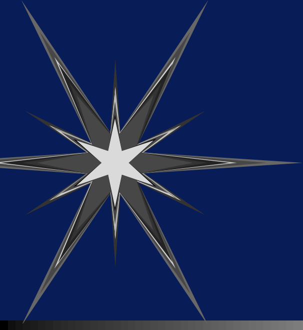
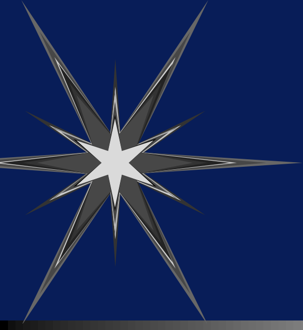


ALGORITHMS FOR THE PHARMACOTHERAPY OF AGGRESSIVE AND SELF INJURIOUS BEHAVIOR IN INDIVIDUALS WITH MENTAL RETARDATION

Edwin J. Mikkelsen, MD

Leo McKenna, Pharm. D



Pre-Lecture Exam
Question 1

Aggression in mentally retarded patients is adequately explained in most cases by the mental retardation

(True or False)

2. Which of the following statements is true or aggression in MR patients?

A. Self-injurious behavior and/or aggression account for many psychiatric referrals of MR patients.

B. A psychiatric diagnosis should be sought to explain the presence of aggressive behavior and to guide treatment interventions.

C. Detection of the causative diagnosis is complicated by communication difficulties and nonspecific organic factors.

D. Collection of behavioral data and assessment of behavioral severity and frequence help to guide diagnosis and interventions.

E. All of the above

Question 3

3. In aggressive MR patients with anxiety symptoms, which of the following would be a potential therapeutic agent?

A. Buspirone

B. Benzodiazepine

C. SRI

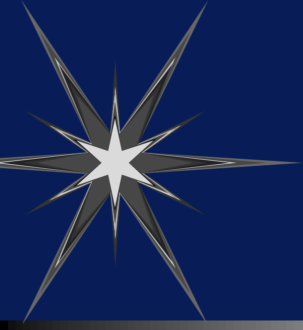
D. Beta Blocker

E. Alpha Blocker

F. Antiepileptic drug

G. Atypical antipsychotic

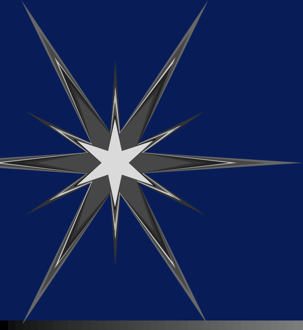
H. Any of the above



Question 4

4. In aggressive MR patients with depressive symptoms, which of the following would be a potential therapeutic agent?

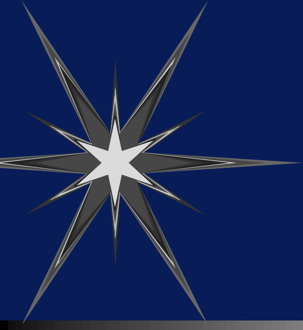
A. SRI
B. TCA
C. Antiepileptic drug
D. Atypical antipsychotic e.g. risperidone
E. Any of the above



Question 5

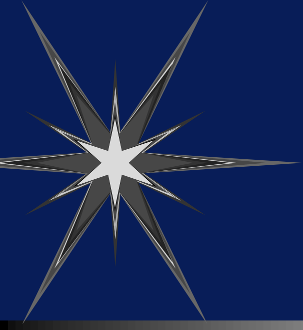
5. In aggressive MR patients with psychotic symptoms, which of the following would be a potential therapeutic agent?

A. Risperidone
B. Olanzapine
C. Conventional neuroleptic
D. Clozapine
E. Any of the above

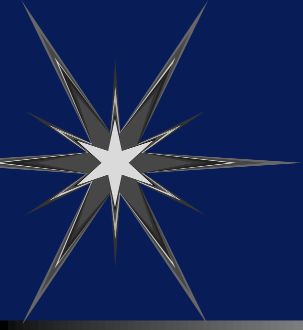


NO REASON TO SUSPECT PRESENTATION OF PSYCHIATRIC ILLNESS SIGNIFICANTLY DIFFERENT THAN THE GENERAL POPULATION

- BORDERLINE M.R. I.Q.
- MILD M.R. I.Q.
- HIGHER RANGES OF MODERATE M.R.

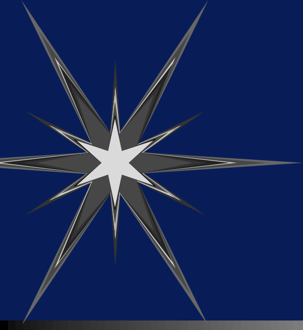


- THUS, ONE WOULD USE TRADITIONAL DSM-IV DIAGNOSIS-BASED ALGORITHMS UNLESS SPECIAL CIRCUMSTANCES DICTATE OTHERWISE.



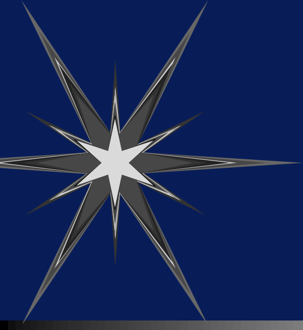
AS I.Q. DECREASES,

IT OFTEN BECOMES MORE DIFFICULT TO MAKE A RELIABLE TRADITIONAL PSYCHIATRIC DIAGNOSIS.

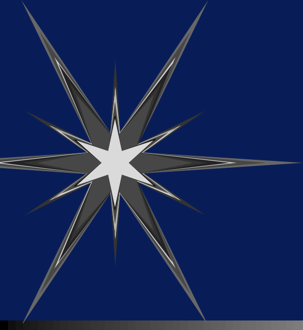


REASONS

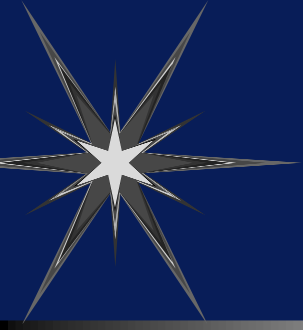
- DECREASED ABILITY TO COMMUNICATE EFFECTIVELY
- INCREASE IN NON-SPECIFIC ORGANIC FACTORS
- DISORDERS MAY REPRESENT MORE BASIC NEUROPHYSIOLOGICAL DYSREGULATION MECHANISMS, I.E.. IMPULSIVITY, IRRITABILITY, MOOD LABILITY



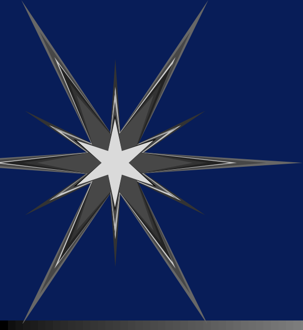
DIAGNOSTIC AMBIGUITY MITIGATES TOWARD A SYMPTOM-BASED SERIES OF ALGORITHMS, WHILE SEARCHING FOR BEHAVIORAL “CLUES” THAT MAY LINK THE SYMPTOMS TO KNOWN SYNDROME.



THE TWO PRIMARY BEHAVIORS
THAT ACCOUNT FOR THE VAST MAJORITY
OF PSYCHIATRIC REFERRALS IN THIS
POPULATION ARE SELF-INJURIOUS
BEHAVIOR AND AGGRESSION.

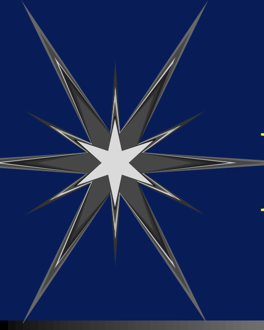


SYMPTOM-BASED ALGORITHMS HAVE TO BE RIGOROUSLY CONSTRUCTED
FROM A RISK-BENEFIT STANDPOINT.



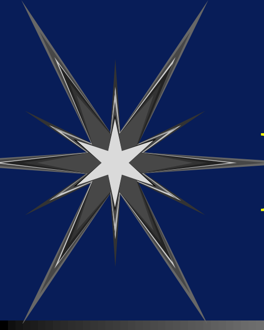
FUNDAMENTAL TO THIS PROCESS IS SOLID DATA COLLECTION THAT TAKES INTO ACCOUNT THE FOLLOWING FACTORS

- FREQUENCY
- SEVERITY
- DURATION
- INTERVAL DATA
- DISTRIBUTION
  - INTRA AND INTER DAY
- BEHAVIORAL TOPOGRAPHY
- ANTECEDENT ANALYSIS



DATA COLLECTION

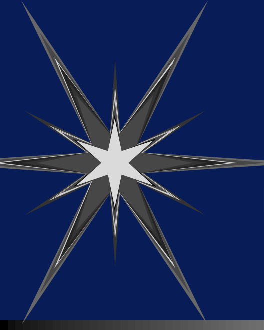
THE DATA
COLLECTION SECTION IS DESIGNED NOT ONLY
TO PROVIDE INFORMATION RELEVANT TO THE CONSTRUCTION OF
PHARMACOLOGICAL ALGORITHMS,
BUT ALSO TO DOUBLE-CHECK THAT A BEHAVIORAL CONTRIBUTION HAS NOT BEEN MISSED



DATA COLLECTION

THE BEHAVIORAL DATA IS THEN COLLECTED, ANALYZED ALONG THE FOLLOWING DIMENSIONS:

- SEVERITY
- FREQUENCY-DURATION-DISTRIBUTION-INTERVAL DATA
- ANTECEDENT ANALYSIS

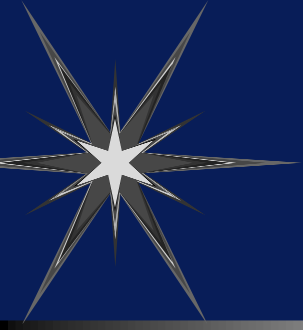


SYNDROMIC CLUES

THE NEXT MODULE PROMPTS CLINICIANS TO SEARCH FOR ANCILLARY BEHAVIORS RELATED TO THE INDEX BEHAVIOR WHICH MAY REPRESENT A LINK TO AN UNDERLYING KNOWN SYNDROME.

THE ANCILLARY BEHAVIORS ARE GATHERED INTO THE FOLLOWING SYDROMICALLY-DERIVED CLUSTERS:

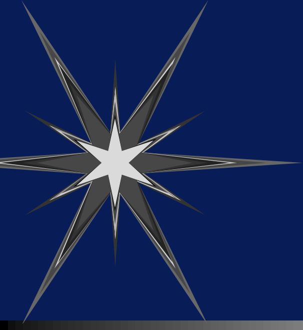
- ANXIETY BASED
- OBSESSIVE-COMPULSIVE VARIANTS
- AFFECTIVE EQUIVALENTS
  - DEPRESSIVE
  - BIPOLAR
  - CHRONICALLY MANIC
- ATYPICAL PSYCHOTIC DISORDERS
- INTERMITTENT EXPLOSIVE DISORDERS AND IMPULSE CONTROL DYSREGULATION SYNDROMES



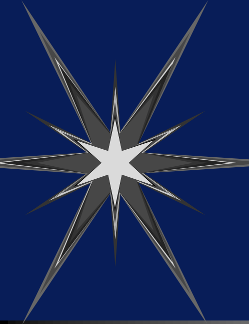
DUE TO TIME CONSTRAINTS,

WE CANNOT PRESENT BEHAVIORS SPECIFIC TO EACH CLUSTER,

BUT WILL PROCEED WITH THE THE OVERVIEW OF THE ALGORITHM SYSTEM THAT IS GENERATED BY THE INTERFACE OF THE DATA COLLECTION MODULES AND THE RELATED SYMPTOM MODULES.



FREQUENCY IS SUBORDINATE TO SEVERITY



FREQUENCY CONTINUUM SCALE

(a rating scale of 1 to 10)

1. One episode per 6mo or less.
2. One episode every 3-6 mo.
3. One episode every 1-3 mo.
4. One episode every 1-4 wks.
5. One episode every wk
6. Two-three episodes every week
7. Six-seven episodes every week.
8. One-two episodes every day.
9. Two-five episodes every day.
10. Greater than five episodes every day

BEHAVIORAL SEVERITY RATING CONTINUUM

1. Behavior causes mild, infrequent annoyance to self or others.
2. Behavior causes severe disruption to quality of life of self or others.
3. Significant verbal aggression, periodic mild property destruction.
4. Frequent destruction of property.
5. Frequent self-injurious behavior or aggressive behavior barely leading to tissue damage.

BEHAVIORAL SEVERITY RATING CONTINUUM

6. Frequent self-injurious or aggressive behavior that leads to tissue damage.
7. Disfiguring self-mutilation or disfiguring aggression towards others.
8. Self-injurious or aggressive behavior leading to reversible loss of physical function. (i.e., fractures, repairable detached retina, loss of consciousness, concussion) to self or others.
9. Self-injurious or aggressive behavior leading to irreversible loss of physical function. (i.e., enucleation, paralysis) to self or others.
10. Self-injurious or aggressive behavior leading to loss of life to self or others.

PROFILES OF SELF INJURIOUS AND/OR AGGRESSIVE BEHAVIOR

FREQUENCY	0 – SEVERITY / INTENSITY	– 10
10	PROFILE 2	PROFILE 4
0	PROFILE 1	PROFILE 3

Have you performed a careful medical work-up and physical exam to rule out medical contributions and possibility of a painful condition (s)?

No

Perform medical work-up to rule out organic/pain contributors

Yes

Have you ruled out environmental factors and attempted behavioral interventions

No

Review data for evidence of environmental contributions, consult behavioral psychologist

Yes

The frequency consolidation table and the severity continuum plot the **frequency** (vertical axis), **severity / intensity** (horizontal axis) on the grid and determine which of the four profile categories best fits:

Profile 1 - Low Frequency, Low Intensity

Profile 2 - High Frequency, Low Intensity

Profile 3 - Low Frequency, High Intensity

Profile 4 - High Frequency, High Intensity

Note: If both self-injurious and aggressive behaviors are present, plot the profile for each separately, but use the highest profile for purposes of the algorithm.

SYNDROMIC CLASSIFICATION

Having established the frequency and intensity /severity profile, now look through the adapted symptom checklist modules to ascertain which syndromic classification best describes the patient.

Anxiety	OCD	Depression	Manic-Depressive	Manic	IED	Psychotic
↓	↓	↓	↓	↓	↓	↓
Proceed to Anxiety Module	Proceed to OCD Module	Proceed to Depression Module	Proceed to Manic-Depressive Module	Proceed to Manic Module	Proceed to IED Module	Proceed to Psychotic Module

ANXIETY MODULE

Have you tried buspirone? ← **Profile 1 & 2 begin**

No → Consider buspirone

Yes → Have you tried clonazepam or other benzodiazepine (BNZ) ← **Profile 3 & 4 begin here**

No → Consider clonazepine or other BNZ

Yes → Have you tried an SRI?

No → Consider an SRI

Yes → Have you tried a B-blocker?

No → Consider a B-blocker.

Yes → Have you tried an alpha-blocker?

No → Consider an alpha-blocker.

Yes → Have you tried an AED? CBZ, VPA, gabapentin

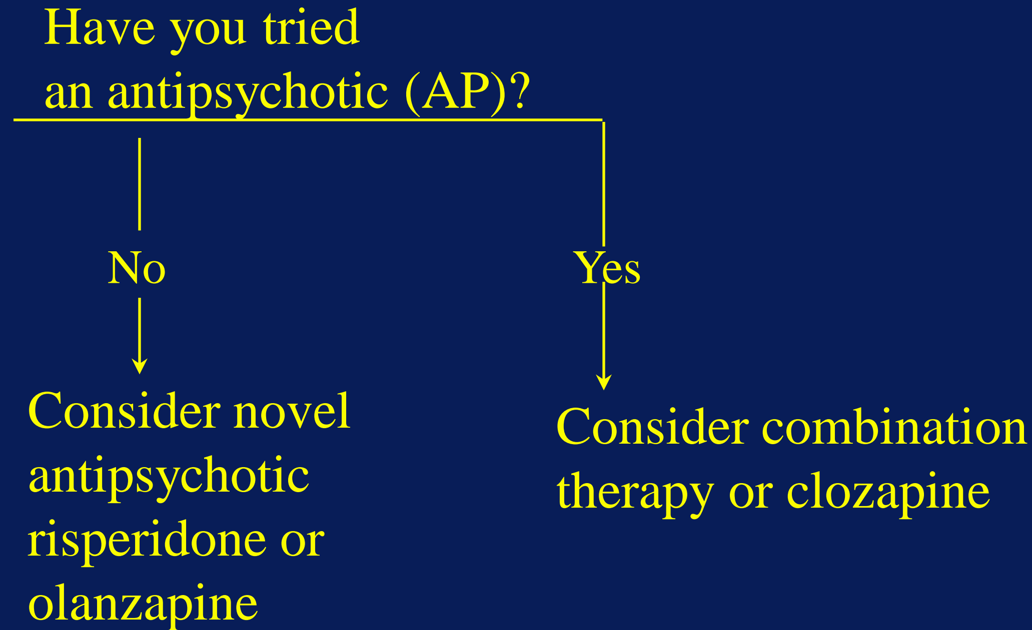
No → Consider CBZ, VPA, or gabapentin

Yes →

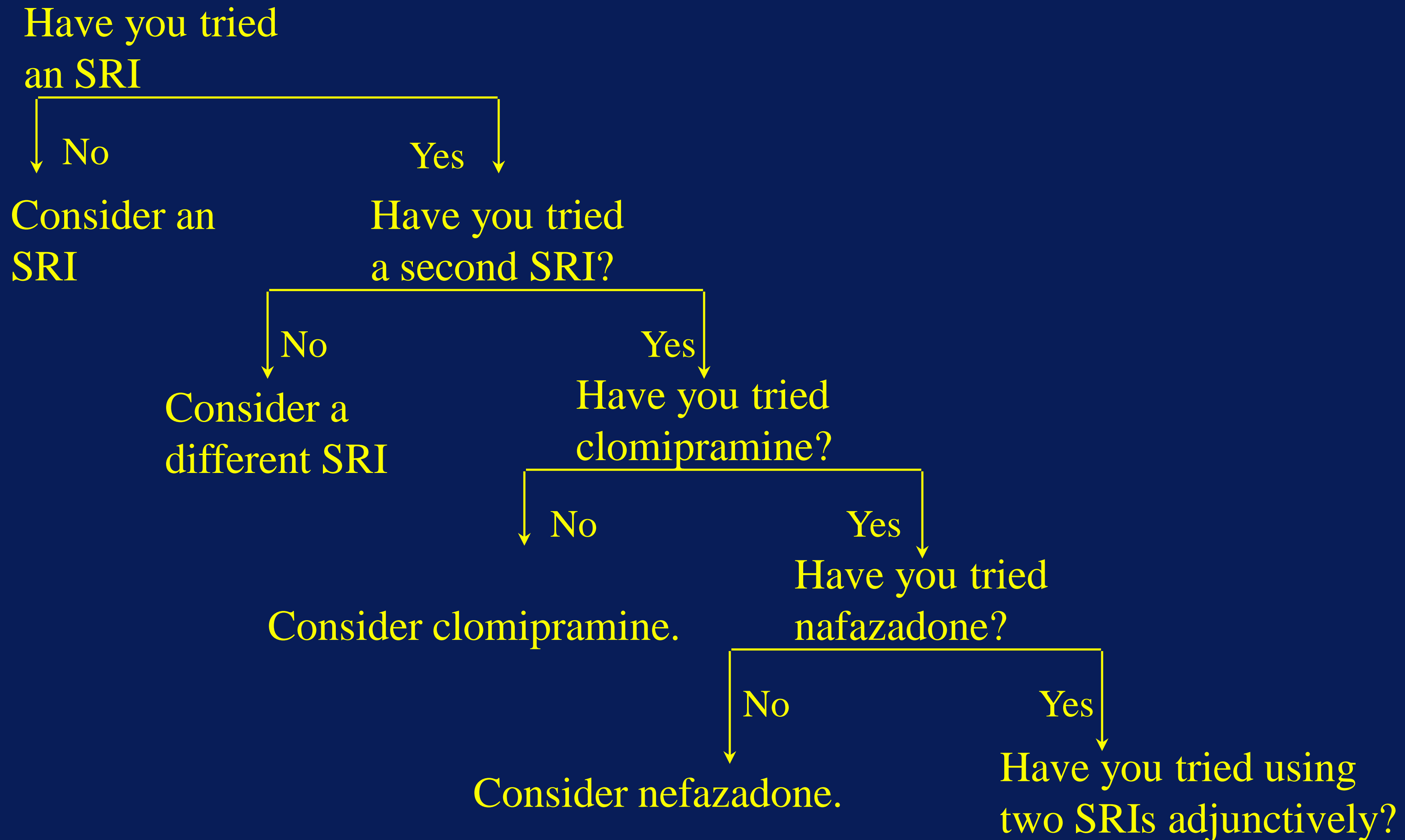
Profile 4 and high intensity Profile 3 only beyond here. →

Profile 4 and high intensity Profile 3 only beyond here.

***ANXIETY MODULE* continued**



OCD MODULE

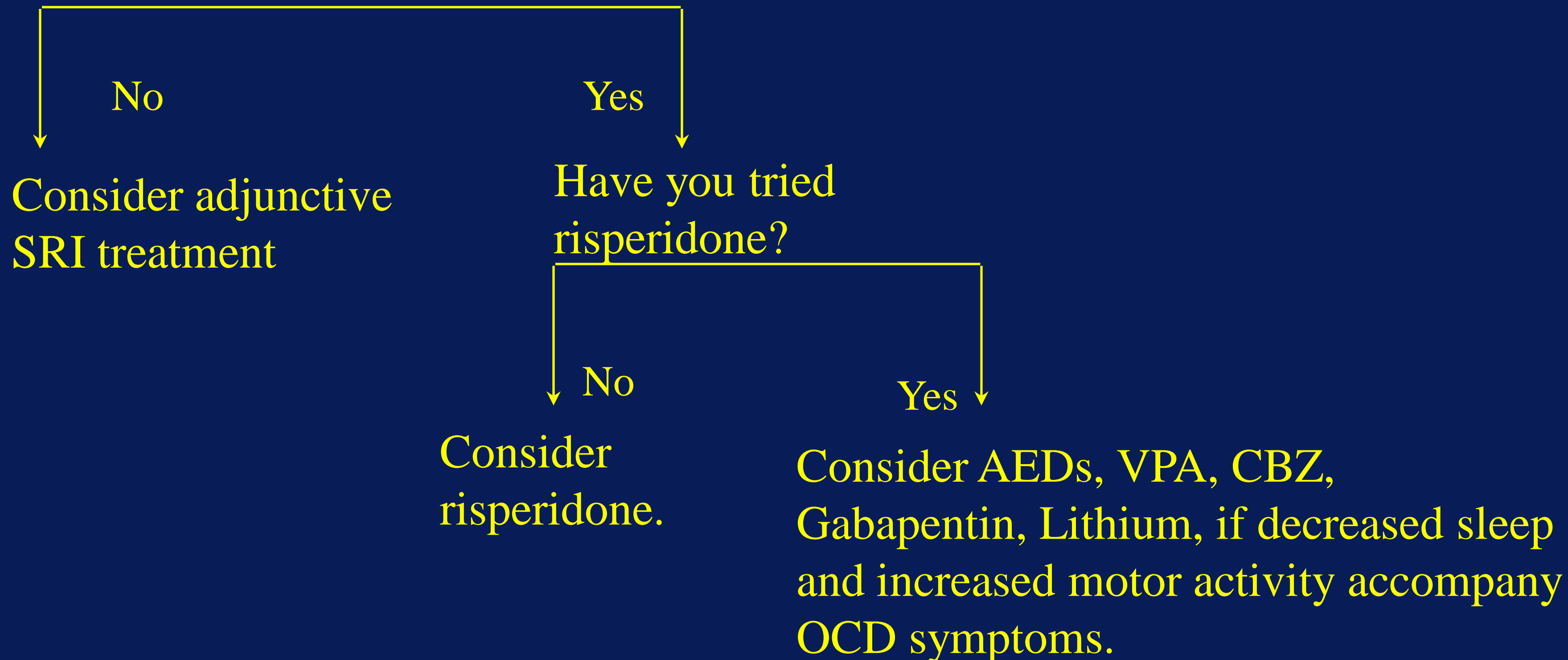


Algorithm for Profile 1 & 2 stops here.

OCD MODULE CONTINUED

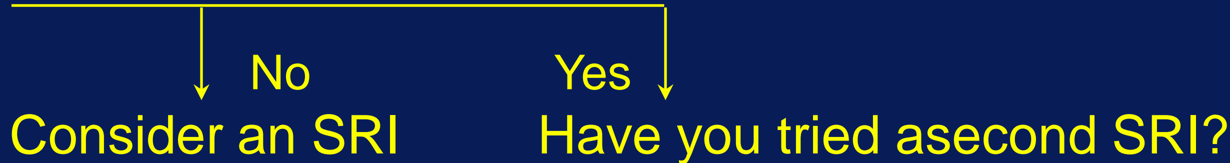
Profile 3 &4 only beyond here.

Have you tried using two
SRIs adjunctively?

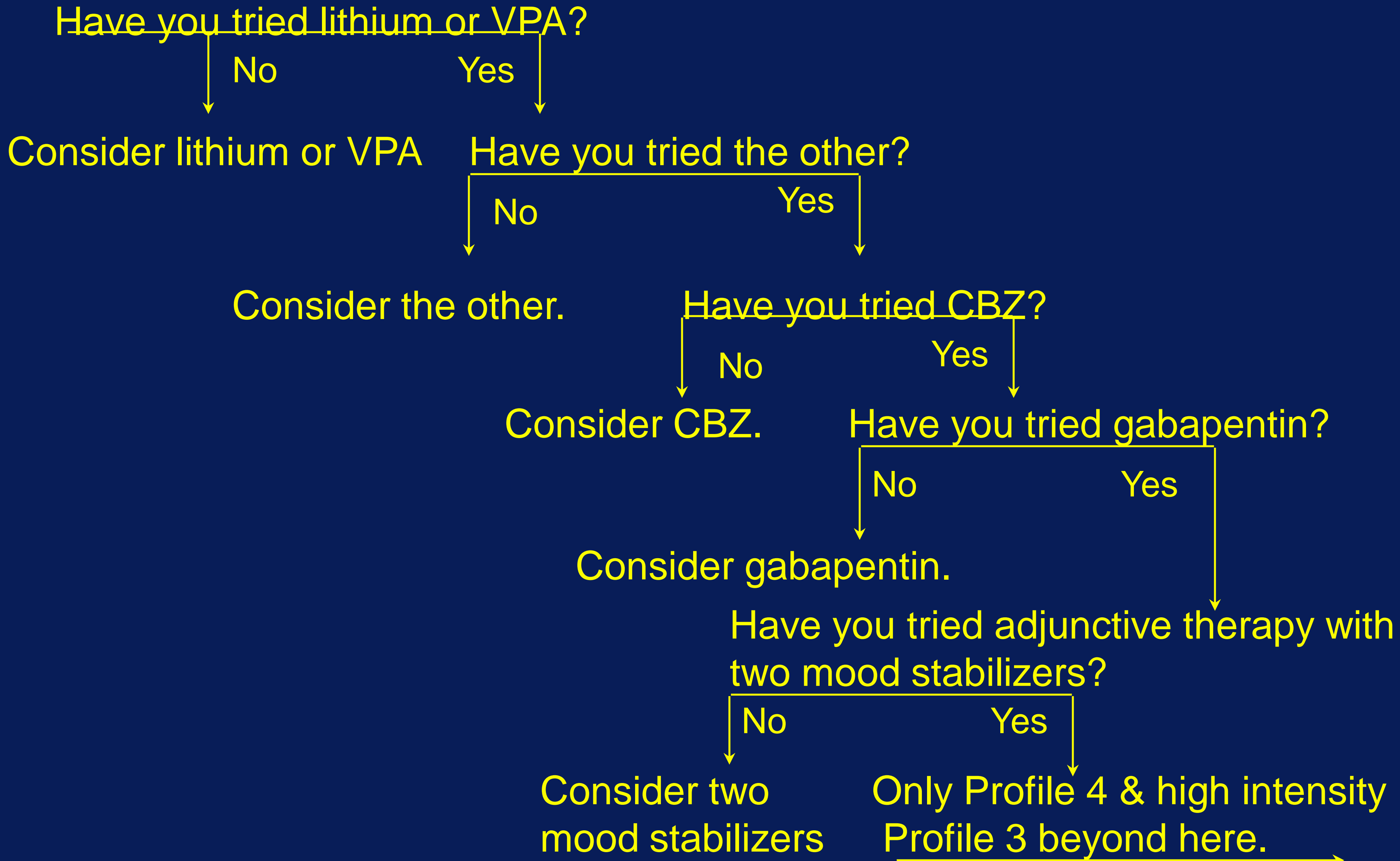


DEPRESSION MODULE

Have you tried
an SRI



MANIC-DEPRESSIVE MODULE



MANIC-DEPRESSIVE MODULE

(continued)

Profile 3 &4 only beyond here

Have you tried adjunctive therapy with two mood stabilizers?

- No → Consider adjunctive treatment.
- Yes → Have you tried an antipsychotic?
  - No → Consider adjunctive treatment with risperidone or olanzapine.
  - Yes → Consider clozapine?

Note: If chronically manic or hypomanic and Profile 4 or high intensity Profile 3 consider adjunctive treatment with antipsychotic sooner.

INTERMITTENT EXPLOSIVE DISORDER

Have you tried buspirone.

No

Yes

Consider buspirone.

Have you tried a beta-blocker?

No

Yes

Consider a beta-blocker.

Have you tried an alpha-blocker?

No

Yes

Consider an alpha-blocker.

Have you tried CBZ?

No

Yes

Consider CBZ?

Have you tried VPA or gabapentin?

No

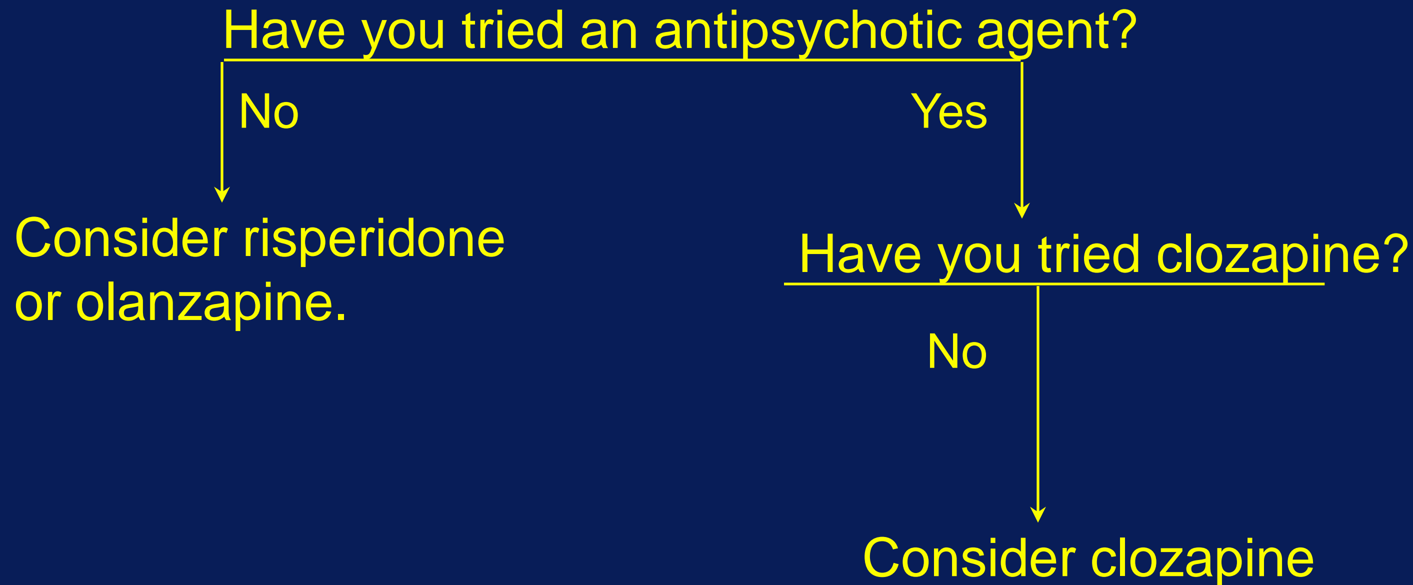
Yes

Consider VPA or gabapentin.

Only Profile 4 and high intensityProfile **3** beyond here.

INTERMITTENT EXPLOSIVE DISORDER
(continued)

Profile 3 &4 only beyond here



PSYCHOTIC DISORDER MODULE

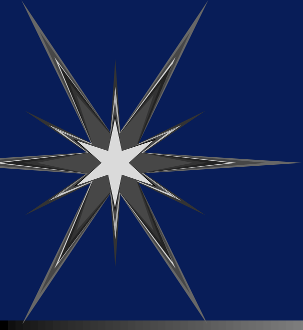
Have you tried risperidone or olanzapine?

No → Consider risperidone or olanzapine.

Yes → Have you tried the other?

- No → Consider the other.
- Yes → Have you tried traditional AP?
  - No → Consider traditional AP.
  - Yes → Consider clozapine

For Profile 4 and high intensity Profile 3 patients skip trial of traditional antipsychotic agents and proceed directly to clozapine - for some high intensity Profile 4 with previous exposure to traditional antipsychotics you may want to proceed directly to clozapine. Adjunctive strategies with mood stabilizers can be effective in this group. However, our experience with Profile 4 and high-intensity Profile 3 individuals would indicate that clozapine has an extremely high probability of success (in excess of 80%). Thus, obviating the need for adjunctive therapy.



Post Lecture Exam
Question 1

Aggression in mentally retarded patients is adequately explained in most cases by the mental retardation

(True or False)

2. Which of the following statements is true or aggression in MR patients?

A. Self-injurious behavior and/or aggression account for many psychiatric referrals of MR patients.

B. A psychiatric diagnosis should be sought to explain the presence of aggressive behavior and to guide treatment interventions.

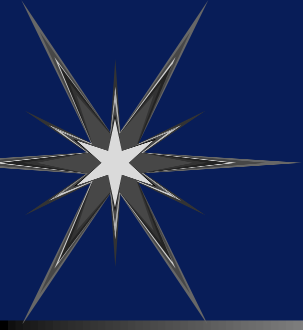
C. Detection of the causative diagnosis is complicated by communication difficulties and nonspecific organic factors.

D. Collection of behavioral data and assessment of behavioral severity and frequence help to guide diagnosis and interventions.

E. All of the above

3. In aggressive MR patients with anxiety symptoms, which of the following would be a potential therapeutic agent?

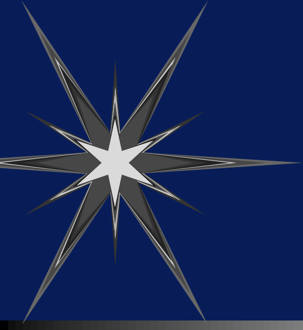
A. Buspirone
B. Benzodiazepine
C. SRI
D. Beta Blocker
E. Alpha Blocker
F. Antiepileptic drug
G. Atypical antipsychotic
H. Any of the above



Question 4

4. In aggressive MR patients with depressive symptoms, which of the following would be a potential therapeutic agent?

A. SRI
B. TCA
C. Antiepileptic drug
D. Atypical antipsychotic e.g. risperidone
E. Any of the above



Question 5

5. In aggressive MR patients with psychotic symptoms, which of the following would be a potential therapeutic agent?

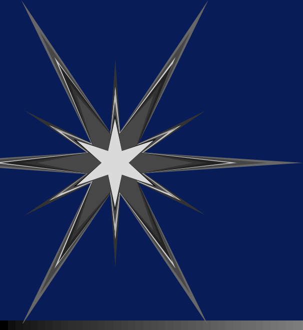
A. Risperidone

B. Olanzapine

C. Conventional neuroleptic

D. Clozapine

E. Any of the above



Answers to Pre and Post Competency Exams

1. False
2. E
3. H
4. E
5. E