

### Variables adjusted for in table 3

- Rheumatoid arthritis women: age, age<sup>3</sup>, bmi, ethnicity, smoking, hypothyroidism
- Rheumatoid arthritis men age, age<sup>3</sup>, bmi, ethnicity smoking, hypothyroidism
- Parkinson's disease women: age<sup>2</sup>, age<sup>3</sup>, bmi, smoking, tricyclic antidepressants, depression, cardiovascular disease
- Parkinson's disease men: age<sup>3</sup>, age<sup>3</sup>ln(age), bmi, smoking, tricyclic antidepressants, depression, cardiovascular disease
- Venous thrombo-embolism women: age<sup>-0.5</sup>, ln(age), bmi<sup>-2</sup>, bmi<sup>-2</sup>ln(bmi), smoking, tricyclic antidepressants, stage 3b+ kidney disease, rheumatoid arthritis, malabsorption, corticosteroids, SLE, depression, falls, antipsychotics, any cancer, asthma, hormone replacement therapy, combined oral contraceptive, liver disease, peripheral vascular disease
- Venous thrombo-embolism men: age<sup>3</sup>, age<sup>3</sup>ln(age), bmi<sup>-2</sup>, bmi<sup>-2</sup>ln(bmi), smoking, tricyclic antidepressants, stage 3b+ kidney disease, rheumatoid arthritis, malabsorption, corticosteroids, SLE, depression, falls, asthma, cardiovascular disease, antipsychotic, any cancer, liver disease, peripheral vascular disease
- Dementia women: age<sup>3</sup>, age<sup>3</sup>ln(age), bmi<sup>-2</sup>, type 2 diabetes, cardiovascular disease, tricyclic antidepressants, SSRI, depression
- Dementia men age<sup>3</sup>, age<sup>3</sup>ln(age), bmi<sup>-2</sup>, bmi<sup>-2</sup>ln(bmi), type 2 diabetes, cardiovascular disease, tricyclic antidepressants, SSRI, depression
- Osteoporotic fracture women: age<sup>-1</sup>, age<sup>-1</sup>ln(age), bmi<sup>-1</sup>, HRT, smoking status, peripheral vascular disease, chronic renal disease, rheumatoid arthritis, type1 diabetes, type 2 diabetes, cardiovascular disease, asthma, tricyclic antidepressants, corticosteroids, falls, liver disease, depression
- Osteoporotic fracture men: age<sup>1</sup>, age<sup>2</sup>, bmi<sup>2</sup>, smoking status, peripheral vascular disease, chronic renal disease, rheumatoid arthritis, type1 diabetes, type2 diabetes, cardiovascular disease, asthma, tricyclic antidepressants, corticosteroids, falls, liver disease
- Gastric cancer women: age<sup>3</sup>, age<sup>3</sup>ln(age), bmi<sup>-2</sup>, bmi<sup>-2</sup>ln(bmi), Townsend score, HRT, smoking status type2 diabetes
- Gastric cancer men: age<sup>3</sup>, age<sup>3</sup>ln(age), bmi<sup>0.5</sup>, bmi, Townsend score, smoking status, type2 diabetes
- Colon cancer women: age, age<sup>3</sup>, bmi, Townsend score, smoking status, colorectal polyps, type2 diabetes
- Colon cancer men: : age<sup>2</sup>, age<sup>2</sup>ln(age), bmi, Townsend score smoking status, colorectal polyps, type2 diabetes
- Renal cancer women: age<sup>-0.5</sup>, bmi, smoking status, nsaid, treated hypertension, any other cancer
- Renal cancer men: age, age<sup>3</sup>, bmi, Townsend score, smoking status, nsaid, treated hypertension, any other cancer
- Lung cancer women: age<sup>0.5</sup>, age<sup>3</sup> bmi<sup>-2</sup>, bmi<sup>-2</sup>ln(bmi), Townsend score, smoking status, any other cancer, corticosteroids, asthma
- Lung cancer men: age, age\*ln(age), bmi<sup>-1</sup>, bmi<sup>-1</sup>ln(bmi), Townsend score, smoking status, any other cancer, corticosteroids, asthma
- Melanoma women: age<sup>-1</sup>, bmi, Townsend score, smoking status, treated hypertension any other cancer, endocrine disorders, benign breast disease

- Melanoma men: :  $\text{age}^3$ ,  $\text{age}^3\ln(\text{age})$ ,  $\text{bmi}^{-2}$ ,  $\text{bmi}^{-2}\ln(\text{bmi})$ , Townsend score, smoking status, treated hypertension, any other cancer, endocrine
- Breast cancer women:  $\text{age}^{-1}$ ,  $\text{age}^{-1}\ln(\text{age})$ ,  $\text{bmi}^{-2}$ ,  $\text{bmi}^3$ , Townsend score, HRT, family history breast cancer, benign breast disease, oral contraceptive, any other cancer
- Prostate cancer men :  $\text{age}^{-1}$ ,  $\text{age}^{-0.5}$ ,  $\text{bmi}^{-2}$ ,  $\text{bmi}^{-0.5}$ , smoking status

#### **Variables adjusted for in tables 4 and 5**

- Cataract women:  $\text{age}^3$ ,  $\text{age}^3\ln(\text{age})$ ,  $\ln(\text{bmi})$ ,  $\text{bmi}^{0.5}$ , ethnicity, smoking, cardiovascular disease, type 1 diabetes, type 2 diabetes, rheumatoid arthritis, atrial fibrillation, corticosteroids;
- Cataract men:  $\text{age}^3$ ,  $\text{age}^3\ln(\text{age})$ ,  $\text{bmi}^{-2}$ ,  $\text{bmi}^{-1}$ , Townsend score, ethnicity, smoking, cardiovascular disease, type 1 diabetes, type 2 diabetes, atrial fibrillation, corticosteroids
- Myopathy women :  $\text{age}^3$ ,  $\text{age}^3\ln(\text{age})$ ,  $\text{bmi}$ , ethnicity, type 1 diabetes, type 2 diabetes, treated hypertension, liver, hypothyroidism, corticosteroids
- Myopathy men:  $\text{age}^3$ ,  $\text{age}^3\ln(\text{age})$ ,  $\text{bmi}$ , ethnicity, type 2 diabetes, corticosteroids
- Acute renal failure women:  $\text{age}^{-1}$ ,  $\text{age}^{-0.5}$ ,  $\text{bmi}^{-2}$ ,  $\text{bmi}^{-2}\ln(\text{bmi})$ , Townsend score, smoking, diabetes, congestive cardiac failure, corticosteroids, treated hypertension (which is a composite variable which could include ACE inhibitors, ARB, aldosterone, beta blockers, thiazides or, calcium channel blockers), stage 3b+ kidney disease
- Acute renal failure men:  $\text{age}^{-1}$ ,  $\text{age}^{-1}\ln(\text{age})$ ,  $\text{bmi}^{-2}$ ,  $\text{bmi}^{-1}$ , Townsend score, smoking, diabetes, congestive cardiac failure, corticosteroids, treated hypertension(which is a composite variable which could include ACE inhibitors, ARB, aldosterone, beta blockers, thiazides or, calcium channel blockers), stage 3b+ kidney disease
- Liver dysfunction women;  $\text{age}$ ,  $\text{age}^2$ ,  $\text{bmi}^3$ ,  $\text{bmi}^3\ln(\text{bmi})$ , Townsend score, ethnicity, smoking, liver disease, type 1 diabetes, type 2 diabetes, cardiovascular disease, treated hypertension, rheumatoid arthritis, corticosteroids
- Liver dysfunction men  $\text{age}$ ,  $\text{age}^2$ ,  $\text{bmi}^3$ ,  $\text{bmi}^3\ln(\text{bmi})$ , Townsend score, ethnicity, smoking, liver disease, type 1 diabetes, type 2 diabetes, cardiovascular disease, treated hypertension, rheumatoid arthritis, corticosteroids
- oesophageal cancer women:  $\text{age}^{-1}$   $\text{bmi}^{-2}$ ,  $\text{bmi}^{-2}\ln(\text{bmi})$ , Townsend score, smoking status, type2 diabetes
- oesophageal cancer men:  $\text{age}^{-1}$   $\text{bmi}^{-2}$ ,  $\text{bmi}^{-2}\ln(\text{bmi})$ , Townsend score, smoking status, type2 diabetes