**Supplementary Table 1.** Quality assessment assigned to the randomized controlled trials that were included in the review for perioperative pain management in patients complex spine surgery (n = 31).

| Study | Allocation concealment | Jadad score | Statistical analysis + patient follow-up > 80% | Met CONSORT? |
| --- | --- | --- | --- | --- |
| Pinar et al7 | A | 5 | Yes | Yes |
| Jirarattanaphochai et al8 | A | 5 | Yes | Yes |
| Chang et al9 | A | 5 | Yes | Yes |
| Kim et al12 | A | 5 | Yes | Yes |
| Murphy et al14 | A | 5 | Yes | Yes |
| Gottschalk et al15 | **B** | 3 | Yes | No |
| Farag et al16 | A | 5 | Yes | Yes |
| Ibrahim et al17 | A | 5 | Yes | Yes |
| Nielsen et al18 | A | 4 | Yes | Yes |
| Hadi et al19 | A | 4 | Yes | No |
| Loftus et al20 | A | 5 | Yes | Yes |
| Pacreu et al21 | A | 5 | Yes | Yes |
| Urban et al22 | A | 5 | Yes | Yes |
| Subramaniam et al23 | A | 5 | Yes | Yes |
| Hwang et al24 | A | 3 | Yes | Yes |
| Naik et al25 | A | 5 | Yes | Yes |
| Jabbour et al27 | A | 5 | Yes | Yes |
| Kim et al28 | A | 5 | Yes | Yes |
| Maheshwari et al29 | A | 5 | Yes | Yes |
| Park et al30 | B | 3 | Yes | Yes |
| Gessler et al31 | B | 0 | Yes | No |
| Prasartritha et al32 | B | 3 | Yes | No |
| Kluba et al33 | B | 3 | Yes | Yes |
| Pham Dang et al34 | A | 4 | Yes | No |
| Wenk et al35 | A | 5 | Yes | No |
| Choi et al36 | A | 5 | Yes | No |
| Offley et al37 | B | 1 | Yes | No |
| Ziegeler et al38 | A | 5 | Yes | Yes |
| Greze et al39 | A | 5 | No | Yes |
| Xu et al40 | A | 5 | Yes | Yes |
| Chen et al41 | A | 5 | Yes | Yes |