Alcoholics are in all socio-economical levels of society

~ETOH is one of the most commonly abused drugs in the world. It is a MAJOR problem in the US.

Estimated

_______ age 12 years and up currently drink alcoholic beverages.
_______ admitted to binge drinking.
_______ reported drinking five or more drinks per occasion on 5 or more days a month.
_______ ETOH dependant persons live in the US

~Annual cost of lost productivity and health related expensed due to alcoholism is estimated to ________________ dollars

Form of alcohol consumed does not matter it is considered a CNS Depressant

~Same amount of alcohol in:
  12 oz of beer
  1 ½ oz shot of whiskey
  4 oz of wine

Alcoholic: person whose drinking interferes with health, job, family, etc, yet the person continues to drink. Alcohol dependence is a disorder characterized by chronic, excessive consumption of alcohol that results in injury to health or in inadequate social function and the development of withdrawal symptoms if the drinking stops.

~Alcohol dependence should be considered a chronic, progressive potentially fatal disease characterized by remissions, relapses and cures

Four stages
ONE
TWO
THREE
FOUR
~No single cause exists- it is believed that any person can become chemically dependent on alcohol.

- Genetic and hormonal factors may play a role in causing dependence
- Personality
- Environment
- Addictive nature of the drug

**Ethanol metabolism, excretion etc -TABLE**

**Approaching the Patient:**
~Critical diagnostic finding may be obscured by ethanol intoxication

~Alcoholic patients are frequently uncooperative, have more than one underlying disease and compliance profile that is usually less than optimal.

~ However uncooperative, violent or abusive alcoholic patients may be, this high-risk group requires the same diagnostic scrutiny and therapeutic vigilance that is customarily applied in other emergency encounters

~ Alcoholic patient require an even higher index of suspicion in order to detect potentially life-threatening disorders-among them MI, subdural hematoma, pneumonia, GI hemorrhage-than individuals who are not known to be chronic abusers of alcohol.

~This patient population represents a medically and legally risky subgroup of emergency encounters.

Determination if this patient diminished LOC is due to alcohol alone or whether they are manifestations of coexistent infectious, metabolic or traumatic disorders.

~Five major categories of medical and surgical syndromes associated with alcohol abuse:
  - Acute alcohol intoxication
  - Alcohol dependence
  - Acute alcohol withdrawal
  - Alcohol-related trauma
  - Medical complications and syndromes
Alcoholism: Chronic effects

~Nervous System-CNS
    Depressant

    Encephalopathy caused by thiamine deficiency.

    Wernicke encephalopathy-sudden onset

    Korsakoff’s Psychosis
    apathy, poor memory, profoundly disoriented, indifferent, inattentive, may have agitated delirium, dementia

Dementia: Cognitive dysfunction of varying degree

Cerebellar Degeneration: ataxia

Neuropathy: peripheral nerve disorders, numbness, paresthesia, and gait ataxia, prone to fractures due to osteoporosis.

Seizures: etiology is unclear; ETOH seizures carry a very poor prognosis

~Nutritional Deficiencies
    Alcohol consumption interferes with glucose sources and the actions of the regulatory hormones.
    Chronic heavy drinkers have insufficient intake of glucose

    Glycogen stores may be exhausted-The liver stores glucose as glycogen
    Body’s glucose production is inhibited while alcohol is metabolized
    Can lead to hypoglycemia

~Electrolyte Imbalance
    blocks secretion of antidiuretic hormone
Cardiovascular System:
Increased tendency for CHF

Cardiac Dysrhythmias: ST, PVC, A-FIB may be the first signs of CHF, MI or concurrent drug toxicity (cocaine) or electrolyte abnormalities. If one consumes more than 6 alcoholic beverages per day one may have a much higher incidences of sudden cardiac death than those who drink less.

Hypertension

Pulmonary System:

Viral and Bacterial pneumonia
- immunosuppression (see below)

- glottic reflexes are suppressed predisposing aspiration
- and impaired cough reflex

Ascities: may compromise respiratory excursion (also under GI)

Gastrointestinal

GI hemorrhage (tendency to clotting problems—see below)
- gastritis

- ulcer hemorrhage

- esophageal tear (Mallory-Weiss syndrome)

- esophageal varices

Cirrhosis: represents chronic damage of the liver (inflammation and eventually necrosis)

Pancreatitis: commonly caused by ETOH (chronic and acute)
Hematological complications:  
The toxic effects of ethanol on hematopoiesis (production and development of blood cells) extend to all cell lines required for homeostasis. Could result in *coagulopathy, *thrombocytopenia, *iron deficiency  
increased bruising  
internal hemorrhage  
subdural

Immune System:  
Potent inhibitor of the immune defense system  
ETOH abuse suppresses bone marrow production of WBC.  
Incidence of cancer is higher in alcoholic pts possibly due to immune suppression?

Skeletal muscle  
weakness  
muscle wasting

Pharmacological Considerations:  
ETOH can affect the metabolism of many different drugs.

Acute Alcohol Intoxication

CNS depression  
Decreased response to pain (unreliable symptom reporting)  
Vasodilation (Pt feels warm thus they may be unaware of hypothermia)

Patient who smells of ETOH may also be ill or injured due to other causes.

Every patient must have an assessment to determine if they are medically OK before non-transport  
blood sugar, airway, VS, signs of trauma etc

Alcohol Withdrawal Syndrome

Withdrawal symptoms may occur from falling blood levels or from abstinence.  
Probably due to CNS hyperactivity due to the withdrawal of a CNS depressant.  
usually begins within 6 – 12 hours of decreased intake, peak intensity  
24 – 36 hours, and improvement by day 4-5 but may linger 10-14 days.
Symptoms and times vary

6 – 12 hours after last drink or decreased drinking
- Hand tremors
- Flushed face
- Sweats
- Insomnia
- Anorexia, N/V, diarrhea

12-24 hours-Hallucinations

24-48 hours-Grand Mal seizures “rum fits” usually self-limiting

Delirium tremens (DT) usually 48 to 72 hours-only affects about 5% of alcoholics
--considered a true medical emergencies

- Increased sympathetic reaction
  - Tachycardia, sweating, fever, hypertension, anxious, irritable
- Dilated pupils
- Confusion, delusions, vivid hallucinations
- Episode may last 1-3 days
- Multiple occurrences up to a month

Treatment

- Airway
- IV
- Thiamine
- D50
- Benzodiazepines
- Talk with patient to help orient and reassure

**Antabuse - Alcohol Reactions**

Antabuse - used to motivate the alcoholic to refrain from drinking
(Disulfiram or Tetraethylthiuram Disulfide)
- inhibits ETOH metabolism-Acetaldehyde accumulates and causes ill effects
  - GI, Cardiac and ANS systems

Symptoms of reaction dependent on dose of alcohol/antabuse
Onset usually occurs between 15-30 minutes after ETOH consumption

- Vertigo
- Headache
- N/V
- Flushed skin
- Diaphoresis
- Chest pain
- Dysrhythmias
- Palpitations
Blurred vision
Dyspnea
Hyperventilation
Tachypnea
Hypotension
Confusion
Psychotic episodes within 5 – 15 min after ingestion

Treatment
Airway, O2
IV
Correct hypotension
usual treatment of the life-threatening complications