Assessment and Management of Violence

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Outline

Risk in Psychiatry
Principles of Diagnosis
Characteristics of Antisocial Behavior
Characteristics of Disease Derived Violence
Patient Assessment
Management of Agitation and Aggression
Violence Prevention in Mental Health Programs
Principles of Pharmacotherapy
Discussion

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Employee Killed, Breaking Up A Fight In Hospital

(AP) Catonsville, MD State police have identified the state hospital worker who died Saturday after helping subdue a belligerent patient.

Epidemiology

- Dangerous behavior is a factor in more than half of all psychiatric hospitalizations
  - 10% of patients have been violent towards others just before admission to hospital
  - 45% have threatened violence
- Mental health clinicians assault rates
  - Psychiatric Nurses 80%
  - Psychiatrists 40%
  - Social workers 20%
  - Psychologists 10%

A Clinical Approach to Violence

- Violence is a common reason for psychiatric evaluation
- Most acts of violence are not perpetrated by people who are "mentally ill": less than 3%*
- Violence has many etiologies
- Clinicians should understand the causes, their prevalence and risk factors

*Swanson, 1994

Causes of Violence

- Personality traits / Life history
  - Cluster B Traits (Narcissistic, Antisocial, Borderline)
- Substance abuse
  - Many illicit drugs increase aggression
  - Alcohol makes a far larger contribution to violence than all mental disorders combined
- "Organic" Conditions
  - Structural brain abnormality
  - Functional brain impairment such as epilepsy or toxic metabolic states (Delirium)
- Psychiatric Illness
  - Mood Disorders, Psychosis

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Categories of Dangerous Behavior

- Disease State
  - Episodic (when *ill*)
  - Out of character
  - May not be volitional
  - Health Care System
  - Treatable
  - Clinician is responsible
- Personality Trait
  - Lifelong risk
  - Baseline character
  - Volitional
  - Criminal Justice System
  - Not treatable
  - Patient is responsible

Violence – Who is Responsible?

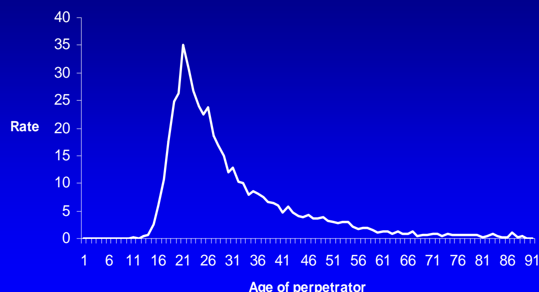
- If you formulate a treatment plan you are assuming responsibility for the outcome
- Patients with Personality Disorders and behavioral problems should be held responsible for their behavior

Personality "Trait" Derived Violence

The Origins of Violent Traits

- Nature v. Nurture?
  - personality is shaped by experiences during childhood development
- Personality traits fixed by age 10
- Antisocial personality is evident early - violent children are the most likely to become violent adults
  - 2/3 of boys with high teacher-rated aggression scores at ages 10 and 13 had criminal records for violent offenses by age 26 (Stattin and Magnusson, 1989)
- *In adults* Antisocial Personality Disorder is refractory to treatment
  - "Treatment" of Antisocial Personality Traits optimal in children under age 10

Homicide Rates By Age



USDOJ, 2002

Childhood Risk Factors for Violence

- Gender
- Developmental delay
- Socioeconomic Status
- Parental Factors
  - Family Domestic Violence/Criminal Behavior
  - Parental Mental Illness/ Substance Abuse
- Early onset behavior problems
  - 8 or more conduct disorder symptoms < 6 years → 71% ASPD
  - 8 or more conduct disorder symptoms > 12 years → 48% ASPD
- Criminality
  - Younger first arrest for ANY crime → increased risk of adult violence
  - 77% of Juveniles with 3+ offenses → 4+ adult convictions (Farrington)
  - 6% of Juvenile offenders perpetrated >50% of Offenses (Wolfgang)

Wolfgang 1972, Farrington et al. 1988, O'Shaughnessy, 1994

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Intake Screening

- Screening
  - Developmental risk factors for Sociopathy
  - Criminal Justice history
    - Juvenile criminal conduct
    - Number and length of adult incarcerations
    - Prison disciplinary actions (tickets) or VOP
  - Terminations/Military Disciplinary Actions
  - Screen for past violence in psychiatric programs
    - Seclusion/restraint episodes
    - Involuntary medication
    - Attacks on staff members
    - Triggers
- Patient Education
  - Institutional policy on violence
  - Possibility of criminal charges

Questions about you as a child	Yes	No
Did a parent have drug or alcohol problems?	☐	☐
Did a parent have mental illness?	☐	☐
Has anybody in your family been in prison? Who? ___________	☐	☐
Was there violence in your home growing up?	☐	☐
Were you ever in foster care or removed from your family?	☐	☐
Did you have counseling for childhood behavior problems?	☐	☐
Did you suffer childhood physical abuse?	☐	☐
Did you suffer childhood sexual abuse?	☐	☐
Did you ever start fires or harm animals?	☐	☐
Were you ever expelled from school?	☐	☐
Were you arrested as a juvenile?	☐	☐
Were you ever a gang member?	☐	☐

Questions about you as an adult	Yes	No
Have you ever been in jail? How many times? ____	☐	☐
Have you ever been in prison? How many times? _____	☐	☐
Have you ever violated probation or parole?	☐	☐
Have you been the subject of military disciplinary action?	☐	☐
Have you ever had a fight with a police or correctional officer?	☐	☐
Have you ever used a weapon in a fight?	☐	☐
Have you ever attacked a healthcare worker?	☐	☐
Have you ever been placed in restraints or seclusion?	☐	☐
Have you ever been medicated against your will?	☐	☐
Have you ever been knocked unconscious with a head injury?	☐	☐
Have you ever been fired? How many times? ___	☐	☐
Have you learned any martial arts or boxing?	☐	☐

Disease "State" Derived Violence

Violent Behavior in Inpatients

- Criminal histories of 172 patients with major mental disorders in Illinois state hospitals
  - 27 % had committed violent crimes
- Violence correlated with following diagnoses
  - Schizoaffective Disorder 40%
  - Schizophrenia 28%
  - Bipolar Affective Disorder 24%
  - Unipolar Affective Disorder 12.5%
- Note - all Affective Disorders = 76.5%

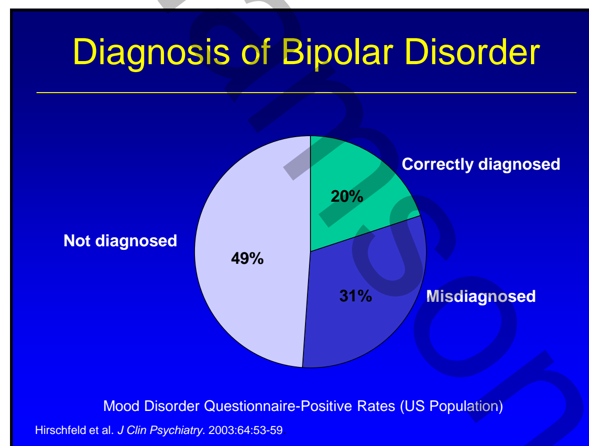
Grossman et al. 1995

Violent Behavior in Outpatients

Diagnosis	Percent
Schizophrenia	14.8%
Depression	28.5%
Bipolar Disorder	22.0%

Steadman et al ,1998

Diagnosis of Bipolar Disorder



Mood Disorder Questionnaire-Positive Rates (US Population)

Hirschfeld et al. *J Clin Psychiatry.* 2003:64:53-59

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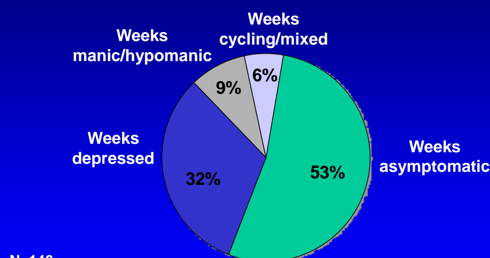
Bipolar Disorder – Diagnostic Issues

- Disease onset at 15 to 24 years of age, but accurate diagnosis often 5 to 10 years later
- Almost 50% of patients did not receive correct diagnosis until seeing the third professional
- Low proportion of patients in treatment (27%), despite effectiveness of available treatments
- 15% to 20% of untreated patients succeed in committing suicide
- USA 30,000 suicides per year – 60% to 95% of decedents have mood disorders, most untreated

Goodwin and Jamison. *Manic-Depressive Illness.* 1990.
Woods. *J Clin Psychiatry.* 2000;61(suppl 13):38-41.
Hirschfeld et al. *J Clin Psychiatry.* 2003;64:53-59.
Hirschfeld et al. *J Clin Psychiatry.* 2003;64:161-174.
Lish et al. *J Affect Disord.* 1994;31:281-294.

Bipolar I Patients Are Symptomatic Almost Half Their Lives



N=146
12.8-year follow-up

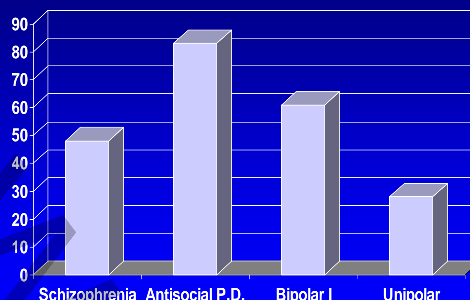
Judd et al. *Arch Gen Psychiatry.* 2002;59:530-537.

Schizophrenia

- Violence (3x) and homicide (7x) general population
- Mortality 1.5x general population, related to suicide
- Most dangerous behavior related to co-morbidity
  - Substance Abuse
  - Personality Disorder
  - Released forensic patients (50x risk of homicide)
  - Homeless (40x more likely to have been charged with violent crimes than domiciled patients - Murder 25x, Attempted Murder 60x)
- Highest risk symptoms
  - delusions of threat, control/thought insertion

Beck and Wencel 1998, Goff DC, et al. 2005. Brown S. 1997., Newman SC. 1991

Co-Morbidity of Drug or Alcohol Diagnoses



Regier DA, et al. *JAMA.* 1990;264:2511-2518.

Major Mental Disorders (MMD) and Violent Behavior Over One Year

Diagnosis	Percent
MMD no substance abuse	17.9%
MMD with substance abuse	31.1%
Personality Disorder/substance abuse	43.0%

Steadman et al ,1998

Initial Assessment

Violence – Principles of Diagnosis

- Rule out criminal conduct
  - Question whether the violence is a clinical problem
- When Personality v. Disease is unclear determine the history of violence over time
  - Personality: childhood onset, continual antisocial behavior
  - Illness: adult onset, episodic, associated with symptoms
- Rule out Delirium
  - Medical/Neurological syndromes potentially fatal
  - Repeated observation important
  - Do not prejudge diagnosis in familiar patients

Delirium

Psychosis

- Psychotic Symptoms
  - Hallucinations
  - Delusions
  - Thought Disorganization
- Psychotic symptoms are not specific to any diagnosis
  - Multiple medical and psychiatric disorders cause psychosis
  - An agitated psychotic patient might be seriously medically ill

Differential Diagnosis of Psychosis

- Drugs
- Delirium
- Dementia, other sub-acute neuropsychiatric disorders

- Affective disorders
- Schizophrenia

Psychotic Patient Evaluation

- Rule out potentially lethal Delirium
- Red Flags for “Organic” causes
  - Rapid onset (collateral sources helpful)
  - Cognitive impairment (Mini Mental State Exam)
  - Changes in Conscious Level
  - Neurological deficits
  - Physical Exam/Vital Sign Abnormalities
  - Toxicology findings

Management of Dangerous Behavior

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The Agitated Patient

- Most episodes of agitation are managed 1:1
  - First responders use protocol that colleagues recognize
  - Risk Assessment before intervention
- Risk Assessment - 1:1 or need more staff?
  - Does the patient engage?
  - Does the patient follow direction?
- Determine the patient's interest in de-escalation
- Interview Style
  - Calm, non-confrontational approach (Illness)
  - Limit setting & directive (Personality)

In-Patient Assaults

- 1269 patients over 18 months from 4 inpatient units in Australia
- 13.7% Aggressive
  - Bipolar Disorder 2.8x increased risk
  - Schizophrenia 1.9x increased risk
- Violence most likely first 2 days of admission
- 6% patients accounted for 71% of incidents
- High-risk patients were under 32 years of age, actively psychotic, detained and known to have a history of aggression and substance abuse.

Barlow et al., 2000

Principles of Prevention

- Screen for risk factors at admission
- Use special observation
- Aggressive pharmacotherapy
- Be proactive not reactive – intervene early
- *Failure to follow direction* should be a *trigger for intervention* - "Zero Tolerance"
  - Intervention for small infractions avoids development of more malignant behaviors
- Staff training
- Modify treatment environment

Reducing Violence in the Treatment Environment

Violence Prevention – System Initiatives

- Staff training in managing at risk patients
- Screen for violence risk at admission
- Restriction of movement of violent patients
- CQI monitoring utilization of seclusion/restraint
  - Location
  - Timing
  - Patient profile
- Criminal Justice System
  - Liaison between Clinical Director and D.A.
  - Liaison with key clinical personnel in correctional mental healthcare

Violence Prevention – Treatment Initiatives

- "Zero Tolerance"
  - Consistency in limit setting between shifts
- Modified nursing shift report
  - Focus on problem patients
  - Face to face assessment q shift
- Special observation
- Debrief after assaults
  - Review efficiency and knowledge of staff
- Aggressive pharmacotherapy

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Violence Prevention – Milieu Structure

- Program structure – patient schedules
- Behaviorally based level system
  - Identify incentives
  - Consistency in staff implementation
- Maximize therapeutic group activities
  - Include all patients if possible
  - Conflict resolution group (“Patient Issues”)
  - Anger management group
  - Exercise

Violence Prevention – Milieu Control

- Control contraband, clothing
  - Metal detectors, searches
- Assaults are more common in high traffic or high patient density areas
  - Avoid large numbers of patients congregating without staff control e.g. medication, showers, phone
  - Exclusion Zones - control patient access to high risk areas where staff enter/leave or traffic through the unit
- Music, TV content affect level of acuity of the treatment milieu
  - Control violence on TV
  - Relaxation music

Management of Assaults

- Milieu management
- Activate Behavioral Emergency Plan
- Verbal redirection
- Show of force
- Physical restraint
- Chemical sedation
- Interventions require staff coordination (training and preparation)
- Debrief as a team

Pharmacotherapy

Emergency Sedation

Haloperidol 5 to 10mg i.m.
Diphenhydramine 50mg i.m.
Lorazepam 1 to 2mg i.m.

- Alternative antipsychotics have similar efficacy if adequately dosed
- Repeat anti-cholinergic at 4 hours if there is a history of EPS

Antipsychotic Pharmacotherapy

- Aggressive treatment of underlying illness
- Avoid prn benzodiazepines or antihistamines unless treating EPS
- Antipsychotic selection based on safety not efficacy
  - Atypical Agents less EPS/TD
  - Side effects vary markedly
  - EPS, TD, weight gain, prolactin elevation

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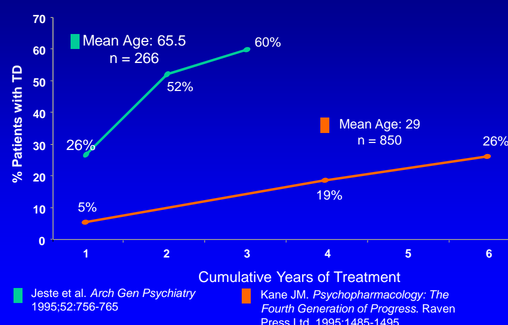
Extrapyramidal Symptoms (EPS)

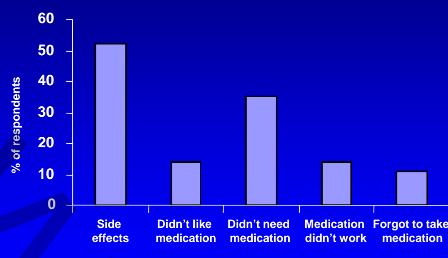
Incidence of Tardive Dyskinesia in Older and Younger Patients



Prolactin Elevation

- Males
  - decreased libido, impotence, gynecomastia
  - decreased bone mineral density
- Females
  - amenorrhea, galactorrhea
  - decreased bone mineral density which can lead to osteoporosis
- -1.0 to -2.5 SD below mean is Osteopenia
- Greater than -2.5 SD below mean is Osteoporosis
- Each SD below mean, compared to the young adult reference group, increases the risk for fracture 2 to 2.5 times

Causes of Medication Non-compliance



(Based on a sample of 346 non-compliant patients)

Hellewell. Poster presented at ECNP. Sept., 2000

Antipsychotic Considerations

- Side effects dose related and/or cumulative
- Dosage likely to be higher in violence
- Length of treatment likely to be longer
- Side effects → Non-compliance → Relapse
- Relapse results in dangerous behavior
- Relapse forces rehospitalization and aggressive pharmacotherapy

Safety - Summary

- Violence is a common presenting complaint
- A minority of cases are related to mental illness
- Personality vs. disease perspectives
- Consider criminal justice intervention
- Consider possibility of organic etiologies (Cognitive Exam)
- Depression/Mania is a major cause of violence in the community and frequently not treated
- Psychotic patients with violence usually have co-morbidities
- Violence prevention initiatives
- Consider antipsychotic side effects in the treatment of chronically mentally ill patients with dangerous behavior