

Supplemental Online Content

Li J, Somers VK, Gao X, et al. Evaluation of optimal diastolic blood pressure range among adults with treated systolic blood pressure less than 130 mm Hg. *JAMA Network Open*. 2021;4(2):e2037554. doi:10.1001/jamanetworkopen.2020.37554

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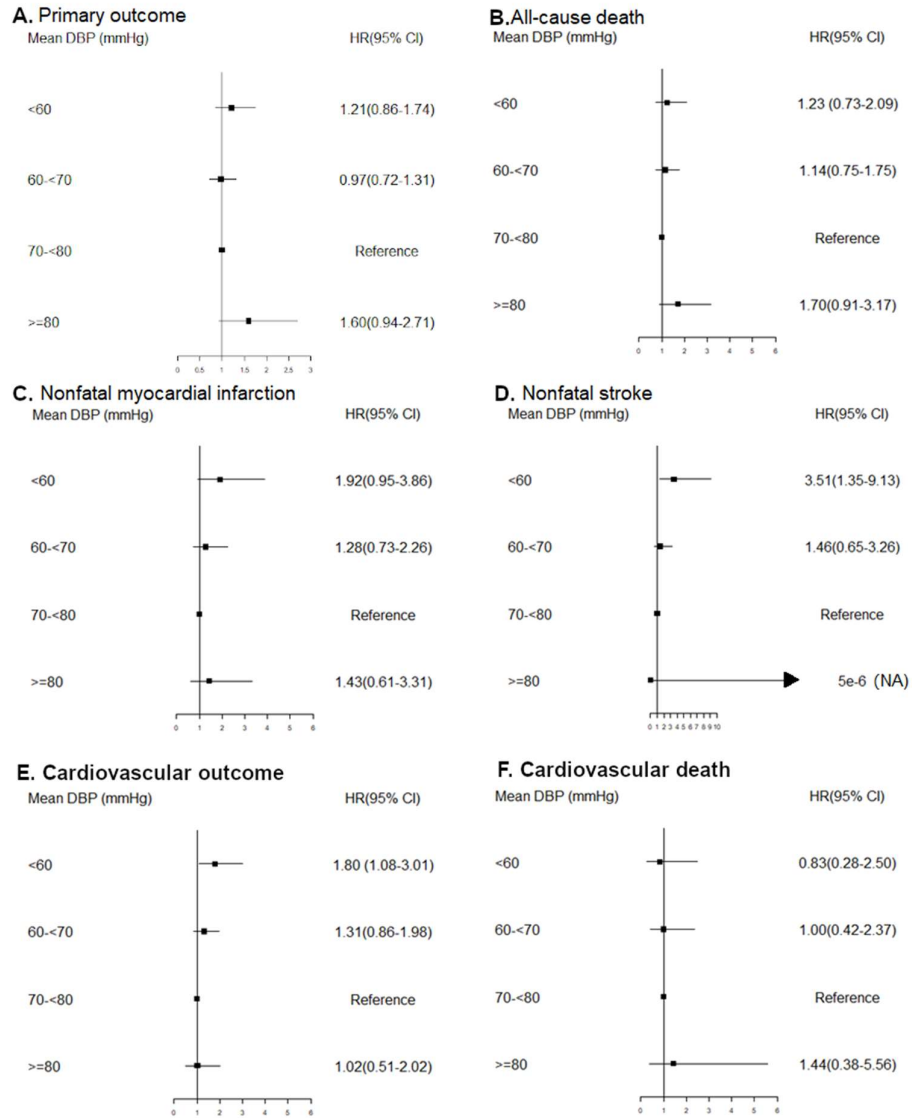
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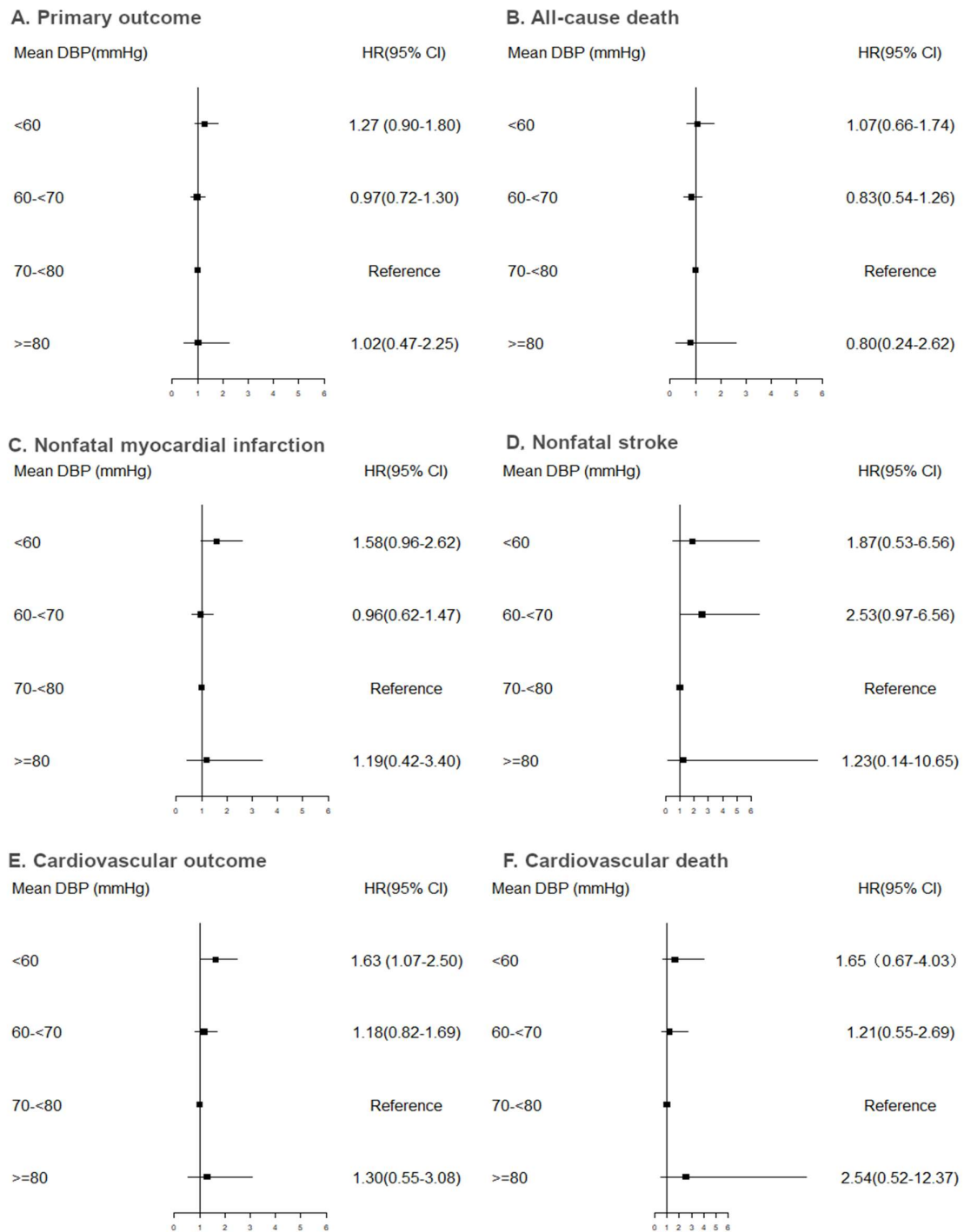
This supplemental material has been provided by the authors to give readers additional information about their work.

eFigure 1. Adjusted Hazard Ratios for Mean Achieved DBP and Outcomes at Achieved SBP of Less Than 130 mm Hg in SPRINT Trial



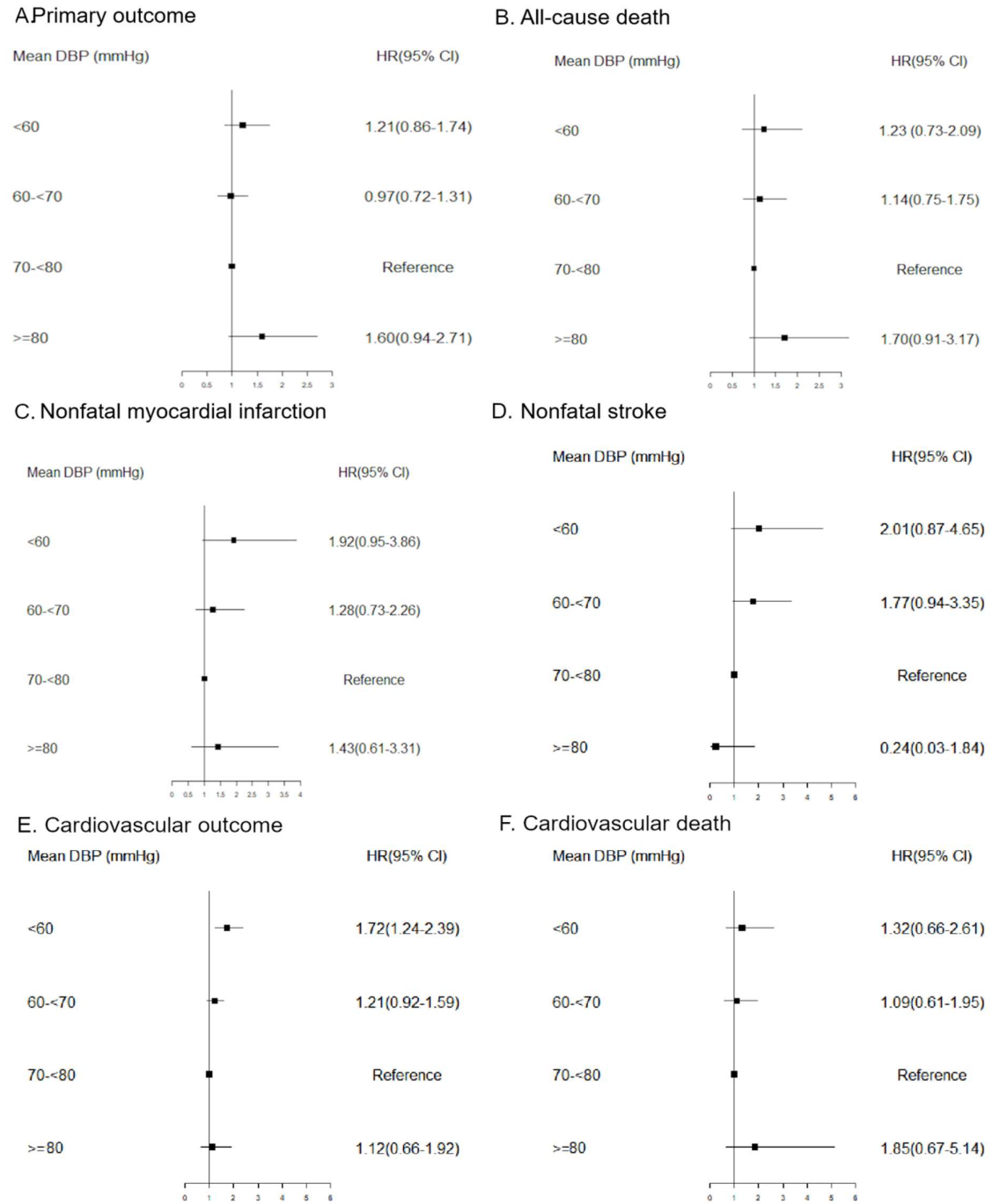
Primary outcome consisted of all-cause death, nonfatal myocardial infarction and nonfatal stroke. Cardiovascular outcome was composed of cardiovascular death, nonfatal myocardial infarction and nonfatal stroke. The reference is DBP value of 70 to <80mmHg. CI, confidence interval; DBP, diastolic blood pressure; HR, hazard ratios; SBP, systolic blood pressure.

eFigure 2. Adjusted Hazard Ratios for Mean Achieved DBP and Outcomes at Achieved SBP of Less Than 130 mm Hg in ACCORD-BP Trial



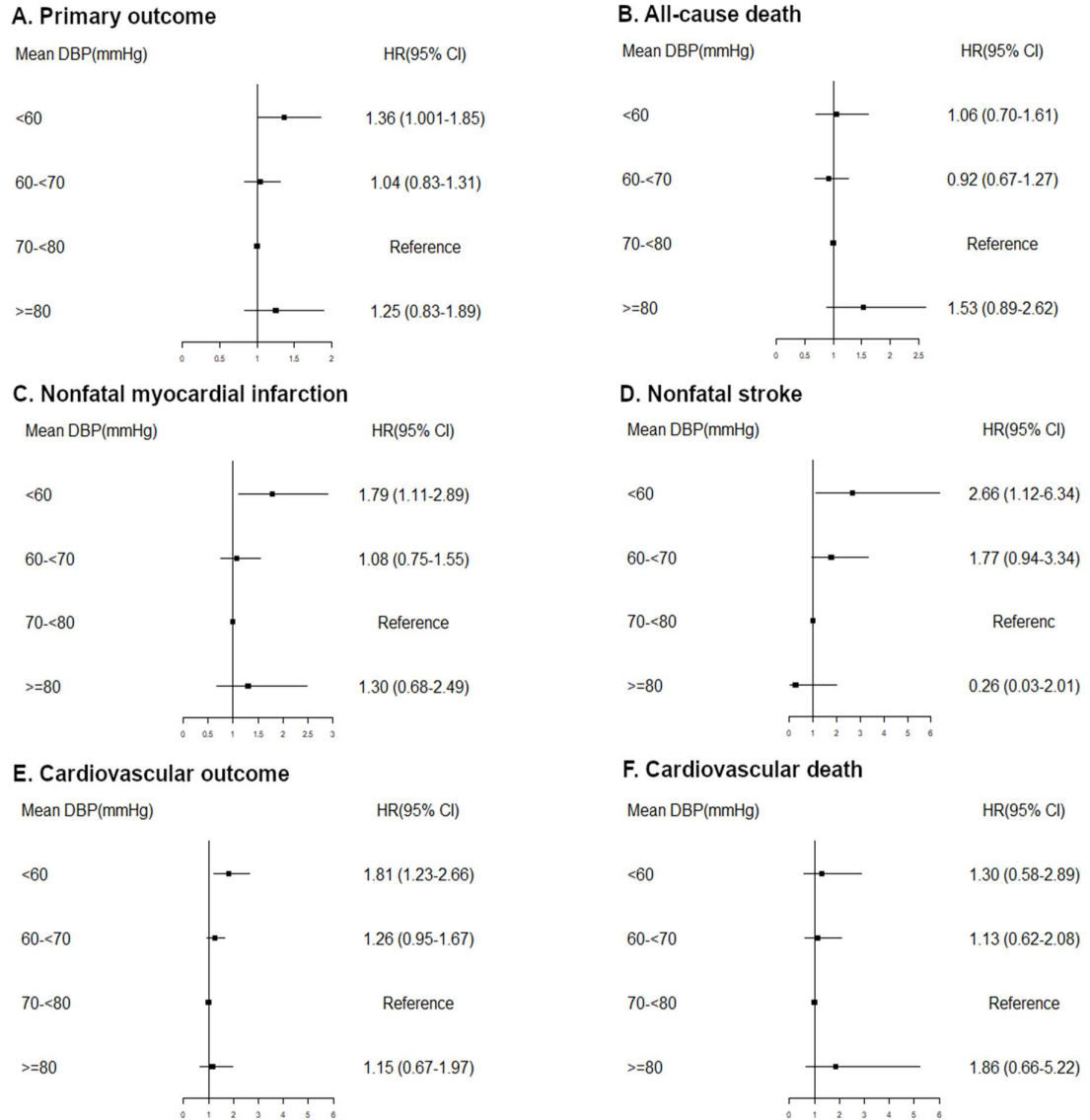
Primary outcome consisted of all-cause death, nonfatal myocardial infarction and nonfatal stroke. Cardiovascular outcome was composed of cardiovascular death, nonfatal myocardial infarction and nonfatal stroke. CI, confidence interval; DBP, diastolic blood pressure; HR, hazard ratios; SBP, systolic blood pressure.

Figure 3. Adjusted Hazard Ratios for Mean Achieved DBP and Outcomes at Achieved SBP of 110 to Less Than 130 mm Hg Using Integrated Data From SPRINT and ACCORD-BP



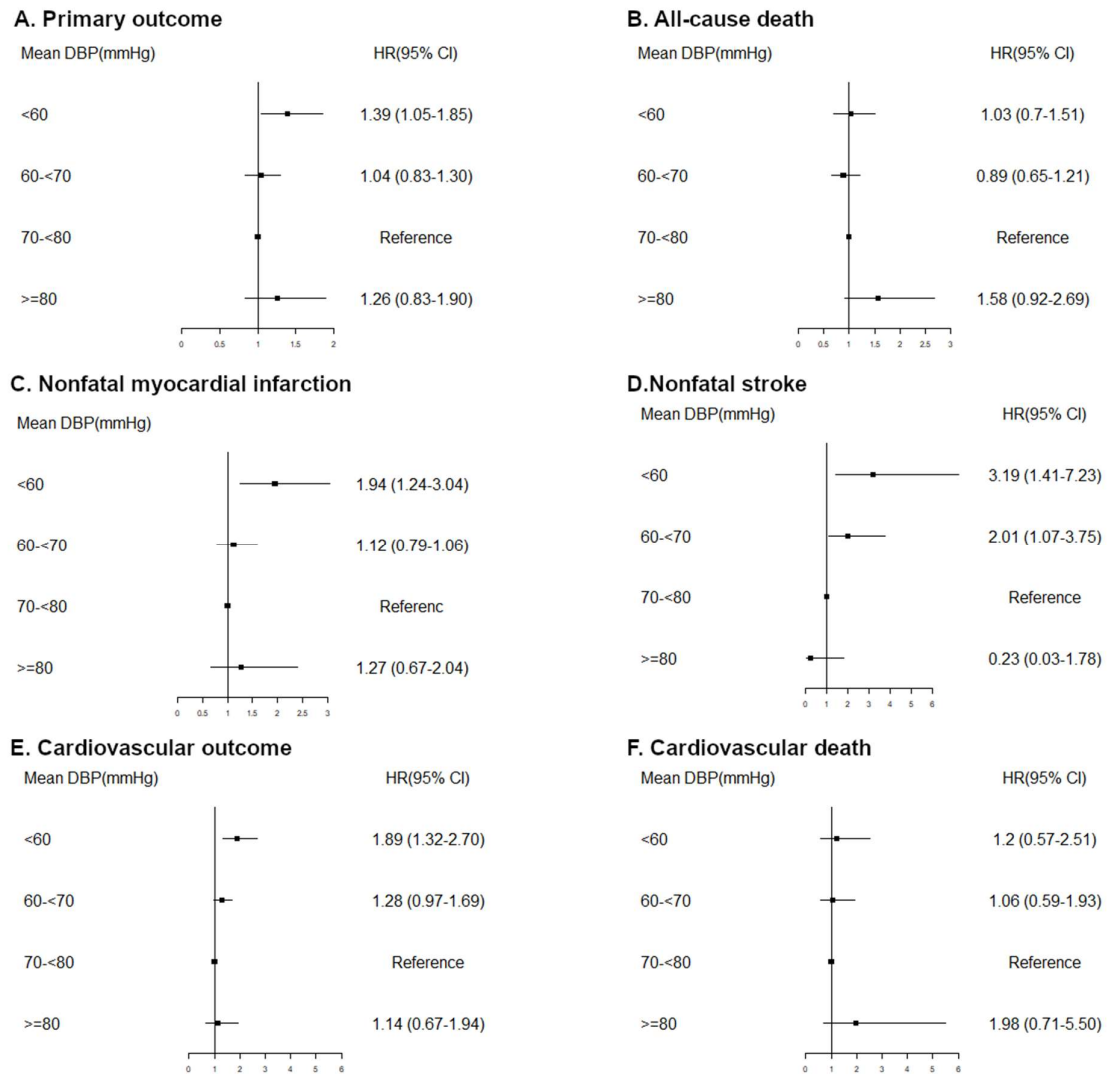
Primary outcome consisted of all-cause death, nonfatal myocardial infarction and nonfatal stroke. Cardiovascular outcome was composed of cardiovascular death, nonfatal myocardial infarction and nonfatal stroke. The reference is DBP value of 70 to <80mmHg. CI, confidence interval; DBP, diastolic blood pressure; HR, hazard ratios; SBP, systolic blood pressure.

eFigure 4. Adjusted Hazard Ratios for Mean Achieved DBP and Outcomes at Achieved SBP of Less Than 130 mm Hg Using Integrated Data From SPRINT and ACCORD-BP After Additional Adjustment of Baseline PP and Baseline DBP



Primary outcome consisted of all-cause death, nonfatal myocardial infarction and nonfatal stroke. Cardiovascular outcome was composed of cardiovascular death, nonfatal myocardial infarction and nonfatal stroke. The reference is DBP value of 70 to <80mmHg. CI, confidence interval; DBP, diastolic blood pressure; HR, hazard ratios; PP, pulse pressure; SBP, systolic blood pressure.

eFigure 5. Adjusted Hazard Ratios for Mean Achieved DBP and Outcomes at Achieved SBP of Less Than 130 mm Hg Using Integrated Data From SPRINT and ACCORD-BP After Additional Adjustment of Baseline PP, Baseline SBP, and Treated SBP



Primary outcome consisted of all-cause death, nonfatal myocardial infarction and nonfatal stroke. Cardiovascular outcome was composed of cardiovascular death, nonfatal myocardial infarction and nonfatal stroke. The reference is DBP value of 70 to <80mmHg. CI, confidence interval; DBP, diastolic blood pressure; HR, hazard ratios; PP, pulse pressure; SBP, systolic blood pressure.

eTable 1. Event Rates of the Primary and Secondary Outcomes Across Different Treated DBP Groups in Patients With Achieved SBP of Less Than 130 mm Hg

| DBP groups | <60mmHg | 60-<70mmHg | 70-<80mmHg | ≥80mmHg |
|-------------------------------------|-------------------|----------------------|----------------------|-----------------|
| Outcomes | (n=1244) | (n=3250) | (n=2545) | (n=476) |
| Primary outcome* | 168 (13.5) | 261 (8.0) | 149(5.9) | 29 (6.1) |
| All-cause death | 92 (7.4) | 138 (4.2) | 77(3.0) | 18 (3.8) |
| Nonfatal myocardial infarction | 72 (5.8) | 100 (3.1) | 61 (2.4) | 12 (2.5) |
| Nonfatal stroke | 20 (1.6) | 38 (1.2) | 18 (0.7) | 1 (0.2) |
| Cardiovascular outcome [#] | 111 (8.9) | 175 (5.4) | 92 (3.6) | 17 (3.6) |
| Cardiovascular death | 28 (2.3) | 41 (1.3) | 19 (0.7) | 5 (1.1) |

* Primary outcome was composed of all-cause death, nonfatal myocardial infarction and nonfatal stroke

[#] Cardiovascular outcome was composed of cardiovascular death, nonfatal myocardial infarction and nonfatal stroke.

DBP, diastolic blood pressure; SBP, systolic blood pressure.

Table 2. Adjusted Hazard Ratios for Mean Achieved DBP and Outcomes at Achieved SBP of Less Than 130 mm Hg in ACCORD-BP Trial in Intensive and Standard Glycemic Control Group

| Outcomes | Mean achieved DBP (mmHg) | Intensive glycemic control group, HR (95% CI) | Standard glycemic control group, HR (95% CI) |
|--------------------------------|--------------------------|---|--|
| Primary outcome* | < 60 | 1.18 (0.72, 1.96) | 1.38 (0.85, 2.24) |
| | 60-<70 | 0.91 (0.59, 1.39) | 1.02 (0.67, 1.53) |
| | 70-<80 | reference | Reference |
| | ≥80 | 1.14 (0.40, 3.28) | 0.99 (0.30, 3.25) |
| All-cause death | < 60 | 1.43 (0.70, 2.92) | 0.81(0.41, 1.60) |
| | 60-<70 | 1.07 (0.57, 2.03) | 0.64 (0.36, 1.15) |
| | 70-<80 | Reference | Reference |
| | ≥80 | 1.23 (0.27, 5.56) | 0.54 (0.07, 4.08) |
| Nonfatal myocardial infarction | < 60 | 0.94 (0.45, 1.98) | 2.51 (1.23, 5.11) |
| | 60-<70 | 0.66 (0.36, 1.22) | 1.31 (0.71, 2.45) |
| | 70-<80 | Reference | Reference |
| | ≥80 | 1.04 (0.23, 4.68) | 1.50 (0.34, 6.68) |
| Nonfatal stroke | < 60 | 1.24 (0.10, 15.13) | 2.32 (0.43, 12.44) |
| | 60-<70 | 4.45 (1.01, 19.61) | 2.52 (0.61, 10.32) |
| | 70-<80 | Reference | Reference |
| | ≥80 | 5.03 (0.42, 59.97) | - |
| Cardiovascular outcome# | < 60 | 1.30 (0.70, 2.41) | 2.03 (1.12, 3.67) |
| | 60-<70 | 1.04 (0.62, 1.72) | 1.34 (0.80, 2.23) |
| | 70-<80 | Reference | Reference |
| | ≥80 | 1.64 (0.55, 4.91) | 1.03 (0.24, 4.46) |
| Cardiovascular death | < 60 | 2.90 (0.72, 11.65) | 0.86 (0.24, 3.08) |
| | 60-<70 | 2.02 (0.55, 7.39) | 0.71 (0.25, 2.05) |
| | 70-<80 | Reference | Reference |
| | ≥80 | 7.13 (1.08, 47.23) | - |

* Primary outcome was composed of all-cause death, nonfatal myocardial infarction and nonfatal stroke

Cardiovascular outcome was composed of cardiovascular death, nonfatal myocardial infarction and nonfatal stroke.

CI, confidence interval; DBP, diastolic blood pressure; HR, hazard ratios; SBP, systolic blood pressure.

Table 3. Effects of Intensive SBP Control in SPRINT on the SPRINT Primary and Secondary Outcomes in Baseline DBP of Less Than 60 mm Hg and Baseline DBP of Greater Than 60 mm Hg Subgroup

| | Baseline DBP <60 mmHg (n=538) | Baseline DBP ≥60 mmHg (n=8823) | P for interaction |
|--|---|---------------------------------------|--------------------------|
| Primary outcome* | | | 0.784 |
| No.(%) of events | 52 (9.7) | 510 (5.8) | |
| HR (95% CI) | 0.96 (0.56, 1.66) | 0.74 (0.62, 0.88) | |
| All-cause death | | | 0.290 |
| No.(%) of events | 36 (6.7) | 329 (3.7) | |
| HR (95% CI) | 1.25 (0.65, 2.34) | 0.70 (0.56, 0.87) | |
| Cardiovascular death | | | 0.200 |
| No.(%) of events | 5(0.9) | 97 (1.1) | |
| HR (95% CI) | 1.69 (0.28, 10.12) | 0.53 (0.35, 0.81) | |
| Average on-treatment DBP (mmHg), mean (SD) | 58.8(7.7) | 72.4 (8.8) | - |
| On-treatment DBP <60 mmHg, n (%) | 316 (59.5) | 694(8.0) | - |

* SPRINT primary outcome, composed of myocardial infarction, other acute coronary syndromes, stroke, heart failure, or death from cardiovascular causes.

CI, confidence interval; DBP, diastolic blood pressure; HR, hazard ratios; SD, standard deviation.

eTable 4. Effects of Intensive SBP Control in ACCORD-BP on the ACCORD-BP Primary and Secondary Outcomes in Baseline DBP of Less Than 60 mm Hg and Baseline DBP of Greater Than 60 mm Hg Subgroup

| | Baseline DBP <60 mmHg (n=261) | Baseline DBP ≥60 mmHg (n= 4470) | P for interaction |
|---|---|--|--------------------------|
| Primary outcome* | | | 0.688 |
| No.(%) of events | 45 (17.2) | 400 (8.9) | |
| HR (95% CI) | 0.78 (0.43, 1.41) | 0.91 (0.74, 1.10) | |
| All-cause death | | | 0.226 |
| No.(%) of events | 36 (13.8) | 258 (5.8) | |
| HR (95% CI) | 2.00 (1.001, 4.00) | 1.00 (0.78, 1.27) | |
| Cardiovascular death | | | 0.175 |
| No.(%) of events | 18 (6.9) | 100 (2.2) | |
| HR (95% CI) | 1.25 (0.49, 3.16) | 1.04 (0.70, 1.54) | |
| Average on-treatment DBP(mmHg), mean (SD) | 58.91 (6.37) | 69.29 (7.68) | - |
| On-treatment DBP <60 mmHg, n (%) | 155 (59.8) | 513 (11.6) | - |

* ACCORD-BP primary outcome, composed of nonfatal myocardial infarction, nonfatal stroke, or death from cardiovascular causes.

CI, confidence interval; DBP, diastolic blood pressure; HR, hazard ratios; SD, standard deviation.

eTable 5. Percentage of Patients Who Achieved Treated DBP of Less Than 60 mm Hg Across Baseline DBP Quintiles in Both SPRINT and ACCORD-BP

| | Trial | Quintile 1 | Quintile 2 | Quintile 3 | Quintile 4 | Quintile 5 |
|-----------------------------|---------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Achieved DBP <60 mmHg | SPRINT | <68 mmHg | 68-74 mmHg | 75-80 mmHg | 81-87 mm Hg | ≥88 mm Hg |
| | | 672 (39.0) | 222 (11.9) | 78(4.4) | 30(1.6) | 8(0.4) |
| | ACCOR D-BP | <67 mmHg | 67-73 mmHg | 73-78 mmHg | 78-85 mmHg | >85 mmHg |
| | | 385 (44.7) | 150 (16.6) | 67 (7.5) | 51(4.6) | 15 (1.6) |

DBP, diastolic blood pressure