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EUROPEAN SOCIETY FOR EMERGENCY MEDICINE

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European Geriatric Medicine Society
Fostering geriatric medicine across Europe

DELIRIUM AND COGNITIVE IMPAIRMENT

WHY IS THIS IMPORTANT

Cognitive problems including Delirium and Dementia are common in Older Adults presenting to the Emergency Department (ED). Up to 20% of older adults using the ED have some degree of pre-existing cognitive impairment. Delirium affects about 10% of older patients in the ED. Prolonged stays in the ED are associated with development of delirium in vulnerable people.

Delirium is associated with a threefold increased mortality rate. It is also associated with accelerated functional decline, accelerated cognitive decline and longer stays in hospital.

It has been shown that over 50% of delirium is missed in the ED.

HOW TO RECOGNIZE OLDER ADULTS WITH DELIRIUM OR COGNITIVE PROBLEMS?

Use a tool to identify those with delirium such as the 4AT and link this to actions around care such as early review, management in designated spaces, targeted assessment and expedited admission.

WHAT CAN WE DO?

1. Manage those patients with delirium, or at risk of developing delirium, through multicomponent interventions and regular reorientation. Perform a structured assessment including medications review that aims to identify and reverse potential causes of delirium. Checklists can be used to assist these process.
2. Use appropriate aids to assist assessment of pain in older people with cognitive impairment e.g. PAINAD.
3. Where patients have behavioral disturbance or agitation related to cognitive impairment, attempt non-pharmacological treatment methods as first line. Physical restraints should not be used.
4. Employ a cautious approach to sedation and only use it when non-pharmacological approaches have failed. Use oral medications in the first instance with the choice of medication tailored to the individual patient. A decision to escalate to IM/IV sedation should be made by a senior doctor and administered in an area where the patient can be properly monitored and where airway support is available, following local and national sedation guidance.
5. Link patients who are found to have cognitive impairment in the ED with local structured care pathways for inpatient care, or to their family doctor for further investigation on discharge.
6. Tailor diagnostic investigations for delirium to the individual patient's history and physical examination findings.

TOOLBOX

- Scottish Intercollegiate Guidelines Network Delirium Guideline (SIGN) 2019
- 4AT rapid clinical instrument for delirium detection
- Alzheimer Europe – advocacy agency for European people living with Dementia
- Delirium Pathways in Hospital - Hospital Elder life programme
- Delirium Resources NIDUS – Network for Investigation of Delirium: Unifying Science

All toolboxes and additional information are available via QR-code.

REFERENCES

All relevant references to scientific publications can be found via the adjacent QR-code.

This education material was developped by the *European Task Force for Geriatric Emergency Medicine*, which is a collaboration between the *European Society for Emergency Medicine* (EUSEM) and the European Geriatric Medicine Society (EuGMS). For more information, please visit: **geriEMEurope.eu** and follow us on Twitter: **@geriEMEurope**.

Download this poster via QR-code.

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IDENTIFICATION OF COGNITIVE IMPAIRMENT AND/OR DELIRIUM IN THE ED

Think DELIRIUM

- All older patients require routine brief cognitive screening in the ED
- If cognitive impairment: get a **collateral history** of baseline cognition /function

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Older Adult presents to ED

Complete 4AT*
see Green Box on right

- ≥4 Possible delirium +/- cognitive impairment
- 1-3 Possible cognitive impairment
- 0 Delirium or severe cognitive impairment unlikely
  (but delirium still possible if information incomplete)

* or validated alternative.e.g. CAM-ED

No evidence delirium
Proceed with admission/ discharge plan

DISCHARGE
Ensure documentation of cognitive status on discharge letter.

If any concerns about cognitive impairment arrange follow-up via local memory services / geriatrician or family doctor

ADMIT
Screen for risk-factors for delirium
(See Yellow Box on right)

Those with ANY risk factors should be monitored for development of delirium during their stay

Suspected delirium ADMIT**
(NB Delirium is a Medical Emergency)

1. Discuss diagnosis with senior doctor and nurse in ED.
2. Discuss diagnosis with carer/ relative
3. Start search for causes of delirium
   (Remember there is frequently more than one, See Red Box on right)

Ensure admitting team know that delirium is suspected

** The vast majority of patients with delirium need admission it is a diagnosis with high mortality. Exceptionally and only after senior discussion should a patient with delirium go home or be admitted to CDU

Consider if the patient will require enhanced supervision when transferred to the ward (e.g. if increased falls risk, wandering)

Strategies for delirium Prevention in ED and on CDU/observation wards

On discharge document episode delirium and discharge cognitive status in discharge notes!

- Avoid restraints
- Avoid sedatives
- Ensure adequate fluids/ nutrition
  (use food intake chart and ensure accessible drinks/snacks)
- Promote relaxation and sufficient sleep
- Early and regular mobilisation
- Regular reality orientation using visual and auditory aids
- Avoid constipation (use stool charts to monitor)
- Encourage independence with Activities of Daily Living
- Manage any pain (use PAINAD/other dementia friendly pain score)
- Medication review
- Avoid use of urinary catheters

Managing someone with delirium who is distressed and/or combative and felt to be a threat to themselves or to others

1. Identification and treatment of the underlying cause should be the first aim of management
   ALWAYS try to deescalate the situation first by using non-pharmacological interventions
   - Explain gently what is happening. Re-orientate and use activities to distract the patient
   - Invite family/carers to stay with patient (rooming-in)
   - Try to nurse in a quiet area. Consider the need for one-to-one nursing
2. If medical restraint is needed use small doses and increase gradually. Use one drug at a time. Check patient weight prior to dosing.
   Try **ORAL** therapies first e.g. Quetiapine (12,5-25mg), Haloperidol (0.5-1mg), Olanzapine (2.5-5mg),
   - avoid in those with Lewy Body Dementia or Parkinson's Disease
   - Get an ECG and check QT before using antipsychotic agents
   - Only use benzodiazepines when antipsychotics are contraindicated e.g. Lorazepam 0.25-0.5 mg
3. If oral therapies fail consider IM or IV sedation
   - This decision must be made by a **senior doctor** – Reg/ Consultant
   - As with any sedation this should be done in an area where the patient can be properly monitored and where airway support is available, usually in resus.
   - This should be done using local sedation pathway
   - Flumazenil should be available if using lorazepam.
   - Procyclidine/Benztropine should be available if using antipsychotic agents.

4AT

1. **Alertness**
   - Normal (fully alert, but not agitated, throughout assessment) 0
   - Mild sleepiness for <10 seconds after waking, then normal 0
   - Clearly abnormal 4
2. **AMT4**
   Age, Date of birth, Place (name of hospital/building), Current Year
   - No mistakes 0
   - 1 mistake 1
   - 1 ≥2 mistakes/untestable 2
3. **Attention**
   Months of the year Backward
   - Achieves 7 months or more correctly 0
   - Starts but scores <7 months / refuses to start 1
   - Untestable (cannot start because unwell, drowsy, inattentive) 2
4. **Acute**
   Acute Change or fluctuating symptoms?
   - No 0
   - Yes 4

Total: –

Risk Factors for Delirium

- D **Dehydration**
- E **Eyes and ears:** make sure visual/hearing aids are available
- L **Limited mobility:** change in mobility or restraint eg bed bound, use of urinary catheter
- I **Infection** (or severe Medical Illness (EWS≥6))
- R **Reduce pain:** high risk delirium with acute pain e.g. fracture femur are at. Focus on pain control.
- I **Impaired cognition:** preexisiting cognitive impairment or previous delirium
- U **Up at night:** sleep deprivation increases delirium risk
- M **Medication:** ≥3 new medications, exposure to benzodiazepines, polypharmacy, Omissions e.g. BDZs, opiates? Is alcohol withdrawal a risk?

Potential causes of Delirium 'PINCH ME'

- P **Pain:** Is the patient agitated due to pain? Has urinary retention been excluded?
- IN **Infection:** Is there an infection- e.g. UTI/ LRTI?
- C **Constipation:** Is the patient constipated?
- H **Hydration:** Is there a major electrolyte disturbance? Has hypoxia/ hypotension/ hypoglycaemia been ruled out?
- M **Medication:** omission of regular medication
- E **Environmental:** change of environment, high noise or activity levels