Behavioural and Psychological Symptoms of Dementia (BPSD)

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Objectives

1. to understand the epidemiology and presentation of the behavioural and psychological symptoms of dementia
2. to understand the treatment approaches to the behavioural and psychological symptoms of dementia
Increasing life expectancy

Females at birth
Males at birth

- Average OECD
- Canada
- Australia
- Japan
- UK

HERC
van der Flier and Scheltens 2005 JNNP
Dementia epidemiology

- 6% of individuals over 65\textsuperscript{1}
- 20% of individuals over 80
- 700,000 cases in UK currently\textsuperscript{2}
- Current cost of dementia £14.3bn – more than stroke, heart disease and cancer combined
- Number of people with dementia will increase by 40% in next 15 years

\textsuperscript{1} Lobo \textit{et al} 2001
\textsuperscript{2} Alzheimer’s society, 2007
Dementia-epidemiology

- Alzheimer’s disease  50%
- Vascular dementia  20%
- Mixed AD/Vascular  20%
- Dementia with Lewy bodies  5%
Alzheimer’s disease…..

A disorder of memory?
Extract from: Alzheimer A. Über eine eigenartige Erkrankung der Hirnrinde Allgemeine Zeitschrift für Psychiatrie und Psychisch-gerichtliche Medizin. 1907

“One of the first disease symptoms of a 51-year-old woman was a strong feeling of jealousy towards her husband. Very soon she showed rapidly increasing memory impairments; she could not find her way about her home, she dragged objects to and fro, hid herself, or sometimes thought that people were out to kill her, then she would start to scream loudly.”
“From time to time she was completely delirious, dragging her blankets and sheets to and fro, calling for her husband and daughter, and seeming to have auditory hallucinations. Often she would scream for hours and hours in a horrible voice.”
Behavioural and Psychological Symptoms of Dementia (BPSD)

“Alzheimer’s disease is the most widely encountered cause of psychiatric pathology associated with specific neuropathological substrate”

Merriam 1988
BPSD

- Vague and under-researched although described clearly by Alois Alzheimer
- Term ratified by 1996 IPA consensus conference
- Not fully recognised in current diagnostic systems
- Bypassed by dementia strategy 2008
- Not addressed adequately by some guidelines
BPSD

• Seen in:
  ≈40% of mild cognitive impairment
  ≈60% of patients in early stage of dementia
• affects 90-100% of patients with dementia at some point in the course of their illness
• Gets more frequent and troublesome with advancing dementia
BPSD- classification

• Various systems possible
  – Symptom based
    • e.g. “depressive” “delusional”
  – Psychological vs behavioural
  – Syndrome based
    • Alzheimer’s, Lewy body etc
# BPSD - Behavioural Symptoms

<table>
<thead>
<tr>
<th>most common</th>
<th>common</th>
<th>less common</th>
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</thead>
<tbody>
<tr>
<td>Apathy</td>
<td>Agitation</td>
<td>Crying</td>
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<tr>
<td>Aggression</td>
<td>Disinhibition</td>
<td>Mannerisms</td>
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<td>Wandering (aka walking)</td>
<td>Pacing</td>
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<tr>
<td>Restlessness</td>
<td>Screaming</td>
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<tr>
<td>Eating problems</td>
<td>Sundowning</td>
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### BPSD - Psychological Symptoms

<table>
<thead>
<tr>
<th>Most Common</th>
<th>Common</th>
<th>Less Common</th>
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<tbody>
<tr>
<td>Depression</td>
<td>Delusions</td>
<td>Misidentification</td>
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<tr>
<td>Anxiety</td>
<td>Hallucinations</td>
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<tr>
<td>Insomnia</td>
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<tr>
<td></td>
<td>Alzheimer’s</td>
<td>Vascular</td>
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<tr>
<td>Anxiety</td>
<td>Sleep</td>
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</tr>
<tr>
<td>Irritability</td>
<td>Sleep</td>
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<tr>
<td></td>
<td>disturbance</td>
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</table>
BPSD causes

- Physical
- Neuro-chemical
- Environmental
- Emotional
BPSD consequences

- Associated with greater functional impairment
- Very distressing for individual
- Very distressing for carers
- Institutional care
- Overmedication
- Elder abuse
- Associated with increased mortality
BPSD- assessment

• physical health
  – undetected pain or discomfort
  – side effects of medication
• individual life history, including spiritual and cultural identity
• psychosocial factors
• physical environmental factors
• behavioural and functional analysis conducted by professionals with specific skills, in conjunction with carers and care workers.

NICE 2006
BPSD Management
Treatment options

- Identify cause
- Wait and see?
- Education and counselling
- Prophylaxis
- Environmental modification
- Direct behavioural approaches
- Medication
Identify cause

• BPSD may be due to physical cause
• medical review to exclude:
  – Constipation
  – Pain
  – Medication (pain killers, sedatives)
  – Infection
  – Heart failure/hypoxia
Case example #1

- Erica 80, Alzheimer’s disease
- In continuing care
- Very severe dementia
- Usually no verbal response
- Staff noticed increase in distress
  - grimacing and not eating
Wait and see?

• May be brief and self-limiting
Prophylaxis

• Sleep-wake cycle
  – Sleep hygiene
• Exposure to daylight
  – Melatonin
• Exercise
• Stimulation
Education and support

• Important
• May help carers understand and tolerate symptoms
• Facilitates development of creative distractions
Case example # 2

- Greta, 68 Vascular/Alcohol dementia
- Living with husband
- Husband in considerable distress
  - “she refuses to flush the toilet”
  - “she won’t make a cup of tea properly”
- Frustration led to conflict
BPSD- management

• Environmental modification
  – Sleep hygiene
  – Stimulation/noise levels
  – Exercise
  – Food/hydration
  – Lighting
  – Grid-pattern flooring

• Relate problem to individual’s life story
Case example # 3

- Jenny, 79, living in basement flat with partner
- Alzheimer’s disease diagnosed 8 years ago
- Developed sundowning syndrome
- Partner: “she’s going mad doctor”
  - Locked front door
  - Wrestled
  - Plied alcohol
Case example # 4

- Ted, 74, Alzheimer’s disease
- Living in residential home
- “aggressive and violent”, especially at mealtimes
BPSD management

- aromatherapy
- multisensory stimulation
- therapeutic use of music and/or dancing
- animal-assisted therapy
- massage

NICE 2006
BPSD management

- Behavioural approaches
  - Individually tailored
  - Driven by analysis
  - Delivered by trained staff
  - Sustained effort
Case example # 5

- Ben, 78, In residential home after wife’s death
- Vascular dementia 3 years
- Constantly calling staff, day and night
- Not in distress
- “ABC analysis”
BPSD management

• Drug treatment
  – Last resort
  – Should target *specific* symptoms
  – Specialist initiation
  – Regular review
BPSD management

• Depression / Anxiety
  – Antidepressants?

• Agitation/aggression
  – Antipsychotics- NO!
  – Anticholinesterases?
  – Benzodiazepines?
  – Mood stabilisers?

• Delusions/hallucinations
  – Antipsychotics?
Case example # 6

- Anne, 78 living alone
- Alzheimer’s disease 4 years
- Paranoid
  - Delusions neighbours and son stealing
  - Hearing “noises” from ceiling
- Carbamazepine 100mg bd
conclusions

• Behavioural and Psychological symptoms are *core features* of dementia
• BPSD increases distress, carer burden and mortality
• Drug treatment should be a last resort
• *Far* more research is needed on BPSD epidemiology, cause and management

• ……… one more slide
EVIDEM-E

- 6-week randomised controlled trial
- Community dwelling individuals with dementia (any stage, any type)
- At least one BPSD symptom
- Tailored exercise package
- Individualised outcomes
Questions?