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Review article

# Fecal Incontinence in Older Patients. A Narrative Review☆

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ABSTRACT

Fecal incontinence is one of the leading causes for the institutionalization of people in the last decades of life, associated with a great psychosocial and economic burden. The literature is scarce in this population group, due to the absence of universally accepted criteria to define ''elderly patients'' and difficulties in detection and diagnostic. The aim of this article was to conduct a narrative review of the main aspects related to fecal incontinence in older patients, providing management support. Toileting assistance, dietary change, controlling stool consistency and medical treatment can be used to treat these patients. Nevertheless, other therapies, such as biofeedback, neuromodulation or surgical treatment, can be considered in selected patients.



## Incontinencia fecal en el paciente anciano. Revisión de conjunto

*Palabras clave:*
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RESUMEN

La incontinencia fecal representa una de las principales causas de institucionalización en las últimas décadas de la vida de una persona, asociando además gran repercusión psicosocial y económica. La literatura muestra escasa evidencia cuando se trata de analizar de forma específica a este grupo de población, debido a la falta de uniformidad en la consideración de «paciente anciano» y en la dificultad de su detección y diagnóstico. El objetivo de este artículo ha sido realizar una revisión narrativa de los principales aspectos relacionados con la incontinencia fecal en el anciano y facilitar el manejo de estos pacientes. La asistencia para la defecación, las modificaciones dietéticas y el control de la consistencia de las deposiciones o el tratamiento farmacológico son en muchos casos medidas suficientes. No obstante, otras

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terapias como el biofeedback, la neuromodulación o el tratamiento quirúrgico no deben descartarse y han de ser valoradas de forma selectiva en pacientes ancianos.



## Introduction and Methodology

The elderly population does not constitute a homogeneous group, and in many cases its exact definition varies according to the bibliographic reference and the country studied. The World Health Organization considers the age brackets from 60 to 74 years *early old age*, 75 to 90 *older old* or *elderly*, and over 90 *oldest old* or *oldest elderly*.[1] Fecal incontinence (FI) is a syndrome that has great psychological impact and an enormous effect on the quality of life of geriatric patients and caregivers. Moreover, the economic cost and expenditure of resources involved in its treatment make it a major problem for the social healthcare system.[2] In fact, FI is considered a negative marker in health, as affected patients present elevated mortality rates.[3] The treatment of FI in these patients must integrate a combination of habit modification, hygienic-dietary measures, medications and, to a lesser extent, surgery.

Despite the high incidence of fecal incontinence in elderly patients, there are few studies specifically related to this age group. This article answers questions that frequently arise in the comprehensive management of these patients. A non-systematic search was conducted in the MEDLINE, Cochrane Library, SCOPUS, ISI Web of Science and Ovid databases, identifying articles published between 1992 and May 2017 referring to patients older than 65 years of age and using the following keywords

''fecal incontinence'' AND ''elderly'' (''conservative therapy'' OR ''surgical treatment'').

## Prevalence and Healthcare Costs of Fecal Incontinence in Older Patients

The prevalence of fecal incontinence in the elderly is very variable among published series, mainly due to the different populations studied and lack of consensus in the definition of FI, including in many cases the involuntary loss of mucus. Despite this underdiagnosis, it is estimated to affect between 3% and 21% of patients over 65 years of age in the general population, more than 50% of institutionalized patients and more than 80% of hospitalized patients with dementia. This broad epidemiological population study determines that its prevalence increases significantly in the three age groups studied: 65–74 (3%), 75–84 (5.3%) and older than 85 (8.2%) and that age represents a risk factor due to its presentation regardless of comorbidity.[4]

These data have a lower prevalence than those published in a study conducted in the metropolitan area of Barcelona with direct interviews of 518 patients that evaluated FI in patients treated at primary care centers; statistically significant differences were observed according to age (2.8% in patients under 45 years, 11.3% in those between 45 and 65 years, and 14.1% in patients over 65 years of age).[5] These differences with other studies were explained by the authors because of the study population, since it include patients who went to the Health Center for various reasons and were usually older and more pathological than the baseline population. In younger people, FI is more frequent in women, although this prevalence equals out between the ages of 70 and 80, then becoming higher in men after the age of 80.[6] According to data from the Ministry of the Interior, in Spain the use of protectors is equivalent to 3% of the pharmaceutical expenditure of the National Healthcare System, making them the healthcare product with the highest consumption (43.6% of total packages).[7] In addition, in Primary Care, this represents an increase of 55% in the healthcare costs for these patients.[8] These figures are difficult to individualize, since it is estimated that approximately 65% of patients with fecal incontinence also have urinary incontinence and that FI associated with urinary incontinence is 12 times more frequent than isolated fecal incontinence.[9]

## Predisposing Factors for the Appearance of Fecal Incontinence in Elderly Patients

The etiology of FI is multifactorial. The risk factors that contribute most to its presentation in the elderly population include: immobility, presence of acute or chronic diarrhea, constipation and fecal impaction, laxative use, polypharmacy, low level of consciousness, dementia, cerebrovascular disease, Parkinson's disease, pelvic floor laxity, rectal prolapse, anal sphincter injury or altered anorectal sensitivity.[10,11] Despite our greater understanding of the mechanisms involved in continence, there is still no clear concept of the biological and pathophysiological mechanisms that give rise to incontinence in general and in the elderly in particular. Aging causes a decrease in neurons of the enteric nervous system and in the release of neurotransmitters, as well as an increase in the proportion of abnormal myenteric ganglia, resulting in altered intestinal motility.

With the passage of time, there is a decrease in neurons of the enteric nervous system and the release of neurotransmitters, as well as anatomical and functional changes: loss of anal cushions, non-functional thickening of both sphincters, decrease in resting pressure and sphincter contraction, decreased distensibility and rectal sensitivity or perineal laxity.[12,13]

There are several studies that have analyzed the risk factors associated with FI in elderly patients. An epidemiological study published in 2010 differentiated them according to gender. In men, these factors were: age over 85 years (OR 2.5), chronic kidney failure (OR 1.9) and associated urinary incontinence (OR 2.3). However, in women these were: white race, score higher than 5 in the geriatric depression questionnaire (OR 2), associated urinary incontinence (OR 2) and chronic diarrhea (OR 3.5).[14]