

The Acutely Agitated Patient

**(Project BETA and how it might just help you
deal with patients better)**

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UNIVERSITY of CALIFORNIA, SAN DIEGO
MEDICAL CENTER

A personal note...

54.5%

There are no financial relationships with any drug mentioned in this talk.



American Association for Emergency Psychiatry



INS NIT 2015
National Academy of Infusion Therapy
Dallas, TX ★ November 6-8

Agitation in the ED



The agitation you might see...



So how should we treat agitated patients?



Project BETA

- In October 2010, AAEP embarked on Project BETA.
 - Challenge: to develop new guidelines that were effective, safety-minded, and in best interests of the patient.
 - Over 35 emergency psychiatrists, emergency medicine physicians, mental health clinicians, nurses, and patient advocates participated.
 - Mission was to develop and disseminate guidelines that represent **B**est practices for the **E**valuation and **T**reatment of **A**gitation.

Project BETA

Available for **free** reading/download:



Through **PubMedCentral** or Bing
“**Agitation BETA**”

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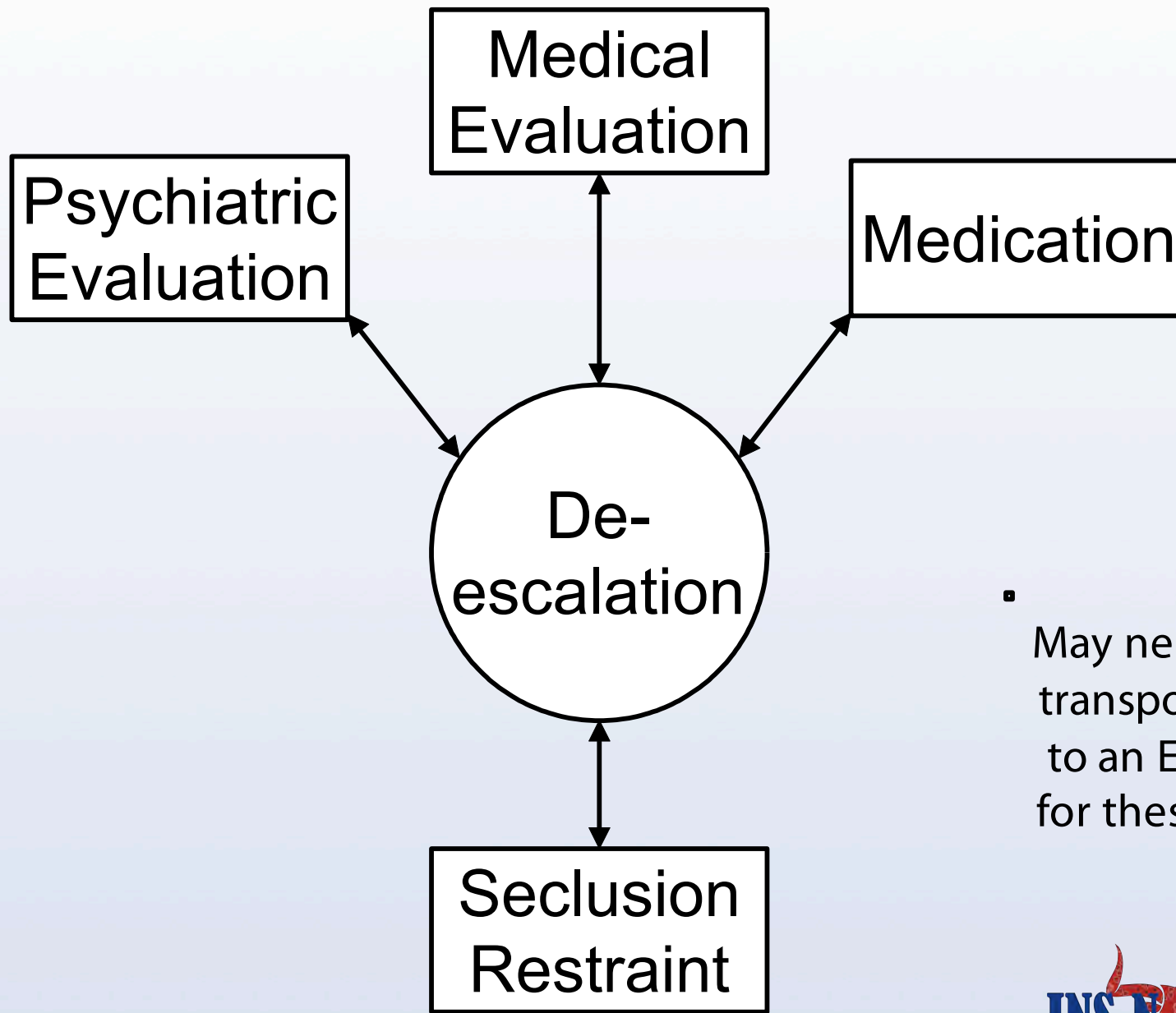
Project BETA articles are among the most downloaded articles in the history of the *Western Journal of Emergency Medicine*.

Stories about Project BETA have appeared in *Emergency Medicine News*, *Psychiatric Times*, *Psychiatric News*, and many other publications.



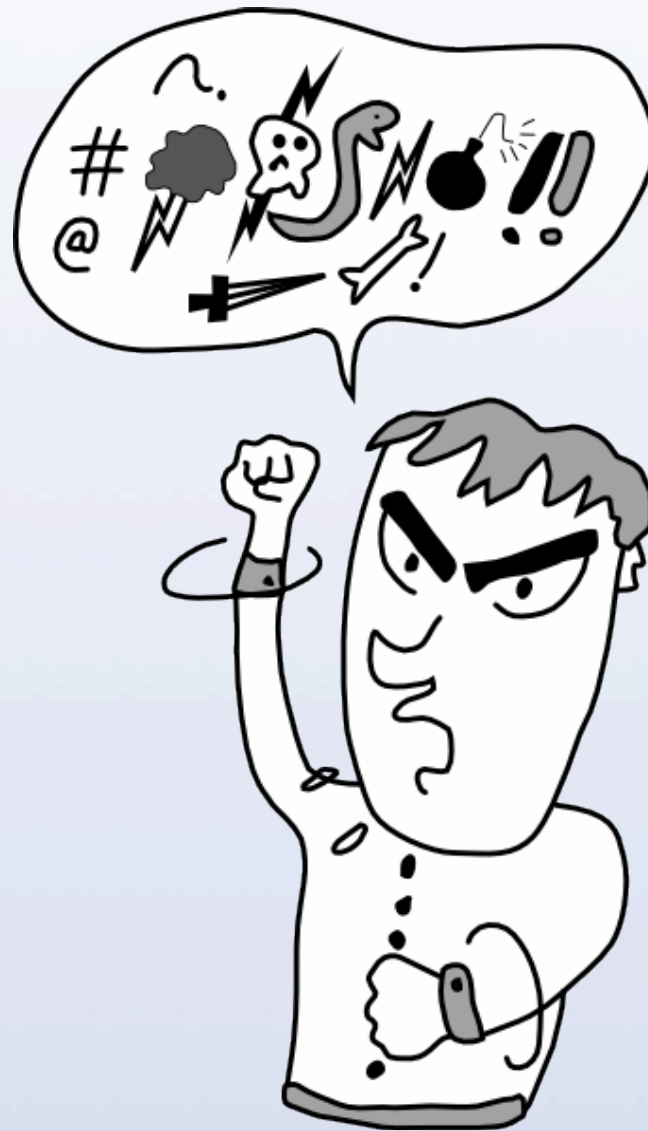
Selected Guidelines

- **Use verbal de-escalation**
- **Staff should be appropriate for the job**
- **Oral medications instead of IM**
- **Reduce seclusion & restraint**



- May need transport to an ED for these!

Guideline: verbal de-escalation



Verbal De-escalation

- Goal is to help the patient regain control
 - While engaging in verbal de-escalation, clinician observations & medical judgment must drive management
 - Successful de-escalation is the key to avoiding seclusion/restraint
 - Most injuries to staff occur during restraint

BETA recommendations: verbal de-escalation

I You shall be non-provocative:

- calm demeanor, facial expression
- soft-spoken with no angry tone,
- empathic - genuine concern
- relaxed stance- arms uncrossed..
...hands open..knees bent

II You shall respect personal space

- 2x arms length
- Normal eye contact
- Offer a line of egress
- expand space if paranoid
- Move if told to do so

III You shall establish verbal contact:

- tell them who you are,
- establish you are keeping them safe,
- you will allow them no harm
- you will help them regain control
- ONE COMMUNICATOR

Richmond JS, et al. Verbal de-escalation of the agitated patient: Statement of the American Association for Emergency Psychiatry Project BETA de-escalation workgroup. West J Emerg Med. 2012; 13(1):17-25.

BETA recommendations: Verbal de-escalation

IV You shall be concise:

- use short phrases or sentences
- repeat yourself, repeat yourself
- Get the patient's attention..don't confuse

V You shall identify their wants and feelings

VI You shall lay down the law:

- set limits
- offer choices; propose alternatives
- establish consequences
- use positive reinforcements

VII You shall listen:

- Don't argue
- Don't up the ante
- Listen and agree
- Check understanding

VIII You shall agree or agree to disagree

IX You shall have a moderate show of force and be prepared to use it

X You shall debrief with patients and staff

Richmond JS, et al. Verbal de-escalation of the agitated patient: Statement of the American Association for Emergency Psychiatry Project BETA de-escalation workgroup. West J Emerg Med. 2012; 13(1):17-25.





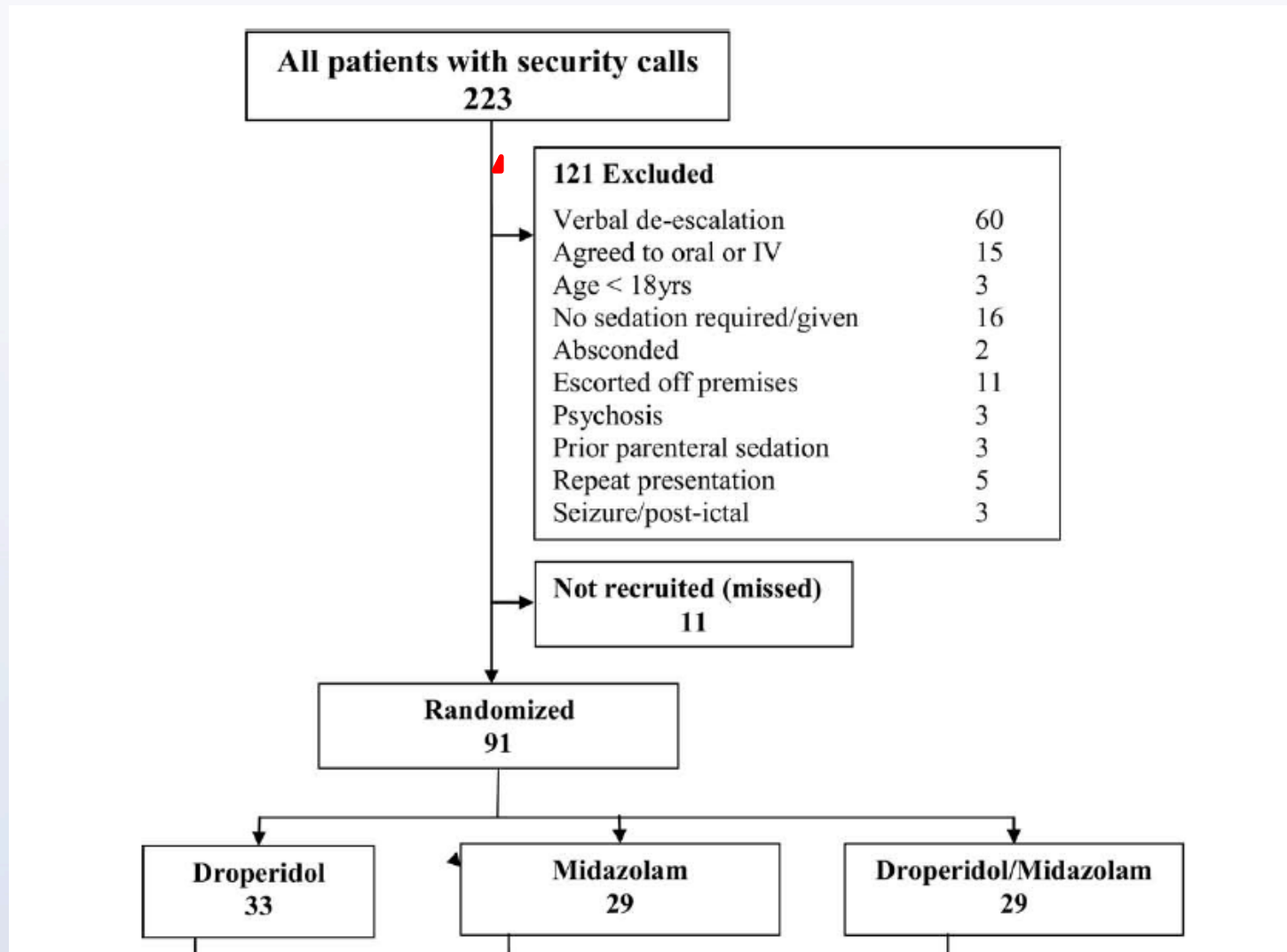
Courtesy of Scott Zeller, MD

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Do verbal techniques work for all patients?



Do verbal techniques work?



Isbister GK, et al. Randomized controlled trial of intramuscular droperidol versus midazolam for violence and acute behavioral disturbance: The DORM study. *Ann Emerg Med.* 2010;56392-401.

Case study: So what about this guy?



- Ethics
 - If a patient a danger to themselves/others and incapable of making decisions, may medicate involuntarily
 - Otherwise, this is assault
- Practicality
 - If severely agitated, they're probably too agitated to start an IV safely
 - You'll need other people to hold them down

Case study



- Must be urgently deescalated
 - Verbal de-escalation while security being called
 - Should be offered medication orally first
- Medical evaluation
 - Since signs of overt trauma
 - Should be transported in safest way (for him & staff) possible

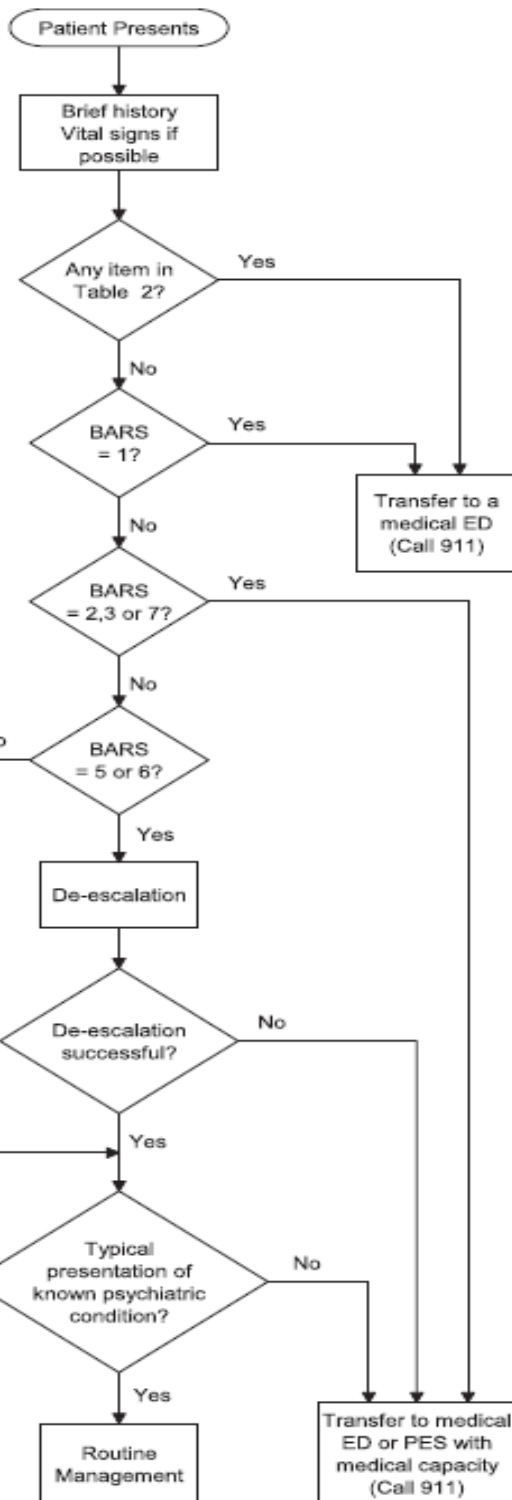


Table 1. Behavioural Activity Rating Scale.⁴

-
- 1 = Difficult or unable to rouse
 - 2 = Asleep but responds normally to verbal or physical contact
 - 3 = Drowsy, appears sedated
 - 4 = Quiet and awake (normal level of activity)
 - 5 = Signs of overt (physical or verbal) activity, calms down with instructions
 - 6 = Extremely or continuously active, not requiring restraint
 - 7 = Violent, requires restraint
-

Table 2. Findings that require immediate evaluation by a clinician.

Symptoms

- Loss of memory, disorientation
- Severe headache
- Extreme muscle stiffness or weakness
- Heat intolerance
- Unintentional weight loss
- Psychosis (new onset)
- Difficulty breathing

Signs

- Abnormal vital signs: pulse, blood pressure, or temperature
- Overt trauma
- One pupil larger than the other
- Slurred speech
- Incoordination
- Seizures
- Hemiparesis

Nordstrom K, Zun LS, Wilson MP, et al.
 Medical evaluation and triage of the agitated patient:
 Consensus statement of the American Association
 for Emergency Psychiatry Project BETA Medical
 Evaluation Workgroup. West JEM. 2012; XIII(1):3-10.

Guideline: Staff should be appropriate for the job: Attitudes

- Inadequate education/preparation
- Societal attitudes/personal biases
- Organizational climate
- Safety concerns
- Crowding
- Caregiver lack of confidence in skills & experience
- Lack of guidelines

ENA: Care of psychiatric patient in the emergency department.
<https://www.ena.org/practice-research/Aresearch/Documents/WhitePaperCareofPsych.pdf>.
Accessed July 5, 2015.

Staff Attitudes about Suicide

- “ Suicidal behavior appears to elicit mostly negative feelings among staff members...”
 - If not acknowledged and properly handled...may lead to premature discharge...justified by statements ‘he is not really suicidal’”
 - “It is important task for staff members is to contain and work through negative feelings towards patients.”

Guideline: Oral over IM when possible



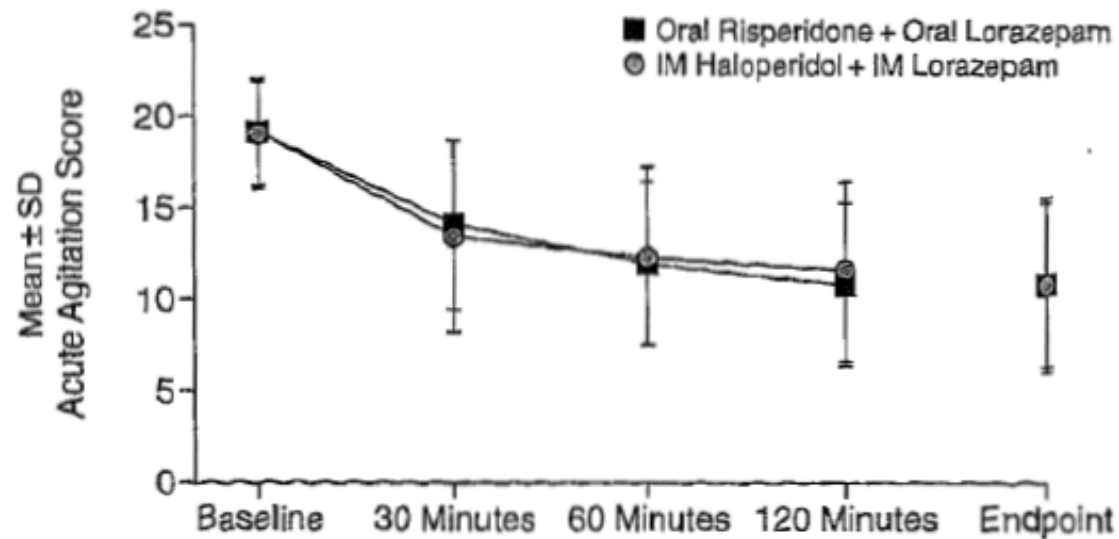
BETA recommendation: oral medications over IM when possible

- Control agitation as rapidly as IM
 - despite slower time to peak plasma concentrations
- No risk of needlestick
- Less risk of oversedation
- (probably) fewer side effects



Oral medications work quickly

Figure 2. Acute-Agitation Cluster Scores From Baseline to Endpoint in Patients Receiving Oral or Intramuscular (IM) Treatment^{a,b}



^aEach of the 5 items is scored on a scale from 1 (absent) to 7 (extreme); range of possible scores is 5 to 35.

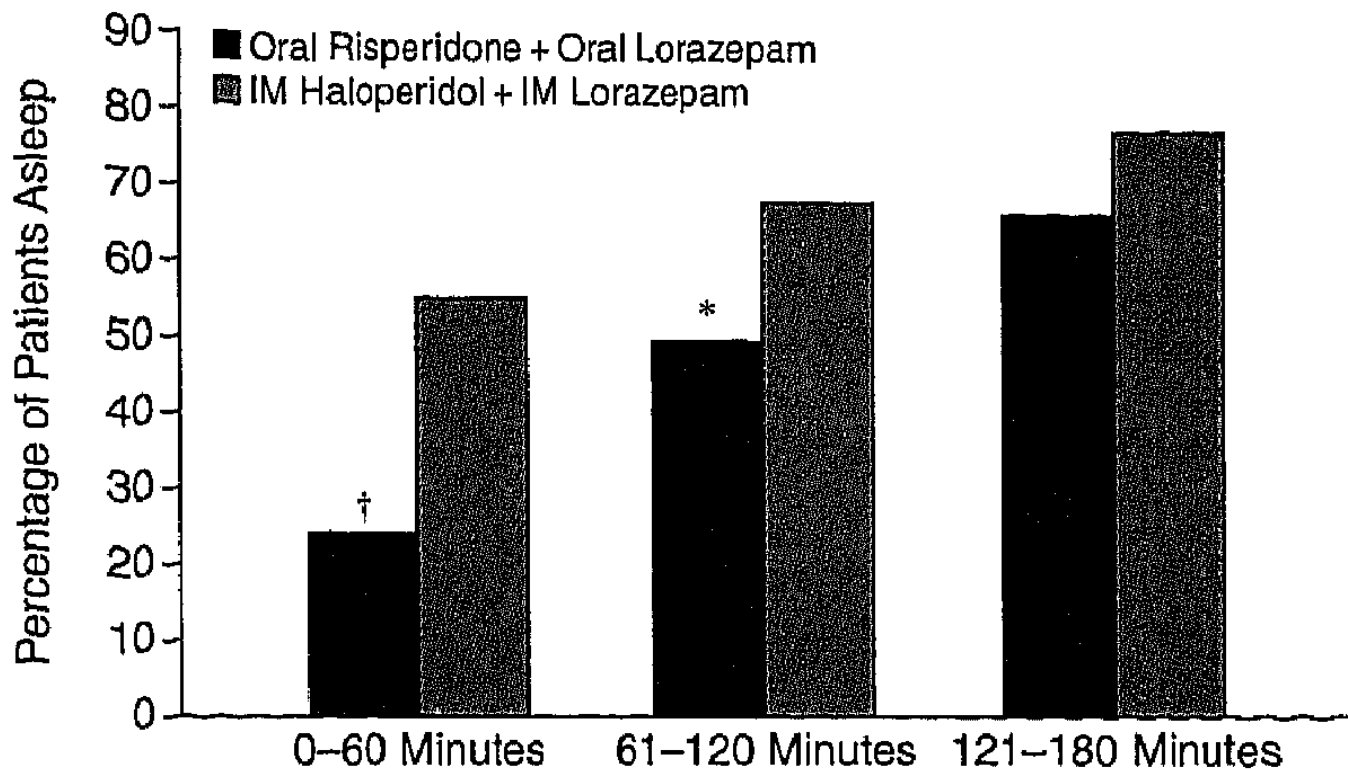
^b $p < .0001$ vs. baseline at each timepoint for both groups.

Currier GW, et al. Acute treatment of psychotic agitation: A randomized comparison of oral treatment with risperidone and lorazepam versus intramuscular treatment with haloperidol and lorazepam. J Clin Psychiatry. 2004;65;386-394.

Oral meds work just as quickly

Author	Trial design
Currier, et al. (2004)	Prospective, parallel group, randomized, rater-blinded. Multi-center.
Currier, et al. (2001)	Prospective, nonrandomized, rater-blinded, double -arm. Informed consent not required, but willing to accept oral meds.
Hatta et al. (2008)	Pseudorandomized, open-label, flexible dose, Multicenter. Informed consent after treatment, but willing to accept oral meds.
Hsu et al. (2010)	Prospective, randomized, rater-blinded.
Kinon et al. (2004)	Prospective, randomized, double blind, multicenter.
Lejeune et al. (2004)	Open-label, active controlled, Multicenter. Patients allowed to choose their own group.
Lim et al. (2010)	Prospective, randomized, open-label, rater-blinded.
Normann et al. (2006)	Prospective, open-label study. Since observational only, no informed consent required.
Pascual et al. (2007)	Naturalistic, prospective, open-label. Informed consent after treatment, but willing to accept oral meds.
Turczynski et al. (2004)	Naturalistic, prospective, unblinded, open-label, multicenter, nonrandomized. Willing to accept oral meds.
Veser et al. (2006)	Prospective, randomized, placebo-controlled, doubleblind.

Figure 6. Percentage of Patients Receiving Oral or Intramuscular (IM) Treatment Who Were Sleeping for the First Time at 0 to 60, 61 to 120, and 121 to 180 Minutes After Admission



* $p < .05$ vs. IM treatment.

[†] $p < .001$ vs. IM treatment.

Currier GW, et al. Acute treatment of psychotic agitation: A randomized comparison of oral treatment with risperidone and lorazepam versus intramuscular treatment with haloperidol and lorazepam. *J Clin Psychiatry*. 2004;65;386-394.



Slide courtesy of www.medscape.com

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BETA recommendation: IM SGA over FGA

- Similar efficacy
 - Haloperidol can cause dysphoria; patients often complain of the way it makes them feel later
 - Fewer side effects (unless EtOH)
 - Probably less sedating than haloperidol/lorazepam

Lambert M, et al. Subjective well-being and initial dysphoric reaction under antipsychotic drugs—concepts, measurement and clinical relevance. *Pharmacopsychiatry*. 2003;36(suppl 3):S181–S190.

Karow A et al. What would the patient choose: subjective comparison of atypical and typical neuroleptics. *Pharmacopsychiatry*. 2006;39:47–51.



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journal homepage: www.elsevier.com/locate/ajem

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Original Contributions

Lengths of stay for involuntarily held psychiatric patients in the ED are affected by both patient characteristics and medication use

Michael P. Wilson, MD, PhD ^{a,b,*}, Jesse J. Brennan, MA ^{a,b}, Lucia Modesti, MD ^b, James Deen ^a, Laura Anderson ^a, Gary M. Vilke, MD ^{a,b}, Edward M. Castillo, PhD, MPH ^{a,b}

^a Department of Emergency Medicine Behavioral Emergencies Research (DEMBER) lab, University of California San Diego, San Diego, CA

^b Department of Emergency Medicine, University of California San Diego, San Diego, CA

Accepted Manuscript

Prolonged Length of Stay in Emergency Department Psychiatric Patients: A Multivariable Predictive Model

Mark B. Warren MD, Ronna L. Campbell MD, PhD, David M. Nestler MD, Kalyan S. Pasupathy PhD, Christine M. Lohse, Karen A. Koch MSN, RN, Eduard Schlechtinger, Scott T. Schmidt DO, Gabrielle J. Melin MD, MS

PII: S0735-6757(15)00827-X
DOI: doi: [10.1016/j.ajem.2015.09.044](https://doi.org/10.1016/j.ajem.2015.09.044)
Reference: YAJEM 55308

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Precautions when using SGAs

- If EtOH+, may be associated with decreased oxygen saturations if given IM
 - Olanzapine + benzos
 - Ziprasidone + benzos
 - Likely okay if given orally

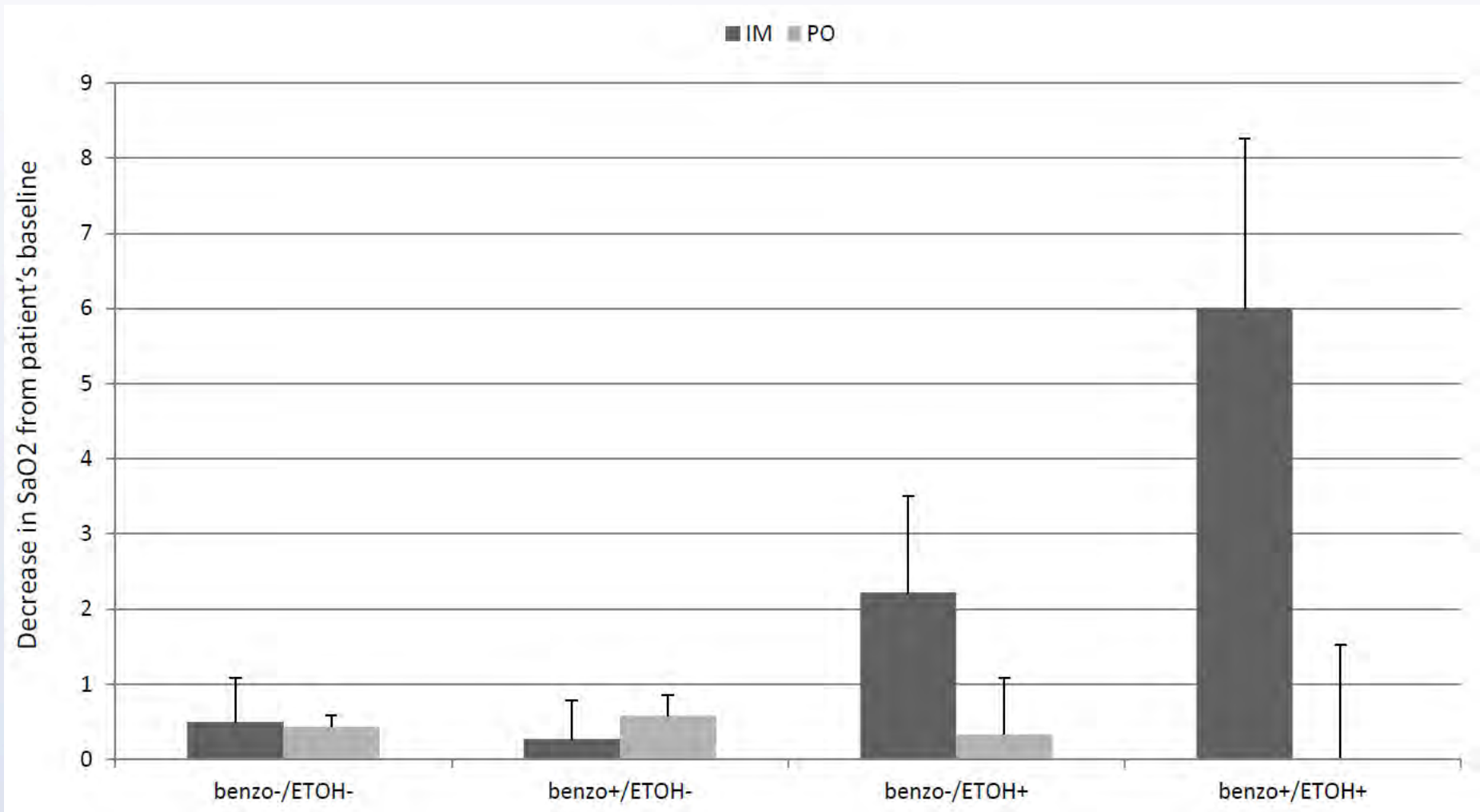
Wilson MP, MacDonald KS, Vilke GM, Feifel D. A comparison of the safety of olanzapine and haloperidol in combination with benzodiazepines in emergency department patients with acute agitation. *J Emerg Med.* 2012;43(5), 790-797.

Wilson MP, MacDonald KS, Vilke GM, Feifel D. Potential complications of combining intramuscular olanzapine with benzodiazepines in agitated emergency department patients. *J Emerg Med.* 2012;43(5), 889-896.

Wilson MP, MacDonald KS, Vilke GM, Feifel D. Intramuscular ziprasidone in the emergency setting: Influence of alcohol and benzodiazepines. *J Emerg Med.* 2013;45(6):901-908.

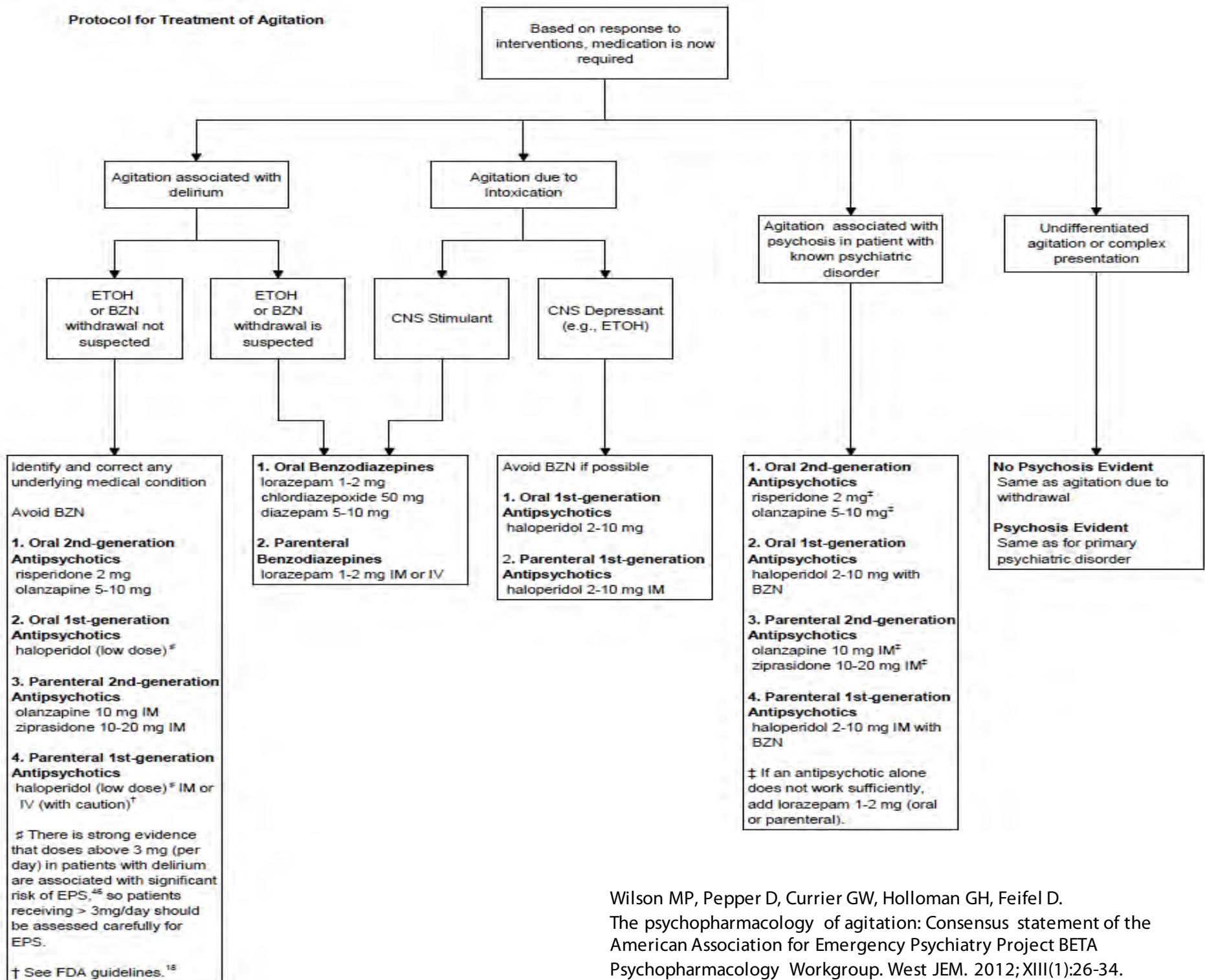


Oral meds have fewer side effects with EtOH



Wilson MP, Chen N, Vilke GM, Castillo EM, MacDonald KS, Minassian A. Olanzapine in emergency department patients: Differential effects on oxygenation in patients with alcohol intoxication. Am J Emerg Med. 2012; 30(7):1196-1201.

Protocol for Treatment of Agitation



Wilson MP, Pepper D, Currier GW, Holloman GH, Feifel D.
 The psychopharmacology of agitation: Consensus statement of the
 American Association for Emergency Psychiatry Project BETA
 Psychopharmacology Workgroup. West JEM. 2012; XIII(1):26-34.

Guideline: reduce restraints



So why are we talking about restraints?

(Isn't a restrained patient a safe patient?)

- Most mental health advocacy groups have called for less coercion in treating mental health patients
 - In particular, calls for little or no restraint use by:
 - American Psychiatric Association
 - American Psychiatric Nurses Association
 - American Academy of National Alliance for the Mentally Ill
 - Mental Health America
 - the American Association of Community Psychiatrists
 - the National Association of State Mental Health Program Directors

Restrained patients use more resources

- JC requires written policies in place
 - About evaluation
 - About reevaluation
- JC requires continuous monitoring of restrained patients
 - this requires additional staff



"We're all out of Novocain, so we need to restrain your arms and legs."

Restrained patients stay longer

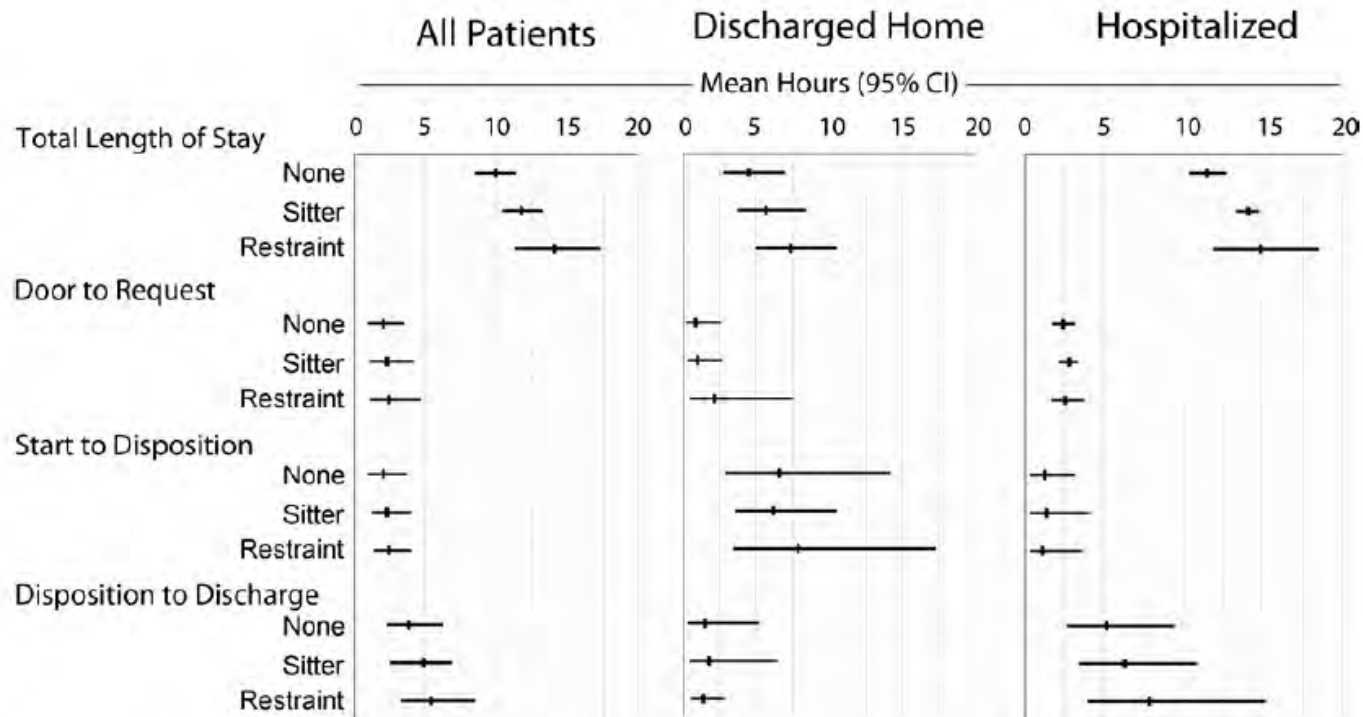
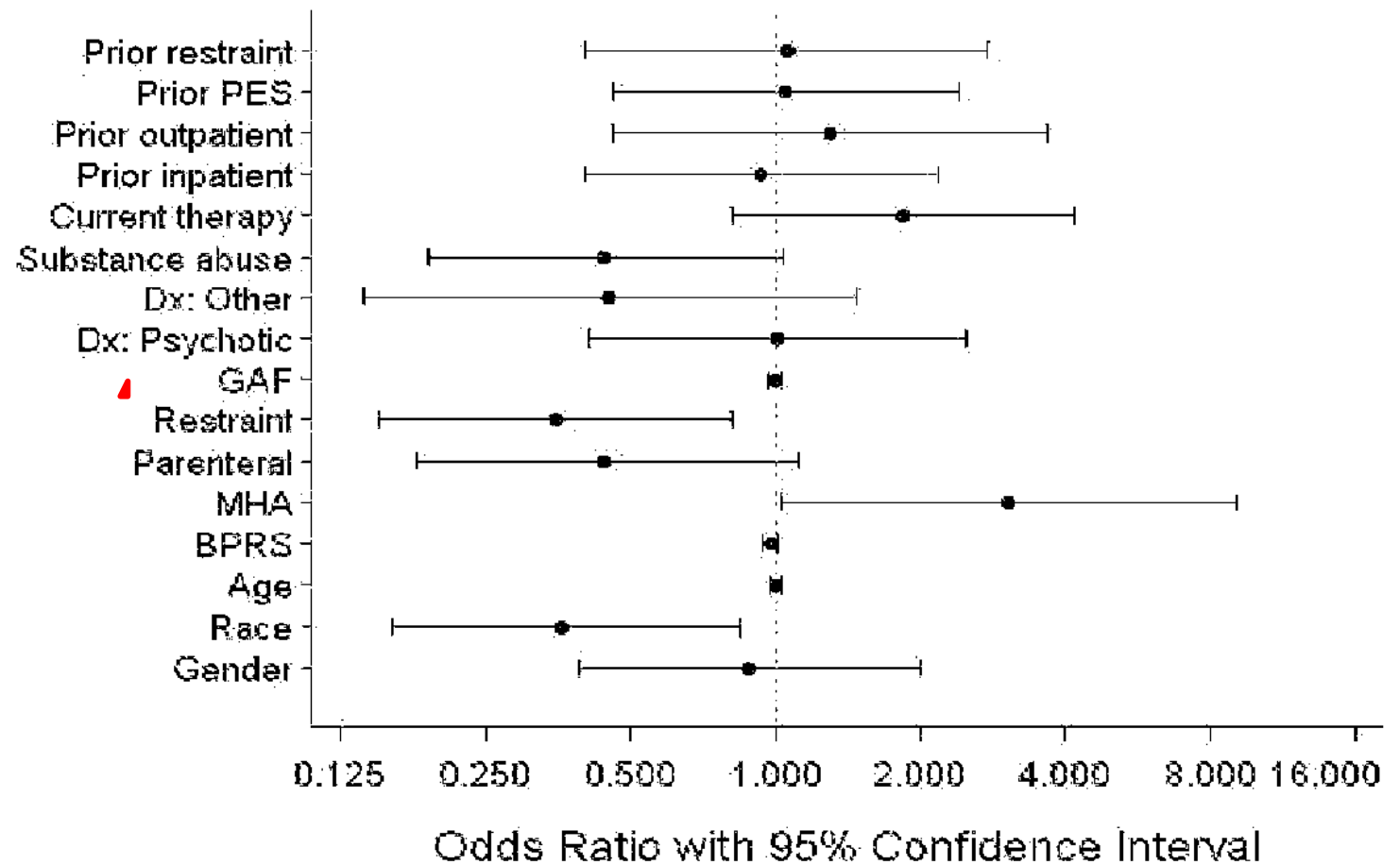


Figure 3. Effect of restraint and sitter use on ED length of stay and components. Bars represent the mean time in hours ($\pm 95\%$ CI) of the total ED length of stay and the 3 main subcomponents, broken out by the use of restraints and sitters (1:1 observers). Results are presented separately for the entire sample and then the subgroups of patients discharged to home and patients hospitalized (including those transferred for hospitalization elsewhere).

Figure 1. Univariate odds ratios for baseline variables with respect to attendance at psychiatric outpatient appointment



PES: Psychiatric emergency service

GAF: Global Assessment of Functioning Scale¹⁴

MHA: mental health arrest

BPRS: Brief Psychiatric Rating Scale¹⁵

Selected Guidelines

- **Use verbal de-escalation**
- **Staff should be appropriate for the job**
- **Oral medications instead of IM**
- **Reduce seclusion & restraint**

Does BETA work?

A California psychiatric ER
using BETA recommendations:

6 months 1/2010 to 6/2010 compared to
6 months 7/2011 to 12/2011

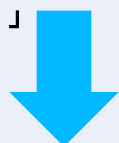
Seclusion/Restraint ↓ **43%**

Assaults ↓ **58%**

Decrease in assaults, injuries, insurance costs; Increase in patient/staff satisfaction at John George Psychiatric Hospital



35% further **reduction in assaults**, with or without injury, over this continued time period



Workman's Compensation Insurance Costs by **90%**



Patient Satisfaction Scores **>90th percentile** for the USA, **99th percentile** two of the past three months



Employee **Satisfaction** and Retention

Similar Improvements in Hospitals Worldwide

- BETA guidelines in use in multiple locations around the world with good results
- Honolulu, HI Queen's Medical Center Trauma Center/ED – after implementing BETA recommendations, decreased from 20 restraints/month to ZERO restraints/month

Summary:

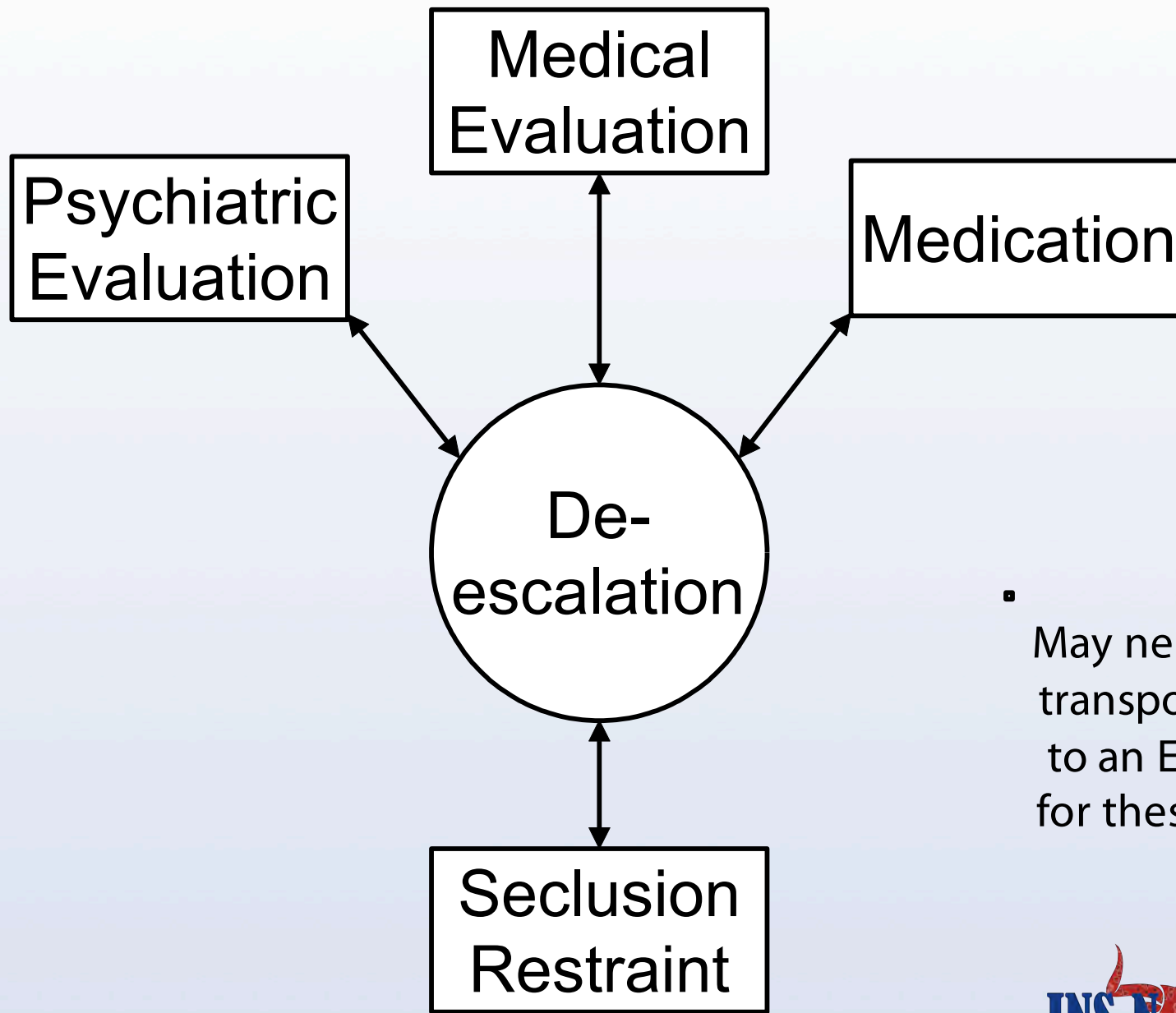
How do I approach an agitated patient?





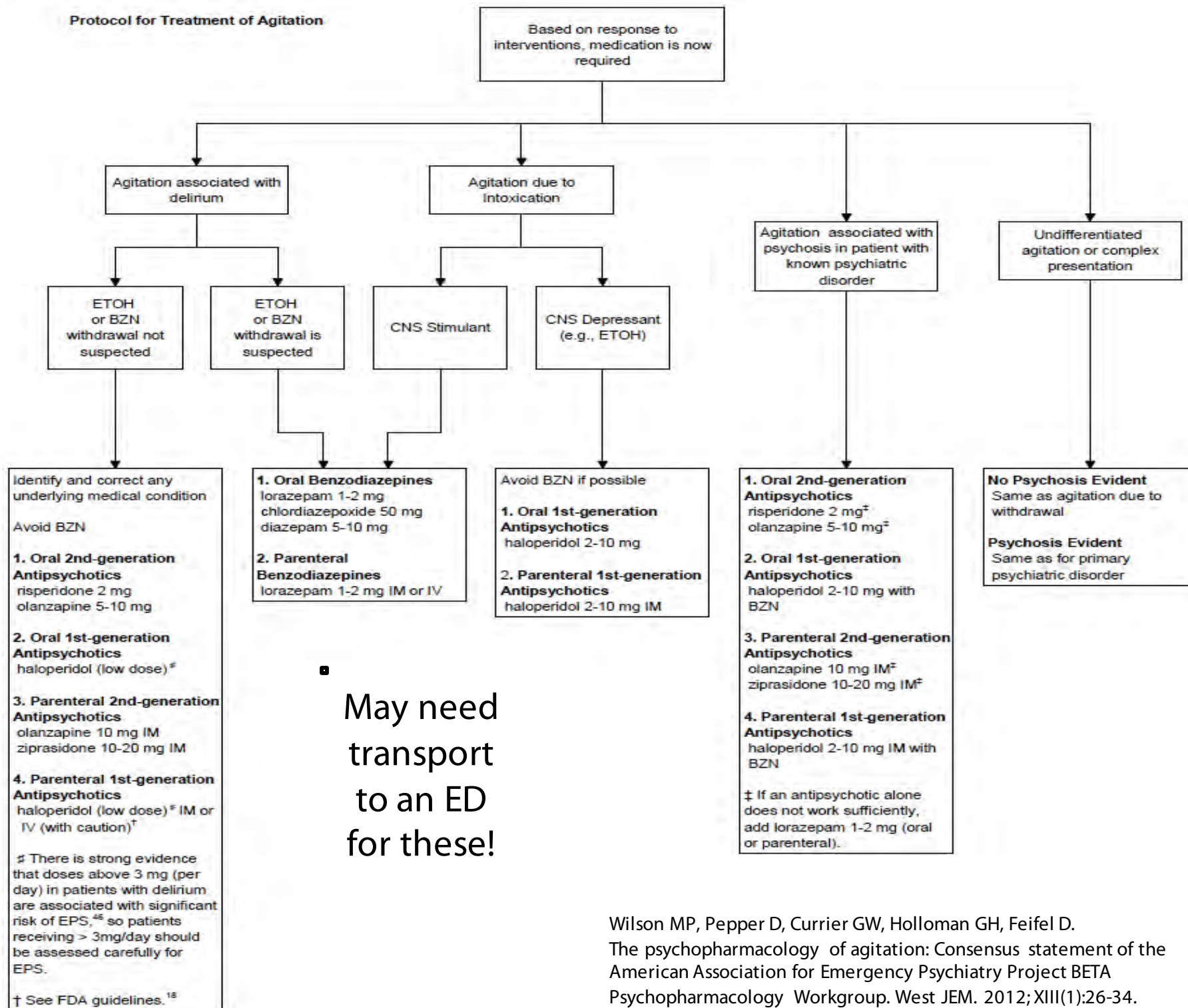
Courtesy of Scott Zeller, MD

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- May need transport to an ED for these!

Protocol for Treatment of Agitation



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Project BETA

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Educational resources



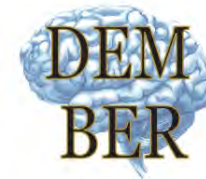
Department of Emergency Medicine
Behavioral Emergencies Research

		<p>December 2-4</p> <p><i>Flamingo</i> LAS VEGAS</p>																							
<p>6th Annual National Update on Behavioral Emergencies</p>																									
<p>Topics (Tentative) Thursday December 3 (Day 1)</p> <p>Introduction/AAEP Medical Clearance UDS Ketamine and EMS Disorders that Can Kill Treatment of Agitation Informed consent and Involuntary medication Applying BETA Guidelines Interviewing techniques Starting a PES/Psych Ed Research Forum</p>	<p>Topics (Tentative) Friday December 4 (Day 2)</p> <p>Improving Efficiency Synthetic Cannabinoids High Utilizer Case Management HEADS ED Excited Delirium Violence in the ED/PES Neurobehavioral Manifestations of Non-Convulsive Status Fellowship AMA and other risk issues Psych collaborative Will I Get Sued Psych Boards Working with law enforcement,</p>	<p>Every Registrant Receives a Copy</p>																							
<p>Invited Speakers</p> <table border="0"> <tr> <td>Michael Wilson</td> <td>Kim Nordstrom</td> </tr> <tr> <td>Karen Murrell</td> <td>Nidal Moukaddam</td> </tr> <tr> <td>Kingwai Lui</td> <td>Aaron Doran-Laskey</td> </tr> <tr> <td>Jagoda Pasic</td> <td>Doug Rund</td> </tr> <tr> <td>Clare Gray</td> <td>Michael Wilson</td> </tr> <tr> <td>Terry Kowalenko</td> <td>Laura Vearrier</td> </tr> <tr> <td>Silvna Riggio</td> <td>Scott Zeller</td> </tr> <tr> <td>Stephen Hargarten</td> <td>Jon Berlin</td> </tr> <tr> <td>Laura Vearrier</td> <td>David Hnatow</td> </tr> <tr> <td>Michael Gerald</td> <td>Kurt Isenburger</td> </tr> <tr> <td>Jack Rozel</td> <td></td> </tr> </table>		Michael Wilson	Kim Nordstrom	Karen Murrell	Nidal Moukaddam	Kingwai Lui	Aaron Doran-Laskey	Jagoda Pasic	Doug Rund	Clare Gray	Michael Wilson	Terry Kowalenko	Laura Vearrier	Silvna Riggio	Scott Zeller	Stephen Hargarten	Jon Berlin	Laura Vearrier	David Hnatow	Michael Gerald	Kurt Isenburger	Jack Rozel		<p>Course Director Leslie Zun, MD, MBA</p> <p>Endorsements Sinai Health System The Chicago Medical School American Association for Emergency Psychiatry</p> <p>For Further Details www.behavioralemergencies.com</p>	
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		<p>Pre-Conference Course Dec 2th Full Day Seminar Improving Care and Flow and Reducing Boarding for People With Behavioral Health Problems \$400 in Advance \$500 at the door. See www.IBHI.Net for Details</p> <p>All Full Registrations Include a Copy of Behavioral Emergencies for the Emergency Physician</p> <p>CME Approved for ACEP Category 1 CEUs available for RNs, PAs & SWs</p> <p>Registration Fees \$545 in advance \$645 at the conference. Reduced fee for residents and students</p> <p>For further information contact Les Zun, MD at zunl@sinai.org 773-257-6957</p>																							

Questions?



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