

## Supplementary Online Content

Hajduk AM, Murphy TE, Geda ME, et al. Association between mobility measured during hospitalization and functional outcomes in older adults with acute myocardial infarction in the SILVER-AMI study. *JAMA Intern Med*. Published online October 7, 2019. doi:10.1001/jamainternmed.2019.4114

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

**eTable 1A.** Multivariable-Adjusted Odds Ratios for Risk of ADL Decline After AMI

Variable	Odds Ratio (95% CI)
<b>Mobility impairment (Timed Up and Go)</b>	
Preserved mobility ( $\leq 15$ seconds)	Reference
>15 to <25 seconds	1.24 (0.74-2.09)
$\geq 25$ seconds	<b>2.67 (1.67-4.27)</b>
Unable to complete	<b>5.45 (3.29-9.01)</b>
<b>Demographics</b>	
Age, per year	<b>1.03 (1.00-1.06)</b>
Sex, male	0.78 (0.56-1.09)
Race, nonwhite	1.32 (0.86-2.04)
Education $\leq 12$ years	0.88 (0.66-1.17)
Marital status, married	0.97 (0.66-1.41)
Cohabitation status, alone	0.75 (0.53-1.06)
<b>Medical History</b>	
Hypertension	1.13 (0.72-1.75)
Prior AMI	0.87 (0.61-1.25)
Prior revascularization	0.90 (0.65-1.26)
Arrhythmia	<b>1.46 (1.07-1.99)</b>
Heart failure	1.34 (0.93-1.95)
Stroke	1.28 (0.88-1.85)
Peripheral artery disease	0.83 (0.53-1.30)
Chronic kidney disease	0.96 (0.69-1.32)
Diabetes	1.03 (0.75-1.41)
Cancer	0.71 (0.44-1.15)
Charlson Comorbidity Score (per point increase)	1.07 (0.97-1.18)
<b>Hospitalization characteristics</b>	
AMI type, STEMI	1.09 (0.76-1.56)
Peak troponin, ratio of upper limit of normal <sup>a</sup>	1.00 (1.00-1.00)
Revascularization	<b>0.81 (0.69-0.96)</b>
Complication- acute kidney injury	1.01 (0.72-1.41)
Complication- arrhythmia	1.07 (0.73-1.56)
Complication- bleed	0.95 (0.67-1.35)
Complication- heart failure	0.96 (0.65-1.42)
Discharge location, not home	<b>1.25 (1.04-1.51)</b>
<b>Geriatric Factors</b>	
Impairment in ADLs <sup>b</sup> or $\frac{1}{4}$ mile mobility prior to AMI	<b>1.42 (1.05-1.92)</b>
Hearing impairment <sup>c</sup>	1.02 (0.86-1.21)
Vision impairment <sup>d</sup>	0.98 (0.83-1.15)
Weak grip strength <sup>e</sup>	1.12 (0.82-1.53)
Cognitive impairment <sup>f</sup>	1.15 (0.80-1.65)
<b>Psychosocial/Lifestyle Factors</b>	
Current/Ever smoker	0.83 (0.62-1.11)
High depressive symptoms <sup>g</sup>	<b>1.72 (1.20-2.47)</b>
Social support <sup>h</sup> (per point increase)	1.00 (0.97-1.03)

<sup>a</sup>Ratio to upper limit of normal at recruitment site <sup>b</sup>Essential activities of daily living (bathing, dressing, transferring, walking) <sup>c</sup>Responses of “a lot” or “a moderate amount” to the question, “How much does your hearing interfere with normal day-to-day activities?” from the Cognitive Function and Ageing Studies<sup>33</sup>; <sup>d</sup>Responses of “poor,” “very poor,” or “completely blind” to select questions about vision from the National Eye Institute Visual Function Questionnaire<sup>34</sup> <sup>e</sup><18.5 kg for women and <28.5 kg for men on best of three grip tests via dynamometer <sup>f</sup>Score <27 on the Telephone Interview for Cognitive Status<sup>35</sup> <sup>g</sup>Score of  $\geq 10$  on the Patient Health Questionnaire-8<sup>64</sup> <sup>h</sup>5-item Medical Outcomes Study- Social Support Survey<sup>37</sup> note: statistically significant estimates are **bolded**

**eTable 1B.** Multivariable-Adjusted Odds Ratios for Risk of Decline in ¼-Mile Mobility After AMI

Variable	Odds Ratio (95% CI)
<b>Mobility impairment (Timed Up and Go)</b>	
Preserved mobility ( $\leq 15$ seconds)	Reference
>15 to <25 seconds	<b>1.51 (1.04-2.20)</b>
$\geq 25$ seconds	<b>2.03 (1.37-3.02)</b>
Unable to complete	<b>3.25 (2.02-5.23)</b>
<b>Demographics</b>	
Age, per year	<b>1.03 (1.00-1.06)</b>
Sex, male	<b>0.47 (0.35-0.64)</b>
Race, nonwhite	1.35 (0.88-2.07)
Education $\leq 12$ years	1.21 (0.93-1.58)
Marital status, married	1.16 (0.81-1.65)
Cohabitation status, alone	1.00 (0.71-1.41)
<b>Medical History</b>	
Hypertension	1.13 (0.78-1.66)
Prior AMI	0.72 (0.50-1.02)
Prior revascularization	1.07 (0.79-1.47)
Arrhythmia	1.23 (0.89-1.69)
Heart failure	1.27 (0.83-1.92)
Stroke	1.22 (0.83-1.81)
Peripheral artery disease	0.91 (0.58-1.45)
Chronic kidney disease	0.75 (0.56-1.00)
Diabetes	<b>1.95 (1.45-2.62)</b>
Cancer	0.78 (0.50-1.24)
Charlson Comorbidity Score (per point increase)	1.06 (0.96-1.16)
<b>Hospitalization characteristics</b>	
AMI type, STEMI	0.83 (0.61-1.13)
Peak troponin, ratio of upper limit of normal <sup>a</sup>	1.00 (1.00-1.00)
Revascularization	<b>0.74 (0.62-0.87)</b>
Complication- acute kidney injury	<b>1.50 (1.08-2.08)</b>
Complication- arrhythmia	0.94 (0.66-1.33)
Complication- bleed	0.94 (0.68-1.30)
Complication- heart failure	0.69 (0.45-1.06)
Discharge location, not home	1.11 (0.91-1.37)
<b>Geriatric Factors</b>	
Impairment in ADLs <sup>b</sup> or ¼ mile mobility prior to AMI	<b>2.06 (1.24-3.44)</b>
Hearing impairment <sup>c</sup>	1.02 (0.85-1.21)
Vision impairment <sup>d</sup>	0.99 (0.84-1.16)
Weak grip strength <sup>e</sup>	1.14 (0.86-1.50)
Cognitive impairment <sup>f</sup>	1.04 (0.71-1.54)
<b>Psychosocial/Lifestyle Factors</b>	
Current/Ever smoker	<b>1.33 (1.02-1.54)</b>
High depressive symptoms <sup>g</sup>	<b>1.65 (1.08-2.53)</b>
Social support <sup>h</sup> (per point increase)	1.00 (0.97-1.03)

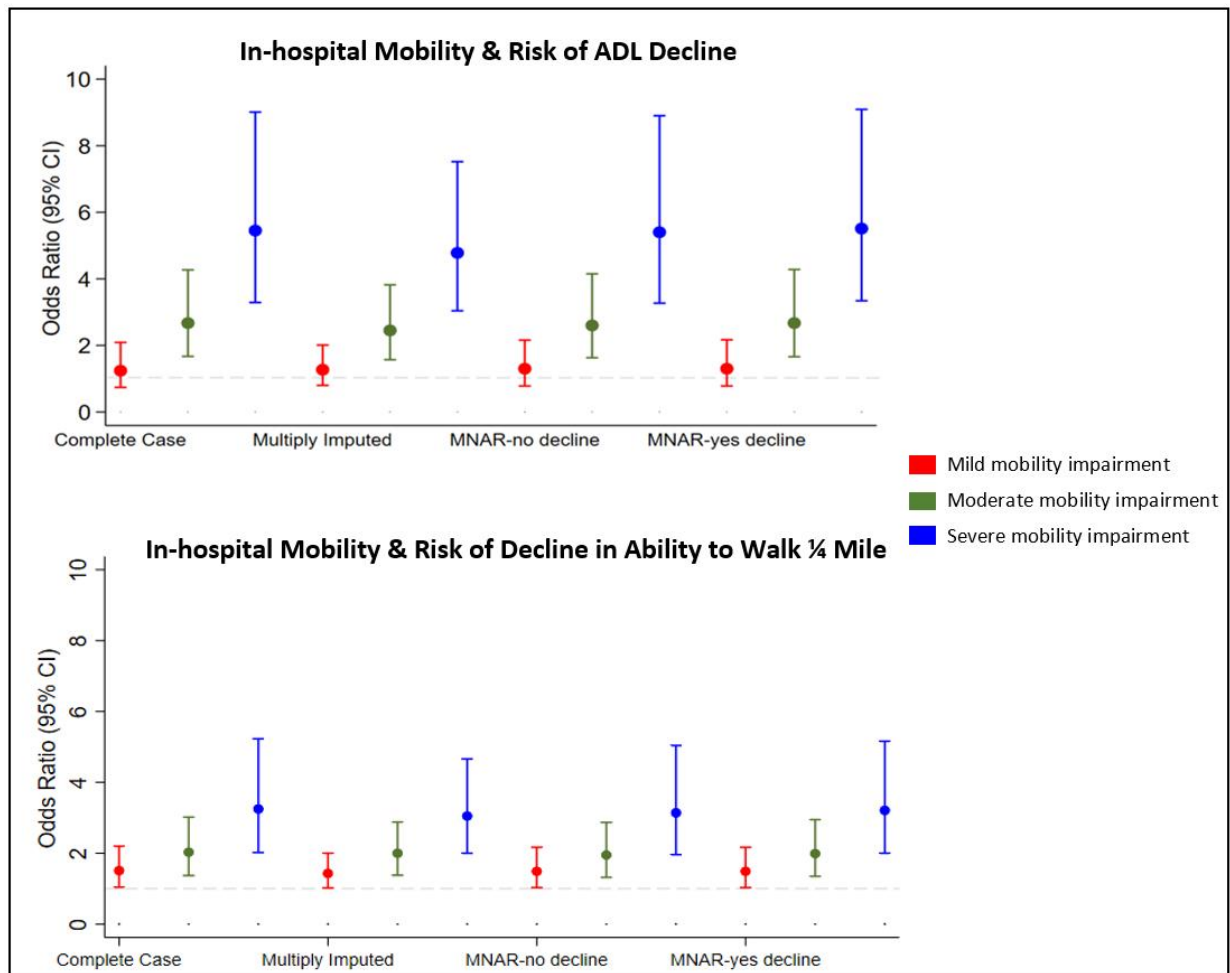
<sup>a</sup>Ratio to upper limit of normal at recruitment site <sup>b</sup>Essential activities of daily living (bathing, dressing, transferring, walking) <sup>c</sup>Responses of “a lot” or “a moderate amount” to the question, “How much does your hearing interfere with normal day-to-day activities?” from the Cognitive Function and Ageing Studies<sup>33</sup>; <sup>d</sup>Responses of “poor,” “very poor,” or “completely blind” to select questions about vision from the National Eye Institute Visual Function Questionnaire<sup>34</sup> <sup>e</sup><18.5 kg for women and <28.5 kg for men on best of three grip tests via dynamometer <sup>f</sup>Score <27 on the Telephone Interview for Cognitive Status<sup>35</sup> <sup>g</sup>Score of  $\geq 10$  on the Patient Health Questionnaire-8<sup>64</sup> <sup>h</sup>5-item Medical Outcomes Study- Social Support Survey<sup>37</sup> note: statistically significant estimates are **bolded**

**eTable 2.** Multivariable-Adjusted\* Associations of Mobility Status With Count of Activities in Which Participants Decline at 6 Months After AMI

	<u>Count of Activities with Decline</u> (per activity; range: 0 to 5)
<u>In-hospital Mobility</u>	<u>Incident Rate Ratio (95% CI)</u>
<u>Preserved</u>	<u>ref</u>
<u>Mild impairment</u>	<u>1.32 (0.98-1.78)</u>
<u>Moderate impairment</u>	<b><u>1.89 (1.40-2.57)</u></b>
<u>Severe impairment</u>	<b><u>3.00 (2.18-4.14)</u></b>

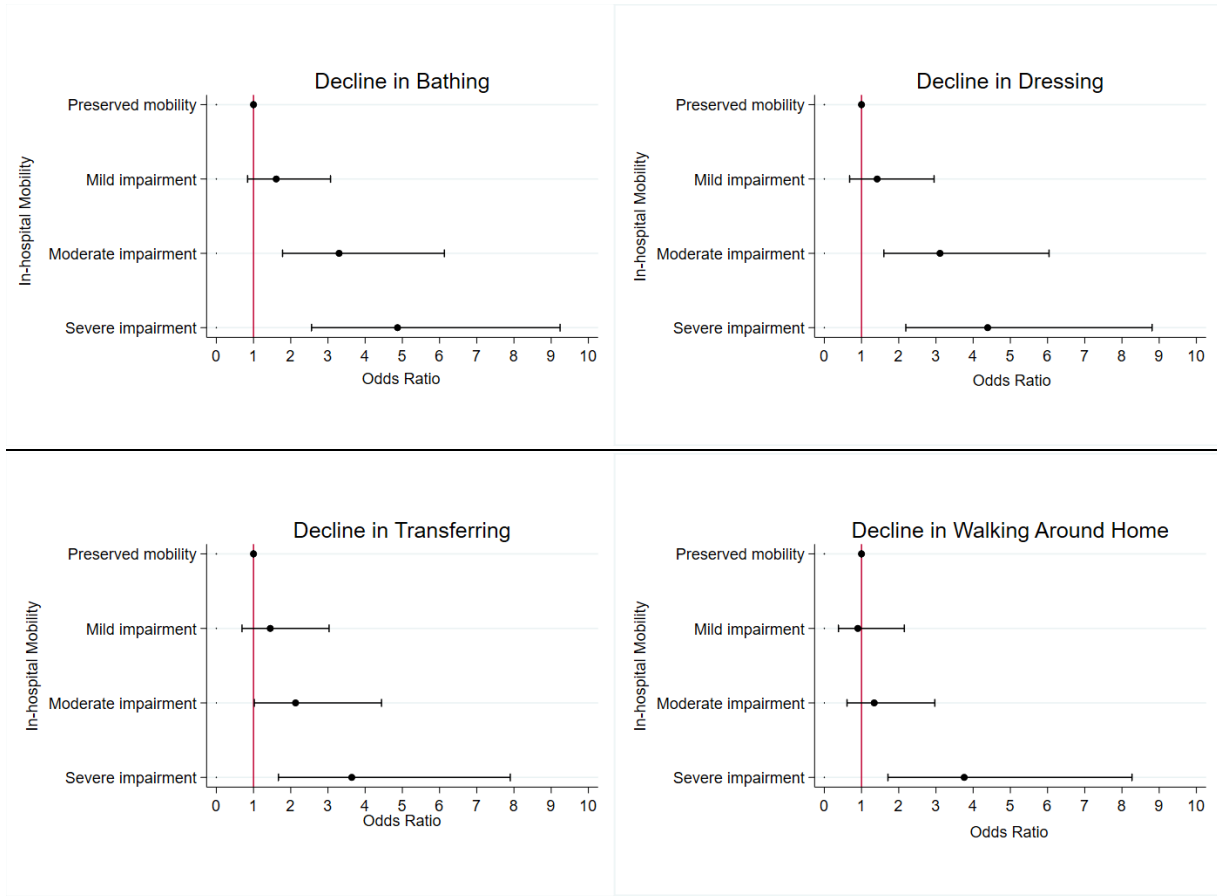
\*Adjusted for age, sex, race, education, marital status, AMI type, peak troponin (ratio to upper limit of normal), comorbidities, in-hospital procedures, in-hospital complications, discharge location, preadmission functional impairment, hearing impairment, vision impairment, grip strength, cognitive status, smoking history, depression, social support note: statistically significant estimates are **bolded**

**eFigure 1.** Sensitivity Analyses of Associations Between Mobility Impairment and Risk of Functional Decline, Accounting for Competing Risk of Death



Adjusted for age, sex, race, education, marital status, AMI type, peak troponin (ratio to upper limit of normal), comorbidities, in-hospital procedures, in-hospital complications, discharge location, preadmission functional impairment, hearing impairment, vision impairment, grip strength, cognitive status, smoking history, depression, social support. MNAR= missing not at random. Reference group= preserved mobility (TUG ≤15 seconds).

**eFigure 2.** Multivariable-Adjusted\* Odds Ratios for Risk of Decline in Independence in Each Activity of Daily Living After AMI, According to Mobility Status



\*Adjusted for age, sex, race, education, marital status, AMI type, peak troponin, comorbidities, in-hospital procedures, in-hospital complications, discharge location, preadmission functional impairment, hearing impairment, vision impairment, grip strength, cognitive status, smoking history, depression, social support