Revisiting the supportive care guidelines for BSMO
“ Delirium in adult cancer patients”

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Ann Oncol-2018 Oct 1;29(Suppl 4):iv143-iv165. **Delirium in adult cancer patients: ESMO Clinical Practice Guidelines-**S H Bush et al

Definition delirium > mental confusion (DSM-V 2013)

Delirium is

- an acute onset, fluctuant, neurocognitive syndrome
- with any changes by daily observation like :

1. Disturbances of attention and awareness : impaired concentration, slow responses,
2. Disturbances in an additional cognitive domain: confusion, hallucinations,
3. May also be: Disturbances caused by substance intoxication or withdrawal,
4. May also occur:
    1. emotional disturbances: mood changes ;
    2. psychomotor disturbances: agitation, restlessness or sleep disturbances,

DSM-V (Diagnostic and Statistical Manual of Mental Disorders) 2013

Delirium Subtype Classification

- Three clinical subtypes of delirium have been described according to the type of psychomotor activity:
  - Hyperactive,
  - Hypoactive (≠ depression) ,
  - And mixed (2/3).

Prevalence

- 10% emergency department
- 18% hospitalization in oncology or medical department
- 26 to 47% in PCU
- 85-90% in end of life PCU

Diagnosis by formal tools : why?

- Often missed: 37% (fluctuation of symptoms, hypoactive presentation)
- Misdiagnosed with another psychiatric disorder:
  - Mild cognitive impairment, dementia
  - Depression
  - Anxiety
  - Psychosis
  - Hearing or visions problems
  - Aphasia
  - Disconfort with restlessness

Diagnosis by formal tools : why?

- Often missed: 37%*
- Reversibility: 30-50% (rare in end-of-life setting)
- Mortality (30-day mortality: 25% if hospitalized cancer patients)
- Morbidity : time and cost-consuming , distress in patients and their family and caregivers
  - ⬆ rehabilitation needs
  - ⬆ Pressure sores
  - ⬆ Aspiration pneumoniae
  - ⬆ Placement at 2 years
  - ⬆ Fonctionnal decline and falls
  - ⬆ Readmission

Diagnosis by formal tools : short CAM

Testing of orientation and sustained attention is recommended prior to scoring, such as :

digit spans,
days of week,
or months of year backwards.

- Proper training is required
- pooled **sensitivity of 82%**
- pooled **specificity of 99%**

Table 2 **Confusion Assessment Method**

Feature*	Assessment
#1 Acute onset and fluctuating course	Usually obtained from a family member or nurse and shown by positive responses to the following questions: • "Is there evidence of an acute change in mental status from the patient's baseline?" • "Did the abnormal behavior fluctuate during the day, that is, tend to come and go, or increase and decrease in severity?"
#2 Inattention	Shown by a positive response to the following: • "Did the patient have difficulty focusing attention, for example, being easily distractible or having difficulty keeping track of what was being said?"
#3 Disorganized thinking	Shown by a positive response to the following: • "Was the patient's thinking disorganized or incoherent, such as rambling or irrelevant conversation, unclear or illogical flow of ideas, or unpredictable switching from subject to subject?"
#4 Altered level of consciousness	Shown by any answer other than "alert" to the following: • "Overall, how would you rate this patient's level of consciousness?" - Normal = alert — Hyperalert = vigilant - Drowsy, easily aroused = lethargic — Difficult to arouse = stupor - Unarousable = coma

https://help.agscocare.org/table-of-contents/delirium-instruments/H00101

- www.the4AT.com

- <2 minutes
- no special training is required
- pooled **sensitivity of 88%**
- pooled **specificity of 88%**

4AT

(label)

Patient name:

Date of birth:

Patient number:

Assessment test for delirium & cognitive impairment

Date: **Time:**

Tester:

CIRCLE

[1] ALERTNESS

This includes patients who may be markedly drowsy (eg. difficult to rouse and/or obviously sleepy during assessment) or agitated/hyperactive. Observe the patient. If asleep, attempt to wake with speech or gentle touch on shoulder. Ask the patient to state their name and address to assist rating.

	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 the hospital or building), current year.

	No mistakes	**0**
	1 mistake	**1**
	2 or more mistakes/untestable	**2**

[3] ATTENTION

Ask the patient: "Please tell me the months of the year in backwards order, starting at December."
To assist initial understanding one prompt of "what is the month before December?" is permitted.

Months of the year backwards	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 CHANGE OR FLUCTUATING COURSE

Evidence of significant change or fluctuation in: alertness, cognition, other mental function (eg. paranoia, hallucinations) arising over the last 2 weeks and still evident in last 24hrs

	No	**0**
	Yes	**4**

4 or above: possible delirium +/- cognitive impairment
1-3: possible cognitive impairment
0: delirium or severe cognitive impairment unlikely (but delirium still possible if [4] information incomplete)

4AT SCORE ☐

Best approach : Delirium ≠ Haldol

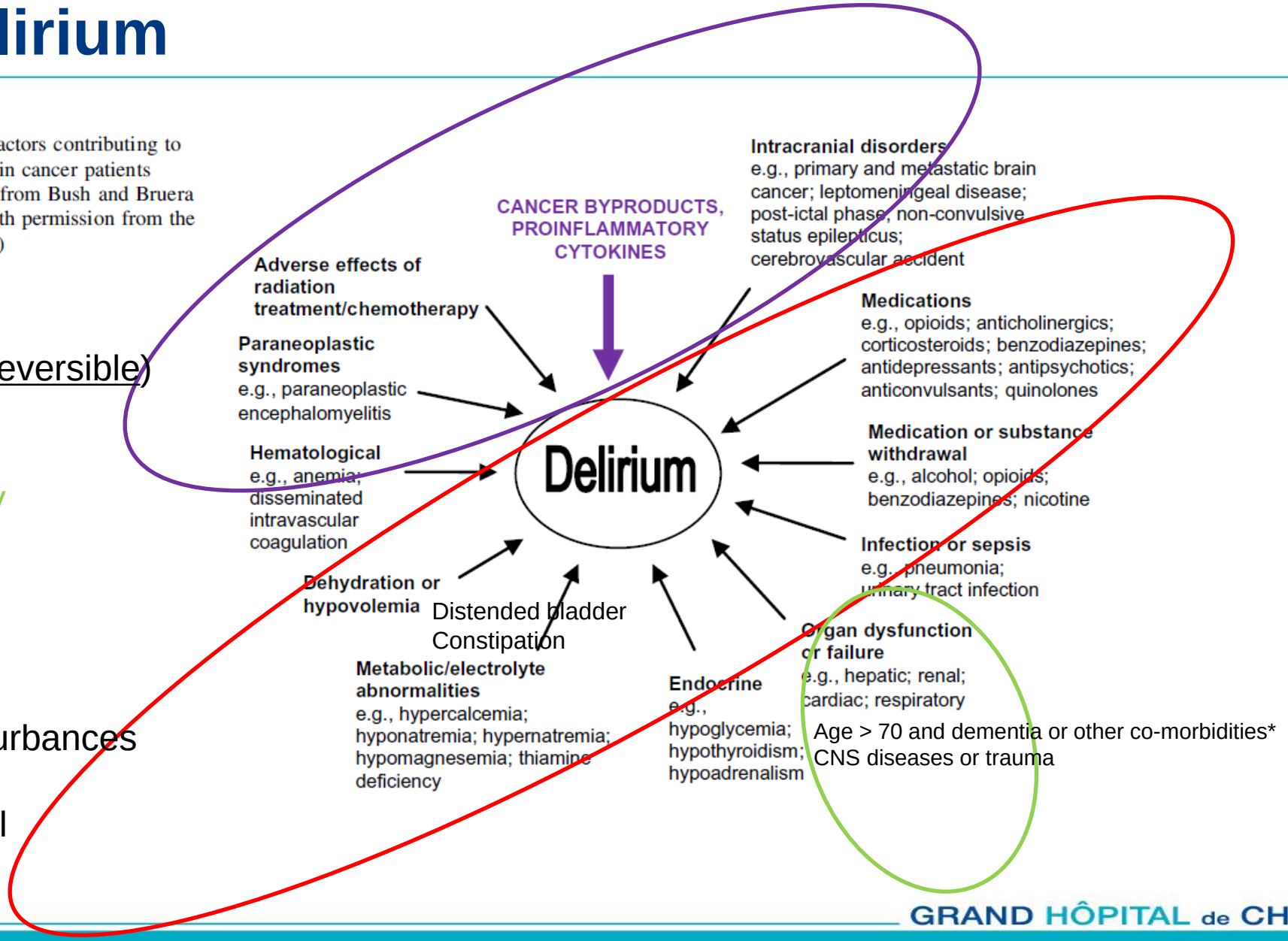
1-Identify and reverse underlying cause(s) of delirium if appropriate/ consistent with goals of care and illness trajectory.

2-Management

1. Non-pharmacological delirium management
2. Pharmacological delirium management

1-Identify and reverse underlying cause(s) of delirium

Fig. 3 Factors contributing to delirium in cancer patients (adapted from Bush and Bruera [160], with permission from the publisher)



Precipitating (potentially reversible)

Direct

Indirect

Predisposing co-morbidity

- 30% single
- 70% multiple (3)
  - 64% medications
  - 46% infections
  - 46% electrolyte disturbances
  - 25% brain or leptomeningeal metastasis

2-Management

1. Non-pharmacological delirium management
2. Pharmacological delirium management

2-Management

1. Non-pharmacological delirium management:

- Correction of predisposing conditions (hearing, vision).
- Encourage mobilisation, exercices; avoid using physical restreints
- Improve sleep–wake patterns
  - day: exposure to daylight, discourage naps;
  - evening: avoid corticoïds, use non-caffeinated drinks, relaxing music, minimise light, noise, disruptions.
- Orientation activities
  - explain where the patient is, who they are, who you are and your role,
  - use orientation board, visible clock and cognitive stimulation activities, eg, reminiscence).
- Minimise room changes.
- Support family and nursing as partnership

2-Management

2.Pharmacological delirium management

1. Medications are generally not recommended in most cases.
2. Antipsychotics can be deleterious (paradoxal reaction)
3. So use it in restricted conditions only : danger
4. If needed, use the lowest effective dose (titration) for the shortest possible time to relieve symptoms (not more than 24h post resolution) .
5. Caution is needed with benzodiazepines as they can exacerbate delirium.
6. The risk of extrapyramidal side effects (EPSEs) is lower with new generation antipsychotics
7. Patient and family education and support

2-Management

2.Pharmacological delirium management

Class	Name	©	Mode of administration	Minimal unit dose per intake (mg)	Maximal unit dose per intake (mg)	Maximal dose per day (mg)	
Antipsychotics	Haloperidol	Haldol 0.5	Po or sc or iv	0.5 Titration : Repeat/30' (sc or iv) Repaet/60' (po) Steady state dose : 50% of induction dose	1	4	More EPSEs
	Levomepromazine (methotrimeprazine)	Nozinan 25	Po (or sc or iv)	6.25 (1/4cp)	12.5/2h (1/2 cp)	50-100	
Second or new generation antipsychotics (SGAs) = atypical antipsychotics (AAP) = serotonin–dopamine antagonists (SDAs)	Risperidone	Risperdal	Ineffective				
	Clozapine Agranulocytosis and cardiac complications	Leponex 25					
	Olanzapine	Zyprexa 5	Po or sc	2.5-5 (½ cp) Before sleeping	5 (1 cp)	10	More sedative More AChSEs
	Quetiapine	Xeroquel 25	Po	12.5 Twice per day	25	100	More sedative
	Aripiprazole	Ability 10	Po	2.5-5 (1/4-1/2)		20	
Benzodiazepines	Midazolam	Dormicum 15	Sc or iv	2.5 Titration : 0.5-1 mg/h	5/h	60	1° withdrawal and Parkinson 2° refractory delirium and end of life
	Lorazepam	Temesta 1 po 4 sc	Po or sc	0.5	2/h	6	
Antipsychotics + BZD	If sedation requested for severe delirium						

Delirium could be an early warning sign of Covid-19 in frail older people, or with prior dementia

Delirium-Onset COVID-19 in the elderly with dementia was strongly associated with higher mortality (p<0·001)

During COVID-19 pandemic, the rates of delirium in Patients who are critically ill are back in the 80% range (instead of 50% without COVID)

A kind of form of delirium which disturbs caregivers in their daily burden of task : COVID-19 conspiracy theories are spreading rapidly