**SUPPORTING INFORMATION**

**Supporting Table 1. Baseline characteristics of abstainers using EC vs. abstainers using NRT**

|  |  |  |
| --- | --- | --- |
|  | **Abstainers**  **using EC (N=131)** | **Abstainers**  **using NRT (N=40)** |
| **Age** median (IQR) | 26.8 (22.2- 30.6) | 27.8 (23.0 to 31.0) |
| **Education** N (%)  Primary and secondary school  Further education  Higher education | 42 (32.1)  70 (53.4)  19 (14.5) | 13 (32.5)  23 (57.5)  4 (10.0) |
| **Employed** N (%) | 73 (55.7) | 22 (55.0) |
| **Ethnicity** N (%)  White British  Other | 124 (94.7)  7 (5.3) | 34 (85.0)  6 (15.0) |
| **CPD** median (IQR) | 10 (5 to 13) | 10 (5 to 12) |
| **FTCD^** mean (sd) | 3.8 (2.1) | 3.7 (2.1) |
| **Salivary cotinine** ng/ml, median (IQR) N=119-37 | 104 (57.2- 136.0) | 87.5 (50.7- 137.0) |
| **Lives with smoker** N (%) | 78 (59.5) | 25 (62.5) |
| **Past treatments tried** $ N (%)  Champix  NRT  Zyban  None | 21 (16.0)  57 (43.5)  1 (0.8)  64 (48.9) | 6 (15.0)  14 (35.0)  0  23 (57.5) |
| **Tried EC in the past** N (%) | 69 (52.7) | 22 (55.0) |

**Supporting Table 2****. Baseline characteristics of abstainers at end of pregnancy who were using and not using nicotine products regularly during pregnancy and participants who continued to smoke**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Abstinent did not use nicotine products regularly N=25** | **Abstinent**  **used nicotine products regularly N=171** | **Smoking did not use nicotine products**  **regularly**  **N=341** | **Smoking**  **used nicotine products regularly N=603** | **Wald test** |
| **Age** median (IQR) | 25.4  (22.4-30.1) | 26.9  (22.5-30.8) | 27.1  (23.1-31.2) | 26.9  (22.9-31.0) | Chi(3)=0.8, p=0.47 |
| **CPD** median (IQR) | 8 (5-12) | 10 (5-12) | 10 (7-15) | 10 (7-15) | Chi(3)=0.4, p=0.74 |
| **FTCD^** mean (SD) | 3.4 (2.0) | 3.8 (2.1) | 4.3 (2.2) | 4.2 (2.1) | **Chi(3)=3.7 p=0.01** |
| **Salivary cotinine** ng/ml, median (IQR)  N=25-156-321-558 | 78.7  (71.3-157.0) | 99.8  (55.4-136.5) | 117  (72.0-170) | 120.5  (78.4-175.0) | **Chi(3)=3.7 p=0.01** |
| **Education**  N (%)  Primary/secondary school  Further educ.  Higher educ. | 10 (40.0)  13 (52.0)  2 (8.0) | 55 (32.2)  93 (54.4)  23 (13.5) | 154 (45.2)  156 (45.8)  31 (9.1) | 244 (40.5)  299 (49.6)  60 (10.0) | **Chi(3)=8.5 p=0.04** |
| **Employed**  N (%) | 11 (44.0) | 95 (55.6) | 130 (38.1) | 295 (48.9) | **Chi(3)=16.0**  **p=0.001** |
| **Ethnicity** N (%)  White British  Other | 20 (80.0)  5 (20.0) | 158 (92.4)  13 (7.6) | 301 (88.3)  40 (11.7) | 529 (87.7)  74 (12.3) | Chi(3)=5.1, p=0.17 |
| **Lives with smoker** N (%) | 19 (76.0) | 103 (60.2) | 197 (57.8) | 351 (58.2) | Chi(3)=5.5, p=0.14 |
| **Past treatments tried** \* N (%)  Varenicline    NRT    Bupropion    None | 4 (16.0)    9 (36.0)    0  15 (60.0) | 27 (15.8)  71 (41.5)    1 (0.6)  87 (50.9) | 32 (9.4)  160 (46.9)  5 (1.5)  168 (49.3) | 85 (14.1)  301 (49.9)  6 (1.0)  269 (44.6) | Chi(3)=5.7,  p=0.12  Chi(3)=4.8, p=0.19  Chi(3)=0.9,  p=0.64  Chi(3)=5.3, p=0.16 |
| Tried EC in the pastN (%) | 10 (40.0) | 91 (53.2) | 156 (45.8) | 298 (49.2) | Chi(3)=3.4, p=0.33 |

^ FTCD=Fagerstrom Test of Cigarette Dependence

\* Some participants had tried more than one treatment option

# For education, we estimated Odds Ratio using ordinal regression

**Supporting Table 3. Baseline characteristics of participants providing vs. not providing a cotinine reading at EOP**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Not missing** | **Missing** |
| **Abstainers** | Cotinine: median(IQR)  N=100-81 | 89.8 (51.0-132.0) | 103 (69.6-157.0) |
| CPD: median(IQR)  N=108-88 | 10 (5-12.5) | 10 (5-12) |
| FNDT: mean(SD)  N=108-88 | 3.6 (2.0) | 3.9 (2.1) |
| **Dual-users\*** | Cotinine median(IQR)  N=114-73 | 127 (81.3-129) | 129 (89.4-196.0) |
| CPD: median(IQR)  N=121-78 | 10 (10-20) | 10 (6-15) |
| FNDT: mean(SD)  N=121-78 | 4.8 (2.0) | 4.1 (2.0) |
| **Reducers** | Cotinine: median(IQR)  N=168-168 | 116.5 (81.1-173.5) | 129 (87.0-171.5) |
| CPD: median(IQR)  N=181-177 | 10 (10-20) | 10 (8-20) |
| FNDT: mean(SD)  N=181-177 | 4.6 (2.0) | 4.1 (2.2) |

\*Dual users are defined as smokers currently using NRT or EC

**Supporting Table 4. Adverse and other birth and maternal outcomes in abstainers using EC and NRT**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Abstinent using EC N=127** | **Abstinent using NRT N=39** | **Difference^** |
| Miscarriage N (%) | 1 (0.8) | 0 | N/C |
| Stillbirth N (%) | 0 | 0 | N/C |
| Neonatal death N (%) | 0 | 0 | N/C |
| Postnatal death N (%) | 0 | 0 | N/C |
| Maternal death N (%) | 0 | 0 | N/C |
| Preterm birth N (%) | 10 (7.9) | 1 (2.6) | 0.32 (0.04-2.45) |
| Low birthweight  N (%) N=124- 38 | 13 (10.5) | 3 (7.9) | 0.74 (0.22-2.44) |
| NICU admission  N (%) | 14 (11.0) | 1 (2.6) | 0.23 (0.03-1.71) |
| Congenital abnormalities N (%) | 4 (3.2) | 0 | N/C |
| Terminations N (%)  -Due to congenital  abnormalities  -Due to premature rupture of  membranes | 0  0 | 0  0 | N/C |
| Number of women with any adverse pregnancy outcome # N (%) | 22 (17.3) | 4 (10.3) | 0.58 (0.21-1.59) |
| Delivery by caesarean section | 32 (25.2) | 13 (33.3) | 1.35 (0.79-2.31) |
| Gestational age in weeks Mean (SD)  N=126- 39 | 38.5 (3.0) | 38.8 (1.5) | 0.28  (-0.81 to 1.36) |
| Birth-weight Mean (SD) N= 124-38 | 3.3 (0.7) | 3.3 (0.5) | 0.01  (-0.21 to 0.22) |

\*\* Participants who report EC+NRT use are allocated to the EC group

^ Relative Risks (RR) and their 95%CI were estimated for binary outcomes; while mean differences. (95%CI) for continuous variables.

# Women who experienced one or more of the outcomes listed in the rows above.

N/C not calculated due to small cell size.

Models adjusted for FTND, baseline cotinine levels, and occupation

**Supporting Table 5. Number (%) of participants experiencing new respiratory symptoms since the start of treatment among those who did and did not use EC regularly**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **EC non-users**  **N=58** | **EC users N=85** | **Adjusted RR$ (95% CI)** |
| *Any respiratory symptoms since start of treatment* | 49 (84.5) | 68 (80.0) | 1.05 (0.90- 1.22) |
| Phlegm | 18 (31.0) | 29 (34.1) | 1.12 (0.69- 1.81) |
| Shortness of breath | 31 (53.5) | 39 (45.9) | 0.86 (0.62- 1.20) |
| Cough | 29 (50.0) | 35 (41.2) | 0.84 (0.58-1.20) |
| Wheezing | 24 (41.4) | 26 (30.6) | 0.73 (0.47- 1.14) |

$ Adjusted for self-reported sustained abstinence at EOP

**Supporting Table 6. Change in respiratory symptoms in participants who did not and did use NRT regularly**

|  |  |  |  |
| --- | --- | --- | --- |
| ***Change in pre-existing symptoms\**** | **Used NRT regularly**  **(N=12-22)**  **N (%)** | **Did not use NRT regularly**  **(N=8-18)**  **N (%)** | **Adjusted RR (95% CI)\*\* #** |
| *Phlegm*  Worse  Same  Better | 7 (58.3)  2 (16.7)  3 (25.0) | 6 (75.0)  2 (25.0)  0 | 0.85  (0.46-1.57) |
| *Shortness of breath*  Worse  Same  Better | 10 (45.6)  10 (45.6)  2 (9.1) | 7 (38.9)  10 (55.6)  1 (5.6) | 1.29  (0.62-2.68) |
| *Cough*  Worse  Same  Better | 10 (62.5)  3 (18.8)  3 (18.8) | 9 (69.2)  3 (23.1)  1 (7.7) | 0.96  (0.57-1.62) |
| *Wheezing*  Worse  Same  Better | 8 (42.1)  9 (47.4)  2 (10.5) | 8 (57.1)  5 (35.7)  1 (7.1) | 0.66  (0.30-1.45) |

\* Symptoms were measured on a 5-point scale: much better, somewhat better, the same, somewhat worse and much worse; worse = somewhat worse and much worse, same = same, better = somewhat better and much better.

\*\* RR are for symptoms deterioration (somewhat worse & much worse vs. same, much better & somewhat better)

# Analyses adjusted for self-reported abstinence at EOP