Supplemental Material

### Supplemental Table 1. Adverse events from baseline to 36 months

|  |  |
| --- | --- |
|  | **N = 1,896\*** |
| MACE (major adverse cardiovascular events, defined as cardiovascular death, myocardial infarction, or stroke) | 9.3% (176) |
| Cardiovascular death (including unknown cause of death) | 3.6% (69) |
| MI\*\* | 2.4% (46) |
| Stroke | 4.6% (88) |
|  |  |
| All cause death | 5.8% (110) |
| New onset end stage renal disease or serum creatinine elevation >50% | 2.7% (51) |
| Significant embolic event resulting in end-organ damage | 0.0% (0) |
| Renal artery re-intervention or new renal artery stenosis >70% | 0.8 % (15) |
| Vascular complication | 0.9% (17) |
| Hospitalization for new onset heart failure | 3.9% (73) |
| Hospitalization for atrial fibrillation | 3.3% (63) |
| Hospitalization for hypertensive crisis or emergency | 3.1% (58) |

Only first event is reported. Some subjects had multiple MACE events.

\*Includes patients who either had an event from baseline to 36 months or reached 36-month follow-up.

\*\*Myocardial Infarction is defined as the concurrent documentation of 2 of the 3 elements listed below in the appropriate clinical circumstance:

1. Chest pain or ischemic equivalent  
2. New pathologic q waves in at least 2 contiguous ECG leads  
3. Cardiac biomarker elevation

**Supplemental Table 2. TTR through 6 months and baseline BP as predictors for MACE 6 to 36 months**

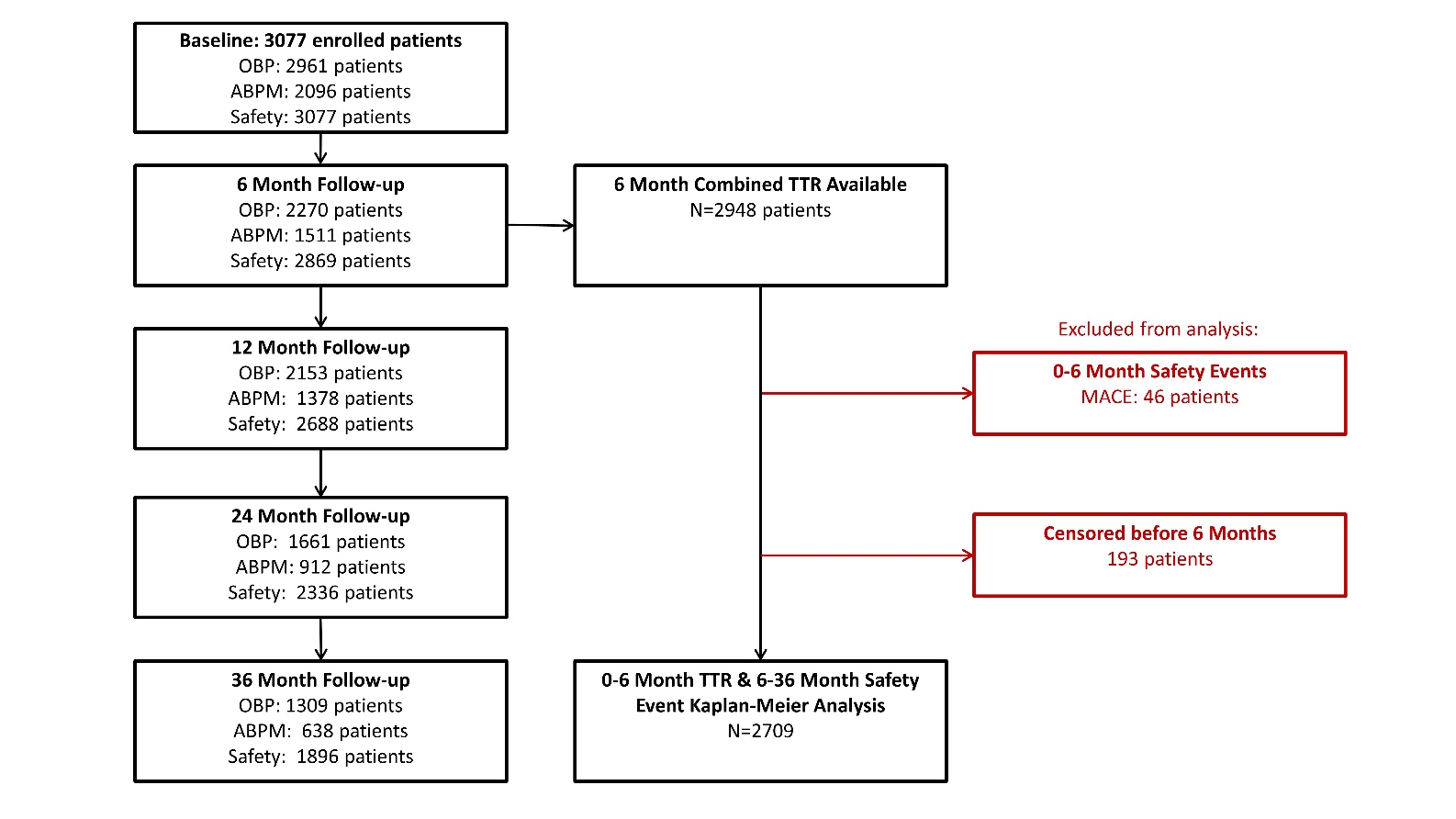
|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Outcome** | **Predictor** | **Increase** | **Estimate** | **Standard Error** | **Hazard Ratio (95% CI)** | ***P* Value** |
| **MACE 6-36 M** | TTR 0-6 months | 10% increase | −0.151 | 0.037 | 0.86 (0.80, 0.92) | <0.001 |
| Baseline SBP | 1 unit increase | 0.005 | 0.004 | 1.01 (1.00, 1.01) | 0.190 |

Cox regression model with baseline systolic BP included as a covariate.

### Supplemental Table 3. Systolic BP change (mm Hg) from baseline based on the number of antihypertensive medications

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Number of Antihypertensive Medications at Baseline** | **OSBP/ASBP** | **6 Months**  **Mean**  **(n)** | **12 Months**  **Mean**  **(n)** | **24 Months**  **Mean**  **(n)** | **36 Months**  **Mean**  **(n)** |
| 0-2 | OSBP | −14.2 (125) | −14.2  (125) | −15.4  (84) | −21.9  (68) |
| ASBP | −8.8  (69) | −6.3  (55) | −8.7  (35) | −7.1  (27) |
| 3 | OSBP | −15.1  (240) | −15.0  (218) | −18.6  (181) | −17.4  (150) |
| ASBP | −6.9  (110) | −8.7  (91) | −9.3  (62) | −11.7  (48) |
| 4 | OSBP | −14.2  (538) | −15.7  (519) | −18.0  (427) | −18.9  (165) |
| ASBP | −7.2  (272) | −7.7  (257) | −8.6  (177) | −8.5  (132) |
| 5 | OSBP | −12.3  (1282) | −13.2  (1209) | −13.3  (900) | −14.9  (692) |
| ASBP | −7.5  (791) | −8.6  (708) | −9.0  (459) | −9.1  (320) |

**Supplemental Figure 1. Patient flow-chart** **for GSR**

A total of 3,077 patients were enrolled in the GSR. The indicated N’s for office blood pressure (OBP), 24-hour ambulatory blood pressure measures (ABPM) and safety events (Safety) represents the number of patients with available information at each follow-up. Due to the nature of the registry and per the standard of care at each site, patients were not required to complete each follow-up. The number of patients with available 6 month combined TTR values is indicated. Patients who had a MACE event in the first 6 months or who were censored before 6 months were excluded from the analyses examining the relationship between TTR and cardiovascular events from 6 months to 36 months.

### Supplemental Figure 2. Time in therapeutic range using OSBP only

TTR is a cumulative measure and calculated by interpolating nonmissing BP measures from baseline to each follow-up. TTR was determined for each patient at each follow-up using office BP measures. All available patient TTR values were then averaged and plotted below. The percentage of time for each time point is plotted. Table below includes mean TTR ± SD and N. The N of 2,975 through 36 months includes all subjects with at least 2 office BP measurements between baseline and 36 months.



Chart, bar chart

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### Supplemental Figure 3. Kaplan-Meier estimates of cardiovascular events from 6-36 months based on office systolic BP TTR through 6 months

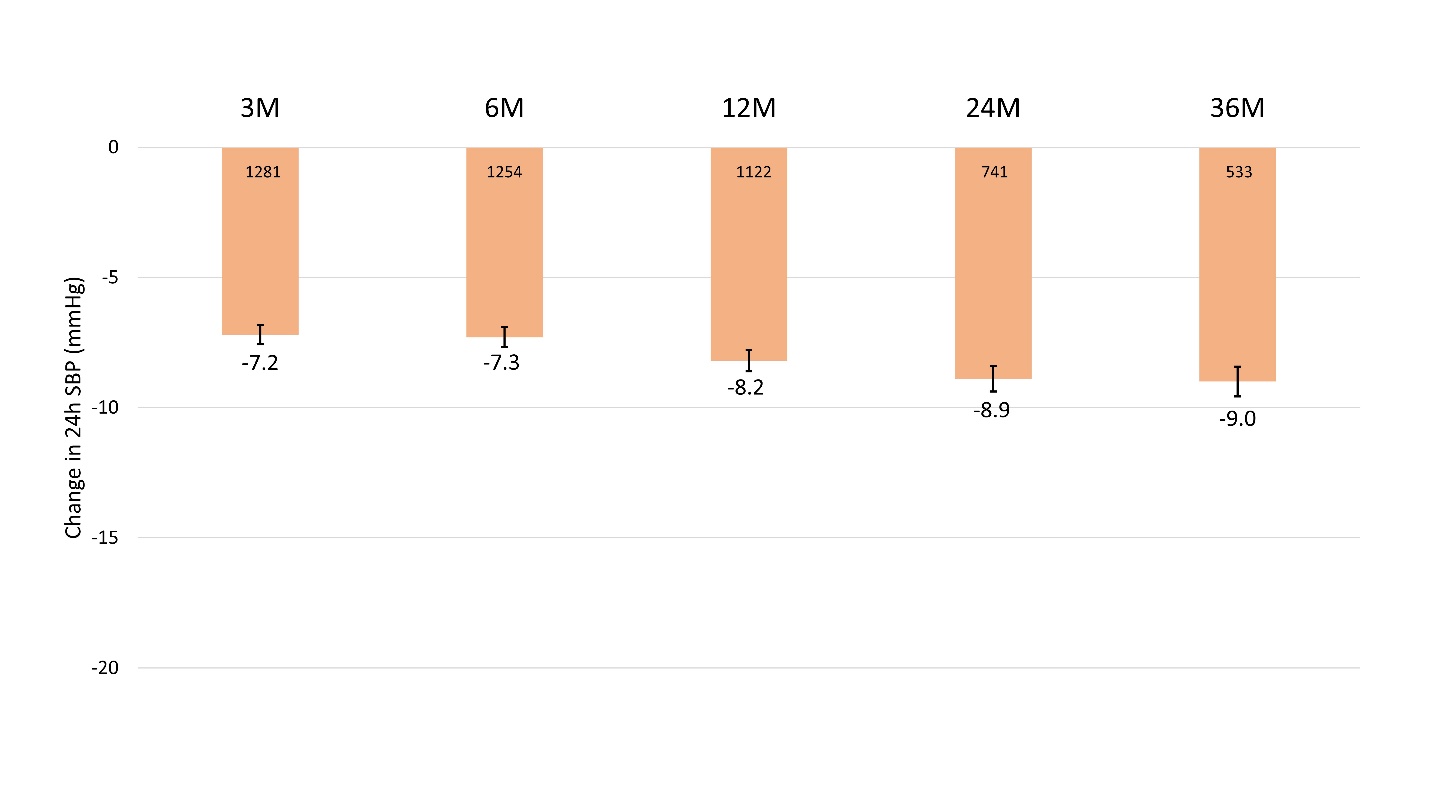
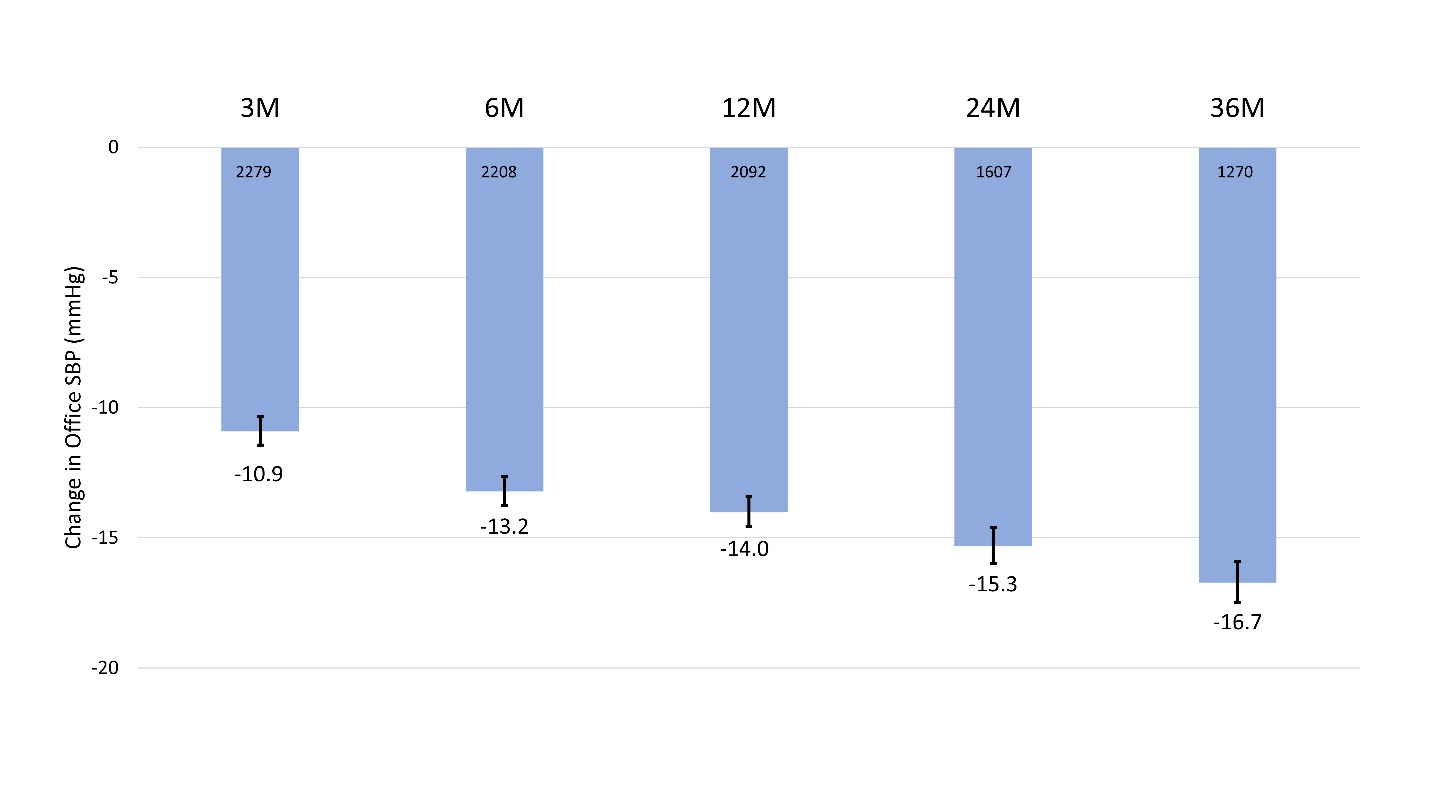
Indicated Kaplan-Meier event rates for **(A)** MACE, **(B)** cardiac death, **(C)** myocardial infarction (MI), and **(D)** stroke from 6 through 36 months are plotted based on office TTR from baseline through 6 months. HRs with 95% CIs comparing patients with 0% TTR or >0 to ≤47% TTR versus >47% TTR are listed. TTR based on office systolic BP is available for 37 fewer patients (2,672 total) than combined TTR in **Figure 2**.

Graphical user interface

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### Supplemental Figure 4. Reductions in OSBP and ASBP from baseline to 36 months

Mean adjusted changes in systolic BP from baseline to indicated follow-up for both office and 24-hour ambulatory systolic BP measures. The number of patients and mean BP value change are indicated. Error bars indicate SE.



### Supplemental Figure 5. Distribution of office SBP at baseline and 36 months follow-up

Percentage of patients with varying office SBP at baseline versus at 36-month follow-up.

Chart, bar chart

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