**Table IIs – Device-related outcomes**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **DEVICE-RELATED OUTCOMES** | | | | | |
| **Strong Outcomes** | | | | | |
| **Duration of support (Days on Impella ± SD)** | | | | | |
| **First Author, Year** | **Sample size** | **Impella 5.0** | **min** | **max** | **p value** |
| Schibilsky [10] 2016 | 8 | 15±11 | 2 | 36 | - |
| Mastroianni [4] 2016 | 14 | 8,5±4,7 | 1 | 20 | - |
| Lima [5] 2016 | 40 | 7±5 | 1 | 22 | - |
| Hall [8] 2018 | 58 | 7±5 | 0 | 22 | - |
| David [13] 2019 | 29 | 9±7 | - | - | - |
| Boll [14] 2019 | 22 | 8,8±5,1 | - | - | - |
| Chung [9] 2019 | 100 | 12,5 | 7 | 23,8 | - |
| Bansal [11] 2016 | 24 | 17,6 | 1 | 71 | - |
| Bernhardt [12] 2019 | 22 | 16,3±4,7 | - | - | - |
| Bertoglio [15] 2019 | 9 | 15,7 | 5 | 35 | - |
| Griffith [6] 2013 | 16 | 3,7±2,9 | 1,7 | 12,6 | - |
| Engstrom[16] 2013 | 46 | 74 h (IQR 25-120) | - | - | - |
| Gaudard [7] 2015 | 40 | 15 | 7 | 26 | - |
|  |  | **Impella 5.0** | **Impella 2.5** | | **p value** |
| Engstrom [1] 2011 | 34 | 129 (IQR 82-293 h) | 50 (6-231) | | 0,18 |
| **Technical success [specify: surgical positioning?]** | | |  |  |  |
| **First Author, Year** | **Sample size** | **Impella 5.0** |  |  |  |
| Schibilsky [10] 2016 | 8 | 100% |  |  |  |
| Bertoglio [15] 2019 | 9 | 100% |  |  |  |
| Griffith [6] 2013 | 16 | 100% |  |  |  |
| Bernhardt [12] 2019 | 22 | 100% |  |  |  |
| **Duration of Impella implantation intervention (min)** | | | | | |
| **First Author, Year** | **Sample size** | **Impella 5.0** | **min** | **max** |  |
| Mastroianni [4] 2016 | 14 | 30±12 | - | - |  |
| David [13] 2019 | 29 | 105±44 | - | - |  |
| Bertoglio [15] 2019 | 9 | 67 | 43 | 115 |  |
|  |  | **<5 min** | **<10 min** | **10-15 min** | **>15 min** |
| Griffith [6] 2013 | 16 | 1 | 6 | 6 | 3 |
| **Early mobilization and physiotherapy (pts)** | | | |  |  |
| **First Author, Year** | **Sample size** | **Impella 5.0** | **%** |  |  |
| Monteagudo-Vela [2] 2019 | 14 | 14 | 100% |  |  |
| Bernhardt [12] 2019 | 22 | 15 | 68% |  |  |
| Bertoglio [15] 2019 | 9 | 6 | 67% |  |  |
| **Average pomp flow (l/min)** | | |  |  |  |
| **First Author, Year** | **Sample size** | **Impella 5.0** |  |  |  |
| Mastroianni [4] 2016 | 14 | 4,1±0,7 |  |  |  |
| Griffith [6] 2013 | 16 | 4,0±0,6 |  |  |  |
| **Average Impella performance level (value 0-9)** | | |  |  |  |
| **First Author, Year** | **Sample size** | **Impella 5.0** |  |  |  |
| Griffith [6] 2013 | 16 | 7.7 |  |  |  |
| **Major device malfunction (pts)** | | | |  |  |
| **First Author, Year** | **Sample size** | **Impella 5.0** | **%** |  |  |
| Gaudard [7] 2015 | 40 | 4 | 10% |  |  |
| **Device exchange (pts)** | | | |  |  |
| **First Author, Year** | **Sample size** | **Impella 5.0** | **%** |  |  |
| Chung [9] 2019 | 100 | 13 | 13% |  |  |
| Griffith [6] 2013 | 16 | 1 | 6% |  |  |
| **Soft outcomes** | | | |  |  |
| **Successfull removal (pts)** | | | |  |  |
| **First Author, Year** | **Sample size** | **Impella 5.0** | **%** |  |  |
| Griffith [6] 2013 | 16 | 16 | 100% |  |  |
| **Walk with the device in place (pts)** | | | |  |  |
| **First Author, Year** | **Sample size** | **Impella 5.0** | **%** |  |  |
| Bertoglio [15] 2019 | 9 | 2 | 22,2% |  |  |
| **Minor device malfunction (pts)** | | | |  |  |
| **First Author, Year** | **Sample size** | **Impella 5.0** | **%** |  |  |
| Gaudard [7] 2015 | 40 | 3 | 8% |  |  |
| **Device-related infections (pts)** | | | |  |  |
| **First Author, Year** | **Sample size** | **Impella 5.0** | **%** |  |  |
| Gaudard [7] 2015 | 40 | 7 | 18% |  |  |
| **Successful extubation (pts)** | | | |  |  |
| **First Author, Year** | **Sample size** | **Impella 5.0** | **%** |  |  |
| Bansal [11] 2016 | 24 | 21 | 87.5% |  |  |
| Gaudard [7] 2015 | 25 | 7 | 28% |  |  |
| **Successful IABP removal (pts)** | | | |  |  |
| **First Author, Year** | **Sample size** | **Impella 5.0** | **%** |  |  |
| Bansal [11] 2016 | 17 | 17 | 100% |  |  |