**SUPPLEMENTAL MATERIAL**

**Preventive antibiotics in patients treated with intravenous thrombolysis:  
post hoc analysis of the Preventive Antibiotics in Stroke Study (PASS).**

Jan-Dirk Vermeij, MD; Willeke F. Westendorp, MD; Yvo B. Roos MD, PhD, Matthijs C. Brouwer, MD, PhD;

Diederik van de Beek MD, PhD: Paul J. Nederkoorn, MD, PhD; for the PASS- investigators

**SUPPLEMENTAL TABLE I.   
Baseline characteristics of thrombolysed patients in the PASS (IVT-group) as compared with non-thrombolysed patients (Non-IVT-group)\* \*\***

|  |  |  |  |
| --- | --- | --- | --- |
| **Characteristic** | | IVT-group | Non-IVT-group |
| (n=836) | (n=1433) |
| Age – year (interquartile range) | | 72 (61-80) | 74 (63-81) |
| Male sex – no. (%) | | 486 (58) | 821 (57) |
| History – no. (%)‡ | |  |  |
|  | Atrial fibrillation/flutter | 88/853 (11) | 259/1430 (18) |
|  | Stroke | 290/836 (35) | 466/431 (33) |
|  | Hypercholesterolemia | 222/829 (27) | 386/1421 (27) |
|  | Hypertension | 427/835 (51) | 818/1430 (57) |
|  | Myocardial infarction | 126/836 (15) | 176/1431 (12) |
|  | Cardiac valve disease§ | 38/835 (5) | 122/1431 (9) |
|  | Peripheral vascular disease | 57/835 (7) | 117/1308 (8) |
|  | Obstructive pulmonary disease | 49/835 (6) | 137/1429 (10) |
|  | Immunocompromise¶ | 35/836 (4) | 42/1433 (3) |
| Current smoker – no. (%) | | 200/828 (24) | 371/1417 (26) |
| Prior medication – no. (%) | |  |  |
|  | Anticoagulants | 24/836 (3) | 213/1432 (15) |
|  | Antiplatelet | 395/836 (47) | 539/1431 (38) |
|  | Statin | 310/835 (37) | 552/1432 (39) |
|  | ACE-inhibitor | 197/835 (24) | 385/1429 (27) |
|  | Beta-blocker | 284/834 (34) | 525/1431 (37) |
|  | Protonpompinhibitor | 209/834 (25) | 388/1429 (27) |
| Modified Rankin Scale score¥ | |  |  |
|  | Median | 0 | 0 |
|  | Range | 0-5 | 0-4 |
| National Institutes of Health Stroke Scale score\*\* | | | |
|  | Median | 6 | 4 |
|  | Range | 0-29 | 0-30 |
| Dysphagia – no. (%)†† | | 210/779 (27) | 309/1357 (23) |
| Discharge diagnosis – no. (%)§§ | |  |  |
|  | Cerebral infarction | 806 (96) | 1319 (92) |
|  | Transient ischemic attack | 10 (1) | 83 (6) |
|  | Other | 20 (2) | 31 (2) |

**Footnote to Supplemental Table I:**

\* Non-IVT-group is considered the population in PASS that could potentially have been treated with IVT, given their diagnosis: ‘infarct’, ‘TIA’ or ‘other’.

\*\*Data are median (IQR) or n/N (%). NA = not applicable.

† Cardiac valve disease was defined as cardiac valve insufficiency, stenosis, or replacement.

‡Immunocompromised was defined as changed immune status, diabetes mellitus, alcoholism, malignancy, or immunosuppressive medication.

§ Scores on the modified Rankin Scale range from 0 to 6, with 6 indicating death

¶ Scores on the National Institutes of Health Stroke Scale range from 0 to 30, with 30 indicating highest degree of stroke severity

**SUPPLEMENTAL TABLE II.   
Baseline characteristics of ceftriaxone treated patients, comparing thrombolysed patients (Ceftriaxone IVT-group) with non-thrombolysed patients (Ceftriaxone Non-IVT-group)\* \*\***

|  |  |  |  |
| --- | --- | --- | --- |
| **Characteristic** | | Ceftriaxone IVT-group | Ceftriaxone  Non-IVT-group |
| (n=437) | (n=688) |
| Age – year (interquartile range) | | 72 (61-80) | 73 (63-81) |
| Male sex – no. (%) | | 486 (58) | 395 (57) |
| History – no. (%)‡ | |  |  |
|  | Atrial fibrillation/flutter | 37/436 (9) | 123/686 (18) |
|  | Stroke | 150/437 (34) | 213/686 (31) |
|  | Hypercholesterolemia | 117/435 (27) | 181/683 (27) |
|  | Hypertension | 218/436 (50) | 389/687 (57) |
|  | Myocardial infarction | 62/437 (14) | 96/686 (14) |
|  | Cardiac valve disease§ | 16/436 (4) | 71/686 (10) |
|  | Peripheral vascular disease | 27/437 (6) | 59/682 (9) |
|  | Obstructive pulmonary disease | 28/437 (6) | 76/687 (11) |
|  | Immunocompromise¶ | 23/437 (5) | 25/688 (4) |
| Current smoker – no. (%) | | 96/433 (22) | 196/681 (29) |
| Prior medication – no. (%) | |  |  |
|  | Anticoagulants | 12/437 (3) | 102/687 (15) |
|  | Antiplatelet | 209/437 (48) | 253/687 (37) |
|  | Statin | 165/436 (38) | 255/687 (37) |
|  | ACE-inhibitor | 118/436 (27) | 197/685 (29) |
|  | Beta-blocker | 148/436 (34) | 242/687 (35) |
|  | Protonpompinhibitor | 110/436 (25) | 183/686 (27) |
| Modified Rankin Scale score¥ | |  |  |
|  | Median | 0 | 0 |
|  | Range | 0-5 | 0-4 |
| National Institutes of Health Stroke Scale score\*\* | | | |
|  | Median | 6 | 4 |
|  | Range | 0-26 | 0-30 |
| Dysphagia – no. (%)†† | | 103/403 (26) | 147/647 (23) |
| Discharge diagnosis – no. (%)§§ | |  |  |
|  | Cerebral infarction | 426/437 (98) | 632/688 (92) |
|  | Transient ischemic attack | 3/437 (1) | 41/688 (6) |
|  | Other | 8/437 (2) | 15/688 (2) |

**Footnote to Supplemental Table II:**

\* Non-IVT-group is considered the population in PASS that could potentially have been treated with IVT, given their diagnosis: ‘infarct’, ‘TIA’ or ‘other’.

\*\*Data are median (IQR) or n/N (%). NA = not applicable.

† Cardiac valve disease was defined as cardiac valve insufficiency, stenosis, or replacement.

‡Immunocompromised was defined as changed immune status, diabetes mellitus, alcoholism, malignancy, or immunosuppressive medication.

§ Scores on the modified Rankin Scale range from 0 to 6, with 6 indicating death

¶ Scores on the National Institutes of Health Stroke Scale range from 0 to 30, with 30 indicating highest degree of stroke severity

**SUPPLEMENTAL TABLE III.   
Outcomes of ceftriaxone treated patients, comparing thrombolysed patients (Ceftriaxone IVT-group) with non-thrombolysed patients (Ceftriaxone Non-IVT-group)\* \*\***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Ceftriaxone  IVT-group | Ceftriaxone Non-IVT-group | Odds Ratio | 95 percent confidence interval |
| (n=437) | (n=688) |
| Ordinal regression on modified Ranking Scale | | |  |  |  |
|  | Not adjusted | NA | NA | 0.92 | 0.75-1.14 |
|  | Predefined adjustment† | NA | NA | 0.69 | 0.55-0.86 |
|  | Adjustment for baseline †† | NA | NA | 0.98 | 0.79-1.23 |
|  | |  |  |  |  |
| Unfavorable outcome§ | | 144/436 (33) | 259/679 (38) | 0.80 | 0.62-1.03 |
| Mortality | |  |  |  |  |
|  | Discharge | 21/436 (5) | 24/688 (4) | 1.40 | 0.77-2.55 |
|  | 3 months | 39/436 (9) | 67/679 (10) | 0.90 | 0.59-1.36 |
|  | | |  |  |  |
| Diagnosis of infection during admission | | |  |  |  |
|  | All infections | 34/437 (8) | 73/688 (11) | 0.70 | 0.46-1.07 |
|  | Pneumonia | 19/437 (4) | 36/688 (5) | 0.82 | 0.47-1.46 |
|  | Urinary tract infection | 11/437 (3) | 31/688 (5) | 0.55 | 0.27-1.10 |
|  | Other infections | 7/437 (2) | 15/688 (2) | 0.73 | 0.30-1.80 |
|  | |  |  |  |  |
| Diagnosis of infection based on expert panel | | |  |  |  |
|  | All infections | 13/437 (3) | 17/688 (3) | 1.21 | 0.58-2.52 |
|  | Pneumonia | 9/437 (2) | 9/688 (1) | 1.59 | 0.63-4.03 |
|  | Urinary tract infection | 5/437 (1) | 7/688 (1) | 1.13 | 0.37-3.57 |
|  | Other infections | 1/437 (0) | 2/688 (0) | 0.79 | 0.07-8.70 |

**Footnote to Supllemental Table III:**

\* Non-IVT-group is considered the population in PASS that could potentially have been treated with IVT, given their diagnosis: ‘infarct’, ‘TIA’ or ‘other’.

\*\*Data are median (IQR) or n/N (%). NA = not applicable.

† Predefined adjustment included age, stroke severity as defined as NIHSS score, history of stroke, history of diabetes, previous disability as defined on the mRS, stroke type, and categorisation of study centre.

†† Adjusted for differences in baseline characteristics: atrial fibrillation, hypertension, cardiac valve disease, obstructive pulmonary disease and prior use of anticoagulants and antiplatelets.

§ Unfavourable outcome was defined on the modified Rankin Scale: a score of 0–2, indicating a favourable outcome, versus a score of 3–6, indicating an unfavourable outcome.