

Patient Information

May 12, 2013

Hospital: [REDACTED]

Medical Record #: [REDACTED]

Procedure Date: 05/10/2013

Last Name: [REDACTED]

Suffix:

First Name: [REDACTED]

MI:

Date of Birth: [REDACTED]

Age: [REDACTED]

Gender: [REDACTED]

Race: [REDACTED]

Height: 175 cm (5 ft, 8 in)

Weight: 75 kg (165 lbs, 5 oz)

BSA (m²): Mosteller BSA 1.91

BMI: 24.49

Allergies: NKDA

History: COPD, CAD

CI (L/min/m ²):	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0
Flow (L/min):	2.7	3.1	3.4	3.8	4.2	4.6	5.0	5.3	5.7

Estimated Blood Volume (mL): 5625

Procedure(s)

CPB

Autotransfusion

Platelet Therapy

Procedure Checklist(s)

CPB:

Checklist Items	Completed
Patient identity and procedure verified	<input checked="" type="checkbox"/>
Chart reviewed	<input checked="" type="checkbox"/>
Components checked for package integrity and expiration date	<input checked="" type="checkbox"/>
Electrical cords securely connected	<input checked="" type="checkbox"/>
Personal protective equipment available	<input checked="" type="checkbox"/>
Procedure policy reviewed	<input checked="" type="checkbox"/>
Heat exchanger(s) leak tested	<input checked="" type="checkbox"/>
Roller heads operational and in correct direction	<input checked="" type="checkbox"/>
Roller occlusion(s) set	<input checked="" type="checkbox"/>
Flow meter in correct direction and calibrated	<input checked="" type="checkbox"/>
Flow rate indicator correct for patient and/or tubing size	<input checked="" type="checkbox"/>
Holders secure	<input checked="" type="checkbox"/>
Gas line securely connected with no obstructions	<input checked="" type="checkbox"/>
Flow meter/blender functional	<input checked="" type="checkbox"/>
Gas exhaust unobstructed and scavenged	<input checked="" type="checkbox"/>
Tubing connections secure	<input checked="" type="checkbox"/>
Tubing direction traced and correct	<input checked="" type="checkbox"/>

No kinks noted in tubing	<input checked="" type="checkbox"/>
One-way valve(s) in correct direction	<input checked="" type="checkbox"/>
Circuit de-bubbled and leak-free	<input checked="" type="checkbox"/>
Patency of arterial line/cannula verified	<input checked="" type="checkbox"/>
Cardioplegia solution available and expiration date checked	<input checked="" type="checkbox"/>
Cardioplegia system de-bubbled and leak free	<input checked="" type="checkbox"/>
Alarms operational and engaged	<input checked="" type="checkbox"/>
Cardiotomy reservoir vented	<input checked="" type="checkbox"/>
Vacuum regulator functional and sterile supplies available	<input checked="" type="checkbox"/>
Temperature probes in place and calibrated	<input checked="" type="checkbox"/>
Pressure monitors calibrated	<input checked="" type="checkbox"/>
In-line sensors calibrated	<input checked="" type="checkbox"/>
Tubing clamps available	<input checked="" type="checkbox"/>
Medications available and properly labeled	<input checked="" type="checkbox"/>
Solutions available	<input checked="" type="checkbox"/>
Blood available	<input checked="" type="checkbox"/>
Sampling syringes and laboratory tubes available	<input checked="" type="checkbox"/>
Heparin time and dose verified and charted	<input checked="" type="checkbox"/>
Anticoagulation verified and announced	<input checked="" type="checkbox"/>
Suction and vent lines tested with saline	<input checked="" type="checkbox"/>
Hand cranks available	<input checked="" type="checkbox"/>
Emergency lighting available	<input checked="" type="checkbox"/>
Duplicate circuit components available	<input checked="" type="checkbox"/>
Emergency gas supply available	<input checked="" type="checkbox"/>
Battery backup system checked	<input checked="" type="checkbox"/>

Autotransfusion:

Checklist Items	Completed
Patient identity and procedure verified	<input checked="" type="checkbox"/>
Chart reviewed	<input checked="" type="checkbox"/>
Components checked for package integrity and expiration date	<input checked="" type="checkbox"/>
Electrical cords securely connected	<input checked="" type="checkbox"/>
Personal protective equipment available	<input checked="" type="checkbox"/>
Procedure policy reviewed	<input checked="" type="checkbox"/>
HOLDERS secure	<input checked="" type="checkbox"/>
Tubing connections secure	<input checked="" type="checkbox"/>
Tubing direction traced and correct	<input checked="" type="checkbox"/>
No kinks noted in tubing	<input checked="" type="checkbox"/>

Vacuum regulator functional and sterile supplies available	<input checked="" type="checkbox"/>
Tubing clamps available	<input checked="" type="checkbox"/>
Duplicate circuit components available	<input checked="" type="checkbox"/>
Valve cover properly installed	<input checked="" type="checkbox"/>
Pump rotor properly installed and pump rotates freely	<input checked="" type="checkbox"/>
Self-diagnostic program completed	<input checked="" type="checkbox"/>
Blood transfer packs available	<input checked="" type="checkbox"/>
Unused ports/luer port on reservoir closed	<input checked="" type="checkbox"/>
Anticoagulant mixed, labeled, dated and initialed	<input checked="" type="checkbox"/>
Centrifuge bowl locked	<input checked="" type="checkbox"/>
Centrifuge bowl spins freely	<input checked="" type="checkbox"/>
Waste bag attached	<input checked="" type="checkbox"/>
Wash solution (Injectable 0.9% NaCl) verified and available	<input checked="" type="checkbox"/>
Connections secure with no kinks noted	<input checked="" type="checkbox"/>
Clamp on reservoir outlet clamp open	<input checked="" type="checkbox"/>
Clamp on reinfusion bag open	<input checked="" type="checkbox"/>
Clamp on waste bag inlet open	<input checked="" type="checkbox"/>
Reinfusion bag(s) de-aired and properly labeled	<input checked="" type="checkbox"/>
Anesthesia reminded NOT to pressurize reinfusion bag(s)	<input checked="" type="checkbox"/>

Platelet Therapy:

Checklist Items	Completed
Patient identity and procedure verified	<input checked="" type="checkbox"/>
Chart reviewed	<input checked="" type="checkbox"/>
Components checked for package integrity and expiration date	<input checked="" type="checkbox"/>
Electrical cords securely connected	<input checked="" type="checkbox"/>
Personal protective equipment available	<input checked="" type="checkbox"/>
Procedure policy reviewed	<input checked="" type="checkbox"/>
Duplicate circuit components available	<input checked="" type="checkbox"/>
Anticoagulant mixed, labeled, dated and initialed	<input checked="" type="checkbox"/>
Centrifuge bowl locked	<input checked="" type="checkbox"/>
Centrifuge bowl spins freely	<input checked="" type="checkbox"/>
Blood collection syringes properly labeled	<input checked="" type="checkbox"/>
Applicator kit(s) available	<input checked="" type="checkbox"/>
Anticoagulant available and expiration date verified	<input checked="" type="checkbox"/>
Activator medication available and expiration date(s) verified	<input checked="" type="checkbox"/>

Personnel

1st Anesthesiologist: [REDACTED]

1st Perfusionist: [REDACTED]

Surgeon: [REDACTED]

Procedure Details

Cardiopulmonary Bypass

Start Date/Time: 05/10/2013 11:50

End Date/Time: 05/10/2013 17:00

Operating Room: 14

Classification: Elective

Reoperation: No

Approach: Full Sternotomy

Robotically Assisted: No

Coronary Artery Bypass:

Number of CABG: 2

OPCAB Conversion: No

Graft Site

LAD (Mid)

Posterior Descending Artery

Conduit

In Situ LIMA

Vein Graft

CPB Time: 75 min

Cross Clamp Time: 42 min

IABP: None

Pre CPB HCT: 24.00 %

Post CPB HCT: 29.00 %

Lowest HCT on CPB: 18.00 %

Lowest Temp on CPB: 28.00 °C

Patient Status Leaving OR: Stable

Cardioplegia:

Type: Blood / Crystalloid

Ratio: 4:1

Crystalloid Amount: 210 mL

Delivery Method: Antegrade

Temperature: Cold

Blood Products:

	PreOp	IntraOp Pre CPB	IntraOp CPB	IntraOp Post CPB	PostOp
RBC			2		
Platelets					
FFP					
Whole Blood					

Autotransfusion

Collection Start Date/Time: 05/10/2013 11:50

Collection End Date/Time: 05/10/2013 17:00

Operating Room #: 14

Procedure Type:

Cardiac:

CABGx3

Anticoagulant: Heparin **Amount (1000 Units/L):** 30

Preoperative HCT: 24.00 %

Blood Processed

Time	Volume Processed	Wash Amount	Volume Returned
16:27	2510 mL	1549 mL	712 mL
16:27	2510 mL	1549 mL	712 mL

Total Volume Collected: 5020 mL

Irrigation Used / Amount: No / 0 mL

Total Volume Returned: 1424 mL

Estimated Blood Loss: 0 mL

Platelet Therapy Procedure

Procedure Date: 05/10/2013

Collection Time: 13:00

Procedure Type:

Cardiac:

CABgx3

Anticoagulant Used: CPD, 6 mL

Preoperative Hematocrit: 24.00 %

Preoperative Hemoglobin: 8.00

Patient Platelet Ct: 110 (1000/ul)

Total Blood Collected: 44 mL

Platelet Rich

Amount: 10 mL

Application Site: sternum

Applicator: Spray

Platelet Poor

Amount: 25 mL

Application Site: leg

Applicator: Liquid

Activators Used:

Type: Recombinant Thrombin

Amount: 5000

Type: Calcium

Amount: 500

Equipment / Disposables

Disp/Equip	Type	Manufacturer	Description	Lot/Serial Number
Disposable	Cannula	CalMed Labs	15FR Manual Retrograde Catheter	
Disposable	Cannula	CalMed Labs	29 FR Triple Stage Venous Cannula	
Equipment	Biologics	Depuy	Symphony II Platelet Concentrate System	
Disposable	Biologics	Micromedics	Fibrijet Blending Connector	
Disposable	Autotransfusion	Sorin	Brat 2 Complete Autotransfusion Assembly Set (250 ml)	
Equipment	Autotransfusion	Sorin	Cobe Brat 2 Autotransfusion System	
Equipment	Bubble Sensor	Sorin	Sorin Bubble Sensor	
Equipment	Heart Lung Machine	Sorin	Sorin / Stockert S3 HLM	
Equipment	Heater Cooler	Sorin	Sorin 3T Heater Cooler	
Disposable	Biologics	Terumo	APC-120 Procedure Pack for SmartPReP2	
Disposable	Cannula	Terumo	8.0MM Aortic Cannula	
Disposable	Custom Tubing Set	Terumo	Naples Custom X-Coated Standard Pack	
Disposable	Oxygenator	Terumo	FX25 Oxygenator (West Configuration)	

Quality Control

CPB

Title	Threshold %	Achieved	Notes
Mean Arterial Blood Pressure (MAP) 50-90 mmHg	85	Yes	

Arterial blood flow (cold) >1.5 L/min/m ²	90	Yes
Arterial blood flow (warm) >2.2 L/min/m ²	90	Yes
Arterial line pressure 100 - 400 mmHg	95	Yes
Arterial pH 7.33 – 7.50	90	Yes
Arterial pCO ₂ 35 – 45 mmHg	85	Yes
Arterial pO ₂ 100 – 400 mmHg	90	Yes
Arterial base excess -2.5 - +2.5 mmol/L prior to termination of CPB	90	Yes
Potassium (K ⁺) 3.5 – 6.0 mmol/L prior to termination of CPB	95	Yes
Calcium (Ca ⁺⁺) 0.8 – 1.4 mmol/L prior to termination of CPB	90	Yes
Hematocrit (HCT) >=18% on CPB	90	Yes
Activated Clotting Time (ACT) >400 seconds prior to initiation of CPB	95	Yes
Activated Clotting Time (ACT) >480 seconds while on CPB	95	Yes
Arterial saturation maintained (SAO ₂) >95%	95	Yes
Venous saturation maintained (SVO ₂) >55%	95	Yes
Urine Output (UO) > 1ml/kg/hour	85	Yes
Parameters recorded at <= Q15 minutes	99	Yes
Checklist completed	99	Yes
Serial number of machines and lot number of supplies recorded	99	Yes
Record completed with no errors of omission	100	Yes
Record errors corrected properly	100	Yes
Perfusion record signed	100	Yes
Homologous blood products properly documented	100	Yes
Autologous blood products properly documented	100	Yes
Procedure conducted and terminated without incident	100	Yes
Patient weaned from CPB without mechanical devices or support (IABP, VAD, ECLS)	95	Yes
Patient weaned from CPB without homologous blood	70	No
Spontaneous rhythm achieved after removal of cross-clamp	70	Yes
Last SVO ₂ on CPB greater than 65%	95	Yes

Autotransfusion

Title	Threshold %	Achieved	Notes
Checklist completed	99	Yes	
Serial number of machines and lot number of supplies recorded	99	Yes	
Record completed with no errors of omission	100	Yes	
Record errors corrected properly	100	Yes	
Perfusion record signed	100	Yes	
Procedure conducted and terminated without incident	100	Yes	
Centrifuge run in automatic mode	80	Yes	

Patient received a minimum of one unit of autologous blood 85 Yes

Platelet Therapy

Title	Threshold %	Achieved	Notes
Checklist completed	99	Yes	
Serial number of machines and lot number of supplies recorded	99	Yes	
Record completed with no errors of omission	100	Yes	
Record errors corrected properly	100	Yes	
Perfusion record signed	100	Yes	
Procedure conducted and terminated without incident	100	Yes	

Study Data

CPB

Study Item	Value
Modified ultrafiltration used	No
Thromboelastograph (TEG) used	No
Highest glucose on CPB	159 mg/dL
Urine output while on CPB	160 ml

Signature:

Surgeon

Date

Perfusionist

Date