Supplementary material

Supplementary Table 1. PRISMA checklist (source [21])

Section/topic	#	Checklist item	Reported on page#
Title			
Title	1	Identify the report as a systematic review, meta-analysis, or both	1
Abstract			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number	2
Introduction			
Rationale	3	Describe the rationale for the review in the context of what is already known	3
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS)	
Methods			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number	
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale	4
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched	4
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated	4
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis)	4
Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators	4
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made	4
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis	
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means)	
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I^2) for each meta-analysis	
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies)	
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified	
Results			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram	4
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations	4
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12)	

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Supplementary Table 1 (cont.). PRISMA checklist (source [21])

Section/topic	#	Checklist item	Reported on page#
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: a) simple summary data for each intervention group b) effect estimates and confidence intervals, ideally with a forest plot	4
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency	
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15)	
Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16])	
Discussion			
Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers)	6
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias)	7
Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research	7
Funding			
Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review	1

Supplementary Table 2. Frailty classification in older patients with diffuse large B-cell lymphoma

Study	Operational definition		
	Frail	Unfit	Fit
Zhang et al. (2022)	Frail: >80y or ≤80y with CIRS-G: any grade 3 or 4 comorbidities or >8 grade 2 comorbidities or with higher scores on ADL/IADL scales	Unfit: ≥80y with an ADL = 5, an IADL = 6–7, CIRS-G: no grade 3 or 4 comorbidities, and 5–8 grade 2 comorbidities	Fit: ≤80y with normal ADLs and IADLs scores, CIRS-G: no grade 3 or 4 comorbidities, and <5 grade 2 comorbidities
Vijenthira et al. (2022)	Modified version of generalizable FI frail >0.21		FI <0.21
Xu et al. (2022)	Frail: ADL <5; IADL <6; CIRS-G: ≥1 grade 3–4 comorbidities or >8 comorbidities grade 2 score; age ≥80, comorbidities), Age ≥80 unfit	Unfit: ADL = 6–5; IADL ≤6–7; CIRS-G: no comorbidities score 3–4 and 5–8 comorbidities score 2, age ≥80 fit	Fit: ADL = 6/6; IADL = 8; CIRS-G: no comorbidities score 3–4 and <5 comorbidities score 2
Bocci et al. (2022)	Frail: ≥80y and CIRS-G: ≥1 score = 3–4; ≥5 score 5 = 2; ADL<6; and IADL <8 scores	Unfit: <80y: CIRS-G: ≥1 score = 3–4; >8 score = 2; ADL<5; and IADL <6 Unfit: ≥80: CIRS-G: ≥0 score = 3–4; < score = 2; ADL = 6; and IADL = 8	Fit: <80y: CIRS-G: ≥0 score = 3–4; ≤8 score = 0; ADL ≥5; and IADL ≥6
Merli et al. (2021)	Frail: ≥80y and CIRS-G: ≥1 score = 3–4; ≥5 score 5 = 2; ADL <6; and IADL <8 scores	Unfit: <80: CIRS-G: ≥1 score = 3–4; >8 score = 2; ADL<5; and IADL <6 Unfit: ≥80: CIRS-G: ≥0 score = 3–4; <score = 2; ADL = 6; and IADL = 8	Fit: <80y: CIRS-G: ≥0 score = 3–4; ≤8 score = 0; ADL ≥5; and IADL ≥6
Isaksen et al. (2021)	Frail: Katz ADL: independent = 1, dependent = 2; CCI: score 0–1 = 1; score 2 = 1.5; score ≥3 = 2; GNRI: absent/low = 1; moderate = 2; severe = 2.5, <85y = 1; ≥85y = 2; total score: multiply obtained scores (rank: 1–20) (example: ADL = 2, CCI = 2; GNRI = 2; age: 2, total score = 2 × 2 × 2 × 2 = 16), frail: total score >3	Unfit: score: 1.5–3	Fit: score = 1

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Supplementary Table 2 (cont.). Frailty classification in older patients with diffuse large B-cell lymphoma

Study	Operational definition		
	Frail	Unfit	Fit
Bai et al. (2020)	Frail: ADL <5 or IADL <6; or MCIRS-G: ≥1 comorbidity score 3–4 (or >8 comorbidity score 2) or age ≥80 unfit	Unfit: ADL = 5 or IADL = 6–7 or MCIRS-G = no comorbidity score 3–4 (and 5–8 comorbidity score 2) or; age ≥80 fit	Fit: ADL = 6 and IADL = 8 and MCIRS no comorbidity score 3–4 (and <5 comorbidity score 2); and <80y
Chou et al. (2020)	Frail: 0–2 domain impairments: Barthel index (ADL): ≤100; Lawton scale (IADL) ≥7; MNA-S ≤8; number of falls ≥2; CCI-Quan >2; GDS-SF ≥9; Mini-Mental State Examination > ≤23; number of medications ≥5		Fit = 0–2 domain impairments
Ong et al. (2019)	Frail: those not meeting CGA fit or unfit criteria were classified as CGA frail	Unfit: ≥80y, with ADL = 5, IADL = 7, no CIRS-G grade 3–4 comorbidities and up to 5–8 grade 2 comorbidities	Fit: <80y, with no limitations in ADL (score 6/6) and IADL (score 8/8), CIRS-G no severe comorbidities grade 3–4/4 (excluding hematological comorbidities) and <5 grade 2/4 comorbidities
Storti et al. (2018)	Frail: inpatients aged between 70 and 80, ADL <4 or IADL <5 or 1 grade 3 comorbidity or >8 grade 2 comorbidities (CIRS-G) were required; in patients older than 80y, ADL >5 or IADL >6 or 5–8 grade 2 comorbidities were required		
Lastra-German et al. (2018)	≥3 points: frail: • unintentional loss of ≥5 kg during past year • physical exhaustion & the previous week… a) "Did you feel that everything required a lot of effort?"; b) "Did you feel that you could not go on?"; "Moderate amount" or "most of the time" in any circumstance scored as positive • low physical activity: lowest quintile adjusted for gender • slowness: 4-meter gait speed below lowest quintile adjusted for height* • weakness: grip strength below lowest quintile adjusted for BMI	1–2 points: unfit	0 points: fit
Tucci et al. (2015)	Frail: ADL ≤4, IADL ≤5, CIRS-G ≥1 comorbidity score 3–4 or >8 comorbidity score 2, ≥80y	Unfit: ADL ≤5, IADL ≤7–6, CIRS-G no comorbidity score 3–4 and 5–8 score 2, age ≥80y	Fit: ADL ≤6, IAL ≤8, CIRS-G no comorbidity score 3–4 and <5 score 2
Merli et al. (2013)	Frail: ≥80y; or frail: <80y who were not fit according to one or more of previous features were also considered as frail		Fit: <80y and had an ADL = 6, <3 grade 3 CIRS-G comorbidities and no grade 4 comorbidities (hematological comorbidities were not investigated), and none of criteria defining presence of geriatric syndrome
Marchesi et al. (2013)	Frail (CGA 3): ≥1 of following parameters: >85y, presence of a geriatric syndrome, ADL score <6 and ≥3 moderate morbidities or one or more severe morbidities	Intermediate (CGA 2) <85y, ADL = 6; and at least one moderate morbidity but no geriatric syndromes	Fit: <85y, ADL = 6 and no moderate morbidities or geriatric syndromes

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Supplementary Table 2 (cont.). Frailty classification in older patients with diffuse large B-cell lymphoma

Study	Operational definition		
	Frail	Unfit	Fit
Spina et al. (2012)	Frail: ADL <5, or IADL <5. CIRS-G: ≥1 grade 3 comorbidities (or >5 grade 2 comorbidities)	Unfit: ADL = 5, and/or IADL = 5 or 6; CIRS-G: no grade 3 comorbidities (or 3–5 grade 2 comorbidities)	Fit: ADL = 6, and/or IADL = 7 or 8; CIRS-G: no grade 3 comorbidities (or <3 grade 2 comorbidities)
Olivieri et al. (2012)	Frail: ≥85y and dependence ≥1 ADLs and geriatric syndromes: ≥1 Frail: CIRS-G score ≥3	Patients with comorbidities: CIRS-G score 0–2	Fit (not frail, no comorbidities)

*Based on an urban population of Mexican older adults; ADL — Activities of Daily Living scale; CCI — Charlson Comorbidity Index; CGA — Comprehensive Geriatric Assessment; CIRS-G — Cumulative Illness Rating Scale-Geriatric; FI — frailty index; GDS-SF — Geriatric Depression Scale Short Form; GNRI — Geriatric Nutritional Risk Index; IADL — Instrumental Activities of Daily Living *scale;* MCIRS — Modified Cumulative Illness Rating Scale; MCIRS-G — Modified Cumulative Illness Rating Score For Geriatrics; MNA-S — Mini Nutritional Assessment