

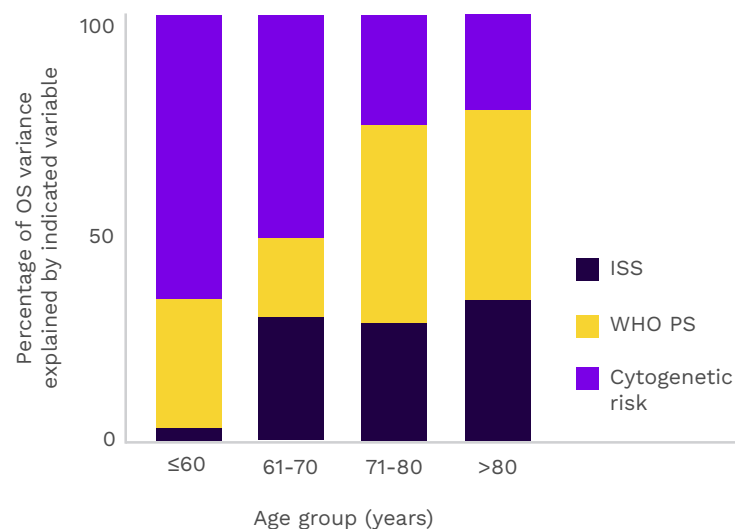


TRANSFORM MYELOMA

The Importance of Frailty Assessment When Treating the Ageing Patient With Myeloma

As patients age, frailty may be a more important predictor of patient outcomes than chronological age¹

PERCENTAGE OF OS VARIANCE BY ISS, WHO PS, AND CYTOGENETIC RISK^{1*}



- A large phase 3 study analysis of patients with NDMM (N=3894) examined the relative impact of patient and disease factors on survival at different ages and found that performance status, ISS stage, and cytogenetic risk had the greatest effect on outcomes¹
- With advancing age, performance status and ISS stage had more prognostic impact than cytogenetic risk¹

The impact of performance status on survival in all age groups indicates that frailty may be a more informative predictor of outcomes than chronological age alone.¹

IMWG recommends conducting a frailty assessment to guide treatment selection²

The IMWG developed the first myeloma-specific geriatric assessment to identify frail patients and validate a scoring system predictive of outcomes and toxicity. The IMWG frailty score is based on pooled results from 3 prospective trials of patients with NDMM who were deemed ineligible for transplant (N=869).^{2,3}

IMWG FRAILTY SCORE CRITERIA AND PROPORTION BY PATIENT STATUS²

Criteria				Frailty score	
				0	Fit
Age	+	Cognitive and physical function [†]	+	1	Intermediate fitness
		Comorbidities [†]	=	≥2	Frail

Notably, with a median age of 74 years (46% of patients were ≥75 years), fewer than one-third were designated frail. The IMWG analysis identified 3 groups: Fit (score = 0, 39%); Intermediate fitness (score = 1, 31%); Frail (score = ≥2, 30%).²

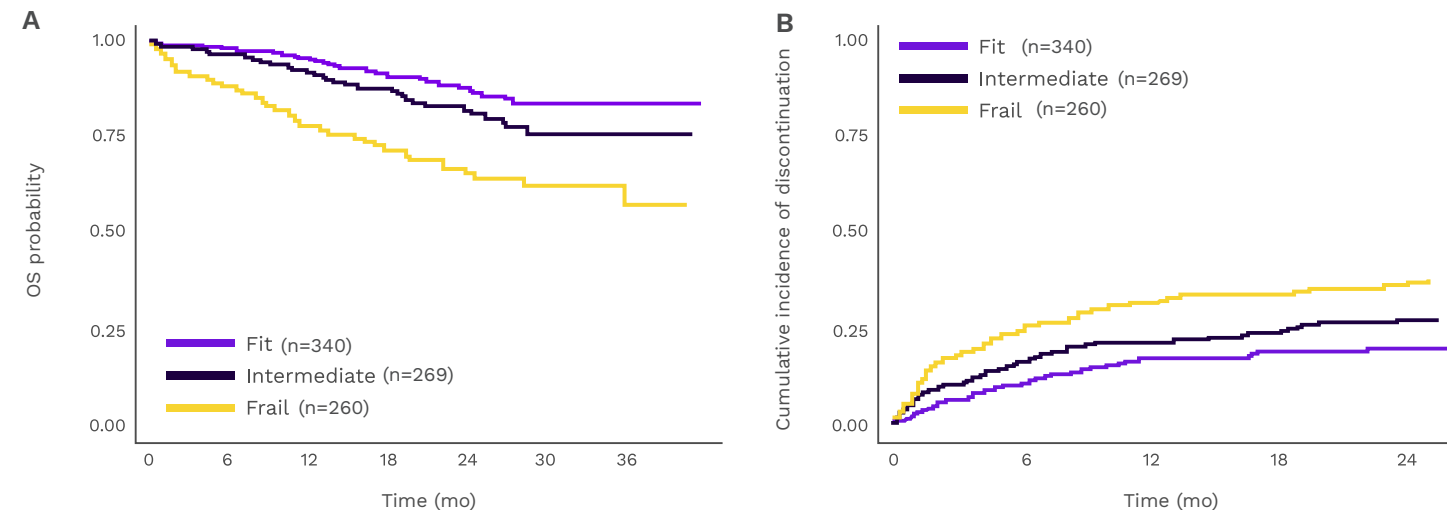
*WHO PS scores patients' function from asymptomatic to bedbound, based on their ability to carry out physical activities.⁴

[†]Katz Activity of Daily Living, Lawton Instrumental Activity of Daily Living scale, and Charlson Comorbidity Index.⁵

CCI=Charlson Comorbidity Index; ECOG=Eastern Cooperative Oncology Group; IMWG=International Myeloma Working Group; ISS=International Staging System; NDMM=newly diagnosed multiple myeloma; OS=overall survival; QOL=quality of life; SCT=stem cell transplant; WHO PS=World Health Organization performance status.

Frailty is predictive of shorter survival and higher treatment discontinuation²

OS (A) AND TREATMENT DISCONTINUATION (B) BY IMWG STATUS IN PATIENTS WITH NDMM²



- 3-year OS decreased from 84% in fit patients to 57% in frail patients²

- Treatment discontinuation increased from 16% in fit patients to 31% in frail patients (cumulative incidence at 12 months)²

In routine clinical practice, frailty assessment may help improve outcomes by individualizing treatment decisions^{5,6}

While the IMWG score is considered the standard for frailty assessment, its application in daily practice can be time consuming and prone to subjectivity. Additional scoring tools have been developed that may be more practical in clinical practice.^{3,7,8}

Frailty assessment tool ⁸	Geriatric domains ⁸
Simplified frailty scale	Age, CCI, ECOG performance score
Revised Myeloma Comorbidity Index	Age, Fried Frailty, lung function, renal function, Karnofsky Performance Status
Mayo frailty index	Age, WHO PS

- Although the optimal tool for assessing frailty to guide treatment decisions has yet to be determined, using available, validated frailty scores can lead to more favourable treatment decisions than not assessing frailty at all^{6,8}
- Assessing frailty at diagnosis and at subsequent relapses can help inform decisions made throughout the course of disease by tracking changes in relative fitness and frailty over time⁹
- In newly diagnosed patients, frailty assessment can help identify older patients who may be eligible for SCT. Reassessing frailty at relapse can inform the choice between triplets, doublets, and supportive care^{2,3,9,10}

Assessing frailty in clinical practice with existing tools may help improve outcomes and QOL by potentially avoiding both undertreatment and overtreatment of older myeloma patients^{5,6}

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