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Title: Trends in the asthma hospitalization rate in the Spanish pediatric population

Dr. Javier 25255 de Miguel Díez jmiguel.hgugm@salud.madrid.org MD ¹, Dr. Julio 25256 Vargas Espinal jmiguel.hgugm@salud.madrid.org ¹, Dr. Jorge 25257 Chancafe Morgan jmiguel.hgugm@salud.madrid.org ¹, Dr. Valentin 25258 Hernandez Barrera jmiguel.hgugm@salud.madrid.org ², Dr. Rodrigo 25259 Jiménez García jmiguel.hgugm@salud.madrid.org MD ², Dr. Luis 25264 Puente Maestu jmiguel.hgugm@salud.madrid.org MD ¹ and Dr. Pilar 25297 Carrasco Garrido jmiguel.hgugm@salud.madrid.org MD ¹. ¹ Pneumology, Hospital General Universitario Gregorio Marañón, Madrid, Spain, 28028 and ² Preventive Medicine and Public Health Teaching and Research Unit, Universidad Rey Juan Carlos, Madrid, Spain, 28028 .

Body: Objective: To assess the changes in incidence, length of stay (LOS) and costs, of patients hospitalized for asthma exacerbations (AE) between 2002 and 2010. Methods: We included all the pediatric patients (younger than 15 years old) hospitalized for AE between 2002 and 2010 (ICD9-CM codes 493.0x-493.9x). The data were collected from the National Hospital Discharge Database (entire population). We compared the incidence, LOS and costs per patient of this population in two points in the time 2002 and 2010. Results: We included a total of 12,038 patients. Overall crude incidence decreased from 20.5 to 18.7 AE per 100.000 inhabitants from 2002 to 2010 ($p < 0.05$). There was no difference for sex. The mean LOS was 3.71 (SD 2.28) days in 2001 and decreased progressively to 3.16 (SD 2.11) in 2010 ($p < 0.05$). During the study period, the mean cost per patient decreased from 1558.53 (SD 443.63) to 1378.41 (SD 472.71) euros ($p < 0.05$). Conclusion: Our results suggest a decrease in the incidence of hospital admissions for AE with concomitant decrease in LOS in this population. The mean cost per patient also decreased significantly. Better primary care management of disease may explain the improvement in the incidence and outcomes.