**Supplemental Table S1** Comparison of Quality of Recovery-15 (QoR-15K) score at preoperative phase between the propofol-based total intravenous anaesthesia (TIVA) and inhaled desflurane (DES) groups.

| **QoR-15K items** | **DES group**  **(*N* = 70)** | **TIVA group**  **(*N* = 70)** | **Median differencea (95% CI)** | ***p* value** |
| --- | --- | --- | --- | --- |
| Total | 143.5 (136.0–149.0) | 144.0 (135.0–148.0) | 0.0 (-2.0–2.0) | 0.967 |
| 1. Able to breathe easy | 10.0 (10.0–10.0) | 10.0 (10.0–10.0) | 0.0 (0.0–0.0) | 0.665 |
| 2. Been able to enjoy food | 10.0 (10.0–10.0) | 10.0 (10.0–10.0) | 0.0 (0.0–0.0) | 0.176 |
| 3. Feeling rested | 10.0 (10.0–10.0) | 10.0 (10.0–10.0) | 0.0 (0.0–0.0) | 0.762 |
| 4. Have had a good sleep | 10.0 (8.0–10.0) | 10.0 (8.0–10.0) | 0.0 (0.0–0.0) | 0.627 |
| 5. Able to look after personal toilet and hygiene unaided | 10.0 (10.0–10.0) | 10.0 (10.0–10.0) | 0.0 (0.0–0.0) | 0.083 |
| 6. Able to communicate with family or friends | 10.0 (10.0–10.0) | 10.0 (10.0–10.0) | 0.0 (0.0–0.0) | 0.316 |
| 7. Getting support from hospital doctors and nurse | 10.0 (10.0–10.0) | 10.0 (10.0–10.0) | 0.0 (0.0–0.0) | 0.052 |
| 8. Able to return to work or usual home activities | 10.0 (10.0–10.0) | 10.0 (10.0–10.0) | 0.0 (0.0–0.0) | 0.654 |
| 9. Feeling comfortable and in control | 10.0 (10.0–10.0) | 10.0 (9.0–10.0) | 0.0 (0.0–0.0) | 0.147 |
| 10. Having a feeling of general well-being | 10.0 (9.0–10.0) | 10.0 (8.0–10.0) | 0.0 (0.0–0.0) | 0.126 |
| 11. Moderate pain | 10.0 (8.5–10.0) | 10.0 (10.0–10.0) | 0.0 (0.0–0.0) | 0.119 |
| 12. Severe pain | 10.0 (10.0–10.0) | 10.0 (10.0–10.0) | 0.0 (0.0–0.0) | 0.118 |
| 13. Nausea or vomiting | 10.0 (10.0–10.0) | 10.0 (10.0–10.0) | 0.0 (0.0–0.0) | 0.234 |
| 14. Feeling worried or anxious | 9.0 (7.0–10.0) | 9.0 (7.0–10.0) | 0.0 (-1.0–0.0) | 0.428 |
| 15. Feeling sad or depressed | 10.0 (8.0–10.0) | 10.0 (7.8–10.0) | 0.0 (0.0–0.0) | 0.128 |

Data are presented as the median (interquartile range) or median difference (95% CI).

aMedian differences are expressed as the TIVA group versus the DES group.

**Supplemental Table S2** Comparison of Quality of Recovery-15 (QoR-15K) score at 24h postoperatively between the propofol-based total intravenous anaesthesia (TIVA) and inhaled desflurane (DES) groups.

| **QoR-15K items** | **DES group**  **(*N* = 70)** | **TIVA group**  **(*N* = 70)** | **Median differencea (95% CI)** | ***p* value** |
| --- | --- | --- | --- | --- |
| Total | 95.5 (77.0–109.0) | 104.0 (82.0–117.0) | 8.0 (1.0–15.0) | 0.029 |
| 1. Able to breathe easy | 8.0 (6.0–10.0) | 9.0 (7.0–10.0) | 1.0 (0.0–10.0) | 0.016 |
| 2. Been able to enjoy food | 8.0 (2.0–10.0) | 8.0 (4.0–10.0) | 0.0 (0.0–1.0) | 0.333 |
| 3. Feeling rested | 6.5 (3.0–9.0) | 7.5 (5.0–10.0) | 0.0 (0.0–2.0) | 0.153 |
| 4. Have had a good sleep | 5.0 (4.0–8.0) | 5.0 (3.0–8.0) | 0.0 (-1.0–1.0) | 0.535 |
| 5. Able to look after personal toilet and hygiene unaided | 0.0 (0.0–0.0) | 0.0 (0.0–1.0) | 0.0 (0.0–0.0) | 0.075 |
| 6. Able to communicate with family or friends | 10.0 (8.0–10.0) | 10.0 (9.0–10.0) | 0.0 (0.0–0.0) | 0.466 |
| 7. Getting support from hospital doctors and nurse | 10.0 (9.0–10.0) | 10.0 (9.0–10.0) | 0.0 (0.0–0.0) | 0.881 |
| 8. Able to return to work or usual home activities | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.0 (0.0–0.0) | 0.071 |
| 9. Feeling comfortable and in control | 8.0 (6.0–10.0) | 9.0 (6.0–10.0) | 0.0 (0.0–1.0) | 0.646 |
| 10. Having a feeling of general well-being | 6.0 (4.0–8.0) | 8.0 (5.0–10.0) | 2.0 (0.0–3.0) | 0.005 |
| 11. Moderate pain | 3.0 (1.0–5.0) | 5.0 (2.0–7.0) | 1.0 (0.0–2.0) | 0.024 |
| 12. Severe pain | 8.0 (4.0–9.0) | 8.0 (6.0–10.0) | 1.0 (0.0–1.0) | 0.078 |
| 13. Nausea or vomiting | 10.0 (10.0–10.0) | 10.0 (8.0–10.0) | 0.0 (0.0–0.0) | 0.271 |
| 14. Feeling worried or anxious | 9.0 (7.0–10.0) | 9.0 (5.0–10.0) | 0.0 (0.0–0.0) | 0.947 |
| 15. Feeling sad or depressed | 10.0 (8.0–10.0) | 10.0 (8.0–10.0) | 0.0 (0.0–0.0) | 0.176 |

Data are presented as the median (interquartile range) or median difference (95% CI).

aMedian differences are expressed as the TIVA group versus the DES group.

**Supplemental Table S3** Comparison of Quality of Recovery-15 (QoR-15K) score at 48h postoperatively between the propofol-based total intravenous anaesthesia (TIVA) and inhaled desflurane (DES) groups.

| **QoR-15K items** | **DES group**  **(*N* = 70)** | **TIVA group**  **(*N* = 70)** | **Median differencea (95% CI)** | ***p* value** |
| --- | --- | --- | --- | --- |
| Total | 110.0 (95.0–128.0) | 125.0 (109.0–130.0) | 8.0 (1.0–15.0) | 0.022 |
| 1. Able to breathe easy | 10.0 (8.0–10.0) | 10.0 (9.0–10.0) | 0.0 (0.0–0.0) | 0.194 |
| 2. Been able to enjoy food | 8.0 (5.0–10.0) | 9.0 (6.0–10.0) | 0.0 (0.0–1.0) | 0.055 |
| 3. Feeling rested | 8.0 (6.0–10.0) | 9.0 (7.0–10.0) | 0.0 (0.0–1.0) | 0.114 |
| 4. Have had a good sleep | 8.0 (6.0–10.0) | 8.0 (7.0–10.0) | 0.0 (0.0–1.0) | 0.204 |
| 5. Able to look after personal toilet and hygiene unaided | 5.0 (2.0–9.0) | 7.0 (2.0–9.0) | 0.0 (0.0–2.0) | 0.224 |
| 6. Able to communicate with family or friends | 10.0 (8.0–10.0) | 10.0 (9.0–10.0) | 0.0 (0.0–0.0) | 0.047 |
| 7. Getting support from hospital doctors and nurse | 10.0 (9.0–10.0) | 10.0 (10.0–10.0) | 0.0 (0.0–0.0) | 0.267 |
| 8. Able to return to work or usual home activities | 0.0 (0.0–4.0) | 0.0 (0.0–5.0) | 0.0 (0.0–0.0) | 0.763 |
| 9. Feeling comfortable and in control | 9.0 (6.0–10.0) | 9.5 (8.0–10.0) | 0.0 (0.0–1.0) | 0.069 |
| 10. Having a feeling of general well-being | 7.0 (4.0–9.0) | 8.5 (6.0–10.0) | 1.0 (0.0–2.0) | 0.002 |
| 11. Moderate pain | 5.5 (4.0–7.0) | 6.5 (5.0–8.0) | 1.0 (0.0–1.0) | 0.087 |
| 12. Severe pain | 9.0 (7.0–10.0) | 9.0 (8.0–10.0) | 0.0 (0.0–1.0) | 0.089 |
| 13. Nausea or vomiting | 10.0 (9.0–10.0) | 10.0 (10.0–10.0) | 0.0 (0.0–0.0) | 0.207 |
| 14. Feeling worried or anxious | 9.0 (6.0–10.0) | 10.0 (7.0–10.0) | 0.0 (0.0–1.0) | 0.187 |
| 15. Feeling sad or depressed | 10.0 (8.0–10.0) | 10.0 (8.0–10.0) | 0.0 (0.0–0.0) | 0.922 |

Data are presented as the median (interquartile range) or median difference (95% CI).

aMedian differences are expressed as the TIVA group versus the DES group.

**Supplemental Table S4** Comparison of Quality of Recovery-15 (QoR-15K) score at 72h postoperatively between the propofol-based total intravenous anaesthesia (TIVA) and inhaled desflurane (DES) groups.

| **QoR-15K items** | **DES group**  **(*N* = 67)** | **TIVA group**  **(*N* = 65)** | **Median differencea (95% CI)** | ***p* value** |
| --- | --- | --- | --- | --- |
| Total | 125.0 (113.0–137.8) | 129 (114.5–140.0) | 3.0 (-3.0–8.0) | 0.400 |
| 1. Able to breathe easy | 10.0 (8.0–10.0) | 10.0 (9.0–10.0) | 0.0 (0.0–0.0) | 0.032 |
| 2. Been able to enjoy food | 9.0 (7.0–10.0) | 10.0 (8.0–10.0) | 0.0 (0.0–1.0) | 0.282 |
| 3. Feeling rested | 9.0 (8.0–10.0) | 10.0 (8.0–10.0) | 0.0 (0.0–0.0) | 0.337 |
| 4. Have had a good sleep | 9.0 (8.0–10.0) | 9.0 (8.0–10.0) | 0.0 (0.0–1.0) | 0.417 |
| 5. Able to look after personal toilet and hygiene unaided | 9.0 (5.3–10.0) | 8.0 (5.8–10.0) | 0.0 (-1.0–0.0) | 0.494 |
| 6. Able to communicate with family or friends | 10.0 (10.0–10.0) | 10.0 (10.0–10.0) | 0.0 (0.0–0.0) | 0.555 |
| 7. Getting support from hospital doctors and nurse | 10.0 (10.0–10.0) | 10.0 (10.0–10.0) | 0.0 (0.0–0.0) | 0.139 |
| 8. Able to return to work or usual home activities | 4.0 (0.0–6.8) | 1.0 (0.0–7.0) | 0.0 (-1.0–0.0) | 0.443 |
| 9. Feeling comfortable and in control | 9.0 (8.0–10.0) | 10.0 (8.0–10.0) | 0.0 (0.0–0.0) | 0.456 |
| 10. Having a feeling of general well-being | 8.0 (5.0–10.0) | 9.0 (7.0–10.0) | 1.0 (0.0–2.0) | 0.030 |
| 11. Moderate pain | 7.0 (5.0–8.0) | 8.0 (5.0–9.0) | 1.0 (0.0–1.0) | 0.086 |
| 12. Severe pain | 10.0 (7.3–10.0) | 10.0 (8.8–10.0) | 0.0 (0.0–0.0) | 0.439 |
| 13. Nausea or vomiting | 10.0 (10.0–10.0) | 10.0 (9.8–10.0) | 0.0 (0.0–0.0) | 0.380 |
| 14. Feeling worried or anxious | 10.0 (8.0–10.0) | 10.0 (7.8–10.0) | 0.0 (0.0–0.0) | 0.812 |
| 15. Feeling sad or depressed | 10.0 (9.0–10.0) | 10.0 (8.0–10.0) | 0.0 (0.0–0.0) | 0.975 |

Data are presented as the median (interquartile range) or median difference (95% CI).

aMedian differences are expressed as the TIVA group versus the DES group.