MEDICAL CLEARANCE OF THE PSYCHIATRIC PATIENT

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DISCLOSURES

- I have no financial relationships to disclose

OBJECTIVES

- At the end of this activity, the learner should be able to:
  - Discuss an evidence based approach to what/if any tests are routinely necessary in psychiatric patients in the emergency department
  - State the ACEP clinical policy on medical clearance of the psychiatric patient
  - Know when real-time psychiatric consultation is necessary.
  - Understand the various medications available for behavioral control of the emergency psychiatric patient.

PATIENT #1

- 24 y/o female
- H/O schizophrenia
- Presents disheveled, muttering to herself, occasionally screaming out to the room “get outta here!”. On evaluating her, she states that she is a brain surgeon, a rocket scientist, AND the president of a college (very impressive)

PATIENT#2

- 20 y/o male
- Friends bring him in to the ER
- He is muttering to himself, very disheveled
- On speaking with him, he states that his roommates are trying to kill him by poisoning his textbooks and computer
- He has no past medical history

PATIENT #3

- 24 y/o male medical student
- Found wandering naked on a bridge late at night, eating tortillas
- Police bring him to the ED
- Patient is making very little sense when you speak with him

PATIENT #4

- 60 y/o male
- H/O Parkinson's disease
- Recently started some new medications for this
- Pt has been agitated at home, threatening his wife with a knife, not sleeping.
- Wife is very frightened to be at home with him

THE PROBLEM

- Psychiatric visits in the ED are very common (6% of ED visits)
- We often find patients require admission for psychiatric evaluation, but have to perform a “clearance” before the patient can have his/her evaluation

WHAT DOES "MEDICAL CLEARANCE" MEAN?

- "'Medical clearance' of psychiatric patients is the initial medical evaluation of patients in the ED whose symptoms seem to be psychiatric….The purpose of the medical clearance process is:
  - to differentiate organic etiology from functional disorders,
  - to determine whether serious underlying medical illness exists that would render admission to a psychiatric facility unsafe or inappropriate, and
  - to identify medical conditions incidental to the psychiatric problem that may need treatment in a psychiatric facility."

Zun LS. J Emerg Med 2005; 28: 35-39.

MEDICAL CLEARANCE

- The idea is to
  - Establish if a patient's symptoms are caused/exacerbated by a medical illness
  - Assess and treat any medical situation that requires acute intervention
  - Determine if the patient is intoxicated, thereby preventing accurate psychiatric assessment

WHY CAN'T THE *PSYCHIATRISTS* DO THIS?

- Psychiatry wards are different!
  - "Contamination of transference"
  - Staff with less experience with recognizing acute medical problems
  - Tend not to have medical staff available
  - Decreased staff-patient ratio
  - Danger of a medically unstable patient getting injured
  - Need for participation in the therapy process
  - Managing medical illness takes time away from management of the psychiatric conditions
  - High person-to-person contact (infection risks)

MEDICAL ILLNESSES THAT MIMIC PSYCHIATRIC ILLNESSES:

- DELIRIUM
- Infection
- Metabolic/endocrine diseases
- Medications
- Substance abuse/withdrawal syndromes
- CNS disorders

HOW OFTEN DOES THIS HAPPEN?

- How often do psychiatric patients have medical problems that cause their symptoms?
  - Hall (1981): 100 state hospital psychiatric patients admitted to a research ward
    - 46% had a previously unrecognized medical illness that caused or exacerbated their psychiatric illness
    - 80% had an illness that required treatment

Hall RC, et al. Am J Psychiatr 1981; 138: 629-635.

HOW OFTEN DOES THIS HAPPEN?

- Tintinalli (1994):
  - 298 ED patients with psych chief complaints, admitted to the voluntary psychiatry unit
    - 12/298 (4%) required acute medical treatment within 24 hours of psych admission
      - 10/12 (83%) would have been identified by ED history and physical examination alone
        - 8/10 (80%) of these had “medically clear” documented on the chart

Tintinalli JE, et al. Ann Emerg Med 1994; 23: 859-862.

HOW OFTEN DOES THIS HAPPEN?

- Henneman (1994):
  - 100 consecutive patients ages 16-65 with new psychiatric complaints
    - Excluded patients with obvious alcohol/drug intoxication, psychiatric patients with previously diagnosed abnormal behavior, psychiatric patients with medical complaints, and overdose or suicide patients.
  - 63% had an organic etiology for their complaints

Henneman PL, et al. Ann Emerg Med 1994; 24: 672-7.

How do we "clear" a patient?

- Medical clearance evaluation
  - History
  - Physical examination
  - Ancillary testing

MEDICAL CLEARANCE: HISTORY

- From all available sources: patient, family, friends, police, EMS
  - HPI: Why now?
  - Baseline functioning
  - Prior psychiatric history
  - Changes in physical, emotional, cognitive function
  - Hallucinations / suicidal ideation
  - PMH: rheumatologic, endocrine, neurologic, oncologic
  - Medication use or changes
  - Current/past drug or alcohol use, rehab history

Medical Clearance: Exam

- Vital signs
- Appearance
- Physical exam
  - Neurologic exam
  - Mental status examination (MSE)

MEDICAL CLEARANCE: MENTAL STATUS EXAM (MSE)

- Part cognitive, part psychiatric exam
  - Appearance
  - Behavior and attitude
  - Thought
  - Perception
  - Mood and affect
  - Insight and judgment
  - Sensorium and intelligence
- Uncertain what type of mental status exam is performed by EP's; most take <5 minutes and test unvalidated pieces of a standard MSE

Zun LS, Gold I. Ann Emerg Med 1986; 15: 916-922.

BRIEF MENTAL STATUS EXAMS

- Mini Mental Status Exam
- Brief Mental Status Exam

Maximum score	Score	
		Orientation
5	___	What is the (year) (season) (date) (day) (month)?
5	___	Where are we: (state) (county) (town or city) (hospital) (floor)?
		Registration
3		Name three common objects (e.g., "apple," "table," "penny"): Take one second to say each. Then ask the patient to repeat all three after you have said them. Give one point for each correct answer. Then repeat them until he or she learns all three. Count trials and record.
	___	Trials: ___
		Attention and clalculation
5		Spell "world" backwards. The score is the number of letters in correct order.
	___	(D___L___R___O___W___)
		Recall
3		Ask for the three objects repeated above. Give one point for each correct answer. (Note: recall cannot be tested if all three objects were not remembered during
	___	registration.)
		Language
2		Name a "pencil" and "watch."
	___	Repeat the following: "No ifs, ands or buts."
1	___	Follow a three-stage command:
3	___	"Take a paper in your right hand, fold it in half and put it on the floor."
1	___	Close your eyes.
1	___	Write a sentence.
1		Copy the following design.

	___	
	Total score: ___	

BRIEF MENTAL STATUS EXAM (BASED ON THE 6-ITEM ORIENTATION-MEMORY-CONCENTRATION TEST)

Question:	Max Error		Weight	Score
1. What year is it now?	1	X	4	=
2. What month is it now?	1	X	3	=
Present the Memory phrase: "Repeat this phrase after me: John Brown, 42 Market Street, Chicago"				
3. About what time is it? (within 1 hour)	1	X	3	=
4. Count backwards 20 to one.	2	X	2	=
5. Say the months in reverse.	2	X	2	=
6. Repeat the memory phase.	5	X	2	=

Score of one for each incorrect response; maximum weighted error score = 28.

SCORE RESULTS:

- Normal or minimally impaired: 0-8
- Moderately impaired: 9-19
- Severely impaired: 20-30

BRIEF MENTAL STATUS EXAM

- Tested in 1 urban Chicago ED
- Administered to 100 ED patients
- Results:
  - Severe impairment: 72% sensitivity, 95% specificity
  - Mild impairment: 50% sensitivity, 87% specificity
  - Normal: 90% sensitivity, 69% specificity
  - Correlated with physician assessment of capacity
  - 98% of EPs in the study found it useful
- Never validated beyond this

Kaufman DM and Zun LS, J Emerg Med 1995; 13: 449–456.

HOW WELL DO EPS DO?

- Reeves (1999): 64 patients admitted from an ED to a psychiatric ward with an unrecognized medical emergency
  - 64/64 (100%!) of cases failed to have a documented mental status exam
  - 28/64 had inadequate physical examination
  - 22/64 had failure to obtain available history
  - 22/64 had failure to obtain indicated laboratory or radiologic studies
  - 5/64 had failure to address abnormal vital signs

Reeves RR, et al. Am J Emerg Med 2000; 18: 390-393.

HOW WELL DO EPS DO?

- Riba and Hale (1990): 137 patients seen in ED and referred for psychiatric consultation
  - Vital signs: documented 68%
  - Appearance: 36%
  - Neurologic exam: 8%

Riba M, Hale M. Psychosomatics 1990; 31: 400-404.

HOW WELL DO EPS DO?

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Tintinalli JE, et al. Ann Emerg Med 1994; 23: 859-862.

LABORATORY TESTING

- Henneman (1994) – prospective study of 100 ED patients with *new* psychiatric complaints
  - Excluded: known psych disorders, psych patients with medical complaints, and intoxicated, overdose, or suicidal patients
    - H & P
    - CBC, Chem 7, Ca, CPK, PT
    - EtOH level, UDS
    - If these were normal:
      - CT head
      - LP if T > 37.8° C
  - 63% had organic disease
  - Recommended labs, CT head, and LP if CT is negative

Henneman PL, et al. Ann Emerg Med 1994; 24: 672-677.

LABORATORY TESTING

- Olshaker 1997: retrospective study of 345 ED patients with psychiatric complaints
  - 65/345 (19%) found to have medical problems of any type
    - History alone – 94% sensitivity
    - Labs – 20% sensitivity
  - Screening without labs would have missed two asymptomatic patients with mild hypokalemia
  - Universal laboratory screening is of "low yield"

Olshaker JS, et al. Acad Emerg Med 1997; 4: 124-128.

LABORATORY TESTING

- Korn (2000) – LA County Hospital
  - Psych patients go to main ED first
  - Hospital policy: all patients with psychiatric complaints receive H&P, VS, CBC, Chem 7, urine and blood tox testing, pregnancy testing, and CXR
- Retrospective chart review of all patients >16 who required psychiatric evaluation prior to leaving ED

Korn CS, et al. J Emerg Med 2000, 18: 173-176.

LABORATORY TESTING

- Korn (2000) continued:
  - 80/212 (38%) presented with isolated psychiatric complaints and a patient-stated prior psychiatric history
    - 1/80 had a positive pregnancy test
    - 1/80 had mild leukocytosis, not clinically significant
    - Neither changed disposition
  - 132/212 (62%) presented with medical CC or significant PMH in addition to their psych complaints or abnormal behavior
  - Concluded that initial complaint correlates directly with the need for medical clearance in the ED

Korn CS, et al. J Emerg Med 2000, 18: 173-176.

LABORATORY TESTING

- Janiak 2009:
  - Retrospective chart review of 519 consecutive pts admitted to the inpatient psychiatry service; 502 pts met criteria for the study
  - All pts received CBC/diff, CMP, TSH, free T4, B12, folate, UDS, and UPT – but some received these in the ED and some not until they reached the psych unit
  - 148/502 received testing in the ED
  - 1/502 required further intervention including treatment, further studies, or a change in disposition (46F c/o "manic", h/o bipolar disorder, with T 38C and HR 114; sent directly to psych without labs in ED)

Janiak BD and Atteberry S. J Emerg Med 2009; 43: 866-870.

ONE MORE STUDY….

- Dubin, et al 1993:
  - 1140 patients “medically cleared” by the ED for psych evaluation
  - Four factors identified ALL cases of organic brain syndrome:
    - Age >40 without prior psychiatric history
    - Disorientation
    - Clouding of consciousness
    - Abnormal vital signs
- Suggests that patients with any of these 4 factors should suggest a high index of suspicion for organic cause of sx

Dubin WR, et al. JAMA, 1993, 249: 60-62.

TAKE-HOME MESSAGE:

- Routine lab testing probably not necessary
- Laboratory testing is wise
  - in new-onset psychiatric complaints
  - in patients >40 years of age (especially elderly) with psychiatric complaints
  - In patients with disorientation or changes in level of consciousness
  - In patients with unexplained abnormal VS
- Otherwise, lab evaluation should be ordered based on clinical suspicion

URINE DRUG SCREEN

- Multiple studies have shown that routine UDS testing does not affect ED management in stable patients with normal VS/H&P
- Psychiatrists, however, need these results:
  - Help determine etiology of symptoms
  - Aid disposition and long-term care

BLOOD ALCOHOL LEVEL (BAL)

- There are NO studies that show:
  - a specific BAL at which psychiatric evaluation can accurately begin
  - individuals regain adequate decision-making capacity when the BAL reaches the legal limit for driving
- Cognitive function should be assessed individually
- No evidence to support delaying psychiatric evaluation for obtaining a BAL if the patient is alert, has normal cognition and VS and a noncontributory history and physical exam

ECG

- Hollister 1995:
  - Reviewed 1006 routine screening ECGs in hospitalized psych patients
  - 93 were abnormal
  - Only 43/827 (5.2%) were abnormal in pts ≤50
  - 50/179 (28%) were abnormal in patients >50
- Unclear how relevant this is
- Some psychotropics cause QT prolongation, so ECG might be medicolegally beneficial prior to starting medication

Hollister, LE. Journal of Clinical Psychiatry, 1995, 56 (1), 26-29.

CHEST X-RAY

- Really not necessary, unless you have a patient population at high risk for TB

ACEP CLINICAL POLICY

- What testing is necessary in order to determine medical stability in alert, cooperative patients with normal VS, a noncontributory history and physical exam, and psychiatric symptoms?
  - Level B recommendation: diagnostic evaluation should be directed by the history and physical examination. Routine laboratory testing is of very low yield and need not be performed as part of ED assessment

ACEP Clinical Policies Committee. Ann Emerg Med 2006; 47, 1: 79-99.

ACEP CLINICAL POLICY

- Do the results of a urine drug screen for drugs of abuse affect management in alert, cooperative patients with normal VS, a noncontributory history and physical examination, and a psychiatric complaint?
  - Level C recommendations:
    - Routine UDS testing does not affect ED management and need not be performed as part of the ED assessment
    - Urine toxicologic screens for drugs of abuse obtained in the ED for the use of the receiving psychiatric facility or service should not delay patient evaluation or transfer

ACEP Clinical Policies Committee. Ann Emerg Med 2006; 47, 1: 79-99.

ACEP CLINICAL POLICY

- Does an elevated alcohol level preclude the initiation of a psychiatric evaluation in alert, cooperative patients with normal vital signs and a noncontributory history and physical examination?
  - Level C recommendation:
    - The patient's cognitive abilities, rather than a specific BAL, should be the basis on which clinicians begin the psychiatric assessment
    - Consider using a period of observation to determine if psychiatric symptoms resolve as the episode of intoxication resolves

ACEP Clinical Policies Committee. Ann Emerg Med 2006; 47, 1: 79-99.

So you've decided your patient is "medically clear"....

- How to communicate this to the psychiatrists?
  - Some concerns with the phrase "medically clear"
    - Implies no medical problems whatsoever
    - Some recommend terms like "medically stable" (Weisberg, 1979)
    - Others recommend EPs provide a *summary* of the ED evaluation (Tintinalli, 1994)
  - Medical Clearance Protocol
  - No good evidence

MEDICAL CLEARANCE PROTOCOL

- Zun, LS (1996, 2004, 2007)
  - Developed between EPs and psychiatrists in Illinois to facilitate communication between specialties
  - Checklist developed from the protocol
  - Uses the BMSE

FIGURE

MEDICAL CLEARANCE CHECKLIST

Patient's name_____Race_____Date_____

Date of birth_____Gender_____Institution_____

1. Does the patient have a new psychiatric condition?	Yes	No
2. Any history of active medical illness needing evaluation?	Yes	No
3. Any abnormal vital signs prior to transfer?		
Temperature >101°F	Yes	No
Pulse outside of 50 to 120 beats/min	Yes	No
Blood pressure <90 systolic or >200; >120 diastolic	Yes	No
Respiratory rate >24 breaths/min (For a pediatric patient, vital signs indices outside the normal range for his/her age and sex)	Yes	No
4. Any abnormal physical exam (unclothed)?		
a. Absence of significant part of body, eg, limb	Yes	No
b. Acute and chronic trauma (including signs of victimization/abuse)	Yes	No
c. Breath sounds	Yes	No
d. Cardiac dysrhythmia, murmurs	Yes	No
e. Skin and vascular signs: diaphoresis, pallor, cyanosis, edema	Yes	No
f. Abdominal distention, bowel sounds	Yes	No
g. Neurological with particular focus on:	Yes	No
i. ataxia iv. paralysis		
ii. pupil symmetry, size v. meningeal signs		
iii. nystagmus vi. reflexes		
5. Any abnormal mental status indicating medical illness such as lethargic, stuporous, comatose, spontaneously fluctuating mental status?	Yes	No

If no to all of the above questions, no further evaluation is necessary. Go to question #9

If yes to any of the above questions go to question #6; tests may be indicated.

6. Were any labs done?	Yes	No
7. What lab tests were performed?_____		
What were the results?_____		
Possibility of pregnancy?_____		
What were the results?_____		
8. Were x-rays performed?	Yes	No
What kind of x-rays performed?_____		
What were the results?_____		
9. Was there any medical treatment needed by the patient prior to medical clearance?		
What treatment?_____		
10. Has the patient been medically cleared in the ED?		
11. Any acute medical condition that was adequately treated in the emergency department that allows transfer to an SOF?	Yes	No
What treatment? _____		
12. Current medications and last administered? _____		
13. Diagnoses: Psychiatric_____		
Medical_____		
Substance abuse_____		
14. Medical follow-up or treatment required on psych floor or at SOF: _____		
15. I have had adequate time to evaluate the patient and the patient's medical condition is sufficiently stable that transfer to ___SOF or ___ psych floor does not pose a significant risk of deterioration. (check one)		

_____MD/DO

Physician Signature

min=minute; ED=emergency department; SOF=state-operated psychiatric facility.

Zun LS, Downey L. *Primary Psychiatry.* Vol 14, No 11. 2007.

EMERGENCY PSYCHIATRIC EXAMINATION (EPE)

- As mental health funding continues to decrease, EDs are forced to play an escalating role in managing psychiatric patients
- ACEP survey 2004: 61% of EP's have noticed an increase in psychiatric patients

EMERGENCY PSYCHIATRIC EXAMINATION (EPE)

- Different emergency psychiatry structures:
  - Dedicated psychiatric unit with full-time staff
    - Costly, but rapid – appropriate for larger hospitals
    - Can provide inpatient consultation
  - Dedicated psychiatric unit with consulting staff
    - Admissions generally require transfer to a psychiatric facility
  - No dedicated psychiatric unit or staff
    - EP must provide the emergency psych exam
    - Psychiatric social worker or Mobile Assessment Team recommended
    - Disposition arranged by EP
    - Admissions require transfer to psychiatric facility

SUICIDAL PATIENTS

- 39% of suicide victims visit an ED before their death
- Risk factors for successful suicide:
  - Male
  - Age >60
  - Widowed or divorced
  - White or Native American
  - Living alone
  - Unemployed with financial problems
  - Recent adverse event
  - Clinical depression
  - Schizophrenia
  - Substance abuse
  - History of suicide attempts or ideation
  - Feelings of hopelessness
  - Panic attacks
  - Severe anxiety or anhedonia

SUICIDAL PATIENTS

- Intoxication should not hinder the clinician from taking the history, but the history should be repeated when the patient is clinically sober
  - Substance abuse referral may be more helpful than admission.

SUICIDAL PATIENTS

- Some patients can be discharged:
  - Patient is no longer suicidal
  - Medically stable
  - Patient will “contract for safety” with the physician
  - Clinically sober
  - Low suspicion for access to firearm
  - Social support, when available, has been contacted
  - Follow-up is arranged, when possible
- Document patient’s low risk features

Table 5. Modified SAD PERSONS Scale.

Factor	Points
S = Sex (male)	1
A = Age (<19 or >45 years)	1
D = Depression or hopelessness	2
P = Previous suicide attempts or psychiatric care	1
E = Excessive alcohol or drug use	1
R = Rational thinking loss	2
S = Separated, divorced or widowed	1
O = Organized or serious attempt	2
N = No social supports	1
S = Stated future intent	2

Score of 6-8:
full emergency psychiatric evaluation/treatment

Score of 9 or greater:
immediate psychiatric hospitalization

Source: Hockberger RS, Rothstein RJ. Assessment of suicide potential by nonpsychiatrists using the SAD PERSONS score. *J Emerg Med* 1988 Mar-Apr;6(2):99-107.

SUICIDAL PATIENTS

- Unfortunately, there is no test to determine who is at imminent risk for suicide
- If well thought-out plan, persistent suicidal thoughts, significant hopelessness, or other high-risk features, either obtain psychiatric consultation or admit the patient on an involuntary basis

HOMICIDAL PATIENTS

- Studies have not determined “high-risk” features of who is at current risk for homicide
- The most reliable predictor of future violence is a history of violent behavior
- Intoxication increases the risk for violent behavior
  - These patients should not be discharged until they are clinically sober and able to undergo a repeat interview to assess risk

HOMICIDAL PATIENTS

- Need for hospitalization depends upon the potential therapeutic benefit to the patient
  - Pts with homicidality related to schizophrenia/bipolar disorder are likely to be admitted
  - Other patients may be provided outpatient resources if no underlying cause that needs inpatient treatment
  - Depends upon jurisdiction; some states require commitment because of danger to others

PSYCHOTIC PATIENTS

- Important to exclude organic causes in patients who present with acute psychosis
- Low threshold is recommended for psychiatric consultation/admission in these patients

INVOLUNTARY HOSPITALIZATION

- *O'Connor v Donaldson* 1975: Supreme Court ruled that mental illness alone cannot justify confinement against a person's will
- A patient must meet all six of the following to be eligible for civil commitment:
  - Mental illness
  - Danger to self or others
  - Refusal to consent
  - Treatability
  - Lack the capacity to make treatment decisions
  - Hospitalization is the least restrictive treatment

INVOLUNTARY HOSPITALIZATION

- To commit a patient, the physician has to complete an initial certification form
- The patient is then held for up to 72 hours in a psychiatric facility until a hearing for involuntary hospitalization is held, or the patient is allowed to leave
- Slight variations state to state

BEHAVIORAL CONTROL OF THE EMERGENCY PSYCHIATRIC PATIENT

- Always a good idea to see if a patient can be managed with verbal or behavioral methods:
  - 1:1 observation
  - Verbal intervention
  - Quiet room
  - Diversionary activity: food, drink, TV, etc.
- If this doesn't work, chemical restraint is preferable to physical restraint

BEHAVIORAL CONTROL OF THE EMERGENCY PSYCHIATRIC PATIENT

- Caution:
  - In patients with medical illness causing psychiatric symptoms
    - These patients need their underlying disease managed
  - In patients with agitation related to drug ingestions or poisonings
    - Antipsychotics in the setting of anticholinergic or sympathomimetic agents can exacerbate agitation because of their anticholinergic side effects

BEHAVIORAL CONTROL OF THE EMERGENCY PSYCHIATRIC PATIENT

- Benzodiapines
- Conventional Antipsychotics
- Atypical Antipsychotics

BENZODIAZEPINES

- Multiple studies show BZD are at least as effective as haloperidol
- Probably superior in sympathomimetic intoxication
- Most studies evaluate either 2mg or 4mg lorazepam
- Nobay: IM midazolam 5mg has a shorter onset to sedation (18 min) than lorazepam (32 min) or haloperidol (28 min) and shorter time to arousal
- Combination of haloperidol and lorazepam may be superior to either drug alone, but studies are flawed

Nobay F. Acad Emerg Med 2004; 11: 744-749.

CONVENTIONAL ANTIPSYCHOTICS

- Haloperidol:
  - >20 double blinded studies since 1973: very safe, very effective
  - Dose 2.5-10 mg IM; can be repeated in 30-60 min.
- Again, combination of haloperidol and lorazepam may be more effective than either drug alone

CONVENTIONAL ANTIPSYCHOTICS

- Droperidol:
  - Thomas 1992: Superior to haloperidol in one study comparing haloperidol 5mg IM to droperidol 5mg IM
  - Resnick 1984: fewer repeat doses droperidol required than with equivalent dose of haloperidol

Thomas H. Ann Emerg Med 1992; 21: 407-413. And Resnick M. J. Clin Psychiatry 1984; 45: 298-299.

CONVENTIONAL ANTIPSYCHOTICS

- Black Box Warning about potential for dysrhythmia in droperidol
- However, two large patient series have attested to droperidol's safety
  - Chase: 2468 pts receiving droperidol (1357 for agitation), no dysrhythmias
  - Shale: 12,000 patients treated with droperidol for violence and/or agitation, no dysrhythmias
- No evidence that the drug causes severe cardiac events

Chase PB. Acad Emerg Med 2002; 9: 1402-1410. And Shale JH. J. Clin Psychiatry 2003; 64: 500-505.

ATYPICAL ANTIPSYCHOTICS

- These inhibit both dopamine and serotonin receptors
  - Tranquilization, rather than sedation
  - Lower incidence of EPS

ATYPICAL ANTIPSYCHOTICS

- Ziprasidone (Geodon):
  - Dose 20 mg IM
  - Two studies show that ziprasidone is effective in rapidly reducing acute agitation in patients with known psychotic disorders.
  - No associated movement disorders/EPS/dystonia found

ATYPICAL ANTIPSYCHOTICS

- Olanzapine (Zyprexa) IM: found to be equivalent to haloperidol, with less dystonia
  - Dose 5-10 mg IM or 5-10 mg ODT
  - Similar effectiveness to other agents
  - Can induce HYPOTENSION (11% had 20 mmHG drop in SBP during clinical trials)
  - Concomitant use of olanzipine and BZD has not been studied and is not recommended by the manufacturer

ATYPICAL ANTIPSYCHOTICS

- Risperidone:
  - Currier 2004: risperidone 2mg PO and lorazepam 2mg PO was comparable to haloperidol 5mg IM and lorazepam 2mg IM
  - ODT formulation

Currier GW, et al. J Clin Psychiatry 2004; 65: 386-394.

ACEP CLINICAL POLICY

- Level B recommendations:
  - Use a BZD (lorazepam or midazolam) or a conventional antipsychotic (droperidol or haloperidol) as effective monotherapy for the initial drug treatment of the acutely agitated undifferentiated patient in the ED
  - If rapid sedation is required, consider droperidol instead of haloperidol
  - Use an antipsychotic (typical or atypical) as effective monotherapy for both management of agitation and initial drug therapy for the patient with known psychiatric illness for which antipsychotics are indicated
  - Use a combination of an oral BZD (lorazepam) and an oral antipsychotic (risperidone) for agitated but cooperative patients
- Level C recommendations:
  - The combination of a parenteral BZD and haloperidol may produce more rapid sedation than monotherapy in the acutely agitated psychiatric patient in the ED.

QUESTIONS?