

Do We Really Know How Much the Covid-19 Pandemic Affected the Surgical Practice in Northern Italy? A Multi-Center Comparative Study and Cost Analysis

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Abstract

Background: The Covid-19 pandemic in Northern Italy has slowed down the clinical surgical activity. A system of hub and spoke hospitals was set up to take care of oncological patients with the consequent almost complete abolition of the elective surgical activity for non-oncological pathologies.

Methods: We retrospectively analyzed the surgical volumes of 4 different non academic general hospitals in Lombardy belonging to 4 different provinces. The quarter March April May 2019 was compared with the same period of 2020. All different procedures were listed. The cost analysis was performed using the DRG system.

Results: In the four hospitals involved the surgical procedures reduced from 1903 to 350 with a drop of the 81.6%. Procedures for cancer from 403 to 161 with a drop of 60.1%. Procedures for benign disease from 1310 to 118 with a drop of the 91%. Emergencies from 190 to 71 with a drop of the 62.6%. State refund for the procedures performed from 6.708.023 € to 1.678.154 € with a drop of 75%.

Conclusions: Elective surgery was dramatically impaired by the Covid-19 pandemic. Above all procedures for non oncological and non urgent patients were particularly affected. In view of a possible second wave of the pandemic, the surgical planning must select patients not only on oncological criteria but rather on clinical ones. An ad hoc hub and spoke hospitals pathway has to be implemented for benign surgical diseases by whoever is facing the Covid pandemic at its spike.

Key words: surgery, Covid19 pandemic, cost analysis