

## **ALCOHOL ABUSE, DEPENDENCE AND WITHDRAWAL**

**MORE HARM OCCURS IN THE COMMUNITY AS A RESULT OF THE ACUTE HEALTH AND SOCIAL EFFECTS OF ALCOHOL INTOXICATION AND ABUSE THAN FROM THE CONSEQUENCES OF LONG-TERM ALCOHOL DEPENDENCE**

**UPWARDS OF 30% OF EMERGENCY PRESENTATIONS ARE ALCOHOL-RELATED**

### **ABUSE (DSM IV):**

- Maladaptive pattern of substance use leading to clinically significant impairment or distress, manifested within a 12-month period by one or more of:
  - Failure to fulfill role obligations (home, work, school)
  - Recurrent use in physically hazardous situations
  - Substance-related legal problems
  - Continue use despite substance-related social or interpersonal problems
  - Symptoms have never met criteria for substance dependence

### **DEPENDENCE (DSM IV):**

- Maladaptive pattern of substance use leading to clinically significant impairment or distress with  $\geq 3$ :
  - Tolerance (increasing amount or diminished effects with same amounts)
  - Withdrawal (or use to relieve/avoid symptoms)
  - Use of larger amounts over a longer period than intended
  - Persistent desire or unsuccessful attempts to cut down
  - Time spent obtaining or using/recovering from use
  - Continued use despite knowledge of substance-related physical or psychological problems

## **MEDICAL COMPLICATIONS OF ALCOHOL ABUSE (CHRONIC):**

- **CARDIOVASCULAR:**
  - AF
  - Cardiomyopathy
- **ELECTROLYTES:**
  - $\downarrow$ Ca,  $\downarrow$ K,  $\downarrow$ Mg,  $\downarrow$ PO<sub>4</sub>
- **ENDOCRINE:**
  - Hypoglycaemia
  - Hypogonadism
  - Osteoporosis
  - Steatosis
- **HAEMATOLOGICAL:**
  - Anaemia
  - Coagulopathy
  - Leucopenia
  - Macrocytosis

- Thrombocytopaenia
- **GASTROINTESTINAL:**
  - Alcoholic hepatitis
  - Cirrhosis
  - Malabsorption
  - Varices with haemorrhage
  - Pancreatitis
- **MALIGNANCY:**
  - Breast, colorectal, hepatic, laryngeal, oesophageal, oropharynx
- **MALNUTRITION:**
  - Folate, niacin, stomatitis
- **NEUROLOGICAL:**
  - Dementia
  - Cerebellar degeneration
  - Korsakoff's psychosis
  - Peripheral neuropathy
  - Wernicke's encephalopathy
- **PSYCHIATRIC:**
  - Alcoholic hallucinosis
  - Depression/suicide
  - Delusion

#### **RISK ASSESSMENT TOOLS:**

- **AUDIT**
- **CAGE**

#### **ALCOHOL WITHDRAWAL:**

- Usually develops within 6-24 hours of cessation or reduction in alcohol consumption in dependent individuals
- **PATHOPHYSIOLOGY:**
  - Ethanol dependence affects multiple neurotransmitter system
    - Down-regulation of neuro-inhibitory GABA leads to symptoms of GABA excess in withdrawal
    - Alcohol also inhibits excitatory NMDA glutamate receptor and withdrawal abruptly removes this inhibition
- **CLINICAL FEATURES:**
  - Constellation of clinical autonomic and neurological features with a wide spectrum of severity
  - **AUTONOMIC EXCITATION** (peaks at 24-48 hours):
    - Tremor
    - Anxiety, agitation
    - Sweating
    - Tachycardia
    - HT
    - N+V
    - Hyperthermia
  - **NEURO-EXCITATION** (occurs within 12-48 hours of cessation)
    - Hyperreflexia
    - Nightmares

- Hallucination (visual, tactile and occasional auditory)
  - Generalised seizures
- DELIRIUM TREMENS:
  - Severe form of withdrawal with mortality approaching 8%, occurring in up to 20% of patients presenting with withdrawal
  - Normally associated with comorbidities and late presentation:
  - Features:
    - Hallucinations
    - Confusion, clouding of consciousness
    - Autonomic hyperactivity
    - Respiratory and cardiovascular collapse
    - Death
- CONSIDER MORBIDITIES:
  - Wernicke's
  - Dehydration
  - Electrolyte anomalies
  - Alcoholic gastritis
  - GI bleeding
  - Pancreatitis
  - Alcoholic liver disease
  - Hepatic encephalopathy
  - Subdural haemorrhage
  - Alcoholic ketoacidosis
- MANAGEMENT:
  - Inpatient setting if seizures, altered conscious state, hallucinations
  - Significant risk of delirium tremens
  - Multiple medical or psychiatric complications
  - DIAZEPAM is the mainstay of treatment → 5-10mg until seizures and agitation are controlled. 5-20mg as dictated by AWS to maintain adequate control of withdrawal
  - THIAMINE