S3 File.
Charts for BPSD in Vascular dementia by disease severity
Delusions

**Severity**

- CDR0.5 (N=6):
  - Severe: 33.3%
  - Moderate: 30.0%
  - Mild: 33.3%

- CDR1 (N=10):
  - Severe: 30.0%
  - Moderate: 40.0%
  - Mild: 40.0%

- CDR2 (N=8):
  - Severe: 37.5%
  - Moderate: 25.0%
  - Mild: 25.0%

- CDR3 (N=6):
  - Severe: 16.7%
  - Moderate: 66.6%
  - Mild: 16.7%

**Caregiver distress**

- CDR0.5 (N=5):
  - Extreme: 40.0%
  - Severe: 40.0%
  - Moderate: 25.0%
  - Mild: 25.0%
  - Minimal: 25.0%
  - None: 25.0%

- CDR1 (N=10):
  - Extreme: 10.0%
  - Severe: 10.0%
  - Moderate: 10.0%
  - Mild: 10.0%
  - Minimal: 12.5%
  - None: 25.0%

- CDR2 (N=8):
  - Extreme: 25.0%
  - Severe: 25.0%
  - Moderate: 12.5%
  - Mild: 25.0%
  - Minimal: 25.0%
  - None: 25.0%

- CDR3 (N=4):
  - Extreme: 25.0%
  - Severe: 25.0%
  - Moderate: 25.0%
  - Mild: 25.0%
  - Minimal: 25.0%
  - None: 25.0%

**Frequency**

- CDR0.5 (N=40):
  - Very often: 7.5%
  - Often: 2.7%
  - Sometimes: 2.7%
  - Rarely: 12.9%
  - Never: 41.7%

- CDR1 (N=73):
  - Very often: 85.0%
  - Often: 86.4%
  - Sometimes: 3.4%
  - Rarely: 6.5%
  - Never: 8.3%

- CDR2 (N=31):
  - Very often: 74.2%
  - Often: 50.0%
  - Sometimes: 5.0%
  - Rarely: 5.5%
  - Never: 25.0%

- CDR3 (N=12):
  - Very often: 50.0%
  - Often: 50.0%
  - Sometimes: 6.5%
  - Rarely: 2.7%
  - Never: 8.3%
Hallucinations

Severity

- CDR0.5 (N=5): 60.0% (Mild), 22.2% (Moderate), 11.1% (Severe)
- CDR1 (N=9): 66.7% (Mild), 50.0% (Moderate), 22.2% (Severe)
- CDR2 (N=4): 25.0% (Mild), 25.0% (Moderate), 50.0% (Severe)
- CDR3 (N=5): 60.0% (Mild), 60.0% (Moderate), 40.0% (Severe)

Frequency

- CDR0.5 (N=40):
  - Very often: 16.7%
  - Often: 8.3%
  - Sometimes: 4.2%
  - Rarely: 6.5%
  - Never: 58.3%

- CDR1 (N=72):
  - Very often: 14.3%
  - Often: 4.2%
  - Sometimes: 4.2%
  - Rarely: 6.5%
  - Never: 87.5%

- CDR2 (N=31):
  - Very often: 25.0%
  - Often: 22.2%
  - Sometimes: 11.1%
  - Rarely: 50.0%
  - Never: 25.0%

- CDR3 (N=12):
  - Very often: 16.7%
  - Often: 16.7%
  - Sometimes: 8.3%
  - Rarely: 4.2%
  - Never: 62.5%

Caregiver distress

- CDR0.5 (N=4):
  - Extreme: 11.1%
  - Severe: 25.0%
  - Moderate: 50.0%
  - Mild: 50.0%
  - Minimal: 25.0%
  - None: 25.0%

- CDR1 (N=9):
  - Extreme: 11.1%
  - Severe: 33.4%
  - Moderate: 25.0%
  - Mild: 22.2%
  - Minimal: 25.0%
  - None: 25.0%

- CDR2 (N=4):
  - Extreme: 11.1%
  - Severe: 25.0%
  - Moderate: 25.0%
  - Mild: 25.0%
  - Minimal: 25.0%
  - None: 25.0%

- CDR3 (N=9):
  - Extreme: 11.1%
  - Severe: 25.0%
  - Moderate: 25.0%
  - Mild: 25.0%
  - Minimal: 25.0%
  - None: 25.0%
Agitation

**Severity**
- Severe: CDR0.5 (N=10), CDR1 (N=27), CDR2 (N=17), CDR3 (N=8)
- Moderate: CDR0.5 (N=10), CDR1 (N=27), CDR2 (N=17), CDR3 (N=8)
- Mild: CDR0.5 (N=10), CDR1 (N=27), CDR2 (N=17), CDR3 (N=8)

**Frequency**
- Very often: CDR0.5 (N=10), CDR1 (N=27), CDR2 (N=17), CDR3 (N=8)
- Often: CDR0.5 (N=10), CDR1 (N=27), CDR2 (N=17), CDR3 (N=8)
- Sometimes: CDR0.5 (N=10), CDR1 (N=27), CDR2 (N=17), CDR3 (N=8)
- Rarely: CDR0.5 (N=10), CDR1 (N=27), CDR2 (N=17), CDR3 (N=8)
- Never: CDR0.5 (N=10), CDR1 (N=27), CDR2 (N=17), CDR3 (N=8)

**Caregiver distress**
- Extreme: CDR0.5 (N=10), CDR1 (N=27), CDR2 (N=17), CDR3 (N=8)
- Severe: CDR0.5 (N=10), CDR1 (N=27), CDR2 (N=17), CDR3 (N=8)
- Moderate: CDR0.5 (N=10), CDR1 (N=27), CDR2 (N=17), CDR3 (N=8)
- Mild: CDR0.5 (N=10), CDR1 (N=27), CDR2 (N=17), CDR3 (N=8)
- Minimal: CDR0.5 (N=10), CDR1 (N=27), CDR2 (N=17), CDR3 (N=8)
- None: CDR0.5 (N=10), CDR1 (N=27), CDR2 (N=17), CDR3 (N=8)
Depression

Severity

Caregiver distress

Frequency

CDR0.5 (N=40)
CDR1 (N=73)
CDR2 (N=31)
CDR3 (N=12)

N=11
N=20
N=10
N=5

N=40
N=73
N=31
N=12

Very often
Often
Sometimes
Rarely
Never

Severe
Moderate
Mild

Extreme
Severe
Moderate
Mild
Minimal
None
Euphoria

Severity

Caregiver distress

Frequency

<table>
<thead>
<tr>
<th></th>
<th>CDR0.5 (N=40)</th>
<th>CDR1 (N=73)</th>
<th>CDR2 (N=37)</th>
<th>CDR3 (N=12)</th>
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<tbody>
<tr>
<td>Severity</td>
<td>33.3</td>
<td>20.0</td>
<td>100.0</td>
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<tr>
<td>Caregiver distress</td>
<td>33.3</td>
<td>20.0</td>
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<td>Frequency</td>
<td>2.5</td>
<td>2.7</td>
<td>3.2</td>
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Very often

Often

Sometimes

Rarely

Never

CDR0.5

CDR1

CDR2

CDR3

(N=3)

(N=5)

(N=1)

(N=1)
Apathy

Severity

<table>
<thead>
<tr>
<th></th>
<th>CDR0.5 (N=21)</th>
<th>CDR1 (N=64)</th>
<th>CDR2 (N=28)</th>
<th>CDR3 (N=11)</th>
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<tbody>
<tr>
<td>Severe</td>
<td>33.3</td>
<td>45.3</td>
<td>57.1</td>
<td>66.7</td>
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<tr>
<td>Moderate</td>
<td>14.1</td>
<td>14.3</td>
<td>54.5</td>
<td>40.6</td>
</tr>
<tr>
<td>Mild</td>
<td>54.5</td>
<td>40.6</td>
<td>28.6</td>
<td>18.2</td>
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Caregiver distress

<table>
<thead>
<tr>
<th></th>
<th>CDR0.5 (N=21)</th>
<th>CDR1 (N=64)</th>
<th>CDR2 (N=26)</th>
<th>CDR3 (N=9)</th>
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<tbody>
<tr>
<td>Extreme</td>
<td>5.0</td>
<td>4.7</td>
<td>3.9</td>
<td>2.2</td>
</tr>
<tr>
<td>Severe</td>
<td>30.0</td>
<td>20.3</td>
<td>23.1</td>
<td>22.2</td>
</tr>
<tr>
<td>Moderate</td>
<td>45.0</td>
<td>29.7</td>
<td>34.6</td>
<td>22.2</td>
</tr>
<tr>
<td>Mild</td>
<td>15.4</td>
<td>11.5</td>
<td>11.2</td>
<td>22.2</td>
</tr>
<tr>
<td>None</td>
<td>20.0</td>
<td>17.2</td>
<td>11.5</td>
<td>11.2</td>
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</tbody>
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Frequency

<table>
<thead>
<tr>
<th></th>
<th>CDR0.5 (N=40)</th>
<th>CDR1 (N=73)</th>
<th>CDR2 (N=31)</th>
<th>CDR3 (N=12)</th>
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<tbody>
<tr>
<td>Very often</td>
<td>32.5</td>
<td>56.2</td>
<td>90.3</td>
<td>91.7</td>
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<tr>
<td>Often</td>
<td>15.0</td>
<td>23.3</td>
<td>9.7</td>
<td>8.3</td>
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<tr>
<td>Sometimes</td>
<td>4.8</td>
<td>12.3</td>
<td>1.4</td>
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<tr>
<td>Rarely</td>
<td>5.0</td>
<td>6.8</td>
<td>19.7</td>
<td>20.3</td>
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<tr>
<td>Never</td>
<td>42.0</td>
<td>18.3</td>
<td>8.7</td>
<td>7.7</td>
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Disinhibition

**Frequency**

<table>
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<th>Severity</th>
<th>CDR0.5 (N=40)</th>
<th>CDR1 (N=72)</th>
<th>CDR2 (N=31)</th>
<th>CDR3 (N=12)</th>
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</thead>
<tbody>
<tr>
<td>Very often</td>
<td>7.5%</td>
<td>2.5%</td>
<td>6.9%</td>
<td>9.7%</td>
</tr>
<tr>
<td>Often</td>
<td>2.5%</td>
<td>5.0%</td>
<td>6.9%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>2.5%</td>
<td>6.9%</td>
<td>6.9%</td>
<td>19.4%</td>
</tr>
<tr>
<td>Rarely</td>
<td>82.5%</td>
<td>76.5%</td>
<td>67.7%</td>
<td>80.0%</td>
</tr>
<tr>
<td>Never</td>
<td>0%</td>
<td>20%</td>
<td>40%</td>
<td>60%</td>
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**Severity**

<table>
<thead>
<tr>
<th>Severity</th>
<th>CDR0.5 (N=7)</th>
<th>CDR1 (N=17)</th>
<th>CDR2 (N=10)</th>
<th>CDR3 (N=5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe</td>
<td>14.3%</td>
<td>17.7%</td>
<td>10.0%</td>
<td>20.0%</td>
</tr>
<tr>
<td>Moderate</td>
<td>28.6%</td>
<td>23.5%</td>
<td>60.0%</td>
<td>80.0%</td>
</tr>
<tr>
<td>Mild</td>
<td>57.1%</td>
<td>58.8%</td>
<td>30.0%</td>
<td>20.0%</td>
</tr>
</tbody>
</table>

**Caregiver distress**

<table>
<thead>
<tr>
<th>Severity</th>
<th>CDR0.5 (N=7)</th>
<th>CDR1 (N=16)</th>
<th>CDR2 (N=10)</th>
<th>CDR3 (N=4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extreme</td>
<td>14.3%</td>
<td>12.5%</td>
<td>10.0%</td>
<td>25.0%</td>
</tr>
<tr>
<td>Severe</td>
<td>28.6%</td>
<td>37.4%</td>
<td>20.0%</td>
<td>25.0%</td>
</tr>
<tr>
<td>Moderate</td>
<td>42.8%</td>
<td>18.8%</td>
<td>50.0%</td>
<td>50.0%</td>
</tr>
<tr>
<td>Mild</td>
<td>18.8%</td>
<td>10.0%</td>
<td>10.0%</td>
<td>None</td>
</tr>
<tr>
<td>Minimal</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
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<tr>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
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</tbody>
</table>
Aberrant motor behavior

Severity

- CDR0.5 (N=4): 25.0% Severe, 75.0% Mild
- CDR1 (N=10): 20.0% Severe, 80.0% Mild
- CDR2 (N=5): 60.0% Moderate, 40.0% Mild
- CDR3 (N=5): 80.0% Severe, 20.0% Mild

Caregiver distress

- CDR0.5 (N=4): 25.0% Extreme, 75.0% Minimal
- CDR1 (N=10): 30.0% Severe, 70.0% Minimal
- CDR2 (N=5): 25.0% Extreme, 75.0% Minimal
- CDR3 (N=3): 66.7% Extreme, 33.3% None
Sleep disturbances

**Severity**

- CDR0.5 (N=6):
  - Severe: 100%
  - Moderate: 68.7%
  - Mild: 28.6%
  - None: 16.7%

- CDR1 (N=16):
  - Severe: 25.0%
  - Moderate: 42.8%
  - Mild: 28.6%
  - None: 33.3%

- CDR2 (N=14):
  - Severe: 16.7%
  - Moderate: 50.0%
  - Mild: 28.6%
  - None: 33.3%

- CDR3 (N=6):
  - Severe: 16.7%
  - Moderate: 50.0%
  - Mild: 28.6%
  - None: 33.3%

**Caregiver distress**

- CDR0.5 (N=6):
  - Extreme: 16.7%
  - Severe: 50.0%
  - Moderate: 12.5%
  - Mild: 21.4%

- CDR1 (N=16):
  - Extreme: 6.3%
  - Severe: 37.5%
  - Moderate: 14.3%
  - Mild: 16.7%

- CDR2 (N=14):
  - Extreme: 21.4%
  - Severe: 42.9%
  - Moderate: 14.3%
  - Mild: 16.7%

- CDR3 (N=6):
  - Extreme: 33.2%
  - Severe: 16.7%
  - Moderate: 14.3%
  - Mild: 16.7%

The frequency chart shows the distribution of sleep disturbances across different CDR stages.
Eating abnormalities

Frequency

Severity

Caregiver distress