National Institutes of Health’s Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies

|  | Question Number | | | | | | | | | | | | | |  | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Lead Author | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. | 11. | 12. | 13. | 14. | Missing data | Overall rating (Poor, Fair, Good) |
| Guan, Ni | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | Yes | Yes | Cannot determine | Yes | No | Not applicable | No | 1.27% | Fair |
| Guan, Liang | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | Yes | 0.00% | Poor |
| Lian | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | No | No | Not applicable | No | 93.15% | Poor |
| Jin | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 93.70% | Poor |
| Chen | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 93.07% | Poor |
| Zhou, Yu | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 94.24% | Poor |
| Mo | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 96.13% | Poor |
| Zhang, Dong | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 93.57% | Poor |
| Wan | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 93.33% | Poor |
| Liu, Tao | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 93.59% | Poor |
| Huang, Wang | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 92.68% | Poor |
| Zhang, Cai | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 93.64% | Poor |
| Guo | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 90.37% | Poor |
| Liu, Ming | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 90.24% | Poor |
| Huang, Yang | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 88.89% | Poor |
| Xu | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 88.68% | Poor |
| Li | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 82.35% | Poor |
| Rentsch | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | Yes | Yes | Cannot determine | Yes | No | Not applicable | Yes | 5.30% | Fair |
| Hu | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | Yes | 88.24% | Poor |
| Wang, Pan | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 87.20% | Poor |
| Chow (US CDC) | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | No | No | Not applicable | No | 96.36% | Poor |
| Petrilli | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | Yes | 0.00% | Poor |
| Dong, Cao | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 88.89% | Poor |
| Kim | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 82.14% | Poor |
| Shi, Yu | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 91.79% | Poor |
| Yang, Yu | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 96.15% | Poor |
| Argenziano | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | Yes | Yes | Cannot determine | Yes | No | Not applicable | No | 0.00% | Fair |
| Solis | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 90.62% | Poor |
| Richardson | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 37.42% | Poor |
| Fontanet | Yes | Yes | Cannot determine | Yes | No | No | Cannot determine | No | No | No | Yes | No | Not applicable | Yes | 0.00% | Poor |
| Zheng, Gao | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 87.88% | Poor |
| Liao, Feng | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 99.57% | Poor |
| Rodriguez | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Yes | No | 0.00% | Poor |
| Magagnoli | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 85.87% | Poor |
| Shi, Ren | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 89.55% | Poor |
| Hadjadj | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | Yes | Yes | Cannot determine | Yes | No | Not applicable | No | 0.00% | Fair |
| Niedzwiedz | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | Yes | Yes | Cannot determine | Yes | No | Not applicable | Yes | 0.59% | Fair |
| Gold (US CDC) | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 94.75% | Poor |
| Yu, Cai | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 91.58% | Poor |
| Zheng, Xiong | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 0.00% | Poor |
| Miyars | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | Yes | Yes | Cannot determine | Yes | No | Not applicable | Yes | 1.88% | Fair |
| de la Rica | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | Yes | 79.17% | Poor |
| Yin, Yang | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 83.02% | Poor |
| Gaibazzi | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | Yes | Yes | Cannot determine | Yes | No | Not applicable | Yes | 0.00% | Fair |
| Shi, Zuo | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 69.79% | Poor |
| Cho | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | Yes | Yes | Cannot determine | Yes | No | Not applicable | Yes | 0.00% | Fair |
| Allenbach | Yes | Yes | Cannot determine | Yes | No | No | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 93.42% | Poor |
| Robilotti | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | Yes | Yes | Cannot determine | Yes | No | Yes | No | 1.65% | Fair |
| The Opensafely Collaborative | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | Yes | Yes | Cannot determine | Yes | No | Not applicable | Yes | 4.16% | Fair |
| Borobia | Yes | Yes | Cannot determine | Cannot determine | No | No | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 92.95% | Poor |
| Giacomelli | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Yes | No | 0.00% | Poor |
| Shah | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | Yes | No | Cannot determine | Yes | No | Yes | No | 23.73% | Poor |
| Bello-Chavolla | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 90.06% | Poor |
| Kolin | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | Yes | Yes | Cannot determine | Yes | No | Not applicable | No | 0.81% | Fair |
| Lubetzky | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 77.78% | Poor |
| Goyal | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 94.91% | Poor |
| Feng | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 90.76% | Poor |
| Yao | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 96.30% | Poor |
| Sami | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Yes | No | 0.00% | Poor |
| Almazeedi | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | Yes | 0.00% | Poor |
| Carillo-Vega | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 91.12% | Poor |
| Yanover | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | Yes | Yes | Cannot determine | Yes | No | Not applicable | No | 0.00% | Fair |
| Hamer | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | Yes | Yes | Cannot determine | No | No | Not applicable | Yes | 0.00% | Fair |
| Regina | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 95.50% | Poor |
| de Lusignan | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | Yes | Yes | Cannot determine | Yes | No | Not applicable | Yes | 13.44% | Fair |
| Targher | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 91.74% | Poor |
| Valenti | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 74.14% | Poor |
| Feuth | Yes | Yes | Cannot determine | Yes | No | Cannot determine | Cannot determine | Yes | Yes | Cannot determine | Yes | No | Not applicable | No | 0.00% | Fair |
| Heng | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Yes | No | 86.27% | Poor |
| Parrotta | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | Yes | Yes | Cannot determine | Yes | No | Not applicable | No | 2.63% | Fair |
| Shekhar | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Yes | No | 52.00% | Poor |
| Megia-Vilet | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Yes | No | 93.01% | Poor |
| Chen, Jiang | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 90.37% | Poor |
| Li, Chen | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 94.35% | Poor |
| Rimland | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 81.82% | Poor |
| Palaiodimos | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 0.00% | Poor |
| Ip | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | Yes | Yes | Cannot determine | Yes | No | Not applicable | No | 14.61% | Fair |
| Heili-Frades | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | Yes | 11.16% | Poor |
| Vaquero-Roncer | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 93.15% | Poor |
| Kim, Garg | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | Yes | 0.08% | Poor |
| Wu | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 66.67% | Poor |
| Shi, Zhao | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 95.05% | Poor |
| Kimmig | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 63.33% | Poor |
| Al-Hindawi | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | Yes | Yes | Cannot determine | Yes | No | Not applicable | No | 0.00% | Fair |
| Basse | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 82.27% | Poor |
| Freites | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | Yes | 96.75% | Poor |
| Alshami | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 82.03% | Poor |
| Russell | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | Yes | No | Cannot determine | Yes | No | Not applicable | Yes | 29.25% | Poor |
| Berumen | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | Yes | 0.00% | Poor |
| Gianfrancesco | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 13.67% | Poor |
| Li, Long | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Cannot determine | No | 94.48% | Poor |
| Batty | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Yes | No | 88.77% | Poor |
| Israel | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | Yes | Yes | No | Yes | No | Not applicable | Yes | 0.00% | Fair |
| del Valle | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | Yes | No | Cannot determine | Yes | No | Not applicable | Yes | 71.16% | Poor |
| Zuo, Zuo | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 72.73% | Poor |
| Chaudhry | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Yes | No | 85.00% | Poor |
| Louis | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 54.55% | Poor |
| Soto-Mota | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 88.00% | Poor |
| Patel | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 9.62% | Poor |
| Garibaldi | Yes | Yes | Cannot determine | Cannot determine | No | Cannot determine | Cannot determine | No | No | Cannot determine | Yes | No | Not applicable | No | 71.88% | Poor |
| Docherty | Yes | Yes | Cannot determine | Cannot determine | No | Yes | Cannot determine | Yes | No | Cannot determine | Yes | No | Yes | Yes | 29.55% | Poor |
| Boulware | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 96.71% | NA |