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SPA Patient Management Guideline
Acute Delirium in the Hospitalized Patient

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I. Background .... Page 2

II. Risk Factors .... Page 2

III. Causative Factors .... Page 2

IV. Clinical Features .... Page 2

V. Evaluation .... Page 2- 3

VI. Differential Diagnosis .... Page 3

VII. Management of Acute Delirium .... Page 3

VIII. Attachment 1
Medications Commonly Associated with Delirium........................... Page 4

IX. Attachment 2
Confusion Assessment Method (CAM) .... Page 5

I. Background

Delirium (acute confusional state) is a serious medical condition that often goes unrecognized. It occurs in up to 56% of elderly hospitalized patients and is associated with 25-33% mortality, increased risk of skilled nursing facility (SNF) placement, increased risk of falls and the presence of delirium adversely impacts overall length of stay. It is often unrecognized or attributed to age or dementia.

II. Risk Factors

A) Age (particularly those patients over 80 years old)
B) Underlying infection
C) History of dementia
D) Polypharmacy
E) Restraint use
F) Sensory impairment

III. Causative Factors

A) Infection
B) Medications (anticholinergic meds and benzodiazepines pose greatest risk) See **attachment 1** for list of meds associated with delirium
C) Pain
D) Electrolyte/metabolic disturbances
E) Hypoxia
F) Withdrawal from ETOH or benzodiazepines
G) Common diagnoses associated with delirium include CVA, head injury, acute MI, CHF, COPD, pulmonary emboli, uremia, urinary retention, sepsis, surgery-particularly hip surgery

IV. Clinical Features

A) Patient may be agitated, lethargic, or present with alternating level of arousal
B) Confusion has an acute or sub-acute onset (rather than a gradual onset over weeks to months as typical with dementia)
C) Patient is easily distracted with lack of attention to task or conversation
D) Hallucinations and delusions are common
E) Speech/thinking is disorganized
F) Sleep disturbance is common (either hypersomnulence or insomnia)
G) Psychomotor hyperactivity or retardation may also accompany

V. Evaluation

A) Awareness is the most important diagnostic tool

B) Mental status testing may be useful for screening. Often patients are unable to complete full Folstein Mini Mental Status Exam. The Confusion Assessment Method (CAM – **attachment 2**) can be administered quickly at the bedside by nursing or clinicians and is useful for diagnosis.
C) Look for underlying causes (example high risk medications)
D) Clinical work-up
   a) Basic: CBC, blood glucose, renal panel, blood gases (at least O_2 Sat), urinalysis
   b) Additional tests as clinically indicated: EKG, cardiac isoenzymes, Chest X-ray, CT/MR head, lumbar puncture, drug levels, thyroid studies, B12; serum ammonia, liver function tests

VI. Differential Diagnosis

A) Acute psychosis (typically history of mental illness prior)
B) Dementia (gradual onset, should not have fluctuations in level of alertness)
C) Depression (flat affect, slowed responses, apathy)

VII. Management of Acute Delirium

A) Look for, and address, underlying cause(s)
B) Review potential medication causes (Med List – **attachment 1**)
C) Behavior management protocol –
   (See Nursing Protocol for Acute Confusional States attached)
   a) Avoid over stimulation (noise, lights, sleep cycles, etc)
   b) Focus on familiar – caregivers, family, etc
   c) Assess for pain, constipation, bladder retention
   d) Increase activity, if tolerated
   e) Avoid physical restraints, as much as possible
D) Medication management
   a) **Avoid anticholinergics (e.g.: diphenhydramine for sleep)**
   b) **Avoid benzodiazepines** unless history of ETOH or benzo withdrawal
   c) **Neuroleptics are best option** to address combative behaviors, hallucinations and psychomotor agitation. They do not resolve associated confusion
      1) Examples include: haloperidol, respiradol, olanzypine, quetiapine
      2) Avoid large, PRN doses (ex: Haldol 5 mg IM q 4 hours PRN)
      3) Begin with small doses in round the clock divided schedule. Increase doses as needed to manage behaviors. (ex: respiradol 0.5 mg p.o. q 12 hours)
      4) Occasionally, in the start of treatment PRN doses are needed to stabilize behavior. Begin with low dose and increase as needed.
E) Consider Psych referral if known underlying mental illness. Delirium features must be resolved prior to psych evaluation.

For additional information regarding behavior management in acute psychosis in the elderly, please also refer to the SPA Referral and Authorization Guideline – Dementia Management.

Attachment 1
Medications Commonly Associated with Delirium

A) Analgesics
  a) Narcotics
  b) NSAIDS (may have CNS depression in some people)
B) Antibiotics
  a) Aminoglycosides
  b) Quinolones
  c) Cephalosporins
C) Anticholinergics
  a) Antihistamines
  b) Antiparkinsons meds
  c) Phenothiazines
  d) Antivertigo meds
  e) Tricyclic antidepressants
  f) Muscle relaxants
D) Cardiovascular drugs
  a) Antiarrhythmics agents
  b) Antihypertensives
  c) Digoxin
E) Sedative hypnotics
F) Corticosteriods

Attachment 2
Confusion Assessment Method (CAM)
(To determine presence of acute confusion)

1. Is there evidence of an acute change in mental status that fluctuates from baseline during the day?
   . Yes . No

2. Does patient have difficulty focusing attention or keeping track of what's being said?
   . Yes . No

3. Does the patient exhibit disorganized or incoherent thinking such as rambling speech, irrelevant conversation, illogical flow of ideas, or unpredictable switching from subject to subject, hallucinations or delusions?
   . Yes . No

4. Is there a change in the patient's level of consciousness (e.g., lethargic = drowsy but easily aroused; vigilant = hyper alert; stupor = difficult to arouse; or coma = unarousable)?
   . Yes . No

Criteria: Requires a "YES" response to **both** #1 and #2, in addition to a "YES" response for **either** #3 or #4 = a positive acute confusion screen (CAM)

Reference: CAM (Confusion Assessment Method).
Annals of Internal Medicine,
December 15, 1990. (Modified)

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