

Supplementary Table 2. Threshold values for monthly volume tertiles for COVID-19 admissions

| | Low | Intermediate | High |
|---------------------|-------|--------------|--------|
| COVID-19 admissions | ≤17.9 | >17.9–≤115.1 | >115.1 |

COVID-19, coronavirus disease 2019.

Supplementary Table 3. Timeline of first reported cases, 1st wave peak, and 2nd wave peak by country

| Country | 1st reported case* | 1st wave peak | Second wave date [†] |
|----------------|--------------------|---------------|-------------------------------|
| Argentina | 3/3/2020 | 10/21/2020 | 12/11/2020 |
| Australia | 1/25/2020 | 3/20/2020 | 6/9/2020 |
| Austria | 2/25/2020 | 3/28/2020 | 6/30/2020 |
| Bangladesh | 3/8/2020 | 7/2/2020 | 2/24/2021 |
| Belgium | 2/3/2020 | 4/14/2020 | 7/10/2020 |
| Brazil | 2/25/2020 | 7/29/2020 | 11/5/2020 |
| Bulgaria | 3/8/2020 | 4/27/2020 | 5/30/2020 |
| Canada | 1/25/2020 | 4/22/2020 | 8/17/2020 |
| Chile | 3/3/2020 | 6/12/2020 | 11/24/2020 |
| China | 12/1/2019 | 2/14/2020 | 5/19/2020 |
| Colombia | 3/6/2020 | 8/16/2020 | 10/4/2020 |
| Croatia | 2/25/2020 | 4/1/2020 | 6/7/2020 |
| Czech Republic | 3/1/2020 | 3/31/2020 | 5/13/2020 |
| Denmark | 2/27/2020 | 4/9/2020 | 7/8/2020 |
| Egypt | 2/14/2020 | 6/16/2020 | 10/9/2020 |
| Finland | 1/29/2020 | 4/10/2020 | 7/30/2020 |
| France | 1/24/2020 | 4/18/2020 | 6/28/2020 |
| Germany | 1/27/2020 | 4/2/2020 | 6/15/2020 |
| Greece | 2/26/2020 | 4/3/2020 | 6/3/2020 |
| Guatemala | 3/13/2020 | 7/18/2020 | 9/5/2020 |
| India | 1/30/2020 | 9/16/2020 | 2/14/2021 |
| Indonesia | 3/2/2020 | 2/1/2021 | 5/18/2021 |
| Iran | 2/19/2020 | 4/2/2020 | 5/3/2020 |
| Israel | 2/21/2020 | 4/5/2020 | 5/24/2020 |
| Italy | 1/30/2020 | 3/26/2020 | 6/3/2020 |
| Japan | 1/16/2020 | 4/5/2020 | 5/27/2020 |
| Kenya | 3/13/2020 | 8/3/2020 | 9/20/2020 |
| Korea | 1/20/2020 | 3/4/2020 | 5/6/2020 |
| Macedonia | 2/26/2020 | 4/18/2020 | 5/8/2020 |
| Malaysia | 1/25/2020 | 4/8/2020 | 6/6/2020 |
| Mexico | 2/28/2020 | 8/1/2020 | 9/22/2020 |
| Netherlands | 2/27/2020 | 4/11/2020 | 7/10/2020 |
| New Zealand | 2/28/2020 | 4/5/2020 | 8/10/2020 |
| Nigeria | 2/27/2020 | 7/2/2020 | 10/25/2020 |
| Norway | 2/26/2020 | 3/28/2020 | 7/22/2020 |
| Oman | 2/24/2020 | 7/15/2020 | 8/23/2020 |
| Pakistan | 2/26/2020 | 6/19/2020 | 9/1/2020 |
| Peru | 3/6/2020 | 6/2/2020 | 7/5/2020 |
| Phillippines | 1/30/2020 | 8/15/2020 | 1/7/2021 |
| Poland | 3/4/2020 | 11/11/2020 | 2/8/2021 |

Supplementary Table 3. Continued

| Country | 1st reported case* | 1st wave peak | Second wave date [†] |
|----------------------|--------------------|---------------|-------------------------------|
| Portugal | 3/2/2020 | 4/11/2020 | 8/9/2020 |
| Republic of Moldova | 3/7/2020 | 12/11/2020 | 1/22/2021 |
| Romania | 2/26/2020 | 4/17/2020 | 6/2/2020 |
| Singapore | 1/23/2020 | 4/26/2020 | 6/10/2020 |
| Slovakia | 3/6/2020 | 4/20/20 | 6/4/2020 |
| Spain | 1/31/2020 | 3/31/2020 | 7/5/2020 |
| Sweden | 1/31/2020 | 6/24/2020 | 9/2/2020 |
| Switzerland | 2/25/2020 | 3/25/2020 | 6/8/2020 |
| Taiwan | 1/13/2020 | 3/25/2020 | 2/17/2021 |
| Thailand | 1/13/2020 | 4/3/2020 | 11/20/2020 |
| Tunisia | 3/2/2020 | 4/6/2020 | 6/9/2020 |
| Turkey | 3/10/2020 | 4/16/2020 | 6/23/2020 |
| United Arab Emirates | 1/29/2020 | 5/22/2020 | 8/8/2020 |
| United Kingdom | 1/31/2020 | 4/8/2020 | 7/7/2020 |
| United States | 1/20/2020 | 4/9/2020 | 7/11/2020 |
| Vietnam | 1/23/2020 | 4/1/2020 | 7/14/2021 |

All data of the wave peaks obtained from <https://ourworldindata.org/coronavirus> a joint project of the University of Oxford and Global Change Data Lab. *All data of the first reported case by country, defining the onset of the pandemic of the country obtained from Wikipedia²⁹; [†]Definition of the second wave: the number of coronavirus disease 2019 cases must decline >50% from the previous wave's peak and more than double at the next peak. The start date for this occurrence was chosen as the minimum closest to the second wave.

Supplementary Table 4. Cerebral venous thrombosis admissions; overall and monthly volumes first 5 months: 2019 vs. 2020

| Variable | Overall volume | | | | | Monthly volume* | | | |
|--|-----------------|------------------|------------------|------------------------|------|-----------------|------------------|------------------|------|
| | No. of hospital | No. [†] | No. [†] | Change | P | No. of hospital | No. [†] | No. [†] | P |
| Overall | 162 | 498 | 449 | -9.8 (-12.7 to -7.5) | 0.11 | 169 | 0.65±0.12 | 0.55±0.11 | 0.03 |
| Primary vs. comprehensive stroke center [§] | | | | | | | | | |
| Primary | 39 | 114 | 93 | -18.4 (-26.5 to -12.4) | 0.15 | 41 | 0.63±0.18 | 0.50±0.16 | 0.19 |
| Comprehensive | 123 | 384 | 356 | -7.3 (-10.3 to -5.1) | 0.30 | 128 | 0.68±0.18 | 0.59±0.17 | 0.07 |
| Center COVID-19 volume | | | | | | | | | |
| Low | 50 | 79 | 72 | -8.9 (-17.2 to -4.4) | 0.57 | 51 | 0.62±0.12 | 0.57±0.09 | 0.53 |
| Intermediate | 49 | 106 | 100 | -5.7 (-11.8 to -2.6) | 0.68 | 50 | 0.51±0.19 | 0.47±0.18 | 0.38 |
| High | 49 | 236 | 211 | -10.6 (-15.2 to -7.3) | 0.24 | 51 | 1.15±0.27 | 1.03±0.26 | 0.23 |

Values are presented as percentage (95% confidence interval) or adjusted mean±standard error. COVID-19, coronavirus disease 2019.

[†]The monthly volume analysis is adjusted for the date of peak COVID-19 volume for each country, the start date of the second wave, and the continent; [†]Number of admissions during first 5 months of 2019; [†]Number of admissions during the first 5 months of 2020; [§]Primary vs. Comprehensive, *P*=0.001; ^{||} Low vs. Intermediate (*P*=0.40), Low vs. High (*P*=0.67), Intermediate vs. High (*P*=0.15).