**Supplemental Tables**

**Supplemental Table 1**: Description of study participants.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | SD, N=52 | HD, N=53 | P value |
| mean age, IQR |  | 73.5 (68.0, 77.0) | 72.0 (67.0, 77) | 0.6 |
| gender | male | 27 (52%) | 27 (51%) | 0.9 |
| female | 25 (48%) | 26 (49%) |  |
| race | white | 51 (98%) | 50 (94%) | 0.3 |
| other | 1 (2%) | 3 (6%) |  |
| comorbid conditions | cardiovascular | 8 (15%) | 7(13%) | 0.8 |
| pulmonary | 2 (4%) | 4(8%) | 0.4 |
| any high risk | 16 (31%) | 18 (34%) | 0.7 |
| Body Mass Index |  | 23.6 (27.1, 33.5) | 26.2 (23.0, 29.3) | 0.2 |
| influenza vaccination in prior years | 2009-2010 seasonal | 51 (98%) | 51 (96%) | 0.2 |
| 2009 pandemic H1N1 | 33 (63%) | 29 (55%) | 0.6 |

IQR: interquartile range, SD: standard-dose influenza vaccine, HD: high-dose influenza vaccine

**Supplemental Table 2.** Serologic response to SD or HD vaccine at d0 and d28 post-vaccination.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| vaccine components | | SD | | HD | | P value (d28) |
| d0 (N=52) | d28 (N=51) | d0 (N=51) | d28 (N=49) |  |
| H1N1 (A/Cal) | seroconversion |  | 14 (27%) |  | 30 (61%) | <0.001 |
|  | seroprotection | 13 (25%) | 29 (57%) | 14 (27%) | 39 (80%) | 0.02 |
| H3N2 (A/Wis) | seroconversion |  | 8 (16%) |  | 38 (78%) | <0.001 |
|  | seroprotection | 10 (19%) | 23 (45%) | 12 (24%) | 40 (82%) | <0.001 |
| B (Bris) | seroconversion |  | 6 (12%) |  | 25 (51%) | <0.001 |
|  | seroprotection | 26 (50%) | 31 (61%) | 21 (41%) | 39 (80%) | 0.04 |

Seroconversion: fold-rise in HI titer ≥4. Seroprotection: HI ≥40.

SD: standard-dose, HD: high-dose influenza vaccine

**Supplemental Table 3**: Evaluation of predictors of serological responses using logistic regression models at d28 post-vaccination.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | age | |  | vaccine dose | |  | d0 titers | |
|  |  | OR | P value |  | OR | P value |  | OR | P value |
| seroprotection | H1N1 | 0.80 | 0.63 |  | 3.77 | 0.013 |  | 30.61 | <0.001 |
|  | H3N2 | 0.76 | 0.59 |  | 26.30 | <0.001 |  | 41.08 | <0.001 |
|  | B | 0.89 | 0.85 |  | 9.79 | 0.004 |  | 35.89 | <0.001 |
| seroconversion | H1N1 | 0.55 | 0.15 |  | 7.50 | <0.001 |  | 0.18 | 0.001 |
|  | H3N2 | 1.04 | 0.92 |  | 22.95 | <0.001 |  | 0.48 | 0.07 |
|  | B | 0.57 | 0.24 |  | 10.36 | <0.001 |  | 0.39 | 0.004 |

Seroconversion: fold-rise in HI titer ≥4. Seroprotection: HI ≥40. OR: odds ratio