• Recent major surgery
• Dehydration
• Metabolic abnormalities (adrenal, thyroid)
• Depression
Predisposing Risk Factors

• Medical Illnesses
  – Infections (UTI)
  – E-lyte abnormalities (Na, K, Cl, Ca)
  – Hypoxemia/Hypoxia
  – Shock
  – Cardiovascular, liver, renal failure
  – Deficiency states (thiamine, folic acid, B12)
  – Polypharmacy

• Medications
  – Antihistamines
  – Antidepressants
  – Antihypertensives
  – Sedatives
  – Anticonvulsants
  – Steroids
  – Analgesics
  – Sympathomimetics….

Types of Delirium

• Hypoactive or hypoalert
  – Pt. appears to be napping on and off
  – Unable to sustain attention when awakened, quickly falling back asleep
  – Misses meals, medications, appointments
  – Does not ask for care or attention

• Hyperactive or hyperalert
  – The patient is combative and uncooperative
  – May appear to be responding to internal stimuli
  – Frequently these patients come to our attention because they are being difficult

• Mixed
  – A combination of both types just described

• The most common types are hypoactive and mixed accounting for approximately 80% of delirium cases
**Excited Delirium**

“A state of extreme mental and physiological excitement characterized by exceptional agitation and hyperactivity, overheating, excessive tearing of the eyes, hostility, superhuman strength, aggression, acute paranoia, and endurance without apparent fatigue.”

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**Research Findings**

- Excited Delirium often involves psycho-stimulant drugs
  - Amphetamines
  - Amphetamine derivatives
  - Cocaine

- Sometimes even the lack of having taken certain prescription drugs could cause a similar response behavior
  - lithium with manic-depressant pt.s

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**Risk Factors**

- Subjects at Risk for Excited Delirium
  - Obese
  - Prior medical condition
    - Asthma
    - Cardiac diseases
  - Intoxication
- 70% of subjects are resisting arrest and are under the influence of alcohol or drugs

**Individuals displaying this behavior may have been TASERED or restrained by law enforcement prior to EMS arrival**

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**Research Findings**

- Psycho-stimulant drugs can produce a number of potentially lethal effects
  - Cardiovascular compromise
  - Seizures
  - Hyperthermia
  - Rhabdomyolysis
  - Metabolic Acidosis
Possible Signs

- P – Psychological issues (panic, paranoia)
- R – Recent drug/alcohol use
- I – Incoherent thought processes (slurring)
- O – Off (clothes) and sweating (high temp)
- R – Resistant to presence/dialog
- I – Inanimate objects (glass), others – violent toward
- T – Tough, unstoppable, superhuman strength
- Y – Yelling

Management

- Secure scene and use Universal Precautions
- Move pt. from volatile environment
- ABC's
  - Vital signs, pulse oximetry, sugar and temperature, if possible
  - May sedate patient using I.N. or I.V. Versed
  - Dose according to protocol

Management

- I.V. access with 0.9% NS
- Tepid cooling
- If patient has been TASERED or has extensive muscle activity:
  - Consider I.V. fluid bolus of 500cc over 20 minutes with half ampule of Sodium Bicarb in I.V. bag
  - 12 lead EKG for baseline
- Use restraints as necessary

Dementia

- Group of symptoms that can be caused by over 60 disorders

- Syndrome which refers to progressive decline in intellectual functioning severe enough to interfere with person’s normal daily activities and social relationships

(National Institute on Aging 1995 No. 95-3782)

Dementia

- Gradual onset

- Involves cognitive defects manifested by both memory impairment and one or more of the following:
  - Aphasia (inability to communicate)
  - Apraxia (inability to carry out motor activity)
  - Agnosia (failure to recognize objects, stimuli)
  - Disturbance in executive functions (inability to plan, organize, sequence, abstract thinking)
Dementia Complications

- **Delusions** in up to 50%, most with paranoia
- **Hallucinations** in up to 25%
- Depression, social isolation
- Aggressive behavior in 20-40%
- Dangerous behavior – driving, creating fires, getting lost, unsafe use of firearms
- Sundowning

Sundowning

- May be related to changes to the brain’s circadian pacemaker
  - Floor pacing
  - Wandering
  - Yelling
  - Become combative

- Sundowning typically peaks during the middle stages of Alzheimer’s. It gets better as the disease progresses.

Dementia

- Causes (Irreversible):
  - Alzheimer’s (50-75% of all cases)
  - Vascular Dementia (5-30% of all cases)
  - Parkinson’s
  - Huntington’s Disease
  - …and many others

Alzheimer’s

A progressive neurologic disorder that results in memory loss, personality changes, global cognitive dysfunction, and functional impairments

- There are 3 consistent pathological hallmarks:
  - Amyloid-rich senile plaques
  - Neurofibrillary tangles
  - Degeneration of the hippocampus, cerebral cortex, hypothalamus and brain stem
Vascular Dementia

- The onset of cognitive deficits associated with a stroke
- Cerebrovascular disease evident on history, examination and/or imaging
Vascular Dementia

- Clinical features
  - Early gait disorder
  - Frequent falls
  - Urinary incontinence or frequency early in disorder
  - Difficulty with chewing, swallowing, and speech
  - Personality and mood changes

Other Dementia

- Huntington’s disease
  - Rare: 5 in 100,000
  - Abnormal ‘exaggerated movements’

- Parkinson’s disease
  - Common: 1 in 100 over age 65
  - General slowing of voluntary movements

Huntington’s disease

- Rare: 5 in 100,000
- Abnormal ‘exaggerated movements’

Parkinson’s disease

- Common: 1 in 100 over age 65
- General slowing of voluntary movements

Let's Compare and Contrast...

**Dementia**
- Gradual
- Irreversible
- Consciousness: rarely alters
- Perceptions: Hallucinations not common
- Speech: repetitive, difficulty finding words
- Disorientation: time, person, place
- Memory impairment
- Illness, med. toxicity: rarely
- Outcome: poor

**Delirium**
- Acute
- Reversible
- Consciousness: fluctuates
- Perceptions: illusions, hallucinations common
- Speech: slow, incoherent
- Disorientation: time, others
- Cognitive dysfunction
- Illness, med. toxicity: often
- Outcome: excellent, if corrected early
QUESTIONS?

Thank You For All You Do!

Christopher Ebright
B.Ed., NREMT-P
EMS Education Coordinator
National EMS Academy
Covington, LA

cde61969@yahoo.com

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