

Supplementary material

Estimation of the potential impact in mortality due to reduction of daily-rate hospital ED visits between March 1 – April 22, 2020

We retrieved the data on ED visits according to the Manchester Triage System¹ from a public database.² The estimate was performed in 3 steps:

Step 1- Three-day centered average counts of the daily visits between March 1 - April 22, 2020; We calculated the decrease in the number of ED visits, according to the Manchester System Triage color in the following way: for each triage color, we calculated the 3-day average in the beginning of march (1st to 3rd of march) (Step 1). From day 3 onwards, within each color, we calculated the difference between the number of each day visits (3-day centered averages) and the 3-day average in the beginning of March (reference).

Step 2- The total number of visits presented in Table S1 ('Difference between daily averages') corresponded to the sum of these daily differences, according to the triage color;

Step 3- The values obtained in step 2 for each Manchester Triage System color were multiplied by the corresponding assumed death rate ¹ and the sum of values represented the number of potential deaths (Table S1).

Table S1. Average difference in ED visits between March 1 and April 22, 2020, in Mainland Portugal according to the Manchester Triage System.

Manchester Triage System	Step 2	Step 3	
	Difference between daily averages	Death rate*	N potential deaths (step 2 * death rate)
Red color	- 771	10.3 %	79
Orange color	-30159	4%	1206
Yellow color	-160,736	0.00003%	6
Total number of deaths			1291

* Death rate per Manchester Triage System ¹

Data for the remaining colors of the Manchester Triage System are not shown due to the non-significant contribution to the potential deaths.

Considering the previous steps and assumptions, an estimate of at least 1291 deaths due to the reduction in ED department visits between March 1 and April 22 could be hypothesized. These potential 1291 deaths are considered to be an underestimation of the real number of deaths.

Supplemental References

1. Martins HM, Cuña LM, Freitas P. Is Manchester (MTS) more than a triage system? A study of its association with mortality and admission to a large Portuguese hospital. *Emerg Med J* 2009; 26: 183-186.
2. Serviço Nacional da Saúde (SNS). Portal da transparência. [accessed April 13, 2020] Lisbon: SNS; 2020. Available from: <https://transparencia.sns.gov.pt/explore/?sort=modified>.