

- Greater management efforts are needed to reduce the morbidity and mortality rates associated with the reduced hospital admissions during the pandemic.

## Reduction in Neurological Disease Hospitalization Rate During Covid-19 Pandemic in Abruzzo

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### Background:

As a consequence of the Covid-19 outbreak, Italy has adopted unprecedented preventive measures such as large-scale application of social isolation and hospital rearrangements. These measures have led to difficulty in managing diseases and hospitalizations, particularly acute and severe conditions such as neurological morbidities. The aim of the present analysis is to investigate the change in hospital admissions for neurological diseases over the first nine months of 2020 in Abruzzo region.

### Methods:

Data were obtained from the Hospital Discharge Records of all Abruzzo. We analyzed all the hospitalizations included in Major Diagnostic Categories 1 (neurological diseases). First, we distinguished both between public or private hospitalizations and ordinary or day-hospital admissions. Second, we compared the first nine months of 2020 with a mean of the same months in the two previous years. Finally, we calculated the variable percentage.

### Results:

A huge reduction in MCD 1 series hospitalizations was observed in each subgroup. Specifically, ordinary regimen had a peak of -47,3% in April. Day-hospital admissions were the most affected by Covid-19 with a peak of more than 90% in April both in public and private hospitals. The largest reduction occurred in private hospitals, both in ordinary (-75% in April) and DH admissions (-93,8% in March).

### Conclusions:

Despite the severity of the diseases included in MDC 1 (i.e. ischemic stroke, intracranial hemorrhage), a significant decline was detected in hospital admissions in Abruzzo. Subsequently, a high number of subjects might have not received the necessary health assistance leading to an increase in mortality and morbidity for these severe pathologies. Additionally, patients might have avoided seeking hospital care in response to the fear of contagion triggered either by media or as a result of the stay-at-home government recommendations.

### Key messages:

- An alarming reduction in all types of hospitalizations for neurological diseases occurred over the first months of pandemic in Abruzzo.