**Supplementary Table 1. Geometric means and proportion of detectable measurements**

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|   |   |   |   | **NVAS** | **Placebo** |
|   |   |   | in range | n=143 | n=65 |
|   |   |   | GM (95% CI) | GM (95% CI) |
| TNF-α | d3 | medium | 75% | 51 (36-73) | 55 (33-93) |
|   |   | PHA | 99% | 402 (332-487) | 367 (276-488) |
|   |   | PPD | 98% | 286 (228-358) | 270 (194-376) |
|   |   | TT | 96% | 352 (260-478) | 290 (184-456) |
|   |   | Pam | 87% | 55 (45-68) | 53 (39-73) |
|   | d1 | medium | 85% | 67 (51-87) | 75 (50-111) |
|   |   | LPS | 100% | 663 (577-762) | 653 (532-803) |
| IL-13 | d3 | medium\* | 20% | 20 (14-28) | 22 (14-34) |
|   |   | PHA | 91% | 113 (88-145) | 96 (66-139) |
|   |   | PPD | 56% | 13 (10-16) | 13 (9-18) |
|   |   | TT | 73% | 33 (25-43) | 28 (18-42) |
| IL-17 | d3 | medium\* | 23% | 24 (18-32) | 20 (12-33) |
|   |   | PHA | 89% | 50 (42-61) | 37 (28-49) |
|   |   | PPD\* | 49% | 53 (45-62) | 42 (31-55) |
|   |   | TT | 64% | 20 (15-26) | 17 (12-25) |
| IL-10 | d3 | medium\* | 35% | 32 (26-41) | 42 (31-55) |
|   |   | PHA | 95% | 32 (26-38) | 24 (19-32) |
|   |   | PPD | 80% | 20 (16-26) | 13 (9-19) |
|   |   | TT | 61% | 9 (7-13) | 9 (5-14) |
|   |   | Pam | 98% | 56 (47-67) | 47 (36-60) |
|   | d1 | medium | 64% | 12 (8-19) | 16 (9-29) |
|   |   | LPS | 100% | 451 (388-524) | 387 (310-483) |
| IFN-γ | d3 | medium\* | 11% | 10 (6-16) | 14 (8-25) |
|   |   | PHA | 90% | 59 (42-82) | 78 (47-129) |
|   |   | PPD | 87% | 55 (40-75) | 66 (41-104) |
|   |   | TT | 74% | 26 (18-39) | 20 (11-35) |
| IL-5 | d3 | medium\* | 10% | 9 (5-15) | 11 (5-22) |
|   |   | PHA | 87% | 54 (38-76) | 47 (28-78) |
|   |   | PPD | 72% | 11 (8-15) | 9 (6-15) |
|   |   | TT | 80% | 35 (24-51) | 27 (15-47) |
|   |   |   | in range | n=167 | n=73 |
|   |   |   | GM (95% CI) | GM (95% CI) |
| plasma |   | IL-1Ra | 100% | 2,331 (2,192-2,479) | 2,161 (1,969-2,371) |
|   |   | MCP-1 | 100% | 141 (135-148) | 150 (139-160) |
|   |   | TNF-α | 99% | 12 (11-13) | 13 (12-14) |
|   |   | IL-10\* | 42% | 42 (35-51) | 41 (31-55) |
|   |   | IL-8 | 100% | 21 (19-22) | 21 (19-23) |
|   |   | IL-6\* | 11% | 10 (6-16) | 13 (7-25) |
|   |   | suPAR | 100% | 4.5 (4.4-4.7) | 4.5 (4.3-4.7) |

Geometric means (GM, with 95% confidence intervals) of the outcomes measured (pg/ml, except for suPAR which is in ng/ml). Geometric means are estimated by use of Tobit regression, where observations outside the assay range are included as missing in the model producing the GM estimates.

For outcomes with >50% of measurements below the lower detection limit, the proportion of measurements above the limit are presented, obtained by Poisson regression on the risk of a detectable measurement.

in range: Proportion of measurements above the lower limit of detection (i.e. within assay working range).

d1, d3: Day 1 and day 3 cultures, respectively.

**Supplementary Table 2. Comparing infants in NVAS trial included vs non-included in the present immunological study, using background parameters from the NVAS trial. From the NVAS trial only including infants born during the time period making them eligible (age-wise) to subsequent enrolment into the immunological MV sub-group study**

|  |  |  |  |
| --- | --- | --- | --- |
|   | **Not analysed** | **Analysed** |   |
| n | 1560 | 247 | p |
| boys, % (n) | 52% (804) | 57% (140) | 0.13 |
| age at enrolment, days, median (p10-p90) | 1 (0-20.5) | 1 (0-12) | 0.22 |
| enrolment weight, kg, median (p10-p90) | 3.18 (2.68-3.92) | 3.18 (2.64-3.78) | 0.22 |
| enrolment height, cm, mean (sd) | 50.6 (2.7) | 50.2 (1.9) | 0.02 |
| enrolment MUAC, mm, median (p10-p90) | 98 (88-112) | 94 (88-106) | 0.004 |
| enrolment head circumf., cm, median (p10-p90) | 34 (31.5-37) | 34 (32-36) | 0.58 |
| enrolment abdominal circumf., cm, median (p10-p90) | 30 (27-35) | 29.5 (27-34) | 0.10 |
| mother alive, % (n) | 100% (1559) | 100% (247) | - |
| mother MUAC, mm, mean (sd) | 251.1 (29.8) | 250.2 (27.3) | 0.68 |
| mother's number of years in school, median (p10-p90) | 5 (0-11) | 6 (0-10) | 0.20 |
| hard roof, % (n) | 96% (1488) | 96% (237) | 0.99 |
| toilet inside house, % (n) | 15% (227) | 17% (41) | 0.42 |
| breastfeeding, % (n) | 98% (933) | 99% (156) | 0.26 |
| BCG vaccinated, % (n) | 100% (1560) | 100% (247) | - |
| age at BCG, days, median (p10-p90) | 1 (0-20.5) | 1 (0-12) | 0.22 |
| OPV-vaccinated, % (n) | 100% (1560) | 100% (247) | - |
| age at first OPV, days, median (p10-p90) | 1 (0-21) | 1 (0-12) | 0.18 |
| NVAS allocation |   |   | 0.58 |
| 50,000 IU | 33% (519) | 36% (88) |   |
| 25,000 IU | 32% (503) | 33% (82) |   |
| placebo | 34% (538) | 31% (77) |   |

Continuous or ordinal variables were analysed using Kruskal-Wallis test for non-normal distributions (presenting median, 10-percentile and 90-percentile), and Student’s t-test for normal distributions (presenting mean and standard deviation), and categorical variables were analysed using Chi2 test (presenting absolute number and percentage of parent population with the respective information available for dichotomous categorical variables and median, 10-percentile and 90-percentile for categorical outcomes with >5 levels).

MUAC: mid-upper arm circumference.