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ORIGINAL ARTICLE

RECALMIN II. Eight years of hospitalization in Internal Medicine Units (2007–2014). What has changed?☆

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KEYWORDS
Internal medicine;
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Abstract
Objectives: To analyze the evolution of care provided by the internal medicine units (IMU) of the Spanish National Health System from 2007 to 2014.
Material and methods: We analyzed all discharges from the IMU of the Spanish National Health System in 2007 and 2014, using the Minimum Basic Data Set. We compared the risk factors by episode, mortality and readmissions between the two periods. We prepared specific fits for the risk for mortality and readmissions in heart failure, pneumonia and chronic obstructive pulmonary disease, as well as the Charlson index for all activity.
Results: Discharges from the IMU between the two periods increased 14%. The average patient age increased by 2.8 years (71.2 ± 17.1 vs. 74 ± 16.2; $p < .001$), with a marked increase in comorbidity (Charlson index, 4 ± 3.7 vs. 4.7 ± 3.9; $p < .001$; 24% increase in risk factors per episode). The adjusted mortality rates decreased slight but significantly, with a slight increase in readmissions.

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Conclusions: During the analyzed period, there was an increase of almost 3 years in the mean age of patients treated in the IMU of the Spanish National Health System, with a marked increase in comorbidity. These results should lead to a more appropriate assignment of nurse workloads and an increased implementation of good practices in clinical management.

PALABRAS CLAVE
Medicina interna;
Calidad;
Indicadores

RECALMIN II. Ocho años de hospitalización en las Unidades de Medicina Interna (2007-2014). ¿Qué ha cambiado?

Resumen
Objetivos: Analizar la evolución de la asistencia prestada en las Unidades de Medicina Interna (UMI) del Sistema Nacional de Salud en 2007 y 2014.
Material y métodos: Análisis de todas las altas dadas por las UMI del Sistema Nacional de Salud en los años 2007 y 2014, utilizando el Conjunto Básico Mínimo de Datos. Se contrastaron los factores de riesgo por episodio, mortalidad y reingresos entre ambos períodos. Se elaboraron ajustes específicos de riesgo para la mortalidad y reingresos en la insuficiencia cardiaca, neumonía y enfermedad pulmonar crónica obstructiva, así como el índice de Charlson para el conjunto de la actividad.
Resultados: Las altas dadas por las UMI entre ambos períodos aumentaron un 14%. La edad promedio creció en 2,8 años (71,2 ± 17,1 vs. 74 ± 16,2; p < 0,001), con un notable incremento de la comorbilidad (índice de Charlson: 4 ± 3,7 vs. 4,7 ± 3,9; p < 0,001; 24% más de factores de riesgo por episodio). Las tasas ajustadas de mortalidad se redujeron leve, pero significativamente, con un ligero aumento de los reingresos.
Conclusiones: Durante el período analizado ha aumentado en casi tres años la edad media de los pacientes atendidos en las UMI del Sistema Nacional de Salud, con un notable aumento de la comorbilidad, lo que debería conllevar una asignación más adecuada de las cargas de trabajo de enfermería, así como una mayor implantación de buenas prácticas de gestión clínica.

Background

The European Federation of Internal Medicine defined internal medicine as the main medical discipline for the care of adult patients with one or more complex, acute or chronic illnesses.[1] The dimensions related to ''comprehensiveness'' and ''continuity'' and the care of patients with complex diseases characterize the most often recognized scope of action of internal medicine, even more so in the context of populational aging, which entails a significant increase in the number of complex chronic patients.[2] The presence of older age groups in internal medicine units (IMUs) is a reported fact.[3] This population group has specific requirements (e.g., care for their nutritional state),[4] as well as frailty and vulnerability that involve risks during hospitalization, which can worsen and lead to new readmissions if not properly treated.[5,6]

This situation is faced by the IMUs of the Spanish National Health System (SNHS), with considerable variability in their indicators of structure, activity and management and with notable margins for improvement in the clinical management of hospitalized patients and in caring for complex chronic patients.[7] In 2009, the Clinical Management Group of the Spanish Society of Internal Medicine analyzed hospital discharges from IMUs of the SNHS during the biennium 2005–2006 and found a high prevalence of cardiopulmonary disease as the cause of hospitalization. The average age of the hospitalized patients was 70.6 ± 17.3 years, and a high percentage of the patients had comorbidity.[8] The burden of care in SNHS IMUs has grown in parallel with the increase in the age of the treated population. However, there are still unanswered questions: Can the increase in age and the burden of care be quantified? Has the profile of care for patients treated in IMUs changed? Have the results worsened (e.g., mortality and readmissions) or improved?

The present study attempts to answer these questions by analyzing the evolution of care provided in SNHS IMUs, using the data on discharges from these units in 2007 and 2014.

Material and methods

We analyzed all discharges from SNHS IMUs in 2007 (539,249 discharges) and 2014 (648,750 discharges),