

Altered Mental Status via the 5 D's

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Barika holds a knife one of the keepers accidentally left behind Tuesday at the Calgary Zoo. Haika Scheffler, *The Canadian Press*

Missed knife leads to hairy situation

By *The Associated Press*

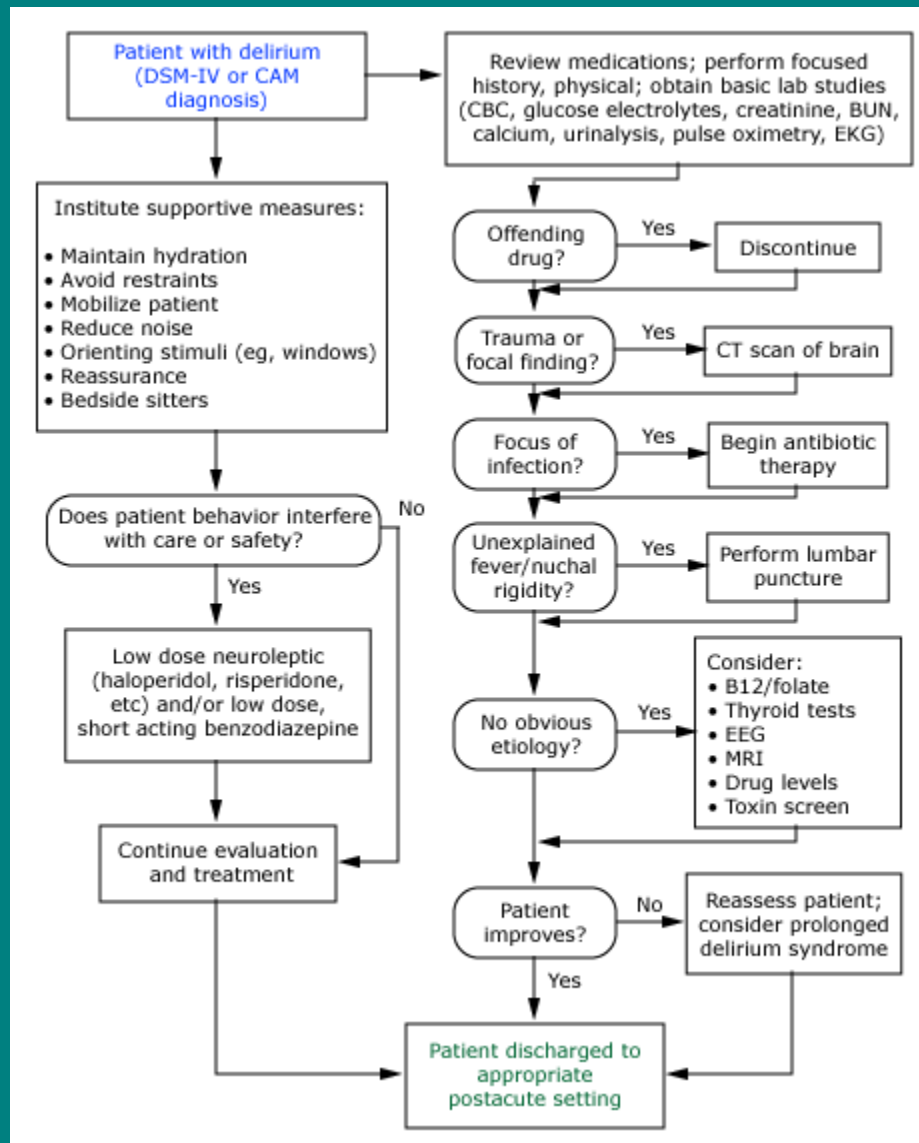
CALGARY, ALBERTA» It might look like gorilla warfare, but officials say the knife-wielding primate photographed by visitors to the Calgary Zoo had no violent intent.

The photos show a gorilla, named Barika, clutching the blade and pointing it at another gorilla in her cage Tuesday.

The knife was accidentally left behind by a keeper who entered the enclosure to prepare food, said Cathy Gaviller, the zoo's director of conservation, education and research, on Wednesday.

Within minutes of picking up the blade, Barika placed it on a chair and all of the gorillas were called out of the enclosure, Gaviller said.

Although gorillas will use crude tools in captivity, they have no concept of using weapons and would never have thought to be violent with the knife, Gaviller said.



Our 5 Ds

- Delirium
- Drugs
- Difficult– personality disorders
- “Demonic” -- psychotic
- Dementia

DELIRIUM

- 48 y/o crying shortly after arrest, daughter is being tortured, she must go to her, she can see it
- Vital signs normal, can calm herself between crying jags.
- DH on divert, sent to OSH w/ brief PE and then assessment by Psych: visual hallucinations, causing great distress, needs psychotropic meds
- Vital signs again normal, PE notable for crying
- Sent for treatment in locked unit at DH

DELIRIUM

- 168/102, 112, crying, trying to get out of door, unable to cooperate with PE
- PMH [through DH EDM] shows over 20 visits to Denver Cares with several admissions for complicated EtOH withdrawal
- Benzodiazepines started at high doses

DELIRIUM

Syndrome	Clinical findings	Onset after last drink
Minor withdrawal	Tremulousness, mild anxiety, headache, diaphoresis, palpitations, anorexia, GI upset; Normal mental status	6 to 36 hours
Seizures	Single or brief flurry of generalized, tonic-clonic seizures, short post-ictal period; Status epilepticus rare	6 to 48 hours
Alcoholic hallucinosis	Visual, auditory, and/or tactile hallucinations with intact orientation and normal vital signs	12 to 48 hours
Delirium tremens	Delirium, agitation, tachycardia, hypertension, fever, diaphoresis	48 to 96 hours

DRUGS

- AH, 48 y/o man w/ Crohn's exacerbation.
- Solumedrol 80mg IV Q 8 hours w/ slow improvement
- D7 he told the doctor that people on the ward were "conspiring against me"
- D9 he said we were "circulating pictures of me as a baby rapist," refusing food b/c it was "unsafe."

DRUGS

- No past history psychosis or other psychiatric disease
- Suspected “steroid psychosis”
- Started on low dose haldol [1 mg BID] and a sleeping med and decreased the steroid dose with improvement over the next 5 days
- Haldol continued until steroid fully weaned off
- Patient instructed to inform future care providers should steroids be needed for his Crohn’s

Whoa, dude

- Drugs commonly causing delirium or confusional states*
- Analgesics
Nonsteroidal anti-inflammatory agents
Opioids (especially meperidine)
Antibiotics and antivirals
Acyclovir
Aminoglycosides
Amphotericin B
Antimalarials
Cephalosporins
Cycloserine
Fluoroquinolones
Isoniazid
Interferon
Linezolid
Macrolides
Nalidixic acid
Penicillins
Rifampin
Sulfonamides
Anticholinergics
Atropine
Benztropine
Diphenhydramine
Scopolamine
Trihexyphenidyl
Anticonvulsants
Carbamazepine
Phenytoin
Valproate
Vigabatrin
Antidepressants
Mirtazapine
Selective serotonin reuptake inhibitors
Tricyclic antidepressants
Cardiovascular and hypertension drugs
Antiarrhythmics
Beta blockers
Clonidine
Digoxin
Diuretics
Methyldopa
Corticosteroids
Dopamine agonists
Amantadine
Bromocriptine
Levodopa
Pergolide
Pramipexole
Ropinirole
Gastrointestinal agents
Antiemetics
Antispasmodics
Histamine-2 receptor blockers
Loperamide
Herbal preparations
Atropa belladonna extract
Henbane
Mandrake
Jimson weed
St. John's Wort
Valerian
Hypoglycemics
Hypnotics and sedatives
Barbiturates
Benzodiazepines
Muscle relaxants
Baclofen
Cyclobenzaprine
Other CNS-active agents
Disulfiram
Donepezil
Interleukin-2
Lithium
Phenothiazines*
- Not exhaustive, all medications should be considered.

Personality Disorders

- JG is an 18 y/o admitted from ACSO for suicidal ideation. Pt had numerous suicide attempts, and had most recently bitten himself while in the Control Chair.
- He had not improved in the past with multiple trials of anti-depressants, anxiolytics or anti-psychotics

Personality Disorder

- Early onset
- Enduring through life and circumstances- may be worse w/ substance abuse
- Externalization/everyone else
- The patient's interactions feel normal to them [expected, not necessarily pleasurable]
- 10-13% of GP

Personality Disorders

- A- odd, eccentric, distrust of others
 - Paranoid; schizoid; schizotypal
- B- labile, emotional, impulsive, “unlikable”
Histrionic; narcissistic; antisocial; borderline
- C- anxious, fearful, timid, conflict avoidant
 - Avoidant; dependent; obsessive compulsive

Personality Disorders

- Medications treat accompanying psychiatric disorders [most common is depression]
- Evaluate/treat substance disorders
- Therapy styles developed for some personality disorders-
 - Dialectical behavior therapy for Borderline personality disorder

Personality Disorders

- **Axis I disorders** (clinical syndromes) are primarily focal disturbances affecting one mental dimension, such as thought (as in psychotic disorders) or mood (as in mania). Axis I disorders may be episodic, chronic, or progressive, but in general they represent a distinct departure from premorbid functioning. Many axis I disorders are highly amenable to specific pharmacotherapeutic and psychotherapeutic interventions.
- **Axis II (personality) disorders** represent an impairment in baseline functioning, in which the person generally functions below the level expected for his or her intelligence, education, and resources. The impairment is most evident in self-perceptions and interpersonal relationships. By definition the personality impairment has an early onset and affects several realms of functioning.

Personality Disorders

- Clinical tip-offs to an axis II problem include **atypical presentations** that do not fit readily into the usual axis I categories. For example, a patient who complains of mood swings and depression that are of insufficient severity and duration to meet criteria for bipolar disorder or cyclothymia may have histrionic or borderline **personality disorder**. Another clue is the presence of **multiple, conflicting psychiatric diagnoses**. For example, a patient seen in several clinics and diagnosed variably with schizophrenia, chronic depression, and social phobia may have schizotypal **personality disorder**. A high degree of **chaos** and **emotional response** is sometimes a tip-off to **personality disorder**, especially the cluster B group (see Question 6). In addition, failure to respond to appropriately aggressive treatment of an axis I disorder may suggest an underlying axis II problem.
- The distinction between axis I and axis II symptoms often is made only after extensive longitudinal data are obtained. A thorough diagnostic evaluation for axis I disorders must precede or accompany consideration of a **personality disorder** diagnosis.

Psychosis

- Delusions: fixed false beliefs not c/w culture or religion
- Hallucinations, primarily auditory
- Disorganized thinking

Psychosis

- Schizophrenia
- Bipolar mood disorder
- Depression
- Delusional disorder

Psychosis

- Schizophrenia-
- OT- 32 y/o AA man sent from DCJ for refusal to eat. Na- 162, BUN 54, Cr-2.1
- Required IVF, then NG feedings
- E-meds required before he'd resume talking or eating
- Several similar admissions

Psychosis

- Schizophrenia--
- Positive symptoms-hallucinations, delusions, bizarre behavior. Responds to medication
- Negative symptoms-flat affect, poverty of thought, lack of social skills, amotivation-generally these don't respond to medication

Psychosis

- Bipolar mood disorder
- JW is a 40 y/o man who came to the ED for increasing agitation. Struck a HCT and was sent to jail, where he was unable to participate in interview, and wouldn't sit still. Sent to CCMF, where he was doing push-ups while naked when I came to examine him. Couldn't sit when requested

Psychosis

- Stood on bench in shower, climbed on ½ wall in room, spread urine around bed
- JW's psychiatrist calls from Mass. Pt is here on a business trip- had been stable on his meds until this trip.
- JW would take PO meds- given BZD, Li [mood stabilizer] and anti-psychotic. Req'd 2 weeks of treatment before able to leave

Psychosis

- A.** A distinct period of abnormally and persistently elevated, expansive, or irritable mood, lasting at least 1 week (or any duration if hospitalization is necessary).
- B.** During the period of mood disturbance, three (or more) of the following symptoms have persisted (four if the mood is only irritable) and have been present to a significant degree:
 - (1) inflated self-esteem or grandiosity
 - (2) decreased need for sleep (e.g., feels rested after only 3 hours of sleep)
 - (3) more talkative than usual or pressure to keep talking
 - (4) flight of ideas or subjective experience that thoughts are racing
 - (5) distractibility (i.e., attention too easily drawn to unimportant or irrelevant external stimuli)
 - (6) increase in goal-directed activity (either socially, at work or school, or sexually) or psychomotor agitation
 - (7) excessive involvement in pleasurable activities that have a high potential for painful consequences (e.g., engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments)

Psychosis

- C.** The symptoms do not meet criteria for a Mixed Episode.
- D.** The mood disturbance is sufficiently severe to cause marked impairment in occupational functioning or in usual social activities or relationships with others, or to necessitate hospitalization to prevent harm to self or others, or there are psychotic features.
- E.** The symptoms are not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication, or other treatment) or a general medical condition (e.g., hyperthyroidism).

Psychosis

	Mania/Mixed	Depression
Bipolar I	Yes	Typical but not required
Bipolar II	Hypomania only	Yes
MDD	Never	Yes
Cyclothymia	Never (but periods of elevation)	Symptoms but not full episode within first 2 years

MDD, Major depressive disorder.

Psychosis

- Depression [unipolar]
- AM is a 24 y/o SpSpO man here from ACSO after an attempted hanging. Crying, hearing the devil, had let down his family, knew he was worthless and should die
- Charges of theft
- Suicide precautions, rx with anti-psychotics and anti-depressants with relief of symptoms

Psychosis

- MDD with Anxious Features (Anxious Depression)
- Catatonic MDD
- Postpartum MDD
- MDD with Anger Attacks
- Seasonal MDD
- MDD with Melancholic Features
- MDD with Atypical Features

- **MDD with Psychotic Features (Psychotic Depression)**
- Psychotic depression is characterized by the presence of delusions or hallucinations (or both). The content of these psychotic symptoms is typically consistent with the depressive themes (i.e., it has mood-congruent psychotic features), but a patient may also report mood-incongruent psychotic features. Psychotic depression is typically accompanied by significant cognitive symptoms and has shown distinctive responsiveness to treatment, with the combination of antidepressants and antipsychotics being superior to use of either drug alone.

Fixed delusion

- JH, 48 y/o man broke both heels and several vertebrae in attempted hanging/jump
- Charged with drug manufacturing & distribution—had used methamphetamines for years. Had not been to court, had not been sentenced
- Was determined to die because the entire federal government was against him and had rigged the charges and everyone in the case knew he was going to prison for life

Fixed delusion

- Cooperative, oriented, appropriate in every other topic of interview
- Probably due to years of methamphetamine use
- Poor response to antipsychotics

Delusions of Parasitosis

- Patient believes s/he has lice or scabies
- May bring in “samples”
- Functional otherwise, but very hard to treat
- May be very disruptive to the patient’s life
- Responds to atypical anti-psychotics but hard to treat [olanzapine]

Suicide risk

- Increased in all of these situations-
 - Depression– 2-4%
 - Bipolar mood disorder has highest suicide risk, with an estimated 15% of patients completing suicide [too high?]
 - Impulsive behavior [borderline personality d/o over 60% have suicide attempts]
 - Command hallucinations telling the patient to hurt himself

Dementia

- Increasing criminalization of demented behavior
- Need for management especially after head injuries [“traumatic dementia”] and in younger, healthier demented patients
- Crime Prevention and Control Commission, Mental Health Committee, has developed an education program for psych units, group homes re. the legal system response to complaints about assaults [shown at Ft. Logan, Psych unit @ DH, others]

Dementia

- 78 y/o man with increasing episodes of falling, found unresponsive at DCJ
- VS WNL, no localizing features on PE, CTH mild atrophy; LP negative; tox screen neg; CMP, CBC wnl
- 24 hrs later awakened, insulted the CNA and asked for lunch
- Repeated this cycle, with less w/u, repeatedly throughout his stay at CCMF
- Inappropriate comments, sexual themes, threats, continued falls, disorientation

Dementia

- Cognitive deficits
- Behavioral and psychological symptoms of dementia [BPSD]
 - Aggression, inappropriate undressing, offensive speech, careless behavior
 - Hallucinations
 - May look like a psychosis

Dementia

- Dementia of Lewy Body type
 - Psychosis, esp. VH, inviting anti-psychotic therapy
 - Extreme sensitivity to neuroleptics, Parkinsonian features
 - Falls, fluctuating levels of consciousness,
 - Other behavioral management techniques recommended as per dementia syndromes

Dementia

Medical conditions	Urinary tract infection, pneumonia, other infections, electrolyte disturbance, renal insufficiency, hepatic insufficiency, thyroid dysfunction, diabetes mellitus, hypoxia, stroke	Treat underlying medical condition; symptoms may take several days or weeks to resolve fully, even after medical issue is addressed.
Other physiologic issues	Vision loss, hearing loss, acute or chronic pain, malnutrition, urinary retention, urinary incontinence, constipation, dehydration	Correct sensory impairment; control pain.
Medications and other substances	Anticholinergics, benzodiazepines, opiates, steroids, alcohol withdrawal stimulants, dopaminergic medications	Withdraw offending agents; keep in mind that many medications have anticholinergic properties.
Environmental and psychosocial factors	Change in routine, physical environment, caregivers; conflict with others; grief, loneliness, boredom	Maintain a stable environment and schedule; encourage group activities; promote sleep hygiene.

Dementia

- Pt managed to tell us that lithium had always worked for him— hx bipolar mood disorder
- Multiple arrests, multiple marriages, multiple assaults
- Triple-threat: Bipolar, personality d/o and dementia
- Placement was a challenge

* 12/12/9

Murder charge for 98-year-old at senior home

By The Associated Press

NEW BEDFORD, MASS.» A 98-year-old woman was indicted Friday on a second-degree murder charge that alleges she strangled her 100-year-old nursing-home roommate after making the victim's life "a living hell" because she thought the woman was "taking over the room."

Laura Lundquist was sent to a state mental hospital for a competency evaluation before her arraignment.

Her roommate at the Brandon Woods nursing home in Dartmouth, Elizabeth Barrow, was found dead in her bed Sept. 24 with a plastic bag tied around her head. Police initially speculated it was a suicide, but a medical examiner ruled it a homicide.

Barrow's son, Scott Barrow, has said Lundquist complained to the home's officials about the number of visitors his mother received and that Lundquist made "threatening" and "harassing" remarks to her.

Bristol District Attorney Sam Sutter said Lundquist suffered from paranoia and "harbored hostility toward the victim" and thought Barrow "was taking over the room they shared."

Why is this terminology important?

- Accurate diagnosis and treatment
- Appropriate coding which determines Case Mix Index and DRG codes
- Affects reimbursement and insurance status

DRG rates @ DH

	Pr. Dx.	DRG	Reimbursement
1. Altered Mental Status	780.09	081	\$3,715.22
2. Psychosis, NOS	298.9	885	\$4,648.07
3. Delirium, NOS (codes to AMS)	780.09	081	\$3,715.22
4. Psychosis due to schizophrenia	295.90	885	\$4,648.07
5. Psychosis due to bipolar mood disorder	296.80	885	\$4,648.07
6. Delirium due to drugs (toxic)	292.81	897	\$3,284.31
7. Delirium due to alcohol withdrawal	291.0 & 303.90	897	\$3,284.31
8. Closed Head Injury	959.01	914	\$3,545.99
9. Traumatic Brain Injury (not requiring surgery)	854.00	087	\$4,081.88

DRG

- “Altered Mental Status” is not “codable” as a co-morbidity or complication [CC or MCC]
- Patient admitted for pneumonia who has any of the above problems [or the numerous other causes of “altered mental status”] will be coded, displayed in group data, and reimbursed as a patient with only pneumonia.

Milliman LOS

- AMS- 3 days
- Delirium, NOS- 3 days
- toxic- 3 days
- alcohol withdrawal- 3 days
- Psychosis, NOS- 3 days
- Schizophrenia- 7 days
- Bipolar- 5 days
- CHI- observation
- TBI- 3 days

Our 5 Ds

- Delirium
- Drugs
- Difficult— personality disorders
- “Demonic” -- psychotic
- Dementia

OFF THE BEATEN TRACK

Escaped chimp pigs out but also cleans bathroom

Little Rock, Ark. — An escaped chimpanzee at the Little Rock Zoo raided a kitchen cupboard and did a little cleaning with a toilet brush before sedatives knocked her out.

The 120-pound primate, Judy, escaped Tuesday into a service area when a zookeeper opened a door to her sleeping quarters, unaware the animal was still inside. As keepers tried to woo Judy back into her cage, she rummaged through a refrigerator where chimp snacks are stored. She opened kitchen cupboards, pulled out juice and soft drinks and took swigs from bottles she managed to open.

"Then she went in the bathroom and picked up a toilet brush and cleaned the toilet," primate keeper Ann Rademacher said. "Her technique was good enough to make me think she must have done it before."

The 37-year-old Judy was a house pet before arriving at the zoo in 1988. Rademacher said that might explain how Judy knew how to wring out a sponge and scrub down the fridge.

The chimp accepted a strawberry yogurt laced with a sedative.

When it didn't work, keepers waited until she was distracted by more food and injected her.

Within five minutes, she fell asleep on top of the refrigerator with half a loaf of cinnamon-raisin bread she had pulled out of the freezer.