

## Delirium in patients with advanced or chronic disease

“Comfort packs” for the dying

# Delirium

Acute confusional state resulting from diffuse organic brain dysfunction

# Why is it important ?...COMMON

1/3 of patients over 70 admitted to hospital

1/3 of elders presenting to ER

SNU

16% delirious on admission

Up to 60 % of all LTC patients have delirium during SNU stay

25-50 % advanced cancer patients

85% of patients in last several weeks of life



3

## Why is it important?-We MISS it ( often )

- 22-66 % of cases of delirium are not diagnosed or treated

- Factors associated with nonrecognition

Hypoactive delirium

Pre-existing cognitive impairment

Advanced age



4

## Why is it important ? MORBID

- In hospital, TENfold increase risk of death
- One year mortality after delirium 35-40%
- Suffering for patient....and for family
- MOST patients recall their delirium, MOST ( 80%) said it was distressing for them (hypoactive =hyperactive )
- Hallucinations most associated with distress
- Sense of threat, imprisonment/restraint/trapped
- Shame , embarrassment with recall



5

## Who is most likely to get this ?

- Advanced age
- “Vulnerable brain”
- Functional, visual, hearing impairments
- Dehydration/malnutrition
- Advanced chronic or terminal illness
- Multiple medications



6

## What do we do about this ?

- Prevent it
- Diagnose it
- NAME it ( not 'anxious', 'restless', 'a little confused', 'agitated', 'nervous', etc.)
- Treat it



7

## Diagnose it ....and NAME it

- Acute onset, fluctuating course AND
- Difficulty maintaining attention AND
- Disorganized thinking   OR  
     Altered consciousness ( more or less alert )
- Hyperactive/hypoactive/mixed
- NAMING it for patient, family, chart ('delirium'/ 'encephalopathy')
- NOT dementia, psychosis, chronic mental illness, depression



8

# Look for reasons why !

DME / Top to bottom

- Drugs
- Metabolic ( systemic )
- Environmental
- Top to bottom exam/consideration of precipitating conditions

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9

## DRUGS

### Drugs we GIVE that cause/contribute

- Opioids
- Benzodiazepines
- Anticholinergic meds
- Steroids
- Antibiotics(fluoroquinolones)
- H2Blockers
- Others ( digoxin, theophylline...)

### Drugs we DIDN't give that contribute

- Analgesics ( uncontrolled pain)
- Withdrawal syndromes
  - Opioid
  - Benzodiazepines
  - ETOH
  - SSRI

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10

## Metabolic/systemic

### Metabolic

Hyper/hyponatremia

Hypercalcemia

Hypoxia/hypercarbia

Uremia

Hepatic encephalopathy

Hypoglycemia

### Systemic

- Infection/ sepsis

- Fever

- Dehydration

- Anemia



11

## Environmental

- Sleep disruption
- Noisy/chaotic environment
- Unfamiliar/ changing caregivers
- Hearing/visual impairment
- Immobility



12

## BODY-top to bottom consideration

- Head- tumor, bleed, CVA-UNCOMMON in absence of localizing signs
- Thorax- Pneumonia, PE, MI, other
- Abdomen/pelvis-
  - distension of hollow viscus as cause for delirium
  - Stomach, small intestine, large bowel
  - Bladder-urine retention -
  - inflammatory or other source

## Terminally ill

- “Terminal delirium/agitation”.... ‘the hard road’.
  - Probably 10-15% of dying people, agitation, sometimes pronounced. Treat as needed for patient/caregiver safety
- “Near death awareness”
  - Dying person seeing loved ones who have died
  - Invitation to go with, through door, down the path, on the bus...
  - Often comforting /pleasant for the dying patient
  - Generally in the last days to a week prior to death

## Treatment of delirium

- Non-pharmacologic is MOST important-  
Identify and correct contributing cause(s)  
Medication, pain, distended bladder, hydration, infection  
Environmental contributor-mobility, reorientation  
measures, hearing/vision aides, other
- Explanation of delirium to patient and especially to family  
MEDICAL condition, NOT psychiatric illness, NOT  
dementia, related to underlying illness, NOT reflection  
of patient's true nature or emotions

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15

## Treatment of delirium

- Antipsychotics-NOT the panacea we have previously believed
- SOME benefit for patients with pronounced, agitated delirium that is harmful for patient or others... 'treatment of symptoms of delirium'
- Conventional ( Haldol ) and atypical ( olanzapine, risperidone, quetiapine)- use for delirium is off label
- FDA warning for both classes in elderly patients with dementia ( higher risk of death ), risk of QT prolongation, risk with Parkinsons /Lewy body dementia patients of worsening symptoms permanently

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16



## Pharmacologic treatment delirium- antipsychotics

- Haloperidol- Less sedating, more EPS ( increased if daily dose >3 mg)  
PO, SL, SQ....initial dose 0.25- 0.5 mg, up to 3 mg daily
- Risperidone- slightly less EPS than haloperidol PO, SL, IM....initial dose 0.25-0.5 mg, up to 3 mg daily
- Olanzapine- more sedating, PO, SL, IM ....initial dose 2/5-5mg, up to 20 mg/D
- Quetiapine-more sedating, PO....initial dose 12.5-25 mg ,up to 50 mg/D

## Pharmacologic treatment delirium- benzodiazepine

- Associated with decreased cognition/more confusion
- Important in management of withdrawal delirium
- Use if sedation is needed
- Lorazepam may have paradoxical agitation ( NOT class effect, if develops, can use different benzodiazepine)
- Lorazepam-PO, SL, SQ, IV, 0.25-0.5 mg to start, up to 2 mg daily unless sedation is required, then increase to effect

## Emergency “comfort pack” for terminally ill patients

- Rationale.... “Why should we consider this ?”
- What symptoms do we expect in the dying days of patient in our care?  
How promptly can we manage this at 2 am on a Sunday morning?
- Pain, dyspnea, delirium, nausea/vomiting, anxiety, secretions
- Cost, safety, accessibility, regulatory issues in creating kit
- What is possible is specific to environment/facility

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19

## Medication options

### – Pain/dyspnea-opioid

- Oral morphine solution 20 mg/ml, po/SL, titrate from low dose, low volume....BUT harder for narc counts, dilution/diversion, 15 ml smallest volume ( 300 mg morphine )
- Oral oxycodone IR tablets 5 mg ( equals 7.5 mg morphine ) crush SL/po q 2-4 hours prn
- Oral hydromorphone tablets 2 mg ( equals 8 mg morphine ) crush SL/po q 2-4 hours prn

### – Delirium/agitation/anxiety

- Haloperidol –solution ( 2 mg/ml), 0.5 mg tablets crush SL/po.  
Regulatory issues-For agitated delirium in terminally ill patient, permitted .  
AMDA Physician Information Tool Kit “Palliative Care in LTC Setting”  
notes “Most authorities recommend haloperidol as the first-line medication for delirium”.
- Risperidol 0.25 and 0.5 mg tablets, RisperDAL M-tab ( oral dissolving tab ) much more expensive
- Olanzapine 2.5 and 5 mg tablets, Zydys oral dissolving tab much more expensive

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20

# Medication options

- Nausea/vomiting

IF haloperidol is in kit, effective antinausea med  
 Ondansetron 4 mg, ODT more expensive  
 Alternatives-Compazine po/PR, other

- Secretions

Hyoscyamine SL ( LEVSIN SL ) 0.125 mg SL q 4 hr  
 Atropine/ scopolamine patch – CNS penetration, delirium  
 Can use for smooth muscle spasm ( bowel/ bladder spasm )

- Acetaminophen



21

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22