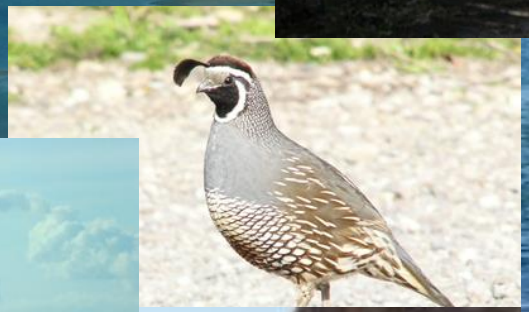


BAY OF PLENTY
DISTRICT HEALTH BOARD
HAUORA A TOI


# Dr Tina Bergen

MBChB, FCUC, Dip Em Med, Dip Paed, NZCompN

Conflicts of interest

- None

# Agitation + aggression in the ED?

# Agitation and aggression in the ED

- Behavioural disturbances and aggression in ED's are a problem
- Occurs in a variety of medical and psychiatric conditions
- present a significant risk to themselves, staff, other patients and visitors.

# How big a problem?

# How big a problem?

- 56% (of ED nurses) had been assaulted in the previous 12 months.

*Erickson L, Williams-Evans SA. Attitudes of emergency nurses regarding patient assaults. Journal of Emergency Nursing. 2000;26(3):210-215*

# How big a problem?

They reported high levels of aggression:

- 27% had been physically assaulted
- 68% experienced verbal aggression

UK comparing professional groups found nurses experienced more aggression than doctors.

*Winstanley S, Whittington R. Aggression towards health care staff in a UK general hospital: variation among professions and departments. Journal of Clinical Nursing. 2004;13(1):3-10*

THE NEW ZEALAND MEDICAL JOURNAL
Journal of the New Zealand Medical Association

# How big a problem?

## Patient aggression experienced by staff in a New Zealand public hospital setting

*NZMJ Volume 127 Number 1394 : 23rd May 2014*
*Nicola Swain, Chris Gale, Rachel Greenwood*

- 'Hospitals are hotbeds of violence, with more than 1:3 staff being attacked by patients "
- Nurses and Doctors report physical assaults, threats and even stalkings in the past year.
- As many as 1:10 are sexually harassed, and nearly one third have been injured after being attacked by a patient.
- patient violence in New Zealand appears to be unusually high by international comparisons

# How big a problem?

## Hospital staff attacked on job

By Kiri Gillespie
11:00 AM Saturday Jun 14, 2014

Bay of Plenty Times


- BOPDHB figures show there have been 875 attacks on staff at Tauranga and Whakatane hospitals by patients and visitors since 2010
  - 67 episodes Jan – June 2014
- The figures do not include verbal attacks on staff

# The consequences

**Workplace violence may result in:**

- Adversely impact staff recruitment and retention
- post-traumatic stress disorder
- Anxiety states
- impaired work performance
- difficulties sleeping.

*(Hurlebaus and Link 1997; Rew and Ferns 2005). O'Connell et al. (2000)*

- increases in sick leave
- alcohol and drug usage.

*Goodykoontz and Herrick (1990) and Nabb (2000)*

staff turnover and staff burnout are commonplace

Violence is a serious occupational hazard in healthcare workplaces.

*(Brasic and Fogelman 1999).*

# The Problem


Emergency departments:

provide ready access to acutely unwell patients

# What is the ED's role for agitated patients?

- **Stabilization**
  - of the aroused or frightened patient
- **Management**
  - of the behavioural disturbance
- **Exclude**
  - medical causes for a psychiatric presentation.
  - And /or assessing for co-morbid medical conditions
- **Need for (voluntary or involuntary) admission**
- **Referral** to community services
- **Liaison** with family and significant others

# HURDLES IN DEALING WITH VIOLENT OR AGGRESSIVE PATIENTS:

- lack experience in dealing with such individuals.
- Lack of appropriate "safe rooms" where patient's can be kept without danger to themself or others.
- Adequate security personnel
  - esp. during evening and night hours.
- Distances to specialised units
- Referral paths to psychiatrists, who are not in oversupply.

# The bad news……..

# Training programmes the evidence:

evidence on the effectiveness of staff training programmes for preventing or minimising violence to staff :

- may lead to increase in knowledge and awareness
- some reduction in incidents of violence in the short term,
- but this **evidence is far from conclusive**.


- longer term or sustained **effect from training is unknown**.
- **No specific programme or approach can be recommended** as more effective

*Doughty, C. NZHTA TECHNICAL BRIEF September 2005 Volume 4 Number 2* Staff training programmes for the prevention and management of violence directed at nurses and other healthcare workers in mental health services and emergency departments

# *Duty of care and zero tolerance policies:*

- Some hospitals have adopted zero tolerance policies in order to prevent verbal and physical abuse towards staff.
  - zero tolerance originated in the USA
  - refers to specific actions or behaviours that will not be tolerated
  - were originally used to stop crime, gangs and drugs in schools.

# Zero tolerance and the ED

Zero tolerance policy in an ED setting is fundamentally flawed.

A policy can not take away a patients fundamental right to access emergent care and  treatment.


- abuse towards staff could be displaying behaviour that is related to:
  - head injury
  - hypoxia
  - overdose
  - psychiatric condition
  - other organic problem.

- ED have a duty of care to these patients to provide assessment and treatment.

## *Medical causes of violence and aggression in patients:*

- Head injury
- Substance abuse and intoxication
- Underlying mental illness
- Hypoxia
- Metabolic disturbances/ Hypoglycaemia
- Infection: meningitis, encephalitis, sepsis
- Hyperthermia or hypothermia
- Seizures: post ictal or status epilepticus
- Vascular: stroke or SAH

## *Medical causes of psychotic episodes*

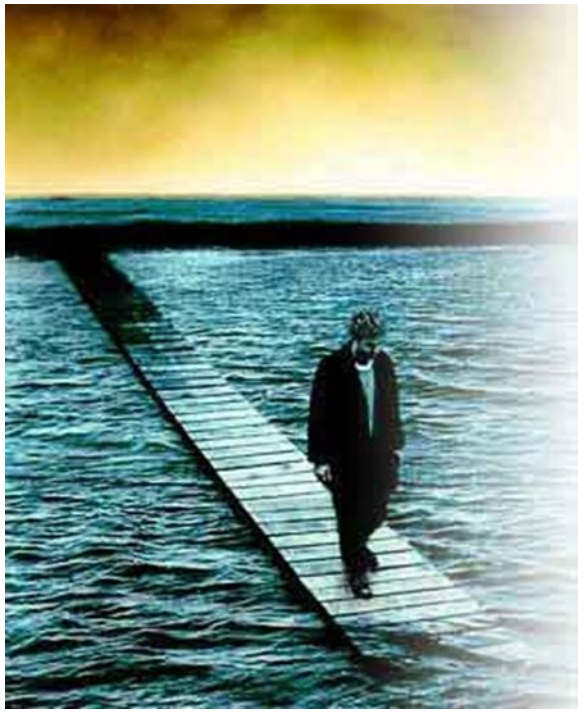
- Epilepsy
- Hypo- or hyper-thyroidism
- Huntington's disease
- Wilson's disease
- Porphyria
- B12 deficiency
- Cerebral neoplasm
- Stroke
- Viral encephalitis
- Neurosyphillis
- AIDS

- **Medical conditions associated with depressive syndrome:**

- Hyperthyroidism
- Hypercalcaemia
- Pernicious anaemia
- Pancreatic / lung / CNS cancer
- Stroke
- Alzheimer's or vascular dementia
- Parkinson's disease
- Huntington disease
- AIDS
- Multiple sclerosis
- Neurosyphillis
- Brucellosis

- **Drugs of abuse associated with psychosis:**

- Amphetamine and methamphetamine
- Cocaine
- Phencyclidine
- Ketamine
- LSD
- Cannabis
- Alcohol
- Benzodiazepines



# Medically clearing the psychiatric patient:

- "Medical clearance" sets out to determine if an organic cause is responsible for the patients presenting complaint.
  - 85% = history and simple physical exam show whether a medical condition is likely to be exacerbating a MH presentation
  - BEWARE:
    - highest missed diagnosis rate is amongst first presentations.
      - Esp MH problem >45 years old
    - Psychiatric conditions **rarely present suddenly** or with visual, tactile, or olfactory hallucinations

    rule out organic cause

# Factors contributing to missed medical diagnosis include:

8 – 48% = Missed medical diagnosis in those diagnosed with psychiatric disorder in the literature

- **Inadequate history**
  - Failure to seek alternative information from relatives, carers, and old medical records
- **Poor attention to physical examination and vital signs**
- **Absence of a reasonable mental state exam**

**“Remember the only real doctor and nurse an admitted psychiatric patient is going to see is in the ED”**


*Oh, nurse! This patient would like to discuss his health care options!*

**Its never a good look to have charted  Midazolam 5mg IM, Midazolam 5mg IV, and then 50mls of IV dextrose 50%.**

**Always look for medical causes!!!**

# Violence in the ED
# Who are we talking about?

*I'm not anxious*

*I am just extremely well educated about all the things that can go catastrophically wrong*

# Risk factors for sudden related violence:

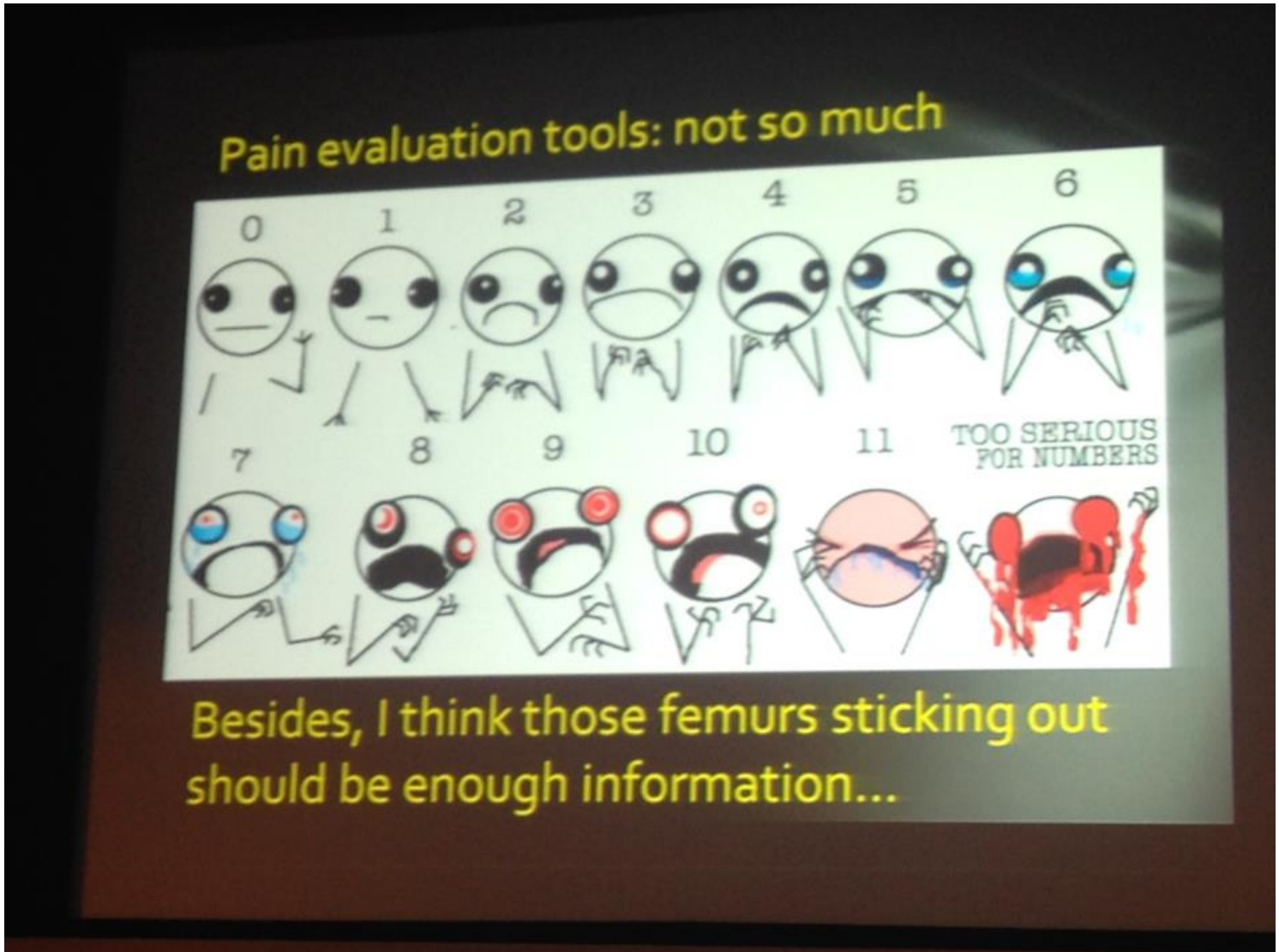
- Younger age
- **Male gender**
- Lower income
- **History of violence**
- Past juvenile detention
- History of physical abuse by parent or guardian
- Substance dependence only
- Comorbid mental health and substance disorder
- Victimization in past year
- Unemployed
- **Night** time---possibly related to longer waiting times or to more prevalent alcohol and drug abuse during these times.

# Risk factors for sudden related violence:

## When to be on the alert:

- Family or friends use words such as “out of control”, “wild”, “crazy” or “angry” to describe the patient.
- brought in restrained by friends, the police or the ambulance.
- is under the influence of drugs or alcohol
- violent behaviour in the past
  - either towards others (e.g. spouse) or in ED

Past history of violence may be the best predictor of future violent behaviour.



# *ABC of assessing the potentially violent patient:*

**A= Assessment:**

- Primary Survey
- Appearance
  - Flushing of skin
  - Dilated pupils
  - Shallow rapid respirations
  - Excessive perspiration
- Current medical status
- Psychiatric History (history of violence)
- Current medication

# *ABC of assessing the potentially violent patient:*

**B= Behavioural indications:**

- General behaviour (intoxicated, anxious, hyperactive)
- Irritability, Hostility, anger
- Impulsivity
- Restlessness, pacing, Agitation
- Suspiciousness
- Property damage
- Rage (especially children)


- Intimidating physical behaviour (clenched fist, shaping up)

# *ABC of assessing the potentially violent patient:*

**C= Conversation**

- Patient self-report violence or extreme anger
  - Command hallucinations to harm other
  - Thoughts or threats to harm
- Admits to weapon
- Admits to history of violence
- Admits to substance use/abuse

# *Investigating the violent and aggressive patient:*

**Investigations should be guided by history and physical examination.**

- Fingerstick glucose, pulse oximetry, and a complete set of vital signs should be obtained


- **Consider:**
  - FBC, Urea, Electrolytes, Creatinine
  - Paracetamol, Ethanol levels
  - Urinalysis
  - Urine drug screen
    - NB: do not affect initial management but may be useful for documenting the possible cause for future reference

- +/- Head CT/MRI

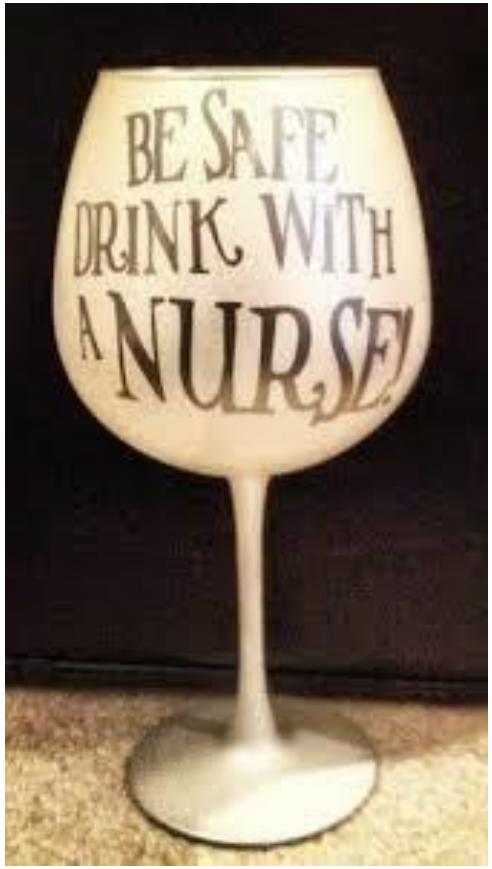
- +/- Lumbar Puncture

**NB: The vast majority of patients with psychiatric disease are never aggressive, dangerous or violent.**

# The Problem

Management includes:

- environmental and behavioural approaches
- physical and mechanical restraint
- therapeutic sedation.

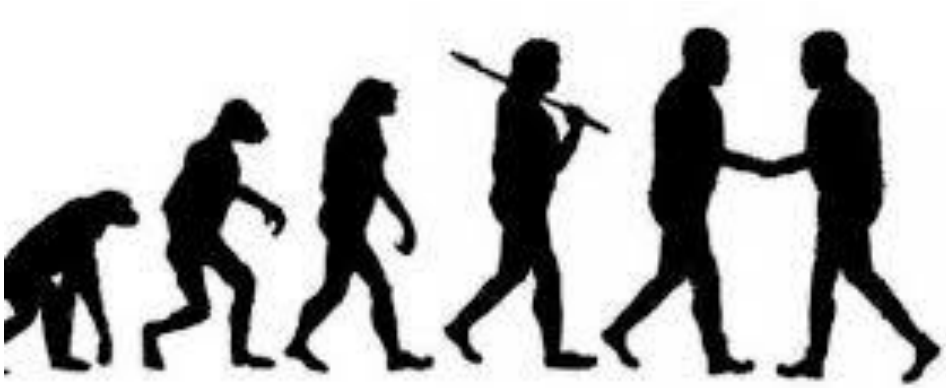


# *ED management for violence and aggression:*

- Early recognition
  - continuous observation of behaviour changes
- Consider personal safety at all times + let other staff know
- Secure rooms
- Know how and where to activate a duress alarm
  - ( if available)
- Never block off exits and ensure you have a safe escape route

# How to act in the presence of aggression:

- **Two's company.**
  - Show of force



- **Stay calm.**

- **Simple de-escalation**
  - Department and room design
    - quiet low stimulus safe environment
    - body language

# Body language:

- Adopt a submissive pose:
  - arms relaxed and hanging down at the side,
  - palms open below your waist
  - facing the person,
  - shoulders drooping,
  - legs relaxed.

- Don’t look directly into the patient’s eyes
  - this is threatening to most people
    - focus your eyes on his chin.
      - This is perceived as less threatening, and his hands can be easily seen.

# Position yourself carefully:

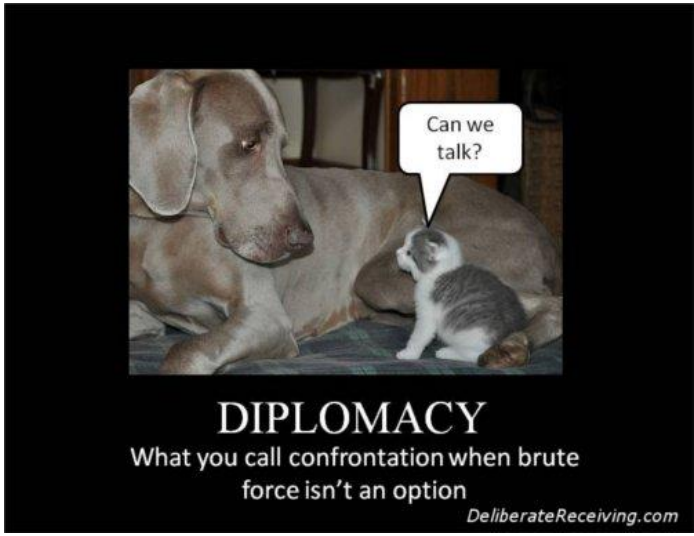
Stand about 1.5 metres in front of him

a bit off to the side—do not face him directly.

- This is close enough to allow rapport,

  but far enough away so that you don't not threaten personal space

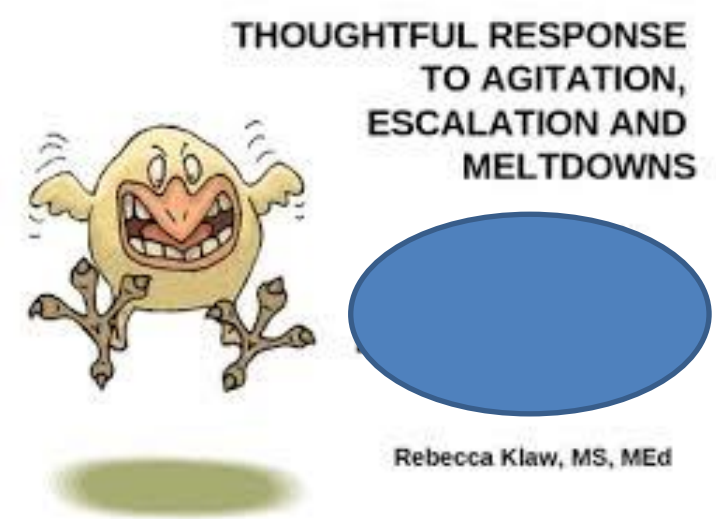
  ALSO can't easily hit you.




Never turn your back on the individual

- Don't walk ahead of the individual
- Always approach the patient from the front.

# Stay calm



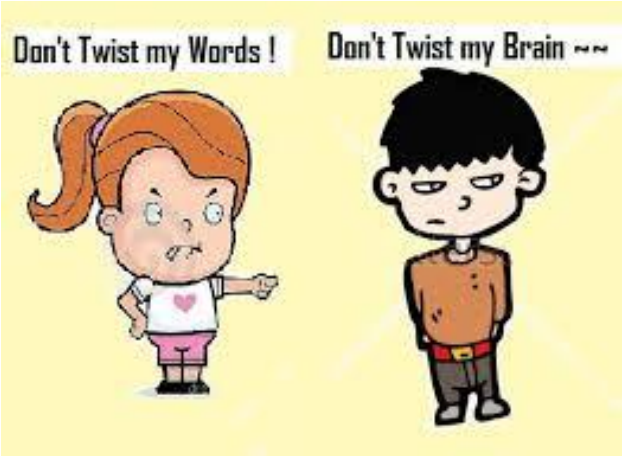

- speak slowly and politely.
- Try not to show anger yourself
- Introduce yourself and ask why they are angry or simply ask him to tell you about himself
  - antisocial persons love to brag about themselves.
- Don’t argue back
  - BUT don’t agree with the patient if he has any delusions or bizarre ideas.
- Allow the patient to “ vent” a bit, without becoming judgmental
  - often, after a few minutes the patient does calm down.

# Stay calm

**Remember that sometimes they have reasons for their anger:**

- He may be in pain,
- may have waited hours in a crowded waiting room,
- may be stressed because of a sick spouse or child.

Remember that a little empathy sometimes goes a long way!



# Offer a snack or drink:

- Offer the patient bisuits or a drink, and maybe have some yourself.
  - Sharing food forms a natural bond
  - People aren't as likely to argue if eating.
  - Sitting down together also forms a bond,
    - but don't sit down if the patient refuses to sit down.
    - Don't sit in a corner, where you can be trapped.
  - if insistent on a coffee, give it to him
    - BUT be aware that he can throw a hot drink at you.

# *ED management for violence and aggression:*

# Environment

**Safe rooms:**

- large enough for several people without crowding the patient.
  - Large enough to allow staff to manoeuvre even if patient is on a stretcher.
- allows for any medical or monitoring equipment
- Rooms that have 2 exits are preferable
  - so that no one feels trapped.
  - Leave at least one of the doors open, if possible
- Remove any sharp objects

Ask relatives or friends to remain .

Initially, do not remove restraints—this may make the patient more aggressive.

# Too hot to handle:

Although violence can occur quickly and randomly, in most cases there is some advance warning:

- Anger.
- Agitation.
- clenched-fists posture.
- Loud behaviour.
- Yelling.

**NB: if the patient suddenly stands up and starts to yell or wags or points his finger at you = GET OUT OF THE WAY AS QUICKLY AS POSSIBLE!**

**No heroics!**

**back out of the room quickly---run if you have to!**

# Too hot to handle:

**If there are 2 of you  run off in opposite directions**

- **he can't chase both!**

**A violent patient is unlikely to hurt other patients**

**-the staff is more at risk.**

**If the patient runs out of the hospital**

**let him go.**

Then **decide whether or not to call the police.**

# police

**Most violent behaviour in our society is simple criminality,**

- unrelated to illness,
- often better handled by the police, the prisons and the courts

**Call the police if:**

- Any threats, verbal or physical.
- Acts destructively (e.g. hits the walls, destroys equipment, hits someone).
- is noisy, hyperactive and won't quiet down after 1 or 2 requests.
- Is armed (e.g. gun, knife or broken bottle.)

**Caution re informing the patient that you have called the police**

# Use of restraints:

**Physical restraint.**

**Mechanical restraint.**

**Therapeutic sedation**

**NOTE: The use of all types of restraints are for protective purposes, and NOT to be used as a punitive measure.**

all available alternative treatment options should be considered before using any restraint

# Individual autonomy + dignity

- Restraint breaches an individuals right to make one's own decisions
  - if they have insight into the consequences of their actions


- Ethical grounds for intervention:
  - beneficence: restraint in patients best interest
  - non- maleficience: prevent the individual coming to harm

# *Indications for Restraining and sedating a violent and aggressive patient:*

- Acute danger to the patient or others
  - Danger is immediate and apparent
  - Preventing serious disruption or damage to the environment
- To assist in assessment and management
- Other treatment modalities did not work
- Patient refuses voluntary sedation
- Restraints should **never** be use for ease of convenience

NOT used as a disciplinary measure

# Physical restraint:

Used to apply mechanical restraints or for the administration of sedation.

- drug should be drawn up BEFOREHAND
- assemble enough people.
- Approach the patient in a non-threatening manner
- overwhelm him quickly and efficiently.

# Physical restraint:

Each member must have a job---

A - grabs the right arm,

B - the left arm,

C - the right leg,

D - the left leg,

E - the head and airway

while the 6th person either applies the mechanical restraints or administers the sedation.

- As soon as he is sedated, make a note of any injuries and examine carefully to exclude a treatable condition.
  - Check that the patient is fully sedated before releasing

# Mechanical restraints:

View the application of restraints as a procedure.

- work according to a plan with a clear team leader.

- Inform the patient: " We are going to have to put you in restraints to help us protect you"
  - (or " to protect ourselves").

- Apply restraints as quickly and humanely as possible.
    - applied in the least restrictive manner
    - for the shortest period of time.
    - lateral position
    - Beware head – soft collar

  - Beware: neurovascular injury
    - regular neurovascular observations every 15-30mins whilst restrained.

You can’t fix stupid:

But you can sedate it

# *Restraining and sedating a violent and aggressive patient:*

- Emergency sedation
  - used for management of acute behavioural emergencies

The goal

- rapidly and safely sedate the patient to control symptoms and allow them to be safely managed

# Political correctness

No such thing as chemical restraint

We use **therapeutic sedation**

# Therapeutic Sedation

- No sedative is ideal for all situations.

- Drugs used to control agitation take time to work, therefore give earlier rather than later.

- Drugs commonly used:
  - Benzodiazapines
  - Typical antipsychotics
  - Atypical antipsychotics

# APPROACH TO THERAPEUTIC SEDATION

- Exclude other therapeutic options first
  - e.g. attempt verbal de-escalation
- Consider:
  - body size
  - Age
  - medical history ?
  - medication history ?
    - (e.g. drug dependence)
  - previous response to sedative drugs?
    - Monitor level of agitation
    - response to treatment

# Therapeutic Sedation

- Resort to IM or IV sedation ONLY if:
  - Patient refuses oral medication.
  - requires rapid control of behaviour.

  IM route is preferred

  - Esp: potential harm when attempting to obtain IV access
  - Caution: take care with additional doses if there is an apparent failure to respond after IM administration (onset may be slow and erratic)

  Investigations can be performed once the patient is stabilised

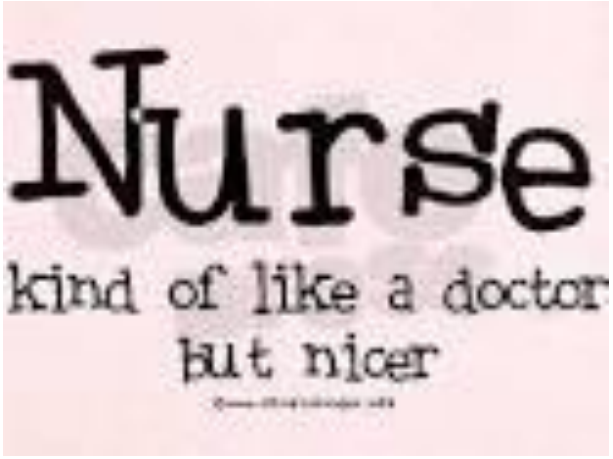
# APPROACH TO THERAPEUTIC SEDATION

Remember :

- generally treating an undifferentiated patient with limited access to their past medical history.

Staff have responsibility to:

- maintain the patient's airway, breathing, circulation
  - monitor vital signs
- provide bladder care
- Hydration
- general nursing care to that patient.



# Expert Consensus Guideline 2005

BZDs are recommended:


- when no (past) history is available,
- when there is no specific treatment (e.g., personality disorder),
- when BZD may have specific benefits
  - e.g., intoxications

Allen et al. The Expert Consensus Guideline Series: Treatment of Behavioral Emergencies 2005. Journal of Psychiatric Practice. Vol 11, Suppl 1

# APPROACH TO THERAPEUTIC SEDATION
# Why BZD?

- Preferred in the ED for undifferentiated agitation because:
  - have prompt onset of action
  - a good safety profile.
  - No extrapyramidal symptoms
  - No QT problems
  - Easy to titrate
  - Preferred for intoxications, seizure, etoh
  - Works some for psychosis

# APPROACH TO THERAPEUTIC SEDATION

**Antipsychotic"s have a role:**

- when patient is not responding to BZD
- as an adjunct to the benzo's to achieve sedation
- If psychosis is cause of agitation.

# First generation antipsychotics Extrapyramidal Symptoms

**First Generation Antipsychotics**

- Dopamine antagonists
- Powerful, effective,
- Long history
- Cheap
- **But High EPS**
  - Dystonia
  - Oculogyric crisis
  - Akinesia
  - Akithesia
  - Parkinsonism
  - Tardive dyskinesia

A. Dystonia—spasms of the tongue, neck, back, and legs. Spasms may cause unnatural positioning of the neck, abnormal eye movements, excessive salivation.

B. Akathisia—continuous restlessness, inability to sit still. Constant moving, foot tapping, hand movements may be seen.

C. Pseudoparkinsonism—muscle tremors, cogwheel rigidity, drooling, shuffling gait, slow movements.

D. Tardive dyskinesia—abnormal, muscle movements such as lip smacking, tongue-darting, chewing movements, slow and aimless arm and leg movements.

# Second generation antipsychotics atypical

- multiple receptors
- Effective as a single agent
- Low extrapyramidal side effects
- Preferred by pts and psychiatrists
- Shorter history of use

# Compare Olanzapine vs Haloperidol

- •Parkinsonism: Avoided every 7 pts
- •Acute Dystonia: Avoided every 14 pts
- •EPS: Avoided every 21 pts
- •Anticholinergic Rx: Avoided every 7 pts

Citrome L., Comparison of intramuscular ziprasidone, olanzapine, or aripiprazole for agitation: a quantitative review of efficacy and safety. *The Journal of clinical Psychiatry* (2007) vol. 68 (12) pp. 1876-85

# QTc?

All antipsychotics can prolong QTc

- Dose dependant
- Beware if baseline ECG = QTc >500
  (obtain after sedated if unable before)
- Risk:
  - taking meds known to prolong the QT interval,
  - if likely to have electrolyte disorders (eg, low K, low Mg),
  - known congenital conditions associated with QT prolongation
- Droperidol received controversial FDA Black Box Warning (USA)
  - Haloperidol IV route not FDA approved …but everyone uses it.

# QTc?

A retrospective review of 2468 patients treated with droperidol in the ED, only six serious adverse events were identified,

(only one cardiac arrest in a patient with a normal QT interval)

Shale JH **A review of the safety and efficacy of droperidol for the rapid sedation of severely agitated and violent patients**. J Clin Psychiatry 2003; 64:500

Antipsychotics have a long history of effectiveness and a dearth of substantial clinical evidence demonstrating harm

Kao LW et al **Droperidol, QT prolongation, and sudden death: what is the evidence?** Ann Emerg Med 2003; 41:546

Chase PB et **al A retrospective review of the use and safety of droperidol in a large, high-risk, inner city emergency department patient population** Acad Emerg Med 2002;9:1402

# Ziprasidone versus haloperidol

"both treatments resulted in a specific antihostility effect…."

"ziprasidone was superior to haloperidol in the treatment of excitability and agitation"

L. Citrome **Ziprasidone versus haloperidol for the treatment of agitation Annals of Emergency Medicine Volume 44, issue 4,** Supplement, Page S22, October 2004

Many psychiatric emergency services in USA use a 20 mg IM dose of ziprasidone as first line treatment for severe agitation

Battaglia J Pharmacological management of acute agitation. Drugs 2005; 65:1207.

# Project Beta recommendations Consensus statement

second generation antipsychotics recommended over haloperidol

- Risperidone or olanzapine if will take oral.
- olanzapine or ziprasidone  if IM

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 Journal of Emergency Medicine.* 2012 Feb

**Pharmacologic Options for Acute Agitation -- Intramuscular Agents**

| | Dose (mg) | Comments |
|---|---|---|
| **Lorazepam** | 0.5 to 2.0 | Will treat underlying alcohol withdrawal. Caution: respiratory depression. |
| **Haloperidol** | 0.5 to 10 | Caution: akathisia, acute dystonic reaction, seizure threshold decrease. |
| **Droperidol** | 2.5 to 5.0 | No FDA-approved psychiatric indication. Caution: prolongation of the QTc interval (removed from UK market, and new black box warning in United States) |
| **Olanzapine*** | 10 (2.5 for patients with dementia) | Superiority over haloperidol (schizophrenia) and lorazepam (bipolar disorder) in clinical trials. No EPS. Caution: weight gain over time. |
| ***Ziprasidone**** | 10 to 20 | Little or no EPS. Caution: prolongation of the QTc interval. |

# Therapeutic sedation benzodiazepines

# Therapeutic sedation


## Lorazepam :

1 to 2 mg PO/ SL / IM/ IV q2-6h,
titrated , maximum of 10 mg in 24 hours (higher doses in resistant patients)
reliable absorption IM

- **rapid onset, duration (4-6 hours)** T1/2 10-20 hours

- no CYP450 metabolism (undergoes conjugation), so compared to midazolam and diazepam:
  - **no active metabolites**
  - **less affected by liver disease**
  - **less drug interactions**
  - **less individual variability**

- **Efficacy enhanced by co-administration with Haloperidol IM or IV.**

– **Adverse effect: watch for respiratory depression, hypotension and behavioural disinhibition**
  - **esp. in the elderly.**

# Therapeutic sedation benzodiazepines


**Midazolam:**

- Start with 2.5-10mg IV or IM increments
  - Short acting
    - Maximum **effect in 10mins**, and duration only up to 2 hours.
  - ceiling doses of 30mg are typical (in tolerant patients >100mg may be needed; experts may give 10-20mg boluses in these cases)

- Some Psychiatrist don't like due to the amnesiac effects of midazolam

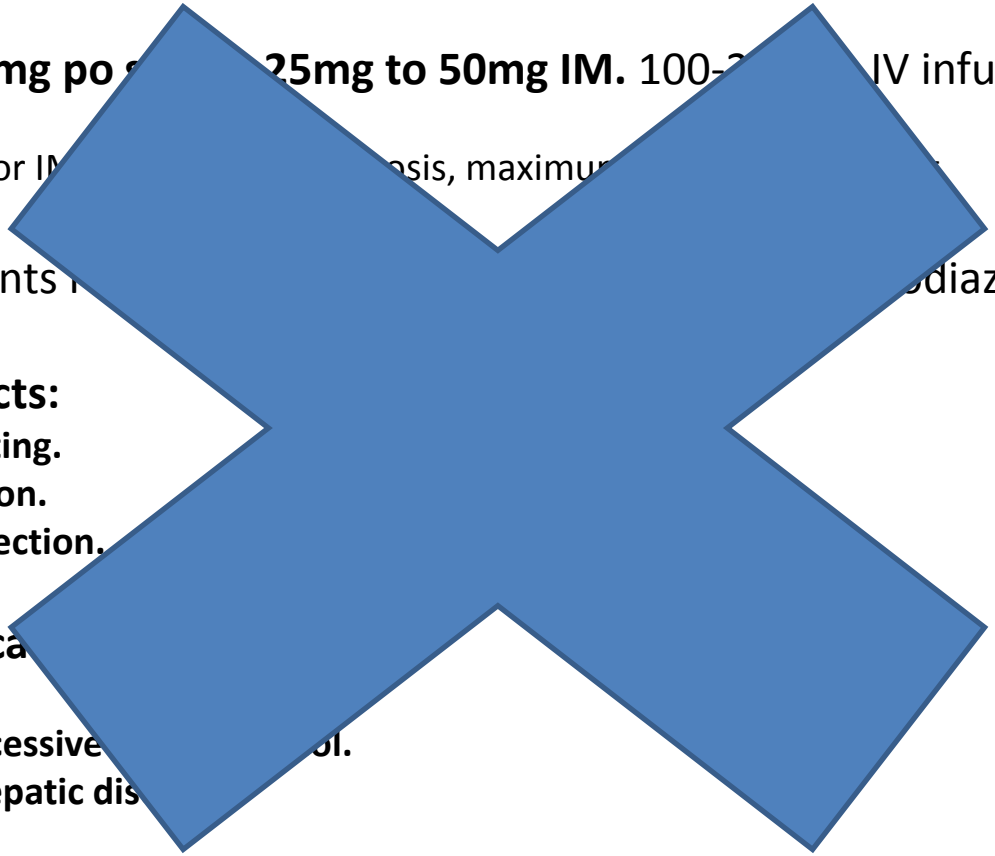
# Therapeutic sedation benzodiazepines

Use benzodiazepines with caution in the elderly and patients with respiratory compromise

# Typical antipsychotics

**Chlorpromazine:**

- **50mg to 100mg po** … **25mg to 50mg IM.** 100-… IV infusion over 24 hours
  - Avoid S/C or IM … sis, maximu…
- Used in patients … odiazapines
- **Adverse effects:**
  - **Very sedating.**
  - **Hypotension.**
  - **Painful injection.**
- **• Contraindica…**
  - **Epilepsy.**
  - **Recent excessive … ol.**
  - **Chronic hepatic dis…**
  - **Elderly.**
  - **Recent history or evidence of head injury.**
  - **Pre-existing cardiac disease**



# Typical antipsychotics

## 1st generation

**Haloperidol:**


- 2.5- IM or IV.
- • Can repeat within 1 to 2 hours.
- • Max. 20mg in 24 hours.
- • **Use half doses in the elderly.**

- a high potency butyrophenone,
- **Used alone or in combination with lorazepam.**

- Relatively safe, effective and cheap.

- •**Adverse effects:**
  - **Some EPS reactions: dystonias, akathisia, motor restlessness. Rx benztropine**
  - **Tardive dyskinesia**
  - Avoid in patients with QT prolongation as increases risk of torsades de points (obtain ECG )
  - **Rarely:**
  - **Sudden death. Neuroleptic Malignant Syndrome.**

Haloperidol losing favour for treating agitated psychosis, given the problem of extrapyramidal side effects and inferior efficacy compared with atypical antipsychotics

# Typical antipsychotics
# 1st generation


**Droperidol:**

- 2.5-10MG IV or IM titrated
  - Max 20mg
- Older conventional antipsychotic / now used as antiemetic
- phenothiazine
  - not approved by the US FDA for psychiatric conditions
  - but has been used for sedating agitated patients in EDs
- Adverse effect:
  - Avoid in patients with QT prolongation
    - a dose-dependent prolongation occurs
  - Risk of  dystonic drug reaction
  - useful for controlling psychotic symptoms (e.g. delusions, hallucinations)


New Kids On The Block
Jordan
Joe
Jon
Donnie

# Therapeutic sedation atypical antipsychotics

**2nd generation**


## Olanzapine:

- 5-10mg PO or SL, or 10mg IM
  - Maximum dose 30mg in 24 hour period
  - efficacy as early as **15-30 minutes** post injection.
  - Not licensed for IV but has been used

- **decreased propensity for extrapyramidal effects**

- **• • May have specific anti-mania effect.**

- **• • Little sedating effect, therefore advantage in elderly.**

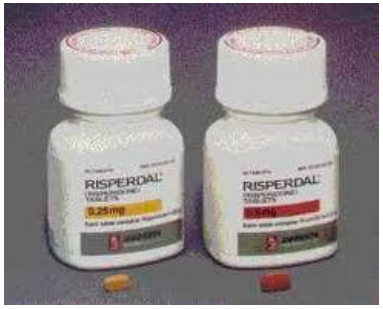
IM faster onset of action, greater efficacy and fewer adverse effects than haloperidol or lorazepam in acute agitation associated with schizophrenia, schizoaffective disorder, bipolar mania and dementia.

established in 4 double-blind controlled pivotal trials involving more than 1000 patients.

# Therapeutic sedation
# atypical antipsychotics
## 2nd generation


- **Quetiapine:**
  - **25-200mg PO**
    - Patient needs to be willing to take oral medication

- **Risperidone:**




  - **0.25-2mg PO/SL**
  - Works very well in elderly and combative dementia patients.
  - Orthostatic hypotension common early in treatment

# Therapeutic sedation atypical antipsychotics


## Ziprasidone.

- 20mg PO, IM (Max 80mg 24 hours)

- IM ziprasidone has shown significant **calming effects within 30 minutes**
  - gained widespread use in psychiatric emergency services since its introduction in 2002.
  - Esp in patients with schizophrenia or schizoaffective disorder.

  - almost **free of extrapyramidal side effects**

  – association with prolongation of the QTc interval. (no reported problems)
    - start after an initial ECG

  – not been associated with weight gain

# Therapeutic sedation combinations
# BZD + antipsychotics

**BZD + (haloperidol) /Droperidol / olanzapine / ziprasidone** :

- should be considered in patients who are tolerant of benzodiazepines or if there is a failure of BZD
- Effects are synergistic
  - patients may respond to low doses of antipsychotic
  - drugs should not be mixed in same syringe if given in combination

# Step by step
# Procedural sedation

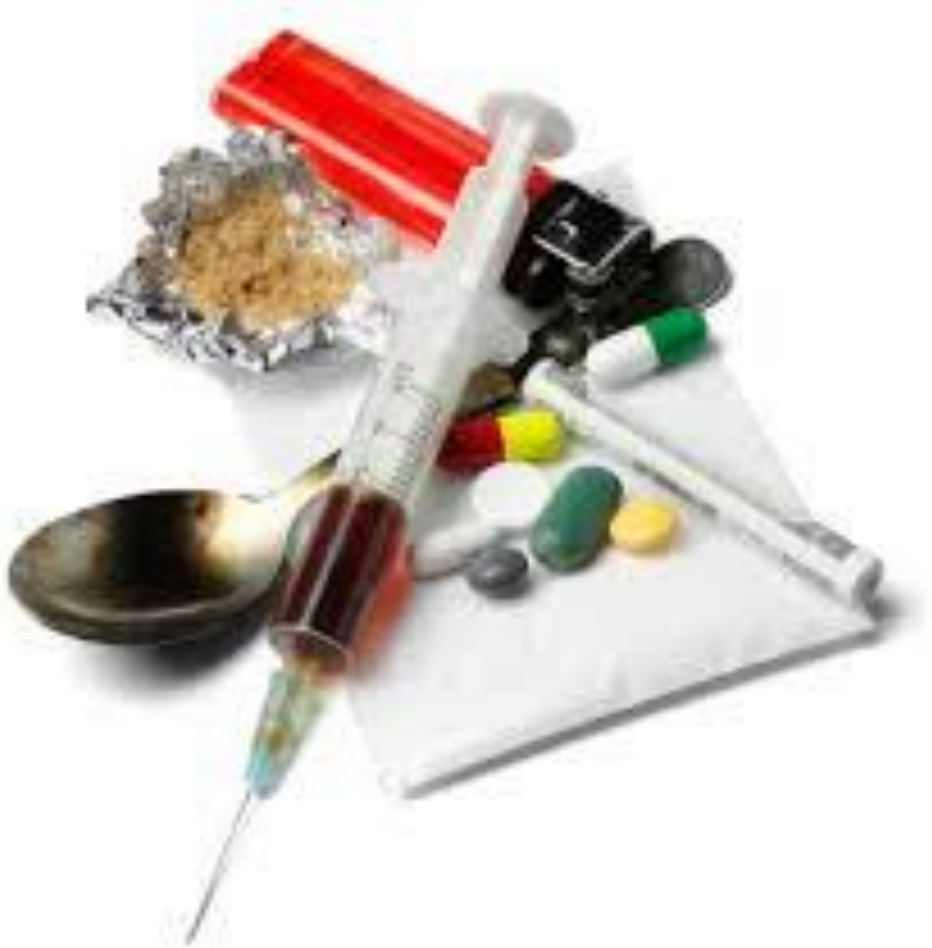
# Step by step
# Procedural sedation

Establish need

- Danger to self or others
- Refuses or fails alternative treatments

# Step by step
# Procedural sedation

Prepare meds



# Step by step
# Procedural sedation

Gather restraint team

# Step by step
# Procedural sedation

Restrain and medicate

# Step by step
# Procedural sedation

Monitor post sedation:

- Vitals
- Onset of sedation

# Summary

- Acute agitation is dangerous for you and patient
- Prevention and de-escalation is key
- Oral route preferred - when possible
- BZDs preferred for undifferentiated agitation
- Change in trends atypical vs typical antipsychotics

# Take home points:

The time to make your hospital plan is now at 1400 AM

- NOT at 0300AM when someone is tearing up your casualty dept.
- where to put the patient, who to inform, rules for restraints, etc.

Train staff.

Go over plans with them.

Simulation sessions on how to handle an “agitated patient.”

Build into department a “ secure room”

Know how to contact security

Understand the role of your local police

# Any questions?