Table F-7. Baseline characteristics of studies comparing older versus newer antiepileptic drugs

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study, Year | Group | N | Mean Age (SD) | Male (%) | Mean Body Weight in kg (SD) | Caucasian (%) | Black (%) | Asian (%) | Hispanic (%) | Other (%) |
| Danner 1988\* | Carbamazepine | 13 | - | - | - | - | - | - | - | - |
| Oxcarbazepine | 12 | - | - | - | - | - | - | - | - |
| Dam, 1989 | Carbamazepine | 100 | - | 51 | 68 (13) | - | - | - | - | - |
| Oxcarbazepine | 94 | - | 48 | 67 (13) | - | - | - | - | - |
| Faught, 1993 | Valproate | 55 | 34.5 | 36 | 72.2 | 85 | 9.09 | - | - | 5.45 |
| Felbamate | 56 | 33.4 | 57 | 73.8 | 80 | 12.5 | - | - | 7.14 |
| Brodie, 1995 | Carbamazepine | 129 | - | 45 | - | - | - | - | - | - |
| Lamotrigine | 131 | - | 41 | - | - | - | - | - | - |
| Kalviainen, 1995 | Carbamazepine | 50 | 37 (16) | 48 | - | - | - | - | - | - |
| Vigabatrin | 50 | 33 (16) | 42 | - | - | - | - | - | - |
| Sabers, 1995 | Carbamazepine | 11 | 32.5 | 72.7 | - | - | - | - | - | - |
| Valproic Acid | 11 | 22.8 | 54.5 | - | - | - | - | - | - |
| Phenobarbital | 9 | 31.1 | 66.7 | - | - | - | - | - | - |
| Phenytoin | 11 | 36.8 | 72.7 | - | - | - | - | - | - |
| Oxcarbazepine | 10 | 38.8 | 50 | - | - | - | - | - | - |
| Tanganelli, 1996 | Carbamazepine | 25 | 34.8 | 60 | - | - | - | - | - | - |
| Vigabratin | 26 | 37.9 | 62 | - | - | - | - | - | - |
| Reunanen, 1996 | Carbamazepine | 117 |  | 50 | 69 | - | - | - | - | - |
| Lamotrigine 100 mg | 115 | 30 | 54 | 71 | - | - | - | - | - |
| Lamotrigine 200 mg | 111 | 33 | 58 | 69 | - | - | - | - | - |
| Bill, 1997 | Phenytoin | 144 | 26.6 | 64 | 64.9 | 47 | 16 | - | - | 37 |
| Oxcarbazepine | 143 | 27.1 | 57 | 63.6 | 50 | 15 | - | - | 34 |
| Christie, 1997 | Valproic Acid | 121 | 32.47 (-) | 55.4 | 70.2 (-) | - | - | - | - | - |
| Oxcarbazepine | 128 | 32.45 (-) | 46.9 | 69.9 (-) | - | - | - | - | - |
| Guerreiro, 1997 | Pheyntion | 96 | 10.85 | 52 | 40.7 | 83 | 6.25 | - | - | 10.4 |
| Oxcarbazepine | 97 | 10.22 | 47 | 36.4 | 82 | 11 | - | - | 6.19 |
| Chadwick, 1998 | Carbamazepine | 74 | 34 (16.4) | 44 | - | - | - | - | - | - |
| Gabapentin  300 mg | 72 | 37 (17.3) | 56 | - | - | - | - | - | - |
| Gabapentin  900 mg | 72 | 34 (16.0) | 49 | - | - | - | - | - | - |
| Gabapentin  1800 mg | 74 | 37 (16.9) | 55 | - | - | - | - | - | - |

| Table F-7. Baseline characteristics of studies comparing older versus newer antiepileptic drugs (continued) | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Study, Year** | **Group** | **N** | **Mean Age (SD)** | **Male (%)** | **Mean Body Weight in kg (SD)** | **Caucasian (%)** | **Black (%)** | **Asian (%)** | **Hispanic (%)** | **Other (%)** |
| Brodie, 1999a | Carbamazepine | 48 | 76 (-) | 58 | 68 | - | - | - | - | - |
| Lamotrigine | 102 | 77 (-) | 54 | 68 | - | - | - | - | - |
| Brodie, 1999b | Valproic Acid | 107 | - | 50.5 |  | - | - | - | - | - |
| Vigabatrin | 108 | - | 48.1 |  | - | - | - | - | - |
| Chadwick, 1999 | Carbamazepine | 226 | 36 (16) | 54 | - | - | - | - | - | - |
| Vigabatrin | 220 | 35 (15) | 53 | - | - | - | - | - | - |
| Gobbi, 1999 | Carbamazepine | 40 | 7.8 | 55 | - | - | - | - | - | - |
| Vigabatrin | 40 | 7.5 | 45 | - | - | - | - | - | - |
| Steiner, 1999 | Phenytoin | 95 | - | 57 | - | - | - | - | - | - |
| Lamotrigine | 86 | - | 55 | - | - | - | - | - | - |
| Aldenkamp, 2000 | Valproic Acid | 29 | 39.4 (11.4) | 52 | 76.2 (18.0) | - | - | - | - | - |
| Topiramate | 24 | 34.7 (10.2) | 63 | 75.9 (17.5) | - | - | - | - | - |
| Gillham, 2000 | Carbamazepine | 129 | - | - | - | - | - | - | - | - |
| Lamotrigine | 131 | - | - | - | - | - | - | - | - |
| Biton, 2001 | Valproate | 68 | 30.1 (14) | 46 | - | 88 | 9 | 0 | 3 | - |
| Lamotrigine | 65 | 34.5 (16) | 42 | - | 86 | 8 | 3 | 3 | - |
| Cramer, 2001 | Carbamazepine | 76 | 41 (-) | 55 | - | - | - | - | - | -- |
| Tiagabine | 67 | 41 (-) | 46 | - | - | - | - | - | - |
| Phenytoin | 101 | 33 (-) | 35 | - | - | - | - | - | - |
| Tiagabine | 105 | 37 (-) | 45 | - | - | - | - | - | - |
| Kwan, 2001† | Carbamazepine | 212 | 35.2 (19.4) | 51 | - | - | - | - | - | - |
| Sodium Valproate | 101 |  |  | - | - | - | - | - | - |
| Lamotrigine | 78 |  |  | - | - | - | - | - | - |
| Nieto-Barrera, 2001 | Carbamazepine | 201 | - | 47 | 20 | - | - | - | - | - |
| Lamotrigine | 417 | - | 47 | 19 | - | - | - | - | - |
| Sackellares, 2002 | Valproate | 55 | 33.8 (12.4) | 45 | - | - | - | - | - | - |
| Lamotrigine | 53 | 39 (13.8) | 42 | - | - | - | - | - | - |
| Biton, 2003 | Valproate | 20 | 16.0 (3) | 45 | 64 (16.8) | 90 | 5 | 0 | 5 | - |
| Lamotrigine | 18 | 16.2 (3) | 33 | 64 (15.5) | 89 | 0 | 11 | 0 | - |
| Meador, 2003 | Valproate | 29 | 37 | 52 | - | - | - | - | - | - |
| Topiramate | 34 | 41 | 35 | - | - | - | - | - | - |
| Privitera, 2003 | Carbamazepine | 126 | - | 52 | - | - | - | - | - | - |
| Valproic Acid | 78 | - | 44 | - | - | - | - | - | - |
| Topiramate 100 mg | 210 | - | 55 | - | - | - | - | - | - |
| Topiramate 200 mg | 199 | - | 55 | - | - | - | - | - | - - |
| Clemens, 2004 | Carbamazepine | 20 | 24 | 38 | - | - | - | - | - | - |
| Oxcarbazepine | 20 | 24 | 38 | - | - | - | - | - | - |
| Coppola, 2004 | Valproic Acid | 19 | - | 52.6 | - | - | - | - | - | - |
| Lamotrigine | 19 | - | 36.8 | - | - | - | - | - | - |
| Fakhoury, 2004 | Carbamazepine | 46 | 40.3 (12.9) | 46 | - | - | - | - | - | - |
| Lamotrigine | 98 | 41.0 (14.8) | 41 | - | - | - | - | - | - |
| Valproic Acid | 53 | 39.0 (12.7) | 38 | - | - | - | - | - | - |
| Lamotrigine | 105 | 38.3 (13.3) | 44 | - | - | - | - | - | - |
| Wheless, 2004 | Carbamazepine | 23 | 12 | 35 | - | - | - | - | - | - |
| Valproic Acid | 19 | 13 | 42 | - | - | - | - | - | - |
| Topiramate 100 mg | 38 | 13 | 59 | - | - | - | - | - | - |
| Topirate 200 mg | 39 | 13 | 68 | - | - | - | - | - | - |
| Rowan, 2005 | Carbamazepine | 198 | 71.9 (7.7) | 93.8 | - | 67.2 | 26.3 |  | 2.5 | Other: 4 |
| Gabapentin | 195 | 72.9 (7.5) | 96.7 | - | 70.3 | 22.6 |  | 5.1 | Other: 2.1 |
| Lamotrigine | 200 | 71.9 (7.4) | 97.5 | - | 69.5 | 23.5 |  | 5.5 | Other: 1.5 |
| Steinhoff, 2005 | Carbamazepine | 88 | 43.1 (17.3) | 61.4 | - | - | - | - | - | - |
| Lamotrigine | 88 | 46.6 (18.8) | 59.1 | - | - | - | - | - | - |
| Valproate | 30 | 23.3 (10.7) | 46.7 | - | - | - | - | - | - |
| Lamotrigine | 33 | 22.3 (13.0) | 39.4 | - | - | - | - | - | - |
| Sobaniec, 2005 | Carbamazepine | 28 | 9.01 (3.20) | 61 | - | - | - | - | - | - |
| Vigabratin | 26 | 9.90 (2.30) | 50 | - | - | - | - | - | - |
| Babayigit, 2006 | Carbamazepine | 23 | 12.4 (3.93) | 61 | 43.9 (15.51) | - | - | - | - | - |
| Valproic Acid | 31 | 11.18 (4.07) | 4 | 38.15 (16.89) | - | - | - | - | - |
| Oxcarbazepine | 14 | 13.13 (3.17) | 36 | 46.56 (13.65) | - | - | - | - | - |
| Brodie, 2007 | Carbamazepine-Controlled Release | 291 | 15.8 | 58.8 | 73.6 (15.2) | 92.1 | 3.4 | 1.4 | - | 6.0 |
| Levetiracetam | 285 | 16.6 | 51.2 | 73.7 (16.8) | 91.9 | 1.8 | 0.4 | - | 3.1 |
| Donati 2007 | Carbamazepine | 28 | - | 57.1 | - | - | - | - | - | - |
| Valproic Acid | 29 | - | 48.3 | - | - | - | - | - | - |
| Oxcarbazepine | 55 | - | 38.2 | - | - | - | - | - | - |
| Kang, 2007 | Carbamazepine | 54 | 8.7 (2.0) | 59 | 31.0 (33.7) | - | - | - | - | - |
| Topiramate | 58 | 8.7 (1.9) | 55 | 30.6 (31.2) | - | - | - | - | - |
| Kim, 2007 | Carbamazepine | 10 | 25.9 (11.3) | 80 | - | - | - | - | - | - |
| Valproic Acid | 15 | 26.0 (11.0) | 66 | - | - | - | - | - | - |
| Lamotrigine | 8 | 24.1 (9.9) | 25 | - | - | - | - | - | - |
| Levisohn, 2007 | Valproic Acid | 9 | - | 46 | - | - | - | - | - | - |
| Topiramate | 19 | - | 32 | - | - | - | - | - | - |
| Marson 2007  SANAD Arm | Carbamazepine | 378 | 39.2 (18.3) | 55.0 | - | - | - | - | - | - |
| Gabapentin | 377 | 37.8 (17.9) | 54.9 | - | - | - | - | - | - |
| Lamotrigine | 378 | 36.8 (18.3) | 55.0 | - | - | - | - | - | - |
| Oxcarbazepine | 210 | 40.1 (18.0) | 52.9 | - | - | - | - | - | - |
| Topiramate | 378 | 38.4 (18.6) | 55.0 | - | - | - | - | - | - |
| Marson 2007  SANAD Arm B | Valproic Acid | 238 | 22.5 (14.5) | 60.1 | - | - | - | - | - | - |
| Lamotrigine | 239 | 22.8 (14.3) | 59.4 | - | - | - | - | - | - |
| Topiramate | 239 | 22.3 (13.3) | 59.4 | - | - | - | - | - | - |
| Saetre, 2007 | Carbamazepine – Sustained Release | 91 | 73.1 ( 5.5) | 49 | 73.9 (12.7) | - | - | - | - | - |
| Lamotrigine | 93 | 74.3 (6.2) | 62 | 71.3 (11.8) | - | - | - | - | - |
| Stephen, 2007 | Valproic Acid | 111 | - | 56 | Male: 76.4 (14.6)  Female: 63.6 (13.6) | - | - | - | - | - |
| Lamotrigine | 114 | - | 47 | Male: 76.3 (18.7)  Female: 66.7(12.6) | - | - | - | - | - |
| Morrell, 2008 | Valproate | 222 | 22.9 (7.3) | 0 | 56.0 (11.6) | 51 | 4 | - | 8 |  |
| Lamotrigine | 219 | 21.8 (6.3) | 0 | 55.4 (11.0) | 55 | 3 | - | 5 |  |
| Pack, 2008 | Carbamazepine | 41 | 34 (5) | 0 | 66 (18) | 76 | - | - | - | - |
| Valproate | 14 | 30 (7) | 0 | 66 (17) | 67 | - | - | - | - |
| Phenytoin | 15 | 33 (5) | 0 | 70 (23) | 47 | - | - | - | - |
| Lamotrigine | 23 | 30 (6) | 0 | 73 (17) | 61 | - | - | - | - |
| Perry, 2008 | Carbamazepine | 20 | - | 13 | - | - | - | - | - | - |
| Levetiracetam | 66 | - | 48 | - | - | - | - | - | - |
| Kim, 2009 | Carbamazepine | 105 | 8.4 (5.6) months | 42.9 | - | - | - | - | - | - |
| Topiramate | 41 | (6.4)  months | 53.7 | - | - | - | - | - | - |
| Kwan, 2009 | Valproic Acid | 44 | Male: 30.9  Female: 36.9 | 50 | - | - | - | - | - | - |
| Lamotrigine | 37 | Male: 35.4  Female: 32.5 | 49 | - | - | - | - | - | - |
| Ma, 2009‡ | Carbamazepine | 120 | 6.8 (3.6) | - | - | - | - | - | - | - |
| Valproic Acid | 234 |  | - | - | - | - | - | - | - |
| Topiramate | 143 |  | - | - | - | - | - | - | - |
| Glauser, 2010 | Valproic Acid | 147 | - | 48 | - | 73 | 20 | - | - | 7 |
| Ethosuximide | 155 | - | 42 | - | 71 | 21 | - | - | 8 |
| Lamotrigine | 149 | - | 38 | - | 79 | 17 | - | - | 4 |
| Helmstaedter, 2010 | Carbamazepine | 84 | 48.8 (18.3) | 60 | - | - | - | - | - | - |
| Levetiracetam | 138 | 47.3 (20.3) | 51 | - | - | - | - | - | - |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table F-7. Baseline characteristics of studies comparing older versus newer antiepileptic drugs (continued) | | | | | | | | | | |
| **Study, Year** | **Group** | **N** | **Mean Age (SD)** | **Male (%)** | **Mean Body Weight in kg (SD)** | **Caucasian (%)** | **Black (%)** | **Asian (%)** | **Hispanic (%)** | **Other (%)** |
| Ramsay, 2010 | Phenytoin | 127 | 35.3 (15.5) | 56.7 | 82.2 (19.0) | 58.3 | 27.6 | 0.8 | - | 13.4 |
| Topiramate | 132 | 33.2 (14.1) | 40.2 | 83.5 (25.9) | 68.2 | 22.7 | 0 | - | 9.1 |

- = not reported; N = sample size; SANAD Arm A = Standard and New Antiepileptic Drugs Trial Arm A; SANAD Arm B = Standard and New Antiepileptic Drugs Trial Arm B; SD = standard deviation

\*Age and % male are reported but can not be determined for each treatment group

† Mean age and % male is not reported for the individual drugs, but is reported for the total population

‡ For the whole population and not for individual treatment groups