

ASSESSMENT OF RISK OF FALLS IN ELDERLY PEOPLE BY A SCREENING PROTOCOL IN PRIMARY CARE

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BACKGROUND AND AIMS

Our first aim is to assess the application of a computerised “frail elderly” protocol in patients over 79 years in primary care, and to determine the extent of the protocol follow-up in all its different variables. The specific goals are to know the cumulative incidence of falls in the population studied with this protocol, and to analyze their relation with the rest of variables.

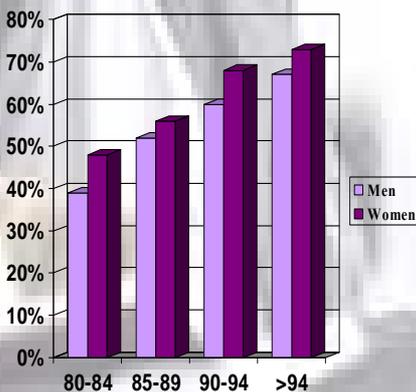
METHODS

Multicentre, cross-sectional study, performed in 4 basic semi-urban healthcare areas of the Baix Empordà (Girona); total population 81,548 with 4,6% above 79 years of age. Population: persons of both sexes over the age of 79 to whom the computerised protocol for the fragile elderly person is directed, from July, 2003 to December, 2005. Patients receiving home care are excluded. An extraction from the program database was performed. Using SPSS 14.0.2, an univariant descriptive analysis and bivariant analysis.

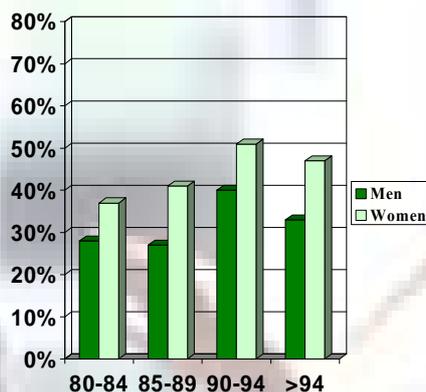
RESULTS

A total of 3,386 persons were studied, of whom the protocol was applied in 1,260 (37.2%). Thirty-six percent (449 elders) had a history of falls. A statistically significant relationship ($p < 0.005$) was found between a history of falls and the following variables: the presence of physical barriers, having an incapacitating disorder, taking more than five drugs, taking psychiatric medications, alterations on the unipodal test, time up and go test or Whisper test, altered vision, need for assistance in basic activities daily living, leaving the home < 2 times per week, and absence of recreational activities. In the section of interventions deriving from the screening protocol report, we observed that 23.4% were attributed to ophthalmology, 5.2% to otolaryngology, 2.8% were included in the home care program, 4.2% were attributed to social services and the medication was reviewed in 77.5%.

History of falls by age and sex



Risk of falls by age and sex



Section of the computerised “frail elderly” protocol: percentages detected from the risk factors

Screening	Interventions		
History of falls	36,6% <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Medications consumption	
Physical barriers	62,6% <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	More than five drugs	40% <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Incapacitating disorder	1,6% <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Psychiatric medication	37,2% <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Malnutrition signs	23,2% <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Hypotensive medication	71,5% <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
		Antidiabetic medication	16,7% <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Balance Test			
Unipodal test (>5 seconds with only one foot)	57,3% <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Social Risk Test	
Test Time up and go (Altered > 10seconds)	56,6% <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Need assistance in basic activities daily living	25,1% <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Sensorial Test			
Whisper test	45,5% <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Leaving the home < 2 times per week	13,6% <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Altered vision	54,6% <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Absence of recreational activities	44,3% <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

CONCLUSIONS

The protocol is useful for the detection of elderly individuals at risk of falling, since most of the variables showed a statistically significant relationship with falls. Application of this protocol should be encouraged.

It should be advisable to add an assessment on mental health, urinary incontinence and sleeping problems in the screening section due to their proven relationship with falls.

The intervention section should be expanded to include an exercise plan, recommendations on a safer environment and guidelines for a healthy diet.