|   |        | Experimental |        |       | Contro |        | 1               |         |                     | Weight   | Weight   |
|---|--------|--------------|--------|-------|--------|--------|-----------------|---------|---------------------|----------|----------|
| Study   |        | Mean         |        | Total | Mean   | SD     | Mean Difference | MD      | 95%-CI              |          | (random) |
| g = 12-13months                                     |        |              |        |       |        |        |                 |         |                     |          |          |
| Bachert 2019 SINUS-52                               | 295    | 3.76         | 2.2000 | 295   | 6.07   | 1.2200 | 22 C            | -2.31   | [-2.60; -2.02]      | 18.3%    | 8.2%     |
| Bertlich 2022                                       | 76     | 1.10         | 1.9000 | 18    | 5.90   | 1.7000 |                 | -4.80   | [-5.69; -3.91]      | 1.9%     | 7.0%     |
| forretta 2022                                       | 80     | 1.31         | 1.7000 | 80    | 5.66   | 1.4200 | -               | -4.35   | [-4.84; -3.86]      | 6.4%     | 7.9%     |
| Fixed effect model                                  | 451    |              |        | 393   |        |        | 8               | -2.98   | [-3.22; -2.74]      | 26.5%    |          |
| Random effects model                                |        |              |        |       |        |        |                 | -3.79   | [-5.46; -2.12]      |          | 23.1%    |
| leterogeneity: $l^2 = 97\%$ , $\tau^2 = 2.0860$ , p | < 0.01 |              |        |       |        |        |                 |         |                     |          |          |
| j = 3-4months                                       |        |              |        |       |        |        |                 |         |                     |          |          |
| Bachert (2016)                                      | 30     |              | 1.9000 | 30    |        | 1.0000 |                 |         | [-2.67; -1.13]      | 2.5%     | 7.3%     |
| laxel 2022  | 49     | 2.40         | 0.4000 | 49    | 5.80   | 1.2000 | 考:              | -3.40   | [-3.75; -3.05]      | 12.0%    | 8.1%     |
| Fixed effect model                                  | 79     |              |        | 79    |        |        | ¢.              | -3.14   | [-3.46; -2.82]      | 14.5%    |          |
| Random effects model                                |        |              |        |       |        |        |                 | -2.69   | [-4.16; -1.22]      |          | 15.4%    |
| Heterogeneity: $I^2 = 92\%$ , $\tau^2 = 1.0318$ , p | < 0.01 |              |        |       |        |        |                 |         |                     |          |          |
| g = 6-8months                                       |        | 1022         |        | 103   |        |        |                 | 0.05.05 | 0.0110.010101010101 | 1010-001 |          |
| Bachert (2016)                                      | 28     |              | 1.7000 | 30    |        | 1.0000 |                 |         | [-2.42; -0.98]      | 2.9%     | 7.4%     |
| Bachert 2019 SINUS-24                               | 143    |              | 1.9800 | 143   |        | 1.2300 | -               |         | [-2.27; -1.51]      | 10.3%    | 8.1%     |
| Bachert 2019 SINUS-52 2wks                          | 150    |              | 1.8900 | 150   |        | 1.2200 | -               |         | [-1.97; -1.25]      | 11.6%    | 8.1%     |
| Bachert 2019 SINUS-52 2wks-4wks                     |        |              | 1.8900 |       |        | 1.2000 | 1 <del>-</del>  |         | [-2.19; -1.47]      | 11.3%    | 8.1%     |
| Bertlich 2022                                       | 76     |              | 1.8000 | 44    |        | 1.7000 |                 |         | [-5.25; -3.95]      | 3.6%     | 7.6%     |
| laxel 2022  | 49     | 2.10         | 0.3500 | 49    | 5.80   | 1.2000 |                 |         | [-4.05; -3.35]      | 12.3%    | 8.1%     |
| Forretta 2022                                       | 80     | 1.71         | 1.8200 | 80    | 5.66   | 1.4200 |                 | -3.95   | [-4.46; -3.44]      | 5.9%     | 7.9%     |
| Matsuyama 2023                                      | 10     | 1.30         | 1.8880 | 10    | 6.10   | 0.3160 |                 | -4.80   | [-5.99; -3.61]      | 1.1%     | 6.3%     |
| Fixed effect model                                  | 681    |              |        | 651   |        |        | b               | -2.62   | [-2.78; -2.46]      | 58.9%    |          |
| Random effects model                                |        |              |        |       |        |        | ÷               | -2.96   | [-3.81; -2.12]      |          | 61.5%    |
| Heterogeneity: $I^2 = 96\%$ , $\tau^2 = 1.3844$ , p | < 0.01 |              |        |       |        |        |                 |         |                     |          |          |
| Fixed effect model                                  | 1211   |              |        | 1123  |        |        | •               | -2.79   | [-2.91; -2.66]      | 100.0%   |          |
| Random effects model                                |        |              |        |       |        |        |                 |         | [-3.71; -2.50]      |          | 100.0%   |
| Heterogeneity: $l^2 = 96\%$ , $\tau^2 = 1.1434$ , p | < 0.01 |              |        |       |        |        |                 | 0.10    |                     |          |          |
| Residual heterogeneity: $I^2 = 96\%$ , $p < 0$      |        |              |        |       |        |        | -4 -2 0 2 4     |         |                     |          |          |

Supplementary Fig. 3. Changes in nasal polyp scores from baseline (dupilumab). The mean post-treatment differences in the nasal polyp scores at 3, 6, and 12 months of treatment [9,12,13,16-18]. Totals: numbers of participants per group; SD, standard deviation; MD, mean difference; CI, confidence interval.