**SUPPLEMENTARY DATA ‘Total fluid intake and the risk of recurrence in patients with non-muscle invasive bladder cancer: a prospective cohort study’**

**Pre-diagnosis analysis**

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| **Table S1. Hazard ratios (HR) and 95% confidence intervals (95% C.I.) for Cox proportional hazard models predicting a first recurrence of bladder cancer, based on total alcohol and beverage-specific alcohol intake 1 year before diagnosis (n=716)** | | | | | | | | | |
|  |  |  | **Model 1\*** |  | **Model 2\*\*** |  | **Model 3\*\*\*** |  |  |
|  | **n** | **events** | **HR (95% C.I.)** | **p-value** | **HR (95% C.I.)** | **p-value** | **HR (95% C.I.)** | **p-value** | **p trend** |
| **Total alcohol\*** |  |  |  |  |  |  |  |  | 0.93 |
| T1 (0 mL/day) | 176 | 60 | ref | . | ref | . | ref | . |  |
| T2 (25 mL-125 mL/day) | 231 | 75 | 0.91 (0.65-1.28) | 0.60 | 0.94 (0.67-1.32) | 0.72 | 0.90 (0.63-1.27) | 0.55 |  |
| T3 (>125 mL/day) | 306 | 102 | 0.95 (0.69-1.30) | 0.74 | 1.00 (0.72-1.40) | 0.98 | 0.97 (0.70-1.36) | 0.87 |  |
| **Beer (e.g. beer, lager, stout)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 316 | 108 | ref | . | ref | . | ref | . | 0.56 |
| 1-3 per month | 92 | 26 | 0.77 (0.50-1.18) | 0.23 | 0.83 (0.53-1.28) | 0.40 | 0.81 (0.52-1.27) | 0.36 |  |
| 1 per week | 68 | 31 | 1.38 (0.91-2.08) | 0.13 | 1.46 (0.95-2.24) | 0.08 | 1.41 (0.92-2.15) | 0.11 |  |
| 2-4 per week | 141 | 42 | 0.82 (0.58-1.17) | 0.27 | 0.87 (0.61-1.25) | 0.46 | 0.88 (0.61-1.27) | 0.50 |  |
| 5-6 per week | 44 | 14 | 0.89 (0.52-1.51) | 0.66 | 0.95 (0.55-1.63) | 0.84 | 0.78 (0.45-1.35) | 0.37 |  |
| At least 1 per day | 55 | 16 | 0.85 (0.50-1.45) | 0.55 | 0.90 (0.52-1.55) | 0.69 | 0.93 (0.54-1.58) | 0.78 |  |
| **Cider** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 667 | 215 | ref | . | ref | . | ref | . | 0.26 |
| 1-3 per month | 28 | 14 | 2.11 (1.26-3.54) | 0.00 | 2.29 (1.40-3.76) | 0.00 | 1.96 (1.15-3.37) | 0.01 |  |
| 1 per week | 11 | 5 | 1.36 (0.58-3.17) | 0.48 | 1.31 (0.58-2.98) | 0.51 | 1.17 (0.57-2.38) | 0.67 |  |
| 2-4 per week | 5 | 2 | 1.66 (0.32-8.62) | 0.54 | 2.07 (0.40-10.81) | 0.39 | 2.38 (0.49-11.51) | 0.28 |  |
| 5-6 per week | 1 | 0 | - | . | - | . | - | . |  |
| At least 1 per day | 4 | 1 | 0.65 (0.09-4.65) | 0.67 | 0.68 (0.10-4.81) | 0.70 | 0.90 (0.16-5.25) | 0.91 |  |
| **Wine or champagne** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 412 | 133 | ref | . | ref | . | ref | . | 0.32 |
| 1-3 per month | 74 | 21 | 0.84 (0.54-1.32) | 0.45 | 0.87 (0.56-1.37) | 0.55 | 0.84 (0.53-1.34) | 0.47 |  |
| 1 per week | 55 | 20 | 1.19 (0.71-1.98) | 0.52 | 1.25 (0.74-2.11) | 0.41 | 1.38 (0.82-2.30) | 0.22 |  |
| 2-4 per week | 89 | 29 | 0.92 (0.62-1.38) | 0.69 | 0.95 (0.63-1.41) | 0.78 | 0.98 (0.65-1.46) | 0.91 |  |
| 5-6 per week | 36 | 14 | 1.25 (0.71-2.21) | 0.43 | 1.25 (0.72-2.17) | 0.43 | 1.21 (0.69-2.11) | 0.50 |  |
| At least 1 per day | 50 | 20 | 1.19 (0.75-1.88) | 0.46 | 1.18 (0.75-1.86) | 0.47 | 1.25 (0.78-2.01) | 0.36 |  |

\*Q1 includes non-drinkers only, Q2 includes drinkers whose consumption corresponds with up to 1 large glass of wine or half a pint of beer/lager per day, Q3 includes drinkers whose consumption corresponds with more than 1 large glass of wine or half a pint of beer/cider per day.

\*Model 1 was unadjusted, \*\*Model 2 was adjusted for age, sex, and smoking status, \*\*\*Model 3 was adjusted for age, sex, smoking status, and tumour stage, grade, size and multiplicity.

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| **Table S1. (continued)** | | | | | | | | | |
|  |  |  | **Model 1\*** |  | **Model 2\*\*** |  | **Model 3\*\*\*** |  |  |
|  | **n** | **events** | **HR (95% C.I.)** | **p-value** | **HR (95% C.I.)** | **p-value** | **HR (95% C.I.)** | **p-value** | **p trend** |
| **Fortified wine (e.g. port, sherry, cinzano)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 625 | 208 | ref | . | ref | . | ref | . | 0.54 |
| 1-3 per month | 49 | 13 | 0.70 (0.41-1.22) | 0.21 | 0.70 (0.41-1.19) | 0.19 | 0.70 (0.41-1.18) | 0.18 |  |
| 1 per week | 20 | 6 | 0.80 (0.37-1.76) | 0.59 | 0.73 (0.33-1.60) | 0.43 | 0.81 (0.38-1.74) | 0.59 |  |
| 2-4 per week | 12 | 5 | 1.27 (0.55-2.94) | 0.58 | 1.31 (0.59-2.92) | 0.50 | 1.52 (0.66-3.50) | 0.32 |  |
| 5-6 per week | 6 | 3 | 1.85 (0.60-5.74) | 0.29 | 1.70 (0.60-4.81) | 0.32 | 1.40 (0.51-3.84) | 0.51 |  |
| At least 1 per day | 4 | 2 | 1.99 (0.34-11.59) | 0.44 | 2.09 (0.36-12.19) | 0.41 | 2.49 (0.45-13.72) | 0.29 |  |
| **Spirits (e.g. gin, brandy, rum, vodka, whiskey)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 455 | 140 | ref | . | ref | . | ref | . | 0.88 |
| 1-3 per month | 91 | 38 | 1.34 (0.93-1.93) | 0.12 | 1.42 (0.98-2.05) | 0.06 | 1.42 (0.98-2.06) | 0.06 |  |
| 1 per week | 53 | 23 | 1.50 (0.98-2.30) | 0.06 | 1.50 (0.99-2.29) | 0.06 | 1.58 (1.03-2.43) | 0.04 |  |
| 2-4 per week | 66 | 21 | 1.00 (0.64-1.58) | 1.00 | 1.03 (0.65-1.62) | 0.91 | 1.08 (0.68-1.72) | 0.74 |  |
| 5-6 per week | 15 | 5 | 1.11 (0.46-2.69) | 0.81 | 1.06 (0.44-2.55) | 0.90 | 1.01 (0.40-2.60) | 0.98 |  |
| At least 1 per day | 36 | 10 | 0.86 (0.46-1.63) | 0.65 | 0.83 (0.44-1.56) | 0.57 | 0.80 (0.43-1.48) | 0.47 |  |
| **Liqueurs (e.g. tia maria, baileys, cointreau)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 671 | 220 | ref | . | ref | . | ref | . | 0.05 |
| 1-3 per month | 31 | 9 | 0.83 (0.43-1.63) | 0.59 | 0.83 (0.43-1.62) | 0.59 | 0.77 (0.39-1.52) | 0.45 |  |
| 1 per week | 6 | 2 | 0.93 (0.22-3.91) | 0.92 | 0.89 (0.21-3.68) | 0.87 | 0.85 (0.21-3.43) | 0.81 |  |
| 2-4 per week | 5 | 3 | 2.45 (0.67-9.02) | 0.18 | 2.16 (0.58-8.09) | 0.25 | 1.73 (0.46-6.46) | 0.42 |  |
| 5-6 per week | 0 | 0 | - | . | - | . | - | . |  |
| At least 1 per day | 3 | 3 | 4.76 (2.63-8.62) | 0.00 | 4.72 (2.75-8.11) | 0.00 | 6.66 (4.56-9.74) | 0.00 |  |

\*Model 1 was unadjusted, \*\*Model 2 was adjusted for age, sex, and smoking status, \*\*\*Model 3 was adjusted for age, sex, smoking status, and tumour stage, grade, size and multiplicity.

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| **Table S2. Hazard ratios (HR) and 95% confidence intervals (95% C.I.) for Cox proportional hazard models predicting multiple recurrences of bladder cancer, based on total alcohol and beverage-specific alcohol intake 1 year before diagnosis (n=716)** | | | | | | | | | |
|  |  |  | **Model 1\*** |  | **Model 2\*\*** |  | **Model 3\*\*\*** |  |  |
|  | **n** | **events** | **HR (95% C.I.)** | **p-value** | **HR (95% C.I.)** | **p-value** | **HR (95% C.I.)** | **p-value** | **p trend** |
| **Total alcohol\*** |  |  |  |  |  |  |  |  |  |
| T1 (0 mL/day) | 176 | 145 | ref | . | ref | . | ref | . | 0.87 |
| T2 (25 mL-125 mL/day) | 231 | 204 | 0.89 (0.77-1.02) | 0.10 | 0.89 (0.77-1.03) | 0.11 | 0.88 (0.77-1.02) | 0.08 |  |
| T3 (>125 mL/day) | 306 | 265 | 0.98 (0.87-1.11) | 0.75 | 0.99 (0.86-1.13) | 0.83 | 0.97 (0.84-1.11) | 0.66 |  |
| **Beer (e.g. beer, lager, stout)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 316 | 166 | ref | . | ref | . | ref | . | 0.52 |
| 1-3 per month | 92 | 38 | 0.97 (0.79-1.19) | 0.76 | 0.98 (0.79-1.21) | 0.83 | 0.96 (0.78-1.19) | 0.73 |  |
| 1 per week | 68 | 63 | 1.03 (0.88-1.22) | 0.69 | 1.04 (0.87-1.25) | 0.65 | 1.05 (0.88-1.24) | 0.61 |  |
| 2-4 per week | 141 | 58 | 1.08 (0.94-1.24) | 0.28 | 1.09 (0.93-1.28) | 0.27 | 1.08 (0.93-1.26) | 0.31 |  |
| 5-6 per week | 44 | 27 | 0.97 (0.79-1.20) | 0.80 | 0.99 (0.78-1.24) | 0.90 | 0.88 (0.69-1.14) | 0.33 |  |
| At least 1 per day | 55 | 32 | 1.12 (0.92-1.35) | 0.26 | 1.11 (0.90-1.37) | 0.32 | 1.09 (0.88-1.37) | 0.42 |  |
| **Cider** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 667 | 348 | ref | . | ref | . | ref | . | 0.25 |
| 1-3 per month | 28 | 22 | 1.04 (0.85-1.26) | 0.70 | 1.03 (0.85-1.25) | 0.76 | 1.00 (0.82-1.23) | 0.98 |  |
| 1 per week | 11 | 10 | 0.88 (0.63-1.22) | 0.44 | 0.87 (0.65-1.17) | 0.37 | 0.87 (0.68-1.12) | 0.29 |  |
| 2-4 per week | 5 | 3 | 3.27 (1.61-6.63) | 0.00 | 3.34 (1.72-6.48) | 0.00 | 3.64 (1.90-6.97) | 0.00 |  |
| 5-6 per week | 1 | 0 | - | . | - | . | - | . |  |
| At least 1 per day | 4 | 1 | 2.45 (2.02-2.98) | 0.00 | 2.56 (2.11-3.12) | 0.00 | 2.76 (2.19-3.46) | 0.00 |  |
| **Wine or champagne** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 412 | 210 | ref | . | ref | . | ref | . | 0.91 |
| 1-3 per month | 74 | 33 | 1.15 (0.91-1.45) | 0.25 | 1.15 (0.91-1.46) | 0.24 | 1.18 (0.94-1.48) | 0.17 |  |
| 1 per week | 55 | 26 | 1.35 (1.03-1.76) | 0.03 | 1.35 (1.04-1.75) | 0.03 | 1.29 (0.97-1.71) | 0.08 |  |
| 2-4 per week | 89 | 49 | 1.03 (0.88-1.22) | 0.69 | 1.03 (0.87-1.21) | 0.75 | 1.01 (0.86-1.18) | 0.90 |  |
| 5-6 per week | 36 | 33 | 0.84 (0.67-1.06) | 0.14 | 0.86 (0.69-1.08) | 0.19 | 0.89 (0.71-1.12) | 0.33 |  |
| At least 1 per day | 50 | 33 | 1.03 (0.87-1.23) | 0.74 | 1.02 (0.86-1.21) | 0.83 | 1.03 (0.86-1.22) | 0.78 |  |

\*Q1 includes non-drinkers only, Q2 includes drinkers whose consumption corresponds with up to 1 large glass of wine or half a pint of beer/lager per day, Q3 includes drinkers whose consumption corresponds with more than 1 large glass of wine or half a pint of beer/cider per day.

\*Model 1 was unadjusted, \*\*Model 2 was adjusted for age, sex, and smoking status, \*\*\*Model 3 was adjusted for age, sex, smoking status, and tumour stage, grade, size and multiplicity, and re-resection of a bladder tumour (second transurethral resection).

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| **Table S2. (continued)** | | | | | | | | | |
|  |  |  | **Model 1\*** |  | **Model 2\*\*** |  | **Model 3\*\*\*** |  |  |
|  | **n** | **events** | **HR (95% C.I.)** | **p-value** | **HR (95% C.I.)** | **p-value** | **HR (95% C.I.)** | **p-value** | **p trend** |
| **Fortified wine (e.g. port, sherry, cinzano)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 625 | 334 | ref | . | ref | . | ref | . | 0.48 |
| 1-3 per month | 49 | 20 | 1.05 (0.81-1.37) | 0.71 | 1.06 (0.82-1.37) | 0.67 | 1.06 (0.83-1.35) | 0.64 |  |
| 1 per week | 20 | 11 | 0.85 (0.56-1.30) | 0.45 | 0.87 (0.57-1.34) | 0.53 | 0.88 (0.58-1.35) | 0.56 |  |
| 2-4 per week | 12 | 11 | 0.85 (0.65-1.12) | 0.25 | 0.83 (0.65-1.06) | 0.13 | 0.83 (0.70-0.99) | 0.04 |  |
| 5-6 per week | 6 | 6 | 0.92 (0.78-1.08) | 0.30 | 0.91 (0.77-1.08) | 0.29 | 0.93 (0.73-1.18) | 0.55 |  |
| At least 1 per day | 4 | 2 | 1.54 (0.93-2.54) | 0.09 | 1.54 (0.98-2.44) | 0.06 | 1.52 (0.90-2.58) | 0.12 |  |
| **Spirits (e.g. gin, brandy, rum, vodka, whiskey)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 455 | 218 | ref | . | ref | . | ref | . | 0.45 |
| 1-3 per month | 91 | 73 | 0.94 (0.81-1.09) | 0.40 | 0.93 (0.79-1.08) | 0.34 | 0.91 (0.78-1.06) | 0.23 |  |
| 1 per week | 53 | 42 | 0.97 (0.82-1.15) | 0.75 | 0.97 (0.82-1.15) | 0.70 | 1.00 (0.84-1.18) | 0.96 |  |
| 2-4 per week | 66 | 28 | 1.00 (0.80-1.25) | 0.99 | 1.01 (0.80-1.26) | 0.96 | 0.98 (0.76-1.25) | 0.84 |  |
| 5-6 per week | 15 | 8 | 1.17 (0.88-1.55) | 0.29 | 1.19 (0.89-1.59) | 0.25 | 1.25 (0.99-1.58) | 0.06 |  |
| At least 1 per day | 36 | 15 | 1.18 (0.87-1.60) | 0.28 | 1.17 (0.87-1.58) | 0.31 | 1.18 (0.87-1.59) | 0.29 |  |
| **Liqueurs (e.g. tia maria, baileys, cointreau)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 671 | 355 | ref | . | ref | . | ref | . | 0.67 |
| 1-3 per month | 31 | 13 | 1.08 (0.78-1.49) | 0.65 | 1.07 (0.77-1.50) | 0.68 | 0.96 (0.64-1.42) | 0.82 |  |
| 1 per week | 6 | 7 | 0.89 (0.61-1.29) | 0.53 | 0.88 (0.59-1.30) | 0.51 | 0.82 (0.56-1.22) | 0.34 |  |
| 2-4 per week | 5 | 5 | 1.18 (0.75-1.85) | 0.47 | 1.21 (0.74-1.99) | 0.44 | 1.22 (0.74-2.00) | 0.44 |  |
| 5-6 per week | 0 | 0 | - | . | - | . | - | . |  |
| At least 1 per day | 3 | 4 | 0.82 (0.60-1.11) | 0.19 | 0.80 (0.57-1.12) | 0.19 | 0.89 (0.64-1.23) | 0.47 |  |

\*Model 1 was unadjusted, \*\*Model 2 was adjusted for age, sex, and smoking status, \*\*\*Model 3 was adjusted for age, sex, smoking status, and tumour stage, grade, size and multiplicity, and re-resection of a bladder tumour (second transurethral resection).

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| **Table S3. Hazard ratios (HR) and 95% confidence intervals (95% C.I.) for Cox proportional hazard models predicting a first recurrence of bladder cancer, based on non-alcoholic beverage intake 1 year before diagnosis (n=716)** | | | | | | | | | |
|  |  |  | **Model 1\*** |  | **Model 2\*\*** |  | **Model 3\*\*\*** |  |  |
|  | **n** | **events** | **HR (95% C.I.)** | **p-value** | **HR (95% CI)** | **p-value** | **HR (95% C.I.)** | **p-value** | **p trend** |
| **Coffee** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 152 | 39 | ref | . | ref | . | ref | . | 0.16 |
| 1-3 per month | 39 | 15 | 1.60 (0.88-2.91) | 0.12 | 1.79 (0.99-3.22) | 0.05 | 1.84 (1.00-3.38) | 0.05 |  |
| 1 per week | 46 | 14 | 1.13 (0.63-2.04) | 0.68 | 1.19 (0.65-2.17) | 0.58 | 1.03 (0.54-1.96) | 0.94 |  |
| 2-4 per week | 78 | 27 | 1.35 (0.83-2.22) | 0.23 | 1.36 (0.83-2.24) | 0.22 | 1.34 (0.81-2.21) | 0.26 |  |
| 5-6 per week | 34 | 13 | 1.43 (0.75-2.70) | 0.27 | 1.58 (0.83-3.00) | 0.16 | 1.46 (0.77-2.75) | 0.25 |  |
| At least 1 per day | 367 | 129 | 1.32 (0.92-1.88) | 0.13 | 1.36 (0.94-1.96) | 0.10 | 1.37 (0.94-2.00) | 0.10 |  |
| **Tea** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 73 | 21 | ref | . | ref | . | ref | . | 0.54 |
| 1-3 per month | 11 | 4 | 1.60 (0.54-4.72) | 0.39 | 1.58 (0.53-4.66) | 0.41 | 1.34 (0.43-4.14) | 0.61 |  |
| 1 per week | 1 | 0 | - | . | - | . | - | . |  |
| 2-4 per week | 13 | 7 | 2.17 (0.99-4.77) | 0.05 | 2.13 (0.96-4.74) | 0.06 | 2.10 (0.92-4.76) | 0.08 |  |
| 5-6 per week | 24 | 11 | 1.83 (0.91-3.70) | 0.09 | 1.81 (0.89-3.67) | 0.10 | 1.58 (0.78-3.20) | 0.20 |  |
| At least 1 per day | 594 | 194 | 1.23 (0.81-1.87) | 0.32 | 1.18 (0.77-1.79) | 0.45 | 1.21 (0.80-1.83) | 0.37 |  |
| **Hot chocolate** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 548 | 179 | ref | . | ref | . | ref | . | 0.73 |
| 1-3 per month | 70 | 24 | 1.16 (0.76-1.77) | 0.50 | 1.19 (0.78-1.81) | 0.42 | 1.05 (0.68-1.61) | 0.84 |  |
| 1 per week | 26 | 7 | 0.74 (0.36-1.52) | 0.42 | 0.75 (0.37-1.54) | 0.44 | 0.74 (0.35-1.58) | 0.44 |  |
| 2-4 per week | 29 | 13 | 1.43 (0.83-2.46) | 0.20 | 1.39 (0.82-2.38) | 0.23 | 1.16 (0.68-2.00) | 0.58 |  |
| 5-6 per week | 4 | 0 | - | . | - | . | - | . |  |
| At least 1 per day | 39 | 14 | 1.22 (0.68-2.17) | 0.50 | 1.15 (0.64-2.07) | 0.64 | 1.26 (0.70-2.25) | 0.44 |  |
| **Ovaltine / Horlicks** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 634 | 212 | ref | . | ref | . | ref | . | 0.51 |
| 1-3 per month | 21 | 5 | 0.61 (0.26-1.39) | 0.24 | 0.61 (0.27-1.39) | 0.24 | 0.61 (0.26-1.47) | 0.27 |  |
| 1 per week | 12 | 4 | 1.10 (0.38-3.22) | 0.86 | 1.09 (0.38-3.11) | 0.87 | 1.02 (0.35-2.95) | 0.97 |  |
| 2-4 per week | 16 | 7 | 1.38 (0.66-2.87) | 0.39 | 1.27 (0.61-2.64) | 0.52 | 1.19 (0.57-2.48) | 0.65 |  |
| 5-6 per week | 6 | 2 | 1.06 (0.28-4.02) | 0.93 | 1.10 (0.29-4.22) | 0.89 | 1.29 (0.33-5.02) | 0.71 |  |
| At least 1 per day | 27 | 7 | 0.66 (0.31-1.41) | 0.28 | 0.64 (0.30-1.37) | 0.25 | 0.70 (0.32-1.50) | 0.36 |  |

\*Model 1 was unadjusted, \*\*Model 2 was adjusted for age, sex, and smoking status, \*\*\*Model 3 was adjusted for age, sex, smoking status, and tumour stage, grade, size and multiplicity.

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| **Table S3. (continued)** | | | | | | | | | |
|  |  |  | **Model 1\*** |  | **Model 2\*\*** |  | **Model 3\*\*\*** |  |  |
|  | **n** | **events** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **p trend** |
| **Soup** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 219 | 70 | ref | . | ref | . | ref | . | 0.13 |
| 1-3 per month | 167 | 66 | 1.27 (0.91-1.78) | 0.16 | 1.27 (0.91-1.78) | 0.16 | 1.27 (0.91-1.78) | 0.17 |  |
| 1 per week | 141 | 47 | 1.07 (0.74-1.55) | 0.70 | 1.02 (0.71-1.48) | 0.91 | 1.02 (0.70-1.48) | 0.91 |  |
| 2-4 per week | 148 | 47 | 1.07 (0.74-1.55) | 0.71 | 1.03 (0.71-1.50) | 0.88 | 1.03 (0.71-1.51) | 0.86 |  |
| 5-6 per week | 18 | 3 | 0.49 (0.15-1.56) | 0.23 | 0.46 (0.14-1.47) | 0.19 | 0.44 (0.13-1.49) | 0.19 |  |
| At least 1 per day | 23 | 4 | 0.47 (0.17-1.32) | 0.15 | 0.44 (0.16-1.22) | 0.11 | 0.44 (0.17-1.15) | 0.09 |  |
| **Fizzy pop (e.g. lemonade, cola)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 437 | 154 | ref | . | ref | . | ref | . | 0.49 |
| 1-3 per month | 71 | 23 | 1.00 (0.64-1.57) | 1.00 | 1.05 (0.67-1.65) | 0.83 | 1.06 (0.67-1.67) | 0.82 |  |
| 1 per week | 55 | 14 | 0.66 (0.39-1.13) | 0.13 | 0.70 (0.41-1.20) | 0.19 | 0.69 (0.41-1.17) | 0.17 |  |
| 2-4 per week | 68 | 19 | 0.79 (0.49-1.28) | 0.34 | 0.82 (0.51-1.33) | 0.43 | 0.81 (0.50-1.31) | 0.40 |  |
| 5-6 per week | 14 | 2 | 0.33 (0.08-1.35) | 0.12 | 0.33 (0.08-1.32) | 0.12 | 0.34 (0.08-1.47) | 0.15 |  |
| At least 1 per day | 71 | 25 | 1.03 (0.68-1.57) | 0.88 | 1.05 (0.69-1.61) | 0.81 | 1.08 (0.70-1.65) | 0.73 |  |
| **Pure fruit juice (e.g. orange, apple)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 275 | 86 | ref | . | ref | . | ref | . | 0.38 |
| 1-3 per month | 82 | 33 | 1.38 (0.94-2.03) | 0.10 | 1.43 (0.97-2.11) | 0.07 | 1.54 (1.05-2.26) | 0.03 |  |
| 1 per week | 72 | 21 | 1.02 (0.62-1.66) | 0.94 | 1.11 (0.67-1.81) | 0.69 | 1.09 (0.67-1.78) | 0.72 |  |
| 2-4 per week | 103 | 27 | 0.80 (0.52-1.24) | 0.32 | 0.87 (0.56-1.35) | 0.52 | 0.90 (0.57-1.40) | 0.63 |  |
| 5-6 per week | 42 | 20 | 1.68 (1.01-2.80) | 0.05 | 1.71 (1.03-2.84) | 0.04 | 1.76 (1.04-2.98) | 0.03 |  |
| At least 1 per day | 142 | 50 | 1.14 (0.81-1.61) | 0.45 | 1.15 (0.81-1.62) | 0.43 | 1.18 (0.83-1.67) | 0.35 |  |
| **Fruit squash or cordial** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 390 | 129 | ref | . | ref | . | ref | . | 0.81 |
| 1-3 per month | 60 | 19 | 0.92 (0.57-1.48) | 0.72 | 0.91 (0.57-1.48) | 0.71 | 1.04 (0.64-1.71) | 0.87 |  |
| 1 per week | 64 | 17 | 0.80 (0.48-1.32) | 0.39 | 0.82 (0.49-1.36) | 0.43 | 0.83 (0.51-1.36) | 0.46 |  |
| 2-4 per week | 72 | 25 | 1.04 (0.68-1.59) | 0.86 | 1.06 (0.69-1.63) | 0.78 | 1.03 (0.67-1.59) | 0.90 |  |
| 5-6 per week | 29 | 10 | 1.01 (0.54-1.90) | 0.97 | 1.03 (0.54-1.96) | 0.93 | 1.10 (0.58-2.10) | 0.77 |  |
| At least 1 per day | 101 | 37 | 1.14 (0.79-1.64) | 0.49 | 1.12 (0.77-1.61) | 0.56 | 1.05 (0.73-1.51) | 0.79 |  |

\*Model 1 was unadjusted, \*\*Model 2 was adjusted for age, sex, and smoking status, \*\*\*Model 3 was adjusted for age, sex, smoking status, and tumour stage, grade, size and multiplicity.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table S3. (continued)** | | | | | | | | | |
|  |  |  | **Model 1\*** |  | **Model 2\*\*** |  | **Model 3\*\*\*** |  |  |
|  | **n** | **events** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **p trend** |
| **Milk** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 432 | 148 | ref | . | ref | . | ref | . | 0.37 |
| 1-3 per month | 51 | 16 | 0.79 (0.49-1.29) | 0.35 | 0.82 (0.50-1.35) | 0.44 | 0.77 (0.47-1.27) | 0.31 |  |
| 1 per week | 31 | 11 | 1.03 (0.56-1.92) | 0.92 | 1.05 (0.56-1.96) | 0.88 | 0.97 (0.53-1.78) | 0.92 |  |
| 2-4 per week | 50 | 19 | 1.09 (0.68-1.74) | 0.73 | 1.18 (0.73-1.90) | 0.50 | 1.29 (0.80-2.08) | 0.29 |  |
| 5-6 per week | 27 | 7 | 0.64 (0.30-1.39) | 0.26 | 0.68 (0.32-1.44) | 0.31 | 0.68 (0.32-1.45) | 0.31 |  |
| At least 1 per day | 125 | 36 | 0.79 (0.55-1.14) | 0.21 | 0.80 (0.56-1.16) | 0.24 | 0.83 (0.57-1.20) | 0.31 |  |
| **Water (tap, filtered, or bottled)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 86 | 35 | ref | . | ref | . | ref | . | 0.18 |
| 1-3 per month | 25 | 8 | 0.83 (0.40-1.75) | 0.63 | 0.86 (0.41-1.82) | 0.69 | 0.83 (0.39-1.74) | 0.62 |  |
| 1 per week | 33 | 11 | 0.80 (0.41-1.58) | 0.53 | 0.82 (0.42-1.62) | 0.56 | 0.77 (0.39-1.52) | 0.45 |  |
| 2-4 per week | 47 | 17 | 0.92 (0.52-1.64) | 0.78 | 0.97 (0.54-1.73) | 0.91 | 0.83 (0.46-1.49) | 0.53 |  |
| 5-6 per week | 51 | 14 | 0.73 (0.38-1.40) | 0.34 | 0.79 (0.41-1.53) | 0.49 | 0.80 (0.42-1.56) | 0.52 |  |
| At least 1 per day | 474 | 152 | 0.76 (0.53-1.09) | 0.14 | 0.78 (0.54-1.14) | 0.20 | 0.76 (0.52-1.10) | 0.14 |  |

\*Model 1 was unadjusted, \*\*Model 2 was adjusted for age, sex, and smoking status, \*\*\*Model 3 was adjusted for age, sex, smoking status, tumour stage, grade, size and multiplicity.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table S4. Hazard ratios (HR) and 95% confidence intervals (95% C.I.) for Cox proportional hazard models predicting multiple recurrences of bladder cancer, based on non-alcoholic beverage intake 1 year before diagnosis (n=716)** | | | | | | | | | |
|  |  |  | **Model 1\*** |  | **Model 2\*\*** |  | **Model 3\*\*\*** |  |  |
|  | **n** | **events** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **p trend** |
| **Coffee** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 152 | 50 | ref | . | ref | . | ref | . | 0.52 |
| 1-3 per month | 39 | 25 | 1.00 (0.83-1.21) | 0.96 | 1.01 (0.84-1.21) | 0.91 | 0.99 (0.83-1.19) | 0.93 |  |
| 1 per week | 46 | 26 | 1.11 (0.81-1.52) | 0.52 | 1.09 (0.79-1.50) | 0.59 | 1.08 (0.78-1.50) | 0.63 |  |
| 2-4 per week | 78 | 53 | 1.03 (0.87-1.23) | 0.69 | 1.05 (0.88-1.25) | 0.59 | 1.06 (0.88-1.26) | 0.55 |  |
| 5-6 per week | 34 | 21 | 0.99 (0.74-1.31) | 0.92 | 1.01 (0.76-1.34) | 0.93 | 1.00 (0.76-1.33) | 0.99 |  |
| At least 1 per day | 367 | 209 | 0.99 (0.86-1.14) | 0.89 | 0.99 (0.86-1.14) | 0.93 | 0.98 (0.84-1.13) | 0.73 |  |
| **Tea** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 73 | 34 | ref | . | ref | . | ref | . | 0.82 |
| 1-3 per month | 11 | 7 | 1.65 (0.75-3.62) | 0.21 | 1.73 (0.83-3.60) | 0.14 | 1.61 (0.81-3.23) | 0.18 |  |
| 1 per week | 1 | 0 | - | . | - | . | - | . |  |
| 2-4 per week | 13 | 15 | 1.14 (0.79-1.64) | 0.50 | 1.16 (0.79-1.69) | 0.44 | 1.11 (0.78-1.59) | 0.56 |  |
| 5-6 per week | 24 | 17 | 1.05 (0.76-1.46) | 0.76 | 1.08 (0.78-1.51) | 0.63 | 1.02 (0.74-1.42) | 0.89 |  |
| At least 1 per day | 594 | 311 | 1.14 (0.90-1.45) | 0.28 | 1.14 (0.90-1.45) | 0.29 | 1.09 (0.86-1.38) | 0.47 |  |
| **Hot chocolate** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 548 | 284 | ref | . | ref | . | ref | . | 0.74 |
| 1-3 per month | 70 | 39 | 0.89 (0.77-1.04) | 0.15 | 0.88 (0.75-1.03) | 0.10 | 0.87 (0.74-1.02) | 0.09 |  |
| 1 per week | 26 | 15 | 0.87 (0.70-1.07) | 0.18 | 0.87 (0.70-1.08) | 0.20 | 0.89 (0.73-1.10) | 0.29 |  |
| 2-4 per week | 29 | 25 | 1.01 (0.80-1.29) | 0.91 | 1.01 (0.78-1.29) | 0.96 | 0.98 (0.76-1.27) | 0.86 |  |
| 5-6 per week | 4 | 0 | - | . | - | . | - | . |  |
| At least 1 per day | 39 | 21 | 1.07 (0.87-1.31) | 0.52 | 1.06 (0.87-1.30) | 0.58 | 1.01 (0.82-1.24) | 0.94 |  |
| **Ovaltine / horlicks** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 634 | 343 | ref | . | ref | . | ref | . | 0.25 |
| 1-3 per month | 21 | 5 | 0.78 (0.66-0.92) | 0.00 | 0.78 (0.67-0.91) | 0.00 | 0.77 (0.67-0.89) | 0.00 |  |
| 1 per week | 12 | 6 | 1.64 (0.82-3.25) | 0.16 | 1.68 (0.83-3.38) | 0.15 | 1.79 (0.87-3.67) | 0.11 |  |
| 2-4 per week | 16 | 13 | 0.97 (0.78-1.22) | 0.81 | 0.98 (0.78-1.24) | 0.88 | 1.02 (0.82-1.26) | 0.88 |  |
| 5-6 per week | 6 | 5 | 1.65 (1.32-2.06) | 0.00 | 1.64 (1.32-2.03) | 0.00 | 1.74 (1.41-2.15) | 0.00 |  |
| At least 1 per day | 27 | 12 | 1.10 (0.89-1.36) | 0.39 | 1.03 (0.81-1.31) | 0.80 | 0.98 (0.75-1.29) | 0.89 |  |

\*Model 1 was unadjusted, \*\*Model 2 was adjusted for age, sex, and smoking status, \*\*\*Model 3 was adjusted for age, sex, smoking status, and tumour stage, grade, size and multiplicity, and re-resection of a bladder tumour (second transurethral resection).

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table S4. (continued)** | | | | | | | | | |
|  |  |  | **Model 1\*** |  | **Model 2\*\*** |  | **Model 3\*\*\*** |  |  |
|  | **n** | **events** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **p trend** |
| **Soup** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 219 | 113 | ref | . | ref | . | ref | . | 0.37 |
| 1-3 per month | 167 | 108 | 0.99 (0.86-1.15) | 0.93 | 1.00 (0.86-1.16) | 0.99 | 1.00 (0.86-1.16) | 0.97 |  |
| 1 per week | 141 | 78 | 0.97 (0.85-1.12) | 0.72 | 0.98 (0.85-1.14) | 0.81 | 0.97 (0.84-1.12) | 0.69 |  |
| 2-4 per week | 148 | 69 | 1.10 (0.93-1.29) | 0.27 | 1.09 (0.92-1.29) | 0.30 | 1.08 (0.92-1.27) | 0.34 |  |
| 5-6 per week | 18 | 10 | 0.79 (0.64-0.97) | 0.03 | 0.79 (0.64-0.99) | 0.04 | 0.85 (0.67-1.07) | 0.16 |  |
| At least 1 per day | 23 | 6 | 1.70 (0.94-3.09) | 0.08 | 1.68 (0.94-3.00) | 0.08 | 1.63 (0.97-2.74) | 0.07 |  |
| **Fizzy pop (e.g. lemonade, cola)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 437 | 246 | ref | . | ref | . | ref | . | 0.33 |
| 1-3 per month | 71 | 38 | 0.94 (0.78-1.15) | 0.57 | 0.96 (0.79-1.17) | 0.68 | 0.96 (0.80-1.16) | 0.68 |  |
| 1 per week | 55 | 24 | 1.03 (0.86-1.22) | 0.76 | 1.04 (0.87-1.24) | 0.70 | 1.02 (0.85-1.22) | 0.83 |  |
| 2-4 per week | 68 | 34 | 1.01 (0.85-1.19) | 0.93 | 1.03 (0.87-1.22) | 0.73 | 1.05 (0.88-1.26) | 0.58 |  |
| 5-6 per week | 14 | 2 | 0.78 (0.68-0.90) | 0.00 | 0.84 (0.71-0.99) | 0.04 | 0.79 (0.64-0.98) | 0.03 |  |
| At least 1 per day | 71 | 40 | 1.11 (0.92-1.33) | 0.29 | 1.11 (0.93-1.33) | 0.25 | 1.09 (0.91-1.31) | 0.33 |  |
| **Pure fruit juice (e.g. orange, apple)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 275 | 142 | ref | . | ref | . | ref | . | 0.43 |
| 1-3 per month | 82 | 53 | 0.93 (0.79-1.09) | 0.39 | 0.92 (0.78-1.08) | 0.32 | 0.95 (0.81-1.11) | 0.51 |  |
| 1 per week | 72 | 36 | 1.02 (0.83-1.24) | 0.88 | 1.01 (0.83-1.24) | 0.89 | 1.00 (0.82-1.22) | 0.98 |  |
| 2-4 per week | 103 | 35 | 1.09 (0.90-1.33) | 0.37 | 1.12 (0.92-1.36) | 0.27 | 1.12 (0.91-1.37) | 0.29 |  |
| 5-6 per week | 42 | 39 | 0.91 (0.75-1.11) | 0.36 | 0.90 (0.73-1.11) | 0.32 | 0.94 (0.76-1.15) | 0.55 |  |
| At least 1 per day | 142 | 79 | 0.91 (0.78-1.06) | 0.21 | 0.90 (0.78-1.05) | 0.18 | 0.92 (0.80-1.06) | 0.27 |  |
| **Fruit squash or cordial** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 390 | 213 | ref | . | ref | . | ref | . | 0.39 |
| 1-3 per month | 60 | 29 | 0.93 (0.76-1.14) | 0.49 | 0.91 (0.75-1.11) | 0.35 | 0.92 (0.77-1.11) | 0.40 |  |
| 1 per week | 64 | 18 | 1.19 (0.92-1.52) | 0.18 | 1.16 (0.90-1.50) | 0.24 | 1.13 (0.87-1.47) | 0.36 |  |
| 2-4 per week | 72 | 40 | 1.01 (0.86-1.19) | 0.87 | 1.00 (0.85-1.19) | 0.97 | 0.97 (0.82-1.16) | 0.75 |  |
| 5-6 per week | 29 | 21 | 1.02 (0.78-1.33) | 0.90 | 1.04 (0.78-1.38) | 0.79 | 1.04 (0.79-1.37) | 0.79 |  |
| At least 1 per day | 101 | 63 | 1.10 (0.93-1.29) | 0.27 | 1.08 (0.92-1.27) | 0.34 | 1.08 (0.92-1.26) | 0.35 |  |

\*Model 1 was unadjusted, \*\*Model 2 was adjusted for age, sex, and smoking status, \*\*\*Model 3 was adjusted for age, sex, smoking status, and tumour stage, grade, size and multiplicity, and re-resection of a bladder tumour (second transurethral resection).

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table S4. (continued)** | | | | | | | | | |
|  |  |  | **Model 1\*** |  | **Model 2\*\*** |  | **Model 3\*\*\*** |  |  |
|  | **n** | **events** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **p trend** |
| **Milk** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 432 | 241 | ref | . | ref | . | ref | . | 0.25 |
| 1-3 per month | 51 | 20 | 0.92 (0.79-1.07) | 0.30 | 0.94 (0.81-1.09) | 0.42 | 0.97 (0.83-1.12) | 0.66 |  |
| 1 per week | 31 | 21 | 1.13 (0.88-1.45) | 0.33 | 1.13 (0.87-1.47) | 0.37 | 1.14 (0.86-1.50) | 0.36 |  |
| 2-4 per week | 50 | 36 | 0.80 (0.71-0.91) | 0.00 | 0.80 (0.70-0.92) | 0.00 | 0.79 (0.68-0.92) | 0.00 |  |
| 5-6 per week | 27 | 20 | 0.87 (0.66-1.14) | 0.30 | 0.89 (0.66-1.19) | 0.43 | 0.92 (0.68-1.24) | 0.58 |  |
| At least 1 per day | 125 | 46 | 1.01 (0.87-1.17) | 0.90 | 1.00 (0.86-1.16) | 1.00 | 0.98 (0.85-1.14) | 0.83 |  |
| **Water (tap, filtered, or bottled)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 86 | 49 | ref | . | ref | . | ref | . | 0.33 |
| 1-3 per month | 25 | 14 | 0.80 (0.67-0.96) | 0.02 | 0.83 (0.68-1.00) | 0.05 | 0.86 (0.71-1.03) | 0.10 |  |
| 1 per week | 33 | 21 | 0.69 (0.53-0.89) | 0.00 | 0.68 (0.52-0.89) | 0.01 | 0.71 (0.55-0.91) | 0.01 |  |
| 2-4 per week | 47 | 35 | 0.97 (0.79-1.19) | 0.75 | 0.97 (0.79-1.20) | 0.81 | 0.98 (0.79-1.22) | 0.89 |  |
| 5-6 per week | 51 | 35 | 0.91 (0.72-1.14) | 0.40 | 0.93 (0.73-1.17) | 0.54 | 0.94 (0.74-1.19) | 0.61 |  |
| At least 1 per day | 474 | 230 | 0.99 (0.83-1.17) | 0.89 | 1.00 (0.84-1.18) | 0.96 | 1.01 (0.85-1.20) | 0.91 |  |

\*Model 1 was unadjusted, \*\*Model 2 was adjusted for age, sex, and smoking status, \*\*\*Model 3 was adjusted for age, sex, smoking status, and tumour stage, grade, size and multiplicity, and re-resection of a bladder tumour (second transurethral resection).

**Post-diagnosis analysis**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table S5. Hazard ratios (HR) and 95% confidence intervals (95% C.I.) for Cox proportional hazard models predicting a first recurrence of bladder cancer, based on total alcohol and beverage-specific alcohol intake 1 year after diagnosis (n=379)** | | | | | | | | | |
|  |  |  | **Model 1\*** |  | **Model 2\*\*** |  | **Model 3\*\*\*** |  |  |
|  | **n** | **Events** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **p trend** |
| **Total alcohol\*** |  |  |  |  |  |  |  |  |  |
| T1 (0 mL/day) | 87 | 32 | ref | . | ref | . | ref | . | 0.94 |
| T2 (25 mL-125 mL/day) | 130 | 49 | 0.96 (0.62-1.50) | 0.85 | 0.97 (0.62-1.51) | 0.88 | 0.97 (0.62-1.51) | 0.89 |  |
| T3 (>125 mL/day) | 162 | 58 | 0.93 (0.61-1.44) | 0.76 | 0.94 (0.60-1.47) | 0.79 | 1.01 (0.65-1.58) | 0.96 |  |
| **Beer (e.g. beer, lager, stout)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 169 | 65 | ref | . | ref | . | ref | . | 0.93 |
| 1-3 per month | 39 | 14 | 0.86 (0.49-1.50) | 0.58 | 0.82 (0.46-1.45) | 0.49 | 0.94 (0.53-1.65) | 0.82 |  |
| 1 per week | 43 | 15 | 0.86 (0.49-1.52) | 0.60 | 0.90 (0.50-1.60) | 0.71 | 1.00 (0.55-1.81) | 0.99 |  |
| 2-4 per week | 60 | 21 | 0.87 (0.53-1.41) | 0.57 | 0.84 (0.51-1.38) | 0.48 | 1.00 (0.60-1.69) | 0.99 |  |
| 5-6 per week | 24 | 6 | 0.58 (0.25-1.33) | 0.20 | 0.56 (0.24-1.35) | 0.20 | 0.65 (0.26-1.65) | 0.37 |  |
| At least 1 per day | 44 | 18 | 1.08 (0.64-1.82) | 0.78 | 1.03 (0.59-1.79) | 0.92 | 1.05 (0.60-1.84) | 0.86 |  |
| **Cider** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 356 | 129 | ref | . | ref | . | ref | . | 0.21 |
| 1-3 per month | 15 | 7 | 1.45 (0.66-3.19) | 0.35 | 1.60 (0.75-3.40) | 0.23 | 1.43 (0.68-3.04) | 0.35 |  |
| 1 per week | 3 | 0 | - | . | - | . | - | . |  |
| 2-4 per week | 3 | 2 | 2.54 (0.55-11.79) | 0.23 | 2.86 (0.68-11.99) | 0.15 | 4.57 (2.11-9.87) | 0.00 |  |
| 5-6 per week | 1 | 1 | 4.28 (3.41-5.37) | 0.00 | 3.91 (2.99-5.10) | 0.00 | 5.70 (2.71-12.00) | 0.00 |  |
| At least 1 per day | 1 | 0 | - | . | - | . | - | . |  |
| **Wine or champagne** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 202 | 75 | ref | . | ref | . | ref | . | 0.36 |
| 1-3 per month | 27 | 8 | 0.78 (0.38-1.63) | 0.51 | 0.87 (0.41-1.84) | 0.72 | 0.80 (0.38-1.65) | 0.54 |  |
| 1 per week | 37 | 15 | 1.14 (0.65-2.00) | 0.66 | 1.19 (0.68-2.11) | 0.54 | 1.11 (0.63-1.93) | 0.72 |  |
| 2-4 per week | 61 | 18 | 0.76 (0.45-1.28) | 0.30 | 0.81 (0.47-1.39) | 0.45 | 0.89 (0.52-1.55) | 0.69 |  |
| 5-6 per week | 12 | 6 | 1.38 (0.61-3.09) | 0.44 | 1.46 (0.68-3.15) | 0.33 | 1.89 (0.83-4.30) | 0.13 |  |
| At least 1 per day | 40 | 17 | 1.21 (0.71-2.07) | 0.48 | 1.26 (0.74-2.13) | 0.40 | 1.29 (0.74-2.24) | 0.37 |  |

\*Q1 includes non-drinkers only, Q2 includes drinkers whose consumption corresponds with up to 1 large glass of wine or half a pint of beer/lager per day, Q3 includes drinkers whose consumption corresponds with more than 1 large glass of wine or half a pint of beer/cider per day.

\*Model 1 was unadjusted, \*\*Model 2 was adjusted for age, sex, and smoking status, \*\*\*Model 3 was adjusted for age, sex, smoking status, and tumour stage, grade, size and multiplicity.

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| **Table S5. (continued)** | | | | | | | | | |
|  |  |  | **Model 1\*** |  | **Model 2\*\*** |  | **Model 3\*\*\*** |  |  |
|  | **n** | **events** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **p trend** |
| **Fortified wine (e.g. port, sherry, cinzano)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 339 | 124 | ref | . | ref | . | ref | . | 0.55 |
| 1-3 per month | 23 | 11 | 1.38 (0.73-2.60) | 0.33 | 1.42 (0.76-2.68) | 0.28 | 1.53 (0.84-2.80) | 0.16 |  |
| 1 per week | 10 | 2 | 0.49 (0.13-1.87) | 0.30 | 0.53 (0.14-1.98) | 0.35 | 0.52 (0.15-1.79) | 0.30 |  |
| 2-4 per week | 5 | 2 | 0.86 (0.27-2.75) | 0.80 | 0.91 (0.33-2.50) | 0.85 | 0.83 (0.29-2.34) | 0.72 |  |
| 5-6 per week | 1 | 0 | - | . | - | . | - | . |  |
| At least 1 per day | 1 | 0 | - | . | - | . | - | . |  |
| **Spirits (e.g. gin, brandy, rum, vodka, whiskey)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 243 | 90 | ref | . | ref | . | ref | . | 0.39 |
| 1-3 per month | 45 | 16 | 0.96 (0.55-1.68) | 0.88 | 0.94 (0.54-1.64) | 0.84 | 1.01 (0.58-1.76) | 0.98 |  |
| 1 per week | 19 | 10 | 1.46 (0.78-2.71) | 0.23 | 1.44 (0.77-2.72) | 0.25 | 1.39 (0.75-2.58) | 0.30 |  |
| 2-4 per week | 42 | 14 | 0.88 (0.50-1.53) | 0.64 | 0.86 (0.49-1.49) | 0.59 | 0.81 (0.46-1.44) | 0.48 |  |
| 5-6 per week | 9 | 4 | 1.12 (0.47-2.66) | 0.80 | 1.07 (0.43-2.67) | 0.89 | 1.30 (0.49-3.41) | 0.60 |  |
| At least 1 per day | 21 | 5 | 0.59 (0.25-1.41) | 0.24 | 0.56 (0.24-1.33) | 0.19 | 0.59 (0.26-1.35) | 0.21 |  |
| **Liqueurs (e.g. tia maria, baileys, cointreau)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 359 | 130 | ref | . | ref | . | ref | . | 0.82 |
| 1-3 per month | 12 | 5 | 1.07 (0.48-2.39) | 0.88 | 0.98 (0.45-2.17) | 0.97 | 0.92 (0.40-2.14) | 0.85 |  |
| 1 per week | 2 | 2 | 15.71 (5.23-47.15) | 0.00 | 18.43 (5.62-60.43) | 0.00 | 15.62 (4.21-58.01) | 0.00 |  |
| 2-4 per week | 4 | 1 | 0.69 (0.09-5.36) | 0.73 | 0.70 (0.09-5.24) | 0.73 | 0.70 (0.12-4.18) | 0.69 |  |
| 5-6 per week | 0 | 0 | - |  | - |  | - |  |  |
| At least 1 per day | 2 | 1 | 1.42 (0.20-10.29) | 0.73 | 1.21 (0.16-8.86) | 0.85 | 0.94 (0.08-11.14) | 0.96 |  |

\*Model 1 was unadjusted, \*\*Model 2 was adjusted for age, sex, and smoking status, \*\*\*Model 3 was adjusted for age, sex, smoking status, and tumour stage, grade, size and multiplicity.

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| **Table S6. Hazard ratios (HR) and 95% confidence intervals (95% C.I.) for Cox proportional hazard models predicting multiple recurrences of bladder cancer, based on total alcohol and beverage-specific alcohol intake 1 year after diagnosis (n=379)** | | | | | | | | | |
|  |  |  | **Model 1\*** |  | **Model 2\*\*** |  | **Model 3\*\*\*** |  |  |
|  | **n** | **events** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **p trend** |
| **Total alcohol\*** |  |  |  |  |  |  |  |  |  |
| T1 (0 mL/day) | 87 | 79 | ref | . | ref | . | ref | . | 0.42 |
| T2 (25 mL-125 mL/day) | 130 | 124 | 0.91 (0.77-1.09) | 0.31 | 0.90 (0.76-1.08) | 0.26 | 0.93 (0.78-1.10) | 0.38 |  |
| T3 (>125 mL/day) | 162 | 142 | 1.06 (0.89-1.27) | 0.50 | 1.03 (0.86-1.23) | 0.75 | 1.05 (0.88-1.25) | 0.60 |  |
| **Beer (e.g. beer, lager, stout)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 169 | 97 | ref | . | ref | . | ref | . | 0.09 |
| 1-3 per month | 39 | 15 | 0.93 (0.79-1.10) | 0.39 | 0.92 (0.75-1.13) | 0.44 | 0.92 (0.74-1.15) | 0.46 |  |
| 1 per week | 43 | 29 | 1.23 (0.97-1.56) | 0.08 | 1.27 (0.99-1.64) | 0.06 | 1.31 (1.03-1.65) | 0.03 |  |
| 2-4 per week | 60 | 30 | 1.11 (0.92-1.34) | 0.29 | 1.10 (0.89-1.36) | 0.39 | 1.06 (0.88-1.29) | 0.54 |  |
| 5-6 per week | 24 | 6 | 1.17 (0.79-1.73) | 0.45 | 1.16 (0.77-1.74) | 0.48 | 1.16 (0.74-1.82) | 0.52 |  |
| At least 1 per day | 44 | 36 | 1.18 (0.99-1.41) | 0.07 | 1.16 (0.96-1.40) | 0.13 | 1.16 (0.95-1.41) | 0.16 |  |
| **Cider** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 356 | 197 | ref | . | ref | . | ref | . | 0.94 |
| 1-3 per month | 15 | 11 | 1.13 (0.88-1.44) | 0.34 | 1.06 (0.80-1.40) | 0.68 | 1.00 (0.75-1.33) | 0.99 |  |
| 1 per week | 3 | 0 | - |  | - |  | - |  |  |
| 2-4 per week | 3 | 4 | 0.75 (0.51-1.09) | 0.13 | 0.74 (0.50-1.08) | 0.11 | 0.83 (0.56-1.23) | 0.36 |  |
| 5-6 per week | 1 | 1 | 2.45 (1.93-3.10) | 0.00 | 2.36 (1.85-3.01) | 0.00 | 2.47 (1.53-3.96) | 0.00 |  |
| At least 1 per day | 1 | 0 | - | . | - | . | - | . |  |
| **Wine or champagne** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 202 | 113 | ref | . | ref | . | ref | . | 0.35 |
| 1-3 per month | 27 | 21 | 0.87 (0.69-1.10) | 0.24 | 0.86 (0.69-1.08) | 0.19 | 0.88 (0.71-1.09) | 0.24 |  |
| 1 per week | 37 | 22 | 1.07 (0.91-1.27) | 0.39 | 1.06 (0.90-1.25) | 0.51 | 1.09 (0.90-1.31) | 0.38 |  |
| 2-4 per week | 61 | 25 | 1.02 (0.82-1.28) | 0.84 | 1.03 (0.82-1.29) | 0.79 | 1.11 (0.89-1.39) | 0.35 |  |
| 5-6 per week | 12 | 9 | 0.80 (0.54-1.18) | 0.26 | 0.77 (0.53-1.12) | 0.17 | 0.80 (0.55-1.18) | 0.26 |  |
| At least 1 per day | 40 | 23 | 1.16 (0.90-1.49) | 0.25 | 1.17 (0.91-1.51) | 0.22 | 1.16 (0.90-1.50) | 0.26 |  |

\*Q1 includes non-drinkers only, Q2 includes drinkers whose consumption corresponds with up to 1 large glass of wine or half a pint of beer/lager per day, Q3 includes drinkers whose consumption corresponds with more than 1 large glass of wine or half a pint of beer/cider per day.

\*Model 1 was unadjusted, \*\*Model 2 was adjusted for age, sex, and smoking status, \*\*\*Model 3 was adjusted for age, sex, smoking status, and tumour stage, grade, size and multiplicity, and re-resection of a bladder tumour (second transurethral resection).

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| **Table S6. (continued)** | | | | | | | | | |
|  |  |  | **Model 1\*** |  | **Model 2\*\*** |  | **Model 3\*\*\*** |  |  |
|  | **n** | **events** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **p trend** |
| **Fortified wine (e.g. port, sherry, cinzano)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 339 | 194 | ref | . | ref | . | ref | . | 0.35 |
| 1-3 per month | 23 | 13 | 1.04 (0.80-1.35) | 0.76 | 1.07 (0.83-1.39) | 0.60 | 1.08 (0.84-1.38) | 0.55 |  |
| 1 per week | 10 | 4 | 0.60 (0.36-1.01) | 0.05 | 0.60 (0.36-1.03) | 0.06 | 0.62 (0.36-1.07) | 0.09 |  |
| 2-4 per week | 5 | 2 | 0.86 (0.64-1.14) | 0.30 | 0.92 (0.63-1.35) | 0.68 | 0.90 (0.63-1.30) | 0.58 |  |
| 5-6 per week | 1 | 0 | - | . | - | . | - | . |  |
| At least 1 per day | 1 | 0 | - | . | - | . | - | . |  |
| **Spirits (e.g. gin, brandy, rum, vodka, whiskey)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 243 | 142 | ref | . | ref | . | ref | . | 0.55 |
| 1-3 per month | 45 | 34 | 0.94 (0.77-1.15) | 0.54 | 0.93 (0.77-1.13) | 0.49 | 0.92 (0.77-1.11) | 0.41 |  |
| 1 per week | 19 | 11 | 0.99 (0.84-1.16) | 0.87 | 1.02 (0.87-1.20) | 0.82 | 0.95 (0.75-1.20) | 0.66 |  |
| 2-4 per week | 42 | 15 | 1.07 (0.87-1.31) | 0.53 | 1.10 (0.89-1.36) | 0.39 | 1.08 (0.86-1.35) | 0.52 |  |
| 5-6 per week | 9 | 6 | 1.14 (0.82-1.61) | 0.43 | 1.10 (0.79-1.54) | 0.57 | 1.13 (0.81-1.59) | 0.48 |  |
| At least 1 per day | 21 | 5 | 0.99 (0.67-1.46) | 0.95 | 1.01 (0.67-1.53) | 0.96 | 1.08 (0.70-1.68) | 0.73 |  |
| **Liqueurs (e.g. tia maria, baileys, cointreau)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 359 | 202 | ref | . | ref | . | ref | . | 0.85 |
| 1-3 per month | 12 | 5 | 0.88 (0.64-1.21) | 0.44 | 0.92 (0.66-1.29) | 0.64 | 0.90 (0.65-1.24) | 0.52 |  |
| 1 per week | 2 | 3 | 1.06 (0.58-1.94) | 0.84 | 1.11 (0.62-1.97) | 0.73 | 0.93 (0.51-1.71) | 0.82 |  |
| 2-4 per week | 4 | 2 | 1.03 (0.77-1.37) | 0.84 | 1.06 (0.79-1.43) | 0.70 | 1.10 (0.79-1.52) | 0.57 |  |
| 5-6 per week | 0 | 0 | - |  | - |  | - |  |  |
| At least 1 per day | 2 | 1 | 0.83 (0.75-0.92) | 0.00 | 0.91 (0.76-1.08) | 0.27 | 0.97 (0.79-1.17) | 0.73 |  |

\*Model 1 was unadjusted, \*\*Model 2 was adjusted for age, sex, and smoking status, \*\*\*Model 3 was adjusted for age, sex, smoking status, and tumour stage, grade, size and multiplicity, and re-resection of a bladder tumour (second transurethral resection).

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table S7. Hazard ratios (HR) and 95% confidence intervals (95% C.I.) for Cox proportional hazard models predicting a first recurrence of bladder cancer, based on non-alcoholic beverage intake 1 year after diagnosis (n=379)** | | | | | | | | | |
|  |  |  | **Model 1\*** |  | **Model 2\*\*** |  | **Model 3\*\*\*** |  |  |
|  | **n** | **events** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **p trend** |
| **Coffee** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 80 | 23 | ref | . | ref | . | ref | . | 0.13 |
| 1-3 per month | 20 | 7 | 1.30 (0.54-3.13) | 0.55 | 1.33 (0.56-3.19) | 0.52 | 1.02 (0.41-2.51) | 0.97 |  |
| 1 per week | 24 | 9 | 1.40 (0.65-3.02) | 0.39 | 1.51 (0.70-3.29) | 0.29 | 1.39 (0.62-3.16) | 0.43 |  |
| 2-4 per week | 31 | 13 | 1.57 (0.78-3.16) | 0.21 | 1.59 (0.79-3.20) | 0.19 | 1.55 (0.75-3.20) | 0.24 |  |
| 5-6 per week | 6 | 2 | 1.21 (0.30-4.81) | 0.79 | 1.29 (0.35-4.74) | 0.71 | 0.87 (0.26-2.95) | 0.83 |  |
| At least 1 per day | 218 | 85 | 1.37 (0.86-2.19) | 0.18 | 1.42 (0.89-2.27) | 0.14 | 1.44 (0.89-2.31) | 0.14 |  |
| **Tea** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 37 | 15 | ref | . | ref | . | ref | . | 0.74 |
| 1-3 per month | 1 | 0 | - | . | - | . | - | . |  |
| 1 per week | 7 | 3 | 1.29 (0.35-4.81) | 0.70 | 1.43 (0.40-5.10) | 0.58 | 1.87 (0.60-5.89) | 0.28 |  |
| 2-4 per week | 13 | 7 | 1.42 (0.64-3.13) | 0.39 | 1.74 (0.80-3.80) | 0.16 | 2.03 (0.91-4.53) | 0.08 |  |
| 5-6 per week | 8 | 3 | 1.01 (0.35-2.90) | 0.99 | 1.10 (0.41-2.96) | 0.85 | 1.11 (0.41-3.03) | 0.84 |  |
| At least 1 per day | 313 | 111 | 1.00 (0.61-1.64) | 0.99 | 1.03 (0.63-1.69) | 0.89 | 1.18 (0.71-1.97) | 0.53 |  |
| **Hot chocolate** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 311 | 115 | ref | . | ref | . | ref | . | 0.15 |
| 1-3 per month | 22 | 10 | 1.32 (0.70-2.49) | 0.40 | 1.36 (0.74-2.50) | 0.32 | 1.11 (0.63-1.95) | 0.72 |  |
| 1 per week | 17 | 5 | 0.74 (0.31-1.74) | 0.49 | 0.76 (0.33-1.75) | 0.51 | 0.55 (0.24-1.26) | 0.16 |  |
| 2-4 per week | 15 | 6 | 1.07 (0.49-2.36) | 0.86 | 1.06 (0.48-2.36) | 0.88 | 0.86 (0.37-2.01) | 0.73 |  |
| 5-6 per week | 0 | 0 | - |  | - |  | - |  |  |
| At least 1 per day | 14 | 3 | 0.53 (0.17-1.63) | 0.27 | 0.50 (0.16-1.59) | 0.24 | 0.50 (0.15-1.62) | 0.24 |  |
| **Ovaltine / Horlicks** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 332 | 119 | ref | . | ref | . | ref | . | 0.67 |
| 1-3 per month | 11 | 6 | 1.82 (0.80-4.15) | 0.16 | 1.89 (0.84-4.22) | 0.12 | 1.71 (0.78-3.76) | 0.18 |  |
| 1 per week | 3 | 0 | - | . | - | . | - | . |  |
| 2-4 per week | 12 | 6 | 1.68 (0.75-3.75) | 0.21 | 1.55 (0.69-3.46) | 0.29 | 1.09 (0.48-2.51) | 0.83 |  |
| 5-6 per week | 2 | 1 | 1.99 (0.20-20.10) | 0.56 | 1.78 (0.18-18.07) | 0.62 | 1.57 (0.15-16.70) | 0.71 |  |
| At least 1 per day | 19 | 7 | 1.05 (0.49-2.25) | 0.89 | 1.11 (0.51-2.39) | 0.80 | 1.13 (0.52-2.45) | 0.76 |  |

\*Model 1 was unadjusted, \*\*Model 2 was adjusted for age, sex, and smoking status, \*\*\*Model 3 was adjusted for age, sex, smoking status, and tumour stage, grade, size and multiplicity.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table S7. (continued)** | | | | | | | | | |
|  |  |  | **Model 1\*** |  | **Model 2\*\*** |  | **Model 3\*\*\*** |  |  |
|  | **n** | **events** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **p trend** |
| **Soup** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 103 | 33 | ref | . | ref | . | ref | . | 0.59 |
| 1-3 per month | 101 | 44 | 1.50 (0.96-2.34) | 0.08 | 1.54 (0.98-2.42) | 0.06 | 1.53 (0.97-2.39) | 0.07 |  |
| 1 per week | 80 | 30 | 1.27 (0.77-2.09) | 0.35 | 1.29 (0.78-2.12) | 0.32 | 1.36 (0.81-2.27) | 0.24 |  |
| 2-4 per week | 77 | 26 | 1.17 (0.69-1.97) | 0.57 | 1.17 (0.68-1.99) | 0.57 | 1.20 (0.70-2.08) | 0.51 |  |
| 5-6 per week | 9 | 3 | 1.24 (0.35-4.44) | 0.74 | 1.31 (0.38-4.52) | 0.67 | 1.72 (0.53-5.60) | 0.37 |  |
| At least 1 per day | 9 | 3 | 1.05 (0.34-3.26) | 0.94 | 1.11 (0.38-3.21) | 0.85 | 1.01 (0.38-2.66) | 0.98 |  |
| **Fizzy pop (e.g. lemonade, cola)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 251 | 95 | ref | . | ref | . | ref | . | 0.49 |
| 1-3 per month | 23 | 6 | 0.62 (0.28-1.37) | 0.24 | 0.62 (0.27-1.39) | 0.25 | 0.53 (0.21-1.30) | 0.17 |  |
| 1 per week | 23 | 9 | 1.05 (0.53-2.10) | 0.88 | 1.02 (0.51-2.05) | 0.96 | 0.80 (0.41-1.53) | 0.50 |  |
| 2-4 per week | 38 | 14 | 0.97 (0.54-1.75) | 0.92 | 0.97 (0.54-1.73) | 0.92 | 0.96 (0.53-1.75) | 0.90 |  |
| 5-6 per week | 10 | 3 | 0.77 (0.27-2.21) | 0.62 | 0.73 (0.26-2.09) | 0.56 | 0.82 (0.26-2.53) | 0.72 |  |
| At least 1 per day | 34 | 12 | 0.88 (0.50-1.54) | 0.65 | 0.84 (0.48-1.50) | 0.56 | 0.81 (0.45-1.47) | 0.50 |  |
| **Pure fruit juice (e.g. orange, apple)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 144 | 44 | ref | . | ref | . | ref | . | 0.92 |
| 1-3 per month | 33 | 21 | 2.28 (1.41-3.70) | 0.00 | 2.25 (1.39-3.66) | 0.00 | 2.21 (1.39-3.53) | 0.00 |  |
| 1 per week | 38 | 18 | 1.73 (0.98-3.07) | 0.06 | 1.76 (0.98-3.16) | 0.06 | 1.88 (1.06-3.35) | 0.03 |  |
| 2-4 per week | 55 | 19 | 1.09 (0.64-1.84) | 0.76 | 1.07 (0.64-1.80) | 0.78 | 1.10 (0.65-1.86) | 0.71 |  |
| 5-6 per week | 3 | 1 | 1.02 (0.13-8.29) | 0.98 | 1.13 (0.15-8.47) | 0.91 | 0.91 (0.18-4.48) | 0.91 |  |
| At least 1 per day | 106 | 36 | 1.07 (0.69-1.68) | 0.76 | 1.07 (0.68-1.68) | 0.77 | 1.17 (0.73-1.86) | 0.51 |  |
| **Fruit squash or cordial** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 202 | 73 | ref | . | ref | . | ref | . | 0.35 |
| 1-3 per month | 20 | 4 | 0.49 (0.18-1.33) | 0.16 | 0.47 (0.17-1.30) | 0.15 | 0.52 (0.20-1.36) | 0.18 |  |
| 1 per week | 32 | 12 | 1.05 (0.56-1.97) | 0.88 | 1.07 (0.58-2.00) | 0.82 | 0.99 (0.55-1.81) | 0.99 |  |
| 2-4 per week | 37 | 12 | 0.83 (0.45-1.51) | 0.54 | 0.78 (0.43-1.43) | 0.43 | 0.79 (0.44-1.43) | 0.43 |  |
| 5-6 per week | 6 | 2 | 0.96 (0.23-4.04) | 0.95 | 0.87 (0.20-3.73) | 0.85 | 0.93 (0.21-4.21) | 0.93 |  |
| At least 1 per day | 82 | 36 | 1.19 (0.81-1.76) | 0.38 | 1.21 (0.81-1.80) | 0.36 | 1.26 (0.85-1.88) | 0.25 |  |

\*Model 1 was unadjusted, \*\*Model 2 was adjusted for age, sex, and smoking status, \*\*\*Model 3 was adjusted for age, sex, smoking status, and tumour stage, grade, size and multiplicity.

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| **Table S7. (continued)** | | | | | | | | | |
|  |  |  | **Model 1\*** |  | **Model 2\*\*** |  | **Model 3\*\*\*** |  |  |
|  | **n** | **events** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **p trend** |
| **Milk** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 273 | 107 | ref | . | ref | . | ref | . | 0.39 |
| 1-3 per month | 12 | 3 | 0.58 (0.20-1.72) | 0.33 | 0.57 (0.19-1.71) | 0.32 | 0.47 (0.17-1.31) | 0.15 |  |
| 1 per week | 8 | 2 | 0.67 (0.15-3.01) | 0.60 | 0.80 (0.17-3.72) | 0.78 | 0.84 (0.17-4.21) | 0.83 |  |
| 2-4 per week | 28 | 7 | 0.58 (0.27-1.22) | 0.15 | 0.58 (0.28-1.22) | 0.15 | 0.65 (0.31-1.38) | 0.26 |  |
| 5-6 per week | 5 | 3 | 1.63 (0.70-3.80) | 0.26 | 1.64 (0.73-3.68) | 0.23 | 1.41 (0.56-3.57) | 0.47 |  |
| At least 1 per day | 53 | 17 | 0.80 (0.47-1.35) | 0.40 | 0.81 (0.47-1.39) | 0.44 | 0.81 (0.46-1.42) | 0.45 |  |
| **Water (tap, filtered, or bottled)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 50 | 22 | ref | . | ref | . | ref | . | 0.27 |
| 1-3 per month | 5 | 2 | 0.74 (0.18-3.06) | 0.68 | 0.72 (0.16-3.23) | 0.66 | 0.84 (0.21-3.34) | 0.81 |  |
| 1 per week | 9 | 4 | 1.14 (0.36-3.62) | 0.82 | 1.16 (0.36-3.72) | 0.80 | 1.19 (0.47-3.06) | 0.71 |  |
| 2-4 per week | 25 | 10 | 0.76 (0.37-1.58) | 0.47 | 0.79 (0.38-1.65) | 0.53 | 1.00 (0.47-2.14) | 1.00 |  |
| 5-6 per week | 11 | 4 | 0.68 (0.26-1.78) | 0.43 | 0.69 (0.27-1.77) | 0.44 | 0.63 (0.26-1.48) | 0.29 |  |
| At least 1 per day | 279 | 97 | 0.70 (0.45-1.11) | 0.13 | 0.75 (0.47-1.22) | 0.25 | 0.79 (0.49-1.28) | 0.34 |  |

\*Model 1 was unadjusted, \*\*Model 2 was adjusted for age, sex, and smoking status, \*\*\*Model 3 was adjusted for age, sex, smoking status, and tumour stage, grade, size and multiplicity.

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| **Table S8. Hazard ratios (HR) and 95% confidence intervals (95% C.I.) for Cox proportional hazard models predicting multiple recurrences of bladder cancer, based on non-alcoholic beverage intake 1 year after diagnosis (n=379)** | | | | | | | | | |
|  |  |  | **Model 1\*** |  | **Model 2\*\*** |  | **Model 3\*\*\*** |  |  |
|  | **n** | **events** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **p trend** |
| **Coffee** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 80 | 33 | ref | . | ref | . | ref | . | 0.97 |
| 1-3 per month | 20 | 14 | 0.96 (0.77-1.20) | 0.72 | 0.94 (0.76-1.17) | 0.57 | 0.96 (0.79-1.17) | 0.70 |  |
| 1 per week | 24 | 13 | 1.15 (0.80-1.64) | 0.44 | 1.10 (0.75-1.61) | 0.64 | 1.02 (0.69-1.51) | 0.92 |  |
| 2-4 per week | 31 | 23 | 0.98 (0.77-1.25) | 0.87 | 0.99 (0.78-1.26) | 0.95 | 1.03 (0.81-1.31) | 0.83 |  |
| 5-6 per week | 6 | 4 | 0.88 (0.53-1.47) | 0.63 | 0.92 (0.56-1.53) | 0.75 | 0.79 (0.45-1.37) | 0.40 |  |
| At least 1 per day | 218 | 126 | 1.00 (0.85-1.19) | 0.98 | 1.00 (0.85-1.18) | 0.98 | 0.99 (0.83-1.17) | 0.90 |  |
| **Tea** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 37 | 22 | ref | . | ref | . | ref | . | 0.92 |
| 1-3 per month | 1 | 0 | - | . | - | . | - | . |  |
| 1 per week | 7 | 7 | 1.47 (0.81-2.67) | 0.20 | 1.47 (0.78-2.75) | 0.23 | 1.31 (0.65-2.65) | 0.45 |  |
| 2-4 per week | 13 | 8 | 1.28 (0.88-1.85) | 0.20 | 1.24 (0.85-1.80) | 0.26 | 1.11 (0.79-1.56) | 0.55 |  |
| 5-6 per week | 8 | 7 | 0.86 (0.55-1.32) | 0.49 | 0.89 (0.59-1.35) | 0.59 | 0.81 (0.52-1.25) | 0.34 |  |
| At least 1 per day | 313 | 169 | 1.18 (0.89-1.56) | 0.25 | 1.17 (0.88-1.56) | 0.29 | 1.06 (0.80-1.42) | 0.68 |  |
| **Hot chocolate** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 311 | 170 | ref | . | ref | . | ref | . | 0.20 |
| 1-3 per month | 22 | 20 | 0.92 (0.71-1.19) | 0.53 | 0.93 (0.72-1.18) | 0.53 | 0.86 (0.65-1.13) | 0.27 |  |
| 1 per week | 17 | 10 | 0.79 (0.63-1.00) | 0.05 | 0.83 (0.66-1.04) | 0.10 | 0.79 (0.62-1.02) | 0.07 |  |
| 2-4 per week | 15 | 9 | 0.96 (0.72-1.28) | 0.78 | 0.97 (0.73-1.29) | 0.83 | 0.95 (0.73-1.25) | 0.73 |  |
| 5-6 per week | 0 | 0 | - |  | - |  | - |  |  |
| At least 1 per day | 14 | 4 | 0.94 (0.70-1.26) | 0.68 | 1.00 (0.73-1.35) | 0.98 | 0.88 (0.59-1.31) | 0.53 |  |
| **Ovaltine / Horlicks** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 332 | 177 | ref | . | ref | . | ref | . | 0.20 |
| 1-3 per month | 11 | 7 | 1.28 (0.87-1.88) | 0.21 | 1.28 (0.84-1.95) | 0.25 | 1.23 (0.82-1.86) | 0.32 |  |
| 1 per week | 3 | 0 | - | . | - | . | - | . |  |
| 2-4 per week | 12 | 16 | 1.04 (0.75-1.45) | 0.79 | 1.11 (0.79-1.55) | 0.55 | 1.09 (0.78-1.53) | 0.60 |  |
| 5-6 per week | 2 | 2 | 1.09 (0.93-1.28) | 0.27 | 1.12 (0.95-1.32) | 0.17 | 0.92 (0.74-1.15) | 0.47 |  |
| At least 1 per day | 19 | 11 | 1.17 (0.85-1.61) | 0.33 | 1.23 (0.89-1.72) | 0.21 | 1.23 (0.89-1.69) | 0.21 |  |

\*Model 1 was unadjusted, \*\*Model 2 was adjusted for age, sex, and smoking status, \*\*\*Model 3 was adjusted for age, sex, smoking status, and tumour stage, grade, size and multiplicity, and re-resection of a bladder tumour (second transurethral resection).

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| **Table S8. (continued)** | | | | | | | | | |
|  |  |  | **Model 1\*** |  | **Model 2\*\*** |  | **Model 3\*\*\*** |  |  |
|  | **n** | **events** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **p trend** |
| **Soup** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 103 | 49 | ref | . | ref | . | ref | . | 0.28 |
| 1-3 per month | 101 | 63 | 0.91 (0.77-1.06) | 0.23 | 0.91 (0.78-1.07) | 0.27 | 0.87 (0.74-1.02) | 0.09 |  |
| 1 per week | 80 | 37 | 0.95 (0.79-1.13) | 0.56 | 0.98 (0.82-1.16) | 0.78 | 0.94 (0.79-1.13) | 0.50 |  |
| 2-4 per week | 77 | 57 | 1.02 (0.81-1.29) | 0.85 | 1.08 (0.86-1.35) | 0.51 | 1.07 (0.88-1.31) | 0.49 |  |
| 5-6 per week | 9 | 4 | 0.97 (0.72-1.31) | 0.84 | 1.06 (0.75-1.50) | 0.72 | 1.09 (0.76-1.58) | 0.64 |  |
| At least 1 per day | 9 | 3 | 1.03 (0.74-1.43) | 0.87 | 1.18 (0.84-1.66) | 0.35 | 1.01 (0.69-1.48) | 0.96 |  |
| **Fizzy pop (e.g. lemonade, cola)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 251 | 146 | ref | . | ref | . | ref | . | 0.06 |
| 1-3 per month | 23 | 11 | 1.16 (0.80-1.67) | 0.44 | 1.15 (0.82-1.61) | 0.42 | 1.09 (0.77-1.55) | 0.63 |  |
| 1 per week | 23 | 13 | 1.04 (0.81-1.33) | 0.77 | 1.00 (0.77-1.29) | 0.99 | 0.99 (0.76-1.29) | 0.95 |  |
| 2-4 per week | 38 | 23 | 0.94 (0.78-1.12) | 0.47 | 0.88 (0.73-1.06) | 0.19 | 0.89 (0.75-1.07) | 0.23 |  |
| 5-6 per week | 10 | 3 | 0.99 (0.72-1.36) | 0.96 | 0.98 (0.75-1.28) | 0.89 | 0.98 (0.77-1.26) | 0.90 |  |
| At least 1 per day | 34 | 17 | 0.83 (0.69-0.99) | 0.04 | 0.84 (0.70-1.01) | 0.06 | 0.84 (0.70-1.01) | 0.07 |  |
| **Pure fruit juice (e.g. orange, apple)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 144 | 69 | ref | . | ref | . | ref | . | 0.62 |
| 1-3 per month | 33 | 34 | 0.97 (0.81-1.16) | 0.76 | 0.98 (0.83-1.17) | 0.86 | 0.99 (0.83-1.19) | 0.95 |  |
| 1 per week | 38 | 25 | 1.20 (1.00-1.44) | 0.05 | 1.19 (0.98-1.44) | 0.08 | 1.17 (0.97-1.42) | 0.10 |  |
| 2-4 per week | 55 | 31 | 0.94 (0.78-1.13) | 0.50 | 0.95 (0.80-1.14) | 0.61 | 1.01 (0.83-1.23) | 0.92 |  |
| 5-6 per week | 3 | 1 | 1.52 (1.25-1.85) | 0.00 | 1.56 (1.27-1.92) | 0.00 | 1.59 (1.14-2.22) | 0.01 |  |
| At least 1 per day | 106 | 53 | 1.01 (0.84-1.22) | 0.90 | 1.01 (0.84-1.22) | 0.92 | 1.05 (0.86-1.27) | 0.65 |  |
| **Fruit squash or cordial** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 202 | 114 | ref | . | ref | . | ref | . | 1.00 |
| 1-3 per month | 20 | 6 | 1.18 (0.79-1.75) | 0.42 | 1.18 (0.79-1.76) | 0.42 | 1.14 (0.79-1.64) | 0.48 |  |
| 1 per week | 32 | 25 | 1.19 (0.95-1.49) | 0.13 | 1.18 (0.94-1.46) | 0.15 | 1.15 (0.93-1.43) | 0.21 |  |
| 2-4 per week | 37 | 17 | 0.96 (0.75-1.23) | 0.75 | 0.96 (0.74-1.24) | 0.74 | 0.90 (0.69-1.18) | 0.46 |  |
| 5-6 per week | 6 | 3 | 0.72 (0.57-0.91) | 0.01 | 0.76 (0.59-0.99) | 0.04 | 0.77 (0.62-0.95) | 0.02 |  |
| At least 1 per day | 82 | 48 | 1.01 (0.85-1.20) | 0.90 | 1.02 (0.85-1.21) | 0.85 | 1.03 (0.87-1.23) | 0.72 |  |

\*Model 1 was unadjusted, \*\*Model 2 was adjusted for age, sex, and smoking status, \*\*\*Model 3 was adjusted for age, sex, smoking status, and tumour stage, grade, size and multiplicity, and re-resection of a bladder tumour (second transurethral resection).

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| **Table S8. (continued)** | | | | | | | | | |
|  |  |  | **Model 1\*** |  | **Model 2\*\*** |  | **Model 3\*\*\*** |  |  |
|  | **n** | **events** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **HR (95% CI)** | **p-value** | **p trend** |
| **Milk** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 273 | 160 | ref | . | ref | . | ref | . | 0.35 |
| 1-3 per month | 12 | 4 | 1.10 (0.79-1.53) | 0.57 | 1.05 (0.73-1.50) | 0.80 | 1.09 (0.85-1.41) | 0.50 |  |
| 1 per week | 8 | 2 | 2.08 (1.39-3.12) | 0.00 | 2.01 (1.37-2.96) | 0.00 | 1.92 (1.39-2.65) | 0.00 |  |
| 2-4 per week | 28 | 10 | 0.95 (0.72-1.26) | 0.74 | 0.94 (0.72-1.24) | 0.66 | 0.89 (0.66-1.20) | 0.46 |  |
| 5-6 per week | 5 | 4 | 0.74 (0.60-0.92) | 0.01 | 0.76 (0.63-0.92) | 0.00 | 0.76 (0.57-1.02) | 0.06 |  |
| At least 1 per day | 53 | 33 | 1.15 (0.94-1.42) | 0.18 | 1.16 (0.95-1.42) | 0.14 | 1.19 (0.96-1.46) | 0.11 |  |
| **Water (tap, filtered, or bottled)** |  |  |  |  |  |  |  |  |  |
| Never/less than 1 per month | 50 | 32 | ref | . | ref | . | ref | . | 0.57 |
| 1-3 per month | 5 | 2 | 0.79 (0.64-0.98) | 0.03 | 0.74 (0.54-1.00) | 0.05 | 0.90 (0.68-1.19) | 0.47 |  |
| 1 per week | 9 | 10 | 0.98 (0.71-1.36) | 0.91 | 0.94 (0.67-1.31) | 0.70 | 1.01 (0.69-1.47) | 0.96 |  |
| 2-4 per week | 25 | 12 | 0.89 (0.68-1.16) | 0.38 | 0.89 (0.68-1.17) | 0.41 | 0.90 (0.68-1.19) | 0.48 |  |
| 5-6 per week | 11 | 6 | 0.80 (0.60-1.08) | 0.15 | 0.80 (0.59-1.08) | 0.14 | 0.72 (0.51-1.02) | 0.07 |  |
| At least 1 per day | 279 | 151 | 0.99 (0.83-1.18) | 0.87 | 0.97 (0.81-1.16) | 0.76 | 1.04 (0.86-1.26) | 0.66 |  |

\*Model 1 was unadjusted, \*\*Model 2 was adjusted for age, sex, and smoking status, \*\*\*Model 3 was adjusted for age, sex, smoking status, and tumour stage, grade, size and multiplicity, and re-resection of a bladder tumour (second transurethral resection).