Input and assistance from adults with DD and their caregivers are vital for a shared understanding of the basis of problem behaviours, emotional disturbances, and psychiatric disorders, and for effectively developing and implementing treatment and interventions.
OBJECTIVES

• Discuss Quality Assurance Measures
• Outline the impact of medications and their Side Effects
• Discuss monitoring and documentation
4) In addressing quality assurance measures respecting health promotion, medical services and medication, each service agency shall,

(a) provide training to its staff members on meeting the specific needs for the health and well-being of persons with developmental disabilities who are receiving services and supports from the agency, including any controlled acts as required; or
(b) arrange for the training to be provided by third party health professionals or medical professionals.

(5) For the purposes of this section, “controlled act” means a controlled act within the meaning of section 27 of the Regulated Health Professions Act, 1991.
QUALITY ASSURANCE MEASURES

• Define Controlled Acts
• Delegation of Controlled Acts
• Define Unregulated Care Provider
Controlled Act

• Controlled Act:
  • ‘Includes activities that are considered potentially harmful if performed by unqualified persons.
  • There 13 controlled acts.

(CNO doc #51014, p.3)
Controlled Acts authorized to Nurses include 3 of the 13:

1. Performing a prescribed procedure below the dermis or a mucous membrane
2. Administering a substance by injection or inhalation; and
3. Putting an instrument, hand or finger:
   • Beyond the external ear canal;
   • Beyond the point in the nasal passages where they normally narrow;
   • Beyond the larynx
   • Beyond the opening of the urethra;
   • Beyond the labia majora
   • Beyond the anal verge or;
   • Into an artificial opening in the body
UNREGULATED CARE PROVIDER (UPC)

UPC refers to

- A paid UPC and
- A family member or member of the household

- UPC includes:
  - Personal support worker (PSW)
  - Developmental service worker (DSW),
  - Health care aids, orderlies, home support worker, etc.

(CNO doc #51014, p.3)
DELEGATION OF CONTROLLED ACTS

• A Registered Nurse and/or Registered Practical Nurse can delegate the performance of a *Controlled Act*. 
DELEGATION OF CONTROLLED ACTS

• Controlled act may be performed if it is considered a routine activity of living and the following are established over time and predictable:
  » The need for the procedure
  » The response to the procedure
  » The outcome of performing the procedure
5. QAM respecting health promotion, medical services and medication each agency shall have the following:

POLICIES AND PROCEDURES

i. For the transfer of medication b/w different locations where the person with DD is receiving services and supports, and

ii. For the responsibility for access to and the storage and administration of medication at each of the different locations.
Acronyms

- XR => extended release
- SR => slow release
- CR => continuous release
- XL => extra long
- LA => long-acting

Never crush these medications!
...Acronyms

Dosage :
• QD, OD, DIE
• QOD
• BID, TID, QID
• PRN

Type Rx :
• PO, S/L, GTT, SC or S/C, IM, IV
• Despite the absence of an evidence base, psychotropic medications are regularly used to manage problem behaviours among adults with DD. **Antipsychotic drugs should no longer be regarded as an acceptable routine treatment of problem behaviours in adults with DD.**
Consensus Guideline #27

- Having excluded physical, emotional, and environmental contributors to the behaviours of concern, a trial of medication appropriate to the patient’s symptoms might be considered.
Psychotropic medication shall not be used excessively, as punishment, for staff convenience, as a substitute for meaningful psychosocial services, or in quantities that interfere with an individual’s quality of life.
Atypical Antipsychotics

Risperidone (Risperdal)

Clozapine (Clozaril)

Olanzapine (Zyprexa)

Quetiapine (Seroquel)

Ziprasidone (Zeldox / Geodon)

Aripiprazole (Abilify)
Binding Affinities

- **Haloperidol**
- **Clozapine**
- **Quetiapine**
- **Risperidone**
- **Olanzapine**

Legend:
- $D_1$
- $D_2$
- Musc
- $5-HT_2$
- $\alpha_1$
- $\alpha_2$
- $H_1$
Atypical Antipsychotics

Specific Properties

- Dopamine (D₂) & serotonin (5-HT₂) antagonist (blocker)
- Reduction of extrapyramidal side effects (EPS)
- Theoretical reduced risk of tardive dyskinesia
Atypical Antipsychotics

Indications/ treatment for:

- Schizophrenia & other psychotic disorders
- Adjunct to mood-stabilizers in bipolar disorder
- Adjunct in treatment of OCD
- Suppression of tics in Tourette’s syndrome
- Approved for use in persons with ASD
- Conversion to atypicals can be a strategy to reduce risks of tardive dyskinesia (TD)
Side Effect Monitoring

The individual must be monitored for side effects on a regular basis using an accepted methodology which includes a standardized assessment instrument.
Examination & Checklist for EPS

Monitored on a regular basis means every person receiving drug therapy must be assessed at least once:

1. Every 3 to 6 months
2. After the initiation of a new psychotropic medication or a dose increase
Observations

• Walking (straight, leaning, etc.)
• Arm swing while walking
• Rigidity in arms with movement
• Hand tremors (seated, on lap)
• Tongue movements
• Imitate examiner’s movement (light bulb removing)
SE of antipsychotics (AP)

- **Fatal risks**: agranulocytosis, NMS
- Movement disorders (EPS, pseudo parkinsonism)
- Hypotension (orthostatic)
- Anti-cholinergic side effects
- Weight gain
- Risk of diabetes
- Dyslipidemia / Hyperlipidemia
- Hypersensitivity to the sun
Clozapine: agranulocytosis

* Potentially fatal SE

- Agranulocytosis: decreased levels of white blood cells (WBCs)
  - WBCs: our «army» to fight infections
- If WBCs are too low, the person is at high risk of infection!
- Requires OBLIGATORY regularly scheduled blood tests
- Important to check if person has a fever (symptom of infection)
Neuroleptic Malignant Syndrome (NMS)

Autonomic nervous system dysfunction caused by blockage of dopamine receptors, characterized by:

- Tachycardia, diaphoresis, labile blood pressure, respiratory and bladder dysfunction, hyperthermia
- Extreme extrapyramidal manifestations with marked rigidity, dystonia, dysphagia and dysarthria
- Altered level of consciousness
- Lab abnormalities
  - Elevated hepatic enzymes
  - Elevation of creatinine phosphokinase (CPK)
  - Leukocytosis
  - Electrolytic imbalance
NMS: F-E-V-E-R

- **Fever**: hyperthermia & diaphoresis
- **Encephalopathy**: abrupt onset confusion, stupor
- **Vital sign instability**: BP unstable, tachycardia
- **Enzyme elevation**: CPK (creatine phosphokinase)
- **Rigidity**: “lead pipe” rigidity (generalized)
Acute Dystonia

Briefly sustained or fixed abnormal movement
e.g.: torticollis (30%)
tongue (25%)
trismus (14.6%)
oculogyric crisis (6% )
AKATHISIA

- Foot shifting
- Pacing
- Rocking
Pseudo-parkinsonism

• Tremor
• Slowed movements (Bradykinesia)
• Rigidity
• Akinesia (masked facies, decreased arm swing)
Tardive Dyskinesia (TD)

Diagnostic Criteria:

• History of three months total cumulative neuroleptic use
• Dyskinesia of lingual-facial-buccal muscle (most common), upper face, limb, trunk
• Movements which are repetitive, stereotyped in appearance and distribution
• Most common is choreoathetoid movements (classical TD)
• Gait is usually not affected
# Tardive Dyskinesia Risk Factors

<table>
<thead>
<tr>
<th>Variable</th>
<th>Factor</th>
<th>Determinant of Increased Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient Characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>Increased risk with age (&gt;55 years)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td>Female (slightly higher)</td>
</tr>
<tr>
<td>Diagnosis</td>
<td></td>
<td>Affective disorder</td>
</tr>
<tr>
<td>Previous EPS</td>
<td></td>
<td>Risk 2 to 3 times higher</td>
</tr>
<tr>
<td>Diabetes Mellitus (NIDDM)</td>
<td></td>
<td>Risk 50-100% higher</td>
</tr>
<tr>
<td><strong>Drug Characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of neuroleptic</td>
<td></td>
<td>Typical neuroleptics have similar liability</td>
</tr>
<tr>
<td>Dose/Duration</td>
<td></td>
<td>Positive correlation with total drug exposure</td>
</tr>
<tr>
<td>Continuous vs. intermittent</td>
<td></td>
<td>Higher with intermittent treatment</td>
</tr>
<tr>
<td>Type</td>
<td>Characteristics</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Classical Tardive Dyskinesia</td>
<td>Lip smacking and pursing, Tongue side to side movement (bon-bon), Tongue protrusion (Fly-catcher), Chewing movements, Respiratory Dyskinesia, Pelvic thrusting, Choreiform limb movements, Tapping, side to side foot movements, Marching in place</td>
<td></td>
</tr>
<tr>
<td>Tardive Dystonia</td>
<td>Similar to Idiopathic Torsion Dystonia, Generalized or Focal/Segmental</td>
<td></td>
</tr>
<tr>
<td>Tardive Tic</td>
<td>Motor and Vocal Tics</td>
<td></td>
</tr>
<tr>
<td>Tardive Akathisia</td>
<td>Subjective restlessness or need to move</td>
<td></td>
</tr>
<tr>
<td>Withdrawal Emergent Syndrome</td>
<td>Transient, 6-12 weeks duration, Begins immediately following abrupt discontinuation of neuroleptics, Children &gt; Adults, Generalized Chorea</td>
<td></td>
</tr>
</tbody>
</table>
Tardive Dystonia

Motor

• Sustained muscle contractions
• Blepharospasm
• Sustained jaw opening (83%)
• Torticollis (50-65%)
• Arm hyperextension (42%)
• Back arching/flexion/leaning (35%)
• Hand flexion/grasp-like
Anticholinergic Side Effects

- Blurry vision
- Nasal congestion
- Dry mouth
- Urinary retention
- Constipation*

(*deaths with Clozapine)

Rx: tricyclic antidepressants, antipsychotics
IDEAL: Type 4,
Type 3 also OK

« glides out easily with no fuss whatsoever! »

Establishing a diagnosis of a psychiatric disorder in adults with DD is often complex and difficult, as these disorders might be masked by atypical symptoms and signs.

In general, mood, anxiety, and adjustment disorders are under-diagnosed and psychotic disorders are over-diagnosed in adults with DD.
### MOOD STABILIZERS

<table>
<thead>
<tr>
<th>Medications</th>
<th>Key Ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbolith, Duralith</td>
<td>Lithium</td>
</tr>
<tr>
<td>Depakene*, Epival*, Depakote*</td>
<td>Valproic Acid, Divalproex, Sodium Valproate</td>
</tr>
<tr>
<td>Tegretol*</td>
<td>Carbamazepine</td>
</tr>
<tr>
<td>Trileptal*</td>
<td>Oxcarbazepine</td>
</tr>
<tr>
<td>Lamictal*</td>
<td>Lamotrigine</td>
</tr>
<tr>
<td>Neurontin*</td>
<td>Gabapentine</td>
</tr>
<tr>
<td>Topamax*</td>
<td>Topiramate</td>
</tr>
</tbody>
</table>
Problems of Current Mood Stabilizers

- Limited efficacy
- Toxicity
- Side effects: renal, thyroid, hematological, hepatic
- Monitoring
- Interactions
- Teratogeny
- Weight gain
Lithium

• Therapeutic Range
  – 0.6 – 1.2 mEq/L
• Clearance predominantly through kidneys (95%)
• Dosing adjusted based on renal function
  – Individuals with chronic renal insufficiency must be closely monitored
  – Re-absorption of lithium is increased and toxicity more likely in patients who are hyponatremic or volume depleted (ex. vomiting, diarrhea, diuretics)
• Half life
  – 12 – 27 hours
  – Increases to 36 hours in elderly persons (**renal function)
  – May be considered longer with long-term lithium use (up to 58 hr after one year of therapy)
Starting Li+ therapy

SE to observe:
- Fatigue, weakness, slurred speech
- Hand tremor, N & V, thirst, polyuria
- Edema of hands & feet, abdomen or face.

Which SE usually disappear within a week?
- Fatigue, N & V.

Which ones persist for longer?
- Thirst, polyuria, hand tremor

Which are signs of Li+ toxicity?
- Slurred speech, diarrhea, vomiting, increased hand tremors, fatigue, muscle weakness, ataxia
Side Effects of Lithium

Renal Effects
- Polyuria
- Nephritis

GI symptoms
- Diarrhea
- Nausea or vomiting
- Dehydration & dry mouth
- Abdominal discomfort

Motor Symptoms
- Mild tremor or muscle contractions
- Muscle weakness
- Lack of coordination
- Ataxia
- Difficulty articulating speech

CNS symptoms
- Somnolence
- Decreased concentration or memory
- Tremor
- Seizures
- Coma

Cardiac side effects
- Arrhythmias

Dermatological reactions
- Dermatitis, psoriasis
- Dry brittle hair or hair loss
Lithium Toxicity

- Closely related to concentration of lithium in the blood
  * Serum concentrations above 1.5 mmol/L
- Preceded by appearance/aggravation of:
  - Sluggishness, drowsiness, lethargy, coarse hand tremor or muscle twitchings, loss of appetite, vomiting and diarrhea

**repeated episodes of lithium toxicity can cause kidney damage**
Diet & Li+

- No restrictions but must maintain same level of salt intake during therapy.
- If salt intake increased, then Li+ will be excreted faster: MANIA.
- If salt intake is decreased (gastro, vomiting, increased exercise), then Li+ will be excreted more slowly: TOXICITY.
<table>
<thead>
<tr>
<th>Medication</th>
<th>Systemic/physical Effects</th>
<th>CNS Effects</th>
</tr>
</thead>
</table>
| Phenobarbital | Rash  
Sleep disturbance  
↓ Vit D & K  
*Rare:* blood dyscrasias, liver toxicity | Sedation, dizziness, ataxia  
Nystagmus  
↓ concentration & cognition  
behavioral Δ, irritability (children) |
| Phenytoin (Dilantin) | Hirsutism  
Acne  
Gingival hyperplasia (50%)  
↓ folate/T4/Vitamins D & K  
Rash  
Osteomalacia  
↑ liver function tests  
blood dyscrasias | Ataxia, dizziness  
Nystagmus  
↓ concentration  
Sedation  
Dyskinesia, tremor  
Arrhythmia  
N & V, diarrhea |
| Ethosuximide (Zarontin) | Anorexia  
*Rare:* Rash (SJS), blood dyscrasias  
behavioral Δ (children) | Sedation, dizziness  
*Hiccups*  
Headache  
N & V, diarrhea |
<table>
<thead>
<tr>
<th>Medication</th>
<th>Systemic/physical Effects</th>
<th>CNS Effects</th>
</tr>
</thead>
</table>
| **Clonazepam** (Rivotril)** | Drooling  
Rare:  
Rash  
Paradoxical reaction  
Thrombocytopenia  
Depression | Sedation, dizziness  
Risk of aspiration  
Paradoxical reaction: disinhibition  
↓ concentration  
Anterograde amnesia  
Ataxia  
Nystagmus |
| **Carbamazepine** (Tegretol)** | Pruritis/urticaria  
↓ WBC, ↓ Vit D  
Rare:  
Aplastic anemia,  
↑ LFTs (GGT/ALK),  
Hyponatremia (SIADH)  
Cardiac abnormalities  
↓ T3/T4/Vit K  
Alopecia, visual disturbances,  
Osteomalacia | N & V  
Diplopia  
Ataxia  
Sedation, dizziness  
Dyskinesia  
Nystagmus |
<table>
<thead>
<tr>
<th>Medication</th>
<th>Systemic/physical Effects</th>
<th>CNS Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Valproic Acid</strong></td>
<td>Alopecia</td>
<td>Sedation, fatigue</td>
</tr>
<tr>
<td><strong>(Depakene)</strong></td>
<td>Abdominal cramps</td>
<td>dizziness, ataxia</td>
</tr>
<tr>
<td><strong>(VPA &gt; GI SE)</strong></td>
<td>Hyperammoniemia</td>
<td>N &amp; V</td>
</tr>
<tr>
<td></td>
<td>Menstrual irregularities</td>
<td>Confusion</td>
</tr>
<tr>
<td></td>
<td><em>Rare:</em> ↓ platelets &amp; WBC</td>
<td>Headache</td>
</tr>
<tr>
<td></td>
<td>Hepatotoxicity</td>
<td>Tremors</td>
</tr>
<tr>
<td></td>
<td>Pancreatitis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Carnitine deficiency</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ATTENTION: PCOS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Obesity (esp in ♀)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*SJS w/ Lamotrigine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(esp in ♀)</td>
<td></td>
</tr>
<tr>
<td>Divalproex</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>(Epival)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gabapentin</td>
<td>Edema</td>
<td>Lethargy, fatigue</td>
</tr>
<tr>
<td><strong>(Neurontin)</strong></td>
<td>Weight gain</td>
<td>dizziness, ataxia</td>
</tr>
<tr>
<td></td>
<td>Rash</td>
<td>N &amp; V</td>
</tr>
<tr>
<td></td>
<td>behavioral ∆, irritability (children)</td>
<td>Diplopia</td>
</tr>
<tr>
<td></td>
<td>↓ WBC</td>
<td>Tremors</td>
</tr>
<tr>
<td></td>
<td>Decreased platelets (rare)</td>
<td>Speech difficulties/slurring</td>
</tr>
<tr>
<td></td>
<td>ECG ∆ (rare)</td>
<td></td>
</tr>
<tr>
<td>Medication</td>
<td>Systemic/physical Effects</td>
<td>CNS Effects</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Lamotrigine (Lamictal) | Rash (1st month: gen. red morbilliform)  
Abdominal discomfort  
Alopecia  
**Rare:**  
SJS & toxic epidermal necrolysis  
Hepatotoxicity  
Tics (children) | Dizziness, ataxia  
N & V  
Asthenia  
Headache  
Fatigue  
Blurry vision, diplopia |
| Topiramate (Topamax) | Diarrhea  
Weight loss  
Kidney stones  
Glaucoma  
**Rare:** $\uparrow$ LFTs | Fatigue  
Headache  
Dizziness, ataxia  
Agitation  
Behavioral $\Delta$  
Paresthesias (fingers, toes)  
Cognitive deficits (memory, concentration, word-finding) |
Antidepressants

**Tricyclic Antidepressants:** Amitriptyline (Elavil), imipramine (Tofranil), clomipramine (Anafranil), doxepine (Sinequan)

**Monoamine Oxydase Inhibitors:** Phenelzine (Nardil), tranylcypromine (Parnate) (SA-MAOI: moclobemide (Manerix))

**Selective Serotonin Reuptake Inhibitors (SSRIs):** Escitalopram (Cipralex), Citalopram (Celexa), fluoxetine (Prozac), paroxetine (Paxil), fluvoxamine (Luvox), sertraline (Zoloft)

**Serotonin-2 antagonist:** Trazadone (Desyrel)

**Newer antidepressants:** Desvenlafaxine (Pristiq), Venlafaxine (Effexor), mirtazapine (Remeron), buproprion (Wellbutrin)
Spectrum of SSRI CNS Effects: Activation vs. Sedation

- Fluvoxamine (Sedating)
- Paroxetine
- Citalopram
- Sertraline
- Fluoxetine (Activating)
Anticholinergic Side Effects

- Blurry vision
- Nasal congestion
- Dry mouth
- Urinary retention
- Constipation*

(*deaths with Clozapine)

Rx: tricyclic antidepressants, antipsychotics
SE of SSRIs

- N & V
- Diarrhea
- Headache
- Irritability
- Sedation / insomnia
- Dry mouth
- Seizures
Adverse Effects of Neurotransmitter Activity & Receptor Binding

Antidepressant

- Nausea, GI discomfort, Sexual dysfunction
- Dry mouth, blurry vision, nasal congestion, urinary retention, constipation
- Dry mouth, urinary retention, Tremor
- Weight gain
- Orthostatic Hypotension, Priapism
Serotonin Syndrome

Due to an accumulation of serotonin, symptoms include:

- Nausea, diarrhea
- Dizziness
- Palpitations, diaphoresis
- Agitation, confusion
- Tremors
- Convulsions

- Hyperreflexia
- ↑↓ BP, tachycardia,
- Cyanosis
- (↑↓) hyperthermia,
- Severe respiratory depression & coma.
Spectrum of Depression and Anxiety Disorders

- Posttraumatic Stress Disorder
- Social Anxiety Disorder
- Panic Disorder
- Obsessive-Compulsive Disorder
- Generalized Anxiety Disorder
ANXIOLYTICS
(*benzodiazepines)

Valium*
Ativan*
Rivotril*
Serax*
Xanax*
Lectopam*
Dalmane*
Restoril*
Librium*

- Diazepam
- Lorazepam
- Clonazepam
- Oxazepam
- Alprazolam
- Bromazepam
- Flurazepam
- Temazepam
- Chlordiazepoxide

Buspar

- Buspirone
## Indications for use of benzodiazepines

<table>
<thead>
<tr>
<th>Clear Indications</th>
<th>Probable Indications</th>
<th>Possible Indications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panic</td>
<td>Coping difficulties with anxiety</td>
<td>Akathisia</td>
</tr>
<tr>
<td>Generalized anxiety</td>
<td>Acute insomnia related to stress</td>
<td>Tourette Syndrome</td>
</tr>
<tr>
<td>Social Phobia</td>
<td>Sleep-wake cycle disturbance</td>
<td>Severe agitation (emergency/crisis)</td>
</tr>
<tr>
<td>Mania/agitated schizophrenia</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Use of Benzodiazepines

- Useful in many patients but not recommended first-line
- Side effect profile
  - Sedation
  - Reduced coordination
  - Impaired cognition
- Risk of dependency
- Risk of paradoxical reaction
- Withdrawal symptoms/rebound anxiety

**(diminuer graduellement: 10 – 25 % à tous les 1- 4 sem.)**
Rx for ADHD

Stimulants
- Ritalin/Concerta / Methylphenidate
- Dexedrine Dextroamphetamine
- Adderall /amphetamine salts

SNRI : Selective NE Reuptake Inhibitor
- Strattera/ Atomoxetine

Adrenergic
- Clonidine
Stimulants

• Take effect within the first week (without mood/anxiety dx)
  – 75 % children
  – 25-78 % adults
• Can increase anxiety
• Should be taken with or after meals
• Dosage q. 2 – 6 h
• SE: anorexia (↓wt), abdominal pain, insomnia, irritability, sadness, can increase tics & induce psychotic episodes (rare)
• Check P, BP with ↑ dose
Side effects – Stimulants

- Nervousness, irritability
- Insomnia
- Anorexia & weight loss (*growth may be effected)
- Headache
- Hypertension, tachycardia
- Tics
- Dry mouth, blurry vision
Strattera : atomoxetine

• Blocks recapture of NE (↑attention, ↓impulsivity, activity)
• With/without meals
• Takes effect in 4 weeks
• No withdrawal symptoms noted
• SE : headache, N & V, abdominal discomfort, anorexia (weight loss), labile mood, fatigue
• Precautions : hypertension, cardiovascular disease, hypotension, liver disorders, glaucoma
Side effects - Strattera

- N & V, abdominal discomfort
- Loss of appetite
- Headache, dizziness
- Insomnia
- Fatigue, lethargy
- Anticholinergic side effects
- Irritability, aggressiveness
- Palpitations
- Sexual dysfunction
Clonidine

- Vs hyperactivity & impulsivity
- Inhibition of noradrenergic transmission

Dosage:
- ADHD: 0.05 - 0.3 mg/day
- Aggression: 0.15 - 0.4 mg/day
- Anxiety: 0.15 - 0.5 mg/day

- Takes effect in: 30 - 60 minutes (patch: 2-3 jrs)
- Duration: 8 hours (patch: 7 days)
- SE: fatigue, hypotension, vertigo, dermatitis (patch), agitation, depression
- *withdrawal symptoms
Naltrexone

• Opiate Antagonist (blocks the sites)
• Used in severe cases of SIB (& in alcoholism)

SE:
N & V, abdominal discomfort, weight loss, insomnia, anxiety, depression, confusion, fatigue, headache, rare cases of panic attacks.
Consensus Guideline #25

Input and assistance from adults with DD and their caregivers are vital for a shared understanding of the basis of problem behaviours, emotional disturbances, and psychiatric disorders, and for effectively developing and implementing treatment and interventions.
CG recommandations

• Use tools (e.g. sleep charts, antecedent–behaviour-consequence [ABC] charts) to aid in assessing and monitoring behaviour and intervention outcomes.
Responsibilities of the staff/caregivers

• Safe storage
• Safe administration, limit errors
• Follow-up of medication efficacy
• Monitoring of side effects
• Asking questions & observation!
Questions
(for caregiver to ask MD)

• Why do you recommend this treatment?
• How can we tell if things are getting better?
• What are the risks of this treatment?
• What should we do if side effects occur?
• What information do you need for the next appt.?

• When should we call you?
• Are there any checklists or scales that we could use?
• Are there any lab tests that need to be done?
• When should we schedule another appt.?
Useful Tools!

- A-B-C sheets
- Scatterplot
- Pain checklist
- MAR medication sheets & PRN sheet
- Follow up form for MD
- Observations of SE & movements
- Medication history
### ABC (Antecedent-Behaviour-Consequence) Chart

To record baseline information for incongruent, challenging or problematic behaviours

<table>
<thead>
<tr>
<th>Occasion</th>
<th>Pre-existing conditions</th>
<th>Antecedent</th>
<th>Behaviour</th>
<th>Consequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date:</td>
<td>Factors that increase vulnerability or sensitivity to triggers</td>
<td>What happened just before the behaviour occurred and might have triggered it? Include SETTING &amp; ACTIVITY</td>
<td>Describe the behaviour as accurately and specifically as possible. Include frequency, duration, and intensity, on a scale of 1 to 5 (5 is most severe).</td>
<td>Things that happened immediately after the behaviour occurs and make it more or less likely to happen again</td>
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</table>

#### Example

**Date:** Feb 6/10  
**Time:** 6:30-7:10 pm  
**Observer:** Rene - primary staff member

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Occasion</th>
<th>Behaviour</th>
<th>Consequence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>John's mother was in hospital with broken hip, and could not visit.</td>
<td>John was eating supper in kitchen when another resident bumped into him when passing food.</td>
<td>John started to yell and threw his plate across the table. He ran out of room, screamed for 10 minutes and threw cushions around living room. The intensity was 4/5.</td>
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</tbody>
</table>

**Date:**  
**Time:**  
**Observer:**
Scatter plot: (Sleep chart, episodes of challenging behaviors, menstruation, etc…)

| January | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|---------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 00:00   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 00:30   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 01:00   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 02:00   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 03:00   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 04:00   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 05:00   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 06:00   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 07:00   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0  |
| 08:00   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0  |
| 09:00   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 10:00   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
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| 13:00   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
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| 16:00   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
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| 18:00   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 19:00   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
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Legend: Highlighted yellow = time asleep, Dates colored in red = days menstruating, X = incidents of SIB, O = incidents of yelling, BM#= bowel movement & type
• Observational Pain checklist
• Medication administration records (MAR) & PRN sheets
• Follow-up forms for MD
• Medication history
Side effects?

- dry mouth
- drooling
- increased gum growth
- constipation
- diarrhea
- nausea/vomiting
- increased thirst
- increased appetite
- abdominal pain
- weight gain/weight loss
- increased urination
- difficult urination
- urinary incontinence
- fecal incontinence

- restlessness
- nervousness
- dizziness
- slurred speech
- tremor
- fainting
- impaired memory
- headaches
- confusion
- seizures
- abnormal gait
- leaning to side
- rigidity
- abnormal posturing/movements
Side effects?

- eye movements
- change in facial expression
- acne
- sun burn
- itching
- swelling
- bruising
- skin rash/hives
- trouble breathing
- cough
- nasal congestion
- difficulty swallowing

- difficulty falling asleep
- increased sleep
- daytime drowsiness
- interrupted sleep
- nightmares
- irritability
- withdrawn
- sweating
- hair loss/gain
- menstrual changes
- breast D/C
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Observations

• Walking (straight, leaning, etc.)
• Arm swing while walking
• Rigidity in arms with movement
• Hand tremors (seated, on lap)
• Tongue movements
• Imitate examiner’s movement (light bulb removing)
Case

You receive the dispill/blisterpack of meds from the pharmacy.

You glance quickly at it & notice that there is a new yellow pill that you did not in there have last week.

• What should you do?
• When?
• Why?
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Medication

- Safe storage
- Safe administration, limit errors
- Name & photos well-indicated
- Clear & precise documentation:
  - Regular Rx
  - PRNs
- Effects of the PRNs well-documented
Thank you!