Self-Reporting Screening Instrument of Brody et al to Predict Frailty in an Elderly Patient

Overview: Brody et al developed a self-reporting screening instrument to identify elderly patients likely to develop frailty (as defined as the need for being placed in a nursing home or receive long term home care) within 1 year. This can help identify older patients who may require closer monitoring and more aggressive intervention. The authors are from Kaiser Permanente and the University of Florida.

Parameters associated with onset of frailty within 1 year:

(1) age in years

(2) health conditions interfere with daily activities

(3) needs assistance taking a bath

(4) needs assistance in taking medication

Parameter	Finding	Points
age in years		(age)
Do health conditions interfere with daily activities?	no	0
	yes	1
Is assistance required in bathing?	no	0
	yes	1
Is assistance required in taking medications?	no	0
	yes	1

Parameter	Parameter Estimate	Odds Ratio	95% CI
age	0.09	1.09	1.07 - 1.11
health conditions interfere	0.99	2.69	2.10 - 3.44
assistance with bath	2.55	12.87	8.90-18.60
assistance with medications	2.80	16.37	11.11 - 24.12

from Table 4 page 188

X = (0.09 * (age in years)) + (0.99 * (points for health conditions)) + (2.55 * (points for bathing assistance)) + (2.80 * (points for taking medications)) - 9.79

probability of requiring nursing home or home care interventions during the next year = 1 / (1 + EXP((-1)* X)))

where:

- On page 189 it states that the probability of frailty in a 67 year old person with no other risk factors was 2%; for a 100 year old patient with no other risk factors the risk was 30%.

Limitations:

- The study involved patients enrolled in a Social HMO program administered by Kaiser Permanente and might not apply to all elderly patients.

References:

Brody KK Johnson RE Ried LD. Evaluation of a self-report screening instrument to predict frailty outcomes in aging populations. The Gerontologist. 1997; 37: 182-191.