ASAM American Society *of* Addiction Medicine

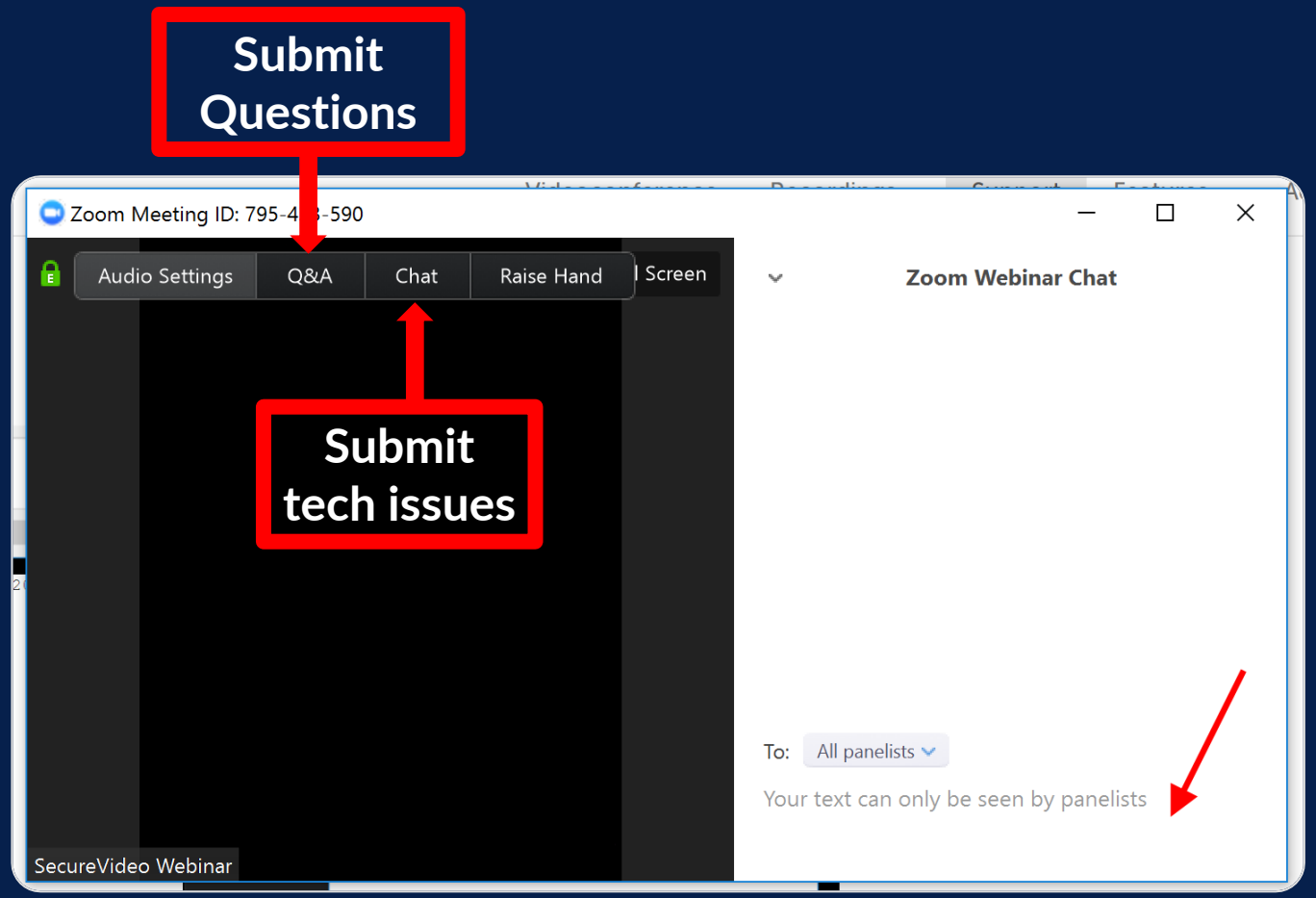
THE ASAM 2020 NATIONAL PRACTICE GUIDELINE ON ALCOHOL WITHDRAWAL MANAGEMENT:

Identification, Diagnosis, and Assessment of Alcohol Withdrawal Syndrome

SCHEDULE

1:00 - 1:05 pm	Announcements ASAM STAFF
1:05 - 1:45 pm	Presentation Drs. Cao and Kleinschmidt
1:45 - 2:00 pm	Q&A Session Drs. Cao and Kleinschmidt
2:00 pm	Closing Remarks ASAM STAFF

ANNOUNCEMENTS

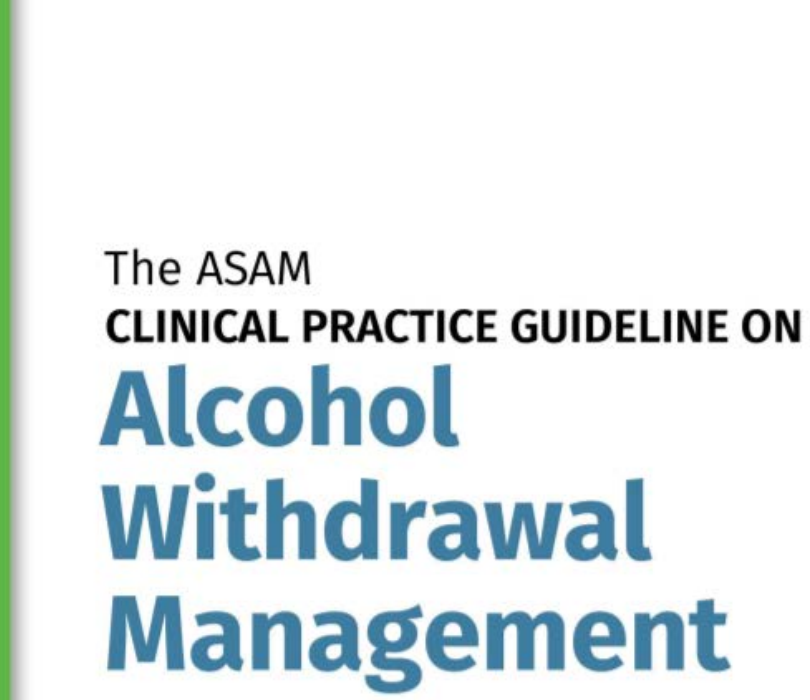


1. **Attendee Audio:** Your mics are automatically set to mute.
2. **Questions?** Type questions into the Q&A box.
3. **Technical Issues?** Use the chat box feature to submit questions to your hosts.

HOW TO CLAIM CME

1. **Go to:** https://elearning.asam.org/p/AWM2020_Webinar2
2. **Go to:** *Contents* tab
3. **Complete:**
   - ☑ CME Quiz
   - ☑ Evaluation
   - ☑ Credit and Certificate

ASAM GUIDELINE ON ALCOHOL WITHDRAWAL MANAGEMENT: IDENTIFICATION, DIAGNOSIS, & ASSESSMENT OF ALCOHOL WITHDRAWAL SYNDROME (AWS)



PRESENTER

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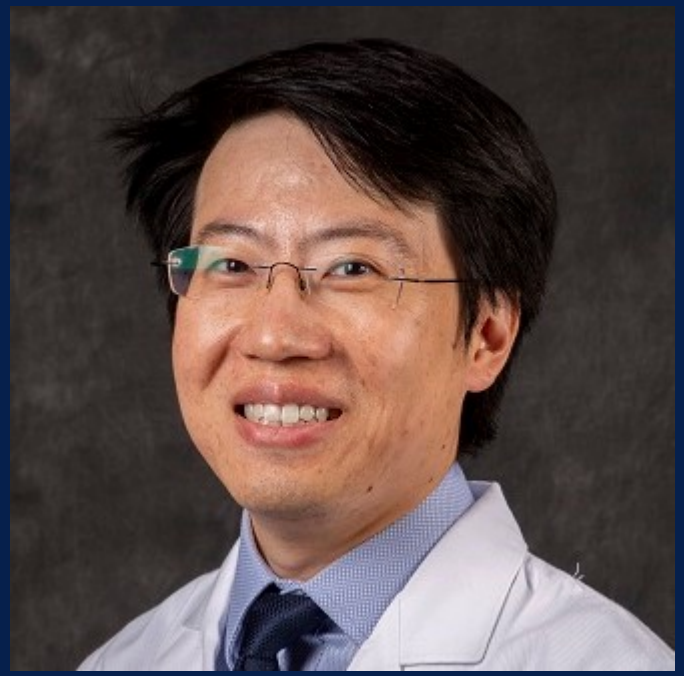
PRESENTER



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Disclosure Information

Kurt Kleinschmidt, **MD, FASAM, FACMT**	[No Disclosures]
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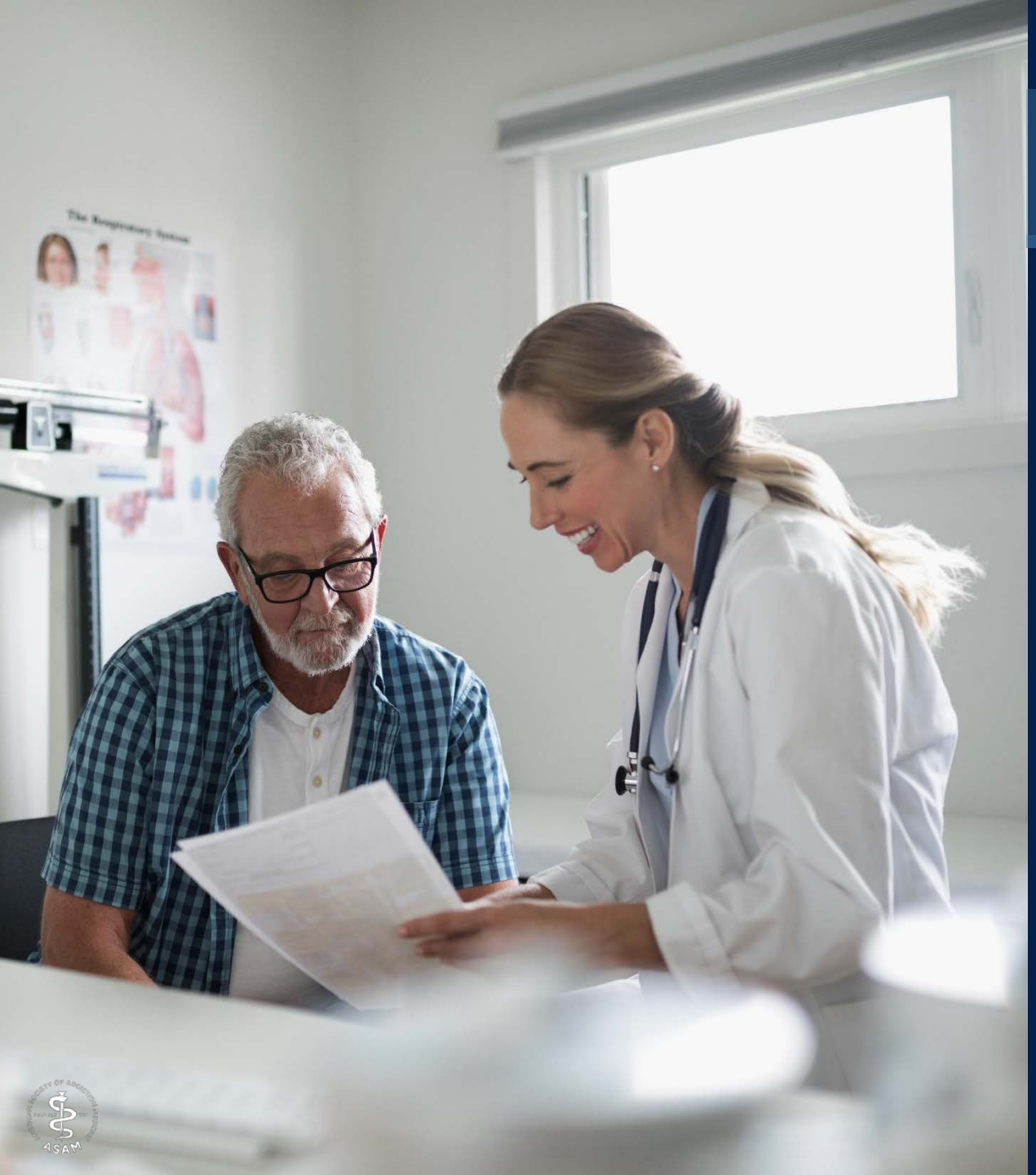
The ASAM
CLINICAL PRACTICE GUIDELINE ON
Alcohol Withdrawal Management

ASAM American Society of Addiction Medicine

Outline of Content

- Learning Objectives
- Part 1: Identification and Diagnosis of Alcohol Withdrawal
- Part 2: Initial Assessment of Alcohol Withdrawal



LEARNING OBJECTIVES

At the end of this webinar, you will be able to:

1. Summarize the guideline's treatment recommendations around assessment of alcohol withdrawal syndrome and discuss how they should be used in practice.
2. Recognize the risk assessment tools available to identify patients at risk of developing alcohol withdrawal.
3. Describe how to make appropriate differential diagnosis.

Part 1: Identification

Identification and Diagnosis of AWS

WHERE ARE PATIENTS AT RISK FOR AWS ENCOUNTERED BY CLINICIANS?

Expected Withdrawal

- Alcohol-related Chief Complaint
- SUD treatment center
- Emergency Department
  - (CC is “I need help”)

Unexpected Withdrawal

- “Non-alcohol related” Chief Complaint
  - Emergency Department
  - Hospital admission
  - Outpatient clinic
- Arrest
- Social distancing at home?

UNIVERSAL SCREENING FOR UNHEALTHY ALCOHOL USE

- Incorporate universal screening for unhealthy alcohol use into medical settings
- Use a validated scale
- Can anticipate and prevent a life-threatening, unexpected episode of AWS
- Abrupt cessation or ↓ of regular, heavy alcohol use → AWS
- These screenings often include questions on quantity and frequency of alcohol use

Recommendation I.1

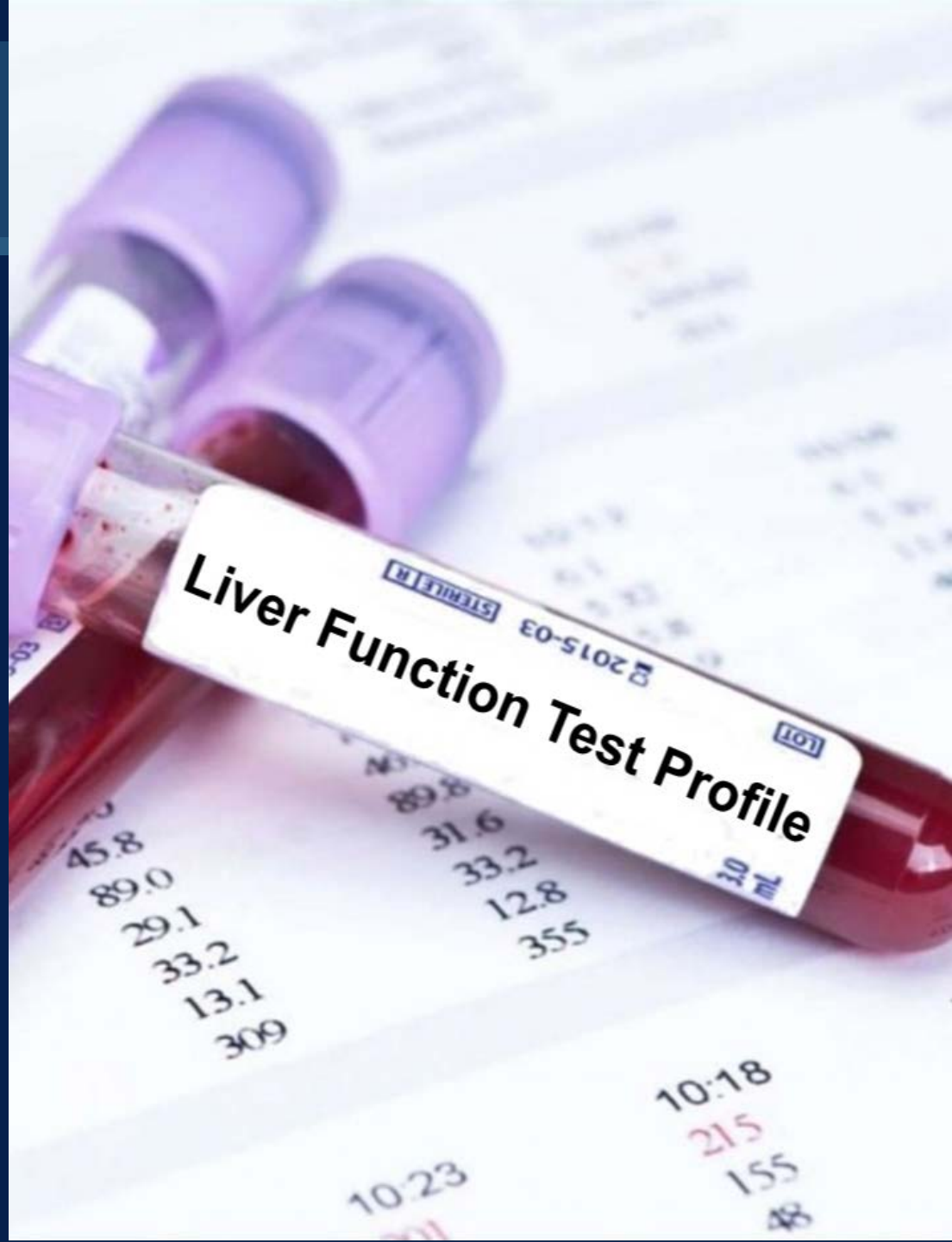
DEFINITION: UNHEALTHY ALCOHOL USE

1. ***Binge*** drinking (Per Occasion)
   a. ≥ 4 alcoholic drinks for women
   b. ≥ 5 alcoholic drinks for men
2. ***Heavy*** drinking (Per Week)
   a. ≥ 8 alcoholic beverages for women
   b. ≥ 15 alcoholic beverages for men
3. Any drinking by pregnant women or those younger than age 21

OTHER INDICATORS OF UNHEALTHY ALCOHOL USE

- **Information from collateral sources**
  - Family, friends…
  - Whether the patient can communicate or not.
- **Hepatic function test**
  - GGT, ALT, etc.
  - May indicate unhealthy use

Recommendation I.2, I.3



EXAMPLE SCREENING

Alcohol Use Disorders Identification Test-(Piccinelli) Consumption (AUDIT-PC)

- How often do you have a drink containing alcohol?
- How many drinks containing alcohol do you have on a typical day when you are drinking?
- How often during the last year have you found that you were not able to stop drinking once you had started?
- How often during the last year have you failed to do what was normally expected from you because of your drinking?
- Has a relative or friend, doctor or other health worker been concerned about your drinking, suggested that you cut down?

USE OF BIOLOGICAL TESTING

- ***Purpose***: to confirm recent alcohol use.
- *Intoxication* is a clinical diagnosis that is ***not*** defined with a specific BAC (except in legal settings, "per se" laws).
- Consider tests' window of detection.
- Clearance of alcohol is variable.
- Tolerance may make the diagnosis of physical dependence more challenging.
- Do not rule out risk of AWS if the result is
  - Negative.
  - Positive.
- Target analyte may be below a presumptive tests' threshold of detection.

Recommendation I.4

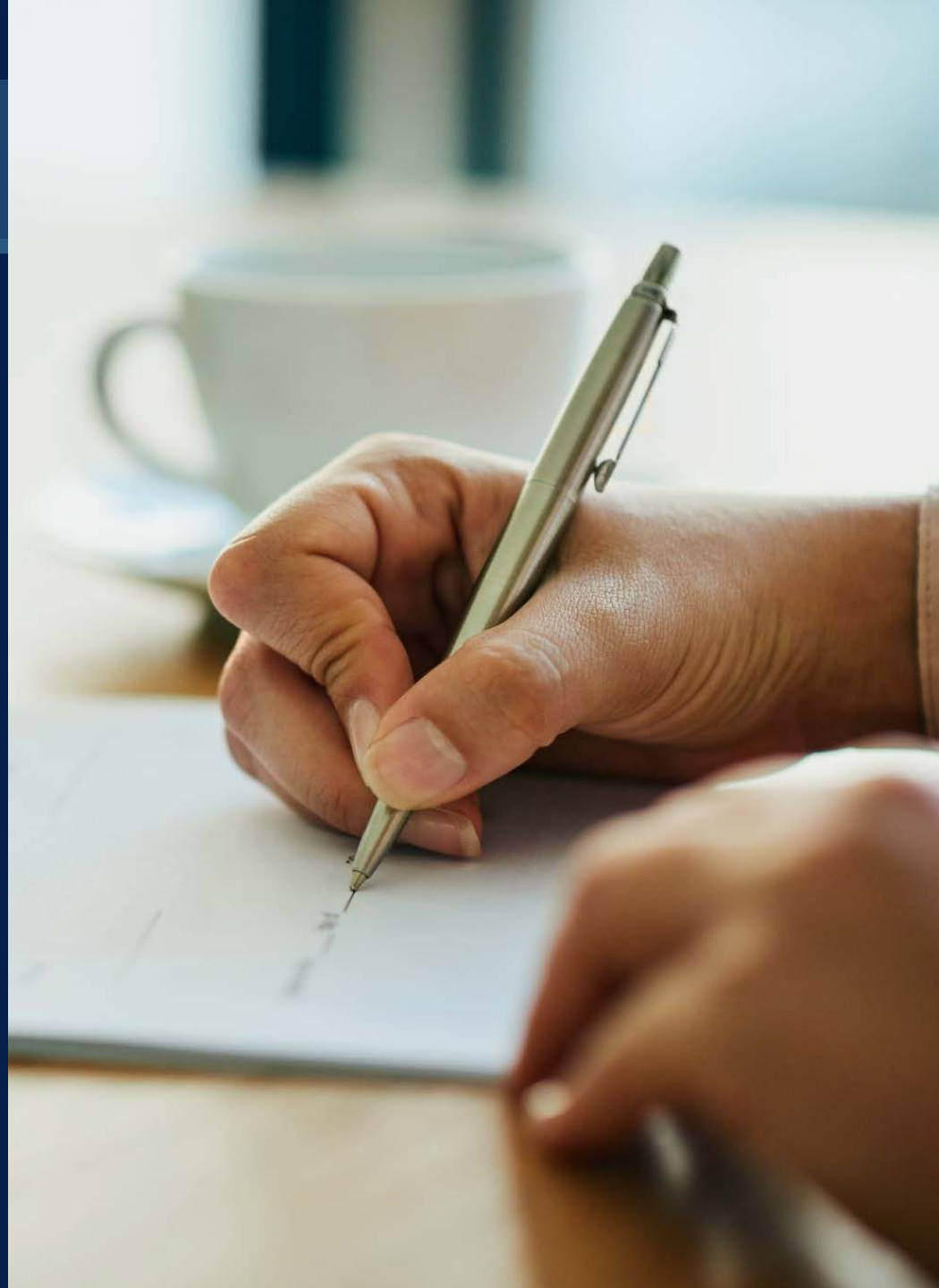
Part 1. Diagnosis

Identification and Diagnosis of AWS

DIAGNOSING AWS

- Use a diagnostic criteria.
- Do ***not*** use an AWS symptom severity instrument (e.g. CIWA).
  - This is a *common* mistake!
  - Symptom severity instruments are non-specific to etiology.
- AWS may occur in patients who have elevated alcohol concentrations.

Recommendation I.5, I.6, I.7



DSM-V CRITERIA FOR ALCOHOL WITHDRAWAL

A. Stop or ↓ alcohol use that has been heavy and prolonged.

B. ≥ Two within several hours to a few days after stopping or ↓ alcohol use

1. Autonomic hyperactivity (e.g., sweating or HR > 100 bpm)
2. Increased hand tremor
3. Insomnia
4. Nausea or vomiting
5. Transient visual, tactile, or auditory hallucinations or illusions
6. Psychomotor agitation
7. Anxiety
8. Generalized tonic-clonic seizures

C. The signs / symptoms cause clinically significant ↓ functioning.

D. The signs or symptoms are **not** due to another medical condition.

DSM-V CRITERIA FOR ALCOHOL WITHDRAWAL DELIRIUM

A. A disturbance in attention and awareness.
B. Develops over a short period of ***time*** (usually hours to a few days).
    1. A change from baseline.
    2. Tends to fluctuate in severity throughout the day.
C. Disturbance in cognition.
D. Disturbances are *not*…
    1. Better explained by another medical condition.
        A. Other sedative hypnotic withdrawal.
        B. Stimulant drug.
    2. in the context of a severely reduced level of consciousness.

Part 1. Differential Diagnosis

Identification and Diagnosis of AWS

COMMON DIFFERENTIALS & CONSIDERATIONS

- Head injury
- Meningitis
- Infection
- Wernicke's Encephalopathy
- Electrolyte abnormalities
  (e.g., Hyponatremia, Hypokalemia)
- Hypoglycemia
- Diabetic ketoacidosis
- Alcoholic ketoacidosis
- Withdrawal from other sedating substance
- Intoxication with a stimulating substance

- Many conditions share signs and symptoms with AWS
- Patients may have more than one disease at a single time… and withdrawal often follows onset of the other disease

Recommendation I.8, I.9

DIFFERENTIAL: PATIENTS WITH SEIZURES

- Resuscitate as needed.
- Need Neuro exam.
- If new onset or a new pattern conduct an EEG and/or neuroimaging.
- Only attribute to AWS if there was a recent cessation or ↓ in alcohol consumption.
- Seizures typically occur 24-48 hours after ↓ alcohol use.

- Additional neurological testing and neurology consult may not be necessary:
  - Seizure was generalized.
  - Neurological exam - no focal deficits.
  - No suspicion other etiology.
  - Patient has other signs / symptoms of withdrawal.

Recommendation I.10:

DIFFERENTIAL: PATIENTS WITH DELIRIUM

- Must do detailed neuro and medical exam, with testing, to rule out other causes of delirium regardless of apparent etiology.
  - Substance induced psychosis.
  - Hypoglycemia.
  - Diabetic Ketoacidosis.
  - Alcoholic Ketoacidosis.
- Onset typically 24-48 hrs after ↓ alcohol use; but can be longer.

- Distinguish between
  - hallucinations associated with alcohol withdrawal delirium
  - alcohol hallucinosis / alcohol-related psychotic disorder

Recommendation I.11:

Part 2: Initial Assessment

Initial Assessment of AWS

PART II: INITIAL ASSESSMENT OF ALCOHOL WITHDRAWAL

A. Approach
B. Risk Factors for Severe/Complicated Withdrawal
C. Risk Assessment Tools
D. Symptom Assessment Scales
E. Identify Concurrent Conditions

A. APPROACH

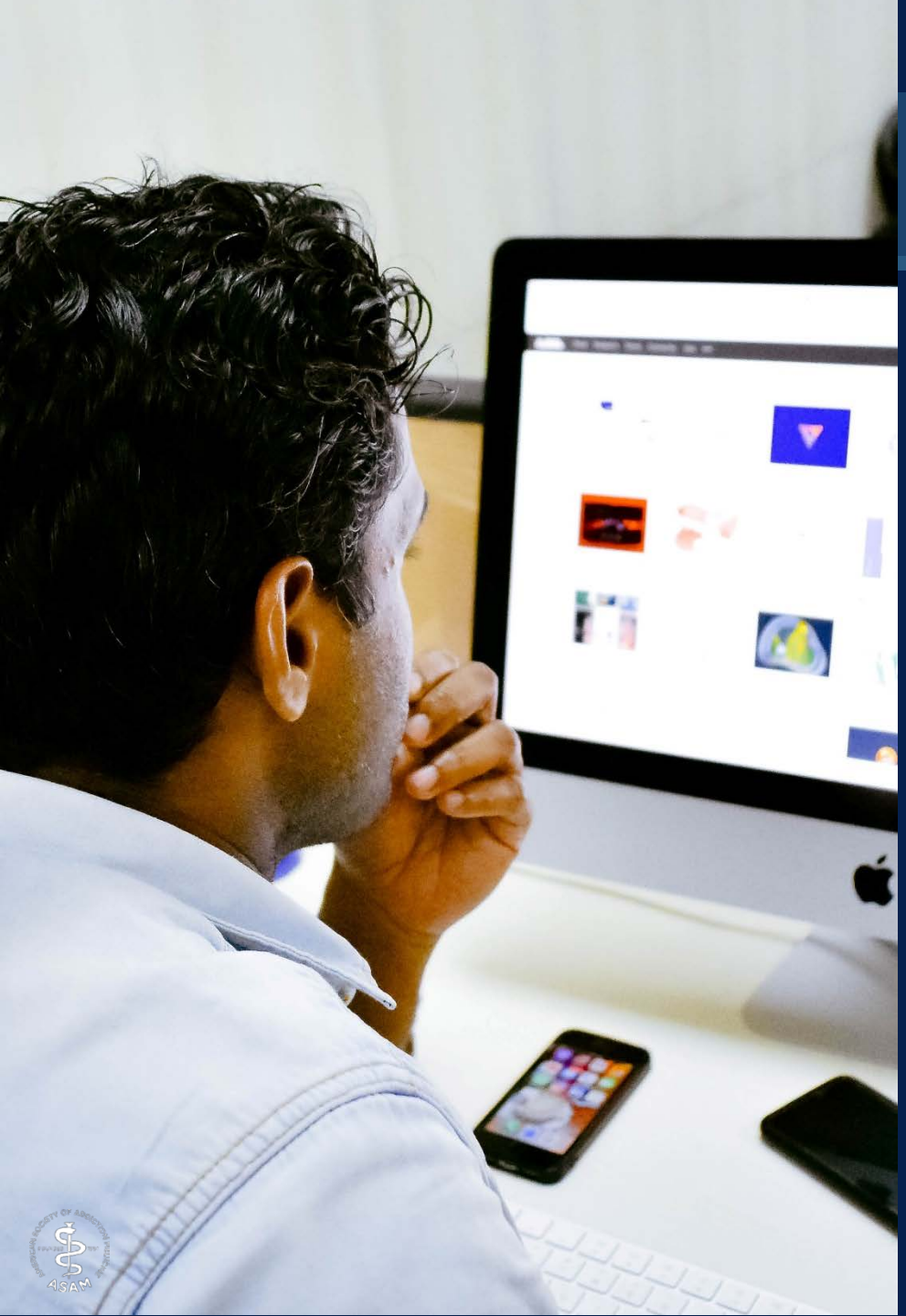
INITIAL APPROACH GOALS

- Assess severity of signs and symptoms.
- Consider risk of escalation.
- Trajectory of AWS varies.
  - Older patients.
  - Those using sedative hypnotics.
- Seizure and hallucinosis may occur in the absence of other clinically "prominent" signs or symptoms.

Determine ***risk*** of:

- ***Severe*** AWS
- ***Complicated*** AWS:
  Seizure / Delirium
- ***Complications*** of AWS:
  Life-threatening exacerbation of other condition

Recommendation II.1:



APPROACH METHODS

- History and physical exam.
- Be comprehensive early.
- Validated AWS risk scale.
- Validated AWS severity scale.
- If the patient can’t answer questions, you can
    - ask collateral folks.
    - use biological testing.

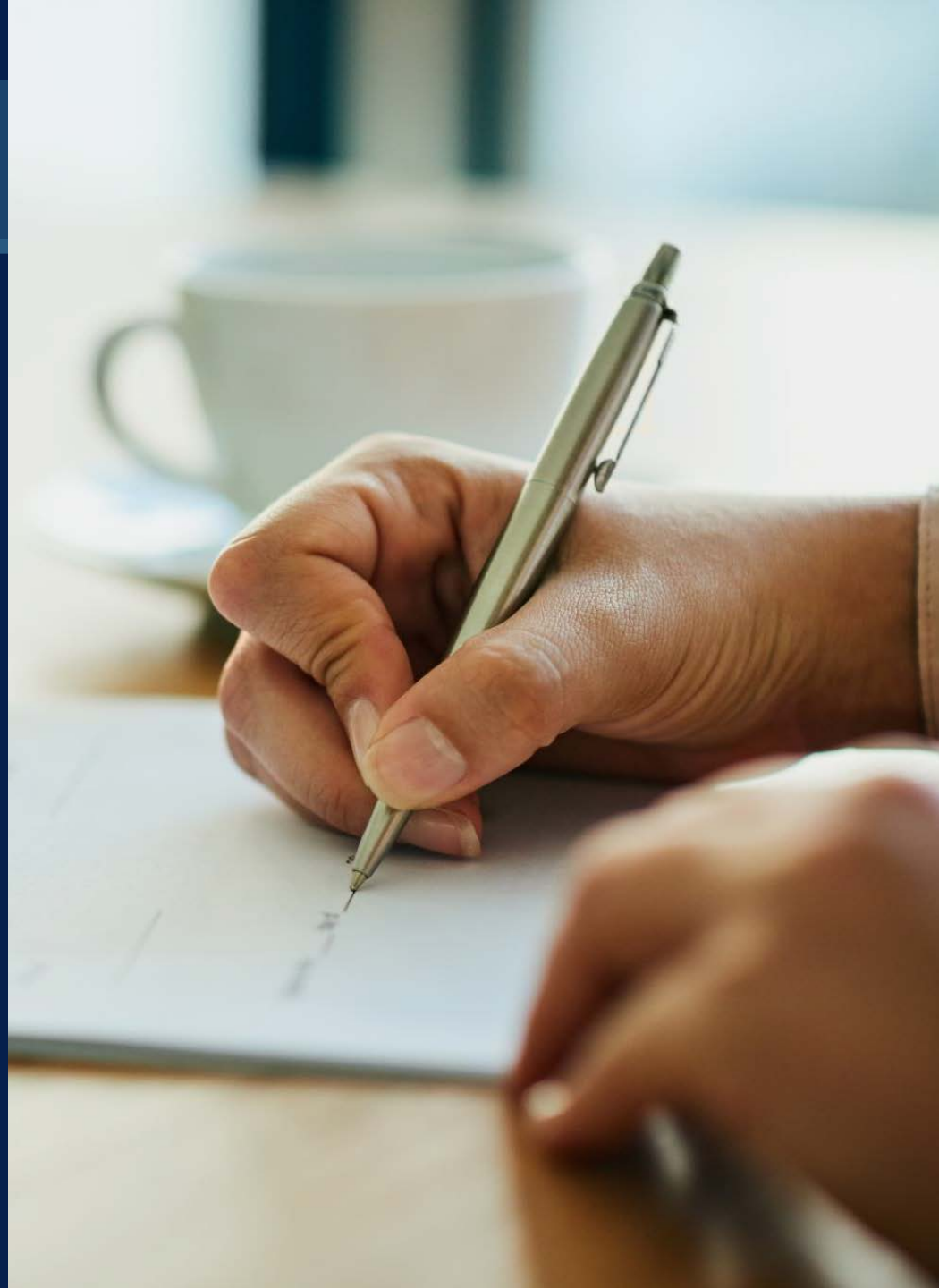
Recommendation II.1, II.2, II.3, II.11

B. RISK FACTORS FOR SEVERE/ COMPLICATED WITHDRAWAL

RISK FACTORS

- Severe presentations of alcohol withdrawal are life threatening.
- As the number of risk factors increase, so does the chance of
  - medical complications.
  - complicated AWS.
- Management (primarily with medication) can reduce the
  - severity of AWS
  - incidence of AWS-related seizures and delirium

Recommendation II.5, II.7



MOST IMPORTANT RISK INFORMATION

Ethanol History

- History of AUD suggest chance of physical dependence.
- Recent drinking details.
- Withdrawal history.

Timeline

- Last drink
- Sign and symptom onset
- Severity progression

↑ physical dependence →↑ severe AWS.

Repeated episodes of AWS → ↑ severe episodes (Kindling).

Current duration of AWS reflects if the patient may still develop ↑ severe signs / symptoms.

More severe signs / symptoms early in the withdrawal indicate a more severe episode.

Less time for signs / symptoms to appear suggests ↑ physical dependence.

Recommendation II.4:

MOST IMPORTANT RISK INFORMATION

- AWS history is the strongest predictor of current episode severity.
- Repeated episodes of AWS → ↑ severe episodes.
- Prior episode(s) of:
  - Severe AWS.
  - AWS-related seizure.
  - AWS-related delirium.
- Likely due to the kindling effect.

Significantly more AWS-related seizure or delirium in the current withdrawal episode.

Recommendation II.5

DEFINITION: KINDLING EFFECT

- Repeated episodes → ↑ severity of the withdrawal syndrome
- Neuronal adaptations from intoxication/withdrawal cycle accumulate.
- Chronic alcohol use and repeated withdrawal may → permanent changes to GABA-A receptors.

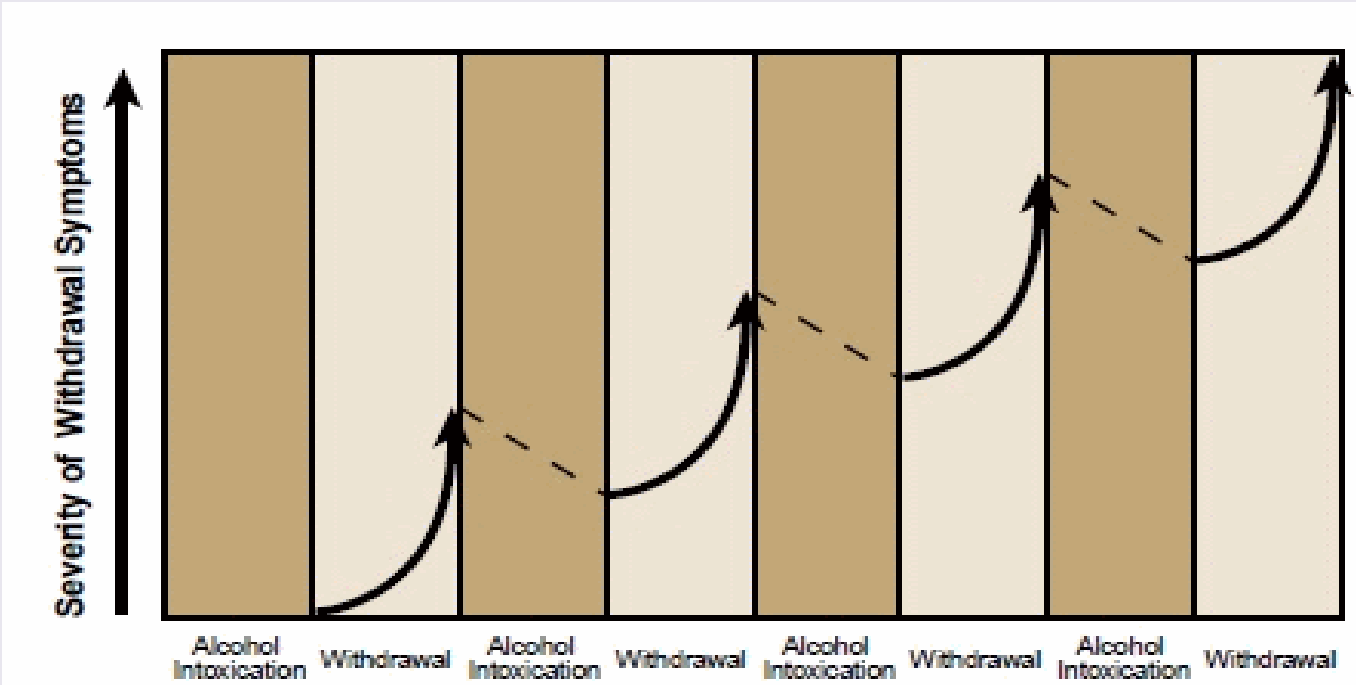


Figure 1 Graphic representation of the kindling concept during alcohol withdrawal. The term "kindling" refers to the phenomenon that people undergoing repeated cycles of intoxication followed by abstinence and withdrawal will experience increasingly severe withdrawal symptoms with each successive cycle.

Image Source: Becker 1998

RISK FACTORS: EARLY SIGNS AND SYMPTOMS

- Seizure(s) during the current episode prior to presentation
  (→ ↑ risk for another seizure and/or progression to AWD).
- At least moderate AWS on presentation:
  - e.g., CIWA-Ar score ≥ 10.
  - More sick at the start, likely even sicker later.
- Marked autonomic hyperactivity on presentation.
  - Vital signs are NOT part of CIWA.

Recommendation II.5, II.8

RISK FACTORS: ALCOHOL USE PATTERN

These factors are predictive of greater physical dependence.

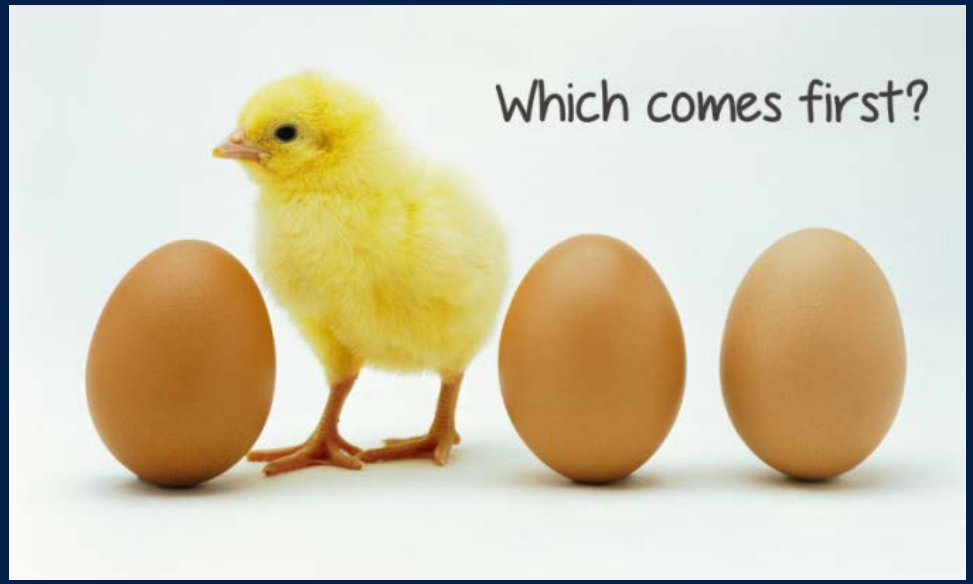
- High dose
- Long duration
- Regular frequency

Recommendation II.5

RISK FACTORS: ALCOHOL USE PATTERN

Complications of AWS:

- AWS → Potentially life-threatening exacerbation of existing condition.
- Severe medical illness → precipitates severe AWS including ↑
  - AWS-related seizures.
  - AWS-related delirium.



It does not matter; you can have AWS either way!

Recommendation II.5

RISK FACTORS: AGE

Increased age (>65)

- Lifetime withdrawal episodes likely to be higher (kindling)
- More underlying health conditions
- Often more frail

Recommendation II.5

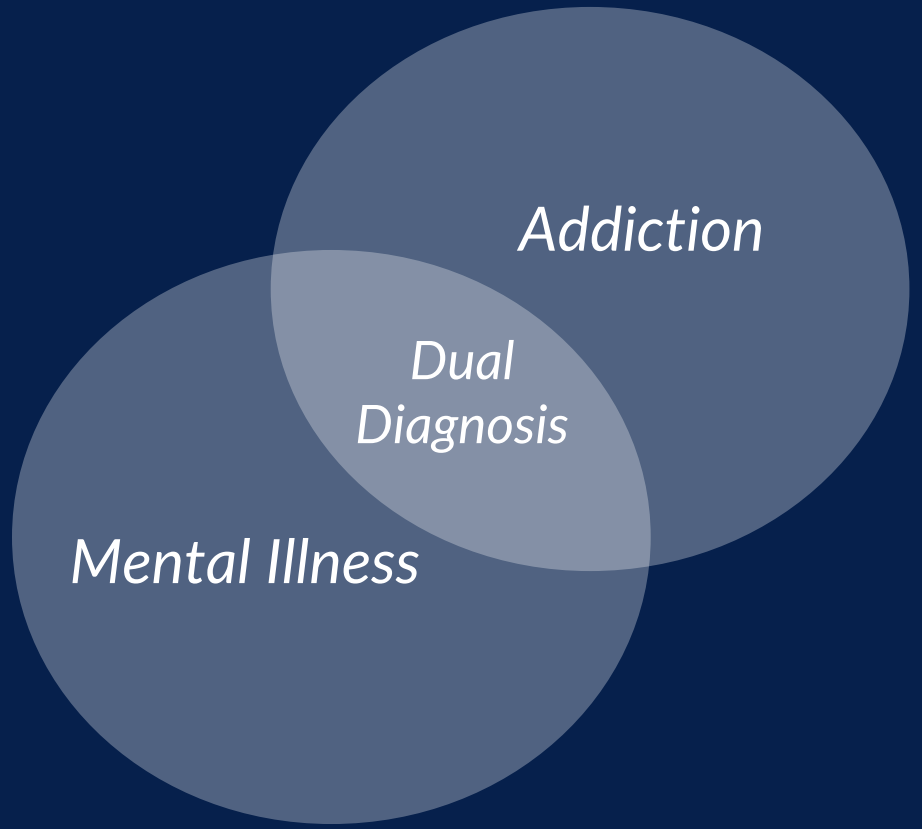
RISK FACTORS: DEPENDENCE ON OTHER GABANERGICS

- GABAnergic agents
  - benzodiazepines
  - phenobarbital
  - carbamazepine
- Physical dependence on other sedative-hypnotics → can ↑ the severity of AWS
- Concurrent withdrawal from Ethanol + Benzo Withdrawal (or from other sedative hypnotic) → ↑ risk of AWS-related seizure

Recommendation II.5

OTHER POSSIBLE RISK FACTORS

- Other addictive substances used.
  - Depends on substance type and use pattern.
- Positive BAL, in presence of signs and symptoms of AWS, worry for high degree of physical dependence.
- Active psychiatric disorder.



Recommendation II.6

C. RISK ASSESSMENT TOOLS

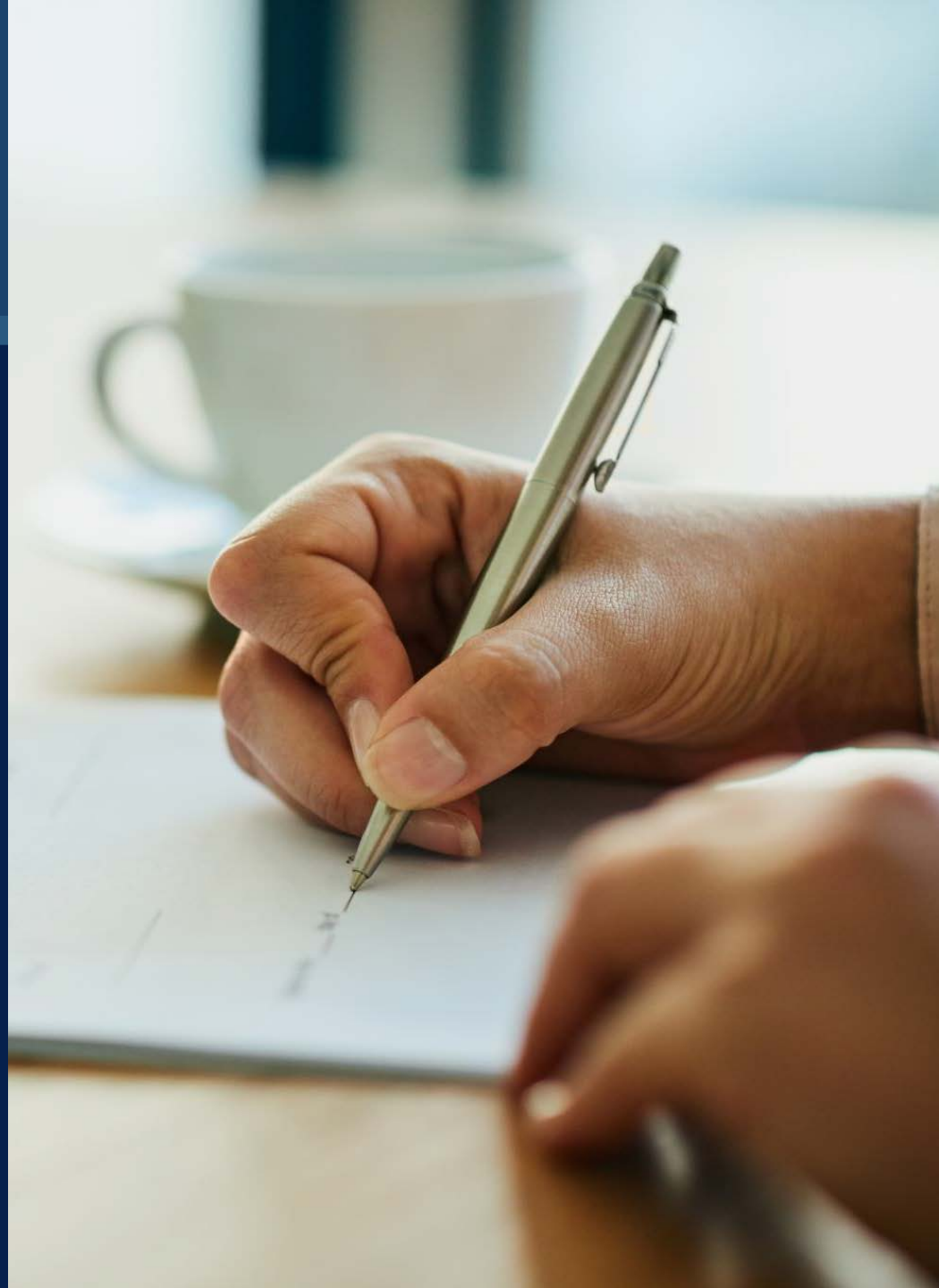
RISK LEVEL TOOLS

- There are many risk factors to assess.
- Use a consistent, standardized tool.
- Consider using a scale:
  - *ASAM Criteria* Risk Assessment Matrix.
  - Prediction of Alcohol Withdrawal Severity Scale (PAWSS).
  - Luebeck Alcohol-Withdrawal Risk Scale (LARS).

Recommendation II.9, II.10

LUEBECK ALCOHOL-WITHDRAWAL RISK SCALE (LARS)

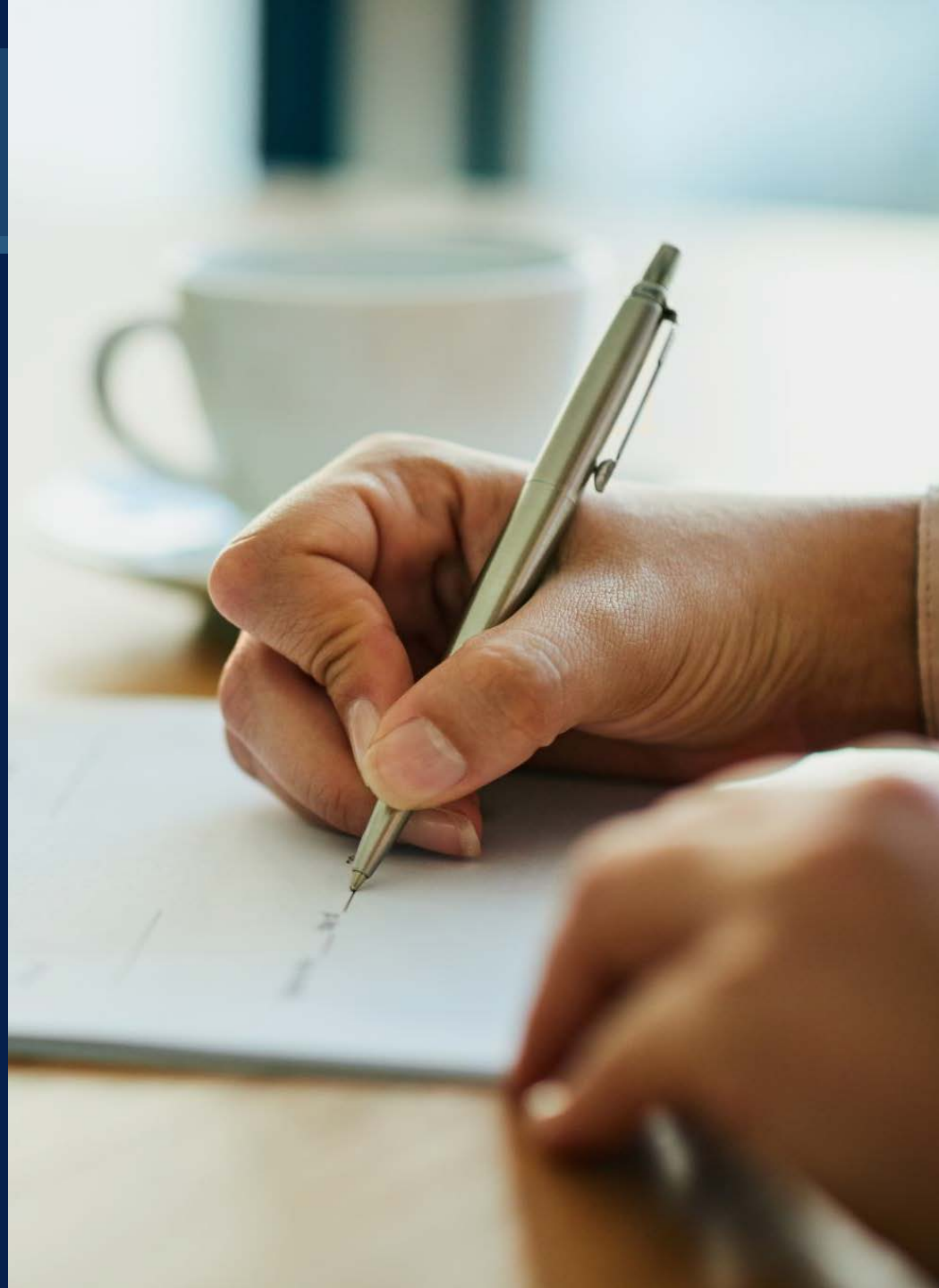
- Risk of developing alcohol withdrawal in patients without significant comorbid medical illness.
- Setting: Hospital.



PREDICTION OF ALCOHOL WITHDRAWAL SEVERITY SCALE (PAWSS)

- PAWSS is a screening tool.
- More (+) findings → ↑ risk for development of moderate or severe AWS.
- Scores ≥ 4 are high risk for moderate (hallucinosis) to severe AWS (Seizures or DTs)

  - consider prophylaxis or treatment
- In 403 medical & surgical patients, PAWSS had excellent inter-rater-reliability and
  - 93% sensitivity
  - 99.5% specificity
  - 93% PPV
  - 99.5% NPV



Maldonado et al. Alcohol and Alcoholism, 2015, 50(5) 509–518

PREDICTION OF ALCOHOL WITHDRAWAL SEVERITY SCALE (PAWSS)

- PART A: Threshold Criteria.
- PART B: Based on patient interview.
- PART C: Based on Clinical Evidence.

PAWSS PART A

- PART A: Threshold Criteria.

1. Have you consumed *any amount of alcohol within the last 30 days OR have a (+) BAL* on admission?

If Yes, proceed…

PAWSS PART B

- PART B: Based on patient interview:
  2. Have you ever experienced previous alcohol withdrawal?
  3. Have you ever experienced alcohol withdrawal seizures?
  4. Have you ever experienced DTs?
  5. Have you ever undergone alcohol rehabilitation Rx?
  6. Have you ever experienced blackouts?
  7. Have you combined alcohol w/ “downers” like benzos or barbs in last 90 days?
  8. Have you combined alcohol with any other substance of abuse in the last 90 days?

PAWSS PART C

- PART C: Based on Clinical Evidence:
  9. Was the patient's BAL on presentation > 200 mg/dL?
  10. Is there evidence of ↑ autonomic activity
      (HR > 120, tremor, sweat, agitation, nausea)?

D. SYMPTOM ASSESSMENT SCALES

SIGN & SYMPTOM ASSESSMENT SCALES

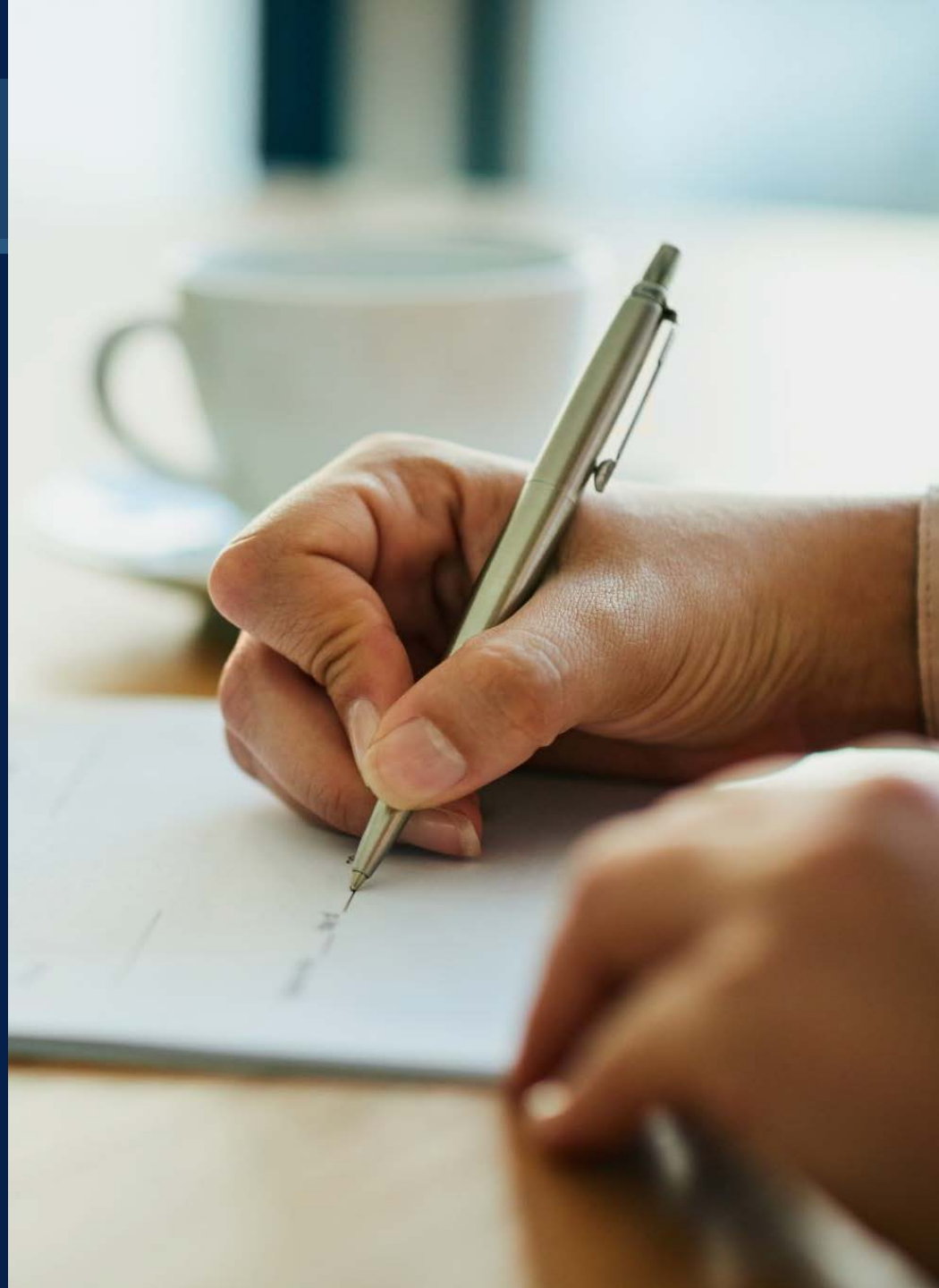
- These are NOT used to diagnose withdrawal.
  - They are non-specific relative to etiology.
- Use a validated scale to assess severity of AWS .
- Use the same tool throughout withdrawal period to monitor change over time.
- The scales are used to:
  - Guide treatment, especially medications:
    - Need for medication.
    - Response to medication.
    - When to stop medication.
  - Assist research.

Recommendation II.11

CHOOSING A SCALE

- No preferred tool.
- Use one appropriate for your setting and patient.
- Assess for risk of score bias.
  - Suppressed scores (e.g., use of beta-blockers and other sympatholytic drugs).
  - Other causes of sign or symptom (e.g., fever from infection).
  - Self-report problem (e.g., reduced consciousness, language barrier).

Recommendation II.12



EXAMPLES: AWS SEVERITY TOOLS

- Clinical Institute Withdrawal Assessment for Alcohol, Revised (CIWA-Ar).
- Brief Alcohol Withdrawal Scale (BAWS).
- Short Alcohol Withdrawal Scale (SAWS).
- Richmond Agitation-Sedation Scale (RASS).
- Etc.

CIWA-AR - SUBTLETIES

- Practice using the scale.
- It takes time, there are ten items to assess.
- Patients must be able to answer questions.
- Not validated in complex medical patients, postsurgical patients, or critically ill patients, especially if on a ventilator (as patients can't communicate).
- Validated in mild and moderate withdrawal only.
- Does NOT use vital signs; Vitals may help in Dx severe withdrawal.
- Does NOT predict who will go into…
  - Withdrawal (is not diagnostic)
  - "Severe" withdrawal (is not prognostic)

CLINICAL INSTITUTE WITHDRAWAL ASSESSMENT OF ALCOHOL, REVISED (CIWA-Ar)

- 10 items
- Time to complete: ~ 5 mins
- Scored 0-7 (One item 0-4)
- Max score 67
- Most commonly used scale
- Alcohol Withdrawal Severity
  - Mild < 15
  - Moderate 16 to 20
  - Severe > 20

Items

1. Nausea and Vomiting
2. Tactile Disturbances
3. Tremor
4. Auditory Disturbances
5. Paroxysmal Sweats
6. Visual Disturbances
7. Anxiety
8. Headache, Fullness in Head
9. Agitation
10. Orientation and Clouding of Sensorium

SIGNS & SYMPTOMS CAN BE SUBTLE

CATEGORY	IF SIGN/SYMPTOM	SCORE
Nausea and vomiting	Mild Nausea	1
Tremor	Not visible, but can be felt fingertip to fingertip	1
Paroxysmal sweats	Barely perceptible sweating, palms moist	1
Anxiety	Mildly anxious	1
Agitation	Somewhat more activity than normal	1
Tactile disturbances	Mild itch, pin/needles, burning, or numbness	2
Auditory disturbances	Mild harshness or ability or frighten	2
Visual disturbances	Mild sensitivity to light	2
Headache	Mild	2
Orientation / Sensorium	Can't do serial additions or uncertain of date	1

Total Points = 14; just 2 less than “Moderate” Withdrawal

BRIEF ALCOHOL WITHDRAWAL SCALE (BAWS)

- 5 items
- Scored 0-3
- Favorable sensitivity and specificity compared with the CIWA-Ar

Items

1. Tremor
2. Diaphoresis/Sweats
3. Agitation
4. Confusion
5. Hallucination (Visual, Auditory, or Tactile)

Concept vs. CIWA-Ar

- Shorter
- More Objective

SHORT ALCOHOL WITHDRAWAL SCALE (SAWS)

- 10 items
- Scored 0-3
- Self-administered
- Validated in ambulatory settings
- High internal consistency, good construct and concurrent validity

Items

1. Anxious
2. Sleep disturbance
3. Problems with memory
4. Nausea
5. Restless
6. Tremor
7. Feeling confused
8. Sweating
9. Miserable
10. Heart pounding

RICHMOND AGITATION-SEDATION SCALE (RASS)

- 1 item
- Commonly used in the ICU
- Can be used on patients who are:
  - Intubated
  - Sedated

Score	***Labels***
4	Combative
3	Very agitated
2	Agitated
1	Restless
0	Alert and calm
-1	Drowsy
-2	Light sedation
-3	Moderate sedation
-4	Deep sedation
-5	Unarousable

CAN (PARTIALLY) INFORM RISK ASSESSMENT

- A validated AWS severity scale may assist risk assessment.
- Higher early score may reflect the patient is at risk to become even sicker.
- Scores should not be the only information used to predict patient risk.

Recommendation II.13

E. IDENTIFY CONCURRENT CONDITIONS

Screen for Conditions that Complicate Withdrawal Evaluation and Management

Screen patients for conditions that may:

- Affect AWS time course.
- Mask or mimic signs and symptoms of AWS or AWD.
- Affect the treatment plan for AWM.
- Require treatment alongside AWM.

Recommendation II.14

LABS TO OBTAIN:

- Pregnancy Test (Highly recommended)
- Conduct:
    - Comprehensive metabolic profile.
    - Hepatic panel.
    - CBC with differential.
- Identify conditions that mimic signs & symptoms of AWS and AWD including
    - Electrolyte disturbances.
    - Infections.

A test for alcohol may be helpful to ID recent use, particularly in patients unable to communicate….

Recommendation I.4

AND

It is a part of the LARS & PAWSS Risk Assessment for severe withdrawal

Recommendation II.16

NO DELAY OF TREATMENT:

Do not delay treatment while obtaining test results

- If AWS is suspected but
  - Lab tests are not available at the setting.
  - Results are pending.
- In settings with limited access to lab tests, obtain results when practical.

Recommendation II.16, II.18

POLYSUBSTANCE USE

- Biological test for other substance(s).
- Concomitant substance use is associated with ↑ complicated AWS.
- Validated screening tool (e.g., the ASSIST).
- Collateral interview (obtain consent in non-emergent situations).
- Withdrawal from other sedative hypnotics →
    - ↑ AWS severity.
    - affects response to some medications used to treat AWS.

Recommendation II.17

MENTAL HEALTH CONDITIONS

- Review MH treatment history.
- Can use a validated MH screening tool.
- Consult with patient's MH provider if one exists.
- Caution: Do not Dx a new primary mental health disorder during acute withdrawal period.
- Evaluate active suicide risk.
  - No specific method specified.

Rationale

- AWS and many primary psychiatric disorders share signs and symptoms
- Emotional, behavioral, and cognitive conditions may complicate AWM and vice versa.

CONCLUSIONS

- Use a validated screening tool to assess for unhealthy use.
- Biologic testing helps in the evaluation, but it has its nuances.
- Risk factors and scales (PAWSS) may be used to prognosticate which patients will develop more severe or complicated AWS.
- Severity Scales (e.g. CIWA) are NOT used to diagnose ASW.
- RASS is a one-step severity scale; validated in ICUs and delirium.
- DSM-V – has diagnostic criteria for AWS and AWD.
- Many other medical conditions share sxs with AWS.

AUDIENCE Q & A

UPCOMING EVENTS

THE ASAM ALCOHOL WITHDRAWAL MANAGEMENT SERIES

❑ The ASAM Alcohol Withdrawal Management Webinar: Monitoring, Levels of Care, and Inpatient/Ambulatory Treatment	George Kolodner, MD, DLFAPA, FASAM	Tuesday, Sept. 15 @ 1:00 p.m. EST
❑ The ASAM Alcohol Withdrawal Management Webinar: Pharmacotherapy	Michael Weaver, MD, DFASAM	Tuesday, Oct. 20 @ 12:00 p.m. EST
❑ The ASAM Alcohol Withdrawal Management Webinar: Complicated Withdrawal and Special Populations	Darius Rastegar, MD, DFASAM	Tuesday, Nov. 17 @ 12:00 p.m. EST

ASAM American Society *of* Addiction Medicine

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THANK YOU.