**Appendix Table K3. Characteristics of eligible studies: hormone interventions vs. active controls in adults with normal cognition**

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| **Hormone Intervention Type** | **Study**  **Design Country**  **RoB** | **N=** | **Population**  **Inclusion**  **Age (mean)**  **Sex (% female)**  **Race (% White)**  **Education (mean years)**  **Baseline Cognition** | **Intervention**  **Mode**  **Components**  **Frequency**  **Duration** | **Comparison**  **Mode**  **Components**  **Frequency**  **Duration** | **Outcome**  **timing** | **Outcome**  **Domain [Instrument]** |
| **HRT-estrogen + progestin vs. tibolone** | Pan 200338  RCT  Taiwan Medium | 50 | Healthy postmenopausal women  Mean age (SD): 52 (4) years  100% female  Race: NR  Mean MMSE (SD): 26.6 (2.3) | Estrogen + progestin (conjugated equine estrogen 0.625 mg/day + metheylprogresterone acetate 5 mg/day) for 6 months | Tibolone 2.5 mg/day for 6 months | 6 months | Brief Cognitive Test Performance [MMSE] [Cognitive Abilities Screening Instrument] |
| **HRT-estrogen + testosterone vs. estrogen** | Moller 201339  Moller 201040  RCT crossover Sweden  Medium | 50 | Women aged 45-60 years with surgically-induced menopause  Mean age (SD): 54 (2.9) years  100% female  Race: NR  Baseline global cognition: NR | Estrogen + testosterone (estradiol valerate 2 mg/day + testosterone undecanoate 40 mg/day) for 6 months | Estrogen (estradiol valerate 2 mg/day) plus placebo | 6 months | Executive/Attention/Processing Speed [DSST, used To assess “cognitive fatigue,” = difference between the # of digits produced during the first 30 seconds and last 30 seconds of a 90 second session]  [Digit Symbol, Free Recall of Words] [Digit Symbol, Paired Recall of Symbols] [Digit Symbol, % Spatial Errors]  Memory [Logical Story, Immediate Recall] [Logical Story, Delayed Recall] |
| **SERM Tamoxifen vs. Raloxifene** | Legault 200941  RCT  US  High | 1498 | Healthy postmenopausal women aged 65+ with increased risk of breast cancer, without dementia  Mean age (SD): 70 (4.2) years  100% female  94% White  34% some college  34% college graduate  67% 3MSE ≤ 95  23% 3MSE 90-94  10% 3MSE < 90 | Tamixofen 20 mg/d daily for up to 5 years | Raloxifene 60 mg daily for up to 5 years | Up to 5 years | Brief Cognitive Test Performance [3MS]  Executive/Attention/Processing Speed [DS Forward] [DS Backward]  Memory [BVRT] [CVLT]  Language [Primary Mental Abilities-Verbal] [Verbal Fluency, Letter] [Verbal Fluency, Semantic]  Visuospatial [Card Rotations]  Motor [Finger Tapping] |
| **SERM/HRT - Tamoxifen or Raloxifene vs. CEE** | Espeland 201042 RCT  USA High | 6461 (WHI & Co-STAR trial participants) | Women aged 65-80 years who participated in the WHI or CoSTAR trials  Age, years (approx.)  65-59: 51%  70-74: 34%  75+: 15%  100% female  % white: 90%  Education:  7% < high school  25% high school graduate  38% some college  30% college grad  Baseline 3MS (SD): 95 (4.25) | Congugated equine estrogen 0.625 with or without medroxyprogesterone for at least 3 years | Tamoxifen (20 mg/d) or raloxifene (60 mg/d) for at least 3 years  (There were also Placebo arms in both trials included in the analysis) | Mean follow-up: 4.6 years (range 1-8) years | Brief Cognitive Test Performance [3MS] |

3MS=Modified Mini Mental Status Examination; AD=Alzheimer’s disease; DHEA=dehydroepiandrosterone; BVRT=Benton Visual Retention Test; Co-STAR=The Study of Tamoxifen and Raloxifene Cognitive Substudy; DS=Digit Span (Forward and/or Backward); CVLT=California Verbal Learning Test; DSST=Digit Symbol Substitution Test; HRT=hormone replacement therapy; mg/d=milligrams per day; N=sample size; NR=not reported; RCT=randomized controlled trial; RoB=risk of bias; SD=standard deviation; SERM=selective estrogen receptor modulator; vs.=versus; WHI=Women’s Health Initiative