

**Table D13: Perioperative Outcomes Table for KQs 3a and 3b**

| Author, year                  | Arm(name)                  | Outcome and Units                           | N for analysis | Time point | Outcome Value | Outcome IQR Range SD |
|-------------------------------|----------------------------|---|----------------|------------|---------------|----------------------|
| Barbalias, 1999 <sup>45</sup> | Arm 1(Partial nephrectomy) | Length of stay: days                        | 41             | NR         | 7.3           | NR                   |
| Barbalias, 1999 <sup>45</sup> | Arm 2(Radical nephrectomy) | Length of stay: days                        | 48             | NR         | 8.1           | NR                   |
| Barbalias, 1999 <sup>45</sup> | Arm 1(Partial nephrectomy) | Blood Transfusion:                          | 41             | 5 years    | 0.8           | NR                   |
| Barbalias, 1999 <sup>45</sup> | Arm 2(Radical nephrectomy) | Blood Transfusion:                          | 48             | 5 years    | 1.1           | NR                   |
| Bensalah, 2007 <sup>111</sup> | Arm 1(LPN)                 | Blood loss: cc or mls                       | 50             | NR         | 217           | SD: 178              |
| Bensalah, 2007 <sup>111</sup> | Arm 2(LRFA)                | Blood loss: cc or mls                       | 38             | NR         | 24            | SD: 24               |
| Bensalah, 2007 <sup>111</sup> | Arm 1(LPN)                 | Length of stay: days                        | 50             | NR         | 2.9           | SD: 1.6              |
| Bensalah, 2007 <sup>111</sup> | Arm 2(LRFA)                | Length of stay: days                        | 38             | NR         | 0.7           | SD: 0.7              |
| Brewer, 2012 <sup>98</sup>    | Arm 1(MPN)                 | Blood loss: cc or mls                       | 45             | NR         | 401.8         | SD: 412.7            |
| Brewer, 2012 <sup>98</sup>    | Arm 2(MRN)                 | Blood loss: cc or mls                       | 108            | NR         | 157.6         | SD: 166.8            |
| Brewer, 2012 <sup>98</sup>    | Arm 1(MPN)                 | Blood Transfusion: patients                 | 45             | NR         | 8             | NR                   |
| Brewer, 2012 <sup>98</sup>    | Arm 2(MRN)                 | Blood Transfusion: patients                 | 108            | NR         | 8             | NR                   |
| Brewer, 2012 <sup>98</sup>    | Arm 1(MPN)                 | Conversion to radical nephrectomy: patients | 45             | NR         | 2             | NR                   |
| Brewer, 2012 <sup>98</sup>    | Arm 2(MRN)                 | Conversion to radical nephrectomy: patients | 108            | NR         | NA            | NR                   |
| Brewer, 2012 <sup>98</sup>    | Arm 1(MPN)                 | conversion to open surgery: patients        | 45             | NR         | 2             | NR                   |
| Brewer, 2012 <sup>98</sup>    | Arm 2(MRN)                 | conversion to open surgery: patients        | 108            | NR         | 1             | NR                   |
| Deklaj, 2010 <sup>99</sup>    | Arm 1(Partial nephrectomy) | Blood loss: cc or mls                       | 33             | NR         | 233           | NR                   |
| Deklaj, 2010 <sup>99</sup>    | Arm 2(Radical nephrectomy) | Blood loss: cc or mls                       | 52             | NR         | 112           | NR                   |
| Deklaj, 2010 <sup>99</sup>    | Arm 1(Partial nephrectomy) | Blood Transfusion: cc or mls                | 33             | NR         | 9.1           | NR                   |

| <b>Author, year</b>         | <b>Arm(name)</b>                       | <b>Outcome and Units</b>                    | <b>N for analysis</b> | <b>Time point</b> | <b>Outcome Value</b> | <b>Outcome IQR Range SD</b> |
|-----------------------------|--|---|-----------------------|-------------------|----------------------|-----------------------------|
| Deklaj, 2010 <sup>99</sup>  | Arm 2(Radical nephrectomy)             | Blood Transfusion: cc or mls                | 52                    | NR                | 5.8                  | NR                          |
| Deklaj, 2010 <sup>99</sup>  | Arm 1(Partial nephrectomy)             | conversion to open surgery: patients        | 33                    | NR                | 3                    | NR                          |
| Deklaj, 2010 <sup>99</sup>  | Arm 2(Radical nephrectomy)             | conversion to open surgery: patients        | 52                    | NR                | 1                    | NR                          |
| Deklaj, 2010 <sup>99</sup>  | Arm 1(Partial nephrectomy)             | Length of stay: days                        | 33                    | NR                | 2.12                 | NR                          |
| Deklaj, 2010 <sup>99</sup>  | Arm 2(Radical nephrectomy)             | Length of stay: days                        | 52                    | NR                | 2.02                 | NR                          |
| Deklaj, 2010 <sup>142</sup> | Arm 1(LRN)                             | Blood Transfusion: patients                 | 19                    | NR                | 5.3                  | NR                          |
| Deklaj, 2010 <sup>142</sup> | Arm 2(LPN)                             | Blood Transfusion: patients                 | 28                    | NR                | 7.1                  | NR                          |
| Deklaj, 2010 <sup>142</sup> | Arm 3(LAT)                             | Blood Transfusion: patients                 | 19                    | NR                | 5.3                  | NR                          |
| Deklaj, 2010 <sup>142</sup> | Arm 1(LRN)                             | Length of stay: days                        | 19                    | NR                | 5.3                  | NR                          |
| Deklaj, 2010 <sup>142</sup> | Arm 2(LPN)                             | Length of stay: days                        | 28                    | NR                | 7.1                  | NR                          |
| Deklaj, 2010 <sup>142</sup> | Arm 3(LAT)                             | Length of stay: days                        | 19                    | NR                | 5.3                  | NR                          |
| Deklaj, 2010 <sup>142</sup> | Arm 1(LRN)                             | conversion to open surgery: patients        | 19                    | NR                | 0                    | NR                          |
| Deklaj, 2010 <sup>142</sup> | Arm 2(LPN)                             | conversion to open surgery: patients        | 28                    | NR                | 1                    | NR                          |
| Deklaj, 2010 <sup>142</sup> | Arm 3(LAT)                             | conversion to open surgery: patients        | 19                    | NR                | 0                    | NR                          |
| Desai, 2005 <sup>112</sup>  | Arm 1(Laparoscopic PN)                 | Blood Transfusion: patients                 | 153                   | NR                | 7                    | NR                          |
| Desai, 2005 <sup>112</sup>  | Arm 2(Cryoablation)                    | Blood Transfusion: patients                 | 78                    | NR                | 0                    | NR                          |
| Desai, 2005 <sup>112</sup>  | Arm 1(Laparoscopic PN)                 | conversion to open surgery: patients        | 153                   | NR                | 1                    | NR                          |
| Desai, 2005 <sup>112</sup>  | Arm 2(Cryoablation)                    | conversion to open surgery: patients        | 78                    | NR                | 0                    | NR                          |
| Emara, 2014 <sup>113</sup>  | NA(Cryoablation)                       | Conversion to radical nephrectomy: patients | 56                    | NR                | 0                    | NR                          |
| Emara, 2014 <sup>113</sup>  | NA(Robot assisted partial nephrectomy) | Conversion to radical nephrectomy: patients | 47                    | NR                | 2                    | NR                          |
| Emara, 2014 <sup>113</sup>  | NA(Cryoablation)                       | Blood loss: cc or mls                       | 56                    | NR                | 47.1                 | SD: 16.24                   |

| <b>Author, year</b>              | <b>Arm(name)</b>                                | <b>Outcome and Units</b>    | <b>N for analysis</b> | <b>Time point</b> | <b>Outcome Value</b> | <b>Outcome IQR Range SD</b> |
|----------------------------------|---|-----------------------------|-----------------------|-------------------|----------------------|-----------------------------|
| Emara, 2014 <sup>113</sup>       | NA(Robot assisted partial nephrectomy)          | Blood loss: cc or mls       | 47                    | NR                | 94.3                 | SD: 40.1                    |
| Emara, 2014 <sup>113</sup>       | NA(Cryoablation)                                | Length of stay: days        | 56                    | NR                | 1.679                | SD: 0.175                   |
| Emara, 2014 <sup>113</sup>       | NA(Robot assisted partial nephrectomy)          | Length of stay: days        | 47                    | NR                | 1.383                | SD: 0.1237                  |
| Emara, 2014 <sup>113</sup>       | NA(Cryoablation)                                | Blood Transfusion: patients | 56                    | NR                | 0                    | NR                          |
| Emara, 2014 <sup>113</sup>       | NA(Robot assisted partial nephrectomy)          | Blood Transfusion: patients | 47                    | NR                | 0                    | NR                          |
| Gratzke, 2009 <sup>110</sup>     | Arm 1(Retroperitoneoscopic radical nephrectomy) | Blood loss: cc or mls       | 36                    | NR                | 231                  | SD: 153                     |
| Gratzke, 2009 <sup>110</sup>     | Arm 2(Open radical nephrectomy)                 | Blood loss: cc or mls       | 37                    | NR                | 424                  | SD: 361                     |
| Gratzke, 2009 <sup>110</sup>     | Arm 3(Nephron-sparing surgery)                  | Blood loss: cc or mls       | 44                    | NR                | 361                  | SD: 360                     |
| Gratzke, 2009 <sup>110</sup>     | Arm 1(Retroperitoneoscopic radical nephrectomy) | Length of stay: days        | 36                    | NR                | 7.2                  | SD: 2.9                     |
| Gratzke, 2009 <sup>110</sup>     | Arm 2(Open radical nephrectomy)                 | Length of stay: days        | 37                    | NR                | 9.1                  | SD: 3.5                     |
| Gratzke, 2009 <sup>110</sup>     | Arm 3(Nephron-sparing surgery)                  | Length of stay: days        | 44                    | NR                | 9.6                  | IQR: Range: SD: 3.1         |
| Gratzke, 2009 <sup>110</sup>     | Arm 1(Retroperitoneoscopic radical nephrectomy) | Blood Transfusion: patients | 36                    | NR                | 4                    | NR                          |
| Gratzke, 2009 <sup>110</sup>     | Arm 2(Open radical nephrectomy)                 | Blood Transfusion: patients | 37                    | NR                | 10                   | NR                          |
| Gratzke, 2009 <sup>110</sup>     | Arm 3(Nephron-sparing surgery)                  | Blood Transfusion: patients | 44                    | NR                | 9                    | NR                          |
| Guillotreau, 2012 <sup>114</sup> | Arm 1(RPN)                                      | Blood loss: cc or mls       | 210                   | NR                | 200                  | IQR: 100-300                |

| <b>Author, year</b>              | <b>Arm(name)</b>               | <b>Outcome and Units</b>                    | <b>N for analysis</b> | <b>Time point</b> | <b>Outcome Value</b> | <b>Outcome IQR Range SD</b>          |
|----------------------------------|--------------------------------|---|-----------------------|-------------------|----------------------|--------------------------------------|
| Guillotreau, 2012 <sup>114</sup> | Arm 2(LCA)                     | Blood loss: cc or mls                       | 226                   | NR                | 75                   | IQR: 50-100                          |
| Guillotreau, 2012 <sup>114</sup> | Arm 1(RPN)                     | Length of stay: days                        | 210                   | NR                | 72                   | IQR: 72-96<br>SD: NR                 |
| Guillotreau, 2012 <sup>114</sup> | Arm 2(LCA)                     | Length of stay: days                        | 226                   | NR                | 48                   | IQR: 24-72<br>Range: NR<br>SD: NR    |
| Guillotreau, 2012 <sup>114</sup> | Arm 1(RPN)                     | conversion to open surgery: patients        | 210                   | NR                | NS                   | IQR: NS<br>Range: NR<br>SD: NR       |
| Guillotreau, 2012 <sup>114</sup> | Arm 2(LCA)                     | conversion to open surgery: patients        | 226                   | NR                | 0                    | IQR: 0 Range:<br>NR SD: NR           |
| Haramis, 2012 <sup>115</sup>     | Arm 1(LCA)                     | Blood loss: cc or mls                       | 75                    | NR                | 66                   | NR                                   |
| Haramis, 2012 <sup>115</sup>     | Arm 2(LPN)                     | Blood loss: cc or mls                       | 92                    | NR                | 168.4                | NR                                   |
| Haramis, 2012 <sup>115</sup>     | Arm 1(LCA)                     | Blood Transfusion: patients                 | 75                    | NR                | 3                    | NR                                   |
| Haramis, 2012 <sup>115</sup>     | Arm 2(LPN)                     | Blood Transfusion: patients                 | 92                    | NR                | 5                    | NR                                   |
| Haramis, 2012 <sup>115</sup>     | Arm 1(LCA)                     | Length of stay: days                        | 75                    | NR                | 1.6                  | NR                                   |
| Haramis, 2012 <sup>115</sup>     | Arm 2(LPN)                     | Length of stay: days                        | 92                    | NR                | 2                    | NR                                   |
| Haramis, 2012 <sup>115</sup>     | Arm 1(LCA)                     | Conversion to radical nephrectomy: patients | 75                    | NR                | NA                   | NR                                   |
| Haramis, 2012 <sup>115</sup>     | Arm 2(LPN)                     | Conversion to radical nephrectomy: patients | 92                    | NR                | 3                    | NR                                   |
| Haramis, 2012 <sup>115</sup>     | Arm 1(LCA)                     | conversion to open surgery: patients        | 75                    | NR                | 0                    | NR                                   |
| Haramis, 2012 <sup>115</sup>     | Arm 2(LPN)                     | conversion to open surgery: patients        | 92                    | NR                | 1                    | NR                                   |
| Iizuka, 2012 <sup>107</sup>      | Arm 1(T1b-Partial Nephrectomy) | Blood loss: cc or mls                       | 67                    | NR                | 265                  | IQR: NR<br>Range: 10-2400'<br>SD: NR |
| Iizuka, 2012 <sup>107</sup>      | Arm 2(T1b-Radical Nephrectomy) | Blood loss: cc or mls                       | 195                   | NR                | 282                  | IQR: NR<br>Range: 5-2500'<br>SD: NR  |

| <b>Author, year</b>             | <b>Arm(name)</b>                        | <b>Outcome and Units</b>             | <b>N for analysis</b> | <b>Time point</b> | <b>Outcome Value</b> | <b>Outcome IQR Range SD</b>         |
|---------------------------------|---|--------------------------------------|-----------------------|-------------------|----------------------|-------------------------------------|
| Iizuka, 2012 <sup>107</sup>     | Arm 3(T1a-Partial Nephrectomy)          | Blood loss: cc or mls                | 324                   | NR                | 248                  | IQR: NR<br>Range: 5-3400'<br>SD: NR |
| Indudhara, 1997 <sup>47</sup>   | Arm 1(nephron sparing surgery)          | Blood loss: cc or mls                | 35                    | 1                 | 390                  | IQR: NR<br>Range: 100-900           |
| Indudhara, 1997 <sup>47</sup>   | Arm 2(radical nephrectomy)              | Blood loss: cc or mls                | 71                    | 1                 | 150                  | Range: 90-390                       |
| Indudhara, 1997 <sup>47</sup>   | Arm 1(nephron sparing surgery)          | Blood Transfusion: patients          | 35                    | 1                 | 1.7                  | Range: 0-4                          |
| Indudhara, 1997 <sup>47</sup>   | Arm 2(radical nephrectomy)              | Blood Transfusion: patients          | 71                    | 1                 | 0.85                 | Range: 0-3                          |
| Indudhara, 1997 <sup>47</sup>   | Arm 1(nephron sparing surgery)          | Length of stay: days                 | 35                    | 1                 | 7                    | Range: 5 to 19                      |
| Indudhara, 1997 <sup>47</sup>   | Arm 2(radical nephrectomy)              | Length of stay: days                 | 71                    | 1                 | 5                    | Range: 5 to 9                       |
| Janetschek, 2000 <sup>100</sup> | Arm 1(Wedge-resection)                  | Blood loss: cc or mls                | 25                    | NR                | 287                  | Range: 20-800                       |
| Janetschek, 2000 <sup>100</sup> | Arm 2(Laparoscopic radical nephrectomy) | Blood loss: cc or mls                | 73                    | NR                | 170                  | IQR: 0-1500<br>Range: SD:           |
| Janetschek, 2000 <sup>100</sup> | Arm 1(Wedge-resection)                  | Length of stay: days                 | 25                    | NR                | 5.8                  | Range: 3-8                          |
| Janetschek, 2000 <sup>100</sup> | Arm 2(Laparoscopic radical nephrectomy) | Length of stay: days                 | 73                    | NR                | 7.2                  | Range: 3-32                         |
| Janetschek, 2000 <sup>100</sup> | Arm 1(Wedge-resection)                  | conversion to open surgery: patients | 25                    | NR                | 0                    | NR                                  |
| Janetschek, 2000 <sup>100</sup> | Arm 2(Laparoscopic radical nephrectomy) | conversion to open surgery: patients | 73                    | NR                | 0                    | NR                                  |
| Kaowalczyk, 2013 <sup>144</sup> | Arm 1(Ablation)                         | Blood Transfusion: patients          | 211                   | 30 days           | 14                   | NR                                  |
| Kaowalczyk, 2013 <sup>144</sup> | Arm 2(MIPN)                             | Blood Transfusion: patients          | 160                   | 30 days           | NR                   | NR                                  |
| Kaowalczyk, 2013 <sup>144</sup> | Arm 3(OPN)                              | Blood Transfusion: patients          | 330                   | 30 days           | 46                   | NR                                  |
| Kaowalczyk, 2013 <sup>144</sup> | Arm 4(MIRN)                             | Blood Transfusion: patients          | 535                   | 30 days           | 31                   | NR                                  |
| Kaowalczyk, 2013 <sup>144</sup> | Arm 5(ORN)                              | Blood Transfusion: patients          | 404                   | 30 days           | 37                   | NR                                  |

| <b>Author, year</b>             | <b>Arm(name)</b>           | <b>Outcome and Units</b>                    | <b>N for analysis</b> | <b>Time point</b> | <b>Outcome Value</b> | <b>Outcome IQR Range SD</b> |
|---------------------------------|----------------------------|---|-----------------------|-------------------|----------------------|-----------------------------|
| Kaowalczyk, 2013 <sup>144</sup> | Arm 1(Ablation)            | Length of stay: days                        | 211                   | NA                | 2.3                  | SD: 2.5                     |
| Kaowalczyk, 2013 <sup>144</sup> | Arm 2(MIPN)                | Length of stay: days                        | 160                   | NA                | 3.7                  | SD: 3.1                     |
| Kaowalczyk, 2013 <sup>144</sup> | Arm 3(OPN)                 | Length of stay: days                        | 330                   | NA                | 5.4                  | SD: 4.3                     |
| Kaowalczyk, 2013 <sup>144</sup> | Arm 4(MIRN)                | Length of stay: days                        | 535                   | NA                | 3.9                  | SD: 2.8                     |
| Kaowalczyk, 2013 <sup>144</sup> | Arm 5(ORN)                 | Length of stay: days                        | 404                   | NA                | 5.4                  | SD: 3.6                     |
| Kim, 2003 <sup>101</sup>        | Arm 1(Partial nephrectomy) | Blood loss: cc or mls                       | 79                    | NR                | 391.2                | Range: 50-1500<br>SD: 390.7 |
| Kim, 2003 <sup>101</sup>        | Arm 2(Radical nephrectomy) | Blood loss: cc or mls                       | 35                    | NR                | 372.4                | Range: 50-1900<br>SD: 423.7 |
| Kim, 2003 <sup>101</sup>        | Arm 1(Partial nephrectomy) | Blood Transfusion: patients                 | 79                    | NR                | 4 (5.1%)             | NR                          |
| Kim, 2003 <sup>101</sup>        | Arm 2(Radical nephrectomy) | Blood Transfusion: patients                 | 35                    | NR                | 2 (5.7%)             | NR                          |
| Kim, 2003 <sup>101</sup>        | Arm 1(Partial nephrectomy) | Conversion to radical nephrectomy: patients | 79                    | NR                | 1                    | NR                          |
| Kim, 2003 <sup>101</sup>        | Arm 2(Radical nephrectomy) | Conversion to radical nephrectomy: patients | 35                    | NR                | 0                    | NR                          |
| Kim, 2003 <sup>101</sup>        | Arm 1(Partial nephrectomy) | Length of stay: days                        | 79                    | NR                | 2.8                  | Range: 1-6                  |
| Kim, 2003 <sup>101</sup>        | Arm 2(Radical nephrectomy) | Length of stay: days                        | 35                    | NR                | 3.2                  | Range: 1-9                  |
| Kiriluk, 2011 <sup>116</sup>    | Arm 1(LPN)                 | Blood loss: cc or mls                       | 51                    | NR                | 141                  | Range: 10 - 600             |
| Kiriluk, 2011 <sup>116</sup>    | Arm 2(LAT)                 | Blood loss: cc or mls                       | 51                    | NR                | 54.2                 | Range: 0 - 300              |
| Kiriluk, 2011 <sup>116</sup>    | Arm 1(LPN)                 | Blood Transfusion: patients                 | 51                    | NR                | 4                    | NR                          |
| Kiriluk, 2011 <sup>116</sup>    | Arm 2(LAT)                 | Blood Transfusion: patients                 | 51                    | NR                | 5                    | NR                          |
| Kiriluk, 2011 <sup>116</sup>    | Arm 1(LPN)                 | Length of stay: days                        | 51                    | NR                | 1.7                  | Range: 1 - 5                |
| Kiriluk, 2011 <sup>116</sup>    | Arm 2(LAT)                 | Length of stay: days                        | 51                    | NR                | 1.67                 | Range: 0 - 12               |
| Kiriluk, 2011 <sup>116</sup>    | Arm 1(LPN)                 | conversion to open surgery: patients        | 51                    | NR                | 4                    | NR                          |
| Kiriluk, 2011 <sup>116</sup>    | Arm 2(LAT)                 | conversion to open surgery: patients        | 51                    | NR                | 0                    | NR                          |
| Klatte, 2011 <sup>128</sup>     | Arm 1(Cryoablation)        | Blood Transfusion: patients                 | 41                    | NR                | 0                    | NR                          |

| <b>Author, year</b>          | <b>Arm(name)</b>                        | <b>Outcome and Units</b>    | <b>N for analysis</b> | <b>Time point</b> | <b>Outcome Value</b> | <b>Outcome IQR Range SD</b> |
|------------------------------|---|-----------------------------|-----------------------|-------------------|----------------------|-----------------------------|
| Klatte, 2011 <sup>128</sup>  | Arm 2(PN)                               | Blood Transfusion: patients | 82                    | NR                | 1                    | NR                          |
| Kopp, 2014 <sup>66</sup>     | Arm 1(RN)                               | Blood loss: cc or mls       | 122                   | NR                | 225                  | IQR: 100-400                |
| Kopp, 2014 <sup>66</sup>     | Arm 2(PN)                               | Blood loss: cc or mls       | 80                    | NR                | 325                  | IQR: 200-500                |
| Kopp, 2014 <sup>66</sup>     | Arm 1(RN)                               | Blood Transfusion: patients | 122                   | NR                | 20                   | NR                          |
| Kopp, 2014 <sup>66</sup>     | Arm 2(PN)                               | Blood Transfusion: patients | 80                    | NR                | 13                   | NR                          |
| Kopp, 2014 <sup>66</sup>     | Arm 1(RN)                               | Length of stay: days        | 122                   | NR                | 6                    | IQR: 4-14'                  |
| Kopp, 2014 <sup>66</sup>     | Arm 2(PN)                               | Length of stay: days        | 80                    | NR                | 7                    | IQR: 6-10'                  |
| Matin, 2002 <sup>105</sup>   | Arm 1(Nephron sparing surgery)          | Blood loss: cc or mls       | 82                    | NR                | 200                  | Range: 150-300              |
| Matin, 2002 <sup>105</sup>   | Arm 2(Laparoscopic radical nephrectomy) | Blood loss: cc or mls       | 35                    | NR                | 100                  | Range: 50-150               |
| Matin, 2002 <sup>105</sup>   | Arm 1(Nephron sparing surgery)          | Length of stay: days        | 82                    | NR                | 5                    | Range: 5-7                  |
| Matin, 2002 <sup>105</sup>   | Arm 2(Laparoscopic radical nephrectomy) | Length of stay: days        | 35                    | NR                | 1                    | Range: 1-2                  |
| Miyamoto, 2012 <sup>76</sup> | Arm 1(RN)                               | Blood loss: cc or mls       | 152                   | NR                | 895.1                | SD: 73.6                    |
| Miyamoto, 2012 <sup>76</sup> | Arm 2(PN)                               | Blood loss: cc or mls       | 59                    | NR                | 293.5                | SD: 38.9                    |
| Miyamoto, 2012 <sup>76</sup> | Arm 1(RN)                               | Blood loss: cc or mls       | 152                   | Not Specified     | 895.1                | SD: 73.6                    |
| Miyamoto, 2012 <sup>76</sup> | Arm 2(PN)                               | Blood loss: cc or mls       | 59                    | Not Specified     | 293.5                | SD: 38.9                    |
| Mues, 2012 <sup>120</sup>    | Arm 1(Ablation)                         | Blood loss: cc or mls       | 98                    | NR                | 50                   | Range: 5-400                |
| Mues, 2012 <sup>120</sup>    | Arm 2(PN)                               | Blood loss: cc or mls       | 100                   | NR                | 400                  | Range: 25-3900              |
| Mues, 2012 <sup>120</sup>    | Arm 1(Ablation)                         | Blood Transfusion: patients | 98                    | NR                | 0                    | NR                          |
| Mues, 2012 <sup>120</sup>    | Arm 2(PN)                               | Blood Transfusion: patients | 100                   | NR                | 1                    | NR                          |
| Mues, 2012 <sup>120</sup>    | Arm 1(Ablation)                         | Length of stay: days        | 98                    | NR                | 1.7                  | Range: 1.0-8.0              |
| Mues, 2012 <sup>120</sup>    | Arm 2(PN)                               | Length of stay: days        | 100                   | NR                | 4.1                  | Range: 1.0-21.0             |
| Pascal, 2011 <sup>117</sup>  | Arm 1(LPN)                              | Blood loss: cc or mls       | 48                    | NR                | 391.3                | SD: 692                     |

| <b>Author, year</b>                 | <b>Arm(name)</b>  | <b>Outcome and Units</b>             | <b>N for analysis</b> | <b>Time point</b> | <b>Outcome Value</b> | <b>Outcome IQR Range SD</b> |
|-------------------------------------|---|--------------------------------------|-----------------------|-------------------|----------------------|-----------------------------|
| Pascal, 2011 <sup>117</sup>         | Arm 2(Laparoscopic Renal cryoablation)                      | Blood loss: cc or mls                | 30                    | NR                | 162.4                | SD: 163.2                   |
| Pascal, 2011 <sup>117</sup>         | Arm 1(LPN)  | Blood Transfusion: patients          | 48                    | NR                | 8                    | NR                          |
| Pascal, 2011 <sup>117</sup>         | Arm 2(Laparoscopic Renal cryoablation)                      | Blood Transfusion: patients          | 30                    | NR                | 1                    | NR                          |
| Pascal, 2011 <sup>117</sup>         | Arm 1(LPN)  | Length of stay: days                 | 48                    | NR                | 4.6                  | SD: 2.9                     |
| Pascal, 2011 <sup>117</sup>         | Arm 2(Laparoscopic Renal cryoablation)                      | Length of stay: days                 | 30                    | NR                | 2.4                  | SD: 2.2                     |
| Pascal, 2011 <sup>117</sup>         | Arm 1(LPN)  | conversion to open surgery: patients | 48                    | NR                | 4                    | NR                          |
| Pascal, 2011 <sup>117</sup>         | Arm 2(Laparoscopic Renal cryoablation)                      | conversion to open surgery: patients | 30                    | NR                | 0                    | NR                          |
| Permpongkoso I, 2007 <sup>139</sup> | Arm 1(LRN)  | conversion to open surgery: patients | 549                   | periopN A         | 16                   | NR                          |
| Permpongkoso I, 2007 <sup>139</sup> | Arm 2(LPN)  | conversion to open surgery: patients | 345                   | periopN A         | 12                   | NR                          |
| Permpongkoso I, 2007 <sup>139</sup> | Arm 3(LRA)  | conversion to open surgery: patients | 81                    | periopN A         | 0                    | NR                          |
| Roos, 2010 <sup>106</sup>           | Arm 1(Partial nephrectomy (NSS), for young (<55 years old)) | Blood Transfusion: patients          | 36                    | NR                | 9                    | NR                          |
| Roos, 2010 <sup>106</sup>           | Arm 2(Radical nephrectomy (NSS), for young (<55 years old)) | Blood Transfusion: patients          | 45                    | NR                | 3                    | NR                          |
| Roos, 2010 <sup>106</sup>           | Arm 3(Partial nephrectomy, for old (>65 years old))         | Blood Transfusion: patients          | 33                    | NR                | 7                    | NR                          |
| Roos, 2010 <sup>106</sup>           | Arm 4(Radical nephrectomy, for old (>65 years old))         | Blood Transfusion: patients          | 55                    | NR                | 10                   | NR                          |
| Roos, 2010 <sup>106</sup>           | Arm 1(Partial nephrectomy (NSS), for young (<55 years old)) | Length of stay: days                 | 36                    | NR                | 8                    | Range: 4-17                 |
| Roos, 2010 <sup>106</sup>           | Arm 2(Radical nephrectomy                                   | Length of stay: days                 | 45                    | NR                | 9                    | Range: 5-13                 |

| Author, year                    | Arm(name)   | Outcome and Units           | N for analysis | Time point | Outcome Value | Outcome IQR Range SD      |
|---------------------------------|---|-----------------------------|----------------|------------|---------------|---------------------------|
|                                 | (NSS), for young (<55 years old))                   |                             |                |            |               |                           |
| Roos, 2010 <sup>106</sup>       | Arm 3(Partial nephrectomy, for old (>65 years old)) | Length of stay: days        | 33             | NR         | 7             | Range: 7-15               |
| Roos, 2010 <sup>106</sup>       | Arm 4(Radical nephrectomy, for old (>65 years old)) | Length of stay: days        | 55             | NR         | 9             | Range: 4-28               |
| Roos, 2012 <sup>51</sup>        | Arm 1(NSS(tumor 4.1 - 7cm))                         | Blood Transfusion: patients | 85             | NR         | 14            | NR                        |
| Roos, 2012 <sup>51</sup>        | Arm 2(RN(tumor 4.1 - 7cm))                          | Blood Transfusion: patients | 118            | NR         | 16            | NR                        |
| Roos, 2012 <sup>51</sup>        | Arm 1(NSS(tumor >7cm))                              | Blood Transfusion: patients | 16             | NR         | 7             | NR                        |
| Roos, 2012 <sup>51</sup>        | Arm 2(RN(tumor >7cm))                               | Blood Transfusion: patients | 28             | NR         | 4             | NR                        |
| Shinohara, 2001 <sup>52</sup>   | Arm 1(NSS)  | Blood loss: cc or mls       | 15             | NR         | 518           | SD: 631                   |
| Shinohara, 2001 <sup>52</sup>   | Arm 2(RN)   | Blood loss: cc or mls       | 51             | NR         | 380           | SD: 330                   |
| Shinohara, 2001 <sup>52</sup>   | Arm 1(NSS)  | Blood Transfusion: patients | 15             | NR         | 4             | NR                        |
| Shinohara, 2001 <sup>52</sup>   | Arm 2(RN)   | Blood Transfusion: patients | 51             | NR         | 5             | NR                        |
| Tanagho, 2013 <sup>126</sup>    | NA(Cryoablation)                                    | Blood loss: cc or mls       | 267            | NR         | 74.2          | SD: 100.1                 |
| Tanagho, 2013 <sup>126</sup>    | NA(Robot assisted partial nephrectomy)              | Blood loss: cc or mls       | 233            | NR         | 136.3         | SD: 112.2                 |
| Tanagho, 2013 <sup>126</sup>    | NA(Cryoablation)                                    | Blood Transfusion: patients | 267            | NR         | 1             | SD: NA                    |
| Tanagho, 2013 <sup>126</sup>    | NA(Robot assisted partial nephrectomy)              | Blood Transfusion: patients | 233            | NR         | 6             | SD: NA                    |
| Tomaszewski, 2014 <sup>84</sup> | Overall(Overall)                                    | Blood loss: cc or mls       | 1092           | NR         | 179           | SD: 257                   |
| Turna, 2009 <sup>123</sup>      | Arm 1(Laparoscopic partial nephrectomy)             | Blood loss: cc or mls       | 36             | NR         | 408           | Range: 50-4500<br>SD: 800 |

| <b>Author, year</b>            | <b>Arm(name)</b>                        | <b>Outcome and Units</b> | <b>N for analysis</b> | <b>Time point</b> | <b>Outcome Value</b> | <b>Outcome IQR Range SD</b> |
|--------------------------------|---|--------------------------|-----------------------|-------------------|----------------------|-----------------------------|
| Turna, 2009 <sup>123</sup>     | Arm 2(Cryoablation)                     | Blood loss: cc or mls    | 36                    | NR                | 151                  | Range: 10-800<br>SD: 171    |
| Turna, 2009 <sup>123</sup>     | Arm 3(Radiofrequency ablation)          | Blood loss: cc or mls    | 29                    | NR                | NA                   | NR                          |
| Turna, 2009 <sup>123</sup>     | Arm 1(Laparoscopic partial nephrectomy) | Length of stay: days     | 36                    | NR                | 3.3                  | Range: 1.3-12<br>SD: 2.6    |
| Turna, 2009 <sup>123</sup>     | Arm 2(Cryoablation)                     | Length of stay: days     | 36                    | NR                | 1.8                  | Range: 0.9-6<br>SD: 1.3     |
| Turna, 2009 <sup>123</sup>     | Arm 3(Radiofrequency ablation)          | Length of stay: days     | 29                    | NR                | 1                    | Range: 1-1                  |
| Uchinda, 2004 <sup>85</sup>    | Arm 1(PN)                               | Blood loss: cc or mls    | 54                    | periopN A         | 600                  | Range: 130-2800             |
| Uchinda, 2004 <sup>85</sup>    | Arm 2(RN)                               | Blood loss: cc or mls    | 51                    | periopN A         | 390                  | Range: 65-1200              |
| Uzzo, 1999 <sup>86</sup>       | Arm 1(RN)                               | Length of stay: patients | 28                    | NR                | 7                    | NR                          |
| Uzzo, 1999 <sup>86</sup>       | Arm 2(NSS)                              | Length of stay: patients | 52                    | NR                | 7.8                  | NR                          |
| Van Poppel, 2011 <sup>87</sup> | Arm 1(NSS)                              | Blood loss: patients     | 242                   | NR                | 69                   | NR                          |
| Van Poppel, 2011 <sup>87</sup> | Arm 2(Radical nephrectomy)              | Blood loss: patients     | 290                   | NR                | 49                   | NR                          |
| Xu, 2014 <sup>53</sup>         | Arm 1(LRN)                              | Blood loss: cc or mls    | 88                    | NR                | 235.9                | SD: 411.9                   |
| Xu, 2014 <sup>53</sup>         | Arm 2(ORN)                              | Blood loss: cc or mls    | 526                   | NR                | 232.1                | SD: 379.5                   |
| Xu, 2014 <sup>53</sup>         | Arm 3(LPN)                              | Blood loss: cc or mls    | 42                    | NR                | 191.1                | SD: 166                     |
| Xu, 2014 <sup>53</sup>         | Arm 4(OPN)                              | Blood loss: cc or mls    | 187                   | NR                | 231.5                | SD: 222.5                   |
| Xu, 2014 <sup>53</sup>         | Arm 1(LRN)                              | Length of stay: days     | 88                    | NR                | 7.6                  | SD: 2.4                     |
| Xu, 2014 <sup>53</sup>         | Arm 2(ORN)                              | Length of stay: days     | 526                   | NR                | 9.2                  | SD: 3.9                     |
| Xu, 2014 <sup>53</sup>         | Arm 3(LPN)                              | Length of stay: days     | 42                    | NR                | 8.5                  | SD: 3.1                     |
| Xu, 2014 <sup>53</sup>         | Arm 4(OPN)                              | Length of stay: days     | 187                   | NR                | 9.3                  | SD: 3.8                     |
| Yasuda, 2013 <sup>92</sup>     | Arm 1(NSS)                              | Blood loss: cc or mls    | 97                    | NR                | 150                  | IQR: 60-275                 |
| Yasuda, 2013 <sup>92</sup>     | Arm 2(RN)                               | Blood loss: cc or mls    | 103                   | NR                | 157                  | IQR: 65-400                 |
| Youn, 2013 <sup>130</sup>      | Arm 1(Open PN)                          | Length of stay: days     | 14                    | NR                | 12.28                | SD: 3.29                    |
| Youn, 2013 <sup>130</sup>      | Arm 2(Laparoscopic RFA)                 | Length of stay: days     | 41                    | NR                | 8.33                 | SD: 3.23                    |

| <b>Author, year</b>       | <b>Arm(name)</b>        | <b>Outcome and Units</b>    | <b>N for analysis</b> | <b>Time point</b> | <b>Outcome Value</b> | <b>Outcome IQR Range SD</b>     |
|---------------------------|-------------------------|-----------------------------|-----------------------|-------------------|----------------------|---------------------------------|
| Youn, 2013 <sup>130</sup> | Arm 1(Open PN)          | Blood Transfusion: patients | 14                    | NR                | 0                    | NR                              |
| Youn, 2013 <sup>130</sup> | Arm 2(Laparoscopic RFA) | Blood Transfusion: patients | 41                    | NR                | 0                    | NR                              |
| Zorn, 2007 <sup>103</sup> | Arm 1(LPN)              | Blood loss: cc or mls       | 42                    | NR                | 207                  | Range: 125-450                  |
| Zorn, 2007 <sup>103</sup> | Arm 2(LRN)              | Blood loss: cc or mls       | 55                    | NR                | 121                  | Range: 100-600                  |
| Zorn, 2007 <sup>103</sup> | Arm 1(LPN)              | Blood Transfusion: patients | 42                    | NR                | 2                    | NR                              |
| Zorn, 2007 <sup>103</sup> | Arm 2(LRN)              | Blood Transfusion: patients | 55                    | NR                | 4                    | NR                              |
| Zorn, 2007 <sup>103</sup> | Arm 1(LPN)              | Length of stay: days        | 42                    | NR                | 2.3                  | NR                              |
| Zorn, 2007 <sup>103</sup> | Arm 2(LRN)              | Length of stay: days        | 55                    | NR                | 1.8                  | NR                              |
| Chang, 2015,<br>127       | Arm 1(RFA)              | Length of stay: days        | 27                    | NR                | 7.3                  | IQR: NR<br>Range: NR<br>SD: 2   |
| Chang, 2015,<br>127       | Arm 2(PN)               | Length of stay: days        | 29                    | NR                | 7.9                  | IQR: NR<br>Range: NR<br>SD: 2.4 |

N=Number; GFR: Glomerular Filtration Rate; H: Hypertension; IQR: Interquartile range; LPN: Laparoscopic partial nephrectomy; LTA: Laparoscopic Thermal Ablation; NA: Not Applicable; NR: Not reported; NSM: Non surgical Management; NSS: Nephron-sparing surgery; OPN: Open partial nephrectomy; ORN: Open Radical Nephrectomy; PN: Partial Nephrectomy; RFA: Radio frequency ablation; RN Radical nephrectomy; SD: Standard deviation; OR=Odds Ratio; RD=Risk Difference; P=p value