**Table 1. Distribution of influenza hospitalized cases according to influenza vaccination status. Catalonia, 2017-2018**

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| --- | --- | --- | --- | --- | --- |
| **Patient parameters** | **Total number of hospitalized influenza cases**  **n=1414** | **Vaccinated cases**  **n=465 (32.9%)** | **Unvaccinated cases**  **n=949 (67.1%)** | **ORa**  **(95%CI)** | **p value** |
| **Age mean (SD) b** | 71.5 (15.2) | 77.6 (11.3) | 68.5 (16.0) | 1.05 (1.04;1.06) | <0.001 |
| **Age group** |  |  |  |  |  |
| >=60y | 1118 (79.1%) | 437 (39.1%) | 681 (60.9%) | 6.11 (4.13;9.37) | 0.000 |
| 18-59y | 296 (20.9%) | 28 (9.46%) | 268 (90.5%) | Ref |  |
| **Gender** |  |  |  |  |  |
| Male | 804 (56.9%) | 269 (33.5%) | 535 (66.5%) | 1.06 (0.85;1.33) | 0.600 |
| Female | 610 (43.1%) | 196 (32.1%) | 414 (67.9%) | Ref |  |
| **Comorbidities (at least one)** | |  |  |  |  |
| Yes | 1127 (79.7%) | 406 (36.0%) | 721 (64.0%) | 2.17 (1.60;2.99) | <0.001 |
| No | 287 (20.3%) | 59 (20.6%) | 228 (79.4%) | Ref |  |
| **COPD c** |  |  |  |  |  |
| Yes | 461 (32.6%) | 190 (41.2%) | 271 (58.8%) | 1.73 (1.37;2.18) | <0.001 |
| No | 953 (67.4%) | 275 (28.9%) | 678 (71.1%) | Ref |  |
| **Obesity (BM I >40) d** | |  |  |  |  |
| Yes | 111 (7.85%) | 37 (33.3%) | 74 (66.7%) | 1.02 (0.67;1.54) | 0.909 |
| No | 1303 (92.1%) | 428 (32.8%) | 875 (67.2%) | Ref |  |
| **Diabetes** |  |  |  |  |  |
| Yes | 385 (27.2%) | 141 (36.6%) | 244 (63.4%) | 1.26 (0.98;1.61) | 0.069 |
| No | 1029 (72.8%) | 324 (31.5%) | 705 (68.5%) | Ref |  |
| **Chronic renal disease** | |  |  |  |  |
| Yes | 275 (19.4%) | 106 (38.5%) | 169 (61.5%) | 1.36 (1.04;1.79) | 0.028 |
| No | 1139 (80.6%) | 359 (31.5%) | 780 (68.5%) | Ref |  |
| **Immunodeficiency** |  |  |  |  |  |
| Yes | 230 (16.3%) | 68 (29.6%) | 162 (70.4%) | 0.83 (0.61;1.13) | 0.242 |
| No | 1184 (83.7%) | 397 (33.5%) | 787 (66.5%) | Ref |  |
| **Cardiovascular disease** | |  |  |  |  |
| Yes | 614 (43.4%) | 237 (38.6%) | 377 (61.4%) | 1.58 (1.26;1.97) | <0.001 |
| No | 800 (56.6%) | 228 (28.5%) | 572 (71.5%) | Ref |  |
| **Chronic liver disease** | |  |  |  |  |
| Yes | 88 (6.22%) | 28 (31.8%) | 60 (68.2%) | 0.95 (0.59;1.50) | 0.836 |
| No | 1326 (93.8%) | 437 (33.0%) | 889 (67.0%) | Ref |  |
| **Other comorbidities e** | |  |  |  |  |
| Yes | 165 (11.7%) | 66 (40.0%) | 99 (60.0%) | 1.42 (1.01;1.98) | 0.041 |
| No | 1249 (88.3%) | 399 (31.9%) | 850 (68.1%) | Ref |  |
| **Pregnancy f** |  |  |  |  |  |
| Yes | 8 (12.3%) | 2 (25.0%) | 6 (75.0%) | 4.36 ( 0.64; 28.32) | 0.110 |
| No | 55 (87.7%) | 4 (7.3%) | 51 (92.7%) | Ref |  |
| **NI g treatment** |  |  |  |  |  |
| Yes | 1299 (91.9%) | 437 (33.6%) | 862 (66.4%) | 1.55 (1.01;2.45) | 0.045 |
| **NI g treatment (timing)** | |  |  |  |  |
| <=48h from onset of symptoms) | 511 (36.9%) | 169 (33.1%) | 342 (66.9%) | 1.51 (0.96;2.44) | 0.075 |
| >48h from onset of symptoms) | 759 (54.8%) | 257 (33.9%) | 502 (66.1%) | 1.57 (1.01;2.50) | 0.046 |
| No | 114 (8.07%) | 28 (24.6%) | 86 (75.4%) | Ref |  |
| **Type of influenza virus** | |  |  |  |  |
| B | 859 (60.9%) | 295 (34.3%) | 564 (65.7%) | 1.17 (0.93;1.48) | 0.174 |
| A | 551 (39.1%) | 170 (30.9%) | 381 (69.1%) | Ref |  |
| **Outcome variables Ɨ:** | |  |  |  |  |
| **ICU admission** |  |  |  |  |  |
| Yes | 214 (15.1%) | 52 (24.3%) | 162 (75.7%) |  | 0.005 |
| No | 1200 (84.9%) | 413 (34.4%) | 787 (65.6%) |  |  |
| **LOS h** |  |  |  |  |  |
| Mean days (SD) | 12.8 (15.9) | 12.1 (14.1) | 13.1 (16.8) |  | 0.228 |
| **LICS i** |  |  |  |  |  |
| Mean days (SD) | 9.35 (10.4) | 9.49 (9.30) | 9.31 (10.8) |  | 0.917 |

a OR: Crude odds ratio; b SD: Standard deviation; c COPD: Chronic obstructive pulmonary disease; d BMI: Body mass index; e Other comorbidities include: Hemoglobinopathies and cognitive impairment ; f Only women of childbearing age (from 18-49y); g NI: Neuraminidase inhibitor; h LOS: Length of hospital stay ; i LICS: Length of ICU stay; Ɨ t-student or Chi\_squared used for outcome variables