NNE CARDIOVASCULAR DISEASE STUDY GROUP Anesthesia Registry

SS# _____

Date of Surgery _____

Primary Procedure ..... [ ] (1=CABG; 2=Valve; 3=CABG/ Valve;4=off pump)

Anesthetic Management

Fentanyl (total ml) [ ] Versed (total mg) [ ]

Other induction ... [ ] [ ] (0=no; 1=propofol; 2=etomidate 3=pentothal; 4=sevoflurane)

Maintainance ..... [ ] [ ] (0=none; 1=isoflurane; 2=desflurane; 3=propofol; 4=sevoflurane)

Other Analgesic ..... [ ] (0=no; 1=Toraldol; 2=COX-2; 3=Morphine; 4=Sufentanil)

Antiemetic ..... [ ] [ ] (0=no;1=Odanstetron;2=Compazine; 3=Metoclopramide; 4=Dexamethasone)

Methylprednisolone ..... [ ] (total dose in mg)

Post-op Infusion ..... [ ] (0=no; 1=propofol; 2=precedex)

Monitoring

BIS ..... [ ] (0=no; 1=yes)

Hemodynamic ..... [ ] (1=CVP; 2=PAC; 3=oximetric PAC)

Ultrasound guidance for central line ..... [ ] (0=no; 1=yes)

Epi aortic evaluation ..... [ ] (0=no; 1=yes)

TEE ..... [ ] (0=none; 1=yes)

Contradiction to TEE ..... [ ] (0=none; 1=esophageal disease; 2=other)

If yes to TEE, please complete the following:

Intraop myocardial ischemia [ ] (0=no; 1=yes)

Left ventricular hypertrophy [ ] (0=normal; 1=yes,>1.4 cm septal or free wall thickness)

Aortic assessment ..... [ ] (1=normal; 2=moderate thick; 3= atheroma<5mm; 4=atheroma>5mm; 5= mobile atheroma)

Guided surgical procedure ..... [ ] [ ] [ ] [ ] (0=no; 1=central line placement; 2=proximal CAB graft(s) placement; 3= retrograde catheter placement; 4= aortic cannula placement; 5=venous cannula placement; 6=IABP position; 7=pleural drainage; 8=pericardial drainage)

Change in surgery secondary to any Echo finding? ..... [ ] (1=CPB vs.off-CPB; 2=valve repair/ replacement added; 3=valve repair/ replacement cancelled; 4=CAB graft added; 5=shunt surgery added)

LV function- Pre CPB ..... [ ]

LV function-Post CPB ..... [ ] (0=normal; 1=mild; 2=moderate; 3=severe)

Mitral regurgitation ..... [ ]

Aortic regurgitation ..... [ ] (0=none; 1=mild; 2=moderate; .. 3=severe)

Induction Heart Rate(HR) Management

Preinduction HR>80? ..... [ ] (0=no; 1=yes)

Myocardial ischemia ..... [ ] (0=none; 1=angina or symptomatic; 2= ECG changes)

Treatment of HR>80 ..... [ ] (0=none; 1=beta-blockade; 2=anxiolysis; 3=opioid;4=induction)

USE ADDRESSOGRAPH if possible

First Name _____

Last name _____

DOB _____

Medical record number _____

HELP REDUCE MISSING DATA. PLEASE DO NOT LEAVE BLANKS. A LINE THROUGH BOX IS ACCEPTABLE FOR ZERO

Anemia & Coagulation

Antifibroinolytic ..... [ ] (0=non; 1=aprotinin full dose; 2=aprotinin 1/2 dose; 3=amicar)

Protamine reaction ..... [ ] (0=none; 1=MAP<50 requiring Rx; 2=RV failure, Pulm HTN)

Extubation Management

Planned extubation time .... [ ] (0=OR; 1=<2hrs; 2=2-6 hrs; 3=>6-12 hrs; 4=>12 hrs)

Last ABG PaO_2(mmHg) [ ] FiO_2 (%) ..... [ ]

Measured Hemodynamics

	Pre-induction	Pre-Bypass	Post bypass
HR			
Rhythm (0=sinus; 1=Afib; 2=paced; 3=other)			
MAP			
CO			
SPAP			
DPAP			
CVP			

Hemodynamic Management

1=Bolus; 2=Infusion, 3=Both

	Pre Bypass	On Bypass	Post bypass
Amrinone/milrinone			
Renal dose dopamine (<=3mcg/kg/m)			
Dopamine (>3mc/kg/m)			
Epinephrine			
Norepinephrine			
Neosynephrine			
Vasopressin			
Amiodarone			
Glucose Management Insulin			

DEFINITION OF TERMS

Monitoring
PA cath includes CVP so only report PA

Anemia & Coagulation
Aprotinin full dose - 1 ml test dose, 200 ml loading dose, 200 ml pump prime dose, 50 ml/hr infusion
Aprotinin half dose - 1 ml test dose, 100 ml load, 100 ml prime, 25 ml/hr infusion

Extubation Management
PaO2= arterial partial pressure of oxygen (mmHg) on ABG after CPB (or after revascularization for off-pump CABG)
FiO2= fractional concentration of insprired oxygen at time of last ABG
Planned time: anticipated goal for extubation per anesthesia team

Measured Hemodynamics and Hemodynamic Management
Pre-induction- prior to induction of anesthesia
Pre-bypass- prior to going on CPB (or prior to start of revascularization for off pump CABG)
On bypass- during CPB (or during revascularization for off pump CABG)
Post bypass- after completion of CPB (or completion of revascularization for off pump CABG) and after initial dose of protamine.

Measured Hemodynamics
HR - beats per minute
Rhythm- 1=sinus; 2= atrial fibrillation; 2=paced;; 3=other
MAP - mean arterial pressure mmHg
CO - liters per minute
SPAP - systolic pulmonary arterty pressure mmHg
DPAP - diastolic pulmonary artery pressure mmHg
CVP - central venous pressure mmHg

TEE Reference

Atheroma grades (worst disease seen, any locations) **I-V- Grade I**- Normal to mild intimal thickening; **Grade II**- Severe intimal thickening without protruding atheroma; **Grade III**- Atheroma protruding<5mm; **Grade IV**- Atheroma protruding≥5 mm; **Grade V**- Atheroma of any size with mobile components

Normal 2-D measurements

LVOT diameter	1.8-2.2 cm	Aortic annulus	1.4-2.6 cm	Sinus of Valsalva	2.1-3.5 cm
Sinotublar junction	1.7-3.4 cm	Ascending aorta	2.1-3.4 cm	Descending aorta	1.4-2.0 cm
Mitral annulus	1.8-3.1 cm	Left atrium (ant-post)	2.3-3.8 cm	Right atrium(med-lat)	3.0-4.6 cm
LV diameter(end-diastole)	3.5-5.7 cm	LV thickness (end-systole)	≤11 mm		

Normal peak velocity (cm/sec)

tricuspid	**pulmonic**	**mitral**	**LVOT**	**Aortic**
30-70	60-90	60-130	70-110	100-170

Aortic stenosis	**mild**	**mod**	**severe**
valve area (cm2)	1.2-2.5	0.75-1.2	<0.75
mean gradient (mm Hg)	<25	25-45	>45
peak velocity (cm/sec)	<300	300-400	>400

Mitral stenosis	**mild**	**mod**	**severe**
valve area (cm2)	1.5-2.5	1.0-1.5	<1.0
mean gradient (mm Hg)	<6	6-12	>12
pressure half time (msec)	90-150	150-220	>220

Aortic insufficiency	**mild**	**mod**	**severe**
jet diameter/LVOT diameter	<30%	30-65%	>65%
pressure half time (msec)	>500	300-500	<300
slope of decay (cm/sec)	<200	200-300	>300

LV Diastology	**normal**	**grade 1**	**grade 2**	**grade 3**	**grade 4**
E dec time (msec)	160-240	>240	160-240	<160	irrevers
E/A	1.1	<1.0	1-1.5	>2.0	
E/E	<8			>15	