Table 10. Study design characteristics of included studies for Key Question 3a

| Author, Year  Quality | Country | N | Inclusion Criteria | Exclusion Criteria | Mean Followup and Range (years) | Interventions |
| --- | --- | --- | --- | --- | --- | --- |
| Asayama, 2006112  Good | Japan | 1766 | Age ≥ 40 years; residents of 3 of the 4 regions of Ohasama; and measurement of home BP ≥ 3 times during 4-week BL study period | History of stroke (excluded from this analysis only); hospitalized, demented and bedridden individuals; individuals who worked outside of town | 10.6 (IQR 8.9-13.9) | HBPM |
| HBPM (morning) |
| HBPM (evening) |
| OBPM |
| Bobrie, 2004113  Good | France | 4939 | Aged ≥ 60 years; primary permanent HTN defined by anti-HTN meds or in absence of treatment, office BP values > 140/90 mm Hg measured at 2 separate times during the year preceding inclusion (only treated analyzed) | Inability to perform an appropriate number of BP measurements at home w/ the study device; arm size not allowing the use of a standard cuff; any threatening disease or recent acute CV event (e.g., MI, stroke) | 3.2 (range, NR) | HBPM |
| OBPM |
| Celis, 2002114  Fair | Belgium | 419 | Patients previously participating in APTH trial whose office DBP measured ≥ 95 mm Hg while off treatment (during 2 month placebo run-in phase); ≥ 18 years; effective contraception in women of reproductive age; possibility of F/U during study period | Contraindications to stopping anti-HTN meds, including: overt heart failure, unstable angina pectoris, HTN retinopathy stage III or IV, or history of MI or cerebrovascular accident w/in 1 year; severe non-CV disease such as cancer or liver cirrhosis; serum Cr >1.5 mg/dL; mental disorders; patients additions to narcotics or alcohol; patients working night shifts | 5.3 (range, 0.1-7.5) | ABPM (daytime) |
| OBPM |
| Clement, 2003115  Good | Belgium | 1963 | Patients of either sex who were aged ≥ 18 years w/ documented HTN at 2 separate visits w/in a 2-year period before enrollment (visits 1 and 2). HTN diagnosed if the mean of 3 sphyg. readings of DBP (assessed as the 5th Korotkoff sound and obtained in the office, when the patient was sitting, after 5 minutes of rest) > 90 mm Hg in patients currently taking anti-HTN meds or > 95 mm Hg in patients not taking meds. Patients must be treated w/ anti-HTN meds for ≥ 3 months by the time of the inclusion visit (visit 3). | Suspicion of secondary HTN, insulin-treated DM, recent stroke (occurring w/in previous 3 months), recent acute MI, recent hospitalization for CHF, recent revascularization or planned CV intervention during succeeding 3 months, serum Cr > 2.5 mg per deciliter, COPD, any coexisting diseases that might seriously reduce life expectancy, heart transplantation, use of experimental drugs, pregnancy, and refusal to undergo repeated F/U visits and ambulatory BP monitoring. | 5 (range, 0.8-5.5) | ABPM (24hr) |
| ABPM (daytime) |
| ABPM (nighttime) |
| OBPM |
| Dolan, 2005116  Fair | Ireland | 5292 | HTN patients who were untreated or had all anti-HTN meds discontinued for 1 week before their BL visit and demographic data and CV risk factors recorded in database | Insufficient ABPM (<10 daytime and 5 nighttime readings) | 7.9 (IQR 5.6-10.6) | ABPM (24hr) |
| ABPM (daytime) |
| ABPM (nighttime) |
| OBPM |
| Fagard, 2005117  Good | Belgium | 391 | Registered patients at a general practice clinic aged ≥ 60 years w/ ≥ 2 types of BP measurement | Bedridden, demented, admitted in a home for sick elderly people or history of MI or stroke | 10.9 (range, 0.04-13.0) | ABPM (daytime) |
| ABPM (nighttime) |
| HBPM |
| OBPM |
| Gasowski, 2008118  Fair | Belgium | 1167 | Participants from a geographically defined area in Northern Belgium | 1,646 were excluded because intentionally their nighttime ABP had not been measured (n = 1,596), or because their daytime (n = 27) or nighttime (n = 23) ABPs were based on the average of <10 or 5 readings, respectively | 13 (range, 0.8-16) | ABPM (24hr) |
| OBPM |
| Hansen, 2005119  Fair | Denmark | 1700 | Men and women from 11 municipalities in southwestern part of Copenhagen country | Technical problems or unwillingness to participate in ABPM, too few ABPM readings (<14 readings of SBP and DBP during the day, < 7 SBP and DBP during the night), nighttime workers, previous diagnosis of MI or stroke, using digoxin or nitrates | 9.5 (range, NR) | ABPM (24hr) |
| ABPM (daytime) |
| ABPM (nighttime) |
| OBPM |
| Hermida, 2011120  Good | Spain | 3344 | Aged ≥ 18 years of age, normotensive, untreated HTN or resistant to treatment (uncontrolled BP according to ABPM threshold while compliant to 3 optimally dosed HTN meds of different classes including diuretic unless contraindicated or intolerant or any subject treated w/ > 3 HTN meds) | Pregnancy, history of alcohol or drug abuse, night/shift-worker employment, AIDS, type 1 DM, secondary HTN, CVD disorders (unstable angina, HF, life-threatening arrhythmia, kidney failure, grade III/IV retinopathy), intolerance to ABPM, inability to communicate or comply w/ all of study requirements | 5.6 (range, 0.5-8.6) | ABPM (48hr) |
| ABPM (daytime) |
| ABPM (nighttime) |
| OBPM |
| Ingelsson, 2006121  Good | Sweden | 951 | 50-year-old men living in Uppsala in 1970-1973 who were reinvestigated 20 years later (now 70-year-old men) and had valid 24-h ambulatory BP recordings and data on all covariates | Previous diagnosis of CHF, valvular disease, ECG-LVH | 9.1 (range, 0.1-11.4) | ABPM (24hr) |
| ABPM (daytime) |
| ABPM (nighttime) |
| OBPM |
| Mesquita-Bastos, 2010122  Fair | Portugal | 1200 | Consecutive HTN patients 18 years or older referred for ABPM w/ no history or clinical evidence of earlier CV events (including: CHF, cerebrovascular disease, MI, coronary bypass or angioplasty, cardiac valve disease, renal insufficiency, PAD, AF, other major arrhythmias, severe hepatic disease); no suspicion of secondary HTN or sleep apnea; treated patients needed to have treatment stabilized for >=3 months; and could be evaluated further (followup exam or death certificate) | NR | 8.2 (range, 0.8-15.2) | ABPM (24hr) |
| ABPM (daytime) |
| ABPM (nighttime) |
| OBPM |
| Niiranen, 2010123  Good | Finland | 2081 | The target population of the Health 2000 Survey consisted of individuals aged ≥ 18 years and living in mainland Finland. Subjects aged 45-74 years participated in the home BP measurement substudy. | The main reason for exclusions in the overall study was temporary residence abroad. Participation limited by home monitor availability. | 6.8 (range, NR) | HBPM |
| OBPM |
| Ohkubo, 1998124  Good | Japan | 1789 | Age ≥ 40 years; residents of 3 of the 4 regions of Ohasama; and measurement of home BP ≥ 3 times during 4-week BL study period | Hospitalized, demented and bedridden individuals; individuals who worked outside of town | 6.6 (range, 0.1- 9.4) | HBPM (multiple) |
| HBPM (initial) |
| OBPM |
| Ohkubo, 2005125  Good | Japan | 1332 | Age ≥ 40 years w/ casual BP measurement at annual health check-up; residents of 3 of the 4 regions of Ohasama | Hospitalized, demented and bedridden individuals; individuals who worked outside of town | 10.2 (range, NR) | ABPM (24hr) |
| ABPM (daytime) |
| ABPM (nighttime) |
| OBPM |
| Staessen, 1999126  Good | Multinational (western and eastern Europe) | 808 | Men and women ≥ 60 years w/ isolated systolic HTN (sitting SBP 160 to 219 mm Hg and sitting DBP <95 mm Hg while on masked placebo during the run-in phase; standing SBP ≥ 140). BP measurements for entry based on the averages of 6 sitting and 6 standing readings–2 in each position at 3 BL visits, 1 month apart | Systolic HTN secondary to a disorder needing specific medical or surgical treatment; retinal hemorrhage or papilledema; CHF; dissecting aortic aneurysm; serum Cr concentration >=180 μmol/L; history of severe nose bleeds, stroke, or MI in the year before the study; dementia; substance abuse; any disorder prohibiting a sitting or standing position; and any severe concomitant CV or non-CVD | 4.4 (range, 0.8 to 9) | ABPM (24hr) |
| ABPM (daytime) |
| ABPM (nighttime) |
| OBPM |

**Abbreviations**: ABP = ambulatory blood pressure; ABPM = ambulatory blood pressure monitoring; AF = atrial fibrillation; AIDS = acquired immunodeficiency syndrome; APTH = Ambulatory Blood Pressure and Treatment of Hypertension; BL = baseline; BP = blood pressure; CHF = congestive heart failure; COPD = chronic obstructive pulmonary disease; Cr = creatinine; CV = cardiovascular; CVD = cardiovascular disease; DBP = diastolic blood pressure; dL = deciliter(s); DM = diabetes mellitus; ECG = electrocardiogram; F/U = followup; HBPM = home blood pressure monitoring; HF = heart failure; HTN = hypertension; hr = hour(s); IQR = interquartile range; LVH = left ventricular hypertrophy; mg = milligram(s); mm Hg = millimeter(s) of mercury; MI = myocardial infarction; NR = not reported; OBPM = office blood pressure measurement; PAD = peripheral artery disease; pts = participants; SBP = systolic blood pressure; sphyg = sphygmamonometer; w/ = with