Additional file 7:Table S4. Sources of heterogeneity assessment based on meta-regression analyses.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Type of malaria compared | Blood group Comparison  | Factors  | Meta-regression Coefficient  | LCI | UCI | p-value |
| Uncomplicated *vs* uninfected  | A *vs* O | Sample size | 1.00 | 0.99 | 1.00 | 0.705  |
|  |  | Study region  | 1.02 | 0.64 | 1.62 | 0.925 |
|  |  | Study design | 0.94  | 0.59 | 1.51 | 0.790  |
|  |  | Age  | 1.11 | 0.63  | 1.96 | 0.680 |
|  | B *vs* O | Sample size | 1.00 | 0.99 | 1.00 | 0.879 |
|  |  | Study region  | 1.07 | 0.42 | 2.71 | 0.881 |
|  |  | Study design | 0.76 | 0.29 | 2.03 | 0.551 |
|  |  | Age  | 0.78 | 0.25 | 2.44 | 0.635 |
|  | AB *vs* O | Sample size | 2.19 | 0.99 | 1.00 | 0.794  |
|  |  | Study region  | 0.93 | 0.47 | 1.84 | 0.814  |
|  |  | Study design | 1.09 | 0.39 | 2.97 | 0.569 |
|  |  | Age  | 0.81 | 0 .34  | 1.932 | 0.845  |
|  | Non-O *vs* O | Sample size | 2.00 | 0.99 | 1.00 | 0.945  |
|  |  | Study region  | 0.92 | 0.54 | 1.57 | 0.749  |
|  |  | Study design | 0.89 | 0.49  | 1.61 | 0.669 |
|  |  | Age  | 0.86 | 0.45 | 1.66 | 0.635 |
| Asymptomatic *vs* uninfected  | A *vs* O | Sample size | 1.00 | 0.99 | 1.00 | 0.561 |
|  |  | Study region  | 2.49 | 0.02 | 317.26 | 0.503 |
|  |  | Age  | 2.16 | 0.02  | 267.99 | 0.562 |
|  | B *vs* O | Sample size | 1.00 | 0.99 | 1.00 | 0.442 |
|  |  | Study region  | 1.39 | 0.01 | 182.90 | 0.797 |
|  |  | Age  | 1.99 | 0.02 | 259.61 | 0.603 |
|  | AB *vs* O | Insufficient observation | ----- | ------ | ------- |  |
|  | Non-O *vs* O | Sample size | 1.00 | 0.99 | 1.00 | 0.286 |
|  |  | Study region  | 1.68 | 0.06 | 44.32 | 0.565  |
|  |  | Age | 1.76 | 0.07 | 44.85 | 0.530  |

Study region (Africa *vs* Asia), Study design (cross-sectional *vs* Case control *vs* Cohort), Age (Children *vs* Adult *vs* All ages)

Method used for the diagnosis of *Plasmodium* infection was microscope except for two studies

The design of all studies that compared the odds of asymptomatic *vs* uninfected among individuals with different blood groups was cross-sectional