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Obesity and emergency care in the French CONSTANCES cohort

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ABSTRACT

CONTEXT - Obese patients are raising specific questions in emergency care such as equipment issues or urgent procedures. Even though obesity prevalence and subsequent health expenditure are increasing worldwide, there is scarce literature about their specific resource utilization of Emergency Departments (ED). These few studies do not take into account both socio-economic situation and comorbidities which are well-known factors influencing healthcare use. Our objective was to assess the emergency care resource utilization of obese individuals (Body Mass Index (BMI) $\geq 30\text{kg.m}^{-2}$) compared to normal-weight individuals taking into account comorbidities and social-economic situations. **METHODS** - The French CONSTANCES epidemiologic cohort is a randomly selected sample of French adults. Participants data are linked to the National Health Insurance Database collecting all medical acts. The rate of ED visits of obese (and each obesity class) and normal-weight participants were compared considering confounding factors (comorbidities, various socio-economic data). The primary endpoint was to have visited the ED between 2010 and 2013. Sex-separated analysis and multivariate logistic regression models were performed and adjusted odds-ratios [OR] (95% Confidence Intervals [CI]) were calculated. **RESULTS** - We included 21,035 normal-weight and 5,003 obese participants. Obese participants visited the ED more often than normal-weight participants (men: 30.5% vs. 26.7%; women: 30.3% vs. 24.4%, $P < 0.001$). Obese participants presented more comorbidities and a lower socio-economic situation than normal-weight participants. After adjustment, obese participants had a higher risk of visiting ED (men: OR = 1.18; 95% CI: 1.04–1.33; and women: OR = 1.36; 95% CI: 1.22–1.52), with a higher risk for class III participants (BMI $\geq 40\text{kg.m}^{-2}$) (men: OR = 2.18; CI 95%: 1.32–3.63; and women: OR = 1.85; 95% CI: 1.38–2.49). **CONCLUSION** - Obese individuals have a higher level of emergency care resource utilization than normal-weight individuals and it increases with severe obesity. Further studies are needed to better understand their healthcare pathways leading to EDs.

KEYWORDS: -

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