**Supplemental Content 5. Evidence Tables**

| **SDC 5, Table 1: Evidence on Impact of Blood Conservation Devices** |
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| **Author (Year)** | **Outcome****(Converted units)** | **Sample Size** | **Comparison Cohort**As ReportedConversion Units | **Intervention Cohort**As ReportedConversion Units | **Mean Difference**mL/patient/day | **Percent Change** |
| Gleason (1992){Gleason} | Volume of blood loss(mL/patient/day) | Comparison: 873Intervention: 784 | —a69 | — a35 | 34  | 49% |
| MacIsaac (2003){MacIsaac} | Volume of blood loss(mL/patient/day) | Comparison: 80Intervention: 80 | Median: 133 mL,3.1 days42.9  | Median: 63 mL,2.0 days31.5  | 11.4 | 27% |
| MacIsaac (2003){MacIsaac} | Change in hemoglobin(g/L/patient/day) | Comparison: 80Intervention: 80 | Median: -4 g/L1.3 | Median: -7 g/L3.5 | -2.2 | -163% |
| MacIsaac (2003){MacIsaac} | Patients transfused(number) | Comparison: 80Intervention: 80 | 30 (38%) | 17 (21%) | 13 (17%) | 45% |
| Mukhopadhyay (2010) { Muk 2010}  | Change in hemoglobin(g/L/patient/day) | Comparison: 80 Intervention: 170 | —a3.2 | —a1.7 | 1.5 | 46% |
| Mukhopadhyay (2010) { Muk 2010} | Patients transfused(number) | Comparison: 80 Intervention: 170 | 17 (21%) | 52 (31%) | -35 (-10%) | -48% |
| Mukhopadhyay (2011) { Muk 2011} | Change in hemoglobin(g/L/patient/day) | Comparison: 50 Intervention: 78 | —a4.9 | —a4.6 | 0.3 | 6% |
| Peruzzi (1993) {Peruzzi} | Volume of blood loss(mL/patient/day) | Comparison: 50 Intervention: 50 | Blood loss: 320.8, days: 3.689.1  | Blood loss: 260.3, days: 4.065.1 | 24.0  | 27% |
| Peruzzi (1993) {Peruzzi} | Hemoglobin reduction(g/L/patient/day) | Comparison: 50 Intervention: 50 |  3.7c g/dL, 3.6 days3.9  | 1.0c g/dL, 4.0 days2.5 | 1.4 | 36% |
| Peruzzi (1993) {Peruzzi} | Transfusions | Comparison: 50 Intervention: 50 | 0.6 per patient—b | 0.7 per patient—b | -0.1 per patient | -17% |
| Rezende (2010){Rezende} | Hemoglobin reduction(g/L/patient/day)  | Comparison: 65 Intervention: 62 | 1.4 mg/dL, 13.1 days1.0 | 0.7 mg/dL, 14.1 days0.5 | 0.5 | 48% |
| Silver (1993){Silver} | Volume of blood discarded(mL/patient/day) | Total: 31 | NR | NR | 22.4 mL/day0.7 | NC |
| Thorpe (2000){Thorpe} | Hemoglobin reduction(g/L/patient/day) | Comparison: 52Intervention: 48 | 0.7c | -1.3c | -0.7 | -100% |
| Widness (2005){Widness} | Volume of blood loss (mL/kg/patient/day)d | Comparison: 42Intervention: 41 | —a4.7c | —a3.1c | 1.6 | 24% |
| Widness (2005){Widness} | Transfusion (mL/kg of red blood cells per infant) | Comparison: 42Intervention: 41 | 46 | 38 | 8 | 17% |
| a Original report in conversion units, b Could not convert, cread from graph, d standard unit for pediatric patients NR, Not reported, NC, Could not calculate |

| **SDC 5, Table 2: Evidence on Impact of Small Volume Tubes** |  |
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| **Author (Year)** | **Outcome** | **Sample Size** | **Comparison Cohort****As Reported****Converted** | **Intervention Cohort****As Reported****Converted** | **Mean Difference (Converted)** | **Relative Effect (Converted)** |
| Dolman (2015){Dolman} | Incidence of Anemia(percent of cohort) | Comparison: 132Intervention: 116 | —a22.0% | —a10.3% | 11.6% | 47% |
| Dolman (2015) {Dolman} | Volume of blood loss(mL/patient/day) | Comparison: 132Intervention: 116 | —a31.7 | —a22.5 | 9.2 | 29% |
| Harber (2006){Harber} | Volume of blood loss(mL/patient/day) | Comparison: 25Intervention: 24 | Median: 4037.8 | Median: 8.08.3 | 29.5 | 78% |
| Harber (2006){Harber} | Hemoglobin reduction(g/L/patient/day) | Comparison: 25Intervention: 24 | 2.0 g/dL, 3 days6.7  | 1.3 g/dL, 3 days4.3 | 2.3 | 35% |
| Kurniali (2014){Kurniali} | Hemoglobin reduction(g/L/patient/day) | Comparison: 276Intervention: 203 | 1.4 g/dL, days NR—b | 1.3 g/dL, days NR—b | Adjustedd: -0.2NC  | NC |
| Sanchez-Giron (Total) (2008) {Sanchez} | Volume of blood loss (mL/patient/day) | Comparison: 227Intervention: 246 | Median: 13.5 mL1.0 | Median: 3.7 nL0.3 | 0.7 | 73% |
| Sanchez-Giron (ICU) (2008) {Sanchez} | Volume of blood loss (mL/patient/day) | Comparison: 227Intervention: 246 | Median: 19.9 mL1.4 | Median: 5.10.4 | 1.1  | 74% |
| Smoller (1989) {Smoller} | Volume of blood loss (mL/patient/day) | Comparison: 15Intervention: 41 | —a55.6 | —a32.2 | 23.4 | 42% |
| a Original report in conversion units, b Could not convert, c read from graph, d adjusted by multilinear regression for age, sex, race, ethnicity, BMI, length of stay and comorbities.NR, Not reported, NC, Could not calculate |

| **SDC 5, Table 3: Evidence on Impact of Bundled Interventions** |  |
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| **Author (Year)** | **Intervention Components** | **Outcome** | **Sample Size** | **Comparison Cohort****As Reported****Converted** | **Intervention Cohort****As Reported****Converted** | **Mean Difference (Converted)** | **Relative Effect (Converted)** |
| Hassan (2010){Hassan} | Microsampling tubes, reinfusion of blood drawn prior to obtaining sample; directive to minimize blood draws. | Volume of blood loss (mL/kg/patient/day) | Intervention: 24Comparison (simultaneous controls): 28 | —a0.14 | —a0.08 | 0.06 | 43% |
| Hassan (2010) {Hassan} | Microsampling tubes, reinfusion of blood drawn prior to obtaining sample; directive to minimize blood draws. | Hemoglobin level(g/L/patient/day) | Intervention: 24 Comparison (simultaneous controls): 28  | 2.1 gm/dL1.6 | 1.7 gm/dL1.7 | -0.1 | -6% |
| Hassan (2010) {Hassan} | Microsampling tubes, reinfusion of blood drawn prior to obtaining sample; directive to minimize blood draws. | Number patients transfused | Intervention: 24 Comparison (simultaneous controls): 28 | —a5 (18%) | —a2 (8%) | 3 (10%) | 44% |
| Henry (1986){Henry} | Small volume tubes Education  | Volume of blood loss(mL/patient/day) | Comparison: 20Intervention: 20 | —aCardio ICU: 377Surgical ICU: 240 | —a196150  | 18190 | 48%38% |
| Mahdy (2009){Mahdy} | Small volume tubes Blood conservation device | Volume of blood loss(mL/patient/day) | Comparison: 19Intervention: 20 | 45.4 mL, 3 days15.0 | 15.2 ml, 3 days5.1 | 10.0 | 66% |
| Mahdy (2009){Mahdy} | Small volume tubes Blood conservation device | Hemoglobin level(g/L/patient/day) | Comparison: 19Intervention: 20 | 1.3 (units NR)—b | 0.79 (units NR)—b | NC | 65% |
| Riessen (2015){Riessen} | Small volume tubesBlood conservation deviceNon-invasive testing | Volume of blood loss(mL/patient/day) | Comparison: 41Intervention: 50 | —a43.3 | —a15.0 | 28.3 | 65% |
| Riessen (2015){Riessen} | Small volume tubesBlood conservation deviceNon-invasive testing | Hemoglobin level(g/L/patient/day) | Comparison: 41Intervention: 50 | 2.5 g/dL, LOS NR—b | 3.4 g/dL, LOS NR—b |  | -36% |
| Riessen (2015) {Riessen} | Small volume tubesBlood conservation deviceNon-invasive testing | Number patients transfused | Comparison: 41Intervention: 50 | 13 (32%) | 4 (8%) | 9 (24%) | 75% |
| Saxena (2003){Saxena} | Revised lab test panelSmall volume tubes | Volume of blood loss (scheduled draws only)(mL/patient/day) | NR | —a35c | —a20 | 15 | 43% |
| a Original report in conversion units, b Could not convert, c Based on midpoint of range of midnight scheduled draws.NR, Not reported, NC, Could not calculate, LOS, length of stay |

| **SDC 5, Table 4: Evidence on Impact of Other Interventions** |  |
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| **Author (Year)** | **Intervention** | **Outcome** | **Sample Size** | **Comparison Cohort****As Reported****Converted** | **Intervention Cohort****As Reported****Converted** | **Mean Difference (Converted)** | **Relative Effect (Converted)** |
| Foulke (1989) | Documentation of blood drawn | Volume of blood loss(mL/patient/day) | Intervention: 70 Comparison: 81 | —a62.6 | —a37.8 | 24.8 | 40% |
| Foulke(1989) | Documentation of blood drawn | Number of patients transfused | Intervention: 70 Comparator: 81 | 8 (10%) | 1 (1%) | 7 (9%) | 90% |
| Martínez-Balzano (2017) | Educational intervention | Number of arterial blood gas test requisitions per patient per ventilated days | NR | 2.3c | 1.3c | 1.0 | 43% |
| Madan (2005) | Point of care testing | Number of transfusion per patient | Intervention: 34, Comparator: 46 | 5.7—b | 3.1—b | 2.6 | 46% |
| Mahieu (2012) | Point of care testing | Volume of blood loss(mL/patient/day) | Intervention: 720 Comparison: 677 | 6,056 mL—b | 4,913 mL—b | 1,639 | 27% |
| Mahieu (2012) | Point of care testing | Number of patients transfused by birthweight | Intervention: 720 Comparison: 677 |  <1500g: 50%1500-2500g: 9%>2500g: 6 | 39%9%10% | 11%0.2%-4% | 22%2%-67% |
| Salem (1991) | Point of care testing | Volume of blood loss(mL/patient/day) | Total: 321 | All tests: NR  | NR | 1,614 mL—b | NC |
| a Original report in conversion units, b Could not convert, c Read from graph.NR, Not reported, NC, Could not calculate, LOS, length of stay |