Additional file 1: Meta-regression and Additional figures.

Meta-regression

1. Sepsis mortality

| Meta-regression | Number of obs = 14 |
|-----------------|--------------------|
| REML estimate of between-study variance | tau2 = 0.0113 |
| % residual variation due to heterogeneity | I-squared_res = 91.99% |
| Proportion of between-study variance explained | Adj R-squared = -61.65% |
| Joint test for all covariates | Model F(5,8) = 0.13 |
| With Knapp-Hartung modification | Prob > F = 0.9825 |

| _ES | Coef.   | Std. Err. | t    | P>|t| | [95% Conf. Interval] |
|-----|---------|-----------|------|-----|----------------------|
| Definition | 0.019325 | 0.0350875 | 0.55 | 0.597 | -0.0615869 - 0.1002369 |
| Study design | 0.0098267 | 0.0719412 | 0.14 | 0.895 | -0.156073 - 0.1757235 |
| Study location | -0.0290154 | 0.0558661 | -0.52 | 0.618 | -0.1578428 - 0.099812 |
| Endpoints | 0.0310449 | 0.0814382 | 0.38 | 0.713 | -0.156752 - 0.2188418 |
| Study centers | -0.0185944 | 0.0558661 | -0.35 | 0.730 | -0.1803497 - 0.1431608 |
| _cons | 0.2844725 | 0.2191471 | 1.30 | 0.230 | -0.2208817 - 0.7898267 |

2. Septic shock mortality

| Meta-regression | Number of obs = 10 |
|-----------------|--------------------|
| REML estimate of between-study variance | tau2 = 0.01358 |
| % residual variation due to heterogeneity | I-squared_res = 87.42% |
| Proportion of between-study variance explained | Adj R-squared = 24.45% |
| Joint test for all covariates | Model F(4,5) = 1.53 |
| With Knapp-Hartung modification | Prob > F = 0.3220 |

| _ES | Coef.   | Std. Err. | t    | P>|t| | [95% Conf. Interval] |
|-----|---------|-----------|------|-----|----------------------|
| Definition | 0.0245329 | 0.1276626 | 0.19 | 0.855 | -0.3036343 - 0.3527 |
| Study design | -0.2249434 | 0.1081076 | -2.08 | 0.092 | -0.5028429 - 0.052956 |
| Study location | -0.0291704 | 0.1532626 | -0.19 | 0.857 | -0.4231445 - 0.3648036 |
| Study centers | 0.0133103 | 0.1025027 | 0.13 | 0.902 | -0.2501813 - 0.2786019 |
| _cons | 0.7553199 | 0.3030357 | 2.49 | 0.055 | -0.023682 - 1.534298 |
### Figure S1

| Study          | D1 | D2 | D3 | D4 | D5 | D6 | D7 | Overall |
|----------------|----|----|----|----|----|----|----|---------|
| Chen 2009      | -  | -  | ?  | ?  | -  | +  | +  | X-X     |
| Wang 2014      | +  | +  | ?  | ?  | +  | -  | -  | -       |
| Yin 2014       | +  | -  | ?  | ?  | +  | -  | -  | -       |
| Cheng 2017b    | +  | +  | ?  | ?  | +  | -  | +  | -       |
| Huang 2018     | -  | -  | ?  | ?  | -  | -  | -  | X-X     |
| Zhou 2018      | -  | -  | ?  | ?  | +  | +  | -  | -       |
| Zhang Z 2019   | +  | +  | ?  | ?  | +  | -  | -  | -       |
| Xing 2019      | -  | +  | +  | -  | -  | +  | -  | +       |
| Dong 2020      | +  | +  | ?  | ?  | +  | +  | +  | +       |
| Xie 2020       | +  | +  | ?  | ?  | +  | +  | +  | +       |
| Jiang 2019     | +  | -  | ?  | ?  | +  | -  | +  | -       |
| Zhang W 2019   | +  | +  | ?  | ?  | +  | -  | -  | -       |
| Zhao 2020      | -  | -  | ?  | ?  | -  | +  | X  | X-X     |
| Cheng 2017a    | +  | +  | ?  | ?  | +  | +  | +  | +       |
| Yang 2007      | -  | -  | ?  | +  | +  | -  | -  | -       |
| Li 2013        | -  | +  | ?  | ?  | -  | +  | -  | +       |
| Wu 2013        | +  | -  | +  | -  | +  | -  | +  | +       |
| Zhou 2014      | +  | +  | ?  | ?  | -  | +  | -  | -       |
| Wu 2015        | -  | X  | -  | ?  | X  | -  | X  | X-X     |
| Lu 2016        | X  | X  | ?  | ?  | -  | O  | R  | X-X     |
| Xue 2019       | -  | X  | ?  | ?  | -  | X  | -  | X-X     |
| Xie 2008       | +  | +  | ?  | ?  | +  | -  | +  | +       |
| Xu 2014        | -  | +  | +  | -  | +  | -  | +  | +       |
| Luo 2015       | +  | X  | -  | -  | +  | -  | X  | X-X     |
| Li 2016        | -  | +  | +  | -  | +  | -  | +  | +       |
| Wang 2017      | X  | -  | -  | -  | +  | -  | X  | -       |
| Yan 2017       | +  | -  | ?  | ?  | +  | -  | -  | -       |
| Liu 2018       | +  | +  | +  | +  | -  | -  | +  | +       |
| Liang 2019     | -  | X  | ?  | ?  | -  | X  | X  | X-X     |

**Domains:**
- **D1:** Bias due to confounding.
- **D2:** Bias due to selection of participants.
- **D3:** Bias in classification of interventions.
- **D4:** Bias due to deviations from intended interventions.
- **D5:** Bias due to missing data.
- **D6:** Bias in measurement of outcomes.
- **D7:** Bias in selection of the reported result.

**Judgement:**
- **Critical**
- **Serious**
- **Moderate**
- **Low**
- **No information**
Figure S2

Bias due to confounding
Bias due to selection of participants
Bias in classification of interventions
Bias due to deviations from intended interventions
Bias due to missing data
Bias in measurement of outcomes
Bias in selection of the reported result
Overall risk of bias

Low risk  Moderate risk  Serious risk  Critical risk  No information

Figure S3

A  Sepsis mortality
Funnel plot with pseudo 90% confidence limits

B  Septic shock mortality
Funnel plot with pseudo 90% confidence limits