Supplementary Table 1. Algorithm to calculate the proportion of subjects who achieved target blood pressure level in The Japanese Society of Hypertension Guidelines for the Management of Hypertension 2014 (JSH 2014) and 2019 (JSH 2019), and target blood pressure in JSH 2014 and 2019

Supplementary Table 1A. JSH 2014

|  |  |  |  |
| --- | --- | --- | --- |
| Patients | Target office blood pressure (mmHg) | Target home blood pressure (mmHg) | Conditions |
| Adults younger than 75 years | Older patients aged 75 and over | Patients with coronary artery disease | Diabetic patients | Patients with cerebrovascular disease | Patients with CKD |
| Adults younger than 75 years | <140/90 | <135/85 | A | C | B | C | B | B |
| Patients with coronary artery disease | <140/90 | <135/85 | A | C | A | C | B | B |
| Diabetic patients | <130/80 | <125/75 | A | C | C | A | C | C |
| Older patients aged 75 and over | <150/90 | <145/85 | C | A | B | B | B | B |
| Patients with cerebrovascular disease  | <140/90 | <135/85 | A | C | B | C | A | B |
| Patients with CKD  | <140/90 | <135/85 | A | C | B | C | B | A |

Abbreviation: A, Patient categories with target blood pressure; B, this condition is not essential for calculation of the proportion of subjects who achieved target blood pressure. ; C, this condition excluded in calculation. CKD, chronic kidney disease.

Supplementary Table 1B. JSH2019

|  |  |  |  |
| --- | --- | --- | --- |
| Patients | Target office blood pressure (mmHg) | Target home blood pressure (mmHg) | Conditions |
| Adults younger than 75 years | Older patients aged 75 and over | Patients with coronary artery disease | Diabetic patients | Patients using antithrombotic drugs | Patients with cerebrovascular disease | Patients with CKD |
| Adults younger than 75 years | <130/80 | <125/75 | A | C | B | B | B | C | C |
| Patients with coronary artery disease | <130/80 | <125/75 | A | C | A | B | B | C | C |
| Diabetic patients | <130/80 | <125/75 | A | C | B | A | B | C | C |
| Patients using antithrombotic drugs  | <130/80 | <125/75 | A | C | B | B | A | C | C |
| Older patients aged 75 and over | <140/90 | <135/85 | C | A | B | B | B | B | B |
| Patients with cerebrovascular disease  | <140/90 | <135/85 | B | B | B | B | B | A | B |
| Patients with CKD  | <140/90 | <135/85 | B | B | B | B | B | B | A |

Abbreviation: A, Patient categories with target blood pressure; B, this condition is not essential for calculation of the proportion of subjects who achieved target blood pressure. ; C, this condition excluded in calculation. CKD, chronic kidney disease.

Supplementary Table 2. Clinical characteristics of patients for efficacy analysis

|  |  |  |
| --- | --- | --- |
| Items | Factors | Total (N=2372) |
| Gender | Male | 1273 | (53.7%) |
| Age, years |  | 67.5 | ± 12.6 |
| BMI, kg/m2 |  | 24.4  | ± 3.9 (N=1785) |
| Comorbidities | Total | 1656 | (69.8%) |
|  | Dyslipidemia | 832 | (35.1%) |
|  | Ischemic heart disease | 251 | (10.6%) |
|  | Diabetes mellitus | 448 | (18.9%) |
|  | Cerebrovascular disease | 174 | (7.3%) |
|  | Chronic kidney disease | 264 | (11.1%) |
|  | Hyperuremia | 289 | (12.2%) |
| Pre-treatment antihypertensive drugs | ARB | 1309 | (55.2%) |
|  |  Valsartan | 315 | (13.3%) |
|  | CCB | 1565 | (66.0%) |
|  |  Cilnidipine | 622 | (26.2%) |
|  | ACE inhibitor | 75 | (3.2%) |
|  | α-Blocker | 68 | (2.9%) |
|  | β-Blocker | 207 | (8.7%) |
|  | Diuretics | 226 | (9.5%) |
|  | Others | 30 | (1.3%) |
| Concomitant antihypertensive drugs | Total | 678 | (28.6%) |
|  | ARB | 92 | (3.9%) |
|  | CCB | 263 | (11.1%) |
|  | ACE inhibitor | 24 | (1.0%) |
|  | α–Blocker | 83 | (3.5%) |
|  | β–Blocker | 229 | (9.7%) |
|  | Diuretics | 206 | (8.7%) |
|  | Others | 34 | (1.4%) |

Abbreviations: ACE, angiotensin-converting enzyme; ARB, angiotensin II receptor blocker; BMI, body mass index; CCB, calcium channel blocker.

β-Blocker includes α·β-Blocker.

Data are shown as the number of patients (%), the mean ± SD.

Supplementary Table 3. Change in office blood pressure by presence or absence of pre-treatment antihypertensive drugs

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BP | Pre-treatment antihypertensive drugs | N | Baseline(mmHg) | P value1) | N | 12 months(mmHg) | P value1) | N | Changes(mmHg) | Pvalue1) |
| SBP | Present | 2147 | 148.7 | ± 19.1 | P<0.01 | 1639 | 133.4 | ± 14.8 | P=0.34 | 1639 | -15.4 | ±20.2 | P<0.01 |
| Absent | 166 | 159.7 | ± 23.9 | 101 | 134.8 | ± 15.1 | 101 | -22.4 | ±26.9 |
| DBP | Present | 2141 | 83.6 | ± 13.8 | P<0.01 | 1636 | 75.2 | ± 11.0 | P=0.40 | 1636 | -8.5 | ±12.9 | P=0.01 |
| Absent | 166 | 90.5 | ± 18.3 | 101 | 76.1 | ± 11.9 | 101 | -11.8 | ±15.3 |

Abbreviation: SBP, systolic blood pressure; DBP, diastolic blood pressure. Mean±SD. 1) Student’s t-test.

Supplementary Table 4. Change in office blood pressure by presence or absence of concomitant antihypertensive drugs

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BP | Concomitant antihypertensive drugs | N | Baseline(mmHg) | P value1) | N | 12 months(mmHg) | P value1) | N | Changes(mmHg) | P value1) |
| SBP | Present | 661 | 148.8 | ± 22.0 | P=0.34 | 502 | 133.5 | ± 16.1 | P=0.98 | 502 | -15.5 | ± 23.3 | P=0.72 |
| Absent | 1652 | 149.7 | ± 18.6 | 1238 | 133.5 | ± 14.3 | 1238 | -15.9 | ± 19.6 |
| DBP | Present | 658 | 82.1 | ± 15.0 | P<0.01 | 500 | 74.2 | ± 11.7 | P=0.01 | 500 | -8.3 | ± 13.9 | P=0.39 |
| Absent | 1649 | 85.0 | ± 13.9 | 1237 | 75.7 | ± 10.8 | 1237 | -8.9 | ± 12.7 |

Abbreviation: SBP, systolic blood pressure; DBP, diastolic blood pressure. Mean±SD. 1) Student’s t-test.