

Table 1. Criterion validity of different screening instruments reported in included studies

Questionnaire	Individual study	Setting	Criterion validity				
			n	Prevalence malnutrition	Reference standard	Meth qual*	Result (rating)**
MUST	Bellanti, 2020	Admission at teaching hospital	152	46%	GLIM	Very good	<p>Sensitivity= 64.3% (95%CI 51.9-75.4%) (-)</p> <p>Specificity = 81.7% (95%CI 71.6-89.3%)(+)</p> <p>PPV = 75.0% (95%CI 62.1-85.3%) (-)</p> <p>NPV = 72.8% (95%CI: 62.5-81.6%) (+)</p> <p>AUC = 0.80 (+)</p>
	Baek, 2015	Geriatric care hospital (not specified)	141	46.6% (at risk and malnourished)	Combined index of 5 tools including MNA-FF	Doubtful	<p>Sensitivity = 80.6% (95%CI: 70.8-90.5%) (+)</p> <p>Specificity = 98.7% (95%CI: 96.3-100%) (+)</p>
NRS-2002	Bellanti, 2020	Admission at teaching hospital	152	46%	GLIM	Very good	<p>Sensitivity = 47.1% (95%CI: 35.1-59.4%) (-)</p> <p>Specificity = 75.6% (95%CI: 64.9-84.4%) (+)</p> <p>PPV = 62.3% (95%CI: 47.9-75.2%) (-)</p> <p>NPV = 62.6% (95%CI: 52.3-72.1%) (-)</p> <p>AUC = 0.69 (-)</p>
	Baek, 2015	Geriatric care hospital (not specified)	141	46.6% (at risk and malnourished)	Combined index of 5 tools including MNA-FF	Doubtful	<p>Sensitivity = 100% (+)</p> <p>Specificity = 78.5% (95%CI 69.4-87.5) (+)</p>
SGA	Bellanti, 2020	Admission at teaching hospital	152	46%	GLIM	Very good	<p>Sensitivity = 95.7% (95%CI 88.0-99.1%) (+)</p> <p>Specificity = 14.6% (95%CI: 7.8-24.1%) (-)</p> <p>PPV = 48.9% (95%CI: 40.3-57.6%) (-)</p> <p>NPV = 80.0% (95%CI: 51.9-95.7%) (-)</p> <p>AUC = 0.77 (+)</p>

MNA-SF version 1	Dent, 2017	Within 72 h after hospital admission	100	40%	MNA-FF	Doubtful	Sensitivity = 90.0% (+) Specificity = 78.3% (+) PPV = 73.5% (+) NPV = 92.2% (+) AUC = 0.93 (p < 0.001) (+)
	Baek, 2015	Geriatric care hospital (not specified)	141	46.6% (at risk and malnourishe d)	Combined index of 5 tools including MNA-FF	Doubtful	Sensitivity = 100% (+) Specificity = 49.4% (95%CI 38.3-60.4%) (-)
	Sobrini (2021)	Onco- geriatric patients	40	57.5%	GLIM	Doubtful	Sensitivity = 100% Specificity = 50% AUC = 0.75
MNA-SF version 2	Dent, 2017	Within 72 h after hospital admission	100	40%	MNA-FF	Doubtful	Sensitivity = 95.0% (+) Specificity = 65.0% (-) PPV = 64.4% (-) NPV = 95.1% (+) AUC = 0.90 (p < 0.01) (+)
GNRI	Baek, 2015	Geriatric care hospital (not specified)	141	46.6% (at risk and malnourishe d)	Combined index of 5 tools including MNA-FF	Doubtful	Sensitivity = 95.2% (95%CI 89.8 to 100) Specificity = 67.1% (95%CI 56.7 to 77.4)

*Risk of bias assessment based on COSMIN risk of bias tool: lowest score counts

**Measurement properties of each study could be rated as: sufficient (+), insufficient (-), or indeterminate (?).

Lowest validity in range determines rating.