Supplemental Table 1: Included references and corresponding patient characteristics for sensitivity analysis of the proposed diagnostic criteria for EA. Overall sensitivity was 78%. The lowest sensitivity was reached for rare EA types, such as 7 and 8, mostly due to the absence of distinct interictal clinical features, although precise ocular-motor testing was rarely included.

Ref. = reference number; min = minutes; hrs = hours

| Ref. | EA type | Number of patients | attack duration | speech disturbance | (limb ataxia | walking difficulties/imbalance | double vision/oscillopsia | paleness/weakness | nystagmus | myokymia | fulfilling new diagnostic criteria | sensitivity |
|------|---------|-------------------|----------------|-------------------|-------------|------------------------|------------------------|------------------|-----------|----------|----------------------------------|-------------|
| 47   | 1       | 28 (min – hrs)    | 28             | 28                | -           | 28                     | -                      | -                | -         | -        | -                                | 1           |
| 41   | 1       | 33 min - hrs      | 33             | 33                | -           | 17                     | 28                     | 28               | 28        | 17       | 0,52                             |             |
| 4    | 2       | 64 10 min - days  | 62             | (62)              | 31          | 60                     | 60                     | 0,94             |           |          |                                  |             |
| 22   | 2       | 8 min - days      | 5              | 6                 | 6           | 2                      | 5                      | 6                | 0,75      |          |                                  |             |
| 27   | 2       | 2 4 – 6 hrs       | 2              | 1                 | 1           | 2                      | 2                      | 1                |          | 0,79     |                                  |             |
| 39   | 2       | 28 (hrs)          | 17             | 22                | 6           | 5                      | 22                     | 22               | 0,79      |          |                                  |             |
| 40   | 2       | 3 min - hrs       | 3              | 3                 | 3           | 3                      | 3                      | 3                | 1         | 1        |                                  |             |
| 25   | 2       | 2 2-3 days        | 2              | 2                 | 2           | 2                      | 2                      | 1                | 1         | 1        |                                  |             |
| 32   | 5       | 1 hrs             | 1              | 1                 | 1           | 1                      | 1                      | 1                | 1         | 1        |                                  |             |
| 33   | 6       | 1 30 min – 3 hrs  | 1              | 1                 | 1           | 1                      | (1 ocular-motor deficit) | 1                | 1         |          |                                  |             |
| 34   | 6       | 3 hrs             | 2              | 2                 | 1           | 1                      | 1                      | 1                | 0,33      |          |                                  |             |
| 29   | 7       | 1 hrs - 3 days    | 1              | 1                 | 1           | 1                      | 1                      | 0                |           | 0        |                                  |             |
| 35   | 8       | 10 10 min - 10 hrs| 10             | 10                | 10          | 2                      | 1                      | 3                | 0,3       | 0        |                                  |             |
| 7    | 9       | 4 2-7 days        | 4              | 4                 | 2           | 2                      | 2                      | 2                | 0,5       | 0        |                                  |             |
| 15   | 9       | 2 20 min          | 2              | 1                 | 2           | 2                      | 2                      | 2                | 1         | 1        |                                  |             |
| 16   | 9       | 1 min - hrs       | 1              | 1                 | 1           | 1                      | 1                      | 1                |           |          |                                  |             |
| 30   | 3,4     | 22 10 min – 6 hrs | 26             | 7                 | 14          | 12                     | 12                     | 0,55             |           |          |                                  |             |
| present study | 1,2, 9 | 10 10 min – 12 hrs| 3              | 1                 | 6           | 2                      | 5                      | 8 + (2 ocular-motor deficits) | 0         | 10       | 0,78                              |             |
| Total |        |                   | 223            |                    |             |                        |                        | 173              |           |          |                                  |             |