**Supplementary table 5a. mean daytime SBP/DBP and proportion of suboptimal daytime BP control according to different diurnal definitions.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Definition  | Daytime SBP (mmHg) (Mean, SD) | Daytime DBP (mmHg) (Mean, SD) | Suboptimal daytime BP control defined according by ESH (≥135/85mmHg) (n, %) | Suboptimal daytime BP control defined according by AHA (≥130/80mmHg) (n, %) |
| Fixed time wide | 131.66 (9.58) | 74.20 (9.00) | 69 (38.5) | 107 (59.8)a |
| Fixed time narrow | 132.20 (9.97) | 74.64 (9.17) | 73 (40.8) | 110 (61.5) |
| Actigraphy | 131.83 (9.30) | 74.16 (8.84) | 70 (39.1) | 112 (62.6) |
| Diary | 132.37 (9.67) | 74.56 (9.03) | 68 (38.4) | 117 (66.1)a |

ABPM – ambulatory blood pressure measurement, AHA – American Heart Association, ESH – European Society of Hypertension a McNemar’s Chi Square Test found significant difference at p<0.05

**Following analyses were conducted using optimal daytime BP cut-off suggested by European Society of Hypertension (elevated daytime BP as ≥135/85mmHg) on ambulatory blood pressure measurements (ABPM), which is most relevant for clinically diagnosis of elevated BP**

**Supplementary table 5b. Optimal BP control/suboptimal BP control cases when using ABPM fixed wide period (FW) and narrow fixed period (FN).**

|  |  |  |
| --- | --- | --- |
| FW  FN | Suboptimal BP control (n) | Optimal BP control (n) |
| Suboptimal BP control (n) | 67 | 2 |
| Optimal BP control (n) | 6 | 104 |

McNemar's chi-squared value = 1.125, P value = 0.289

**Supplementary table 5c. Optimal BP control/suboptimal BP control cases when using ABPM fixed wide period (FW) and actigraphy (A).**

|  |  |  |
| --- | --- | --- |
| FW  A | Suboptimal BP control (n) | Optimal BP control (n) |
| Suboptimal BP control (n) | 65 | 4 |
| Optimal BP control (n) | 5 | 105 |

McNemar's chi-squared value = 0.000, P value = 1.000

**Supplementary table 5d. Optimal BP control/suboptimal BP control cases when using ABPM fixed wide period (FW) and diary (D).**

|  |  |  |
| --- | --- | --- |
| FW  D | Suboptimal BP control (n) | Optimal BP control (n) |
| Suboptimal BP control (n) | 61 | 7 |
| Optimal BP control (n) | 7 | 102 |

McNemar's chi-squared value = 0.000, P value = 1.000

**Supplementary table 5e. Optimal BP control/suboptimal BP control cases when using ABPM fixed narrow period (FN) and actigraphy (A).**

|  |  |  |
| --- | --- | --- |
| FN  A | Suboptimal BP control (n) | Optimal BP control (n) |
| Suboptimal BP control (n) | 63 | 10 |
| Optimal BP control (n) | 7 | 99 |

McNemar's chi-squared value = 0.236, P value = 0.628

**Supplementary table 5f. Optimal BP control/suboptimal BP control cases when using ABPM fixed narrow period (FN) and diary (D).**

|  |  |  |
| --- | --- | --- |
| FN  D | Suboptimal BP control (n) | Optimal BP control (n) |
| Suboptimal BP control (n) | 63 | 9 |
| Optimal BP control (n) | 5 | 100 |

McNemar's chi-squared value = 0.643, P value = 0.423

**Supplementary table 5g. Optimal BP control/suboptimal BP control cases when using ABPM actigraphy (A) and diary (D).**

|  |  |  |
| --- | --- | --- |
| A  D | Suboptimal BP control (n) | Optimal BP control (n) |
| Suboptimal BP control (n) | 65 | 5 |
| Optimal BP control (n) | 3 | 104 |

McNemar's chi-squared value = 0.125, P value = 0.724

**Following analyses were conducted using optimal daytime BP cut-off suggested by American Heart Association (elevated daytime BP as ≥130/80mmHg) on ambulatory blood pressure measurements (ABPM), which is most relevant for clinically diagnosis of elevated BP**

**Supplementary table 5h. Optimal BP control/suboptimal BP control cases when using ABPM fixed wide period (FW) and narrow fixed period (FN).**

|  |  |  |
| --- | --- | --- |
| FW  FN | Suboptimal BP control (n) | Optimal BP control (n) |
| Suboptimal BP control (n) | 104 | 3 |
| Optimal BP control (n) | 6 | 66 |

McNemar's chi-squared value = 0.444, P value = 0.505

**Supplementary table 5i. Optimal BP control/suboptimal BP control cases when using ABPM fixed wide period (FW) and actigraphy (A).**

|  |  |  |
| --- | --- | --- |
| FW  A | Suboptimal BP control (n) | Optimal BP control (n) |
| Suboptimal BP control (n) | 100 | 7 |
| Optimal BP control (n) | 12 | 60 |

McNemar's chi-squared value = 0.842, P value = 0.359

**Supplementary table 5j. Optimal BP control/suboptimal BP control cases when using ABPM fixed wide period (FW) and diary (D).**

|  |  |  |
| --- | --- | --- |
| FW  D | Suboptimal BP control (n) | Optimal BP control (n) |
| Suboptimal BP control (n) | 104 | 2 |
| Optimal BP control (n) | 13 | 58 |

McNemar's chi-squared value = 6.667, P value = 0.010

**Supplementary table 5k. Optimal BP control/suboptimal BP control cases when using ABPM fixed narrow period (FN) and actigraphy (A).**

|  |  |  |
| --- | --- | --- |
| FN  A | Suboptimal BP control (n) | Optimal BP control (n) |
| Suboptimal BP control (n) | 109 | 9 |
| Optimal BP control (n) | 11 | 58 |

McNemar's chi-squared value = 0.050, P value = 0.823

**Supplementary table 5l. Optimal BP control/suboptimal BP control cases when using ABPM fixed narrow period (FN) and diary (D).**

|  |  |  |
| --- | --- | --- |
| FN  D | Suboptimal BP control (n) | Optimal BP control (n) |
| Suboptimal BP control (n) | 105 | 4 |
| Optimal BP control (n) | 12 | 56 |

McNemar's chi-squared value = 3.063, P value = 0.080

**Supplementary table 5m. Optimal BP control/suboptimal BP control cases when using ABPM actigraphy (A) and diary (D).**

|  |  |  |
| --- | --- | --- |
| A  D | Suboptimal BP control (n) | Optimal BP control (n) |
| Suboptimal BP control (n) | 110 | 2 |
| Optimal BP control (n) | 7 | 58 |

McNemar's chi-squared value = 1.778, P value = 0.182