

**Supplemental table 1. Complications**

Complication	2004 to 2017				1982 to 2017	
	BPD n 128		BPD+PH n 15		All patients n 281	
	Reported	Survival	Reported	Survival	Reported	Survival
	%	%	%	%	%	%
<b>Cardiovascular</b>						
Cardiac arrhythmia	6.3	37.5	6.7	100.0	5.7	56.3
CPR required	5.5	42.9	0.0	NA	4.3	41.7
Hypertension requiring vasodilators	37.5	79.2	20.0	66.7	31.0	72.4
Inotropes on ECLS	35.9	52.2	33.3	80.0	36.7	54.4
Myocardial stunt	0.0	NA	0.0	NA	0.7	50.0
PDA: L->R	0.0	NA	6.7	0.0	0.4	0.0
Tamponade: air	0.8	0.0	0.0	NA	0.4	0.0
Tamponade: blood	3.1	25.0	0.0	NA	2.1	50.0
Tamponade: serous	0.0	NA	0.0	NA	0.4	100.0
<b>Hemorrhagic</b>						

Cannulation site bleeding	28.1	75.0	26.7	75.0	19.2	72.2
Disseminated intravascular coagulation	8.6	54.5	6.7	100.0	5.7	68.8
GI hemorrhage	3.1	100.0	0.0	NA	2.1	83.3
Hemolysis (Pfhb > 50 mg/dl)	21.1	81.5	6.7	0.0	15.7	70.5
Surgical site bleeding	5.5	57.1	6.7	100.0	9.6	66.7
Infectious						
Culture proven infection	14.1	66.7	20.0	66.7	18.5	63.5
Mechanical						
Air in circuit	3.1	75.0	0.0	NA	3.2	77.8
Cannula problems	22.7	75.9	13.3	50.0	19.6	67.3
Clots: bladder	6.3	75.0	6.7	100.0	13.2	59.5
Clots: bridge	5.5	71.4	0.0	NA	7.5	57.1
Clots: Circuit Component Clots	14.1	100.0	20.0	66.7	7.5	95.2
Clots: hemofilter	6.3	50.0	0.0	NA	5.3	53.3
Clots: other	14.1	77.8	0.0	NA	12.5	68.6
Clots: oxygenator	7.0	88.9	6.7	100.0	10.7	60.0

Cracks in pigtail connectors	0.0	NA	0.0	NA	1.8	40.0
Other tubing rupture	0.0	NA	0.0	NA	1.1	33.3
Oxygenator failure	3.1	100.0	6.7	100.0	7.5	76.2
Pump malfunction	0.8	100.0	0.0	NA	1.8	60.0
Raceway rupture	1.6	50.0	0.0	NA	1.1	66.7
Metabolic						
Glucose < 40	0.8	0.0	0.0	NA	0.7	0.0
Glucose > 240	7.8	40.0	6.7	0.0	6.8	42.1
Hyperbilirubinemia	5.5	42.9	0.0	NA	4.3	50.0
pH < 7.20	2.3	33.3	6.7	100.0	3.6	40.0
pH > 7.60	3.9	40.0	13.3	100.0	3.2	66.7
Neurologic						
Brain death	1.6	0.0	0.0	NA	0.7	0.0
CNS hemorrhage by US/CT	7.8	40.0	0.0	NA	5.3	40.0
CNS Infarction (US or CT or MRI)	7.0	55.6	0.0	NA	4.6	46.2
IVH (US or CT or MRI)	0.8	100.0	0.0	NA	0.4	100.0

Seizures: clinically determined	6.3	62.5	0.0	NA	7.5	71.4
Seizures: EEG determined	4.7	83.3	0.0	NA	2.8	87.5
Pulmonary						
Pneumothorax requiring treatment	7.0	44.4	0.0	NA	7.1	70.0
Pulmonary hemorrhage	6.3	25.0	0.0	NA	3.9	18.2
Renal						
CAVHD required	6.3	62.5	0.0	NA	4.6	46.2
Creatinine > 3.0	0.0	NA	0.0	NA	1.1	0.0
Creatinine 1.5 - 3.0	3.1	25.0	0.0	NA	7.1	30.0
Dialysis required	2.3	66.7	0.0	NA	7.8	63.6
Hemofiltration required	24.2	67.7	20.0	100.0	18.5	63.5
Renal Replacement Therapy Required	16.4	57.1	26.7	75.0	8.9	60.0