Supplemental Materials

BLOOD PRESSURE, ANTIHYPERTENSIVE POLYPHARMACY, FRAILTY, AND RISK FOR SERIOUS FALL INJURIES AMONG OLDER TREATED ADULTS WITH HYPERTENSION

Short Title: BP, Frailty, and Risk for Falls

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Table S1. Variables with missing data that were imputed in this analysis.

Table S2. Characteristics of REasons for Geographic And Racial Difference in Stroke (REGARDS)-Medicare linked study participants ≥ 65 years of age, taking antihypertensive medication by systolic blood pressure.

Table S3. Characteristics of REasons for Geographic And Racial Difference in Stroke (REGARDS)-Medicare linked study participants ≥ 65 years of age, taking antihypertensive medication by diastolic blood pressure.

Table S4. Characteristics of REasons for Geographic And Racial Difference in Stroke (REGARDS)-Medicare linked study participants ≥ 65 years of age, taking antihypertensive medication by number of antihypertensive medication classes being taken at baseline.

Table S5. Incidence rates and hazard ratios for serious fall injuries by systolic blood pressure.

Table S6. Incidence rates and hazard ratios for serious fall injuries by diastolic blood pressure.

Table S7. Incidence rates and hazard ratios for serious fall injuries by number of antihypertensive medication classes being taken at baseline.

Table S8. Incidence rates and hazard ratios for serious fall injuries by number of indicators of frailty.

Table S9. Incidence rates and hazard ratios for serious fall injuries by systolic blood pressure, diastolic blood pressure, number of antihypertensive medication classes being taken at baseline and number of indicators of frailty among REGARDS-Medicare linked study participants ≥75 years of age taking antihypertensive medication (n=1,912).

Table S10. Hazard ratios for serious fall injuries associated with systolic blood pressure, diastolic blood pressure, and number of antihypertensive medication classes being taken at baseline, stratified by number of indicators of frailty.

Table S11. Hazard ratios for serious fall injuries associated with individual indicators of frailty.

Figure S1. Exclusion Criteria for REGARDS-Medicare Linked Falls Analysis
Table S1. Variables with missing data that were imputed in this analysis.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Missing n (%)</th>
</tr>
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<tbody>
<tr>
<td>Less than a High School Education</td>
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<td>Household Income &lt;$20,000</td>
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<td>Current Smoking</td>
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<tr>
<td>Coronary Heart Disease</td>
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</tr>
<tr>
<td>Stroke</td>
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<tr>
<td>Diabetes</td>
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<tr>
<td>Cognitive Impairment</td>
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<td>Depressive symptoms</td>
<td>35 (0.7)</td>
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<tr>
<td>Low body mass index</td>
<td>19 (0.4)</td>
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<tr>
<td>Exhaustion</td>
<td>2 (0.04)</td>
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<tr>
<td>Impaired Mobility</td>
<td>1 (0.02)</td>
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<tr>
<td>History of falls</td>
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</tr>
<tr>
<td>Albumin to Creatinine Ratio</td>
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Table S2. Characteristics of REasons for Geographic And Racial Difference in Stroke (REGARDS)-Medicare linked study participants ≥ 65 years of age, taking antihypertensive medication by systolic blood pressure.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Systolic Blood Pressure, mmHg</th>
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<tr>
<td></td>
<td>&lt;110 (n=286)</td>
</tr>
<tr>
<td></td>
<td>110-119 (n=741)</td>
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<td>120-129 (n=1,354)</td>
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<td>Women</td>
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<td>Mean SBP, mmHg</td>
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<td>18.9</td>
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<tr>
<td>Exhaustion</td>
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<tr>
<td>Impaired mobility</td>
<td>18.5</td>
</tr>
<tr>
<td>History of falls</td>
<td>10.8</td>
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</tbody>
</table>

Numbers in this table are percentage or mean (standard deviation) except for ACR, which is the geometric mean (95% confidence interval) and number of antihypertensive medications is the median (interquartile range).

ACR: Urine Albumin to Creatinine Ratio; BMI: Body mass index; DBP: Diastolic Blood Pressure; SBP: Systolic Blood Pressure.
Table S3. Characteristics of REasons for Geographic And Racial Difference in Stroke (REGARDS)-Medicare linked study participants ≥ 65 years of age, taking antihypertensive medication by diastolic blood pressure.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Diastolic Blood Pressure, mmHg</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>&lt;60 (n=206)</td>
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<tr>
<td>Age, years</td>
<td>74.8 (6.2)</td>
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<td>Women</td>
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<td>Black</td>
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<td>Household income &lt; $20,000</td>
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<td>Stroke belt</td>
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<td>Stroke buckle</td>
<td>23.3</td>
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<tr>
<td>Non-belt</td>
<td>40.8</td>
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<tr>
<td>Current smoker</td>
<td>10.2</td>
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<tr>
<td>Mean SBP, mmHg</td>
<td>119.4 (17.7)</td>
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<tr>
<td>Mean DBP, mmHg</td>
<td>55.7 (4.1)</td>
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<tr>
<td>Classes of antihypertensive medications</td>
<td>2 (2-3)</td>
</tr>
<tr>
<td>Coronary heart disease</td>
<td>33.2</td>
</tr>
<tr>
<td>Stroke</td>
<td>12.1</td>
</tr>
<tr>
<td>Diabetes</td>
<td>39.0</td>
</tr>
<tr>
<td>ACR, mg/g</td>
<td>14.4 (11.8-17.7)</td>
</tr>
<tr>
<td>Osteoporosis medication use</td>
<td>12.6</td>
</tr>
<tr>
<td>Benzodiazepine use</td>
<td>7.8</td>
</tr>
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<td>Statin use</td>
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<td>Indicators of frailty</td>
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<td>Cognitive impairment</td>
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<tr>
<td>Exhaustion</td>
<td>27.2</td>
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<tr>
<td>Impaired mobility</td>
<td>27.2</td>
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<tr>
<td>History of falls</td>
<td>8.7</td>
</tr>
</tbody>
</table>

Numbers in this table are percentage or mean (standard deviation) except for ACR, which is the geometric mean (95% confidence interval) and number of antihypertensive medications is the median (interquartile range).

ACR: Urine Albumin to Creatinine Ratio; BMI: Body mass index; DBP: Diastolic Blood Pressure; SBP: Systolic Blood Pressure.
Table S4. Characteristics of REasons for Geographic And Racial Difference in Stroke (REGARDS)-Medicare linked study participants ≥ 65 years of age, taking antihypertensive medication by number of antihypertensive medication classes being taken at baseline.

<table>
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<th>Number of Antihypertensive Medication Classes at Baseline</th>
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<tr>
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<td>Age, years</td>
<td>72.8 (5.8)</td>
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<td>Women</td>
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<td>Black</td>
<td>32.7</td>
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<td>Less than a high school education</td>
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<td>Household income &lt; $20,000</td>
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<td>Non-belt</td>
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<td>Current smoker</td>
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<td>Mean SBP, mmHg</td>
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<tr>
<td>Mean DBP, mmHg</td>
<td>76.9 (9.1)</td>
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<td>Classes of antihypertensive medications</td>
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<td>Coronary heart disease</td>
<td>22.6</td>
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<td>Stroke</td>
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<td>ACR, mg/g</td>
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<tr>
<td>History of falls</td>
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</tbody>
</table>

Numbers in this table are percentage or mean (standard deviation) except for ACR, which is the geometric mean (95% confidence interval) and number of antihypertensive medications is the median (interquartile range).

ACR: Urine Albumin to Creatinine Ratio; BMI: Body mass index; DBP: Diastolic Blood Pressure; SBP: Systolic Blood Pressure.
Table S5. Incidence rates and hazard ratios for serious fall injuries by systolic blood pressure.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Systolic Blood Pressure, mmHg</th>
<th>p-trend</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>&lt;110 (n = 286)</td>
<td>110-119 (n = 741)</td>
<td>120-129 (n = 1,354)</td>
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<td>Incidence rate* (95% CI)</td>
<td>23.4 (16.2-30.7)</td>
<td>25.3 (20.7-29.9)</td>
<td>23.7 (20.4-27.0)</td>
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<td>Hazard ratio (95% CI)</td>
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<tr>
<td>Model 1</td>
<td>1.02 (0.73-1.44)</td>
<td>1.04 (0.83-1.31)</td>
<td>1 (ref)</td>
</tr>
<tr>
<td>Model 2</td>
<td>1.01 (0.72-1.43)</td>
<td>1.03 (0.82-1.30)</td>
<td>1 (ref)</td>
</tr>
<tr>
<td>Model 3</td>
<td>0.99 (0.70-1.39)</td>
<td>1.04 (0.83-1.31)</td>
<td>1 (ref)</td>
</tr>
</tbody>
</table>

CI – confidence interval
* Incidence per 1,000 person-years.
Model 1 includes adjustment for age, sex, race, and region of residence.
Model 2 includes variables in Model 1 and education, income, cigarette smoking, statin use, osteoporosis medication use, benzodiazepine use, albumin to creatinine ratio, diabetes, history of heart disease, and history of stroke.
Model 3 includes variables in Models 1 and 2 and indicators of frailty (low body mass index, depressive symptoms, cognitive impairment, impaired mobility, exhaustion, and history of falls).
Linear p-trend represents the p-value for a linear trend across the systolic blood pressure categories.
Quadratic p-trend represents the p-value for a deviation from linearity across the systolic blood pressure categories.
Table S6. Incidence rates and hazard ratios for serious fall injuries by diastolic blood pressure.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Diastolic Blood Pressure, mmHg</th>
<th>p-trend</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;60 (n = 206)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>60-69 (n = 1,004)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>70-79 (n = 2,044)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>80-89 (n = 1,599)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>≥ 90 (n = 383)</td>
<td></td>
</tr>
<tr>
<td>Incidence rate* (95% CI)</td>
<td>29.5 (19.8-39.3)</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>32.1 (27.5-36.7)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>23.0 (20.3-25.6)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>24.0 (20.9-27.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>26.8 (19.9-33.8)</td>
<td></td>
</tr>
<tr>
<td>Hazard ratio (95% CI)</td>
<td>1.13 (0.79-1.61)</td>
<td>0.53</td>
</tr>
<tr>
<td></td>
<td>1.32 (1.10-1.59)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 (ref)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.12 (0.94-1.33)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.36 (1.03-1.82)</td>
<td></td>
</tr>
<tr>
<td>Model 1</td>
<td>1.07 (0.75-1.53)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.32 (1.10-1.59)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 (ref)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.11 (0.93-1.32)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.26 (0.95-1.68)</td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td>1.06 (0.74-1.51)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.32 (1.10-1.59)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 (ref)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.11 (0.93-1.32)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.28 (0.96-1.70)</td>
<td></td>
</tr>
<tr>
<td>Model 3</td>
<td>1.06 (0.74-1.51)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.32 (1.10-1.59)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 (ref)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.11 (0.93-1.32)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.28 (0.96-1.70)</td>
<td></td>
</tr>
</tbody>
</table>

CI – confidence interval

* Incidence per 1,000 person-years.

Model 1 includes adjustment for age, sex, race, and region of residence.

Model 2 includes variables in Model 1 and education, income, cigarette smoking, statin use, osteoporosis medication use, benzodiazepine use, albumin to creatinine ratio, diabetes, history of heart disease, and history of stroke.

Model 3 includes variables in Models 1 and 2 and indicators of frailty (low body mass index, depressive symptoms, cognitive impairment, impaired mobility, exhaustion, and history of falls).

Linear p-trend represents the p-value for a linear trend across the diastolic blood pressure categories.

Quadratic p-trend represents the p-value for a deviation from linearity across the diastolic blood pressure categories.
Table S7. Incidence rates and hazard ratios for serious fall injuries by number of antihypertensive medication classes being taken at baseline.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Number of Antihypertensive Medication Classes at baseline</th>
<th>p-trend</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 (n = 1,471)</td>
<td></td>
</tr>
<tr>
<td>Incidence rate* (95% CI)</td>
<td>24.8 (21.6-28.0)</td>
<td>0.22 (linear) 0.27 (quadratic)</td>
</tr>
<tr>
<td>2 (n = 1,977)</td>
<td>25.0 (22.2-27.9)</td>
<td></td>
</tr>
<tr>
<td>3 (n = 1,216)</td>
<td>24.8 (21.1-28.5)</td>
<td></td>
</tr>
<tr>
<td>≥4 (n = 572)</td>
<td>30.4 (24.4-36.5)</td>
<td></td>
</tr>
<tr>
<td>Hazard ratio (95% CI)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 1</td>
<td>1.07 (0.90-1.27)</td>
<td></td>
</tr>
<tr>
<td>1 (ref)</td>
<td>1.06 (0.87-1.29)</td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td>1.03 (0.87-1.23)</td>
<td></td>
</tr>
<tr>
<td>1 (ref)</td>
<td>1.00 (0.82-1.22)</td>
<td></td>
</tr>
<tr>
<td>Model 3</td>
<td>1.04 (0.88-1.24)</td>
<td></td>
</tr>
<tr>
<td>1 (ref)</td>
<td>0.99 (0.81-1.21)</td>
<td></td>
</tr>
</tbody>
</table>

CI – confidence interval
* Incidence per 1,000 person-years.
Model 1 includes adjustment for age, sex, race, and region of residence.
Model 2 includes variables in Model 1 and education, income, cigarette smoking, statin use, osteoporosis medication use, benzodiazepine use, albumin to creatinine ratio, diabetes, history of heart disease, and history of stroke.
Model 3 includes variables in Models 1 and 2 and indicators of frailty (low body mass index, depressive symptoms, cognitive impairment, impaired mobility, exhaustion, and history of falls).
Linear p-trend represents the p-value for a linear trend across the number of antihypertensive medication classes being taken at baseline categories.
Quadratic p-trend represents the p-value for a deviation from linearity across the number of antihypertensive medication classes being taken at baseline categories.
Table S8. Incidence rates and hazard ratios for serious fall injuries by number of indicators of frailty.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Number of indicators of frailty</th>
<th>p-trend</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 (n = 2,919)</td>
<td>1 (n = 1,391)</td>
<td>2 (n = 618)</td>
</tr>
<tr>
<td>Incidence rate* (95% CI)</td>
<td>20.8 (18.7-22.8)</td>
<td>26.6 (22.9-30.2)</td>
<td>39.5 (32.0-46.9)</td>
</tr>
<tr>
<td>Hazard ratio (95% CI)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 1</td>
<td>1 (ref)</td>
<td>1.26 (1.06-1.50)</td>
<td>1.71 (1.38-2.13)</td>
</tr>
<tr>
<td>Model 2</td>
<td>1 (ref)</td>
<td>1.18 (0.99-1.41)</td>
<td>1.49 (1.19-1.87)</td>
</tr>
<tr>
<td>Model 3</td>
<td>1 (ref)</td>
<td>1.18 (0.99-1.40)</td>
<td>1.49 (1.19-1.87)</td>
</tr>
</tbody>
</table>

CI – confidence interval
* Incidence per 1,000 person-years.
Model 1 includes adjustment for age, sex, race, and region of residence.
Model 2 includes variables in Model 1 and education, income, cigarette smoking, statin use, osteoporosis medication use, benzodiazepine use, albumin to creatinine ratio, diabetes, history of heart disease, and history of stroke.
Model 3 includes variables in Models 1 and 2, systolic blood pressure, diastolic blood pressure, and number of antihypertensive medication classes being taken at baseline.
Linear p-trend represents the p-value for a linear trend across the number of indicators of frailty categories.
Quadratic p-trend represents the p-value for a deviation from linearity across the number of indicators of frailty categories.
Table S9. Incidence rates and hazard ratios for serious fall injuries by systolic blood pressure, diastolic blood pressure, number of antihypertensive medication classes being taken at baseline and number of indicators of frailty among REGARDS-Medicare linked study participants ≥75 years of age taking antihypertensive medication (n=1,912).

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Systolic Blood Pressure, mmHg</th>
<th>p-trend</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;110 (n = 94)</td>
<td>110-119 (n = 266)</td>
</tr>
<tr>
<td>Incidence rate* (95% CI)</td>
<td>34.4 (18.0-50.7)</td>
<td>37.1 (27.3-46.8)</td>
</tr>
<tr>
<td>Hazard ratio (95% CI)</td>
<td>0.93 (0.56-1.56)</td>
<td>0.96 (0.69-1.34)</td>
</tr>
<tr>
<td>Model 1</td>
<td>0.90 (0.54-1.52)</td>
<td>0.99 (0.71-1.38)</td>
</tr>
<tr>
<td>Model 2</td>
<td>0.88 (0.52-1.49)</td>
<td>0.99 (0.71-1.38)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Diastolic Blood Pressure, mmHg</th>
<th>&lt;60 (n = 101)</th>
<th>60-69 (n = 433)</th>
<th>70-79 (n = 739)</th>
<th>80-89 (n = 521)</th>
<th>≥ 90 (n = 118)</th>
<th>linear</th>
<th>quadratic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incidence rate* (95% CI)</td>
<td>47.5 (28.9-66.1)</td>
<td>42.8 (34.5-51.0)</td>
<td>34.6 (28.8-40.4)</td>
<td>34.9 (28.1-41.7)</td>
<td>40.7 (24.1-57.4)</td>
<td>0.14</td>
<td>0.16</td>
</tr>
<tr>
<td>Hazard ratio (95% CI)</td>
<td>1.30 (0.85-2.00)</td>
<td>1.22 (0.94-1.57)</td>
<td>1 (ref)</td>
<td>1.02 (0.79-1.31)</td>
<td>1.30 (0.83-2.02)</td>
<td>0.29</td>
<td>0.12</td>
</tr>
<tr>
<td>Model 1</td>
<td>1.25 (0.81-1.93)</td>
<td>1.22 (0.95-1.59)</td>
<td>1 (ref)</td>
<td>1.01 (0.78-1.31)</td>
<td>1.21 (0.77-1.90)</td>
<td>0.25</td>
<td>0.23</td>
</tr>
<tr>
<td>Model 2</td>
<td>1.22 (0.79-1.89)</td>
<td>1.22 (0.94-1.58)</td>
<td>1 (ref)</td>
<td>1.00 (0.77-1.29)</td>
<td>1.17 (0.74-1.85)</td>
<td>0.23</td>
<td>0.31</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Antihypertensive Medication Classes at Baseline</th>
<th>1 (n = 533)</th>
<th>2 (n = 705)</th>
<th>3 (n = 471)</th>
<th>≥4 (n = 203)</th>
<th>linear</th>
<th>quadratic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incidence rate* (95% CI)</td>
<td>36.7 (30.0-43.4)</td>
<td>37.9 (31.7-44.1)</td>
<td>34.4 (27.0-41.7)</td>
<td>46.6 (33.2-60.1)</td>
<td>0.49</td>
<td>0.36</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------------</td>
<td>------------------</td>
<td>------------------</td>
<td>------------------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td><strong>Hazard ratio (95% CI)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (ref)</td>
<td>1.08 (0.85-1.38)</td>
<td>1.00 (0.75-1.33)</td>
<td>1.45 (1.03-2.05)</td>
<td>0.16</td>
<td>0.33</td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (ref)</td>
<td>1.06 (0.83-1.36)</td>
<td>0.98 (0.74-1.31)</td>
<td>1.38 (0.96-1.97)</td>
<td>0.27</td>
<td>0.35</td>
<td></td>
</tr>
<tr>
<td>Model 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (ref)</td>
<td>1.08 (0.85-1.39)</td>
<td>0.99 (0.74-1.31)</td>
<td>1.43 (1.00-2.05)</td>
<td>0.23</td>
<td>0.36</td>
<td></td>
</tr>
<tr>
<td>Number of indicators of frailty</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 (n =927)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incidence rate* (95% CI)</td>
<td>31.7 (27.0-36.5)</td>
<td>37.3 (30.0-44.7)</td>
<td>49.6 (36.9-62.2)</td>
<td>67.5 (45.3-89.7)</td>
<td>&lt;0.001</td>
<td>0.50</td>
</tr>
<tr>
<td>1 (n = 563)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 (n = 289)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 (n = 133)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hazard ratio (95% CI)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (ref)</td>
<td>1.24 (0.96-1.60)</td>
<td>1.52 (1.12-2.06)</td>
<td>2.18 (1.50-3.16)</td>
<td>&lt;0.001</td>
<td>0.62</td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (ref)</td>
<td>1.17 (0.90-1.52)</td>
<td>1.39 (1.01-1.90)</td>
<td>1.94 (1.32-2.85)</td>
<td>&lt;0.001</td>
<td>0.54</td>
<td></td>
</tr>
<tr>
<td>Model 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (ref)</td>
<td>1.17 (0.90-1.52)</td>
<td>1.40 (1.02-1.93)</td>
<td>1.94 (1.32-2.84)</td>
<td>&lt;0.001</td>
<td>0.53</td>
<td></td>
</tr>
</tbody>
</table>

**CI** – confidence interval
* Incidence per 1,000 person-years.
Model 1 includes adjustment for age, sex, race, and region of residence.
Model 2 includes variables in Model 1 and education, income, cigarette smoking, statin use, osteoporosis medication use, benzodiazepine use, albumin to creatinine ratio, diabetes, history of heart disease, and history of stroke.
Model 3 includes variables in Models 1 and 2 and indicators of frailty (low body mass index, depressive symptoms, cognitive impairment, impaired mobility, exhaustion, and history of falls).
Table S10. Hazard ratios for serious fall injuries associated with systolic blood pressure, diastolic blood pressure, and number of antihypertensive medication classes being taken at baseline, stratified by number of indicators of frailty.

<table>
<thead>
<tr>
<th>Indicators of frailty</th>
<th>Systolic Blood Pressure, mmHg</th>
<th>p-trend</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;110 (n = 286)</td>
<td>110-119 (n = 741)</td>
</tr>
<tr>
<td></td>
<td>Hazard ratio (95% CI)</td>
<td>0.91 (0.56-1.48)</td>
</tr>
<tr>
<td>0</td>
<td>1.24 (0.60-2.55)</td>
<td>1.68 (1.07-2.63)</td>
</tr>
<tr>
<td>1</td>
<td>0.99 (0.51-1.94)</td>
<td>0.73 (0.45-1.19)</td>
</tr>
<tr>
<td>≥ 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Diastolic Blood Pressure, mmHg</th>
<th>&lt;60 (n = 206)</th>
<th>60-69 (n = 1,004)</th>
<th>70-79 (n = 2,044)</th>
<th>80-89 (n = 1,599)</th>
<th>≥ 90 (n = 383)</th>
<th>Hazard ratio (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1.26 (0.73-2.15)</td>
<td>1.44 (1.11-1.88)</td>
<td>1 (ref)</td>
<td>1.15 (0.90-1.47)</td>
<td>1.11 (0.72-1.71)</td>
<td>0.13</td>
</tr>
<tr>
<td>1</td>
<td>0.70 (0.32-1.54)</td>
<td>1.16 (0.79-1.71)</td>
<td>1 (ref)</td>
<td>0.93 (0.66-1.32)</td>
<td>1.43 (0.83-2.46)</td>
<td>0.76</td>
</tr>
<tr>
<td>≥ 2</td>
<td>1.10 (0.59-2.05)</td>
<td>1.28 (0.86-1.90)</td>
<td>1 (ref)</td>
<td>1.18 (0.82-1.69)</td>
<td>1.39 (0.78-2.47)</td>
<td>0.92</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Antihypertensive Medication Classes at Baseline</th>
<th>1 (n = 1,471)</th>
<th>2 (n = 1,977)</th>
<th>3 (n = 1,216)</th>
<th>≥ 4 (n = 572)</th>
<th>Hazard ratio (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1 (ref)</td>
<td>1.01 (0.79-1.28)</td>
<td>0.82 (0.61-1.10)</td>
<td>1.26 (0.89-1.79)</td>
<td>0.88</td>
</tr>
<tr>
<td>1</td>
<td>0.90 (0.63-1.30)</td>
<td>1.11 (0.75-1.64)</td>
<td>1.06 (0.66-1.72)</td>
<td>0.58</td>
<td>0.68</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>≥ 2</td>
<td>1 (ref)</td>
<td>1.26</td>
<td>1.28</td>
<td>1.36</td>
<td>0.21</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.86-1.87)</td>
<td>(0.84-1.94)</td>
<td>(0.83-2.23)</td>
<td></td>
</tr>
</tbody>
</table>

Indicators of frailty include low body mass index, cognitive impairment, depressive symptoms, exhaustion, impaired mobility, and history of falls (defined in **Table 1**).

CI – confidence interval

Hazard ratios are adjusted for age, sex, race, region of residence, education, income, cigarette smoking, statin use, osteoporosis medication use, benzodiazepine use, albumin to creatinine ratio, diabetes, history of heart disease, and history of stroke.
Table S11. Hazard ratios for serious fall injuries associated with individual indicators of frailty.

<table>
<thead>
<tr>
<th>Indicator of frailty</th>
<th>Total participants</th>
<th>Injury falls (%)</th>
<th>Hazard ratio (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Model 1</td>
</tr>
<tr>
<td><strong>Body Mass Index, kg/m²</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥18.5</td>
<td>5,190</td>
<td>791 (15.2)</td>
<td>1 (ref)</td>
</tr>
<tr>
<td>&lt;18.5</td>
<td>46</td>
<td>11 (23.9)</td>
<td>1.44 (0.79-2.62)</td>
</tr>
<tr>
<td><strong>Cognitive Impairment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>4,663</td>
<td>702 (15.1)</td>
<td>1 (ref)</td>
</tr>
<tr>
<td>Yes</td>
<td>573</td>
<td>100 (17.5)</td>
<td>1.46 (1.14-1.87)</td>
</tr>
<tr>
<td><strong>Depressive Symptoms</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>4,714</td>
<td>700 (14.8)</td>
<td>1 (ref)</td>
</tr>
<tr>
<td>Yes</td>
<td>522</td>
<td>102 (19.5)</td>
<td>1.51 (1.22-1.86)</td>
</tr>
<tr>
<td><strong>Exhaustion</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>4,372</td>
<td>633 (14.5)</td>
<td>1 (ref)</td>
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<tr>
<td>Yes</td>
<td>864</td>
<td>169 (19.6)</td>
<td>1.51 (1.27-1.79)</td>
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<tr>
<td><strong>Impaired Mobility</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>4,124</td>
<td>616 (14.9)</td>
<td>1 (ref)</td>
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<tr>
<td>Yes</td>
<td>1,112</td>
<td>186 (16.7)</td>
<td>1.24 (1.05-1.46)</td>
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<tr>
<td><strong>History of Falls</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>4,750</td>
<td>676 (14.2)</td>
<td>1 (ref)</td>
</tr>
<tr>
<td>Yes</td>
<td>486</td>
<td>126 (25.9)</td>
<td>2.19 (1.81-2.65)</td>
</tr>
</tbody>
</table>

CI – confidence interval
Hazard ratios adjust for age, sex, race, region of residence, education, income, cigarette smoking, statin use, osteoporosis medication use, benzodiazepine use, albumin to creatinine ratio, diabetes, history of heart disease, history of stroke, systolic blood pressure, diastolic blood pressure, and number of antihypertensive medication classes being taken at baseline.
Figure S1. Exclusion Criteria for REGARDS-Medicare Linked Falls Analysis