Supplementary appendix S2 File

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Table S1. Cure rates and egg counts for the 7 included studies

The Sayasone et al. 2016 publication consists of 2 distinct trials (adults and children).

| | Treatment arm | N | N pos | Cure rate | EG counts | | | | | | Ninon | Cure | EG counts | | | | |
|-----------------------|-----------------------------|-----|----------|-----------|---------------------|----------|---------|--------|-----------------------|-----------------------------|-------|----------|-----------|-------|----------|-----|----------|
| Study | | | | | | BL FU | | Study | Treatment arm | Ν | | rate | | BL | | FU | |
| | | | FU | 70 | Med | IQR | Med | IQR | | | | FU | % | Med | IQR | Med | IQR |
| Hookworm | | | | | Trichuris trichiura | | | | | | | | | | | | |
| | Placebo | 13 | 11 | 15.4 | 138 | 48-246 | 126 | 48-240 | | Placebo | 48 | 48 | 0.0 | 606 | 213-1632 | 438 | 156-1098 |
| <u>.</u> | OxP, 5 mg/kg | 17 | 9 | 47.1 | 48 | 24-96 | 6 | 0-108 | <u>a</u> . | OxP, 5 mg/kg | 46 | 36 | 21.7 | 597 | 258-1284 | 150 | 12-804 |
| Moser et 2016 | OxP, 10 mg/kg ^{a)} | 13 | 3 | 23.1 | 48 | 24-162 | 60 | 18-186 | et 0 | OxP, 10 mg/kg ^{a)} | 49 | 38 | 22.4 | 660 | 216-1806 | 210 | 24-564 |
| | OxP, 15 mg/kg | 17 | 11 | 35.3 | 36 | 30-84 | 30 | 0-126 | - 10 | OxP, 15 mg/kg | 49 | 25 | 49.0 | 420 | 186-1614 | 6 | 0-234 |
| | OxP, 20 mg/kg | 18 | 12 | 33.3 | 48 | 36-180 | 51 | 0-90 | Mose | OxP, 20 mg/kg | 46 | 23 | 50.0 | 474 | 180-1344 | 6 | 0-126 |
| | OxP, 25 mg/kg | 18 | 13 | 27.8 | 72 | 36-168 | 51 | 0-240 | | OxP, 25 mg/kg | 45 | 18 | 60.0 | 546 | 102-1188 | 0 | 0-258 |
| | OxP, 30 mg/kg | 19 | 16 | 15.8 | 102 | 30-270 | 96 | 12-366 | | OxP, 30 mg/kg | 46 | 19 | 58.7 | 753 | 21-2298 | 0 | 0-60 |
| Speich et al. 2014 | Alb-OxP | 109 | 53 | 51.4 | 138 | 48-336 | 0 | 0-42 | Speich et al. 2014 | Alb-OxP | 112 | 77 | 31.3 | 945 | 423-1686 | 48 | 0-213 |
| | OxP, 20mg/kg | 113 | 101 | 2.9 | 126 | 48-300 | 120 | 42-306 | | OxP, 20mg/kg | 114 | 84 | 26.3 | 1005 | 426-1806 | 153 | 0-522 |
| | Alb | 112 | 45 | 59.8 | 123 | 42-246 | 0 | 0-39 | | Alb | 114 | 111 | 2.6 | 888 | 402-1692 | 600 | 240-1260 |
| | Meb | 109 | 90 | 17.4 | 102 | 48-264 | 72 | 18-216 | | Meb | 110 | 97 | 11.8 | 927 | 336-1944 | 294 | 96-828 |
| et 0 | Alb-Iver | 30 | 10 | 66.7 | 69 | 42-144 | 0 | 0-24 | et 0 | Alb-Iver | 140 | 87 | 37.9 | 108 | 54-276 | 18 | 0-69 |
| 90 | Alb | 39 | 16 | 59.0 | 60 | 18-156 | 0 | 0-30 | Knopp al. 201 | Alb | 132 | 119 | 9.8 | 156 | 69-300 | 108 | 42-252 |
| ĕ∼. | Meb-Iver | 35 | 25 | 25.7 | 36 | 12-240 | 48 | 0-120 | | Meb-Iver | 138 | 62 | 55.1 | 171 | 78-288 | 0 | 0-66 |
| 고교 | Meb | 34 | 22 | 35.3 | 48 | 18-162 | 18 | 0-96 | | Meb | 138 | 112 | 18.8 | 132 | 66-294 | 75 | 24-210 |
| Opisthochis viverrini | | | | | | et 5 | Alb-Ivr | 109 | 79 | 27.5 | 474 | 210-1182 | 54 | 0-160 | | | |
| (0 | Trb 50mg | 39 | 23 | 41.0 | 78 | 36-258 | 12 | 0-42 | с 5 | Alb-Meb | 107 | 98 | 8.4 | 504 | 138-1212 | 258 | 84-822 |
| 116 | Trb 100mg | 44 | 4 | 90.9 | 72 | 30-186 | 0 | 0-0 | Spei al. 2 | Alb-OxP | 108 | 34 | 68.5 | 513 | 171-1710 | 0 | 0-33 |
| 20 | Trb 200mg | 40 | 7 | 82.5 | 75 | 30-258 | 0 | 0-0 | | Meb | 107 | 98 | 8.4 | 690 | 186-1074 | 264 | 72-720 |
| al. | Trb 400mg | 44 | 10 | 77.3 | 90 | 27-369 | 0 | 0-0 | et 2 | Nita-Alb | 135 | 113 | 16.3 | 144 | 60-354 | 102 | 30-282 |
| Sayasone et a | Trb 25mg | 39 | 29 | 25.6 | 186 | 90-384 | 24 | 0-114 | Speich al. 201 | Alb | 135 | 116 | 14.1 | 180 | 72-324 | 150 | 43-360 |
| | Trb 50mg | 47 | 27 | 42.6 | 150 | 66-402 | 6 | 0-54 | | Nita | 139 | 130 | 6.5 | 156 | 66-300 | 138 | 54-408 |
| | Trb 100mg | 44 | 10 | 77.3 | 156 | 84-315 | 0 | 0-0 | | Placebo | 139 | 127 | 8.6 | 150 | 66-408 | 180 | 72-474 |
| | Trb 200mg | 88 | 24 | 72.7 | 270 | 105-594 | 0 | 0-0 | | | | | | | | | |
| | Trb 400mg | 47 | 4 | 91.5 | 462 | 168-1020 | 0 | 0-0 |] | | | | | | | | |
| | Trb 600mg | 45 | 9 | 80.0 | 378 | 180-2790 | 0 | 0-0 |] | | | | | | | | |

^{a)} This arm has been excluded because of an odd number of trial arms.

BL: baseline, FU: follow-up, Med: median, IQR: interquartile range

Figure S1. Sensitivity analysis - Judgment of 49 raters with respect to the egg burden and treatment efficacy of 2 clinical trial arms

To check the robustness of the results, we excluded comparisons with fewer than 30 observations per arm. The labels on the x-axis denote the page and question number (top, middle, bottom) in the example questionnaire presented in the appendix.



Figure S2. Sensitivity analysis - percentage agreement between experts and different means

To check the robustness of the results, we excluded comparisons with fewer than 30 observations per arm. Raw percentage agreement between experts' opinion and the calculated means for egg burden are at baseline and follow-up egg and drug efficacy (superiority of a certain trial arm). The rank denotes the rounded mean rank calculated separately for all comparisons and consensus comparisons. N (from left to right): 19, 19, 20, 4, 13, 15.

| Raw agreement (all) | | | | | | | | |
|---------------------|--------|----|----|------------------|--|--|--|--|
| b | mean b | | | | | | | |
| AM | 74 | 53 | 65 | <mark>6</mark> 4 | | | | |
| GM | 84 | 95 | 95 | 91 | | | | |
| Hö0.1 | 89 | 95 | 95 | 93 | | | | |
| Hö0.2 | 95 | 95 | 95 | 95 | | | | |
| Hö0.3 | 89 | 95 | 90 | 91 | | | | |
| Hö0.4 | 89 | 95 | 90 | 91 | | | | |
| Hö0.5 | 84 | 89 | 95 | 90 | | | | |
| Hö0.6 | 84 | 79 | 90 | 84 | | | | |
| Hö0.7 | 79 | 74 | 85 | 79 | | | | |
| Hö0.8 | 79 | 68 | 75 | 74 | | | | |
| Hö0.9 | 79 | 58 | 70 | <mark>6</mark> 9 | | | | |
| Le0.1 | 68 | 95 | 85 | 83 | | | | |
| Le0.2 | 68 | 95 | 90 | 84 | | | | |
| Le0.3 | 68 | 95 | 90 | 84 | | | | |
| Le0.4 | 79 | 95 | 90 | 88 | | | | |
| Le0.5 | 84 | 95 | 95 | 91 | | | | |
| Le0.6 | 84 | 89 | 95 | 90 | | | | |
| Le0.7 | 89 | 84 | 90 | 88 | | | | |
| Le0.8 | 84 | 79 | 85 | 83 | | | | |
| Le0.9 | 79 | 68 | 75 | 74 | | | | |
| Wi0.02 | 79 | 58 | 60 | <mark>66</mark> | | | | |
| Wi0.04 | 79 | 79 | 90 | 83 | | | | |
| Wi0.06 | 79 | 79 | 85 | 81 | | | | |
| Wi0.08 | 79 | 84 | 90 | 84 | | | | |
| Wi0.1 | 79 | 89 | 95 | 88 | | | | |
| tr0.02 | 84 | 68 | 65 | 73 | | | | |
| tr0.04 | 79 | 84 | 95 | 86 | | | | |
| tr0.06 | 84 | 79 | 90 | 84 | | | | |
| tr0.08 | 84 | 89 | 90 | 88 | | | | |
| tr0.1 | 79 | 89 | 90 | 86 | | | | |

Raw agreement (consensus)

| 100 | 62 | 67 | 76 | 25 |
|-----|-----|-----|-----|----|
| 100 | 100 | 100 | 100 | 5 |
| 100 | 100 | 100 | 100 | 4 |
| 100 | 100 | 100 | 100 | 4 |
| 100 | 100 | 93 | 98 | 8 |
| 100 | 100 | 93 | 98 | 8 |
| 100 | 92 | 93 | 95 | 10 |
| 100 | 85 | 93 | 93 | 14 |
| 100 | 77 | 93 | 90 | 18 |
| 100 | 77 | 80 | 86 | 21 |
| 100 | 62 | 73 | 78 | 23 |
| 75 | 100 | 87 | 87 | 18 |
| 75 | 100 | 93 | 89 | 15 |
| 75 | 100 | 93 | 89 | 15 |
| 75 | 100 | 93 | 89 | 13 |
| 100 | 100 | 93 | 98 | 7 |
| 100 | 100 | 93 | 98 | 8 |
| 100 | 92 | 93 | 95 | 11 |
| 100 | 85 | 93 | 93 | 15 |
| 100 | 77 | 80 | 86 | 21 |
| 100 | 69 | 67 | 79 | 23 |
| 75 | 92 | 93 | 87 | 17 |
| 75 | 85 | 93 | 84 | 20 |
| 75 | 85 | 93 | 84 | 18 |
| 75 | 92 | 93 | 87 | 14 |
| 100 | 77 | 73 | 83 | 20 |
| 75 | 92 | 93 | 87 | 15 |
| 100 | 85 | 93 | 93 | 14 |
| 75 | 92 | 93 | 87 | 14 |
| 75 | 92 | 93 | 87 | 16 |

Figure S3. Sensitivity analysis - relationship between the calculated difference among 2 trial arms estimated by different means and experts' rating scores

To check the robustness of the results, we excluded comparisons with fewer than 30 observations per arm.



Scores that favoured arm B were converted [abs(score - 6)]. In this case the colours of the associated bar plots and the sign of the difference were reversed, too.

Figure S4. Sensitivity analysis - relationship of raters and means and cure rates

Differences between ERR and CRs in percentage points. Lines and shaded areas represent the loess smoothing line and the corresponding 95% confidence band. Grey crosses and the dotted line represent the experts' score and its corresponding loess smoothing line.



 Δ CR [%-pts]

Figure S5. Sensitivity analysis - Relationship between difference in ERR and cure rates using weights and alternative scaling

Differences between ERR and cure rates in percentage points. Top panel: weighted lowess smoother (weights proportional to the number of subjects in the trial arms). Bottom panel: scaled differences in the ERRs (most extreme values were considered as minimum and maximum)



Figure S6. Agreement among different measures of central tendency

Raw agreement as the percentage of comparison where 2 different means are favoring the same trial arm. At baseline and follow-up egg burden where judged and finally drug efficacy (superiority of a certain trial arm). AM: arithmetic mean, GM: geometric mean, Hö: Hölder mean, Le: Lehmer mean, Wi: Winsorized mean, tr: truncated mean. Numbers behind abbreviations either indicate parameter p or the proportion discarded/replaced.

