

# The impact of COVID-19 lockdown on admission to gynecological emergency departments: results from a multicenter Italian study

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## Abstract

Objective: To evaluate the impact of COVID-19 lockdown on admissions to gynecological emergency departments (ED). Design: Retrospective study. Setting: 3 different Ob-Gyn EDs of University Hospitals with a similar catchment area: Modena (Emilia-Romagna), Sassari and Cagliari (Sardinia), with different COVID-19 incidence rates. Population: Women who have performed a gynecological ED admission. Methods: Evaluated periods were November 2019 (1st-30th) (N2019) and March-April 2020 (11th March-9th April) (MA2020). Main Outcome Measures: number, indication and management of ED admissions in N2019 and MA 2020. Results: A total of 691 women (mean age:  $38.3 \pm 14.3$  years old) have been included. The relative decrease in the number of women evaluated in MA 2020 in comparison to N2019 was: - 56.6% (95% CI 52.2%-61.1%), similar between Modena [- 62.5% (95% CI 55.4%-79.4%)] and Sassari [- 65.6% (95% CI 57.7-72.9%)] ( $p=0.68$ ), significantly milder but still present in Cagliari [- 36.2 % (95% 27.9-45.2%)] ( $p=0.001$ ). Time in ED was also significantly longer in N2019 in comparison to MA2020 ( $p=0.02$ ). The most evident decrease was observed for pelvic pain indication [-68.9 % (95% CI 60.3-76.7%), - 91 cases], the mildest for problems related to first trimester of pregnancy [-33.6 % (95% CI 25.9-41.9%)]. The management of women suggests a more effective use of ED by patients, with higher rates of hospitalization ( $p=0.001$ ) and recourse to emergent surgeries ( $p=0.005$ ), lower rates of discharge at home ( $p=0.03$ ). Conclusions: COVID-19 lockdown greatly reduced the admission rate to gynecological EDs but the real urgencies were filtered from the more deferrable ones.

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