DUAL DIAGNOSIS

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Solution-s
(w/ some slides from Dr. Bob King, with permission)
community-networks.ca

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.

People with Intellectual & Developmental Disabilities (PWIDD)

- 1-3% of population
  - 275,000 in Ontario
- 90% in mild range
- < 50% have known etiology (DS, FXS)
  - Advances in genetics
- 38% also have a mental health disorder
- Increasingly aging

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Case presentation

Ideas?
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Case study...

O/E:
• Febrile
• With pharyngeal congestion
• Mild bilateral tonsillar enlargement
• A provisional diagnosis of retropharyngeal abscess was made
• & X-rays RX'ed
GERD & Constipation

- Heartburn during or after meals, or when bending over or laying down
- Hiatal hernia
- Regurgitation, cough, hoarse voice also S/S
- Ulcers cause pain in between meals or can wake you from sleep
- N BM pattern: 3-20X/week!
- Check type (Bristol) & look for distension (abd circ), loss of appetite or refusal to eat

RCN Document

“Health problems might be accompanied by unusual signs and symptoms, for example someone with severe learning disabilities might demonstrate discomfort by self-injuring.”

Challenging Behaviors

- SIB
- Aggression
- Refusals
- Withdrawal or irritability
- Yelling
- “Non-compliance”: changes in sleep pattern, appetite, or activity level
Pain Assessment *

**Indicators of pain:**
- SIB or aggression
- Refusals
- Withdrawal or irritability
- Yelling
- "Non-compliance": changes in sleep pattern, appetite, or activity level
- Denial, inability to communicate or high pain tolerance?

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Things that make you say Hmmm...

- Prevalence of mental illness in individuals with developmental disabilities is high.
- Use of psychiatric medication has been reported as approaching 26-40% in community residential placements and 35-50% in institutions in North America.
- Aggression, self-injurious behaviour, over activity, and sleep disturbances are all common.

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Mental health concerns in persons with MR/DD...

- Difficult to diagnose with accuracy
- Prevalence higher than in the general population
- 2-3 X higher *(Dosen et Day, 2001)*
**Prevalence**

- Approximately 1% of the general population is developmentally disabled (Ontario - 100,000; Kentucky - ?)
- At least 30% of the developmentally disabled population is dually diagnosed (Ontario - 30,000, Kentucky - ?)

**Case presentation**

Idea?
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Medications: Polypharmacy

1. Medication reconciliation:
2. Interview with patient or a caregiver
3. Medication vials or blister packs
4. Current medication list (i.e., from the pharmacy or provincial records)
5. Warfarin/coumadin, insulin, digoxin!
6. Anticholinergics!
7. Tranquilizers and other sedating Rx: risk of FALLS
8. Bisoprolol & Bisacodyl!
9. Pharmacokinetics in the elderly...
   www.ismp-canada.org/beers_list/#!/tab1

Anticholinergic Side Effects

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

Caution: antipsychotics, older antidepressants

Pharmacology in the Elderly

<table>
<thead>
<tr>
<th>Determinant</th>
<th>Effect of Aging</th>
<th>Clinical Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absorption</td>
<td>Increased gastric emptying time</td>
<td>Little</td>
</tr>
<tr>
<td>Distribution</td>
<td>Increased body fat Decreased body water</td>
<td>Decreased elimination of fat-soluble drugs Increased effect of water-soluble drugs</td>
</tr>
<tr>
<td>Protein Binding</td>
<td>Decreased serum albumin</td>
<td>Increased free fractions of some drugs leading to toxicity</td>
</tr>
</tbody>
</table>
## Determinant  Effect of Aging  Clinical Implications

<table>
<thead>
<tr>
<th>Determinant</th>
<th>Effect of Aging</th>
<th>Clinical Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatic Metabolism and Clearance</td>
<td>Decreased oxidative metabolism</td>
<td>Decreased clearance of most drugs</td>
</tr>
<tr>
<td>Renal Metabolism and Clearance</td>
<td>Decreased renal blood flow</td>
<td>Decreased clearance of water-soluble drugs</td>
</tr>
<tr>
<td>End-organ sensitivity</td>
<td>Increased</td>
<td>Increased effects at lower doses</td>
</tr>
</tbody>
</table>

 Reduce daily dosage for elderly!

### Medications

- Safe storage
- Safe administration, limit errors
- Name & photos well-indicated
- Clear & precise documentation:
  - Regular Rx
  - PRNs
- Effects of the PRNs well-documented
- Observational Pain checklist
- Medication history & regular Rx review

### Metabolism

- Hepatic enzymes = Cytochrome P450 system (CYP-450) (about 30 different enzymes).
- Drugs metabolized by an enzyme are substrates of that enzyme
- Possible drug/metabolite interactions:
  - Competition: substrates compete for same enzyme (2nd substrate can be less effective)
  - Inhibition: blocking enzyme activity (may cause toxicity)
  - Induction: accelerated metabolism of drugs or their substrates (decreases drug effect as it is metabolized quicker & then eliminated, ex. smoking & clozaril)
Case presentation

Ideas?

Dental problems

• Most common medical concern in persons with I/DD!
• Australian study: 86 % frequency!
• Why is risk of dental caries so high?
  – Inadequate oral hygiene!
  – Snacks rich in sugar & carbohydrates lower pH
  – Lack of saliva, or thick saliva that is unable to neutralize the acidity
  – Less fluoride available for remineralisation

The Usual Suspects

• Dental issues (up to 86%!)
• (7 X more in DD!)
• Vision problems (40%-59%)
• Hearing problems (33-40%)
• Constipation (up to 70%!)
• Reflux (up to 50%!)
• H. Pylori infection (60-90%)
Case presentation

Ideas?
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More Usual Suspects...

• Epilepsy (33-50%)
• Thyroid disease (12%)
• Obesity-related illness: HTN, Diabetes, etc.
• Mental health issues (14-67%)
  (severe-profound MR: 50%; mild-moderate MR: 20-25%)

Case presentation

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Agitation

- Endocrine disorders:
  - Thyroid
  - Hypoglycemia
- Neurological disorders:
  - Increased intracranial pressure (ICP)
  - Epilepsy
- Side effects of Rx
- Psychiatric disorder

Changes in appetite & weight

- Diabetes
- Hyperthyroidism
- Hypothyroidism
- Hypoparathyroidism
- Malignancies/tumors/cancer
- Problems related to intake, retention, absorption, or metabolism

Case presentation

Ideas?

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PWS

- T° regulation impaired
- Gag reflex impaired
- Decreased pain sensitivity

Prader-Willi

- Obesity-related illness:
  - Diabetes - Sleep apnea
  - Pica - Hyperlipidemia
  - HTN - Cellulitis (skin-picking)
- Osteoporosis, scoliosis, kyphosis
- Decreased vomiting
- Thick viscous saliva: increased caries

PWS: monitoring

- Developmental & educational assessment with speech therapy assessment
- Assess males for cryptorchidism
- Strabismus in infants & children
- X-rays to r/o scoliosis
- Bone density to r/o osteoporosis
  - (may need Ca+ supplementation)
- Annual BMI
- HgbA1C for those with significant obesity
- Sleep study to r/o sleep apnea
- Psych assessment to r/o OCD & psychosis: hoarding, skin-picking & other symptoms
Behavioral phenotype

- Prader-Willi Syndrome
- “Temper tantrums”
- Impulsivity
- «Stubbornness» (rigidity?)
- «Skin-picking»
- Mood disorders & psychosis
- OCD, behavioral rituals: 24-49%

Consensus Guideline #22

- 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 Classes**

**Antipsychotics**
Target psychomotor agitation & aggressive behaviour, particularly in the presence of psychotic symptoms (hallucinations, delusions, and disorganized behaviour)

- **Traditional**
  - Haloperidol (Haldol), Chlorpromazine (Thorazine/Largactil), Methotrimeprazine (Nozinan), Trifluoperazine (Stelazine), Loxapine (Lozapac)
- **Atypical**
  - Clozapine (Clozaril), Risperidone (Risperdal), Paliperidone (Invega), Olanzapine (Zyprexa), Quetiapine (Seroquel), Ziprasidone (Zeldox/Geodon), Aripiprazole (Abilify)

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**Atypical Antipsychotic Medication**

- Risperidone (Risperdal)
- Paliperidone (Invega)
- Clozapine (Clozaril)
- Olanzapine (Zyprexa)
- Quetiapine (Seroquel)
- Ziprasidone (Geodon)
- Aripiprazole (Abilify)

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**Acute Dystonia**

<table>
<thead>
<tr>
<th>Motor Symptoms</th>
<th>Psychological Symptoms</th>
<th>Differential Diagnosis</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Briefly sustained or fixed abnormal movement e.g., torticollis (30%) tongue (25%) trismus/jaw (14.6%) oculogyric crisis (6%)</td>
<td>fear anxiety</td>
<td>malingering seizure catatonia</td>
<td>high potency first-generation antipsychotics (FGAP) young males first exposure to FGAP</td>
</tr>
</tbody>
</table>
**Case presentation**

Ideas?
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**Akathisia**

**Clinical Signs/Symptoms**

<table>
<thead>
<tr>
<th>Motor Symptoms</th>
<th>Psychological Symptoms</th>
<th>Differential Diagnosis</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foot shifting</td>
<td>Restlessness, Decreased concentration</td>
<td>Psychotic exacerbation</td>
<td>High potency first-generation antipsychotics (FGAP), Elderly, Female</td>
</tr>
</tbody>
</table>

**Parkinsonism**

**Clinical Signs/Symptoms**

<table>
<thead>
<tr>
<th>Motor Symptoms</th>
<th>Psychological Symptoms</th>
<th>Differential Diagnosis</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tremor, Bradykinesia, R rigidity, Akinesia, (masked facies, decreased arm swing)</td>
<td>Poor concentration attention, Bradyphrenia</td>
<td>Depression, Negative symptoms of psychosis</td>
<td>High potency first-generation antipsychotics (FGAP), Elderly, Female, Neurological disorders</td>
</tr>
</tbody>
</table>
Tardive Dyskinesia (TD)

Diagnostic Criteria:
- History of three (3) 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

TD Risk Factors

<table>
<thead>
<tr>
<th>Variable</th>
<th>Factor</th>
<th>Determinant of Increased Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Characteristics</td>
<td>Age, Gender, Diagnosis, Previous EPS, Diabetes</td>
<td>Increased risk w/ age (&gt;55), Female (slightly higher), Affective disorder, Risk 2 to 3 times higher, Risk 50-100% higher</td>
</tr>
<tr>
<td>Drug Characteristics</td>
<td>Type of neuroleptic, Dose/Duration, Continuous vs. intermittent</td>
<td>Typical neuroleptics have similar liability, Positive correlation with total drug exposure, Higher with intermittent treatment</td>
</tr>
</tbody>
</table>

Extra Pyramidal Symptom Assessment
Tardive Dystonia

<table>
<thead>
<tr>
<th>Clinical Signs/Symptoms</th>
<th>Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Motor</strong></td>
<td></td>
</tr>
<tr>
<td>• Sustained muscle contractions</td>
<td>• Abnormal birth</td>
</tr>
<tr>
<td>• Blepharospasm</td>
<td>• Abnormal development</td>
</tr>
<tr>
<td>• Sustained jaw opening (83%)</td>
<td>• Neurological disorders</td>
</tr>
<tr>
<td>• Torticollis (50-65%)</td>
<td>• Diagnosis of a developmental disability</td>
</tr>
<tr>
<td>• Arm hyperextension (42%)</td>
<td>• Male, younger age</td>
</tr>
<tr>
<td>• Back arching/extension (35%)</td>
<td>• Earlier onset</td>
</tr>
<tr>
<td>• Hand flexion/grasp-like</td>
<td></td>
</tr>
<tr>
<td><strong>Psychological</strong></td>
<td></td>
</tr>
<tr>
<td>• Distress</td>
<td></td>
</tr>
<tr>
<td>• Mobility dysfunction</td>
<td></td>
</tr>
<tr>
<td>• Embarrassment</td>
<td></td>
</tr>
</tbody>
</table>

Other side effects

• Sedation, gait disturbance, orthostatic hypotension => increased risk of falls
• Metabolic issues: diabetes, hyperlipidemia, abdominal girth
• Anticholinergic side effects

Anticholinergic Side Effects

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

(*deaths with Clozapine)

Rx: tricyclic antidepressants, antipsychotics
NMS recall: F-E-V-E-R

Cause: d/t blockage of dopamine receptor

S/S:
• Fever: hyperthermia & diaphoresis
• Encephalopathy: abrupt onset confusion, stupor
• Vital sign instability: BP unstable, tachycardia
• Enzyme elevation: CPK (creatinine phosphokinase)
• Rigidity: “lead pipe” rigidity (generalized)

Case presentation

Ideas?

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VCFS/22q-

• ENT: Cleft palate, otitis, deafness
• Visual problems: cataracts, tortuosity of retinal vessels (30%)
• Cardiovascular abnormalities (85%): R aortic arch (52%), Tetralogy of Fallot (21%), ASD, VSD (62%)
• Immune system problems (*vaccines not effective) (r/t thymus)
• Hyper/hypothyroidism
• Scoliosis, arthritis
• Renal abnormalities: absent/dysplastic/multicystic kidneys, hypospadius, reflux, obstructive uropathy
• Mental health: Bipolar disorder, schizophrenia, anxiety
**Behavioral phenotype**

- 22q- Syndrome
- 25 X mental health issues:
  - ADHD, anxiety, mood dx (depression & bipolar disorder), psychosis (schizophrenia)

**DSM-IV**

- Bipolar disorder
  - Manic episodes or mixed + major depressive episodes
  - Cyclothymia:
    - Chronic mood disturbance > 2 yrs
    - Hypomania alternating w/ dysthymic depression
    - NO severe impairment in social or occupational function, NO ψ S/S (delusions)

**Diagnostic criteria DM-ID for manic episode**

- Criteria A: a distinct period of abnormally persistently elevated, expansive or irritable mood lasting at least a week
- Observed behaviors: inappropriate laughing or singing, excessively giddy or silly, intrusive, excessive smiling in ways that are not appropriate to the social context. (Elated mood may be alternating with irritable mood.)
### Table of symptoms, DM-ID

<table>
<thead>
<tr>
<th></th>
<th>Mania</th>
<th>Depression</th>
<th>ADHD</th>
<th>Anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elated mood</td>
<td>+</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irritability</td>
<td>+</td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Distractibility</td>
<td>+</td>
<td>Poor</td>
<td>+</td>
<td>Difficulty</td>
</tr>
<tr>
<td></td>
<td></td>
<td>concentration</td>
<td></td>
<td>concentrating</td>
</tr>
<tr>
<td>Flight of ideas</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Grandiosity</td>
<td>+</td>
<td>-</td>
<td>No?</td>
<td>-</td>
</tr>
<tr>
<td>Poor Judgement / Impulsivity</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Diminished sleep</td>
<td>+</td>
<td>-</td>
<td>Difficulty falling asleep</td>
<td>Insomnia early in night</td>
</tr>
</tbody>
</table>

### Interventions

- Avoid over-stimulating or provoking the person
- Monitor symptoms (severity, efficacy of Tx, relapses)
- Encourage calming activities, regular diet & exercise
- Provide finger foods
- Protect from others (risk of aggression)
- Staff education in therapeutic approaches
- Medications: mood stabilizers, (antipsychotics?, antidepressants?)
- NICE Guidelines (UK) 2006

### Bipolar Mood Chart

Client's Name:  
Month:  

Each day, assess the client's mood state for that day by circling the appropriate mood scale item. Your rating should be based on observations for the entire day and evening. If the client is both manic and depressed during the day, carry out separate ratings based upon 12 hour time periods.

When completing the log, please use the following anchor points for your mood rating:

-3 = markedly manic  
-2 = moderately manic  
-1 = mildly manic  
0 = normal mood for the day  
1 = mildly depressed  
2 = moderately depressed  
3 = markedly depressed

Developed by Hurley & Sexton
Hypomania/Mania

DSM-IV Diagnostic Criteria

Behavioral Equivalents

At least 3 symptoms must be present if patient has euphoric mood. Four symptoms must be present if patient only has irritable mood.

**Mood State**
- Euphoric/elevated/irritable mood
  (no minimum duration necessary)

**Symptom Criteria**
- Inflated self esteem/grandiosity
- Decreased need for sleep (3 hrs)
- More talkative/pressured speech
- Flight of ideas/racing thoughts
- Increased goal directed activity/psychomotor agitation
- Increased goal directed activity/psychomotor agitation
- Excessive involvement in pleasurable activities

- Boisterousness or excitement may be the predominant mood state. Self-injury may be associated with irritability
- Altered estimation of adaptive skills
- Decreased sleep duration
- Increased frequency of vocalization irrespective of patients usable speech
- Disorganized speech
- Decrease in workshop performance
- Increase in aggression, self-injurious behaviour
- Teasing behaviour, fondling others, publicly masturbating

At least 3 symptoms must be present if patient has euphoric mood. Four symptoms must be present if patient only has irritable mood.

Antidepressants in Bipolar Depression:

Hazardous Situations

- Prior antidepressant-induced mania
- Rapid cycling
- Mixed depression
- Post-manic depression
- Low illness-awareness
- Substance abuse
- Anxious depression

Definitions of Mood-Stabilizer:

- Substance which is effective for one pole without inducing the other
- Substance which is effective for both poles of the illness
- Substance which is effective for both poles of the illness and for prophylaxis of recurrences
Psychotropic Medication Classes

Mood Stabilizers

- Lithium Carbonate
- Carbamazepine (Tegretol)
- Valproic Acid (Epival, Depakene)
- Lamotrigine (Lamictal)
- Topiramate (Topamax)

Problems of Current Mood Stabilizers

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

Lithium

- Therapeutic Range
  - 0.7 – 1.2 mEq/L
- Clearance predominantly through kidneys (95%)
- Dosing adjusted based on renal function
  - Individuals with chronic renal insufficiency must be closely monitored
  - Reabsorption of lithium is increased and toxicity is more likely in patients who are hyponatremic or volume depleted (e.g. 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 hours after one year of therapy)
**Lithium Toxicity**

- Closely related to concentration of lithium in the blood
  - * Serum concentrations in excess of 2mmol/L
- Preceded by appearance/aggravation of:
  - Sluggishness, drowsiness, lethargy, coarse hand tremor or muscle twitching, loss of appetite, vomiting and diarrhea
  - **repeated episodes of lithium toxicity can cause kidney damage**

**Treatment:**

- D/C lithium therapy
- Support resp & cardiac functions
- Depending on mental status, use ipecac syrup or gastric lavage
- Follow with charcoal and saline cathartic if multiple ingestion
- Restore fluid and electrolyte balance
  - * Hemodialysis is treatment of choice when above measures fail

**Important considerations:**

- 30-50% of persons with DD have epilepsy, so they may be receiving AEDs (Devinsky, 2002)
- Persons with DD may be 3-4 X more likely to have a psychiatric illness (Hellings, 1999)
- Persons with DD are more prone to drug side effects & are also often unable to articulate the effects of the drugs
- 40-60% of persons in general population show inadequate response to mood stabilizer Tx alone & require additional Rx (antipsychotics) (Hellings, 1999)
Bipolar Mood Chart

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-1 = mildly depressed  -2 = moderately depressed  -3 = markedly depressed

Developed by Hurley & Sovner: community-networks.ca

Effect of Acute Treatments in the Course of Bipolar Disorder

Antidepressants in Bipolar Depression

- DO NOT use in monotherapy
- Combine antidepressant with 1 or more mood stabilizers
- Try first SSRI or buproprion (wellbutrin)
- Beware of noradrenergic drugs and tricyclics
- Discontinue add-on SSRI after response (3-6 months) or may flip into (hypo)mania
- Consider combination with atypical antipsychotics

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**Classic & Newer AEDS**

**Newer AEDs**
- Primidone (Mysoline®) → PB
- Clobazam (Frisium®) → benzo
- Nitrazepam (Mogoten®) → benzo
- Carbamazepine (Tegretol®) (CBZ)
- Divalproex (DVA)/Valproate/Valproic Acid (Epival®, Depakene®) VPA > GI SE
- Levetiracetam (Keppra®)
- Felbamate (Felbatol®) D/C d/t liver probs
- Vigabatrin (Sabril®) Restricted to vision probs
- Ocarbazepine (Trileptal®) → CBZ
- Gabapentin (Neurontin) → gaba
- Lamotrigine (Lamictal®) → no P450!
- Topiramate (Topamax®)
- Pregabalin (Lyrica®) → gaba

**Classic AEDs**
- Phenobarbital (PB)
- Ethosuximide (Zarontin®)
- Clonazepam (Rivotril®) → benzo
- Phenytoin (Dilantin®)

**N/A in Canada yet:**
- Tiagabine (Gabitril®)
- Zonisamide (Zonegran®)
- Rufinamide (Banzel®) (used for LGS)
- Lacosamide (Vimpat®)

**Drug Levels**

- **Carbamazepine (CBZ)**
  - 17-54 µmol/L
  - 4-12 mcg/ml

- **Phenobarbitol (PB)**
  - 65-150 µmol/L
  - 20-40 mcg/ml

- **Phenytoin (PHT)**
  - 40-80 µmol/L
  - 10-20 mcg/ml

- **Valproic acid (VPA)**
  - 350-800 µmol/L
  - 50-115 mcg/ml

**Case presentation**

Ideas?

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Down Syndrome

- Hypothyroidism
- Sleep apnea
- Depression
- Alzheimer’s (>40)
- Epilepsy
- Atlanto-axial instability
- Degenerative disc disease of C-spine
- Dental concerns: (gingivitis, bruxism, malocclusion)
- Lymphoblastic leukemia
- Celiac disease
- Obesity
- Congenital heart defects
- Mitral valve prolapse
- Hearing deficits
- Higher risk AOM/OE
- Higher risk pneumonia
- Skin conditions: (eczema, dry skin)
- Visual problems: (strabismus, keratoconus, cataracts)

SDAT in DS

Age Range: Range of Reported Incidence of Alzheimer Disease Among Persons with Down Syndrome

- 40 – 49 years old: 10 - 25%
- 50 – 59 years old: 20 - 50%
- Over 60 years old: 60 - 75%

*However, SDAT not in all persons w/ DS!

YouTube: Garth Home Society

- In Victoria, B.C.
- http://www.youtube.com/watch?v=k_x9zJyQzu8
DS & Az

- DVD clip => 7:22-8:50
- New resource for screening: http://aadmd.org/ntg/screening

Case presentation

Ideas?
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Behavioral phenotype

- Down Syndrome
- Autism: 10 %
- Depression: 6-11 %
- Bipolar disorder: rare
- Early onset dementia, approx 30 yrs before the general population
- Overall rate of Psych dx: 11-19 %
### Genetic syndromes and dual diagnosis

<table>
<thead>
<tr>
<th>Syndrome</th>
<th>Autism</th>
<th>Anxiety Disorder</th>
<th>Bipolar Disorder</th>
<th>Depression</th>
<th>Mania</th>
<th>Schizophrenia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sp</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Prader-Willi</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Fragile X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>22q11 deletion (velocardiofacial)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Cornelia de Lange</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

### Depression

![Depression](community-networks.ca)

### Spectrum of Depression and Anxiety Disorders

- Posttraumatic Stress Disorder
- Social Anxiety Disorder
- Panic Disorder
- Obsessive-Compulsive Disorder
- Generalized Anxiety Disorder

![Spectrum of Depression and Anxiety Disorders](community-networks.ca)
• Mood disorders
  – Major depressive disorder
    • For 2 weeks + 4 other symptoms
  – Dysthymia
    • Depressive mood most of the time
    • For > 2 years
    • Does not meet criteria for major depression

S/S of Depression

• Depressed mood
• Anhedonia
• Alterations in eating, sleeping & activity levels
• Feelings of worthlessness or guilt
• Difficulty with memory, concentration & decision-making
• Recurrent thoughts of death & self-harm

<table>
<thead>
<tr>
<th>DSM-IV Criteria</th>
<th>Observed Equivalents in Individuals with Developmental Disabilities</th>
<th>Objective Behaviors Which Might be Measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Depressed Mood, irritable mood in children or adolescents</td>
<td>Anhedonia, irritability, somatic complaints</td>
<td>Measure rates of smiling response to preferred activities, crying episodes, somatic complaints</td>
</tr>
<tr>
<td>2) Generalized decrease in interest or pleasure by self-report or observed apathy</td>
<td>Withdrawal, lack of interest, refusal to participate in previously favored activities</td>
<td>Measure time spent in room, etc.</td>
</tr>
<tr>
<td>3) Significant decrease in appetite or weight loss (5% body weight in one month) or significant increase in appetite or weight gain (5% body weight in one month)</td>
<td>Significant increase or decrease in weight (5% in one month)</td>
<td>Measure meal refusals, changes in weight, food hoarding</td>
</tr>
<tr>
<td>4) Insomnia or hypersomnia</td>
<td>Change in total sleep time</td>
<td>Use sleep chart to record sleep</td>
</tr>
</tbody>
</table>
### DSM-IV Criteria for Major Depression and Behavioral Equivalents in Individuals with Developmental Disabilities

<table>
<thead>
<tr>
<th>DSM IV Criteria</th>
<th>Observed Equivalents in Individuals with Developmental Disabilities</th>
<th>Objective Behaviors Which Might be Measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Psychomotor activity or retardation</td>
<td>Agitation may present SIB or aggression, pacing, running away, restlessness, inability to complete ADLs</td>
<td>Time spent in bed, spontaneous verbalization, pacing</td>
</tr>
<tr>
<td>6) Fatigue or loss of energy</td>
<td>Retardation may represent as decreased energy, passivity</td>
<td>Napping at workplace, sleep charts</td>
</tr>
<tr>
<td>7) Feelings of worthlessness/inappropriate guilt</td>
<td>Statements such as, “I’m Retarded”, “nobody likes me”</td>
<td>Requires expressive language if symptoms are present</td>
</tr>
<tr>
<td>8) Decreased concentration/indecisiveness/diminished ability to think</td>
<td>Change in workplace performance, regression of skills</td>
<td>Use workplace performance data</td>
</tr>
<tr>
<td>9) Recurrent thought of death/suicidal ideation</td>
<td>Perseveration on the deaths of family members and friends, preoccupation with funerals, deliberately potentially lethal acts, SIB</td>
<td>Requires expressive language to determine if symptoms are present</td>
</tr>
</tbody>
</table>

### Depression: pearls

- **COMMON MEDICAL PROBLEMS** may provoke depressive symptoms, for example, UTIs, AOMs, cellulitis, constipation, GERD, migraines, & SE of Rx
- The impact of stressful life events such as staffing changes might provoke an intense reaction!

### Interventions

- **SUICIDAL PRECAUTIONS**
- Symptom Surveillance (severity, efficacy of Tx, recurrence)
- Encourage participation in ADLs (w/ assistance & encourage autonomy)
- Regular physical activity
- CBT (thoughts +)
- Staff training/education
- Medications: antidepressants (SSRIs)
- NICE guidelines, 2009
Antidepressants
(Tx: Panic disorder, OCD, social phobia, bulimia)
• Selective serotonin reuptake inhibitors
  Fluoxetine (Prozac), paroxetine (Paxil), sertraline (Zoloft),fluvoxamine (Luvox), citalopram (Celexa)
• Novel antidepressants
  Venlafaxine (Effexor), Nefazodone (Serzone), Moclobemide (Manerix), Bupropion (Wellbutrin)
• Tricyclic antidepressants
  Amitriptyline (Elavil), Imipramine (Tofranil), Sinequan (Doxepin), Clomipramine (Anafranil)
Antidepressants

- Selective serotonin reuptake inhibitors
  
  GAD
  Panic disorder
  OCD
  Social phobia
  Bulimia

Novel antidepressants

- Desvenlafaxine (Pristiq), Venlafaxine (Effexor),
- Duloxetine (Cymbalta)
- Buproprion (Wellbutrin)

- Tricyclic antidepressants
  
  Amitriptyline (Elavil), Imipramine (Tofranil), Sinequan (Doxepin), Clomipramine (Anafranil)

Anticholinergic Side Effects

- Blurry vision
- Nasal congestion
- Dry mouth
- Urinary retention
- Constipation*
  
  (*deaths with Clozapine)

Rx: tricyclic antidepressants, antipsychotics
Serotonin Syndrome & Discontinuation Syndrome

- Serotonin syndrome
  - Within 24 hours of start or increase (or additional Rx)
  - S/S: nausea, diarrhea, chills, sweating, dizziness, fever, increased BP, palpitations, increased muscle tone & twitching, tremor, hyperreflexia, restlessness, agitation, disorientation, confusion (muscle breakdown, coma & death!)

- Withdrawal/discontinuation syndrome
  - Within 1-7 days of abrupt D/C & for up to 3 weeks!
  - S/S: asthenia, dizziness, H/A, insomnia, tinnitus, N & V, irritability, disorientation, confusion, agitation, nightmares/vivid dreams, electric-shock sensations, chills, cramps, diarrhea

Case presentation

Ideas?

Menopause in I/DD

- End of menstruations may uncover feelings of grief & loss of not ever having children

- S/S can include: night sweats, hot flashes, mood swings, insomnia, vaginal mucosal changes, increased risk of UTIs, muscle aches & pains, H/A, dry mouth or eyes, dry itchy skin, poor memory & concentration
Case presentation

Ideas?

Fragile X

• Tactile sensitivity & defensiveness
• Hyperextensible joints, flat feet
• Recurrent otitis in childhood
• Strabismus (30-56%)
• Scoliosis, hernias
• Epilepsy (13%-50%)
• Mitral valve prolapse (55%), cardiac murmurs, hypertension
• Hypotonia, poor muscle tone in childhood
• Shyness, anxiety, ADHD

FXS: monitoring

• GERD
• Connective tissue: pes planus, hyperflexibility
• Echocardiogram
• Vision & hearing assessments (ophthalmology & ENT)
• Speech & language, OT, PT
Addendum – autism and Sensory OVERLOAD

See YouTube video made by someone with Autism at:

http://www.youtube.com/watch?v=BPDTEuotHe0

Behavioral phenotype

• FragileX Syndrome
• Males
  – Autism (50 %)
  – ADHD
  – Social Anxiety
  – SIB (58 %)
• Females
  – Social Anxiety
  – Depression
  – Autism (20 %)
  – SIB (17 %)

Sensory Issues

• Tactile hyposensitivity & proprioception
  – Deep pressure, squeeze machine, weighted vest
• Tactile hypersensitivity
  – Touch (clothes, tags, soft touch, etc)
• Altered sensory perceptions
  (synaesthesia ex: colored hearing)
Perception is Reality!

“There are no bizarre behaviors – more accurately, there are human responses that are not fully understood or appreciated.”

Carol Gray, 2007

Sensory Interventions

• Sensory integration / sensory diet
  – Compressions (trampoline)
  – Swing use
  – Snoezelen room
• Music therapy

Snoezelen Room

• Combines lights, bubbles, colours, soothing music and ambient sounds, textures, aroma, and vibration to create a multi-sensory environment that is both relaxing and stimulating
• Main goal is to help calm the individual & promote relaxation by allowing them to enjoy the sensory stimulation
• Used with persons with dementia but also with persons with autism & developmental disabilities
Resources

• Building Bridges through Sensory Integration by Ellen Yack, et al. ($36.95)
• Ocean Drum
• Tangle
• Cool Bananas CD ($24.95)

Psychiatric concerns in ASD

• Anxiety
• Depression
• Risk of suicide?
• SIB
• OCD?
• Aggression & behavioural outbursts or meltdowns

Resources

• Social scripts, social stories by Carol Gray
• The Incredible 5-point Scale by Kari Dunn Buron & Mitzi Curtis ($24.95)
• The 5-point Scale & Anxiety Curve Poster by Kari Dunn Buron ($29.95)
• Relaxation & breathing exercises
• (Geneva Center)
• Anxiety disorders
  – Panic attacks
    • Intense anxiety
  – Agoraphobia
    • Anxiety related to situations or avoiding situations
  – Phobias
    • Anxiety provoked by certain objects
  – Obsessive-compulsive disorder
    • Obsessions
    • Compulsions (rituals that decrease anxiety)

PANIC DISORDER

• Presence or hx of recurrent, unexpected panic attacks that do not have underlying chemical or medical etiology
• Involves extreme apprehension or fear, associated with feelings of impending doom or terror
• Panic attack: starts abruptly & reaches peak within 10 minutes
• Often think they’re having MI (s/s similar: SOB, RSCP, ‘doom’, sweating, tachycardia, shaking, nausea, dizziness, fear of going crazy/dying, chills/hot flashes, paresthesias, choking/smothering feeling)

DSM-IV Criteria: Recurrent Panic Attacks

4 or more of the following
  • Dyspnea or the sensation of being smothered
  • Depersonalization or derealization
  • Fear of going crazy or of losing self-control
  • Fear of dying
  • Palpitations or tachycardia
  • Sweating
  • Trembling or shaking
  • Feeling of choking
  • Chest pain or discomfort
  • Nausea or abdominal upset
  • Dizziness, feeling of unsteadiness or faintness
  • numbness or tingling sensation
  • Flashes or chills
**DSM IV-R CRITERIA**

Both:

- Recurrent panic attacks
- At least one of the attack followed by 1 month of persistant concern of another attack, worry about going 'crazy'/having MI, losing control

- Absence or presence of agoraphobia (fear of being alone in open or public places where escape might be difficult, so much so that the person may not leave home)

- Panic attacks not due to Rx/ETOH, or a medical or mental disorder (phobia/PTSD)

---

**Anticipatory anxiety**

One or more of the following for at least one month:

- Persistent concern about having another panic attack
- Worrying about the consequences of an attack (e.g. heart attack)
- Significant change in behaviour due to recurrent panic attacks

---

**Development of Panic Disorder**

Spontaneous panic attacks

\[ \downarrow \]

Repeated spontaneous panic attacks

\[ \downarrow \]

Anticipatory anxiety

\[ \downarrow \]

Avoidance behaviour

\[ \downarrow \]

Agoraphobia
**Panic Disorder**

- Prevalence in general population = 20%
- Age of onset = mid 20s
- Family Hx of panic attacks can show 10% co-morbidity
- Hx gathering is determining factor in Dx (PTSD vs Panic disorder)
- CBT very effective Tx, often with Rx
- Coffee, ETOH, cigarettes, & certain drugs or food may contribute to the refractory aspect of panic disorder

**Panic Attack: Pearls**

- Most symptoms of panic attacks can be seen in PWIDD, except for depersonalization (due to cognitive functioning level)
- In persons with severe/profound developmental disabilities, extreme panic can be manifested as aggression or SIB

*(DSM-10, p.191)*

**Tx – Panic disorder**

- Rx: SSRIs & benzos
- Therapy
  - CBT: info on anxiety & panic, cycle, S/S management, cognitive restructuring, systematic desensitization, in vivo exposure
  - BT
  - Relaxation techniques
  - Breathing techniques
PHOBIAS

- Irrational fears of an object or situation even tho’ pt recognizes them as unreasonable
- Three types: agoraphobia, social phobia (public speaking, performing) & specific phobias (snakes, flying, heights)
- Physical symptoms include:
  - Profuse sweating
  - Poor motor control
  - Tachycardia
  - Increased blood pressure

Tx - Phobias

- Rx: treat panic attacks as mentioned
- Therapy
  - CBT: info on anxiety & panic cycle, S/S management, cognitive restructuring, systematic desensitization, in vivo exposure
  - BT
  - Insight-oriented Tx
  - Self-hypnosis
  - Biofeedback
  - Relaxation techniques
  - Breathing techniques

Obsessive Compulsive Disorder

- Obsessions: Persistent ideas, thoughts, impulses, or images that are experienced as intrusive and inappropriate that cause marked anxiety or distress
- Compulsions: Repetitive behaviours (e.g. hand washing, ordering, checking) or mental acts (e.g. praying, counting, repeating words silently) the goal of which is to prevent or reduce anxiety or distress, not provide pleasure or gratification
- Disorder: A clinically significant behavioural or psychological syndrome or pattern that occurs in an individual and that is associated with present distress (e.g. a painful symptom) or disability (e.g. impairment in one or more important areas of functioning) or with a significantly increased risk of suffering death, pain, disability, or an important loss of freedom
- (DSM-IV, APA, 1994)
Checking
Washing *
Counting *
Need to ask / confess
Hoarding

Fear of contamination *
Pathologic doubt *
Somatisation *
Need for symmetry
Aggressivity
Sexuality

* Occurrence lower among PWDD, DSM-5-ID, p.211

Pharmacotherapy for Obsessive-Compulsive Disorder

• First-Line
  – SSRI’s
• Second-line
  – Clomipramine
• Considerations
• Higher mean doses
• Delayed onset of response
• Residual symptoms common
• Often long-term (maintenance)

OCD: Pearls

• Repetitive behaviors with physiologically rewarding properties should not necessarily be considered compulsions
  (ex.: masturbation, hyperventilation, overeating, overdrinking, smoking, humming, pacing)

• SCB, such as aggression or SIB, may occur if the person is prevented from completing the compulsion!

* Occurrence much lower in PWDD, due to cognitive level & limited abstract thinking, DSM-5-ID, p.209

DSM-5-ID, p.210 & 213
**Pharmacologic Management of OCD**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose Range (Frequency)</th>
<th>Target Symptoms</th>
<th>Common Adverse Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clomipramine</td>
<td>10-300 mg/d (qhs)</td>
<td>Obsessions, compulsions, ADHD, Nocturnal enuresis</td>
<td>Dry mouth, blurred vision, constipation, sexual dysfunction, orthostatic hypotension</td>
</tr>
<tr>
<td>Fluoxetine</td>
<td>10-80 mg/d (qam)</td>
<td>Obsessions, compulsions</td>
<td>Insomnia, nausea, headache, agitation, sexual dysfunction</td>
</tr>
<tr>
<td>Fluvoxamine</td>
<td>50-300 mg/d (qhs or bid)</td>
<td>Obsessions, compulsions</td>
<td>As above</td>
</tr>
<tr>
<td>Sertraline</td>
<td>50-200 mg/d (qam or bid)</td>
<td>Obsessions, compulsions</td>
<td>As above</td>
</tr>
<tr>
<td>Paroxetine</td>
<td>10-40 mg/d (qam or bid)</td>
<td>Obsessions, compulsions</td>
<td>As above</td>
</tr>
<tr>
<td>Citalopram</td>
<td>10-40 mg/d (qam or bid)</td>
<td>Obsessions, compulsions</td>
<td>As above</td>
</tr>
</tbody>
</table>


**Non-Pharm approaches to OCD**

- Divert & redirect attention
- “Sensory” box or bag
- Interrupting w/ strong sensory stimuli
- Try finger-play w/ person to divert
- “grounding” : “touch my arm/hands”

**Spectrum of Depression and Anxiety Disorders**

- Depression
- Social Anxiety Disorder
- Obsessive-Compulsive Disorder
- Generalized Anxiety Disorder
- Panic Disorder
- Posttraumatic Stress Disorder

community-networks.ca
• PTSD (post-traumatic stress disorder)
  – Reliving a traumatic incident
  – Avoiding stimuli associated with the trauma

• GAD (generalized anxiety disorder)
  – Persistent & excessive anxiety
  – Six months

Diagnostic Criteria for PTSD (DSM IV)

• Exposure to a traumatic event
  – Sexual abuse
  – Physical abuse
  – Life threatening experience
  
   Re-experiencing the trauma
   Traumatic nightmares
   Flashbacks
   Psychological distress
   Physiological reactivity on exposure to trigger

• Increased arousal
   Difficulty falling asleep
   Irritability
   Difficulty concentrating
   Hypervigilance/Exaggerated startle response

• Emotional numbing
   Diminished interest/participation in significant events
   Restricted range of affect
   Avoidance behaviour
**PTSD in Individuals with Developmental Disabilities**

**Presentation**

Explosive aggression/self-injurious behaviour (SIB) in response to unusual or difficult to identify antecedents

- Screaming
  - May assume self-protective stance
  - At people not present
  - Triggered by smells, places, people or sounds
  - May worsen if individual is being overpowered

**PTSD in Individuals with Developmental Disabilities**

- Calling familiar staff by different names
- Attacking favorite staff members
- SIB
- Sleep disturbances

**PTSD in Individuals with Developmental Disabilities**

- Hyper vigilance
  - Individual will know everything about environment to ensure optimal safety
- Flashbacks
  - Dissociation
Treatment Overview

- Appropriate psychotherapy
- Judicious use of medications
- Habilitation changes to minimize dissociative triggers

Clinical Treatment

Psychotherapy

- Focus on 3 Stages of Recovery
  - Establishing Safety
  - Reconnection with Others
  - Reconstruction of the Trauma

Pharmacotherapy

- Treat target symptoms
- Treat co-morbid disorders
- Avoid exposure to drugs interfering with recovery
Treatment

Indicators of Improvement

• Symptomatic
  – Sleep improvement
  – Mood change
  – Decrease frequency/intensity of SCB

• Interpersonal
  ➢ Cognitive self-representation
  ➢ Appropriate interactions with others
  ➢ Ability to form trusting & reciprocal relationships

Generalized Anxiety Disorder (GAD)

• Excessive anxiety/worry persisting for 6 months
• Uncontrollable worrying
• Anxiety associated with 3+ of the following:
  – Restlessness, feeling keyed-up
  – Easily fatigued
  – Irritability
  – Difficulty concentrating, mind goes blank
  – Muscle tension
  – Sleep disturbance

• Anxiety or physical s/s that cause significant impairment in social/occupational/other areas
• Disturbance not d/t substances, medical, PDD or psychiatric disorder

Clinical Treatment

Indicators of Improvement

• Vocational
  – Increased work productivity
  – Improved concentration
Rationale for Antidepressant Use in Generalized Anxiety Disorder

- GAD is comorbid with major depression in 62% of cases
- Clinical goal: treat both anxiety and depression
- When you see the anxiety, don’t miss the depression
- When you see the depression, don’t miss the anxiety

Tx - GAD

- Rx:
  - SSRIs (Paxil)
  - Benzos (short-term only)
  - Buspar
  - TCAs (imipramine)
- Therapy
  - CBT
  - BT

Summary of Interventions (1)

- Structure environment (+ rituals)
  - predictability
- Reduce stressors
  - Observe for « agitation »
- Teach the person coping strategies
  - Increase tolerance to anxiety provoking situations
  - Increase his/her control of the situation
Summary of Interventions (2)

• Gradual exposure to anxiety provoking stimuli
  – Reduce uncomfortable physiologic symptoms

• Medication (alone or combination Tx)
  – SSRIs, benzodiazepines, anxiolytics

• Psychotherapy:
  – Cognitive behavioral therapy (CBT)
  – Cognitive distortions & behavior

Summary of Interventions (3)

• Relaxation Techniques
  – Active & (passive)

• Self-control Techniques
  – Self-talk
  – Cue cards
  – Move to a calm environment

• Physical activity

• Communicate feelings of anxiety to others

Psychotropic Medication Classes

Benzodiazepines
Target psychomotor agitation, anxious and fearful affects, and have a calming or sleep-inducing effect

Examples include:
• Lorazepam (Ativan),
• Diazepam (Valium),
• Oxazepam (Serax),
• Alprazolam (Xanax),
• Clonazepam (Rivotril),
• Midazolam (Versed)
Psychotropic medications

- **Onset of action** - time required for medication to have an optimal effect.
- **Duration of action** - determines appropriate dosing intervals (minimum time between doses of the medication).
- **Therapeutic range** - level of medication in the blood & brain achieved over a period of time by prescription of a specific dose of medication. This range is characterized by:
  a) a therapeutic threshold below which the drug has a suboptimal effect
  b) a toxic threshold above which adverse effects increase in the absence of any further positive effects

Absorption

Use of Benzodiazepines

- Useful in many patients but not recommended first-line
- Use only for short periods of time (less than 4 months)
- Side effect profile:  
  - Sedation
  - Reduced coordination
  - Increased risk of falls
  - Impaired cognition
- Risk of dependency/tolerance
- Withdrawal symptoms/rebound anxiety

** (decrease gradually: 10 - 25% every 1 - 4 weeks)
**Benzodiazepines**

<table>
<thead>
<tr>
<th>Class</th>
<th>Drug</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Long half-life (&gt;13hrs) &amp; high potency</td>
<td>Clonazepam (Rivotril)</td>
</tr>
<tr>
<td>2. Long half-life (&gt;13hrs) &amp; low potency</td>
<td>Chlordiazepoxide (Librium)</td>
</tr>
<tr>
<td>3. Short half-life (&lt;13hrs) &amp; high potency</td>
<td>Lorazepam (Ativan)</td>
</tr>
<tr>
<td>4. Short half-life (&lt;13hrs) &amp; low potency</td>
<td>Oxazepam (Serax)</td>
</tr>
</tbody>
</table>

**Indications for the Use of Benzodiazepines**

<table>
<thead>
<tr>
<th>ESTABLISHED INDICATIONS</th>
<th>PROBABLE INDICATIONS</th>
<th>POSSIBLE INDICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panic disorder</td>
<td>Adjustment disorder with anxiety</td>
<td>Akathisia</td>
</tr>
<tr>
<td>GAD</td>
<td>Acute stress-related insomnia</td>
<td>Tourette syndrome</td>
</tr>
<tr>
<td>Social phobia</td>
<td>Circadian rhythm disturbances</td>
<td>Severely excited states (ER)</td>
</tr>
</tbody>
</table>

**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 hSE: 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

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.

Co-morbidities in PWIDD

- **Have higher rates** of some health problems (e.g.: seizures (25x); GERD; constipation; sensory impairments; obesity, behavioural and mental health problems)
- **Have earlier onset** (e.g., osteoporosis, dementia)
- **Have different symptoms** (e.g., dysphagia)
- **Have complicating factors** (e.g., multiple and long-term medications)
- **Have vulnerabilities** (e.g., abuse, infections) (People with ASD – vulnerability to sensory stimuli)
- May have **musculoskeletal and motor problems** affecting office access; use of equipment
INDIVIDUALIZED Treatments!

- Non pharmacological
- Multimodal approach
- Decrease stress / anxiety:
  - Sensory
  - Environmental modifications
- Staff support & training
- Communication aids
- CBT, Psychotherapy

O’Hara, et al., 2010, Chapter 16

Pharmacological
- Antidepressants
- Mood stabilizers
- Benzodiazepines
- Anxiolytics
- Antipsychotics
- Stimulants
- Monitoring side effects!

Monitoring of side effects

- Medication side effect monitoring
- MOSES
- SSRI side effect monitoring tool

To consider… (Ryan, 2001)

- Challenging behavior (CB) may indicate a health problem (physical or mental)
- These same CBs may mean different things at different times
- EVERY CB means something!
- Pain that you can control is preferable to pain that is out of control!
- Often, our clients have learnt NOT to complain (M*)
Intensive Evaluation needed!

- Data collection: many aspects!
- Taking a thorough history
- Review of systems
- Physical exam
- Investigations

Challenges – Survey of PCP’s

True or False:

1. I have the necessary **skills and training** to care for an adult with DD.
2. During a typical office visit there is **adequate time** to perform an assessment of an adult with DD.
3. There are sufficient resources and I can easily **access interdisciplinary input** in my community to support me in providing medical care to adults with DD.

Supports in Ontario

For PCP’s & caregivers working w/ people with DD:

- **Guidelines, Tools & Education Module**
- CNSC (Coordinators: Sophie Lamontagne (ENG) & Tanya Viner (FR))
- Health Care Facilitators (HCF : Liz Kacew)
- DSO’s (July 2011)
- CAMH Website (July 2011)
- [http://www.camh.ca/en/hospital/health_information/a_z_mental_health_and_addiction_information/dual_diagnosis/Pages/default.aspx](http://www.camh.ca/en/hospital/health_information/a_z_mental_health_and_addiction_information/dual_diagnosis/Pages/default.aspx)
- DDPCI Training Course
- DDPCI Clinical Support Networks
What the psychiatrist will need to know...

- Demographics
- Chief complaint or reason for referral
- Family history
- Current medications
- Medication history
- Medical history including recent labs

What the psychiatrist needs...

- Prior reports
- Previous diagnosis, assessments
- Developmental history
- Psychological info
- Social information

Behaviour:
- Patterns
- Duration
- Frequency
- Intensity
- Baseline

Let’s take a closer look... W 5

Who?
What?
When?
Where?
Why?
Caregiver’s Role

- Observe for particular signs
  - Grimacing
  - Body posturing/positions
  - New posture
  - Change in regular habits/behaviours
- Note observations & tabulate data
  - charts
    - Sleep, food diary, weight
    - Pain scale/checklist
    - Side effects of meds
- Precision!

Special concerns

- KNOW YOUR PT: Baseline lab values!
- PMHx
- HPI
- Behavior changes, concerns
- Think outside the box, too!
  (Insomnia Tx: socks!)
- Syndrome specific care!

Tools

- F/U sheet for clinic
- A-B-C sheets
- Scatterplot
- Pain assessment: NCAPC
- Sleep chart/sleep hygiene
- Side effects of meds
- Food diary
- Bristol stool chart for BM monitoring
- Sz records
- Dementia screening
Questions (for caregiver to ask)

- 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 appointment?
- 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 appointment?

IMPORTANT things to do

- Bring data collection with you
- Send a familiar staff member with the client: to help keep him calmer & for best source of information
- Come to the appointment with historical information
- Bring information from multiple settings (work & home)
- Follow through with recommendations
- Be specific, avoid: “Joe’s not himself” “He seems worse than before” “He’s having mood swings”. Bring videos or photos of events
- Bring lab slips & other investigations

A Good Informant Knows

- What the target symptoms are
- What the proposed treatment is supposed to do
- What side effects (SEs) to look for
- When to report SEs
- Use charts and other data collection systems
- Good information is everything: garbage in... => garbage out!
Questions?

Please complete and return Training Evaluation form

Thank you!

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