Evaluation and Management of Mental Health Emergencies in Children and Adolescents

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27 April 2023

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Disclosures

- Cmdr. Treadwell has no relevant financial or non-financial relationships to disclose relating to the content of this activity.
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- Commercial support was not received for this activity.
- Given the paucity of FDA-approved treatments for agitation, off-label treatment will be discussed.

Learning Objectives

At the conclusion of this activity, participants will be able to:

1. Differentiate psychotic from non-psychotic presentations in children and adolescents.
2. Establish preliminary differential diagnosis for agitated children and adolescents.
3. Complete a brief safety assessment for suicide.

Introduction

- An estimated 10-20% of children and adolescents have a mental health (MH) or substance use problem, only about half receive needed treatment.
- In 2021, the US Surgeon General issued a youth mental health advisory and the American Academy of Pediatrics (AAP), American Academy of Child and Adolescent Psychiatrists (AACAP), and Children's Hospital Association (CHA) declared a National Emergency in CAP MH.
- AACAP estimates there are 10,500 practicing CAPs in the US, with a ratio of 4-65/100,000 kids. With limited outpatient care and inpatient beds, pediatricians may be finding themselves managing psychiatric emergencies more often and for longer durations before definitive treatment.

Agitation

Establish preliminary differential diagnosis and treatment plan for agitated children and adolescents.

Sam, 15 year-old (y/o) socially transgendered teen

CONCERN: SAM BECAME ACUTELY AGITATED ABOUT THE NEED FOR BLOOD WORK, YELLING AT NURSES, PACING IN A ROOM, AND DEMANDING TO GO HOME

- History of (h/o) Bipolar, hospitalized two years ago but has been doing well. Taking medications, no side effects, routine follow up.
- Three days of confusion, irritability, verbal aggression, which gets better for a few hours, then starts again
- Two days of lethargy, anxiety (mainly worried about missing school/make up work)
- One day h/o headaches

Differential Diagnosis of Agitation

MOST COMMONLY

- Delirium
- Substance Ingestion
- Autism/developmental disability
- Psychiatric
- Unknown/Other
    - Maltreatment

Multimodal Approach

INDIVIDUDALIZED, MULTIDISCIPLINARY, COLLABORATIVE

- Etiology
- Non-pharmacology de-escalation
- Restraint
    - Pharmacological
    - Physical

Etiology

- Collateral from parents, teachers, nurses/staff
- Ask the child
- Antecedents and stressors
- Psychiatric and medical history
  - Medications, allergies, substances, development
  - Social, family, trauma history

Non-pharmacology De-escalation

TREATMENT SHOULD BE DRIVEN BY ETIOLOGY WHERE POSSIBLE

- Primary Prevention
  - Comfortable environment, clear communication, effective treatments
- Secondary Prevention
  - Family may already know effective calming strategies
  - Removal of sharps and dangerous objects, consider family members
  - Consider hunger, distraction, sensory concerns
  - Neutral emphatic, tone with concrete language with firm limits on unacceptable behavior and praise/modeling of behavior

Pharmacologic Management

THERE IS NO SINGLE CONSENSUS ON MEDICATION MANAGEMENT

- Medication factors
  - Formulary, onset/duration of action, metabolites, interactions, side effects (some may be advantageous)
- Patient factors
  - Etiology, route of administration available, physical status (size, nutritional status, organ function, history with meds, family preference, desired effect)
- Systemic factors
  - Training/experience with nonpharmacologic approaches and with specific medications, monitoring

Best Practices for Evaluation and Treatment of Agitated Children and Adolescents (BETA) in the Emergency Department: Consensus Statement of the American Association for Emergency Psychiatry (AAEP)

Table 2. Medication reference.

Medication	Dose	Peak effect	Max daily dose	Notes/monitoring
Diphenhydramine (antihistaminic)	PO/IM: 12.5-50mg 1 mg/kg/dose	PO: 2 hours	Child: 50-100 mg Adolescent: 100-200 mg	Avoid in delirium. Can be combined with haloperidol or chlorpromazine if concerns for EPS. Can cause disinhibition or delirium in younger or DD youth.
Lorazepam (benzodiazepine)	PO/IM/IV/NGT: 0.5 mg-2 mg 0.05 mg-0.1 mg/kg/dose	IV: 10 minutes PO/IM: 1-2 hours	Child: 4 mg Adolescent: 6-8 mg Depending on weight/proir medication exposure	Can cause disinhibition or delirium in younger or DD youth. Can be given with haloperidol, chlorpromazine or risperidone. Do not give with olanzapine (especially IM due to risk of respiratory suppression.
Clonidine (alpha2 agonist)	PO: 0.05 mg-0.1 mg	PO: 30-60 minutes	27-40.5 kg: 0.2 mg/day 40.5-45 kg: 0.3 mg/day >45 kg: 0.4mg/day	Monitor for hypotension and bradycardia. Avaoid giving with BZD or atypicals due to hypotension risk.
Chlorpromazine (antipsychotic)	PO/IM: 12.5-60 mg (IM should be half PO dose) 0.55 mg/kg/dose	PO: 30-60 minutes IM: 15 minutes	Child <5 years: 40mg/day Child >5 years: 75mg/day	Monitor hypotension. Monitor for QT prolongation.
Haloperidol (antipsychotic)	PO/IM: 0.5 mg-5 mg (IM should be half a dose of PO) 0.55 mg/kg/dose	PO: 2 hours IM: 20 minutes	15-40 kg: 6mg >40 kg: 15 mg Depending on prior antipsychotic exposure	Monitor hypotension. Consider EKG or cardiac monitoring for QT prolongation, especially for IV administration. Note EPS risk with MDD > 3mg/day, with IV dosing having very high EPS risk. Consider AIMS testing.
Olanzapine (antipsychotic)	PO/ODT or IM: 2.5-10 mg (IM should be half or 1/4 dose of PO)	PO: 5 hours (range 1-8 hours) IM: 15-45 minutes	10-20 mg Depending on antipsychotic exposure	Do not give with or within 1 hour of any BZD given risk for respiratory suppresion
Risperidone (antipsychotic)	PO/ODT: 0.25-1mg 0.005-0.01mg/kg/dose	PO: 1 hour	Child: 1-2 mg Adolescent: 2-3 mg Depending on antipsychotic exposure	Can cause akathisia (restlessness/agitaion) in higher doses.
Quetiapine (antipsychotic)	PO: 25-50 mg 1-1.5 mg/kg/dose (or divided)	PO: 30 minutes-2 hours	>10 years: 600 mg Depending on prior antipsychotic exposure	More sedating at lower doses Monitor hypotension.

PO, by mouth; *IM*, intramuscular; *IV*, intravenous; *NGT*, nasogastric tube; *mg*, milligram; *EPS*, extrapyramidal symptoms; *DD*, developmental disability; mg/kg, milligrams per kilogram; *BZD*, benzodiazepines; *EKG*, electrocardiogram; *AIMS*, Abnormal Involuntary Movement Scale; *MDD*, major depressive disorder; *ODT*, orally dissolving tablet.

(AAEP, 2019)

Consensus Statement of the American Association for Emergency Psychiatry

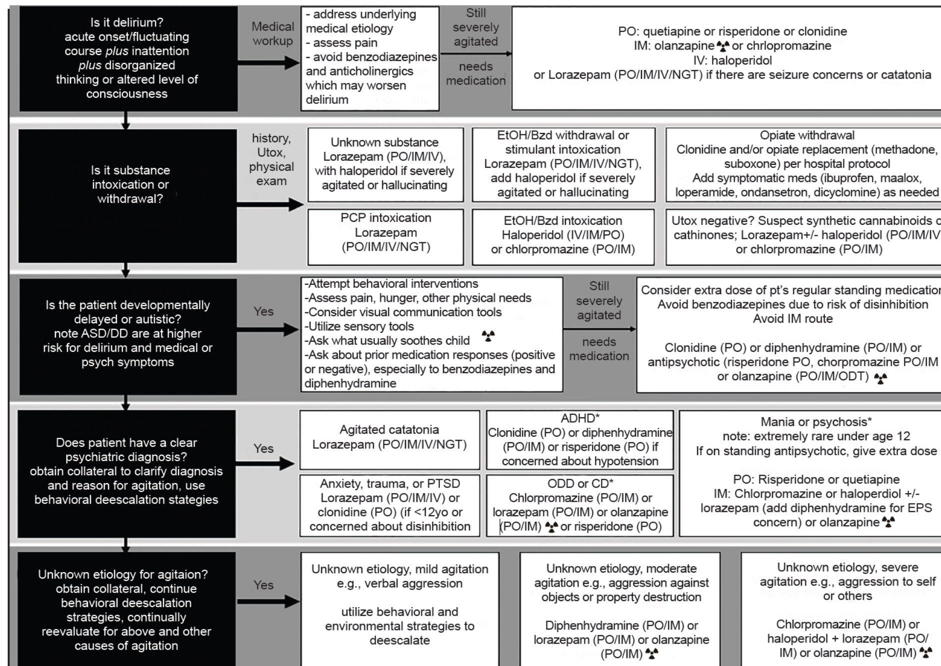


Figure. Clinical decision flow chart.
PO, by mouth; *IM*, intramuscular; *IV*, intravenous; *NGT*, nasogastric tube; *EtOH*, ethanol; *Utox*, urine toxicology; *PCP*, phencyclidine; *EPS*, extrapyramidal symptoms; *ASD*, autism spectrum disorder; *DD*, developmental disability; *BZD*, benzodiazepines; *ODT*, orally dissolving tablet; *PTSD*, post-traumatic stress disorder; *ADHD*, attention deficit hyperactivity disorder; *ODD*, oppositional defiant disorder; *CD*, conduct disorder; *pt*, patient.
*For these etiologies, in absence of consensus, medication options are listed alphabetically; ☢ Do not give olanzapine and benzodiazepines within one hour of each other.

(AAEP, 2019)

Psychosis

Differentiate psychotic from non-psychotic emergency presentations in children and adolescents.

Romeo, 17 yo boy

CONCERN: ROMEO'S PARENTS REPORT TWO MONTHS WORSENING WITHDRAWAL FROM FAMILY AND FRIENDS. HE HASN'T BEEN EATING WITH THE FAMILY FOR A WEEK. YESTERDAY, HE REFUSED TO COME OUT OF HIS ROOM SAYING THAT IT ISN'T SAFE.

- H/o Attention-deficit/hyperactivity disorder (ADHD) and stimulant use from about 8-10 years old. Doing well in school until this year. First, he stopped turning in work then he started days at a time.
- Parents report he hasn't been eating with the family for a week. Yesterday, he refused to come out of his room saying that it isn't safe.
- Drug screen is negative, no signs of infection.
- On exam, he is highly alert, guarded. Nutrition team reports that when they brought his tray, he accused them of trying to poison him.

Psychosis

Hallucinations
Visual (think neuro)
Auditory
Tactile
Olfactory/Gustatory

Thought
Insertion
Withdrawal
Broadcasting

Disorganization
Of thoughts, speech or behavior

Paranoia/Delusion
Fixed false beliefs

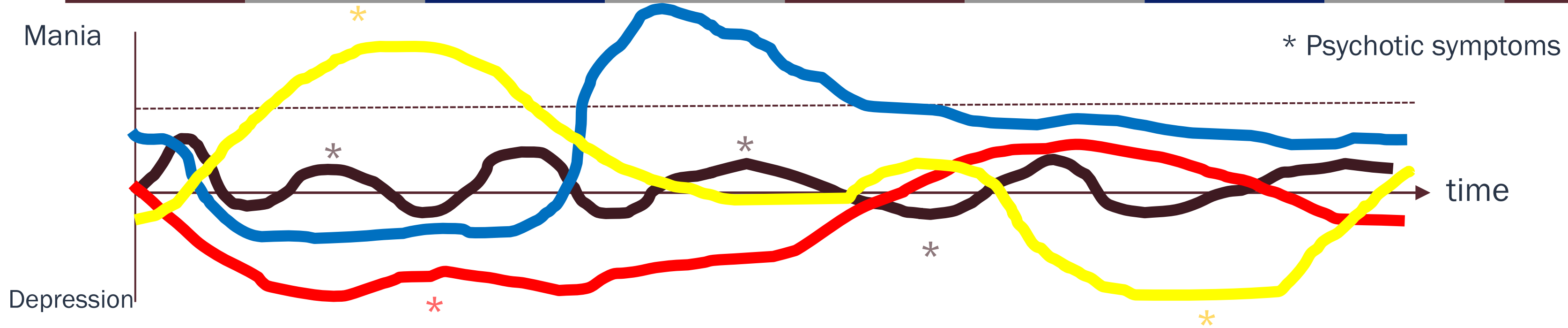
(Getty Image, n.d.)

Evaluation

PHYSICAL EXAM & COLLATERAL INFORMATION ARE KEY

- Thought disorder is uncommon in prepubertal children
- Visual hallucinations are more common in neurological conditions
- Generally not acute (unless substance, medical in nature)
  - seizures, diabetic ketoacidosis (DKA), sepsis/central nervous system (CNS) infection, brain lesions, overdose/poisoning
- Consider trauma, cultural considerations

Psychotic Disorders



Schizophrenia
No correlation with mood

1 month psychosis
6 months prodrome

Schizoaffective
Symptoms of Schizophrenia and Major Mood Episode (mania or depression)

Bipolar I
I: Mania, may have psychosis

II: Hypomania only (4 days, no inpatient, no psychosis)

Depression + Psychosis
Psychosis only when in depressive episode (1 week+)

Psychosis

LABS

- American College of Emergency Physicians policy statement (for adults): "existing literature indicates that routine or ancillary laboratory testing for psychiatric patients has little or no use in the Emergency Department (ED)."
- Similar finding in pediatric literature review.
- Even routine urine drug screens don't change ED management or disposition
- BUT when indicated, screen.

TREATMENT

- Psychiatric consult/admission
- Try non-pharmacologic means first
- If agitated, voluntary medication is best
- If imminent harm, see agitation treatment

Suicidal Ideation

DoD defines suicide-related behavior as "behaviors related to suicide, including preparatory acts, as well as suicide attempts and death." DODI 6490.16.

UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-4000

DEC 29 2021

MEMORANDUM FOR SENIOR PENTAGON LEADERSHIP
DEFENSE AGENCY AND DOD FIELD ACTIVITY DIRECTORS

SUBJECT: Standardization of Common Suicide-Related Definitions

1. Suicide: Death caused by self-directed injurious behavior with any intent to die as a result of the behavior.
2. Suicide Attempt: A non-fatal, self-directed, potentially injurious behavior with an intent to die as a result of the behavior.
3. Suicidal Ideation: Thinking about, considering, or planning suicide.

Shafeeqa, 16 yo girl

CONCERN: SHAFEEQA IS HERE WITH HER AUNT AFTER VOICING SUICIDAL IDEATION WITH A PLAN TO OVERDOSE ON HER ANTIDEPRESSANT WHICH SHE MANAGES HERSELF.

- Risk factors:
  - Psychiatric disorders: mood disorders, psychosis, substance use disorder
  - School problems, bullying, peer conflict
  - Trauma, abuse, conflicts with family
  - Impulsivity, sense of loss/unresolvable problem
  - Self/identity

Additional Risks

- Prior attempts, hospitalizations
- MH conditions with mood, anxiety, agitation
- Impulsivity, substance misuse
- Family history of suicide
- Social isolation, running away

Suicidal Ideation: A Continuum

"What if I didn't wake up?"

Passive ideation

Death ideation

Desire to die and plan,

but no action.

Desire to die, but no specific plan

"I want to die."

Researching

Saying good-bye

Preparing method

Suicidal Ideation: Screening

PRIMARY CARE ADOLESCENT BEHAVIORAL HEALTH SCREENING TOOL

NAME AND DATE OF BIRTH: *(Please complete this section)* | TODAY'S DATE:

FOR PATIENTS 11 THROUGH 17 YEARS OF AGE

Please mark the best answers to each of the questions on this page.

Information on this document was given by ☐ Patient ☐ Legally Authorized Representative

SECTION I: PHQ-2

Over the **LAST TWO WEEKS**, how often have you been bothered by any of the following problems?

	0	1	2	3
1. Little interest or pleasure in doing things…	☐ Not at all	☐ Several Days	☐ More than half the days	☐ Nearly every day
2. Feeling down, depressed or hopeless …	☐ Not at all	☐ Several Days	☐ More than half the days	☐ Nearly every day

STOP HERE - FOR STAFF USE ONLY

☐ **All Screens NEGATIVE (No further action required based on Screening alone.)**

☐ If PHQ-2 score is 3 or higher, complete PHQ-9A (on DHA Form 215: PRIMARY CARE ADOLESCENT BEHAVIORAL HEALTH SECONDARY DIAGNOSTIC AID) and Section II ASQ below.

SECTION II: ASQ

To be verbally administered by healthcare team if patient has a 3 or higher score on the PHQ-2.

1. In the past few weeks, have you wished you were dead?	☐ Yes	☐ No
2. In the past few weeks, have you felt that you or your family would be better off if you were dead?	☐ Yes	☐ No
3. In the past week, have you been having thoughts about killing yourself?	☐ Yes	☐ No
4. Have you ever tried to kill yourself?	☐ Yes	☐ No

If yes, how?

When?

If the patient answers **Yes** to any of the above, ask the following acuity question:

5. Are you having thoughts about killing yourself now?	☐ Yes	☐ No

If yes, how?

DHA-AI 6025.04 "STANDARDIZATION OF DEPRESSION AND SUICIDE RISK SCREENING IN PRIMARY CARE DURING AND SUBSEQUENT TO THE CORONAVIRUS DISEASE 2019 PANDEMIC" (JAN 25, 2022)

SCREENER SUMMARY

SCREENING RESULTS

Positive Screens *(check all that apply)*;

☐ **A. DEPRESSION** *(Section I)*

PHQ-2 Score

(Section I Questions 1 and 2 score = 3 or more administer questions 3-9 of the PHQ-9 Adolescent)

PHQ-9 Adolescent Score (from DHA Form 215)

Impact on Functioning Question Score (from DHA Form 215)

☐ **B. SUICIDE** *(Section II): Use patient responses from PHQ-9 Adolescent question #9 and ASQ*

- For a "Yes" response to ASQ question #5, patient requires a STAT safety/full mental health evaluation. Patient cannot leave until evaluated for safety. Keep patient in sight. Remove all dangerous objects.
- For a response of "Several days," "More than half the days," or "Nearly every day" to question #9 of the PHQ 9A and/or a response of "Yes" to questions 1-4 of the ASQ:

Immediate clinical follow-up is warranted. Unless clinical judgment indicates otherwise, providers will initiate a referral to a BHC or specialty BH if there is no BHC in the clinic for evaluation and comprehensive risk assessment. If immediate evaluation by a BH provider is not feasible, the PCM is responsible for conducting further suicide risk assessment which might include questions about current suicidal ideation, prior suicide attempt(s), current psychiatric conditions or symptoms, prior psychiatric hospitalization, recent biopsychosocial stressors, and availability of firearms in order to determine whether further clinical attention or management is required.

DHA FORM 213, MAR 2022 PREVIOUS EDITION IS OBSOLETE. Page 1 of 2 AEM Designer 6.4

Additional Screening Considerations

- Ask about: ideation, plans, past attempts, intent to die
- Consider access to lethal means
- Family, social, academic, and legal stressors
- Psychiatric screening for depression, anxiety, substance, trauma, psychosis

Suicide Statistics

- In 2020, suicide was the second leading cause of death for kids 10-14.
- In DoD, 45 children died by suicide.
- Firearms were the primary method of suicide death for Service members and family members.
- DoD data shows Service Members hold misconceptions regarding firearms and suicide risk.

2020 ANNUAL SUICIDE REPORT

Military Dependents

Of the 72 military dependents who died by suicide in CY 2019, the majority were male (76.4%; **Table 7**). Ages ranged from 12 to under 23 years old, with 62.5% of dependent deaths among dependents who were under the age of 18. In CY 2019, less than 6% of dependents were also Service members at the time of their death.

Table 7. Military Dependent Suicide Counts and Percentages by Demographics

	Count	Percent
Sex	**72**	**100%**
Male	55	76.4%
Female	17	23.6%
Age Group	**72**	**100%**
0-9	0	0%
10-17	45	62.5%
18 to less than 23	27	37.5%

1. Per CDC requirements, counts under 10 were suppressed in order to protect the confidentiality of military family members.

(DoD, 2021)

988

SAMHSA (Substance Abuse and Mental Health Services Administration), Federal Communications Commission (FCC) and Veterans Affairs (VA) partnered to combine the Veterans Crisis Line and local crisis lines into one easy to access number incorporating 200 local, independent and state-funded crisis centers staffed by trained crisis counselors.

When someone calls or texts 988 or chats via 988lifeline.org, they can reach free, confidential emotional support 24 hours a day, 7 days a week across the US.

Trained counselors will listen, work to understand caller concerns, provide support and collaborate with the caller on ways to feel better and to connect with needed help or resources. In addition, friends, family members and others can call to learn about ways to support someone who might be in crisis.

(alamy.com, n.d)

Key Takeaways

- Agitation is most frequently delirium, substance, ASD/developmental disorder or psychiatric.
- Agitation treatment depends on etiology. There is no one standard treatment.
- Suicide is the #2 cause of death in 10–14-year-olds. Screening is key.

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Questions?

Thank You

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1. Go to URL: https://www.dhaj7-cepo.com/apr2023ccss
2. Search for your course using the **Catalog**, **Calendar**, or **Find a course** search tool.
3. Click on the REGISTER/TAKE COURSE tab.
   a. If you have previously used the CEPO CMS, click login.
   b. If you have not previously used the CEPO CMS click register to create a new account.
4. Follow the onscreen prompts to complete the post-activity assessments:
   a. Read the Accreditation Statement
   b. Complete the Evaluation
   c. Take the Posttest
5. After completing the posttest at 80% or above, your certificate will be available for print or download.
6. You can return to the site at any time in the future to print your certificate and transcripts at: https://www.dhaj7-cepo.com/
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