Accommodating and Managing Behaviours in Dementia

**Part 1: Decisional and Practice Support for BPSD**

28 February 2012

Person with Dementia has Behavioural and Psychological Symptoms (BPSD)

Consider Delirium or exacerbation due to ongoing, active medical problem

Evaluate for possible Antecedents (triggers)

Contact Family Physician (SBAR BPSD)

Cohen Mansfield Agitation Inventory (CMAI)

Dementia Observation Scale (DOS)

Resident Assessment Instrument (RAI) – 2.6, HC

- Changed Outcome Scales? (eg. Pain, CPS, DPS, etc)
- New Client Assessment Protocols?

Analyze data to determine possible cause(s)

PHYSICAL:
- Unmet Needs
- Medical Co-morbidity / Change in Medical Condition
- Medications / Side effects
- PAIN
- Altered Senses (vision, hearing)
- Falls

INTELLECTUAL:
- Communication Changes
- 5 A’s
- Dementia related cognitive changes

EMOTIONAL:
- Depression
- Multiple losses
- Past history of mental health issues

CAPABILITIES:
- Residual strengths and abilities
- Progressively lowered stress threshold

ENVIRONMENT:
- Consider proper
- Signage
- Lighting
- Colour scheme
- Other

SOCIAL:
- Isolation
- Loneliness
- Boredom
- Task focused non-supportive care approach

Analysis Tip:
- Describe EACH behaviour in neutral clear language
- Case plan should identify each behaviour and related intervention
- Remember to include patient (if capable) as a substitute decision maker

Create an individualized care plan of specific non-pharmacological interventions

Mitigate antecedents

- Continue to monitor for any changes
- Decreased intensity, frequency, duration

Address Modifiable Causes

Educate/support Staff / Caregivers

No Improvement

Interdisciplinary Consultation
Referral to Geriatric Psychiatry Mental Health Outreach (if available)

Monitor behavioural response to planned strategies

Reassessment with Family Physician

PART II
### Medication Options

<table>
<thead>
<tr>
<th>SLEEP DISTURBANCE:</th>
<th>APATHY:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sedative Hypnotics</td>
<td>ChEI</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ABERRANT MOTOR BEHAVIOUR:</th>
<th>PSYCHOSIS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Wandering)</td>
<td>Atypical Antipsychotics</td>
</tr>
<tr>
<td></td>
<td>ChEI (First line intervention for Lewy Body, Parkinsons)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>AGGRESSION:</th>
<th>DEPRESSION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Physical/Verbal)</td>
<td>SSRI</td>
</tr>
<tr>
<td>Mild – Moderate</td>
<td>SNRI</td>
</tr>
<tr>
<td>(irritability)</td>
<td>Citalopram</td>
</tr>
<tr>
<td>ChEI (Alzheimers)</td>
<td>Memantine</td>
</tr>
<tr>
<td>Memantine (Alzheimers)</td>
<td>Trazodone</td>
</tr>
<tr>
<td>Moderate – Severe</td>
<td>Other</td>
</tr>
<tr>
<td>Atypical Antipsychotics</td>
<td></td>
</tr>
<tr>
<td>Refractory</td>
<td></td>
</tr>
<tr>
<td>Citalopram</td>
<td></td>
</tr>
<tr>
<td>Carbamazepine</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>MANIC-LIKE:</th>
<th>PSYCHOSIS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Mood Stabilizers)</td>
<td>Atypical Antipsychotics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ANXIETY:</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSRI</td>
</tr>
<tr>
<td>Trazodone</td>
</tr>
<tr>
<td>pm</td>
</tr>
<tr>
<td>Benzodiazepine</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SEXUALLY INAPPROPRIATE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSRI</td>
</tr>
<tr>
<td>Atypical Antipsychotic</td>
</tr>
<tr>
<td>Anti-Androgen</td>
</tr>
</tbody>
</table>

### Clinical Assessment
- untreated medical conditions
- review current medications / side effects
- cognitive enhancers for dementia of the Alzheimer type

### Consider pharmacologic treatment for BPSD
- behaviour is dangerous, distressing, disturbing, damaging to social relationships and persistent AND
- has not responded to comprehensive non-pharmacologic treatment plan, including removal of offending drugs

### Is behaviour likely to respond to medication?
- YES: These behaviours ARE likely to respond to medication
- NO: These behaviours ARE NOT likely to respond to medication

### Monitoreffectiveness of Treatment, side effects, titrate dose

### Do not stop psychotropic medication when prescribed for another indication besides behaviour eg. Epilepsy, Schizophrenia, Bipolar, Major Depression

### If target neuropsychiatric symptoms stable at 3 to 6 months then consider tapering medication. Attempt to decrease by ¼ to ½ dose monthly.

### Decide if Therapeutic goals are met

### Discontinue medication if possible

### Monitor for recurrence / emergence of BPSD
The Behavioural and Psychological Symptoms of Dementia

Taking a New Look at Dementia Behaviours: Adjusting Perspectives

Behaviour is not simply a neurobiological symptom of disease. It is a complex response to the interaction of many variables that include the person’s current cognitive abilities, psychosocial and cultural history, physiological and emotional needs, and physical and social environments.

A lack of understanding about what the root causes of dementia behaviours, or to simply dismiss it as “part of the dementia”, will not result in appropriate intervention.

It is critical that care providers understand the meaning of behaviour, look to identify what triggers it, what risks it poses and to whom, and to intervene in a timely and appropriate manner.

The behaviours associated with word dementia have been termed problematic, disturbing, difficult, inappropriate and challenging. This negative terminology that emphasizes the behaviour from the caregiver’s point of view is being replaced with the more neutral and person-centred term responsive behaviours, in recognition that most behaviour is a response to a cue or trigger that the person experiences.

Today, behaviours in dementia are being recognized as a form of communication, rather than random, unpredictable or meaningless events that arise from disease. It is helpful to view behaviours as the person’s best attempt to respond to their current situation.

When health care providers focus on the individual’s perspective, and see behaviour as a form of communication and coping strategy rather than a problem to be managed, a more person-centred approach to care delivery can be achieved.

What’s Needed?

The evidence indicates that successful management of BPSD requires care providers to understand and accommodate BPSD, not control them.

This means making adjustments in our viewpoint of what lies behind behaviours, our use of language, and using care approaches that are person-centred and tailored to the individual with an emphasis on remaining abilities and strengths.
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PART I: DECISIONAL & PRACTICE SUPPORT FOR BPSD
**CONFUSION ASSESSMENT METHOD (CAM) WITH PRISME**

**Directions:**
Initiate CAM & PRISME for patients who are delirious or identified as high risk (3 or more risk factors) or show unexplained behaviors. Assess Q shift & PRN.

<table>
<thead>
<tr>
<th>CAM</th>
<th>PRISME</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. ACUTE ONSET AND FLUCTUATING COURSE</strong></td>
<td><strong>Does the abnormal behavior:</strong></td>
</tr>
<tr>
<td></td>
<td>o come and go?</td>
</tr>
<tr>
<td></td>
<td>o increase/decrease in severity?</td>
</tr>
<tr>
<td><strong>2. INATTENTION</strong></td>
<td><strong>Does the patient:</strong></td>
</tr>
<tr>
<td></td>
<td>o have difficulty focusing attention?</td>
</tr>
<tr>
<td></td>
<td>o become easily distracted?</td>
</tr>
<tr>
<td></td>
<td>o have difficulty following a conversation?</td>
</tr>
<tr>
<td><strong>3. DISORGANIZED THINKING</strong></td>
<td><strong>Is the patients’ thinking</strong></td>
</tr>
<tr>
<td></td>
<td>o disorganized?</td>
</tr>
<tr>
<td></td>
<td>o incoherent?</td>
</tr>
<tr>
<td><strong>4. ALTERED LEVEL OF CONSCIOUSNESS</strong></td>
<td><strong>What is the patient’s level of consciousness?</strong></td>
</tr>
<tr>
<td></td>
<td>o Vigilant (hyperalert)</td>
</tr>
<tr>
<td></td>
<td>o Alert (normal)</td>
</tr>
<tr>
<td></td>
<td>o Lethargic (drowsy, easy to arouse)</td>
</tr>
<tr>
<td></td>
<td>o Stupor (difficult to arouse)</td>
</tr>
<tr>
<td></td>
<td>o Coma (completely unarousable)</td>
</tr>
</tbody>
</table>

**KEY:** Presence of features 1 & 2 plus either 3 &/or 4 is positive for delirium

**2. Use PRISME to identify & address physiological, psychosocial & environmental factors**

<table>
<thead>
<tr>
<th>PAIN</th>
<th>PSYCHOSOCIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>o Provide regular analgesia &amp; nonpharmacological methods. Reassess pain control Q shift, especially with movement. Assess mental health, dementia &amp; ability to cope with stress/stimuli</td>
<td></td>
</tr>
<tr>
<td><strong>RESTRAINT RETENTION</strong></td>
<td>o Avoid restraints. Use alternatives (PCG-R 030)</td>
</tr>
<tr>
<td>o Palpate abdomen. Bladder scan PRN. I &amp; O catheter if essential. Remove bladder catheter ASAP. Regular toileting via commode or walking to toilet</td>
<td></td>
</tr>
<tr>
<td><strong>INFECTION</strong></td>
<td><strong>IMPACTION</strong></td>
</tr>
<tr>
<td>o Assess for UTI, pneumonia, C diff, purulent wound. Monitor VS-may have atypical presentation with no fever</td>
<td></td>
</tr>
<tr>
<td>o Determine last BM. Palpate abdomen. Rectal check PRN. Prevent &amp; treat constipation. Bowel protocol as needed</td>
<td></td>
</tr>
<tr>
<td><strong>IMPAIRED COGNITION</strong></td>
<td><strong>INTAKE-ORAL</strong></td>
</tr>
<tr>
<td>o No reality orientation. Use calm, gentle approach&amp; conversational cues to orientate patient to time &amp; place</td>
<td></td>
</tr>
<tr>
<td>o Feed patient PRN. Assess dysphagia &amp; consult OT/dietician PRN</td>
<td></td>
</tr>
<tr>
<td><strong>SLEEP DISTURBANCE</strong></td>
<td><strong>SENSORY CHANGE</strong></td>
</tr>
<tr>
<td>o Ensure 4-hour sleep periods. No routine night turns. Naps OK</td>
<td></td>
</tr>
<tr>
<td>o Ensure glasses, hearing aids &amp; dentures fit well and work</td>
<td></td>
</tr>
<tr>
<td>o Promote family stays &amp; overnights PRN. Provide delirium pamphlet. Encourage familiar objects-pictures, blankets, pet visits</td>
<td></td>
</tr>
<tr>
<td><strong>SOCIAL ISOLATION</strong></td>
<td><strong>MEDICATION</strong></td>
</tr>
<tr>
<td>o Review recent med changes, drug levels, ETOH. Avoid medications of risk (ie, demerol, codeine. benzodiazepines)</td>
<td></td>
</tr>
<tr>
<td><strong>METABOLIC</strong></td>
<td><strong>MOBILITY</strong></td>
</tr>
<tr>
<td>o Evaluate fluid balance/output/labs/oxygenation. If agitated, restart IV X 2 only-consider alternatives &amp; ensure agitation is treated</td>
<td></td>
</tr>
<tr>
<td>o Encourage self-care; toileting; ambulation. Up for meals</td>
<td></td>
</tr>
<tr>
<td><strong>ENVIRONMENT</strong></td>
<td>o Provide a quiet, supportive environment -- ↓ noise, lights &amp; people</td>
</tr>
<tr>
<td>o Hypoactive-Increase stimuli as tolerated. Activate</td>
<td></td>
</tr>
<tr>
<td>o Hyperactive-Reduce stimuli, especially at night</td>
<td></td>
</tr>
</tbody>
</table>
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PART I: DECISIONAL & PRACTICE SUPPORT FOR BPSD
Summary of Safe Use of Medications for the Treatment of Severe Agitation and Aggression

The following charts are for staff to use as a guide with on-call physicians if they are not as familiar with medication dosages for the treatment of these conditions.

Management recommendations for the acutely agitated or aggressive patient:
- Use a benzodiazepine or antipsychotic as effective monotherapy for initial treatment of the acutely agitated undifferentiated patient
- Use a conventional or atypical antipsychotic as effective monotherapy for both management of agitation and initial drug therapy for the patient with known psychiatric illness for which antipsychotics are indicated
- Use an oral benzodiazepine and/or an oral antipsychotic in agitated but cooperative patients
- The combination of parenteral lorazepam and haloperidol may produce more rapid sedation than monotherapy in the acutely agitated psychiatric patient

Practice Guidelines:
- Preferentially, top patient up if currently on one of the medications listed and not exhibiting any adverse effects; prior to introducing an additional agent
- Lorazepam and haloperidol can be mixed in the same syringe for ease of intra-muscular injection
- Olanzapine IM may only be available at KGH, RIH, VJH

Precautions:
- Consider dose adjustment after initial dose in patients with hepatic or renal compromise. Consult a psychiatrist or clinical pharmacist for appropriate dosing in this situation
- Haloperidol should be avoided and all other antipsychotics minimized in Parkinson’s disease as may exacerbate EPS
- Antipsychotics (esp. conventional agents) may cause an increase in QT interval

Abbreviations:
- ODT = oral dissolving tablet
- EPS = Extra-Pyramidal Symptoms [dystonia, akathisia, pseudoparkinsonism]
- Metabolic Changes = weight gain, hyperglycemia, hyperlipidemia

Clinical Stakeholders Group:
Melissa Acorn, Johnson Agbodo, Nick Balfour, Thora Barnes, Nunzio Barone, Dawn Branswell, Kurt Buller, Robert Bush, Sue Carpenter, Paul Dagg, Dawn Dalen, Sandy DaSilva, Paula Diaz, Don Duncan, Jeff Eppler, Leslie Gamble, Lynn Gerein, Brent Hobbs, Donna Jansons, David McBeath, Paul Milanese, Margaret Myslek, Heather Reibin, David Smith, Kelly Thies, Hubertus Van Der Lugt, Carol Ward, Kim Winters, Sherry Wyatt

References:
- Chemical restraints for the agitated, violent, or psychotic pediatric patient in the emergency department: controversies and recommendations, Annalise Sorrentino; Current Opinion in Pediatrics, 2004.
- Pharmacological Management of Acute Agitation, John Battaglia; Therapy in Practice, Drugs, 2005.
- Managing the aggressive and violent patient in the psychiatric emergency, Rocca, Villari, Bogetto; Progress in Neuro-Psychopharmacology & Biological Psychiatry, 2006.

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Management recommendations for the acutely agitated or aggressive geriatric patient:

Following your clinical assessment you could possibly use the following:

- A benzodiazepine or antipsychotic as listed in the table below can be used as effective monotherapy for initial treatment.
- A combination of a benzodiazepine and antipsychotic if patient is markedly anxious, restless, psychotic and/or violent; watching for cumulative side effects.
- Maximum daily dose range may vary from drug naïve patients thru to patients with previous exposure to these agents.

Precautions:

- Patients with Lewy Body dementia or Parkinson’s dementia may be very sensitive to antipsychotic EPS side effects. If absolutely necessary.

<table>
<thead>
<tr>
<th>DRUG NAME</th>
<th>BRAND NAME</th>
<th>DOSAGE [MG]</th>
<th>ROUTE</th>
<th>MINIMUM FREQUENCY</th>
<th>MAXIMUM [MG/DAY]</th>
<th>SIDE EFFECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BENZODIAZEPINES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LORAZEPAM</td>
<td>Ativan</td>
<td>0.5 – 1 po / sl IM</td>
<td>2 – 4 hours</td>
<td>2 – 4</td>
<td>sedation / falls respiratory</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONVENTIONAL ANTIPSYCHOTICS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HALOPERIDOL</td>
<td>Haldol</td>
<td>0.5 – 1 po IM</td>
<td>2 – 4 hours</td>
<td>2 – 5</td>
<td>orthostasis EPS</td>
<td>eg. dystonia</td>
</tr>
<tr>
<td>LOXAPINE</td>
<td>Loxapac</td>
<td>2.5 – 5 po / IM</td>
<td>2 – 4 hours</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATYPICAL ANTIPSYCHOTICS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OLANZAPINE</td>
<td>Zyprexa</td>
<td>2.5 – 5 po</td>
<td>2 – 4 hours</td>
<td>10</td>
<td>sedation / falls orthostasis</td>
<td>EPS</td>
</tr>
<tr>
<td></td>
<td>Zydis</td>
<td>ODT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Zyprexa IM</td>
<td>IM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QUETIAPINE</td>
<td>Seroquel</td>
<td>12.5 – 25 po</td>
<td></td>
<td></td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>RISPERIDONE</td>
<td>Risperdal</td>
<td>0.25 – 1 po</td>
<td>2 – 4 hours</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M-Tabs</td>
<td>ODT</td>
<td></td>
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</tbody>
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PART I: DECISIONAL & PRACTICE SUPPORT FOR BPSD
## SBAR Checklist to prepare for conversation with Physician

### SITUATION

<table>
<thead>
<tr>
<th>Patient Name:</th>
<th>Date:</th>
<th>Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe Behavioural Concern:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify target behaviour:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antecedents (triggers)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consequences</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Acute Change:       | Yes | Consider Delirium | Confusion Assessment Method Questionnaire (CAM)  
|                     | No  | Date of onset | Cohen Mansfield Agitation Inventory (CMAI) |
| Interventions tried: |
| Is there a care plan for this behavior? |
| Pharmacological |
| Level of Consciousness | Alert | Drowsy | Fluctuates |
| Vitals Signs (if possible) | BP | Pulse | Resp | Last BM | Temperature | SpO2 | Gluc |

### BACKGROUND

<table>
<thead>
<tr>
<th>Diagnosis of Dementia</th>
<th>Yes</th>
<th>Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Unknown</td>
</tr>
<tr>
<td>Relevant Medical history:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Review:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most recent blood work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Medications (MAR)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allergies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continence</td>
<td>Urine</td>
<td>Bowel</td>
</tr>
<tr>
<td>Intake</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain</td>
<td>Acute</td>
<td>Chronic</td>
</tr>
</tbody>
</table>

### ASSESSMENT

- **This is what I think the problem is**
- I am not sure what the problem is but the resident is deteriorating
- The resident’s behaviour presents as an imminent danger to self or others (Behavioral Emergency)
| Code White/ 911 | Yes | No | Time called: |

### RECOMMENDATIONS

- I request that you consider:  
- Coming to see the resident expected time of visit
- Refer to (Geriatric Psychiatrist, Elderly Mental Health)  
- Further tests | CXR | CBC | LYTES | U/A CULTURE | GLUC | OTHER |
- Treatment Recommendations:  
- If the resident does not improve when will we call again?
Cohen-Mansfield Agitation Inventory (CMAI)\(^1\) - Short

Instructions: For each of the behaviours below, check the rating that indicates the average frequency of occurrence over the last 2 weeks.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Less than once a week</th>
<th>Once or Twice a week</th>
<th>Several Times a week</th>
<th>Once or Twice a day</th>
<th>Several Times a day</th>
<th>Several Times an hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

**Physical/Aggressive**

1. Hitting (including self)  1 2 3 4 5 6 7
2. Kicking                     1 2 3 4 5 6 7
3. Grabbing onto people       1 2 3 4 5 6 7
4. Pushing                     1 2 3 4 5 6 7
5. Throwing things            1 2 3 4 5 6 7
6. Biting                      1 2 3 4 5 6 7
7. Scratching                  1 2 3 4 5 6 7
8. Spitting                    1 2 3 4 5 6 7
9. Hurting Self or others     1 2 3 4 5 6 7
10. Tearing things or destroying property 1 2 3 4 5 6 7
11. Making physical sexual advances 1 2 3 4 5 6 7

**Physical/Non-Aggressive**

12. Pace, aimless wandering   1 2 3 4 5 6 7
13. Inappropriate dress or disrobing 1 2 3 4 5 6 7
14. Trying to get to a different place 1 2 3 4 5 6 7
15. Intentional falling       1 2 3 4 5 6 7
16. Eating/drinking inappropriate substance 1 2 3 4 5 6 7
17. Handling things inappropriately 1 2 3 4 5 6 7
18. Hiding things             1 2 3 4 5 6 7
19. Hoarding things           1 2 3 4 5 6 7
20. Performing rep. mannerisms 1 2 3 4 5 6 7
21. General restlessness      1 2 3 4 5 6 7

**Verbal/Aggressive:**

22. Screaming                 1 2 3 4 5 6 7
23. Making verbal sexual advances 1 2 3 4 5 6 7
24. Cursing or verbal aggression 1 2 3 4 5 6 7

**Verbal/Non-aggressive:**

25. Rep sentences or questions 1 2 3 4 5 6 7
26. Strange noises (weird laughter or crying) 1 2 3 4 5 6 7
27. Complaining                1 2 3 4 5 6 7
28. Negativism                 1 2 3 4 5 6 7
29. Constant unwarranted request for attention or help 1 2 3 4 5 6 7

Signature: ____________________________  Date: ___________________

\(^1\)The use of this tool is strictly for clinical assessment and educational purposes only and is restricted from use in any for-profit activities. Permission pending, January 25th, 2010.
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PART I: DECISIONAL & PRACTICE SUPPORT FOR BPSD
Dementia Observational System (DOS) Tool

**Purpose:** The DOS tool is used to assess a person’s behaviour over a 24 hour cycle for up to 7 days to determine the occurrence, frequency, and duration of behaviours of concern.

**When to use the DOS tool:**
1. Upon admission for the first 7 days to establish a baseline behavioural profile.
2. Whenever there is a change or concern about the person’s behaviours.
3. To evaluate the effectiveness of a planned intervention on the care-plan that is addressing specific target behaviours, e.g., has there been a change in the duration or frequency of the behaviour.

**Directions:**
1. Review behavioural key on the tool. Attach progress notes to the DOS.
2. Select the corresponding number from the behavioural key that best describes the person’s behaviour within the time period and record in the ½ hour slot provided under the appropriate date.
3. Record the behaviour in 30 minute intervals for the duration of up to 7 days to determine trends.
4. Record behaviours of concern on the progress notes, using well-defined, neutral terms. Include:
   - **What** what behaviour was observed
   - **Where** where did the behaviour occur
   - **Why** what has happening just before the behaviour occurred
   - **How** what interventions were used – how were they implemented
   - **Outcome** how did the resident respond
5. To interpret results, use colour codes to assist in identifying patterns. Colour each 30 minute square for each 24 hour cycle with an assigned colour. Example of assigned colours:

<table>
<thead>
<tr>
<th>Code</th>
<th>Colour</th>
<th>Behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 2</td>
<td>Blue</td>
<td>sleeping in bed/sleeping in chair</td>
</tr>
<tr>
<td>3</td>
<td>Green</td>
<td>awake/calm</td>
</tr>
<tr>
<td>4</td>
<td>Yellow</td>
<td>noisy</td>
</tr>
<tr>
<td>5</td>
<td>Orange</td>
<td>restless / pacing</td>
</tr>
<tr>
<td>6</td>
<td>Brown</td>
<td>exit seeking</td>
</tr>
<tr>
<td>7</td>
<td>Pink</td>
<td>aggressive - verbal</td>
</tr>
<tr>
<td>8</td>
<td>Red</td>
<td>aggressive - physical</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>other</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>other</td>
</tr>
</tbody>
</table>

6. For each 24 hour column, calculate the number of hours spent in sleep, calmness, restlessness, verbal aggression/agitation and physical aggression.

7. Summarize the analysis in the person’s progress records with a note that describes the total number of days of the record, range of hours spent in each category of behaviour and any significant negatives.
   For example: Behavioural Summary for February 1st to 7th, 2010:
   "There have been 10 events of verbal aggression in the past 7 days which lasted approximately one hour each. On two of these occasions, verbal aggression was prolonged, about 2 hours in length, and immediately preceded two ½ hour events of physical aggression (hitting and pinching during care). Most events occurred between 1600 and 1930 hours."

---

Use corresponding numbers to record behaviours in ½ hour intervals:


| Time | 0730 | 0800 | 0830 | 0900 | 0930 | 1000 | 1030 | 1100 | 1130 | 1200 | 1230 | 1300 | 1330 | 1400 | 1430 | 1500 | 1530 | 1600 | 1630 | 1700 | 1730 | 1800 | 1830 | 1900 | 1930 | 2000 | 2030 | 2100 | 2130 | 2200 | 2330 | 2400 | 0030 | 0100 | 0130 | 0200 | 0230 | 0300 | 0330 | 0400 | 0430 | 0500 | 0530 | 0600 | 0630 | 0700 | 0730 |
RETURN TO ALGORITHM

PART I: DECISIONAL & PRACTICE SUPPORT FOR BPSD
Examples of Physical Factors Contributing to BPSD

- Medical co-morbidity:
  - Vision
  - Hearing
  - Bowels
  - Pain
  - Primitive reflexes ie. Grasp
  - Paratonia (Increased rigidity to passive movement)
  - Skin integrity
  - Contractures
  - Other (Based on clinical assessment)
RETURN TO ALGORITHM

PART I: DECISIONAL & PRACTICE SUPPORT FOR BPSD
# BEERS CRITERIA

## 2002 Criteria for Potentially Inappropriate Medication Use in Older Adults: Independent of Diagnoses or Conditions

<table>
<thead>
<tr>
<th>Drug</th>
<th>Concern</th>
<th>Severity Rating (High or Low)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propoxyphene (642) and combination products (Darvon with ASA, Darvon-N)</td>
<td>Offers few analgesic advantages over acetaminophen, yet has the adverse effects of other narcotic drugs.</td>
<td>Low</td>
</tr>
<tr>
<td>Indomethacin (Indocid)</td>
<td>Of all available nonsteroidal anti-inflammatory drugs, this drug produces the most CNS adverse effects.</td>
<td>High</td>
</tr>
<tr>
<td>Pentazocine (Talwin)</td>
<td>Narcotic analgesic that causes more CNS adverse effects, including confusion and hallucinations, more commonly than other narcotic drugs. Additionally, it is a mixed agonist and antagonist.</td>
<td>High</td>
</tr>
<tr>
<td>Muscle relaxants and antispasmodics: methocarbamol (Robaxin), chlorzoxazone (Parafon Forte), cyclobenzaprine (Flexeril), and oxybutynin (Ditropan). Do not consider the extended-release Ditropan XL.</td>
<td>Most muscle relaxants and antispasmodic drugs are poorly tolerated by elderly patients, since these cause anticholinergic adverse effects, sedation, and weakness. Additionally, their effectiveness at doses tolerated by elderly patients is questionable.</td>
<td>High</td>
</tr>
<tr>
<td>Flurazepam (Dalmane)</td>
<td>This benzodiazepine hypnotic has an extremely long half-life in elderly patients (often days), producing prolonged sedation and increasing the incidence of falls and fracture. Medium- or short-acting benzodiazepines are preferable.</td>
<td>High</td>
</tr>
<tr>
<td>Amitriptyline (Elavil and Novo-Triptyn)</td>
<td>Because of its strong anticholinergic and sedation properties, amitriptyline is rarely the antidepressant of choice for elderly patients.</td>
<td>High</td>
</tr>
<tr>
<td>Doxepin (Sinequan)</td>
<td>Because of its strong anticholinergic and sedating properties, doxepin is rarely the antidepressant of choice for elderly patients.</td>
<td>High</td>
</tr>
<tr>
<td>Doses of short-acting benzodiazepines: doses greater than lorazepam (Ativan), 3 mg; oxazepam (Serax and Apo-Oxazepam), 60 mg; alprazolam (Xanax), 2 mg; temazepam (Restoril), 15 mg; and triazolam (Halcion), 0.25 mg</td>
<td>Because of increased sensitivity to benzodiazepines in elderly patients, smaller doses may be effective as well as safer. Total daily doses should rarely exceed the suggested maximums.</td>
<td>High</td>
</tr>
<tr>
<td>Long-acting benzodiazepines: chlordiazepoxide (Librium and Apo-Chlordiazepoxide), clidinium-chlordiazepoxide (Librax), and diazepam (Valium)</td>
<td>These drugs have a long half-life in elderly patients (often several days), producing prolonged sedation and increasing the risk of falls and fractures. Short- and intermediate-acting benzodiazepines are preferred if a benzodiazepine is required.</td>
<td>High</td>
</tr>
<tr>
<td>Disopyramide (Rythmodan)</td>
<td>Of all antiarrhythmic drugs, this is the most potent negative inotrope and therefore may induce heart failure in elderly patients. It is also strongly anticholinergic. Other antiarrhythmic drugs should be used.</td>
<td>High</td>
</tr>
<tr>
<td>Drug</td>
<td>Use and Side Effects</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>---------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Digoxin (Lanoxin)</strong> (should not exceed 0.125 mg/d except when treating atrial arrhythmias)</td>
<td>Decreased renal clearance may lead to increased risk of toxic effects.</td>
<td></td>
</tr>
<tr>
<td><strong>Short-acting dipyridamole (Persantine)</strong>.</td>
<td>Do not consider the long-acting dipyridamole (which has better properties than the short-acting in older adults) except with patients with artificial heart valves. May cause orthostatic hypotension.</td>
<td></td>
</tr>
<tr>
<td><strong>Methyldopa (Aldomet and Apo-Methyldopa)</strong> and methyldopa-hydrochlorothiazide (Aldoril and Apo-Methazine)</td>
<td>May cause bradycardia and exacerbate depression in elderly patients.</td>
<td></td>
</tr>
<tr>
<td><strong>Chlorpropamide (Apo-chlorpropamide and Novo-Propamide)</strong></td>
<td>It has a prolonged half-life in elderly patients and could cause prolonged hypoglycemia. Additionally, it is the only oral hypoglycemic agent that causes SIADH.</td>
<td></td>
</tr>
<tr>
<td><strong>Gastrointestinal antispasmodic drugs:</strong> dicyclomine (Bentylol), belladonna alkaloids (Donnatal and others), and clidinium-chlordiazepoxide (Librax)</td>
<td>GI antispasmodic drugs are highly anticholinergic and have uncertain effectiveness. These drugs should be avoided (especially for long-term use).</td>
<td></td>
</tr>
<tr>
<td><strong>Anticholinergics and antihistamines:</strong> chlorpheniramine (Novo-Pheniram), diphenhydramine (Benadryl), hydroxyzine (Atarax)</td>
<td>All nonprescription and many prescription antihistamines may have potent anticholinergic properties. Nonanticholinergic antihistamines are preferred in elderly patients when treating allergic reactions.</td>
<td></td>
</tr>
<tr>
<td><strong>Diphenhydramine (Benadryl)</strong></td>
<td>May cause confusion and sedation. Should not be used as a hypnotic, and when used to treat emergency allergic reactions, it should be used in the smallest possible dose.</td>
<td></td>
</tr>
<tr>
<td><strong>Ergoloid mesylates (Hydergine)</strong></td>
<td>Have not been shown to be effective in the doses studied.</td>
<td></td>
</tr>
<tr>
<td><strong>Ferrous sulfate 325 mg/d</strong></td>
<td>Doses 325 mg/d do not dramatically increase the amount absorbed but greatly increase the incidence of constipation.</td>
<td></td>
</tr>
<tr>
<td><strong>All barbiturates (except phenobarbital)</strong> except when used to control seizures</td>
<td>Are highly addictive and cause more adverse effects than most sedative or hypnotic drugs in elderly patients.</td>
<td></td>
</tr>
<tr>
<td><strong>Meperidine (Demerol)</strong></td>
<td>Not an effective oral analgesic in doses commonly used. May cause confusion and has many disadvantages to other narcotic drugs.</td>
<td></td>
</tr>
<tr>
<td><strong>Ticlopidine (Ticlid)</strong></td>
<td>Has been shown to be no better than aspirin in preventing clotting and may be considerably more toxic. Safer, more effective alternatives exist.</td>
<td></td>
</tr>
<tr>
<td><strong>Ketorolac (Toradol)</strong></td>
<td>Immediate and long-term use should be avoided in older persons, since a significant number have asymptomatic GI pathologic conditions.</td>
<td></td>
</tr>
<tr>
<td><strong>Amphetamines and anorectic agents</strong></td>
<td>These drugs have potential for causing dependence, hypertension, angina, and myocardial infarction.</td>
<td></td>
</tr>
<tr>
<td><strong>Long-term use of full-dosage, longer half-life, non–COX-selective NSAIDs:</strong> naproxen (Naprosyn), and piroxicam (Apo-Piroxicam)</td>
<td>Have the potential to produce GI bleeding, renal failure, high blood pressure, and heart failure.</td>
<td></td>
</tr>
<tr>
<td>Medication</td>
<td>Description</td>
<td>Risk Level</td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
<td>------------</td>
</tr>
<tr>
<td>Daily fluoxetine (Prozac)</td>
<td>Long half-life of drug and risk of producing excessive CNS stimulation, sleep disturbances, and increasing agitation. Safer alternatives exist.</td>
<td>High</td>
</tr>
<tr>
<td>Long-term use of stimulant laxatives: bisacodyl (Dulcolax), cascara sagrada except in the presence of opiate analgesic use</td>
<td>May exacerbate bowel dysfunction.</td>
<td>High</td>
</tr>
<tr>
<td>Amiodarone (Cordarone)</td>
<td>Associated with QT interval problems and risk of provoking torsades de pointes. Lack of efficacy in older adults.</td>
<td>High</td>
</tr>
<tr>
<td>Orphenadrine (Norflex)</td>
<td>Causes more sedation and anticholinergic adverse effects than safer alternatives.</td>
<td>High</td>
</tr>
<tr>
<td>Nitrofurantoin (Apo-Nitrofurantoin and Novo-Furantoin)</td>
<td>Potential for renal impairment. Safer alternatives available.</td>
<td>High</td>
</tr>
<tr>
<td>Doxazosin (Cardura)</td>
<td>Potential for hypotension, dry mouth, and urinary problems.</td>
<td>Low</td>
</tr>
<tr>
<td>Short acting nifedipine (Adalat)</td>
<td>Potential for hypotension and constipation.</td>
<td>High</td>
</tr>
<tr>
<td>Clonidine (Catapres)</td>
<td>Potential for orthostatic hypotension and CNS adverse effects.</td>
<td>Low</td>
</tr>
<tr>
<td>Mineral oil</td>
<td>Potential for aspiration and adverse effects. Safer alternatives available.</td>
<td>High</td>
</tr>
<tr>
<td>Cimetidine (Tagamet, Apo-Cimetidine and Novo-Cemetine)</td>
<td>CNS adverse effects including confusion.</td>
<td>Low</td>
</tr>
<tr>
<td>Ethacrynic acid (Edecrin)</td>
<td>Potential for hypertension and fluid imbalances. Safer alternatives available.</td>
<td>Low</td>
</tr>
<tr>
<td>Desiccated thyroid</td>
<td>Concerns about cardiac effects. Safer alternatives available.</td>
<td>High</td>
</tr>
<tr>
<td>Amphetamines (excluding methylphenidate hydrochloride and anorexics)</td>
<td>CNS stimulant adverse effects.</td>
<td>High</td>
</tr>
<tr>
<td>Estrogens only (oral)</td>
<td>Evidence of the carcinogenic (breast and endometrial cancer) potential of these agents and lack of cardioprotective effect in older women.</td>
<td>Low</td>
</tr>
</tbody>
</table>

**Abbreviations:** CNS, central nervous system; COX, cyclooxygenase; GI, gastrointestinal; NSAIDs, nonsteroidal anti-inflammatory drugs; SIADH, syndrome of inappropriate antidiuretic hormone secretion.

<table>
<thead>
<tr>
<th>Disease or Condition</th>
<th>Drug</th>
<th>Concern</th>
<th>Severity Rating (High or Low)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart Failure</td>
<td>Disopyramide (Rythmodan), and high sodium content drugs (sodium and sodium salts [alginate bicarbonate, biphosphate, citrate, phosphate, salicylate, and sulfate])</td>
<td>Negative inotropic effect. Potential to promote fluid retention and exacerbation of heart failure.</td>
<td>High</td>
</tr>
<tr>
<td>Hypertension</td>
<td>Pseudophedrine; diet pills, and amphetamines</td>
<td>May produce elevation of blood pressure secondary to sympathomimetic activity.</td>
<td>High</td>
</tr>
<tr>
<td>Gastric or duodenal ulcers</td>
<td>NSAIDs and aspirin (&gt;325mg) (coxibs excluded)</td>
<td>May exacerbate existing ulcers or produce new/additional ulcers.</td>
<td>High</td>
</tr>
<tr>
<td>Seizures or epilepsy</td>
<td>Clozapine (Clozaril), chlorpromazine (Largactil), and thiothixene (Navane)</td>
<td>May lower seizure thresholds.</td>
<td>High</td>
</tr>
<tr>
<td>Blood clotting disorders or receiving anticoagulant therapy</td>
<td>Aspirin, NSAIDs, dipyridamole (Persantine), ticlopidine (Ticlid), and clopidogrel (Plavix)</td>
<td>May prolong clotting time and elevate INR values or inhibit platelet aggregation, resulting in an increased potential for bleeding.</td>
<td>High</td>
</tr>
<tr>
<td>Bladder outflow obstruction</td>
<td>Anticholinergics and antihistamines, gastrointestinal antispasmodics, muscle relaxants, oxybutynin ( Ditropan), flavoxate (Urispas and Apo-Flavoxate), anticholinergics, antidepressants, decongestants, and tolterodine (Detrol)</td>
<td>May decrease urinary flow, leading to urinary retention.</td>
<td>High</td>
</tr>
<tr>
<td>Stress incontinence</td>
<td>α-Blockers (Prazosin and Terazosin), anticholinergics, tricyclic antidepressants (imipramine hydrochloride, doxepin hydrochloride, and amitriptyline hydrochloride), and long-acting benzodiazepines</td>
<td>May produce polyuria and worsening of incontinence.</td>
<td>High</td>
</tr>
<tr>
<td>Arrhythmias</td>
<td>Tricyclic antidepressants (imipramine hydrochloride, doxepin hydrochloride, and amitriptyline hydrochloride)</td>
<td>Concern due to proarrhythmic effects and ability to produce QT interval changes.</td>
<td>High</td>
</tr>
<tr>
<td>Insomnia</td>
<td>Decongestants, theophylline (Theolair and Uniphyl), methylphenidate (Ritalin), MAOIs, and amphetamines</td>
<td>Concern due to CNS stimulant effects.</td>
<td>High</td>
</tr>
<tr>
<td>Parkinson disease</td>
<td>Metoclopramide (Reglan and Apo-Metoclop), and conventional antipsychotics</td>
<td>Concern due to their antidopaminergic/cholinergic effects.</td>
<td>High</td>
</tr>
<tr>
<td>Cognitive impairment</td>
<td>Barbiturates, anticholinergic, antispasmodics, and muscle relaxants. CNS stimulants: dextroAmphetamine (Adderall and Dexedrine), methylphenidate (Ritalin)</td>
<td>Concern due to CNS-altering effects.</td>
<td>High</td>
</tr>
<tr>
<td>Depression</td>
<td>Long-term benzodiazepine use. Sympatholytic agents: methylidopa (Aldomet and Apo-Methyldopa)</td>
<td>May produce or exacerbate depression.</td>
<td>High</td>
</tr>
<tr>
<td>Condition</td>
<td>Medications</td>
<td>Concern/Effects</td>
<td>Level</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Anorexia and malnutrition</td>
<td>CNS stimulants: DextroAmphetamin <em>(Adderall and Dexedrine)</em>, methylphenidate <em>(Ritalin)</em>, and fluoxetine <em>(Prozac)</em></td>
<td>Concern due to appetite-suppressing effects.</td>
<td>High</td>
</tr>
<tr>
<td>Syncope or falls</td>
<td>Short- to intermediate-acting benzodiazepine and tricyclic antidepressants (imipramine hydrochloride, doxepin hydrochloride, and amitriptyline hydrochloride)</td>
<td>May produce ataxia, impaired psychomotor function, syncope, and additional falls.</td>
<td>High</td>
</tr>
<tr>
<td>SIADH/hyponatremia</td>
<td>SSRIs: fluoxetine <em>(Prozac)</em>, citalopram <em>(Celexa)</em>, fluvoxamine <em>(Luvox)</em>, paroxetine <em>(Paxil)</em>, and sertraline <em>(Zoloft)</em></td>
<td>May exacerbate or cause SIADH.</td>
<td>Low</td>
</tr>
<tr>
<td>Seizure disorder</td>
<td>Bupropion <em>(Wellbutrin)</em></td>
<td>May lower seizure threshold.</td>
<td>High</td>
</tr>
<tr>
<td>Obesity</td>
<td>Olanzapine <em>(Zyprexa)</em></td>
<td>May stimulate appetite and increase weight gain.</td>
<td>Low</td>
</tr>
<tr>
<td>COPD</td>
<td>Long-acting benzodiazepines: clordiazepoxide <em>(Librium and Apo-Chlordiazepoxide)</em>, clidinium-chlordiazepoxide <em>(Librax)</em>, and diazepam <em>(Valium)</em></td>
<td>CNS adverse effects. May induce respiratory depression. May exacerbate or cause respiratory depression.</td>
<td>High</td>
</tr>
<tr>
<td>Chronic constipation</td>
<td>Calcium channel blockers, anticholinergics, and tricyclic antidepressant (imipramine hydrochloride, doxepin hydrochloride, and amitriptyline hydrochloride)</td>
<td>May exacerbate constipation.</td>
<td>Low</td>
</tr>
</tbody>
</table>

**Abbreviations:** CNS, central nervous system; COPD, chronic obstructive pulmonary disease; INR, international normalized ratio; MAOIs, monoamine oxidase inhibitors; NSAIDs, nonsteroidal anti-inflammatory drugs; SIADH, syndrome of inappropriate antidiuretic hormone secretion; SSRIs, selective serotonin reuptake inhibitors.

RETURN TO ALGORITHM

PART I: DECISIONAL & PRACTICE SUPPORT FOR BPSD
## Pain Assessment in Advanced Dementia (PAINAD) Scale

<table>
<thead>
<tr>
<th>Breathing</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>Score</th>
</tr>
</thead>
</table>

| Negative Vocalization | None | Occasional moan or groan. Low level speech with a negative or disapproving quality. | Repeated troubled calling out. Loud moaning or groaning. Crying. | |


| Consolability | No need to console | Distracted or reassured by voice or touch. | Unable to console, distract or reassure. | |

### Scoring:

1-3 Mild pain  
*Provide comfort measures (i.e., non-pharmacologic approaches such as repositioning or distraction or a mild analgesic such as acetaminophen)*

4-6 Moderate pain

7-10 Moderate to Severe pain  
*Pain that warrants stronger analgesia, such as an opioid, as well as comfort measures*

---


Pain Assessment IN Advanced Dementia

PAINAD -- Item Definitions

**Breathing:**
1. **Normal breathing:** effortless, quiet, rhythmic (smooth) respirations.
2. **Occasional labored breathing:** episodic bursts of harsh, difficult, or wearing respirations.
3. **Short period of hyperventilation:** intervals of rapid, deep breaths lasting a short period of time.
4. **Noisy labored breathing:** negative sounding respirations on inspiration or expiration: may be loud, gurgling, wheezing; may appear strenuous or wearing.
5. **Long period of hyperventilation:** excessive rate and depth of respirations lasting a considerable time.
6. **Cheyne-Stokes respirations:** rhythmic waxing and waning of breathing from very deep to shallow respirations with periods of apnea (cessation of breathing).

**Negative Vocalization**
1. **None:** speech or vocalization that has a neutral or pleasant quality.
2. **Occasional moan or groan:** mournful or murmuring sounds, wails, or laments. Groaning is characterized by louder than usual inarticulate involuntary sounds, often abruptly beginning and ending.
3. **Low level speech with a negative or disapproving quality:** muttering, mumbling, whining, grumbling, or swearing in a low volume with a complaining, sarcastic or caustic tone.
4. **Repeated troubled calling out:** phrases or words being used over and over in a tone that suggests anxiety, uneasiness, or distress.
5. **Loud moaning or groaning:** mournful or murmuring sounds, wails or laments in much louder than usual volume. Loud groaning is characterized by louder than usual inarticulate involuntary sounds, often abruptly beginning and ending.
6. **Crying:** utterance of emotion accompanied by tears. There may be sobbing or quiet weeping.

**Facial Expression**
1. **Smiling or inexpressive:** upturned corners of the mouth, brightening of the eyes and a look of pleasure or contentment. Inexpressive refers to a neutral, at ease, relaxed, or blank look.
2. **Sad:** unhappy, lonesome, sorrowful, or dejected look. There may be tears in the eyes.
3. **Frightened:** a look of fear, alarm or heightened anxiety. Eyes appear wide open.
4. **Frown:** a downward turn of the corners of the mouth; increased facial wrinkling in the forehead, around the mouth.
5. **Facial grimacing:** a distorted, distressed look. The brow is more wrinkled as is the area around the mouth. Eyes may be squeezed shut.

**Body Language**
1. **Relaxed:** a calm, restful, mellow appearance. The person seems to be taking it easy.
2. **Tense:** a strained, apprehensive, or worried appearance. The jaw may be clenched. (Excludes any contractures).
3. **Distressed pacing:** activity that seems unsettled. There may be a fearful, worried, or disturbed element present. The rate may by faster or slower.
4. **Fidgeting, restless movement:** squirming about or wiggling in the chair may occur. The person might be hitching a chair across the room. Repetitive touching, tugging, or rubbing body parts can also be observed.
5. **Rigid:** stiffening of the body. The arms and/or legs are tight and inflexible. The trunk may appear straight and unyielding. (Exclude any contractures).
6. **Fists clenched:** tightly closed hands. They may be opened and closed repeatedly or held tightly shut.
7. **Knees pulled up:** flexing the legs and drawing the knees up toward the chest. An overall troubled appearance. (Exclude any contractures).
8. **Pulling or pushing away:** resistiveness upon approach or care. The person is trying to escape by yanking or wrenching free or shoving you away.
9. **Striking out:** hitting, kicking, grabbing, punching, biting, or other form of personal assault.

**Consolability**
1. **No need to console:** a sense of well being. The person appears content.
2. **Distracted or reassured by voice or touch:** a disruption in the behavior when the person is spoken to or touched. The behavior stops during the period of interaction with no indication that the person is at all distressed.
3. **Unable to console, distract or reassure:** the inability to soothe the person or stop a behavior with words or actions. No amount of comforting, verbal, or physical, will alleviate the behavior.

RETURN TO ALGORITHM

PART I: DECISIONAL & PRACTICE SUPPORT FOR BPSD
Which drugs can increase the risk of falls?

In theory ANY drug that causes one of the following effects can increase the risk of falling:

- Drowsiness
- Dizziness
- Hypotension
- Parkinsonian effects
- Ataxia/gait disturbance
- Vision disturbance

As well, theoretically ANY drug that causes the following effects can increase the risk of a serious outcome if the patient falls:

- Osteoporosis or reduced bone mineral density: Increased risk of fracture if a fall occurs
- Bleeding risk: Increased risk of a cerebral hemorrhage if a fall occurs

What can be done if a patient is taking a drug that can increase the falls risk?

Individualize treatment. Drugs are just one of many factors that can increase the risk of falling.

Assessment: Is this patient at high risk?

☐ Has the patient had a slip, trip, near fall or fall in the last 6 months?
☐ Is the patient taking a drug that can cause the effects listed above (see attached list of drugs)
☐ Is the patient taking a high dose of the drug?
☐ Is the patient displaying any of the adverse effects listed above, such as drowsiness?
☐ Is the patient elderly? Elderly patients may be more sensitive to adverse drug effects because of alterations in the way that the body absorbs, distributes or eliminates the drug.
☐ Is the patient taking more than one drug that increases the falls risk?
☐ Is the patient at high risk of falling for other, non-drug reasons?
☐ Is it difficult to monitor the patient for an adverse drug effect?

Consider intervention, especially if you have assessed the patient as high risk:

- Consider risk/benefit ratio: Does the benefit of the drug outweigh a possible risk of falling?
- Is there a safer drug or non-drug alternative?
- Is it possible to minimize the dose without losing the benefit of the drug?
Examples of drugs that can increase the risk of falling, or of a serious outcome if a fall occurs (and possible mechanisms)

Falls are often caused by multiple factors. This list should be used in conjunction with other fall prevention strategies. A patient should not be denied beneficial or necessary drug therapy based on this list.

<table>
<thead>
<tr>
<th>ACE Inhibitors</th>
<th>Antidepressants</th>
<th>Antipsychotics</th>
<th>Corticosteroids, oral</th>
<th>Muscle Relaxants</th>
<th>Nitrites (2,3)</th>
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</table>

Possible mechanisms (often unclear): (1) Drowsiness; (2) Dizziness; (3) Hypotension; (4) Parkinsonian effects; (5) Ataxia/gait disturbance; (6) Vision disturbance; (7) Osteoporosis or reduced bone mineral density increases the fracture risk if a fall occurs; (8) Risk of serious bleeding if a fall occurs.

Drugs are listed by generic (chemical) name under each drug group. For Brand (manufacturer’s) names, check in the CPS to find the generic name.

This list includes only those drugs for which there is evidence of increased risk of falls or their consequences. There may be other drugs that increase this risk in certain patients.

RETURN TO ALGORITHM

PART I: DECISIONAL & PRACTICE SUPPORT FOR BPSD
The Five A’s of Dementia

1. **Amnesia**: loss of memory

2. **Aphasia**: loss of language

3. **Agnosia**: loss of recognition

4. **Apraxia**: loss of purposeful movement

5. **Apathy**: loss of initiation
RETURN TO ALGORITHM

PART I: DECISIONAL & PRACTICE SUPPORT FOR BPSD
The Cornell Scale for Depression

Why do we use the Cornell?

The Cornell provides a quantitative rating of depression in persons with or without dementia. The scale was designed to utilize information obtained from caregivers, as well as an interview with a person. Frequent coexistence of depression and dementia in older people suggested the need for a depression-rating instrument designed specifically for use in this group.

The Cornell is found to be reliable, sensitive and valid in rating depression in a population of demented subjects with various degrees of depression. Scoring is based on both observation and verbal feedback. The scale is designed as screening tool and is not diagnostic (Alexopoulous, Abrams, Young, Shamoian, 1988).

How do we administer the Cornell?

Administration requires two separate interviews. The clinician first interviews the person’s caregiver using the Cornell scale items as a guide.

- During the caregiver interview, the clinician inquires about the signs and symptoms of depression as they appear on the scale.
- Additional descriptions can be used to clarify to the caregiver the meaning of an item.
- The clinician assigns preliminary scores to each item of the scale on the basis of the caregiver’s report.

Next, the clinician briefly examines the person using the Cornell scale items as a guide.

- If there is disagreement between the clinician’s impression and the caregiver’s report, the caregiver is interviewed again in order to clarify the source of discrepancy.
- Finally, the clinician scores the Cornell scale based on his/her judgement formed during this process.

Please note: Two items, “loss of interest” and “lack of energy” require both a disturbance occurring during the week prior to interview and relatively acute changes in these areas occurring over less than one month.

The Scale

- 19 questions distributed within five major headings (mood-related signs, behavioural disturbance, physical signs, cyclic functions and ideational disturbance).
- Each question is scored on a three-point scale: 0 = absent; 1 = mild or intermittent; 2 = severe; n/a = unable to evaluate.
• The item "suicide" is rated with a score of “1” if the person has passive suicidal ideation (e.g. feels like life is not worth living)

• A score of “2” is given to subjects who have active suicidal wishes, or have made a recent suicide attempt.

• History of a suicide attempt in a subject with no passive or active suicidal ideation does not in itself justify a score.

• The clinician is to mark an “n/a” when an item cannot be evaluated.

Older persons often have disabilities or medical illnesses with symptoms and signs similar to those of depression. Scoring of the Cornell scale on such items as “multiple physical complaints”, “appetite loss”, “weight loss”, “lack of energy” and possibly others may be confounded by disability or physical disorder.

To minimize assignment of falsely high Cornell scale scores in disabled or medically ill persons, raters are instructed to assign a score of “0” for symptoms and sign associated with these conditions. In many cases the relationship between symptomatology and physical disability or illness is obvious. In some persons, however, this determination cannot be made reliably.

There is a maximum score of 38. The ratings are based on behaviours observed or reported the previous week.

The five categories outlined in the Cornell (mood-related signs, behavioural disturbance, physical signs, cyclic functions, and ideational disturbance) provide a format to assist the interview in organizing his/her assessment interview and observation. The total time for administration and rating of the Cornell Scale is approximately 30 minutes.

**How do we interpret the results?** (adapted from: Alexopoulos et al., 1988, p. 232, Table 2)*:

Caution must be used when interpreting the score. It is important for the clinician to note the exact responses. This will allow a more consistent interpretation of the scores in each area when the tool.

<table>
<thead>
<tr>
<th>Average Cornell Ratings</th>
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</thead>
<tbody>
<tr>
<td>No psychiatric diagnosis</td>
</tr>
<tr>
<td>Non-depressive psychiatric disorders</td>
</tr>
<tr>
<td>Minor or probable major depressive disorder</td>
</tr>
<tr>
<td>Definite major depressive disorder</td>
</tr>
</tbody>
</table>

P.I.E.C.E.S. 6th Edition (R)
Cornell Scale For Depression In Dementia
Scoring System

a = unable to evaluate           1 = mild or intermittent
0 = absent                              2 = severe

Ratings should be based on symptoms and signs occurring during the week prior to interview. No score should be given if symptoms result from physical disability or illness. This tool is used for monitoring behaviour, therefore compare new scores with old scores. A score of 8 or more suggests significant depressive symptoms.

A. Mood-Related Signs

1. Anxiety
   anxious expression, ruminations, worrying
   a 0 1 2

2. Sadness
   sad expression, sad voice, tearfulness
   a 0 1 2

3. Lack of reactivity to pleasant events
   a 0 1 2

4. Irritability
   easily annoyed, short-tempered
   a 0 1 2

B. Behavioural Disturbance

5. Agitation
   restlessness, handwringing, hairpulling
   a 0 1 2

6. Retardation
   slow movements, slow speech, slow reactions
   a 0 1 2

7. Multiple physical complaints
   (score 0 if GI symptoms only)
   a 0 1 2

8. Loss of interest
   less involved in usual activities
   (score only if change occurred acutely, i.e., in less than 1 month)
   a 0 1 2
C. Physical Signs

9. Appetite loss  
   eating less than usual  
   a 0 1 2

10. Weight loss  
    (score 2 if greater than 5 lb in 1 month)  
    a 0 1 2

11. Lack of energy  
    fatigues easily, unable to sustain activities  
    (score only if change occurred acutely, i.e., in less than 1 month)  
    a 0 1 2

D. Cyclic Functions

12. Diurnal variation of mood  
    symptoms worse in the morning  
    a 0 1 2

13. Difficulty falling asleep  
    Later than usual for this individual  
    a 0 1 2

14. Multiple awakenings during sleep  
    a 0 1 2

15. Early-morning awakening  
    earlier than usual for this individual  
    a 0 1 2

E. Ideational Disturbance

16. Suicide  
    feels like is not worth living, has suicidal wishes, or makes suicide attempt  
    a 0 1 2

17. Poor self-esteem  
    self-blame, self-deprecation, feelings of failure  
    a 0 1 2

18. Pessimism  
    anticipation of the worst  
    a 0 1 2

19. Mood-congruent delusions  
    delusions of poverty, illness, or loss  
    a 0 1 2

Score /38
Return to Algorithm

Part I: Decisional & Practice Support for BPSD
Enabling Approaches to Dementia Care: Supporting the Remaining Abilities of Persons with Alzheimer’s

Elisabeth Antifeau, RN, MScN, GNC(C)  
Clinical Coordinator, Seniors Care, IH  
October 2008

Modified and adapted from the work of:  
Enablement Approach to Dementia

What is it?

• A particular way of looking at persons with dementia to see which abilities remain and which have been lost;

• Functional tasks (e.g., ADLs) are not abilities. You require abilities to do functional tasks.

• Do not confuse the loss of a larger functional task with a lack of ability. Abilities can be fully or partially present.

• When abilities are partially present, they need a different approach to care than when they are fully present.
Enablement Approach to Dementia

What is it?

• When we provide care, if we don’t see the abilities that remain and only see the larger task (left undone), then we tend to overcompensate and take-over and do for the person, when in fact, they still may be able to do aspects of care for themselves.

• It is important to think about care approaches with a “new pair of glasses” to see this perspective and think about abilities in dementia.
Why enablement approach?

- To assist the person with challenges in everyday living
- To provide opportunities for meaningful engagement, participation in care and continuity in their life experiences
- To give meaning to events
- To preserve quality of life
What are the goals for care in using this approach?

**Goals for care:**

- To maintain existing abilities
- To compensate for loss of abilities
- To prevent or reduce excess disability
Definitions: Abilities

- **Discrete abilities:**
  ... are the smaller retained functional skills that are needed to carry out every day living. They are not the tasks themselves but the components and means to fully or partially carry out tasks.

- **Dormant abilities**
  ... are retained abilities that have ‘gone to sleep’ because they are not regularly used and reinforced in everyday living due to a lack of opportunity. (Use it or lose it!)

- **Excess Disability:**
  ... is a loss of function beyond that which can be accounted for on the basis of disease
Defining Approaches to Dementia Care

Abilities Enhancing

…is an approach to care that recognizes retained discrete abilities in the person with dementia and provides regular opportunities for the resident to practice and use these abilities during everyday living.

Abilities Compensating

…is an approach to care that recognizes lost discrete abilities in the person with dementia and provides care that compensates for the loss.

- This approach does not leave the resident frustrated and helpless nor passively dependent.
- When done correctly, this approach does not permit others to completely “take over”.
- The art of compensatory care-giving is in recognizing when and what type of assistance is needed and providing “just enough”.

Abilities Enhancing

Abilities Compensating
Overview to Four Types of Retained Discrete Abilities in Dementia

1. Self-Care:
   a. Ability to move voluntarily
   b. Ability to orient self
   c. Ability to move purposefully

2. Social:
   a. Ability to engage in or respond to social cues
   b. Ability to use socially prescribed behaviours (behaving “normally” in social contexts)
   c. Ability to appreciate humour
   d. Ability to appreciate music

3. Interactional
   a. Ability to comprehend:
      • Verbal comprehension
      • Reading comprehension
   b. Ability to express self:
      • Verbal expression
      • Written expression

4. Interpretive
   a. Ability to recognize:
      • Self and others
      • Emotion
      • Objects by touch
      • Time
   b. Ability to recall
   c. Ability to recognize and express personal feelings
#1. Self-Care Abilities

- **Definition:**
  
  ...are the discrete abilities that underlay the capacity to carry out basic functions of daily living, including bathing, grooming, dressing and moving safely within the environment.

Self care abilities are:

- “Over-learned”
- Retained until late stage disease
- Vulnerable to becoming dormant and developing excess disability
#1. Social Abilities:

- **Definition:**

  “…are the discrete abilities that underlay the capacity to interact with others and to engage in various activities using socially prescribed behaviours”.

- **Social abilities are:**
  - “Over-learned”
  - Not necessarily related to the stage of disease, social sensitivity is retained long into late disease
  - Vulnerable to becoming dormant and developing excess disability (apathy, disengaging, remote)

_Dawson, Wells & Kline, 1993._
#1. Interactional Abilities:

**Definition:**

…”are the discrete abilities that underlay the capacity to express our ideas and to understand what the other person is attempting to communicate”

_Dawson, Wells & Kline, 1993._

Interactional abilities are:

- Severely affected by the loss of language abilities (aphasia) common to dementia
- Impairment of language is frustrating for both the person with dementia and their caregiver
#1. Interpretive Abilities:

- **Definition:**
  
  "...are the discrete abilities that underlay the capacity to derive meaning from the external world of people, objects and events, as well as recognize the internal, personal world”

  Dawson, Wells & Kline, 1993.

- Interpretive abilities are:
  
  - Severely affected by dementia through the loss of meaning in both the external and internal worlds
  
  - Behavioural responses are intimately linked with impairment in interpretive abilities – this is an important perspective to understand in effectively managing responsive behaviours.
RETURN TO ALGORITHM

PART I: DECISIONAL & PRACTICE SUPPORT FOR BPSD
Progressively Lowered Stress Threshold Model of Behaviour in Dementia

Caregivers can facilitate adaptive behaviour by noting behavioural trends (e.g., track via DOS tool) through the course of a 24 hour day, and regulating stress by proactively intervening when anxiety-related symptoms appear.

Adapted from Smith, Hall, Gerdner et al (2006), pg 58-59.
Examples of Environmental Factors Contributing to BPSD

- Physical Restraints
- Decreased staffing levels
- Cold at night
- Boredom
- Noise levels
- Inactivity
- Being left alone

(J. Cohen-Mansfield 1995)
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PART I: DECISIONAL & PRACTICE SUPPORT FOR BPSD
How to Use Personal Information in Care-giving
Tips for Health Care Providers

My Life Reflections

- Talk with the person about their memories – use long term memory to support their self esteem and identity as a unique individual, provide cues during care.
- Recognize the person’s achievements, significant social roles, hobbies and interests (e.g., Head cook, community volunteer, raised a family, held a steady job, grew the best tomatoes, built his own house, published a book, etc.).
- Encourage life continuity – keep life-long patterns going!
- Encourage the telling of familiar life stories – especially the funny ones.
- Prompt reminiscences of sensory experiences, good feelings, especially as a child (eating berries, riding a horse, exploring the barn, etc.).
- Honour the person’s life long traditions, including religious values.
- Identify and provide opportunities to support the person as they are described by family or others: e.g., “very curious”, “loves a joke”, “very private”, “a great thinker”, “super organized”, “artistic”, “musical”, “an amazing gardener!”, “a devoted mother”.
- Ask about “how it was back then” – explore life’s learning’s, how they coped, what gave them strength or personal convictions, what shaped their beliefs and values about privacy, work ethics, dignity, self-reliance, etc.
- Understand this person’s past to make sense of their current “reality” – at whatever place they are living in their memory.
- Use life information in understanding their responses to stress, managing their social and physical environments, etc.
- Capture life information in the person’s care-plan, validate with family members and share with the team to guide everyday care-giving, communication, and approaches to care.
- Other ideas?

My Family and Home Life

- Listen for specific names about people, pets, significant others, and understand the relationship, its importance, etc.
- Talk with the person about family and significant others to:
  - provide meaning, pleasure, significance, comfort, connection.
  - engage social skills: talking, turn taking, listening, focusing
  - validate feelings about important people.
- Provide security and linkage with familiar names.
- De-escalate agitation or restlessness by engaging the person in a conversation about significant others (“You sound worried about your daughter, Molly – can you tell me about her?”).
- Use names of significant others to provide distraction (“Tell me about your dog Jake”).
- Other ideas?
Helping Me in Everyday Life

Use personal information directly into care-plans, for example:
- preferred sleeping position
- bath vs. shower;
- preferred articles of clothing, wears socks to bed
- beverage choice (coffee, milk, tea) at particular times of the day

Other examples of personal care-related information:
- likes to read in the bathroom on the toilet;
- reads a newspaper every morning with coffee (Note: even if the person can no longer read, there is symbolic value in maintaining this tradition if it provides the person comfort)
- prefers to sit and quietly watch activity rather than actively participate in groups
- is an early (or late) riser; preferred order of dressing and eating in the morning?
- There are as many preferences about care needs as there are individuals – one way does not fit all - ask!

Negotiation is an important technique in preserving personhood in dementia care. Where possible, provide choice that meets wishes and needs. Consult, and negotiate compromise with the person where tensions exist between their preferred schedule and organizational schedules. Flexibility in care routines is to be strived for, as it can enhance the individual’s sense of control about their situation.

I look forward to…I/ Hopes and Dreams

As self-awareness becomes diminished or lost with advancing dementia, the sense of one’s future self, and of personal aspirations, hopes and dreams becomes increasingly faded and uncertain. Moving into residential care, commonly seen to be “the end of life”, compounds this belief that persons with dementia are only living in the present with no strong link to future. And yet, interviews with residents who were asked their care wishes identified they wanted staff to know “we are living our lives”.

Creating (or helping to create) a sense of future is an important aspect of caregiving for people with dementia who can no longer do so themselves. This is an area seldom explored with residents and one in which opportunities need to be regularly provided, even if memory loss means they will forget shortly after. For persons with dementia in the early stages, they may still be able to identify their wishes, dreams, aspirations and hopes for the future. (e.g., “I want to do that again”; “I hope that he will come see me tomorrow”; “I am looking forward to…”). Ask family members to help you identify information that supports their sense of future.

Examples of using the concept of future in care practices that support personhood include:
- Mark and celebrate seasonal and traditional holidays with special events, environmental cues that stimulate the senses: e.g., colour, decorations, songs and music, etc.
- Honour each resident’s birthday in a culturally meaningful way.
- Talk about the future with a sense of anticipation. Ask the individual what they would like to see, do, participate in, what they think it will be like, etc.
- Try asking the person what their hopes are for the future – and actively listen to the response.
- Use knowledge of the person to provide a sense of life continuity and purpose. e.g., provide opportunity for someone to “go to work” in a meaningful way – a simple job or task that is related to prior skills and knowledge and contributes to feeling productive (watering plants, “painting” (with water), folding laundry, stacking books, setting the table, etc.). These activities enhance self esteem and self-worth.
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PART I: DECISIONAL & PRACTICE SUPPORT FOR BPSD
Accommodating and Managing Responsive Behaviours: PIECES-ABC Tool

Assessing & Care-planning for Responsive Behaviours

Use the PIECES framework to systematically assess factors that commonly contribute to responsive behaviours in older adults with dementia. Use the ABC framework to establish the timeline of behavioural events. Which “PIECES” came before (triggers) or after (consequences) the behaviour? You can use the ABC and PIECES tools together to identify specific care strategies that target the triggers and consequences of the behaviour as part of the care-planning process.

<table>
<thead>
<tr>
<th>PHYSICAL</th>
<th>INTELLECTUAL</th>
<th>EMOTIONAL</th>
<th>CAPABILITIES</th>
<th>ENVIRONMENT</th>
<th>SOCIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic needs</td>
<td>Dementia related cognitive changes:</td>
<td>Emotional changes</td>
<td>Changes in usual Abilities/Strengths:</td>
<td>Physical:</td>
<td>Socialization</td>
</tr>
<tr>
<td>• hunger, thirst, need to toilet, urinary retention, constipation, fatigue</td>
<td>• short term memory loss</td>
<td>• sad or depressed mood</td>
<td>• meet own basic needs (e.g., eat, drink, button shirt, shave cheeks, reposition self) at some level with cueing/subtasking</td>
<td>• noise</td>
<td>• Limited/changed</td>
</tr>
<tr>
<td>Recent change in medical condition</td>
<td>• orientation</td>
<td>• boredom</td>
<td>• temperature</td>
<td>• non-meaningful</td>
<td></td>
</tr>
<tr>
<td>• pain</td>
<td>• lack of insight</td>
<td>• grief</td>
<td>• environmental design</td>
<td>• loss of life patterns</td>
<td></td>
</tr>
<tr>
<td>• delirium</td>
<td>• poor judgement</td>
<td>• anxiety</td>
<td>• communication</td>
<td>Non-supportive care approaches:</td>
<td></td>
</tr>
<tr>
<td>• infection (PUS – pneumonia, urine and skin)</td>
<td>• poor focus</td>
<td></td>
<td>• humour</td>
<td>• outpacing or overwhelming (impatience, too fast in movement or speech)</td>
<td></td>
</tr>
<tr>
<td>Medications</td>
<td>Loss of ability to:</td>
<td>Multiple losses:</td>
<td>voluntary, purposeful mov’t ability to self-navigate in env’t</td>
<td>not providing adequate time to respond</td>
<td></td>
</tr>
<tr>
<td>• poly-pharmacy</td>
<td>• move voluntarily;</td>
<td>• recent move</td>
<td>social skills (give and take, attend)</td>
<td>ignoring retained abilities</td>
<td></td>
</tr>
<tr>
<td>• new med</td>
<td>• initiate task;</td>
<td>• home</td>
<td>sensory pleasure</td>
<td>“taking over”</td>
<td></td>
</tr>
<tr>
<td>• dosage</td>
<td>• sequence task</td>
<td>• spouse</td>
<td>pleasure in continuing life patterns, e.g., personal or seasonal celebrations</td>
<td>lack of adequate sub-tasking cues and direction;</td>
<td></td>
</tr>
<tr>
<td>• prn vs regular dosing</td>
<td>• follow-through</td>
<td>• roles</td>
<td>• music appreciation</td>
<td>Task Focused:</td>
<td></td>
</tr>
<tr>
<td>Altered senses</td>
<td>• end task</td>
<td>• independence</td>
<td></td>
<td>• not honouring personal preferences,</td>
<td></td>
</tr>
<tr>
<td>• glasses</td>
<td>Communication changes:</td>
<td>• other</td>
<td></td>
<td>• loss of control and choice</td>
<td></td>
</tr>
<tr>
<td>• hearing aids</td>
<td>• language loss</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• tactile or temperature sensitivities in feet or hands</td>
<td>• expressive aphasia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• receptive aphasia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Adapted from the Murray Alzheimer Research and Education Program (MAREP), University of Waterloo (2005). Managing and Accommodating responsive behaviours in Dementia Care: A Resource Guide for Long-Term Care. For more information, see www.piecescanada.com
The A-B-C Approach to Accommodating and Managing Responsive Behaviours:
Antecedent-Behaviour-Consequences

Overview:
The ABC approach can be used for several aspects of managing and accommodating responsive behaviours. It provides a method to consider behavioural events as a dynamic state and outlines the timeline of events. The ABC approach permits assessment of events prior to the behaviour (triggers) as well as the consequences to the behaviour (what happened and to whom). Documentation of behavioural events using the ABC approach is useful, permitting clinicians to see the evolution of many factors. When used in conjunction with the PIECES model, these 2 tools assist clinicians to fully evaluate what is happening and recognize that there may be multiple triggers or consequences to any one behaviour that need to be addressed within the care-plan.

<table>
<thead>
<tr>
<th>ANTECEDENTS</th>
<th>BEHAVIOUR</th>
<th>CONSEQUENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>What was happening (PIECES) before the behaviour began?</td>
<td>Describe the behaviour in neutral, clear terms. Focus on one behavioural event at a time, with full descriptions.</td>
<td>What happened next, what did the staff do, how did the resident respond, who was affected by the behaviour (other residents, family, other staff)</td>
</tr>
</tbody>
</table>

Example:
- Personal care usually delivered right after breakfast
- Mrs. B. falls asleep in her chair in the dining room
- Staff quickly wheel back to her room for morning care
- Staffing has been short due to illness
- Arthritis, no recent pain assessment in chart
- Mrs. B’s abilities to verbally communicate have declined since fall.

Example:
- During the last 3 days Mrs. B repeatedly calls for help, shrieks loudly and pinches staff during personal care, especially toileting bathing, dressing and positional changes

Example:
- Other staff member came to hold down her hands to permit completion of personal care
- Staff member has 2 small areas of broken skin from scratching and a 1 X 2 cm scratch on left forearm
- Staff feel frustrated & dread giving care
- Other residents upset by screaming and calls for help

Care-planning Directions
- Delay personal care after breakfast until Mrs. B awakens naturally
- Provide breakfast in bed so Mrs. B can doze more comfortably afterwards
- Assess for pain prior to care, provide analgesia as needed
- Speak slow and clear prior to initiating care;
- Provide soft cloths to hold during care delivery to occupy hands
- Continue to monitor and document behaviour during care episodes for the next 7 days;
- Describe changes in behaviour, including evidence of decreasing intensity, frequency, duration of behavioural events.
- Seek partner for care-giving prior to event;
- Agree on care approach:
  o Analgesia one hour before bath
  o One person to speak with Mrs. B about <<personal information, life story, e.g. her garden>> to occupy her attention;
  o Loosely hold the outside of her hands as she holds the cloths;
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PART I: DECISIONAL & PRACTICE SUPPORT FOR BPSD
Cognitive Enhancers

- Cholinesterase Inhibitors (ChEIs)
  - Donepezil (Aricept)
  - Rivastigmine (Exelon)
  - Galantamine (Reminyl)

- NMDA Receptor Antagonist
  - Memantine (Ebixa)
Detect: Who May Benefit from ChEIs?

- Dementia of Alzheimer’s type
- Dementia – Mixed (Vascular & Alzheimer)
- Dementia – Mixed (Alzheimer & Lewy Body)
- Dementia – Parkinson’s Disease
- Dementia – Lewy Body
Cognitive Impairment in the Elderly
BC Guidelines and Protocols Advisory Committee

All three cholinesterase inhibitors (ChEIs) approved for tx mild to moderate Dementia-Alzheimer’s type

Early studies demonstrated small to modest efficacy in cognitive and global outcome measures

Potential benefits; forestalls need for facility placement, prevents emergence of BPSD, slows loss of ADLs, and reduction of caregiver burden as outcomes.

Controversy over the clinical meaningfulness of RCT outcome measures for severe AD and other types of dementia (VaD & DLB). Only donepezil approved by Health Canada for severe AD.
Alzheimer’s Drug Therapy Initiative (ADTI)

- Special Authority coverage for cholinesterase inhibitor treatment for Alzheimer-type dementia or a mixed dementia where predominant etiology is Alzheimer’s disease
- Standardized Mini-mental Status Exam (SMMSE) between 10 and 26
- Global Deterioration Scale (GDS) 4, 5 or 6
- www.health.gov.bc.ca/pharme/ADTI

Carol Ward MD  Dec. 20, 2010
Starting dose and titration schedule of the Cholinesterase Inhibitors

<table>
<thead>
<tr>
<th>Drug</th>
<th>Starting Dose</th>
<th>Titration Period</th>
<th>Dose Inc. Per Titration</th>
<th>Usual Max Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donepezil (Aricept)</td>
<td>5 mg. daily (RDT available)</td>
<td>4-6 weeks</td>
<td>5 mg. daily</td>
<td>10 mg. daily</td>
</tr>
<tr>
<td>Rivastigmine (Exelon)</td>
<td>1.5 mg. bid Patch 5</td>
<td>2-4 weeks</td>
<td>1.5 mg. bid</td>
<td>3-6 mg. bid Patch 10</td>
</tr>
<tr>
<td></td>
<td>(Oral solution available)</td>
<td>4-6 weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Galantamine (Reminyl ER)</td>
<td>4 mg. bid 8 mg. ER daily</td>
<td>4-6 weeks</td>
<td>8 mg. ER daily</td>
<td>16-24 mg. ER daily</td>
</tr>
</tbody>
</table>

Carol Ward MD April 21, 2010
ChEIs Side Effects

- Nausea
- Diarrhea
- Muscle Cramps
- Insomnia/Vivid dreams
- Watch: pulse, breathing, stomach discomfort, seizure tendency
ChEIs
Relative Contraindications

- Hepatic or Renal Disease
- Peptic Ulcer Disease
- Significant Bradycardia or AV block
- Significant Bronchospastic Disease
- History of Seizure
BPSD in patients treated with Cholinesterase Inhibitors

- Cochrane review 2006 concluded treatment associated with a reduction of 2.44 pts on NPI
- Depression/apathy sub-scales

BUT

What if the behaviour is severe and is the indication for treatment?

Carol Ward MD April 21, 2010
Donepezil for the Treatment of Agitation in Alzheimer’s Disease (CALM-AD)

(Howard et al. NEJM 2007)

“The results of our trial suggest that the cholinesterase inhibitors do not represent an effective alternative treatment for clinically significant agitation in patients with Alzheimer’s disease.”

Carol Ward MD April 21, 2010
Discontinuing ChEIs

- Stopping ChEIs in mild-moderate Alzheimer’s disease for more than a few weeks may result in irreversible loss of accrued efficacy.

- Consider stopping ChEIs when:
  - Alzheimer’s disease is advanced and most ADLs lost
  - Patient is unlikely to realize ChEI benefits because of severe comorbid illnesses

- When stopping ChEIs in late disease, watch for emergence of BPSD and consider restarting if indicated.

Carol Ward MD April 21, 2010
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PART II: REASSESSMENT WITH FAMILY PHYSICIAN FOR BPSD
Examples of Behaviors Typically Not Amenable To Pharmacologic Management

- Wandering (mixed evidence)
- Hiding & Hoarding
- Repetitive Activity
- Inappropriate voiding
- Eating inedible objects
- Vocally disruptive behaviour (mixed evidence)
- Inappropriate (un)dressing
- Tugging at restraints
- Pushing wheel chair bound co-residents

Carol Ward MD Sept. 20, 2008
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PART II: REASSESSMENT WITH FAMILY PHYSICIAN FOR BPSD
BPSD/Neuropsychiatric Symptoms that may respond to medication

- Anxiety
- Depressive symptoms
- Sleep disturbance
- Manic-like symptoms
- Persistent and distressing delusions or hallucinations
- Persistent verbal and physical aggression
- Sexually inappropriate behavior

Carol Ward MD March 31, 2010
# Anxiolytics/Sedatives

<table>
<thead>
<tr>
<th>Target Symptoms</th>
<th>Medications</th>
<th>Starting Dose (mg/day)</th>
<th>Average target dose (mg/day)</th>
</tr>
</thead>
</table>
| Anxiety (Antidepressants)        | • Citalopram  
• Sertraline  
• Venlafaxine XR  
• Mirtazapine  
• Trazodone | 5 qam  
25 qam  
37.5 qam  
7.5 qhs  
12.5 – 25 bid | 20  
75  
75 – 150  
30-45  
75 - 150 |
| Anxiety/Insomnia (Benzodiazepines)| • Lorazepam  
• Oxazepam  
• Temazepam | 0.5 daily/bid  
5  
15 | 1  
10  
30 |
| Anxiety                          | • Buspirone | 5 tid | 20 tid |
| Insomnia                         | • Trazodone  
• Zopiclone  
• Chloral hydrate | 25 qhs  
3.75 qhs  
500 qhs | 75-100  
7.5-15  
1000 |

Carol Ward MD April 28, 2010
RETURN TO ALGORITHM

PART II: REASSESSMENT WITH FAMILY PHYSICIAN FOR BPSD
# Starting dose and titration schedule of the Cholinesterase Inhibitors

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<thead>
<tr>
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Carol Ward MD April 21, 2010
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PART II: REASSESSMENT WITH FAMILY PHYSICIAN FOR BPSD
Detect: Who May Benefit from Memantine?
(P.I.E.C.E.S. 6th Edition (R))

- Moderate to severe Alzheimer’s dementia
- Often used in combination with ChEI
CCCD 2006

Recommendations regarding the use of Memantine

A. Memantine is an option for patients with moderate to severe stages of AD (Grade B, Level 1)

B. Combination therapy of ChEI and memantine is rational, appears to be safe, and might lead to additional benefits for patients with moderate to severe AD. (Grade B, Level 1)
# Prescribing Info – Memantine (Ebixa)

<table>
<thead>
<tr>
<th>Week</th>
<th>Morning</th>
<th>Evening</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>½ tab (5 mg)</td>
<td>none</td>
</tr>
<tr>
<td>2</td>
<td>½ tab</td>
<td>½ tab</td>
</tr>
<tr>
<td>3</td>
<td>1 tab (10 mg)</td>
<td>½ tab</td>
</tr>
<tr>
<td>4</td>
<td>1 tab</td>
<td>1 tab</td>
</tr>
</tbody>
</table>
Closer Examination of the Effect of Memantine on Behaviour

Meta-analyses of 6 memantine studies revealed:¹-³

- Improvement on NPI total score

- Improvement in some individual items (particularly agitation/aggression)

- Effect on agitation was seen in patients:
  - With the symptom at baseline (i.e., improvement)
  - Without the symptom at baseline (i.e., delayed emergence)

Memantine for Agitation/Aggression and Psychosis in Moderately Severe to Severe Alzheimer’s Disease: A Pooled Analysis of 3 Studies

- Degree of treatment benefit at 12 weeks (response rate 13% higher than that seen with placebo) is comparable to responder rates reported for antipsychotics.

- Sustained efficacy at 24/28 weeks

But

“further definitive clinical trial evidence is needed”


Carol Ward MD April 21, 2010
Memantine Side Effects

- Headache
- Dizziness
- Confusion
- Constipation
- Renal function
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PART II: REASSESSMENT WITH FAMILY PHYSICIAN FOR BPSD
When should we consider pharmacologic treatment of BPSD?

- Behavior is dangerous, distressing, disturbing, damaging to social relationships and persistent

  AND

- Has not responded to comprehensive non-pharmacologic treatment plan. Including removal of possibly offending drugs

  OR

- Requires emergency treatment to allow proper investigation of underlying problems
Antipsychotics
(CIHI July 2009)

- Used to tx. Schizophrenia & bipolar disorders since 1970s

- Majority of antipsychotic use in elderly is to treat BPSD including delusions, aggression and ‘agitation’

- These symptoms affect more than half of patient’s with Alzheimer’s and can result in harm to both patients and caregivers

Carol Ward MD March 31, 2010
Select

What class of antipsychotic is it?

<table>
<thead>
<tr>
<th>Atypical</th>
<th>Traditional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risperidone</td>
<td>Haloperidol</td>
</tr>
<tr>
<td>Olanzapine</td>
<td>Loxapine</td>
</tr>
<tr>
<td>Quetiapine</td>
<td>Chlorpromazine</td>
</tr>
<tr>
<td>Clozapine</td>
<td>Perphenazine</td>
</tr>
<tr>
<td>Ziprasidone</td>
<td></td>
</tr>
</tbody>
</table>

Carol Ward MD March 31, 2010
Select
What class of antipsychotic is it?

3rd Generation
Aripiprazole
Advantage of Atypicals

- Less Extra-pyramidal side effects (EPS)
  - Rigidity
  - Tremor
  - Slowed movements
  - Leaning to side or back
  - Shuffling gait

- Less risk of developing Tardive Dyskinesia (TD)

- Less confusion

Carol Ward MD March 31, 2010
# Potential Side Effects of Atypical Antipsychotics

(P.I.E.C.E.S. 6th Edition (R))

<table>
<thead>
<tr>
<th>Atypical Antipsychotics</th>
<th>Possible Side Effects</th>
</tr>
</thead>
</table>
| Overall                  | Dizziness, Akathisia (restlessness), Sedation, Hypotension, Hypersalivation  
*all atypicals can cause the side effects beside each agent |
| Olanzapine               | Glucose watch!  
Weight gain, anti-cholinergic effects |
| Risperidone              | Extrapyramidal watch! |
| Quetiapine               | Sedation watch!  
Orthostatic hypotension |

Carol Ward MD March 31, 2010
Potential Side Effects of Atypicals

(P.I.E.C.E.S. 6th Edition (R))

- Possible weight gain, diabetic dyscontrol, elevated cholesterol

- Some studies using atypicals in dementia with BPSD noted an increase in cardiovascular events and mortality ie. 1-2% in placebo vs. 3-4% in the treatment arm

- Controversy as large population health studies have not shown increase risk

Carol Ward MD March 31, 2010
## Atypical Antipsychotics

<table>
<thead>
<tr>
<th>Atypical</th>
<th>Dose</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risperidone</td>
<td>0.25-1 mg, po tabs/liq/ Mtab</td>
<td>daily or bid</td>
</tr>
<tr>
<td>Olanzapine</td>
<td>1.25-5 mg po tabs/Zydis</td>
<td>qhs</td>
</tr>
<tr>
<td>Quetiapine</td>
<td>12.5-150 mg po tabs</td>
<td>tid daily if Seroquel XR</td>
</tr>
</tbody>
</table>

Carol Ward MD March 31, 2010
<table>
<thead>
<tr>
<th>Medication</th>
<th>Dose</th>
<th>Frequency</th>
<th>Max dose/24 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haloperidol</td>
<td>0.5-1 mg po/liq/im</td>
<td>Q2-4 hr prn</td>
<td>2 mg</td>
</tr>
<tr>
<td>Loxapine</td>
<td>2.5-5 po tabs/liq/im</td>
<td>Q2-4 hr prn</td>
<td>25 mg</td>
</tr>
<tr>
<td>Lorazepam</td>
<td>0.5-1 mg po tabs/im</td>
<td>Q2-4 hr prn</td>
<td>2 mg</td>
</tr>
<tr>
<td>Olanzapine</td>
<td>2.5-5 mg</td>
<td>Q6h prn</td>
<td>10mg</td>
</tr>
<tr>
<td>Quetiapine</td>
<td>12.5-25 mg po</td>
<td>Q6h prn</td>
<td>100 mg</td>
</tr>
</tbody>
</table>
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PART II: REASSESSMENT WITH FAMILY PHYSICIAN FOR BPSD
Rx of Behavioral Problems due to Lewy Body Dementia

- Cholinesterase inhibitors are now first line of treatment. Need to try over several weeks.

- If antipsychotic medication necessary document risk with SDM and consider low doses of quetiapine.

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RETURN TO ALGORITHM

PART II: REASSESSMENT WITH FAMILY PHYSICIAN FOR BPSD
# Pharmacotherapies for BPSD

<table>
<thead>
<tr>
<th>Target Symptoms</th>
<th>Medications</th>
<th>Starting Dose (mg/day)</th>
<th>Average target dose (mg/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychosis</td>
<td>• Risperidone</td>
<td>0.25 – 0.5</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>• Olanzapine</td>
<td>2.5 – 5.0</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>• Quetiapine</td>
<td>12.5 - 25</td>
<td>150</td>
</tr>
<tr>
<td>Aggression</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Depression</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Anxiety</td>
<td>25</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>Irritability</td>
<td>7.5</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12.5-25</td>
<td>50-200</td>
</tr>
<tr>
<td></td>
<td>Sleep problems</td>
<td>25</td>
<td>50-75</td>
</tr>
<tr>
<td></td>
<td>Pre-medication</td>
<td>0.5</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Anxiety</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.75</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>Agitation/Impulsivity</td>
<td>Cholinesterase inhib</td>
<td>See previous slide</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Memantine</td>
<td>&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Trazodone</td>
<td>See above</td>
</tr>
<tr>
<td></td>
<td>Mood lability</td>
<td>50-100</td>
<td>300</td>
</tr>
<tr>
<td></td>
<td></td>
<td>125</td>
<td>250-75</td>
</tr>
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PART II: REASSESSMENT WITH FAMILY PHYSICIAN FOR BPSD
# Prescribing Info – Memantine (Ebixa)

<table>
<thead>
<tr>
<th>Week</th>
<th>Morning</th>
<th>Evening</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>½ tab (5 mg)</td>
<td>none</td>
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<td>4</td>
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<td>1 tab</td>
</tr>
</tbody>
</table>

Carol Ward MD April 21, 2010
RETURN TO ALGORITHM

PART II: REASSESSMENT WITH FAMILY PHYSICIAN FOR BPSD
## Atypical Antipsychotics

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<tr>
<th>Atypical</th>
<th>Dose</th>
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<tbody>
<tr>
<td>Risperidone</td>
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<tr>
<td>Olanzapine</td>
<td>1.25-5 mg po tabs/Zydis</td>
<td>qhs</td>
</tr>
<tr>
<td>Quetiapine</td>
<td>12.5-150 mg po tabs</td>
<td>tid daily if Seroquel XR</td>
</tr>
</tbody>
</table>

Carol Ward MD March 31, 2010
RETURN TO ALGORITHM

PART II: REASSESSMENT WITH FAMILY PHYSICIAN FOR BPSD
Criteria for Major Depressive Episode

- Depressed mood
- Diminished interest or pleasure
- Weight loss: >5% body weight in 1 month
- Insomnia or hypersomnia
- Psychomotor retardation or agitation
- Fatigue, loss of energy, worthlessness, guilt
- Decreased concentration
- Recurrent thought of death, suicidal ideation
Mood Related Symptoms in Dementia

(P.I.E.C.E.S. 6th Edition (R))

- Anxiety, anxious expression, ruminations, worrying
- Sadness, sad expression, sad voice, tearfulness
- Lack of reactivity to pleasant events
- Irritability, easily annoyed, short tempered
Mood Related Signs in Dementia
(P.I.E.C.E.S. 6th Edition (R))

- Restlessness, handwringing
- Slow movements, speech and reactions
- Multiple physical complaints
- Loss of interest or less involved in usual activities

Carol Ward MD April 7, 2010
Mood Related Signs In Dementia

(P.I.E.C.E.S. 6th Edition (R))

- Appetite loss, eating less than usual
- Weight loss
- Lack of energy
- Sleep disturbance

Carol Ward MD April 7, 2010
# Select Antidepressant Trade Names

- Citalopram (Celexa)
- Escitalopram (Cipralex)
- Sertraline (Zoloft)
- Paroxetine (Paxil)
- Fluoxetine (Prozac)
- Venlafaxine (Effexor)
- Duloxetine (Cymbalta)
- Mirtazepine (Remeron)
- Trazodone (Desyrel)
- Bupropriion (Zyban, Welbutrin Sr)
- Phenelzine (Nardil)
- Tranylcypromine (Parnate)
- Nortriptyline (Aventyl)
- Desipramine (Norpramin)
- Amitriptyline (Elavil)

Carol Ward MD April 7, 2010
## Select

What class of antidepressant is it?

<table>
<thead>
<tr>
<th>Class</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSRI</td>
<td>• Serotonin selective reuptake inhibitors ie. Citalopram, Sertraline, Paroxetine, Fluoxetine</td>
</tr>
<tr>
<td>SNRI</td>
<td>• Serotonin, norepinephrine reuptake inhibitors ie. Venlafaxine, Duloxetine</td>
</tr>
<tr>
<td>NASA</td>
<td>Noradrenergic and specific serotonergic antidepressant ie. Mirtazepine</td>
</tr>
</tbody>
</table>
**Select**

What class of antidepressant is it?

<table>
<thead>
<tr>
<th>Class</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>SARI</td>
<td>• <strong>Serotonin-2 antagonist/reuptake inhibitors</strong> ie. Trazodone</td>
</tr>
<tr>
<td>NDRI</td>
<td>• <strong>Norepinephrine, Dopamine, reuptake inhibitors</strong> ie. Buproprion</td>
</tr>
<tr>
<td>MAOI and RIMA</td>
<td>• Irreversible, and reversible <strong>monoamine oxidase inhibitors</strong> ie. Phenelzine, Tranylcypromine, Moclobemide</td>
</tr>
<tr>
<td>Tricyclic</td>
<td>• In elderly <strong>secondary amines</strong> ie. Nortriptyline, Desipramine are better tolerated than the old <strong>tricyclics</strong> ie. Amitriptyline</td>
</tr>
</tbody>
</table>
Treatment for Depression/Anxiety

- SSRIs eg. Citalopram, usually considered first line *(also used in fronto-temporal dementia)*
- Other options: Mirtazepine, Venlafaxine, Sertraline

- Selection based on previous response to treatment, medical problem list and drug interactions.
### Effect

**Antidepressants & Possible Side Effects**

<table>
<thead>
<tr>
<th>Class</th>
<th>Side Effects Worth Considering</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSRI i.e. Citalopram, Sertraline</td>
<td>Headache, nausea, diarrhea, sweating, insomnia</td>
</tr>
<tr>
<td>SNRI i.e. Venlafaxine</td>
<td>Headache, nausea, elevated blood pressure</td>
</tr>
<tr>
<td>SARI i.e. Trazodone</td>
<td>Drowsiness, orthostatic hypotension</td>
</tr>
<tr>
<td>NASA i.e. Mirtazepine</td>
<td>Drowsiness, weight gain, dry mouth, dizziness</td>
</tr>
<tr>
<td>NDRI i.e. Bupropion</td>
<td>Headache, nausea, insomnia, seizures</td>
</tr>
</tbody>
</table>
# Effect

## Antidepressants & Possible Side Effects

<table>
<thead>
<tr>
<th>Class</th>
<th>Side Effects worth considering</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tricyclic</strong>&lt;br&gt;ie. Amitriptyline, Nortriptyline</td>
<td><strong>Cardiovascular</strong>&lt;br&gt;- orthostatic hypotension (falls)&lt;br&gt;<strong>Anticholinergic</strong>&lt;br&gt;- urinary retention&lt;br&gt;- constipation&lt;br&gt;- dry mouth, blurred vision&lt;br&gt;- confusion</td>
</tr>
</tbody>
</table>
# Effect

## Antidepressants

<table>
<thead>
<tr>
<th>Drug</th>
<th>Initiate</th>
<th>Ave. therapeutic dose</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Venlafaxine XR (Effexor)</td>
<td>37.5mg qam</td>
<td>150 mg</td>
<td>Monitor BP</td>
</tr>
<tr>
<td>Mirtazepine (Remeron)</td>
<td>7.5mg qhs</td>
<td>45mg qhs</td>
<td>Rapid dissolve option, move to supper if hangover effect</td>
</tr>
<tr>
<td>Duloxetine (Cymbalta)</td>
<td>30mg qam</td>
<td>60 mg qam</td>
<td>May be useful for neuropathic pain</td>
</tr>
<tr>
<td>Bupropion (Welbutrin)</td>
<td>100 mg qam</td>
<td>SR 150 mg XL 150 mg bid</td>
<td>Activating</td>
</tr>
</tbody>
</table>

Carol Ward MD April 7, 2010
## Effect
### Antidepressants

<table>
<thead>
<tr>
<th>Drug</th>
<th>Initiate</th>
<th>Ave. therapeutic dose</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citalopram (Celexa)</td>
<td>10mg qam</td>
<td>20mg</td>
<td>Less drug interactions</td>
</tr>
<tr>
<td>Escitalopram (Cipralex)</td>
<td>5mg qam</td>
<td>20mg</td>
<td>Less drug interactions</td>
</tr>
<tr>
<td>Sertraline (Zoloft)</td>
<td>25mg qam</td>
<td>75mg</td>
<td></td>
</tr>
<tr>
<td>Paroxetine (Paxil)</td>
<td>5mg qam</td>
<td>20mg</td>
<td>anticholinergic</td>
</tr>
</tbody>
</table>

Carol Ward MD April 7, 2010
Effect
Course of Recovery From Depression

☐ Start low

☐ Titrate antidepressant upwards until clinical remission, side-effects or therapeutic dose

- 2-3 weeks: improved sleep, appetite
- 3-4 weeks: improved energy, objective improvement
- 6-8 weeks: subjective improvement

Carol Ward MD April 7, 2010
RETURN TO ALGORITHM

PART II: REASSESSMENT WITH FAMILY PHYSICIAN FOR BPSD
Mood Stabilizer Classification

- **Lithium Carbonate** (Carbolith, Duralith)
  - Lithium Citrate (oral solution)

- **Anticonvulsant**
  - Sodium Valproate (Epival, Depakote, Valproic Acid)
  - Carbamazepine (Tegretol)
  - Gabapentin (Neurontin)
  - Lamotrigine (Lamictal)
  - Oxcarbazepine (Trileptal)

Carol Ward MD May 5, 2010
Mood Stabilizers may be used for:

- Specific treatment of a mental health disorder (DSM IV). For example:
  - Bipolar Disorder(s)
  - Major Depressive Disorder (augmentation)
  - Obsessive-Compulsive Disorder (augmentation)
  - Migraine, cluster headaches (anticonvulsants)
  - Neuropathic pain
Detect con’t
Mood Stabilizers may be used for:

- Treatment of a specific neuropsychiatric symptom(s) of dementia: For example
  - Manic-like
    - Irritable, expansive (euphoric) mood
    - Psychomotor agitation
    - Decreased need for sleep
    - Pressure of speech
    - Flight of ideas
    - Distractibility
  - Chronic aggression

Carol Ward MD May 5, 2010
Treatment of Manic-like Symptoms

- If well established diagnosis of bipolar illness prior to dementia, low dose lithium with appropriated geriatric blood levels (0.4-0.6 mEq/L) may be best treatment but requires close monitoring.

- For new onset of manic-like symptoms, consider carbamazepine (valproic acid).

Carol Ward MD May 5, 2010
## Mood Stabilizers for BPSD

<table>
<thead>
<tr>
<th>Target Symptoms</th>
<th>Medications</th>
<th>Starting Dose (mg/day)</th>
<th>Average target dose (mg/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mania</td>
<td>Lithium</td>
<td>150 mg qhs</td>
<td>150 – 450</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Serum level 0.3-0.7 mmol/l</td>
</tr>
<tr>
<td>Impulsivity</td>
<td>Carbamazepine</td>
<td>50-100 mg bid</td>
<td>300 (serum level)</td>
</tr>
<tr>
<td>Mood lability</td>
<td>Valproic Acid</td>
<td>125 mg bid</td>
<td>250-750 (serum level)</td>
</tr>
<tr>
<td>Anxiety</td>
<td>Gabapentin</td>
<td>150 mg bid</td>
<td>900 - 1800</td>
</tr>
<tr>
<td>Irritability</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Carol Ward MD May 5, 2010
RETURN TO ALGORITHM

PART II: REASSESSMENT WITH FAMILY PHYSICIAN FOR BPSD
Detect

Anxiolytics may be used for:

- Specific treatment of a mental health disorder (DSM IV). For example:
  - Anxiety Disorders ie.
    - Panic Disorder
    - Obsessive-Compulsive Disorder
    - Generalized Anxiety Disorder
  - Sleep Disorders (sedative side-effect)

Carol Ward MD April 28, 2010
Detect con’t
Anxiolytics may be used for:

- Treatment of a specific neuropsychiatric symptom(s) of dementia: For example
  - Nervous, restless, shortness of breath
  - Insomnia (sedative side-effect)
Detect con’t

Anxiolytics may be used for:

- Supportive treatment. For example:
  - Substance or alcohol abuse (withdrawal)
  - Pre-procedure (anxiolytic/sedative)
  - Medical conditions (discomfort ie. Pain, disease ie. Hyperthyroid)
  - Major depression
  - Psychotic disorder
  - Insomnia (Sedative)
  - PRN (Anxiolytic/Sedative)
Signs and Symptoms of Anxiety

- **Thought**
  - Continual intrusive thoughts

- **Neurologic**
  - Tremor
  - Dizziness
  - Headache
  - Blurred vision

- **Mood**
  - Nervous, fretful
  - Complaintive
  - Fear of ie. being alone

- **Behaviour**
  - Checking, rituals

- **Gastrointestinal**
  - Nausea, vomiting
  - Indigestion
  - Swallowing difficulty

- **Cardio/Resp**
  - Shortness of breath
  - Chest tightness/pain
  - Fast heart rate
  - Sleep disturbance, fatigue

Carol Ward MD April 28, 2010
If it is an anxiolytic, what class is it?

1. Benzodiazepine
   - Lorazepam, Oxazepam, Temazepam, Clonazepam etc.

2. Antidepressant
   - SSRI, SNRI, SARI etc.

3. Non-benzodiazepine
   - Buspirone
Treatment for Depression/Anxiety

- SSRIs eg. Citalopram, usually considered first line (*also used in fronto-temporal dementia*)
  Other options:
  Mirtazepine, Venlafaxine, Sertraline

- Selection based on previous response to treatment, medical problem list and drug interactions.
# Effect

Antidepressants & Possible Side Effects

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## Anxiolytics/Sedatives

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<th>Medications</th>
<th>Starting Dose (mg/day)</th>
<th>Average target dose (mg/day)</th>
</tr>
</thead>
</table>
| **Anxiety (Antidepressants)** | • Citalopram  
• Sertraline  
• Venlafaxine XR  
• Mirtazapine  
• Trazodone | • 5 qam  
• 25 qam  
• 37.5 qam  
• 7.5 qhs  
• 12.5 – 25 bid | • 20  
• 75  
• 75 – 150  
• 30-45  
• 75 - 150 |
| **Anxiety/Insomnia (Benzodiazepines)** | • Lorazepam  
• Oxazepam  
• Temazepam | • 0.5 daily/bid  
• 5  
• 15 | • 1  
• 10  
• 30 |
| **Anxiety**                | • Buspirone                       | • 5 tid                | • 20 tid                     |
| **Insomnia**               | • Trazodone  
• Zopiclone  
• Chloral hydrate | • 25 qhs  
• 3.75 qhs  
• 500 qhs | • 75-100  
• 7.5-15  
• 1000 |
PRN (as needed) for Anxiety

- **Benzodiazepine**
  - Lorazepam 0.5-1 mg po/im q2-4h prn (Max 2mg/24 hrs)

- **Antidepressant**
  - Trazodone (12.5-25mg q6h prn)

Carol Ward MD April 28, 2010
RETURN TO ALGORITHM

PART II: REASSESSMENT WITH FAMILY PHYSICIAN FOR BPSD
## Effect

### SSRI Antidepressants

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</tr>
</tbody>
</table>
RETURN TO ALGORITHM

PART II: REASSESSMENT WITH FAMILY PHYSICIAN FOR BPSD
Anti-androgen

- Cyproterone (Androcur)

- Start with 25 mg daily then titrate upward in a bid fashion to a maximum of 50 mg bid

- Monitor for gynecomastia, weight gain, decreased bone density, fatigue, depression, impaired glucose tolerance, thromboembolism
RETURN TO ALGORITHM

PART II: REASSESSMENT WITH FAMILY PHYSICIAN FOR BPSD