NEURO-PSYCHIATRIC PROBLEMS

DEMENTIA

The term *dementia* is used interchangeably with *HIV encephalopathy*. It is also known as AIDS dementia complex (ADC).

Dementia may be related to HIV (direct cause) or it may be the result of another infection, a space occupying lesion or a metabolic imbalance (indirect cause).

PRESENTATIONS

Early dementia	Late dementia	Very late dementia
• blunted affect • decreased concentration • forgetfulness • mental slowing • short term memory loss	• apathy • disorientation • fatigue • generalized weakness • hypomania • loss of balance • night time delusions • psychomotor retardation • sundown syndrome • tremors • vacant stare • wandering • withdrawal	• confusion • dysarthria • incontinence • mutism • seizures

CAUSES

Infectious:
- HIV
- other opportunistic infections

Other:
- PML
- delirium
- prolonged depression

APPROACHES AND INTERVENTIONS

Examination, investigation and treatment of underlying causes should be appropriate to the presentation, stage and context of the person and illness.

- continue only essential medications
- a trial of methylphenidate 5-20 mg po qam has cleared mild dementia
- manage associated agitation (see Delirium)
- provide a protective, safe, structured environment
- keep familiar objects in visible proximity
- establish daily routines including regular activity and sleep times
- reduce external stimuli, i.e. noise, conversations not specifically directed to the person
- consider competency (see *Legal Issues*)
- provide as much control as possible
- make instructions clear, simple
- minimize number of caregivers
- monitor finances, spending habits
- occupational therapy

PROBLEMS	INTERVENTIONS
orientation	• calendar • clock • night lights • explanations • have caregivers and visitors identify themselves regularly • label cupboards, drawers and containers
safety	• use a sensory pad • attach a call bell • observe frequently • raise side rails (caution: may increase agitation. May lead to an accident if person attempts to climb over them) • use a room monitor, i.e. baby monitor • see *Activities of Daily Living*
psychomotor retardation/ somnolence	• methylphenidate 5-20 mg po q4h. Avoid late afternoon and evening doses as these can interfere with sleep at night time. Occasionally, doses late in the day can keep the person alert for visitors or pleasurable activities (Do not use if person is delirious or agitated)
HIV encephalopathy	• anti-retrovirals (AZT, ddI, ddC) may protect against or reverse HIV-related dementia

COMPLEMENTARY THERAPIES

- aromatherapy
- art therapy
- massage therapy
- music therapy
- therapeutic touch

DELIRIUM, DECREASED LEVEL OF CONSCIOUSNESS, TERMINAL DELIRIUM

PRESENTATIONS

May include:

- agitation
- bad dreams, nightmares
- decreased level of consciousness, somnolence (often fluctuating)
- disorientation
- hallucinations or other perceptual disturbances
- hypervigilance
- moaning, groaning
- reduced concentration
- restlessness
- short term memory difficulties
- sleep/wake cycle reversal

Moaning and groaning may be the result of partial closure of the vocal cords due to stress during the dying process. They are rarely the result of pain, unless they have been present prior to the onset of delirium.

May be related to psycho-social or spiritual distress. Pain, even in the unconscious person, is usually associated with furrowing of the brows and/or signs of tension across the forehead

CAUSES

Depression:
(some are associated with agitation, delusions, hallucinations, memory impairment)

Hypomania/mania:
- manifestation of a pre-existing bipolar disorder

Psychosis:
- brief reactive
- schizophrenia
- other etiology

Other:
- HIV encephalopathy
- opportunistic infections, sepsis
- increased intracranial pressure
- medications: side effects and/or withdrawal, including
  - benzodiazepines
  - opioids
  - anti-cholinergics
- metabolic abnormalities including hepatic or renal failure
- hypoxia
- environmental changes, i.e. hospitalization, ICU
- fecal impaction
- urinary retention

APPROACHES AND INTERVENTIONS

Examination, investigation and treatment of underlying causes should be appropriate to the presentation, stage and context of the person and illness.

- continue only essential medications. Discontinue any that could cause delirium
- provide familiar environment, orient frequently, enhance safety (see Dementia)

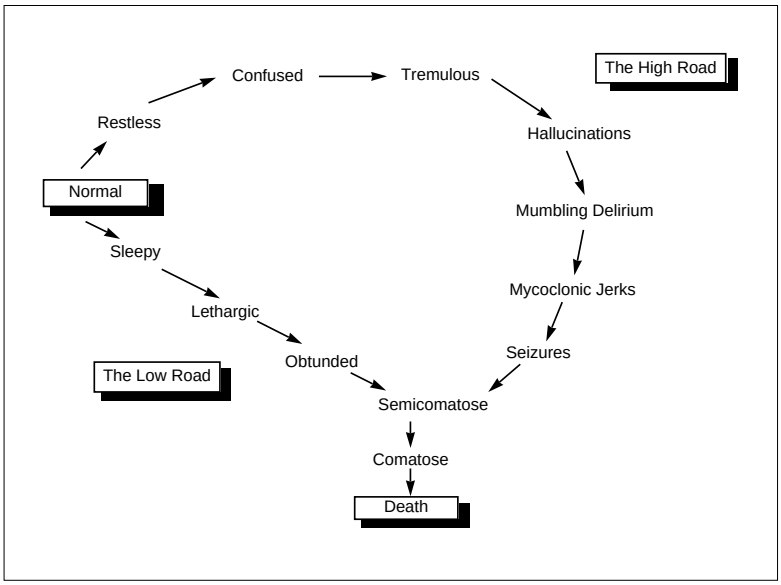
PROBLEMS	INTERVENTIONS
agitation, restlessness, psychosis	• neuroleptics may help to re-organize thought patterns as well as provide sedation • choice of drug depends largely on familiarity • start with smallest possible doses: – haloperidol 0.5 mg po, im, sc; thioridazine 10 mg po; loxapine 2.5 mg po, im; chlorpromazine 10 mg po, pr, im – adjust upward as necessary. Frequent dosing may be necessary until control is achieved – once under control, reduce total daily acute dose by 25-33% and divide daily maintenance dose into 2-3 doses/24 hrs – be aware of potential side-effects: • **higher potency**, i.e. haloperidol, perphenazine, are associated with extrapyramidal side-effects • **lower potency**, i.e. thioridazine, chlorpromazine, are associated with more sedation and anti-cholinergic side-effects • **mid potency**, i.e. loxapine, trifluoperazine, provide a balance • in severe agitation, iv haldol can provide rapid relief with few side-effects: – haloperidol 0.5-2 mg iv, infuse at 1 mg/min, repeat q30min until person is calm – if agitation is particularly severe, may add lorazepam 1-2 mg iv • use anti-cholinergics as necessary for side-effects i.e. Benztropine

COMPLEMENTARY THERAPIES

- homeopathy: arsenicum 30 ch bid to decrease anxiety and enhance "letting go"
- massage therapy
- music therapy
- therapeutic touch

THE TWO ROADS TO COMA[18]

In the dying, coma and death may ensue along 2 different trajectories.



The low road is a hypo-active state where the person slips quietly into a coma and dies peacefully. The high road is a hyper-active state consistent with terminal delirium.

LAST HOURS	INTERVENTIONS
terminal delirium	• irreversible, cannot treat the underlying causes, so focus on settling the person • goals in managing terminal delirium include: – muscle relaxation, including reduction of moaning/groaning – reduction of anxiety – reduction of risk of seizures – inhibition of the perception of the last hours of living • benzodiazepines may settle terminal delirium and/or induce sedation: – lorazepam 1-4 mg against buccal mucosa q1h prn (pre-dissolved in 0.5-1.0 mls of water) even in the person who is unconscious and/or unable to swallow. Doses of 20-50 mg per 24 hours may be required in individuals who are very restless – midazolam 1-5 mg sc, im, iv q3h prn or by continuous infusion • haloperidol, chlorpromazine and methotrimeprazine may also be useful, but im injections may be too painful in the cachectic person (haloperidol, methotrimeprazine could be administered sc)

- where terminal delirium is extreme or sedation is difficult to achieve with benzodiazepines, phenobarbital or sodium thiopental (Pentothal®), may be required to settle the person. This should be discussed in detail with the family prior to initiating therapy:
  - phenobarbital 100-130 mg iv, im q6h or by continuous infusion 1-5 mg/hr (starting with lowest dose and titrating upwards until sedation is achieved)
  - sodium thiopental, consult with an anesthetist
- educate the family about the causes and significance of terminal delirium, particularly the distressing features, i.e. moaning/groaning
- maintain good mucous membrane and skin care (see Dehydration, Skin care/problems)
- do not measure blood pressure, heart or respiratory rate unnecessarily
- discontinue blood work, x-rays
- measure oxygen saturation only if necessary, no blood gases

COMPLEMENTARY THERAPIES

- music
- gentle massage
- therapeutic touch

DEPRESSION

PRESENTATIONS

May include:

- agitation
- crying
- lack of pleasure
- suicidal ideation
- apathy
- guilty ruminations
- sadness
- withdrawal

May also include neuro-vegetative symptoms (less helpful in the severely medically ill):

- decreased appetite
- insomnia (or hypersomnia)
- decreased energy
- weight loss

CAUSES

Other:

- dementia
- medication
- medical illness:
  - acute infection
  - system failure

Note:

- attempt to distinguish dysphoria associated with losses from a more severe clinical depression. Even a "reactive" depression can become a major depression and warrant pharmacological treatment:
  - index of suspicion will be high if guilty ruminations, apathy, withdrawal are present
- diagnosis is difficult due to diagnostic criteria (refer to *DSM-IV*) which rely on neuro-vegetative symptoms that are invariably disrupted in severe medical illness
- diagnosis is important as appropriate intervention may improve quality of life considerably

APPROACHES AND INTERVENTIONS

Examination, investigation and treatment of underlying causes should be appropriate to the presentation, stage and context of the person and illness.

- reduce doses of medication if possible
- eliminate unnecessary medications
- provide a familiar, safe, protective environment (see Dementia)
- consider supportive and/or insight oriented psychotherapy

PROBLEMS	INTERVENTIONS
clinical depression	• choice of medication depends on presentation and side-effect profiles: – early tricyclic anti-depressants, i.e. doxepine, imipramine, are sedating and have risk of anticholinergic side effects including constipation, xerostomia – newer tricyclic anti-depressants, i.e. nortriptyline, desipramine, have fewer side effects than other older antidepressants, and offer advantage of monitoring blood levels – newer anti-depressants, i.e. sertraline, fluvoxamine, can be stimulating and have risk of agitation/restlessness, GI upset or sleep disturbance – trazadone can be sedating with less risk of other side effects – avoid fluoxetine due to long half life • start with half usual adult starting dose, increase slowly, expect response only after two or more weeks on a therapeutic dose: 1. tricyclic anti-depressants including desipramine, doxepine, imipramine, nortriptyline: – start with 10–25 mg po od-tid and increase in 25 mg increments, if no side-effects, up to a max of 100–200 mg in 1–3 doses/24 hrs (max 100 mg/24 hrs for nortriptyline only) 2. serotonin re-uptake inhibitors including sertraline and fluvoxamine: – start with 50 mg po od and increase if no side-effects up to 150–200 mg/24 hrs (wait at least 7 days between increments) 3. trazodone: – start with 50 mg po od and increase if no side-effects up to 150–200 mg/24 hrs (wait at least 7 days between increments)
psychomotor retardation/ somnolence	• methylphenidate 5–20 mg po q4h, avoid late afternoon and evening doses as these can interfere with sleep: – helpful in the medically ill. Rapid but likely a limited response

COMPLEMENTARY THERAPIES

- homeopathy:
  - nat mur 30 ch bid for deep sadness, with blocked emotions, anger
  - iamara (ignatia amara) 30 ch bid for emotions

ANXIETY

PRESENTATIONS

May include:

- agitation
- insomnia
- restlessness
- sweating
- tachycardia
- hyperventilation
- panic
- shaking
- sympathetic discharge
- worry

CAUSES

Other:

- delirium
- medication effects
- hallucinations

APPROACHES AND INTERVENTIONS

Examination, investigation and treatment of underlying causes should be appropriate to the presentation, stage and context of the person and illness.

- provide a familiar, safe, environment (see Dementia)

PROBLEMS/APPROACHES	INTERVENTIONS
anxiety	• medication choice depends on desired half-life: – longer half-life: more sustained effect, but may accumulate – shorter half-life: risk of withdrawal and rebound anxiety • lorazepam and oxazepam are not metabolized in the liver and are a better choice in presence of hepatic failure • consider possibilities of withdrawal if stopped abruptly, i.e. agitation, rebound anxiety, delirium: – long half-life: • clonazepam 0.25–2 mg po q12h • diazepam 2–10 mg po q8h – moderate half-life: • lorazepam 0.5–2 mg po, sl q6-8h – short half-life: • alprazolam 0.25–0.5 mg po bid-tid, max 3 mg/24 hrs (particularly for panic attacks and nightmares) • oxazepam 15–30 mg po q4-6h • chloral hydrate 500–1,000 mg po qhs • diphenhydramine 25–50 mg po, iv tid-qid • zopiclone (Imovane®) 7.5 mg po qhs • homeopathy: – anxiety attacks, aconitum 6 ch tid, if recurrent or acute 30 ch prn – generalized anxiety, arsenicum 30 ch bid – high anxiety, argentum nitricum 30 ch bid
anti-depressants	• anti-depressants may be very helpful, i.e. trazodone

COMPLEMENTARY THERAPIES

- acupuncture: raises endorphin levels, sedates
- aromatherapy: general calming effect, see practitioner for appropriate aromatherapy oils (melissa, bergamot, lavender, neroli):
  – warm baths and oils
- biofeedback
- chiropractic: specific cervical and thoracic manipulation to enhance parasympathetic outflow
- hypnosis
- imagery
- massage therapy
- relaxation therapy
- therapeutic touch: general calming effect

INSOMNIA

PRESENTATIONS

May include:

- difficulty falling asleep
- frequent awakenings
- nightmares
- early morning awakening
- night-time restlessness
- fear

CAUSES

Other:

- anxiety disorder
- depression
- pain
- delirium
- medication side effects

APPROACHES AND INTERVENTIONS

Examination, investigation and treatment of underlying causes should be appropriate to the presentation, stage and context of the person and illness.

- give corticosteroids in the morning to reduce interference with sleep
- look for reversible symptoms which cause discomfort at night time

APPROACHES	INTERVENTIONS
enhance environment	• reduce noise • control light • improve comfort of bed • adjust ambient temperature and humidity • provide comforting objects i.e. teddy bears
establish sleep routines	• reduce daytime napping • go to bed at the same time each night • reduce stimulation 2 hours before sleeping • wake at same time every morning
remove dietary stimulants	• avoid caffeinated medications and beverages, i.e. coffee, tea, soft drinks • avoid alcohol at bedtime
anxiolytics	• choice depends on half-life: – short: may lead to withdrawal, arousal – long: may result in daytime sleepiness, hangover or impaired cognition. However, may provide anxiolytic effect during the day • do not use nightly: – avoids attenuation effect – reduces potential for dependency • abrupt stoppage may lead to rebound insomnia • effective doses may be very small in the elderly • dosing: – lorazepam 0.5–2 mg po, sl qhs prn – oxazepam 15–30 mg po qhs prn – diazepam 2–5 mg po qhs prn – alprazolam 0.25–0.5 mg po qhs prn
anti-depressants	• low doses of sedating anti-depressants may be very helpful over long term: – amitriptyline, desipramine, doxepin 10–25 mg po qhs – trazodone 25–50 mg po qhs
other sedatives	• diphenhydramine 25–50 mg po qhs prn • dimenhydrinate 25–50 mg po qhs prn • chloral hydrate 500-1,000 mg po qhs prn • zopiclone (Imovane®) 7.5 mg po qhs prn

COMPLEMENTARY THERAPIES

- aromatherapy: see practitioner for specific oils
- guided meditations, imaging
- herbal treatments, soothing teas

- homeopathy: coffea 12 ch bid in evening spaced 3 hrs apart before bedtime, allow 4 days to assess, increase to 30 ch, if needed
- massages
- relaxation therapies:
  - progressive muscle relaxation
  - self hypnosis
  - focused muscle relaxation
- therapeutic touch
- warm milk, Ovaltine™

CARDIO-RESPIRATORY PROBLEMS

CHEST PAIN

PRESENTATIONS

May occur at rest, on movement, on exertion, on inspiration. May be generalized or localized and may be specific to one or more dermatomes.

CAUSES

Infectious:
(including pericarditis, pleurisy, pneumonia)
- atypical mycobacterium (MAC)
- CMV
- fungi
- herpes zoster
- pneumocystis carinii
- pyogenic bacteria
- TB

Malignant:
- Kaposi's sarcoma
- lymphoma

Other:
- costochondritis
- ischemia
- musculoskeletal
- pneumothorax
- pulmonary embolism
- trauma

APPROACHES AND INTERVENTIONS

Examination, investigation and treatment of underlying causes should be appropriate to the presentation, stage and context of the person and illness.

- distinguish between non-esophageal and esophageal pain (see Odynophagia)
- pain on inspiration, exertion may indicate rib subluxation

PROBLEMS	INTERVENTIONS
chest wall inflammation, trauma, pericarditis, pleurisy	• provide stepwise analgesia, especially NSAID's (see Pain) • if costochondritis, consider local steroid/xylocaine injections • for extreme, chest wall pain consider nerve block
herpes zoster	• acute - provide stepwise analgesia (see Pain) • chronic - see Neuropathic Pain
ischemia	• use appropriate cardiac medications - nitroglycerin, nitrates, calcium channel blockers, beta blockers • provide stepwise analgesia (see Pain)
pneumothorax	• manage acutely with chest tube and suction, if appropriate • provide stepwise analgesia (see Pain)