**SUPPLEMENTAL MATERIAL**

**Supplemental Figure 1. Catalonia acute stroke healthcare centers and regions.**



Catalonia acute stroke healthcare system is divided in eight different regions. Acute stroke care is provided in 28 Hospitals: 6 comprehensive stroke centers, 8 primary stroke centers and 14 telestroke centers.

**Barcelona (1.821.570 habitants):** Hospital del Mar – Parc de Salut Mar (1), Hospital de la Santa Creu i Sant Pau (2), Hospital Universitari Vall d’Hebron (3), Hospital Clínic (4)

**Barcelona south metropolitan region (1.444.589 habitants)**: Hospital de Bellvitge (5), Hospital Comarcal de l’Alt Penedès (16), Hospital d’Igualada (17), Hospital de Sant Joan Despí Moisès Broggi (7), Consorci Sanitari Garraf (15)

**Barcelona north metropolitan region (814.322 habitants)**: Hospital Germans Trias i Pujol (6), Hospital de Mataró (Consorci Sanitari del Maresme) (19)

**Tarragona (775.734 habitants)**: Hospital Joan XXIII (13), Hospital de Tortosa Verge de la Cinta (14), Hospital Comarcal de Móra d’Ebre (28)

**Central Catalonia (277.377 habitants):** Centre Hospitalari de Manresa – Fundació Althaia (10)**,** Hospital de la Cerdanya (25)

**Girona (718.901 habitants):** Hospital Universitari de Girona Josep Trueta (12), Hospital de Palamós (21), Hospital de Figueres – Fundació Salut Empordà (22), Hospital d’Olot i Comarcal de la Garrotxa (23), Hospital de Campdevànol (24)

**Lleida (408.887 habitants):** Hospital Universitari Arnau de Vilanova (12), Fundació Sant Hospital de la Seu d’Urgell (26), Hospital Comarcal del Pallars (27)

**Vallès (1.257.525 habitants):** Consorci Corporació Sanitària Parc Taulí de Sabadell (8), Hospital Universitari Mútua Terrassa (9), Hospital General de Granollers (18), Consorci Hospitalari de Vic (20)

**Supplemental Table 1. Stroke Code activations and baseline characteristics**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Control period** | **Pandemic** | **Relative Difference** | **P value** |
| **Number of Stroke Codes** | 1033 | 805 | -22% |  |
| **Age** | 71.6±15 | 71.2±15 |  | 0.383 |
| **Gender,** women, (% of stroke code activations) | 480 (46%) | 334 (41%) | -5% | 0.033 |
| **Unknown time from onset or wake-up**(% of stroke code activations) | 337 (33%) | 336 (42%) | +9% | <0.001 |
| **Diagnosis** |  |  |  | <0.001 |
|  Ischemic | 663 | 503 | -24% |  |
|  ICH | 125 | 156 | +24% |  |
|  TIA | 47 | 41 | -12% |  |
|  Mimic | 198 | 105 | -47% |  |
| **Source of Stroke Code activation** |  |  |  | <0.001 |
|  EMS with pre-notification | 547 | 406 | -26% |  |
|  EMS without pre-notification | 117 | 159 | +36% |  |
|  ED of no stroke-ready centers | 129 | 80 | -38% |  |
|  ED of stroke-ready centers (private transport) | 175 | 106 | -39% |  |
|  In-hospital (previously admitted) | 65 | 54 | -17% |  |
| **Clinical characteristics** |  |  |  |  |
|  NIHSS | 7 [4-16] | 8 [4-17] |  | 0.083 |
|  NIHSS in ischemic stroke | 7 [3-14] | 8 [3-16] |  | 0.307 |
|  NIHSS in ICH | 11 [6-21] | 14 [5-21] |  | 0.913 |
|  Minor stroke (NIHSS 0-5)  (% of ischemic stroke) | 305 (46%) | 234 (47%) | +1% | 0.831 |
|  LVO (% of ischemic stroke) | 155 (23%) | 114 (23%) |  | 0.774 |

**Legend:** Data are presented as n (%) for categorical variables and as mean ± SD or median [interquartile range] for continuous variables. ICH: intracranial hemorrhage; TIA: transient ischemic attack; EMS: emergency medical system; ED: emergency department; NIHSS: National Institutes of Health Stroke Scale; LVO: large vessel occlusion.

**Supplemental Table 2. Clinical characteristics of 90-days assessed patients depending on study period**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Control period****n=334/1033** | **Pandemic****n=362/805** | **p value** |
| **Sex, women** | 152 (45.5%) | 146 (40.3%) | 0.192 |
| **Age** | 76 [65.8 – 82] | 76 [65 – 83] | 0.790 |
| **Baseline mRS** | 0 [0 – 2] | 0 [0 – 1] | 0.065 |
| **Onset to arrival (**minutes) | 43 [18 – 143] | 150 [72.7 – 510] | <0.001 |
| **NIHSS at arrival** | 11 [6 – 19] | 13 [8 – 19] | 0.061 |
| **LVO** | 118 (42.4%) | 95 (34.4%) | 0.011 |
| **Mortality at 90 days** | 85 (25.4%) | 126 (34.8%) | 0.007 |
| **mRS≤2 at 90 days** | 135 (40.4%) | 106 (29.3%) | 0.002 |

**Legend:** Data are presented as n (%) for categorical variables and median [interquartile range] for continuous variables. mRS: modified Rankin Scale; NIHSS: National Institutes of Health Stroke Scale; LVO: large vessel occlusion.