SVD analyses and data exploration

These are the planned analyses, tables and figures for the main article.

Drop all the questions and save them for a later specific publication.

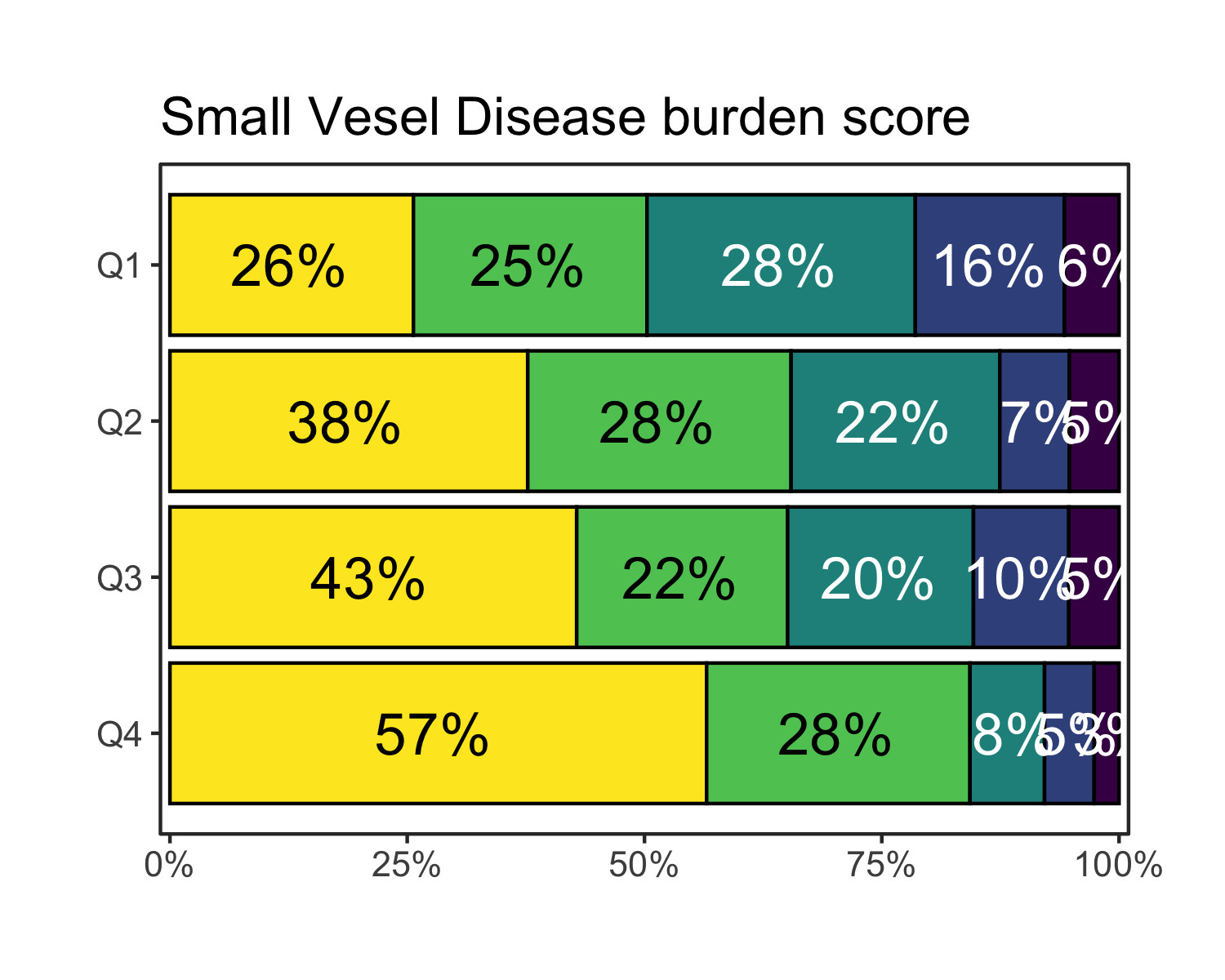
Agreed upon scoring overview:

| Annotation | modified Huijts et al 2013 |
| --- | --- |
| Microbleeds subscore | |
| 0 | 0 |
| 1 | 1 |
| 2-4 | 1 |
| 5-10 | 1 |
| >10 | 1 |
| Lacunes subscore | |
| 0 | 0 |
| 1 | 1 |
| 2 | 1 |
| 3-5 | 1 |
| >5 | 1 |
| WMH subscore | |
| 0: Absent | 0 |
| 1: Punctate foci | 0 |
| 2: Beginning confluence | 1 |
| 3: Large confluent areas | 1 |
| Atrophy subscore | |
| 0: No atrophy | 0 |
| 1: Mild | 0 |
| 2: Moderate | 1 |
| 3: Severe | 1 |

### Baseline table

| **Characteristic** | **N = 762***1* |
| --- | --- |
| Age | 71 (62, 79) |
| Female sex | 279 (37%) |
| Living alone | 203 (27%) |
| High alcohol consumption | 69 (9.2%) |
| Smoking |  |
| never | 269 (36%) |
| current | 211 (28%) |
| prior | 262 (35%) |
| Hypertension | 418 (55%) |
| Diabetes | 85 (11%) |
| Previous ischemic event | 97 (13%) |
| Atrial fibrillation | 116 (15%) |
| Previous MI | 58 (7.6%) |
| *1*Median (Q1, Q3); n (%) | |

[[1]]



### Planned analyses

|  | No PA adjustment | | With PA adjustment | |
| --- | --- | --- | --- | --- |
| **Characteristic** | **OR***1* | **95% CI***1* | **OR***1* | **95% CI***1* |
| Living alone | 1.00 | 0.72, 1.37 | 0.96 | 0.69, 1.32 |
| High alcohol consumption | 1.40 | 0.90, 2.19 | 1.35 | 0.86, 2.10 |
| Smoking |  |  |  |  |
| never | — | — | — | — |
| current | 1.63 | 1.14, 2.34 | 1.55 | 1.08, 2.23 |
| prior | 1.44 | 1.04, 2.00 | 1.41 | 1.02, 1.97 |
| Hypertension | 1.91 | 1.43, 2.54 | 1.88 | 1.41, 2.50 |
| Diabetes | 1.46 | 0.96, 2.22 | 1.40 | 0.92, 2.13 |
| Previous ischemic event | 2.28 | 1.52, 3.41 | 2.21 | 1.48, 3.31 |
| Atrial fibrillation | 0.54 | 0.37, 0.78 | 0.53 | 0.36, 0.77 |
| Previous MI | 0.63 | 0.37, 1.04 | 0.65 | 0.38, 1.07 |
| *1*OR = Odds Ratio, CI = Confidence Interval | | | | |

### Independent correlations in multivariable analysis

|  | Univariable | | | Multivariable | |
| --- | --- | --- | --- | --- | --- |
| **Characteristic** | **N** | **OR***1* | **95% CI***1* | **OR***1* | **95% CI***1* |
| Age | 762 | 1.09 | 1.08, 1.11 | 1.09 | 1.08, 1.11 |
| Female sex | 762 | 1.19 | 0.91, 1.55 | 0.88 | 0.64, 1.21 |
| Living alone | 758 | 1.56 | 1.17, 2.07 | 1.00 | 0.71, 1.40 |
| High alcohol consumption | 747 | 1.45 | 0.94, 2.24 | 1.25 | 0.79, 1.98 |
| Smoking | 742 |  |  |  |  |
| never |  | — | — | — | — |
| current |  | 1.01 | 0.73, 1.41 | 1.55 | 1.06, 2.26 |
| prior |  | 1.69 | 1.24, 2.32 | 1.38 | 0.99, 1.94 |
| Hypertension | 761 | 2.89 | 2.21, 3.79 | 1.76 | 1.30, 2.37 |
| Diabetes | 761 | 1.50 | 1.00, 2.23 | 1.38 | 0.89, 2.14 |
| Previous ischemic event | 758 | 2.57 | 1.73, 3.81 | 2.09 | 1.38, 3.16 |
| Atrial fibrillation | 761 | 1.05 | 0.73, 1.49 | 0.57 | 0.38, 0.84 |
| Previous MI | 760 | 0.87 | 0.53, 1.42 | 0.52 | 0.30, 0.89 |
| Pre-stroke PA quartile | 762 |  |  |  |  |
| Q4 |  | — | — | — | — |
| Q3 |  | 2.04 | 1.39, 3.00 | 1.52 | 1.00, 2.32 |
| Q2 |  | 2.21 | 1.52, 3.23 | 1.11 | 0.73, 1.70 |
| Q1 |  | 3.92 | 2.69, 5.73 | 1.69 | 1.10, 2.60 |
| *1*OR = Odds Ratio, CI = Confidence Interval | | | | | |

### Complete simple interaction analyses

| **Characteristic** | **OR***1* | **95% CI***1* |
| --- | --- | --- |
| Age minimal interaction analysis | | |
| Age | 1.08 | 1.05, 1.12 |
| Pre-stroke PA quartile |  |  |
| Q4 | — | — |
| Q3 | 0.70 | 0.04, 11.3 |
| Q2 | 1.20 | 0.07, 19.6 |
| Q1 | 1.69 | 0.14, 21.3 |
| Female sex |  |  |
| FALSE | — | — |
| TRUE | 0.85 | 0.63, 1.13 |
| Age \* Pre-stroke PA quartile |  |  |
| age \* Q3 | 1.01 | 0.97, 1.05 |
| age \* Q2 | 1.00 | 0.96, 1.04 |
| age \* Q1 | 1.00 | 0.97, 1.04 |
| Female sex minimal interaction analysis | | |
| Female sex |  |  |
| FALSE | — | — |
| TRUE | 0.98 | 0.48, 1.94 |
| Pre-stroke PA quartile |  |  |
| Q4 | — | — |
| Q3 | 1.50 | 0.94, 2.40 |
| Q2 | 1.47 | 0.90, 2.42 |
| Q1 | 2.05 | 1.26, 3.35 |
| Age | 1.09 | 1.07, 1.10 |
| Female sex \* Pre-stroke PA quartile |  |  |
| TRUE \* Q3 | 1.08 | 0.43, 2.70 |
| TRUE \* Q2 | 0.67 | 0.28, 1.62 |
| TRUE \* Q1 | 0.85 | 0.36, 2.04 |
| Living alone minimal interaction analysis | | |
| Living alone |  |  |
| FALSE | — | — |
| TRUE | 0.83 | 0.39, 1.73 |
| Pre-stroke PA quartile |  |  |
| Q4 | — | — |
| Q3 | 1.44 | 0.91, 2.28 |
| Q2 | 1.22 | 0.77, 1.94 |
| Q1 | 1.99 | 1.24, 3.20 |
| Age | 1.09 | 1.07, 1.10 |
| Female sex |  |  |
| FALSE | — | — |
| TRUE | 0.84 | 0.62, 1.14 |
| Living alone \* Pre-stroke PA quartile |  |  |
| TRUE \* Q3 | 1.37 | 0.52, 3.67 |
| TRUE \* Q2 | 1.16 | 0.46, 3.01 |
| TRUE \* Q1 | 1.09 | 0.44, 2.74 |
| High alcohol consumption minimal interaction analysis | | |
| High alcohol consumption |  |  |
| FALSE | — | — |
| TRUE | 1.36 | 0.46, 3.88 |
| Pre-stroke PA quartile |  |  |
| Q4 | — | — |
| Q3 | 1.57 | 1.02, 2.40 |
| Q2 | 1.28 | 0.83, 1.97 |
| Q1 | 1.93 | 1.25, 2.99 |
| Age | 1.09 | 1.07, 1.10 |
| Female sex |  |  |
| FALSE | — | — |
| TRUE | 0.85 | 0.64, 1.15 |
| High alcohol consumption \* Pre-stroke PA quartile |  |  |
| TRUE \* Q3 | 0.73 | 0.18, 2.91 |
| TRUE \* Q2 | 1.16 | 0.30, 4.60 |
| TRUE \* Q1 | 1.11 | 0.30, 4.22 |
| Smoking minimal interaction analysis | | |
| Smoking |  |  |
| never | — | — |
| current | 1.28 | 0.62, 2.69 |
| prior | 1.76 | 0.86, 3.64 |
| Pre-stroke PA quartile |  |  |
| Q4 | — | — |
| Q3 | 1.87 | 0.93, 3.83 |
| Q2 | 0.97 | 0.49, 1.96 |
| Q1 | 2.30 | 1.11, 4.83 |
| Age | 1.09 | 1.08, 1.11 |
| Female sex |  |  |
| FALSE | — | — |
| TRUE | 0.85 | 0.63, 1.14 |
| Smoking \* Pre-stroke PA quartile |  |  |
| current \* Q3 | 0.81 | 0.29, 2.24 |
| prior \* Q3 | 0.70 | 0.26, 1.86 |
| current \* Q2 | 2.12 | 0.76, 5.93 |
| prior \* Q2 | 1.13 | 0.44, 2.90 |
| current \* Q1 | 1.28 | 0.47, 3.52 |
| prior \* Q1 | 0.54 | 0.21, 1.39 |
| Hypertension minimal interaction analysis | | |
| Hypertension |  |  |
| FALSE | — | — |
| TRUE | 2.12 | 1.18, 3.83 |
| Pre-stroke PA quartile |  |  |
| Q4 | — | — |
| Q3 | 1.78 | 0.99, 3.20 |
| Q2 | 1.33 | 0.71, 2.47 |
| Q1 | 2.05 | 1.09, 3.88 |
| Age | 1.08 | 1.07, 1.10 |
| Female sex |  |  |
| FALSE | — | — |
| TRUE | 0.84 | 0.63, 1.12 |
| Hypertension \* Pre-stroke PA quartile |  |  |
| TRUE \* Q3 | 0.81 | 0.36, 1.81 |
| TRUE \* Q2 | 0.89 | 0.40, 1.98 |
| TRUE \* Q1 | 0.87 | 0.39, 1.96 |
| Diabetes minimal interaction analysis | | |
| Diabetes |  |  |
| FALSE | — | — |
| TRUE | 1.81 | 0.56, 5.38 |
| Pre-stroke PA quartile |  |  |
| Q4 | — | — |
| Q3 | 1.56 | 1.02, 2.38 |
| Q2 | 1.27 | 0.83, 1.96 |
| Q1 | 1.98 | 1.29, 3.06 |
| Age | 1.09 | 1.07, 1.10 |
| Female sex |  |  |
| FALSE | — | — |
| TRUE | 0.86 | 0.65, 1.16 |
| Diabetes \* Pre-stroke PA quartile |  |  |
| TRUE \* Q3 | 0.76 | 0.19, 3.23 |
| TRUE \* Q2 | 0.72 | 0.19, 2.84 |
| TRUE \* Q1 | 0.75 | 0.20, 2.98 |
| Previous ischemic event minimal interaction analysis | | |
| Previous ischemic event |  |  |
| FALSE | — | — |
| TRUE | 1.47 | 0.56, 3.73 |
| Pre-stroke PA quartile |  |  |
| Q4 | — | — |
| Q3 | 1.40 | 0.91, 2.16 |
| Q2 | 1.20 | 0.78, 1.86 |
| Q1 | 1.83 | 1.18, 2.85 |
| Age | 1.09 | 1.07, 1.10 |
| Female sex |  |  |
| FALSE | — | — |
| TRUE | 0.85 | 0.64, 1.14 |
| Previous ischemic event \* Pre-stroke PA quartile |  |  |
| TRUE \* Q3 | 2.13 | 0.63, 7.42 |
| TRUE \* Q2 | 1.68 | 0.49, 5.88 |
| TRUE \* Q1 | 1.34 | 0.42, 4.41 |
| Atrial fibrillation minimal interaction analysis | | |
| Atrial fibrillation |  |  |
| FALSE | — | — |
| TRUE | 0.61 | 0.25, 1.42 |
| Pre-stroke PA quartile |  |  |
| Q4 | — | — |
| Q3 | 1.56 | 1.00, 2.42 |
| Q2 | 1.28 | 0.83, 1.99 |
| Q1 | 2.12 | 1.36, 3.30 |
| Age | 1.09 | 1.08, 1.11 |
| Female sex |  |  |
| FALSE | — | — |
| TRUE | 0.83 | 0.62, 1.11 |
| Atrial fibrillation \* Pre-stroke PA quartile |  |  |
| TRUE \* Q3 | 1.03 | 0.33, 3.25 |
| TRUE \* Q2 | 0.81 | 0.26, 2.60 |
| TRUE \* Q1 | 0.72 | 0.25, 2.14 |
| Previous MI minimal interaction analysis | | |
| Previous MI |  |  |
| FALSE | — | — |
| TRUE | 0.24 | 0.07, 0.74 |
| Pre-stroke PA quartile |  |  |
| Q4 | — | — |
| Q3 | 1.46 | 0.96, 2.24 |
| Q2 | 1.15 | 0.75, 1.75 |
| Q1 | 1.70 | 1.11, 2.61 |
| Age | 1.09 | 1.07, 1.11 |
| Female sex |  |  |
| FALSE | — | — |
| TRUE | 0.83 | 0.62, 1.10 |
| Previous MI \* Pre-stroke PA quartile |  |  |
| TRUE \* Q3 | 2.45 | 0.57, 11.9 |
| TRUE \* Q2 | 3.49 | 0.75, 18.0 |
| TRUE \* Q1 | 5.79 | 1.22, 30.7 |
| All analyses adjusted for age and sex | | |
| *1*OR = Odds Ratio, CI = Confidence Interval | | |

### Merged table of adjustments and interact

|  | No PA adjustment | | With PA adjustment | | With PA interaction | |
| --- | --- | --- | --- | --- | --- | --- |
| **Characteristic** | **OR***1* | **95% CI***1* | **OR***1* | **95% CI***1* | **OR***1* | **95% CI***1* |
| Living alone | 1.00 | 0.72, 1.37 | 0.96 | 0.69, 1.32 | 0.83 | 0.39, 1.73 |
| High alcohol consumption | 1.40 | 0.90, 2.19 | 1.35 | 0.86, 2.10 | 1.36 | 0.46, 3.88 |
| Smoking |  |  |  |  |  |  |
| never | — | — | — | — | — | — |
| current | 1.63 | 1.14, 2.34 | 1.55 | 1.08, 2.23 | 1.28 | 0.62, 2.69 |
| prior | 1.44 | 1.04, 2.00 | 1.41 | 1.02, 1.97 | 1.76 | 0.86, 3.64 |
| Hypertension | 1.91 | 1.43, 2.54 | 1.88 | 1.41, 2.50 | 2.12 | 1.18, 3.83 |
| Diabetes | 1.46 | 0.96, 2.22 | 1.40 | 0.92, 2.13 | 1.81 | 0.56, 5.38 |
| Previous ischemic event | 2.28 | 1.52, 3.41 | 2.21 | 1.48, 3.31 | 1.47 | 0.56, 3.73 |
| Atrial fibrillation | 0.54 | 0.37, 0.78 | 0.53 | 0.36, 0.77 | 0.61 | 0.25, 1.42 |
| Previous MI | 0.63 | 0.37, 1.04 | 0.65 | 0.38, 1.07 | 0.24 | 0.07, 0.74 |
| All analyses adjusted for age and sex | | | | | | |
| *1*OR = Odds Ratio, CI = Confidence Interval | | | | | | |