## **Supplemental Online Content**

Lai JC, Shui AM, Duarte-Rojo A, et al. Association of frailty with health-related quality of life in liver transplant recipients. *JAMA Surg*. Published online December 14, 2022. doi:10.1001/jamasurg.2022.6387

**eTable 1.** Metrics to represent global functional health in this study of liver transplant recipients

**eTable 2.** Select demographics and survey-based scores of participants, categorized by those who underwent testing with performance-based metrics at 1 year post-transplant and those did not

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

eTable 1. Metrics to represent global functional health in this study of liver transplant recipients.

Measure	Components	Range: Not frail / fully functional → impaired	Comments about use				
Survey-based instruments							
SF-36	36 items that are grouped into 8 sub-domains (6 physical and 2 mental)	Continuous, higher values indicate better HRQL	Sub-domains can be summarized using physical or mental component summary scores				
Activities of Daily Living	<ol> <li>Bathing</li> <li>Dressing</li> <li>Toileting</li> <li>Transferring</li> <li>Continence</li> <li>Feeding</li> </ol>	6 → 0	Assesses difficulty with performing activities necessary for daily functioning within one's home.				
Instrumental Activities of Daily Living	<ol> <li>Using a telephone</li> <li>Shopping</li> <li>Food preparation</li> <li>Housekeeping</li> <li>Doing laundry</li> <li>Transportation</li> <li>Managing medications</li> <li>Handling finances</li> </ol>	8 → 0	Assesses difficulty with performing activities necessary for daily functioning within one's community.				
Work status	"Are you currently working, retired, or on disability?"		Participants were grouped as "not working" if they were on disability and/or were unemployed and looking for work.				
Instruments that	include performance-based con	mponents					
Liver Frailty Index	<ol> <li>Grip strength</li> <li>Timed chair stands</li> <li>Balance testing</li> </ol>	Higher scores indicate higher degree of frailty	LFI≥4.5 classified as "frail"				
Fried Frailty Phenotype	<ul><li>4) Gait speed</li><li>5) Exhaustion</li><li>6) Physical activity</li><li>7) Unintentional weight loss</li><li>8) Weakness</li></ul>	0 → 5	Originally developed to identify vulnerable older adults at risk for death. Has been shown to predict long-term institutionalization, and post-surgical complications.				
Short Physical Performance Battery	Repeated chair stands     Balance testing     13 foot walk	12 → 0	A measure of lower extremity strength. Identifies older adults at risk of physical disability.				

eTable 2. Select demographics and survey-based scores of participants, categorized by those who underwent testing with performance-based metrics at 1 year post-transplant and those did not.

		With performance- based metrics n=210 (59%)	Without performance-based metrics			
Characteristics*			n=148 (41%)	p-value		
Demographics						
Age, years		59 (53-64)	61 (54-67)	0.03		
Female, n (%)		33%	31%	0.72		
Race/ Ethnicity	Non-Hispanic White	69%	68%	0.47		
	Black	6%	5%			
	Hispanic White	15%	16%			
	Asian/Pacific Islander	7%	6%			
	Other	2%	6%			
Hepatocellular carcinoma		38%	32%	0.22		
PCS		48 (37-54)	52 (37-56)	0.04		
MCS		56 (48-60)	58 (53-61)	0.02		
% ADL≥1		6%	8%	0.37		
% IADL≥1		12%	12%	0.95		
On disability / not working (other)		27%	36%	0.06		

<sup>\*</sup> Median (1st quartile-3rd quartile) or n (%); Mann-Whitney or chi-square tests