Supplementary Table 1. Relative risk (HRs and 95% Confidence Intervals, CI) of breast cancer death in association with dispensed ASA dose at different time periods following breast cancer diagnosis stratified by cancer stage at diagnosis.

| Period | ASA dose | Stage I | | Stage II | | Stage III and IV | | |
|--------|--|-----------|-------------------|------------|-------------------|------------------|-------------------|--|
| | | Ca/co | HR (95% CI) | Ca/co | HR (95% CI) | Ca/co | HR (95% CI) | |
| Α | A - baseline (3 to 9 months after diagnosis) | | | | | | | |
| | | (151/302) | | (621/1242) | | (478/955) | | |
| | 0 | 128/244 | 1.00 | 493/992 | 1.00 | 398/794 | 1.00 | |
| | <1 daily dose | 4/14 | 0.58 (0.16; 2.02) | 33/62 | 1.07 (0.68; 1.69) | 28/52 | 1.05 (0.63; 1.73) | |
| | ≥ 1 daily dose | 19/44 | 0.88 (0.45; 1.72) | 95/188 | 1.03 (0.76; 1.39) | 52/109 | 0.97 (0.66; 1.43) | |
| В | - 12 to 6 months before end of follow-up | | | | | | | |
| | | (124/248) | | (507/1014) | | (352/703) | | |
| | 0 | 104/203 | 1.00 | 401/811 | 1.00 | 282/576 | 1.00 | |
| | <1 daily dose | 3/8 | 0.79 (0.19; 3.30) | 27/51 | 1.12 (0.68; 1.84) | 30/31 | 2.19 (1.27; 3.78) | |
| | ≥ 1 daily dose | 17/37 | 0.89 (0.45; 1.79) | 79/152 | 1.01 (0.72; 1.40) | 40/96 | 0.86 (0.56; 1.32) | |
| С | - 9 to 3 months before end of follow-up | | | | | | | |
| | | (142/284) | | (573/1146) | | (418/835) | | |
| | 0 | 116/228 | 1.00 | 452/901 | 1.00 | 342/689 | 1.00 | |
| | <1 daily dose | 7/17 | 0.85 (0.33; 2.19) | 33/67 | 0.87 (0.55; 1.38) | 27/37 | 1.59 (0.93; 2.71) | |
| | ≥ 1 daily dose | 19/39 | 0.96 (0.50; 1.84) | 88/178 | 0.97 (0.70; 1.33) | 49/109 | 0.86 (0.58; 1.29) | |
| D | - 6 to 0 months before end of follow-up | | | | | | | |
| | | (151/302) | | (621/1242) | | (478/955) | | |
| | 0 | 124/245 | 1.00 | 486/966 | 1.00 | 397/774 | 1.00 | |
| | <1 daily dose | 9/13 | 1.45 (0.58; 3.62) | 59/71 | 1.55 (1.05; 2.28) | 31/54 | 0.99 (0.61; 1.61) | |
| | ≥ 1 daily dose | 18/44 | 0.75 (0.39; 1.46) | 76/205 | 0.67 (0.48; 0.92) | 50/127 | 0.74 (0.50 1.08) | |

^{*}HRs and 95% CIs adjusted for comorbidity, educational level and the matching factors age and calendar period

Supplementary Table 2. Relative risk (HRs and 95% Confidence Intervals, CI) of other causes of death (non-breast cancer causes) in association with dispensed ASA dose at different time periods following breast cancer diagnosis using a nested case-control design.

| Period | ASA dose | Cases | Controls | Model 1 | Model 2 | | | |
|--------|--|------------|-------------|-------------------|-------------------|--|--|--|
| | | | | HR (95% CI) | HR (95% CI) | | | |
| Α | - baseline (3 to 9 months after diagnosis) | | | | | | | |
| | | (n=1279) | (n=2558) | | | | | |
| | | (11 12/3) | (11 2330) | | | | | |
| | 0 | 794 (62.1) | 1763 (68.9) | 1.00 | 1.00 | | | |
| | <1 daily dose | 116 (9.1) | 214 (8.4) | 1.21 (0.95; 1.54) | 1.23 (0.96; 1.58) | | | |
| | ≥ 1 daily dose | 369 (28.9) | 581 (22.7) | 1.42 (1.22; 1.67) | 1.35 (1.14; 1.60) | | | |
| В | - 12 to 6 months before end of follow-up | | | | | | | |
| | | , ,,,,,, | () | | | | | |
| | | (n=1038) | (n=2076) | | | | | |
| | 0 | 626 (60.3) | 1407 (67.8) | 1.00 | 1.00 | | | |
| | <1 daily dose | 82 (7.9) | 179 (8.6) | 1.04 (0.78; 1.37) | 1.01 (0.76; 1.36) | | | |
| | ≥ 1 daily dose | 330 (31.8) | 490 (13.6) | 1.53 (1.29; 1.83) | 1.47 (1.23; 1.77) | | | |
| С | - 9 to 3 months before end of follow-up | | | | | | | |
| | · | | | | | | | |
| | | (n=1176) | (n=2352) | | | | | |
| | 0 | 696 (59.2) | 1564 (66.5) | 1.00 | 1.00 | | | |
| | <1 daily dose | 103 (8.8) | 209 (8.9) | 1.10 (0.86; 1.42) | 1.09 (0.84; 1.41) | | | |
| | ≥ 1 daily dose | 377 (32.1) | 579 (24.6) | 1.50 (1.27; 1.76) | 1.42 (1.20; 1.69) | | | |
| D | - 6 to 0 months before end of follow-up | | | | | | | |
| | | | | | | | | |
| | | (n=1279) | (n=2558) | | | | | |
| | | 750 /50 2\ | 1007 (00.3) | 1.00 | 1.00 | | | |
| | 0 | 759 (59.3) | 1697 (66.3) | 1.00 | 1.00 | | | |
| | <1 daily dose | 170 (13.3) | 193 (7.5) | 2.02 (1.61; 2.54) | 1.90 (1.50; 2.40) | | | |
| | ≥ 1 daily dose | 350 (27.4) | 668 (26.1) | 1.19 (1.01; 1.39) | 1.12 (0.95; 1.32) | | | |

Model 1: Logistic regression model with adjustment for the matching factors age at diagnosis, calendar year of diagnosis, and time since diagnosis

Model 2: Additional adjustment for comorbidity (in groups of disorders associated with increased or decreased use of ASA) and highest obtained educational level (≤9 years, 10-12 years, >12 years)

Supplementary Table 3. Relative risk (HRs and 95% Confidence Intervals, CI) of breast cancer death in association with dispensed NSAID dose at different time periods following breast cancer diagnosis using a nested case-control design.

| Period | NSAID dose | Cases | Controls | Model 1 | Model 2 | | | |
|--------|--|-------------|-------------|------------------|------------------|--|--|--|
| | | | | HR (95% CI) | HR (95% CI) | | | |
| A | - baseline (3 to 9 months after diagnosis) | | | | | | | |
| | | | | | | | | |
| | | (n=1521) | (n=3042) | | | | | |
| | Unexposed (never) | 1251 (82.3) | 2608 (85.7) | 1.00 | 1.00 | | | |
| | exposed (ever) | 270 (17.8) | 434 (14.3) | 1.30 [1.10,1.53] | 1.30 [1.10,1.54] | | | |
| В | - 12 to 6 months before end of follow-up | | | | | | | |
| | | (n=1211) | (n=2422) | | | | | |
| | Unexposed (never) | 952 (78.6) | 2083 (86.0) | 1.00 | 1.00 | | | |
| | exposed (ever) | 259 (21.4) | 339 (14.0) | 1.69 [1.41,2.03] | 1.71 [1.42,2.06] | | | |
| С | - 9 to 3 months before end of follow-up | | | | | | | |
| | | (n=1380) | (n=2760) | | | | | |
| | Unexposed (never) | 1050 (76.1) | 2393 (86.7) | 1.00 | 1.00 | | | |
| | exposed (ever) | 330 (23.9) | 367 (13.3) | 2.07 [1.75,2.45] | 2.10 [1.76,2.50] | | | |
| D | - 6 to 0 months before end of follow-up | | | | | | | |
| | | (n=1521) | (n=3042) | | | | | |
| | Unexposed (never) | 1081 (71.1) | 2648 (87.0) | 1.00 | 1.00 | | | |
| | exposed (ever) | 440 (28.9) | 394 (13.0) | 2.85 [2.43,3.35] | 2.95 [2.50,3.50] | | | |

Model 1: Model with adjustment for age at diagnosis, calendar year of diagnosis and time since diagnosis

Model 2: Model with adjustment for age at diagnosis, calendar year of diagnosis, time since diagnosis, comorbidity (in groups of disorders associated with either an increased or

decreased use of ASA), highest obtained educational level (\leq 9 years, 10-12 years, >12 years) and ASA use in exposure windows