IHI Global Trigger Tool:

Training Records

Institute for Healthcare Improvement
December 2006

IHI provides five sample patient records for training of reviewers. The first phase of training should be conducted using the training records as described in the IHI Global Trigger Tool Guide, located at:
http://www.ihi.org/resources/Pages/Tools/IHIGlobalTriggerToolforMeasuringAEs.aspx

These sample records were purposely chosen to highlight key learning points. These are actual, but not complete patient records, from which all identifiers have been removed.

Pages that are not necessary for identifying a positive trigger or adverse event have also been removed to make the file size easier to use, whether printed or viewed on screen.

Answers to the Training Records are included as an appendix in the IHI Global Trigger Tool Guide. This includes the triggers and adverse events identified by trained reviewers and explanations on the determinations.

Training Record #1…..Pages 2 – 20
Training Record #2…..Pages 21 – 35
Training Record #3…..Pages 36 – 45
Training Record #4…..Pages 46 – 57
Training Record #5…..Pages 58 – 72

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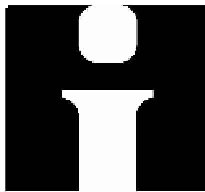
Cambridge, MA

IHI Global Trigger Tool:
Training Record # 1

Institute for Healthcare Improvement
December 2006



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Print Date : Fri Nov 07 13:03:52
[redacted] 1758906

Disposition : Home, Self Care (1)

Principal Diagnosis

***6200** FOLLICULAR CYST OF OVARY

Secondary Diagnoses

6208 NONINFLAMMATORY DISORDER OF OVARY/FALLOPIAN TUBE/BROAD LIGAMENT
6201 CORPUS LUTEUM CYST OR HEMATOMA
2189 LEIOMYOMA OF UTERUS, UNSPECIFIED
6170 ENDOMETRIOSIS OF UTERUS
***99811** HEMORRHAGE COMPLICATING A PROCEDURE
#2851 ACUTE POSTHEMORRHAGIC ANEMIA
V433 HEART VALVE REPLACEMENT STATUS
V5861 LONG-TERM (CURRENT) USE OF ANTICOAGULANTS

Principal Procedure

***684** TOTAL ABDOMINAL HYSTERECTOMY
10/20 03410

Other Procedures

6561 REMOVAL OF BOTH OVARIES AND TUBES AT SAME OPERATIVE EPISODE
10/20 03410

DATE: 10/25/

FINAL DIAGNOSIS:

Right paratubal cyst.
Myomatous uterus.
Adenomyosis of the uterus.
Anemia secondary to blood loss.
History of aortic, and mitral valve replacement.
Hyperlipidemia.

PROCEDURES:

Total abdominal hysterectomy with bilateral salpingo-oophorectomy on October 20,

CONSULTATIONS:

Cardiology by D

SUMMARY:

CLINICAL HISTORY: The patient is a 51-year-old female with persistent pelvic mass, admitted for surgical extrication of same. On admission, the patient was afebrile. Vital signs were stable. Examination was unremarkable, and unchanged from the office. She had preoperative cardiology consultation, and her anticoagulation had been modified with her last Coumadin four days preoperatively, and Lovenox given subcutaneously every 12 hours, until 18 hours prior to the scheduled surgery.

LABORATORY DATA ON ADMISSION: Hemoglobin 11.0, hematocrit 34, white count 5.0, platelets 285, potassium 4.3, creatinine 0.9, INR 1.6. Urinalysis negative. Urine pregnancy test negative.

HOSPITAL COURSE: The patient was admitted on same day as surgical admission. Under general anesthesia, she underwent a total abdominal hysterectomy with bilateral salpingo-oophorectomy. For detail, refer to dictated operative note from October 20. Intraoperative findings included an enlarged myomatous uterus, and pathology report confirmed a benign paratubal cyst on the right, an involuting corpus luteum on the right, myomatous uterus, adenomyosis of the uterus. She had an estimated intraoperative blood loss of 400 cc. She had received ampicillin, and gentamicin preoperatively for her cardiac valvular prophylaxis, as well as surgical prophylaxis.

The patient's postoperative course was complicated by anemia secondary to blood loss. She had a slow return of bowel function, most likely due to the bleeding. Anticoagulation was resumed with subcutaneous Lovenox followed by a heparin drip as guided by cardiology consultation. Hematocrit was 28% on the morning of postoperative day number one, 27% that evening. Foley catheter was removed, and she had normal voiding function thereafter. She was maintained on a morphine PCA.

On the morning of postoperative day number two, she had a hematocrit down to 25%. Because of her cardiac status, the cardiology consultation advised transfusion. She received two units of packed red blood cells, and her post-transfusion hematocrit was minimally increased at 26%. She therefore received two additional units on the evening of postoperative day number two, and the morning of postoperative day number three. Hematocrit was 30% by postoperative day number three.

On postoperative day number four, it had drifted down to 27 again, so she received another two units of packed red blood cells, giving a total of six units of packed red blood cells in transfusion. Final value after these six units was a hematocrit at 33%. She did have cutaneous ecchymosis on the left flank, and lower abdomen, and I felt that her anemia was due to surgical site bleeding. She did have gradual, and complete resumption of bowel function, however, so we did not feel that re-exploration was necessary.

On postoperative day number five, she was ambulating, voiding, and taking a soft diet without difficulty. Her cardiac medications had been resumed. Her incision was intact. Staples were removed, and Steri-Strips were placed. Her INR was therapeutic, and she was felt to be stable for discharge from gynecologic, and cardiac standpoint. She was given written and verbal instructions, verbalized a good understanding of them.

DISCHARGE CONDITION: Good.

DISCHARGE INSTRUCTIONS:

MEDICATIONS: Tylenol #3 one to two by mouth every four hours as needed for pain, #30, no refills. Estradiol 0.5 mg tablets one to one and one-half tablets by mouth daily, #45, no refills. Lanoxin 0.25 mg by mouth daily. Furosemide 40 mg by mouth daily. Warfarin 5 mg and 7.5 mg alternating daily.

DIET: Regular.

ACTIVITY: Postoperative GYN instructions.

DATE: 10/20

ATTENDING MD:

CONSULTING MD:

CARDIOLOGY CONSULTATION

REASON FOR CONSULTATION: Anticoagulation management in the post operative setting.

HISTORY OF PRESENT ILLNESS: a 51-year-old female who was admitted on October 20 for abdominal hysterectomy with bilateral salpingo-oophorectomy for pelvic mass. We were asked by consult for the management of anticoagulation therapy. has a history of aortic and mitral valve replacement the St bileaflet valve since She has been on coumadin therapy. She saw Dr. preoperatively and he advised her to take her last coumadin dose on October 16 and start Lovenox 60 mg subcutaneously every 12 hours and the last Lovenox dose would be approximately 18 hours to her scheduled surgery on October 20,

CARDIAC HISTORY: Rheumatic heart disease causing aortic and mitral regurgitation. She had an aortic and mitral valve replacement at in . She developed atrial fibrillation in the post operative period. An echo done immediately postoperatively showed a normal ejection fraction and a normal left ventricular function. In she developed heart palpitations with a rapid ventricular response. The rhythm was noted to be atrial fibrillation. She had an echo done at that time showing an ejection fraction of approximately 20%. An ACE inhibitor was trialed until she developed a cough. A ARB was then trialed and she did have a sensation of swelling of the tongue.

In June he developed premature ventricular contractions and was given atenolol and digoxin. Her ejection fraction increased to approximately 55%. She did s... on December 6, for paroxysmal atrial flutter. She did see in December . for a 2:1 paroxysmal atrial flutter. During that time she was not having any chest pain or shortness of breath. An echocardiogram was done on October 1 showing an ejection fraction of 50% with abnormal interventricular septal motion and at least a moderate to severe tricuspid regurgitation, mild pulmonary hypertension, and cardiac catheterization February 5, prior to her surgery showed severe mitral regurgitation, grade 3/6 aortic regurgitation. Normal coronary arteries. Mild hive reaction to ionic intravenous contrast despite premedications with prednisone.

CARDIOVASCULAR RISK FACTORS: Hyperlipidemia.

AGE
51Y

PAST MEDICAL HISTORY: Rheumatic heart fever causing aortic regurgitation and mitral regurgitation, aortic valve replacement and mitral valve replacement bileaflet aortic and mitral valve inserted. Atrial fibrillation, atrial flutter, cardiomyopathy, congestive heart failure, fatty liver, migraine headaches, hyperlipidemia, lactose intolerant and irritable bowel syndrome.

HOSPITALIZATIONS AND SURGERIES: Aortic and mitral valve replacement in perineal tear repair in

ALLERGIES: Lisinopril causes cough. ARB, Cozaar cause swelling of the tongue and she did have a hive-like reaction to contrast dye with heart catheterization despite premedication.

CURRENT MEDICATION: Pre-hospital: Coumadin 7.5 mg daily and 5 mg on Sunday for artificial heart valve; Lanoxin 0.25 mg daily for congestive heart failure; glucosamine twice a day for musculoskeletal stiffness; calcium 600 mg one tablet daily; Zantac 75 mg as needed for irritable bowel; Pepto-Bismol as needed. Tylenol as needed. Acidophilus one capsule daily. Dietary enzymes daily; Coreg 25 mg one by mouth in the morning and 25 in the evening; furosemide 20 mg daily; flaxseed oil one teaspoon daily; vitamin B complex 50 mg twice per week; Niferex on weekends.

SOCIAL HISTORY: is married. She practice She is a non-smoker, does not use alcohol. Regular exercise.

FAMILY HISTORY: Both parents have a history of heart disease and congestive heart failure. She has an aunt with ovarian cancer.

REVIEW OF SYSTEMS: Positive for fatigue. Occasional edema. Occasional shortness of breath. She denies chest pain. Occasional heart palpitations.
VITAL SIGNS: Blood pressure 129/71, heart rate 76, respirations 18, O2 at two liters. Weight 58.6, height 160 cm.
This is a 51-year-old female who is somnolent, arousable, in no acute distress.
HEENT: Head is normocephalic. Trachea is midline. No jugular venous distention.
PULMONARY: The pulmonary respiration are regular, non-labored, clear to auscultation. Examined in the right Sims position. Valvular clicks are auscultated. She has a soft systolic ejection murmur to the left of the sternal border. Peripheral pulses, radial femoral, dorsalis pedis are +2 and symmetrical bilaterally.

CURRENT LABORATORY: INR from October 20 is 1.6, creatinine 0.9, potassium 2.3, hemoglobin 11, WBC with differential is normal. Electrocardiogram on October 2, suggests sinus rhythm with minor nonspecific ST changes. This is read by Dr. as she did have a chest x-ray on October 3, which was normal.

IMPRESSION: Management of anticoagulation therapy in a 51-year-old female with a history of aortic valve, and mitral valve replacement undergoing total abdominal hysterectomy bilateral salpingo-oophorectomy.

PLAN [redacted] spoke with Dr. [redacted] The plan will be to begin heparin weight-based, no load infusion tonight at midnight. Recheck a PTT at 6 a.m. If development of a rate or rhythm problem would consider transferring to Medical Telemetry for observation. Observe for signs of bleeding, frequent checks of hematocrit. This patient was evaluated by [redacted] as well as myself. Thank you for this consultation.

sjm
dd: 10/20
dt: 10/20

AGE
51Y

mission

CONSULTATION REPORT
ORIGINAL CHART COPY

Date	Time	#	Orders
10/23	1800		Coumadin 7½ mg po tonight
			Same heparin
			Stools for occult blood x3
			Pepcid 20mg po bid
10-23	1815		
10-24	0830	(1)	LASIX 40 IVP
			@ 0845
10/24	1515		Transfuse 2 units packed RBC's 6018684/685/686
			Lasix 40 mg IV between units
			Coumadin 5 mg po today
			D/C heparin & PTT's
	K. Blood @ 1555		Creatinine, K+ tomorrow #694/695
			D/C Pepcid
			Protonix 40 mg po daily
1605			
10-25	0850	(1)	D/C IV

PLEASE
MARK ALL PHARMACY
ORDERS IN RED.

PHYSICIAN'S ORDERS

DO NOT USE
UNLESS NUMBER
← SHOWS

Date	T	#	Orders
10/22/ 1325			Benadryl 50mg PO prior to transfusion T.O. D[redacted] [redacted] RN.
10-22	1400	(1)	Dulcolax Suppository PR q 6° PRN
			[redacted] RN 10/22/ @1425
			1425 10-22
10/22/ 2300			Transfuse 2U PRBC now
			Recheck H&H am
			Recheck PTT am
			T.O. per Dr. [redacted]
10-23	0850	(1)	LASIX 40mg IVP NOW
	0930	(2)	TC #3 i-ii po q 4° PRN PAIN
		(3)	~~CAP IV~~ ↓IVF to KVO
			10-23 @0900
10-23 1300			Continue H&H Q12 but do on 06/1800 schedule (since H&H this am was done at 0620)
			TO Dr. [redacted]

PLEASE
ARK ALL PHARMACY
ORDERS IN RED.

P

051Y 24-0C

DO NOT USE
UNLESS NUMBER
← SHOWS

Date	Time	*	Orders
10/20	1420		D/C Lovenox order.
			Start: Heparin gtt - wt base non loading protocol @ midnight tonight.
			c̄ PTT 6 hrs p̄ initiation
10-20	1715		(1) ADD BASAL RATE TO PCA: MSO_4 @ 1mg/hr
10/20	2150		Please delay heparin non loading protocol until @ earliest 10 AM 10/21
			Also please talk c̄ Dr. ... re: starting heparin in AM
			P.O. Dr.
10/21	08		Start non loading dose heparin protocol now
			Coumadin 7.5 mg po today
			Daily pt/inr & Coumadin orders starting tomorrow - I will write daily orders
			Daily H/H - call if Hct < 28
			H/H 1800 hrs today
			D/C Lovenox

PLEASE
MARK ALL PHARMACY
ORDERS IN RED.

PHYSICIAN'S ORDERS

DO NOT USE
UNLESS NUMBER
← SHOWS

DATE/ TIME	NOTES
10/24 10²	Cardiology - up in chair, less dyspnea today. feels better, abd. soreness
	Ⓢ T 99³ BP 120/74 HR 90's O₂ sat 97% RA.
	lungs - clear.
	extrem - ∅ edema Heparin gtt.
	I/O 3331/3200
	Lab - INR 2.1 PTT 54.3 H/H 9.1/27 plt 225
	Ⓐ s/p TAH/SBO
	prosthetic aortic & mitral valve
	Ⓟ Plan per [redacted]
	[illegible]
	Patient feels better. less abd. cramping. No SOB or palpitations.
	PE BP 114/62 P 90's BP 114/62
	- No JVD
	lungs clear
	Heart [illegible] as before
	large Ⓛ flank & thigh hematoma
	2 stools + for blood
	Imp: Same
	+ abdominal wall & ? retroperitoneal hem,
	+ stools - No Sx's
	Plan: Transfuse 2 units
	Switch to Protonix
	Continue to Lunesse
	D/C heparin

NS-3010 12/02 W

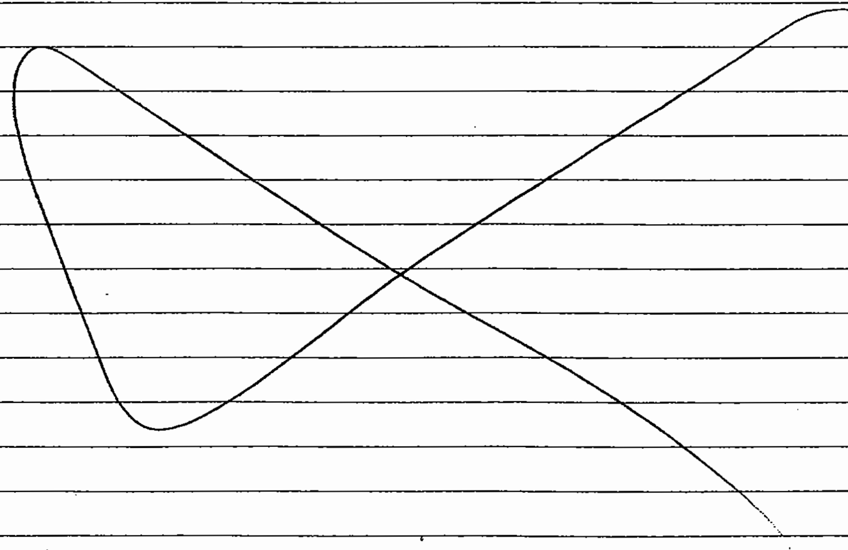
Progress Notes

DATE/ TIME	NOTES
10-24	GYN - POD 4
0830	No c/o. Feels better. ↑ appetite (+ flatus.
	Denies H/c, N/V, SOB, CP, dysuria.
	Tm 99.9 - AVSS / / /
	I/O (24°): 3331/3200 Wt 59.5k (↓1.6)
	Abd - soft, mild dist : T, BS good. Hgb 9.1 PTT 54.3
	Ecchymotic pattern (L) flank Hct 27 INR 2.1
	Incision - intact
(A/P)	i) S/p TAH/BSO - improving. Anemia most likely 2° to surgical site bldg. I suspect (L) retroperitoneal source. This should be self-limited, but will follow H/H. I doubt ongoing intra-abdominal hemorrhage, given return of bowel fxn. Consider d/c this am, pending Dr. [redacted] recommendations.

Progress Notes

12/02 we

DATE/ TIME	NOTES
10-23- 0850	GYN - POD 3
	c/o SOB. NO CP, F/C, N/V, LEG PAIN. ⊕ FLATUS
	Tm 100² - BP 134/96 - P 93 - RR 18
	WT 61.1 Kg (↑1.5 kg)
	LUNGS - BIBASILAR RALES o/w CTA COR - RRR
	ABD - SOFT, MILDLY DIST, MILDLY T, BS⊕
	INCISION - INTACT
	EXT - C/C/E
	HCT 26 p̄ 2 U. PRBCs; 30 p̄ 4TH U. PRBCs
A/P:	1) S/P TAH/BSO - POD 3. BOWEL FXN RETURNING, BUT POOR APPETITE. ANEMIA MOST LIKELY FROM ORIGINAL INTRAOPERATIVE BLOOD LOSS, BUT CANNOT r/o MILD ONGOING BLEEDING. HCT NOW IMPROVED. WILL MONITOR. CONT PO ANALGESICS.
	2) H/O MVR/AVR - CONT HEPARIN ⓘ CARDIOLOGY F/U.



NS-

we

Progress Notes

DATE/ TIM	NOTES
10-22	GYN - POD 2
07	c/o occ. nausea, poor appetite
	Denies f/c, SOB, CP, dysuria, leg pain, flatus
	Tm 100.2 - AVSS
	Wt 59.6 kg (↑ 2kg)
	I/O (24°): 4300/1590
	Lungs - CTA CVR - RRR
	Abd - soft, ND, BS(+)
	Incision - intact AM labs (P)
	Ext - C/D/I
A/P	1) S/p TAH/BSO - POD 2. Cont PCA until diet is advanced. Continue ambulate.
	2) H/o MVR/AVR - cont anticoagulate & other meds per cardiology.

NS-3010 12/02 we

Progress Notes

DATE/ TIME	DISCIPLINE	PROBLEM	PROGRESS NOTES
10/24 1000	Nsg	skin	Pt. has large bruise on (L) side. Pt. states MD aware of bruise. Will continue to monitor.
10/24 1045	Nsg	Appetite/Nausea	Patient Requested regular breakfast, ate entire meal, no complaints of nausea or worsening gas pains.
10/24 1330	CPS	RT Consult - seeval	Pt seen c chart reviewed. BS clear. ↓'d in RLL. SNPC on command. IS = 750-1000. Pt up & ambulatory in hallway. Pt on RA. RT encouraged pt to cont c C&DB c IS. Ø further therapy RT required.
10-24-	Nsg-	Skin.	Pt c ecchymotic swollen area on L. side & hip area from waist, covering L. hip to ½ of way to knee. Area firm to touch, not painful.
		GI.	Abdomen moderately distended & sl. firm, pt states is passing more flatus & abdomen is "getting much softer" + Bowels sounds that are active in 4 quads, decreasing gas pains, nausea gone, appetite improving
		Resp. Cardio.	Few fine crackles noted in upper L. lung c deep inspirations. Pt states she feels slightly SOB c exertion, has IV Lasix ordered BLT 2u of blood this pm & pt is anemic
10/25 0100	nursing	blood tx	Patient finished 2 unit PRBC @ 0005. Tolerates transfusion s c/o. Lungs clear. HRR. Offers no c/o. Sleeps soundly.

NS-3000 12/01

Progress Notes

DATE/ TIME	DISCIPLINE	PROBLEM	PROGRESS NOTES
10/22 181	Nsg.	GI cont.	nausea, which pt. states is better. Pt refused clear liquid tray & taking in only sips of clear H2O. Will monitor. Dulcolax supp. given. Will monitor for results.
10/23 0010	Nsg	Blood/H+H	Pt. H+H 8.6 + 26 @ 2300. [illegible] notified per orders by pm shift RN. Orders received. Started transfusion of 2 units of PRBC @ this time. Will monitor
10/23/	nsg	fluid retention	Resp. 20, SOB c̄ speaking + exertion. Lungs clear. Passing flatus but has no appetite. Doesn't feel good although pain control is acceptable.
10/23/ 164	Nsg	GI	Abdomen hard & distended. Pt. c/o general tenderness t/o abdomen, which pt states feels better c̄ passing of flatus. Pt. also states has been passing more flatus today but very minimal. Pt. still only taking sips of water & clear fluids however, does want to try some soft foods. Will monitor to see if pt. tolerates. Pt. also c/o nausea, which she states has gotten better c̄ medication. Will monitor for worsening nausea & gas pains.
10/23/ 173	Nsg	GI data	Pt. ate 1/3 of meal & c/o ↑ gas pains. Med. administered. Nausea continues. Will monitor.
10/23/ 1915	Nsg	GI data	Dulcolax suppository given. Will monitor for lessening of gas pains & abdominal distention
10/23/ 21	Nsg	Data	Pt. up ambulating. No further results of passing more flatus. Nausea better p̄ medication administered. Pt's abdomen continues to be hard & distended @ this time. Pt. tolerating pain c̄ Tylenol from SAM KIT.

NS-3000 12/01

Progress Notes

DATE/ TIME	DISCIPLINE	PROBLEM	PROGRESS NOTES

Transfer Information

Transfer from (full name and credentials): [redacted]
Transfer to (full name and credentials): [redacted]
Date of Report / Chart Review: 10-20-
Time of Report / Chart Review: 1130
Transfer from Room/Dept PACU to Room/Dept 2425 at 1130 (time)
Mode of Transport: ☒ Cart ☐ Wheelchair ☐ Ambulatory
Reason for Transfer: post-op recovery

Physical/Psychosocial Assessment R/T Transfer NS-3001

DATE/ TIME	DISCIPLINE	PROBLEM	PROGRESS NOTES
10/20/ 1130	Nsg	Admit	Pt. transferred to room 2425 from PACU. VSS. O2 per NC @ 3L. Sats 98%. Pt. oriented to room, call light, controls. PCA of MSO4 1 q 10 for control of pain. Pt. rates pain @ a 5 currently. Instructed on use of PCA. Pt. c/o no nausea or vomiting. Taking in sips of liquids orally. [redacted]
10/20/ 1300	Nsg	Resp.	O2 per NC to keep sats 94-95%.
		Neuro	Pt. drowsy, but arouses to verbal & noise stimuli.
		GI	Pt. denies passing flatus. [redacted]
10-21- 1530	Nsg.	GI	Pt c̄ nausea, increased c̄ activity, tolerating clear liquids poorly, states ↑ nausea c̄ liquids, able to tolerate some (a few) saltine Cx's + active bowel sounds throughout, ⊕ flatus Medicated for nausea [redacted]
10/22/ 08	Nsg	GI	C/o nausea this AM p̄ walking. ⊕ BS in lower quadrants faint BS ↑ quadrants. Medicated for nausea this AM. Refused breakfast tray & decided to remain c̄ only drinking water @ this time. Will monitor — [redacted]
10/22/ 1815	Nsg	Resp.	O2 sats ↓ 89-90% on RA. p̄ deep breaths O2 sat only ↑ to 91%. 2L O2 via NC placed. Pt using IS often. Enc. deep breathing & coughing. Continue to monitor. [redacted]
10/22/ 1815	Nsg	GI	Pt. c/o nausea, especially c̄ movement. Pt. diaphoretic cool washcloth applied to forehead. Medicated for

NS-3000 12/01 we

Progress Notes

NAME:
MR# :
SEX :
DR

LOC: 24
RM :

********** HEMATOLOGY **********

TEST:	HGB	HCT	WBC	RBC	MCV	MCH	MCHC	RDW	PLT
UNITS:	GM/DL	%	K/UL	M/UL	FL	PG	%	%	K/UL
LO:	11.4	33	3.5	3.72	82	28.2	33.5	11.5	150
HI:	15.4	45	11.2	5.00	98	33.5	35.5	14.6	416
10/25/									
+ 0705	**11.1**	33							
10/24/									
0625	**9.1**	**27**							225
10/23/									
17[illegible]	**10.1**	**29**							
06[illegible]	**10.4**	**30**							
10/22/									
2220	**8.6**	**26**							
08[illegible]	**8.1**	**25**							
10/21/									
17[illegible]	**9.0**	**27**							
0605	**9.4**	**28**							
10/20/									
06[illegible]	**11.0**	34	5.0	3.80	89	29.0	**32.7**	**16.2**	285

********** DIFFERENTIAL **********

TEST:	DIFF	SEGS	LYMPHS	MONOS	EOS	BASOS
UNITS:		%	%	%	%	%
LO:		46	15	4	0	0
HI:		77	40	13	6	1
10/20/						
0635	AUTO	67	19	9	4	1

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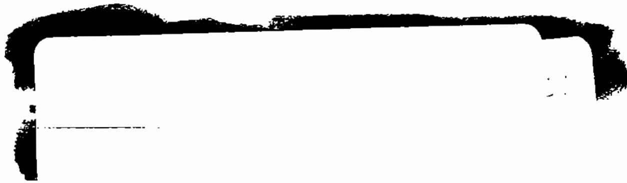


LOC: ^4
RM :

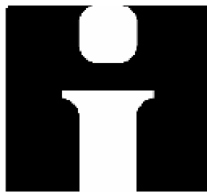
************************************** STOOL ANALYSIS **************************************

10/24/ 1240	STOOL OCCULT BLOOD		
	APPEARANCE	BROWN FORMED	
	OCCULT BLOOD	**POS**	[NEG]
10/24 0945	STOOL OCCULT BLOOD		
	APPEARANCE	BROWN FORMED	
	OCCULT BLOOD	**POS**	[NEG]

CONTINUED

IHI Global Trigger Tool:
Training Record # 2

Institute for Healthcare Improvement
December 2006



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Institute for Healthcare Improvement
Cambridge, MA

rint Date : Sat Oct 18 16:00:41

rincipal Diagnosis

*41511 IATROGENIC PULMONARY EMBOLISM AND INFARCTION

econdary Diagnoses

#486 PNEUMONIA, ORGANISM UNSPECIFIED
#5997 HEMATURIA
V1046 PERSONAL HISTORY OF MALIGNANT NEOPLASM OF PROSTATE

DATE: 10/13

FINAL DIAGNOSIS:

Pulmonary emboli.
Pneumonitis.
Status post radical prostatectomy for prostate cancer.
Microscopic hematuria.

PROCEDURES:

SUMMARY:

This 48-year-old male presented to the hospital Emergency Room complaining of sudden onset of right-sided neck, shoulder, and chest pain. He has a history of undergoing radical prostatectomy about two months ago from localized prostate cancer. He had seemed to recovery fairly completely from that surgery and was due to go back to work. He also reported some fever and chills over the preceding two days. The pain was somewhat pleuritic on the right side of the chest. No dyspnea. No URI type symptoms.

PAST MEDICAL HISTORY: Reveals previous laparoscopic cholecystectomy. No use of tobacco.

ALLERGIES: No known medication allergies.

PHYSICAL EXAMINATION: On admission, showed a temperature of 99.5; pulse 88; respirations 16; blood pressure 162/84; O2 sat 98% on room air. Weight 96 kg. Lungs were clear except for some rales in the right posterior base. Heart sounds were normal without murmurs. Abdomen was soft and normal to exam.

LABORATORY EVALUATION: Showed a hemoglobin of 13.6; WBC 8.8; sodium 141; potassium 3.5; creatinine 1.1. Cardiac enzymes normal. D-dimer greater than 1000. UA showed 1+ blood and 0 to 5 RBC's per HPF. There was some minor nonspecific changes on the EKG.

Chest x-ray showed evidence for a right lower lobe infiltrate. A CT of the chest with contrast using pulmonary embolism protocol, showed findings in the posterior medial basilar segments in the right lower lobe consistent with pulmonary emboli. Again there was noted to be a 4 to 5-cm alveolar infiltrate within the posterior basilar segment of the right lower lobe as well.

AGE
49Y

Roo

The patient was admitted and started on Lovenox initially. He was seen in Pulmonary consultation by [redacted] who reviewed the chest x-ray and CT findings and agreed that all of this was consistent with pulmonary emboli. The likely cause was thought to be his recent radical prostatectomy with the clot probably arising in the pelvic veins. Continued anticoagulation was recommended using Coumadin for a total of six months. Levaquin was started and continued for treatment of his associated pneumonitis.

In the hospital, the patient did run a fever as high as 101.8 for the first one to two days, but then remained afebrile. He continued to have some pleuritic-type chest pain which was pretty much resolved by the time of discharge. They have discharged his INR had reached a therapeutic range of 2.1 (2.0 to 3.0), and he was discharged to continue on Coumadin as well as to overlap with continued use of the Lovenox for another two days before discontinuing that. Will also complete a 10 day course of Levaquin 500 mg daily. His Lovenox dose was 100 mg subcutaneous every 12 hours.

He was instructed to return to [redacted] office laboratory in two days for a repeat INR with adjustment of dose per [redacted] office. He will be set up to see [redacted] in two to three week's time for follow-up chest x-ray. A follow-up UA because of the microscopic hematuria will also be obtained.

DISCHARGE MEDICATIONS: Levaquin 500 mg daily for five days; Lovenox 100 mcg subcutaneous every 12 hours times five doses; Coumadin 5 mg daily or as directed; ibuprofen as needed for pain.

csk
dd: 10/13/
dt: 10/15

AGE
49Y

DATE: 10/09

ATTENDING MD:

CONSULTING MD:

TIME: 1315 hours.

REASON FOR CONSULTATION: Evaluation of possible pulmonary embolism with right lower lobe infiltrate.

HISTORY OF PRESENT ILLNESS: is a pleasant 49-year-old white male whose medical history is significant for prostate cancer for which he underwent a surgery on August 13, vith pelvic lymphadenotomy and radical retropubic prostatectomy. This was node negative and Gleason score was 6. The patient has otherwise done well following that surgery until he developed some symptoms of fevers and chills approximately two days ago, no cough, sputum, or shortness of breath. He presented to the Emergency Department yesterday after acute onset of right lower chest pleuritic pain and also some right shoulder area pain coming on concomitantly. The patient did not have shortness of breath with this per se, although he did experience pleuritic pain which limited his ability to take a deep breath. He did not have any hemoptysis. In the Emergency Department, he underwent a spiral CT scan of the chest and this was felt to show a right lower lobe posterior basilar area infiltrate extending out to the pleural margin and also pulmonary emboli in the medial basilar and posterior basilar right lower lobe segments on the pulmonary embolus protocol spiral study. The patient has been started on levofloxacin and Lovenox. I have been asked to comment on whether or not the patient truly has pulmonary embolism. Of note is that the patient does not relate a history of past deep venous thrombosis although his father apparently had a deep venous thrombosis approximately five years ago following prostate cancer surgery and radiation therapy.

PAST MEDICAL HISTORY:
1. Prostate cancer, status post resection as per history of present illness.
2. Laparoscopic cholecystectomy in
3. History of chest pain in April for wnich the patient underwent stress testing which was reportedly negative.
4. Removal of a basal cell carcinoma from the face.

MEDICATIONS: Currently include levofloxacin 500 mg by mouth daily; Lovenox 100 mg subcutaneous every 12 hours.

ALLERGIES: No known drug allergies.

AGE
49Y

Tobacco: Lifelong nonsmoker. Ethanol: Occasional use, no history of problem use related.

FAMILY HISTORY: Father is alive at age 74, has a history of valvular heart disease. Also a history of prostate cancer and a deep venous thrombosis. The patient's mother is alive at age 77, is believed to have some form of thyroid disease. The patient has two children, they have seasonal allergies.

SOCIAL HISTORY: He is divorced. He teaches seminars to business and industry. He lives in

REVIEW OF SYSTEMS: Significant as per history of present illness, otherwise noncontributory.

PHYSICAL EXAMINATION:
GENERAL: This is a healthy-appearing, pleasant, nontoxic, non-distressed middle aged white male.
VITAL SIGNS: Temperature 97.9, pulse 66 and regular. Respirations 20 with room air oxygen saturation of 96%. Blood pressure is 114/61.
HEENT: Normocephalic, atraumatic. Pupils equal, round, reactive to light and accommodation. Extraocular muscles intact. Sclerae not icteric. Fundi not viewed. Nose clear. Oropharynx clear with good dentition.
NECK: Supple without adenopathy or thyromegaly. There is no tenderness to palpation to the neck or the right shoulder.
BACK: Normal spine, no costovertebral angle tenderness.
CHEST: Clear on the left, there are some crackles with inspiration on the right approximately one-fifth of the way up posteriorly. No rub, no wheezes, no consolidative changes.
CARDIOVASCULAR: Regular rate and rhythm. S1 S2, no S3 or S4. No murmur, gallop, or rub appreciated.
ABDOMEN: There is a well-healed lower midline surgical scar, mildly obese, soft, minimally tender around the incisional site. Positive bowel sounds, no hepatosplenomegaly or masses appreciated.
EXTREMITIES: No clubbing, cyanosis, or edema. No palpable cords. Negative Homans sign.
NEUROLOGIC: Grossly intact, non-focal.
GENITAL: Deferred.
RECTAL: Deferred.

LABORATORY: Laboratories from October 9, troponin I is less than 0.3; from October 8, troponin I was less than 0.3, serum sodium was 141, potassium 3.5, chloride 105, CO2 content 29, BUN 14, creatinine 1.1, glucose 112. A D-dimer was greater than 1000. White blood cell count was 8.3 with 66 segmented neutrophils, 24 lymphocytes, 9 monocytes, and 1%

eosinophils. Hemoglobin was 13.6, hematocrit 39, platelets 214. Spiral CT scan of the chest from October 8, , with pulmonary embolism protocol is available for my review. It has been radiologist and it shows a 4 to 5 cm infiltrate in the posterior basilar segment of the right lower lobe, question infectious versus inflammatory. I do not appreciate any air bronchograms. There is also low attenuation filling defects worrisome for pulmonary embolisms in the posterior and medial basilar segments of the right lower lobe. I have reviewed these scans and I would concur with the radiologist that there are definitely filling defects consistent with pulmonary emboli in this area. This appears quite evident when comparing this same area of the left lower lobe to the right lower lobe. No adenopathy was noted. There were no other infiltrates noted. The mediastinal structures appeared normal. No pleural effusions.

IMPRESSION: Right lower lobe pulmonary embolism, question of infarcted area of right lower lobe versus concomitant infectious pneumonic process. History of prostate cancer with radical prostatectomy, August

DISCUSSION: This patient has evidence of pulmonary emboli effecting his right lower lobe corresponding to the area of pleuritic chest pain that he has been experiencing. He does also complain of some right shoulder pain which I think is likely referred pain from his diaphragmatic irritation. He did have what he described as two days of fevers and chills, however, he does not have much else in the way of symptoms to go along with pneumonia, although I cannot exclude that possibility. It is certainly possible that the fevers and chills could be due to some other process. Looking at his chest CT, he does have an area of abnormality in the right lower lobe posterior basilar. This may represent a pneumonia, but it could also represent an area of infarcted lung. I think the relatively rapid onset of his pleuritic symptoms combined with the findings on the spiral CT are most consistent with pulmonary embolism. However, I think it is reasonable to treat him both for pulmonary embolism and for pneumonia as is being done. I do think he has a known risk factor for development of deep venous thrombosis in the pelvic veins with his recent prostate surgery which is reason enough for him to have developed a pelvic deep venous thrombosis. I do not think we necessarily need to invoke a hypercoagulable syndrome from either intrinsic coagulopathy or a hypercoagulable state from malignancy which sounds as though it was resected completely. The patient does relate some familial history of a deep venous thrombosis developing in his father, this also apparently after prostate cancer surgery. I think the reasonable approach in this patient is to treat him both for pneumonia and for pulmonary embolism as is being done. I would target him for about six months of anticoagulation therapy and then probably observe him thereafter off of anticoagulation.

RECOMMENDATION:

1. Continue levofloxacin for a 10 day course.
2. Continue Lovenox with conversion to warfarin for anticoagulation which I would recommend he continue for a six month period at this time.

3. The patient should have a chest x-ray done to followup any radiographic abnormality in approximately two to three weeks. This can either be arranged by revisiting my office or via office. I will defer to in the management of the anticoagulation for the pulmonary embolism.

Thank you for this interesting consult. I will be available to see this patient as needed in the future.

dd: 10/09
dt: 10/09

AGE
49Y

DATE: 10/08

PATIENT'S PRIMARY:

CHIEF COMPLAINT: Right shoulder and chest pain.

HISTORY OF PRESENT ILLNESS: This is a 49-year-old gentleman who about 9:30 tonight states he developed some pain in his right neck. It radiated down to his shoulder, arm, and then his chest. The patient states it is a sharp pain and it hurts to breathe. The patient points to the right rib field as his area of pain. The patient states it is worse when he lies flat. He also complains of chills that he has had over the past two days. He has been taking ibuprofen and Tylenol and seems that this has not improved. The patient also states he is slightly flush and he has had a slight headache. The patient does have a history of migraines but states this is not the same. He is complaining of some nausea but no vomiting. He does have a low-grade temperature here. He states his daughter has been ill over the past week and actually I saw her twice in the Emergency Room also and this was deemed likely viral illness. The patient denies any previous history of lung problems. He denies a history of blood clots. He denies any cardiac history. He denies family history of heart problems. He is a nonsmoker. He denies hypertension or diabetes. He does have a slight elevation in his cholesterol. He did, however, just have prostate cancer that was recently diagnosed and had surgery in August of ie patient denies cough. He denies any bug bites or tick bites.

PAST MEDICAL HISTORY: Prostate cancer with surgery eight weeks ago. History of cholecystectomy.

CURRENT MEDICATIONS: Ibuprofen and Tylenol.

ALLERGIES: None.

SOCIAL HISTORY: The patient is a nonsmoker. He drinks socially but rarely. He is here with his daughter.

REVIEW OF SYSTEMS: HEENT: No head trauma, no visual changes, no sore throat, ear pain, headache, or neck stiffness. LUNGS: No cough or difficulty breathing. ABDOMINAL: No vomiting or diarrhea. BACK: Denies back or flank pain. GENITOURINARY: No frequency or burning, or other urinary symptoms. NEUROLOGICAL: No focal areas of numbness or weakness. SKIN: No rashes or lesions. All other systems negative.

PHYSICAL EXAMINATION:

VITAL SIGNS: Temperature 99.5. Pulse 88. Respirations 16. Blood pressure is 182/84. Oxygen saturation is 98% on room air. The patient ranks his pain as an 8 to a 9 on a 1 to 10 scale.
GENERAL: Alert and oriented male who is sitting on the bed on the edge holding his right side.
HEENT: Head is normocephalic. Pupils are equal, round, and reactive to light. Nares are patent. Oropharynx is clear. No signs of erythema or exudate. No signs of facial trauma. Trachea is midline.
NECK: No cervical adenopathy. No rigidity noted.
CHEST: Lungs are clear and equal bilaterally but rales are heard in the right lower lung field posteriorly. No retractions. No acute shortness of breath. Chest wall is not tender with palpation.
HEART: S1, S2, with regular rate and rhythm. No murmurs or rub.
ABDOMEN: Soft with positive bowel sounds. Nontender to palpation.
EXTREMITIES: The patient is moving all extremities equally. No signs of trauma or bruising. There are no signs of any pedal edema. There are pulses present in all four extremities. Capillary refill is within normal limits.
BACK: No costovertebral angle tenderness. No spinous process tenderness.
SKIN: No rashes or lesions. The skin is warm and dry. No bruising noted.
NEUROLOGIC: The patient is alert and oriented, answering all questions appropriately. Normal motor tone in both upper and lower extremities. No focal neurological deficits noted.

EMERGENCY ROOM COURSE: Electrocardiogram was done. This did show some slight ST depression in V2, 3, and 4. This is changed from a previous electrocardiogram. He also has Q waves in lead 3. Laboratories were obtained that show a normal CPK at 63 with an MB of 0 and a negative troponin. CBC shows a hemoglobin of 13.6, white count normal at 8.3 with a normal differential. Metabolic panel shows a glucose of 112, creatinine 1.1, BUN 14, sodium 141, potassium 3.5, chloride 105, bicarbonate 29, calcium 8.9. Chest x-ray appeared to have infiltrates behind the heart. This was noted on the lateral view only. In reviewing the patient's old records, he was here in April and had chest pain at that time. He was admitted and had a rule out for cardiac activity. He did have a stress test that was adequate and showed no significant ST changes or any ischemia.

PLAN: CT of his chest was obtained. This showed possible pulmonary embolus in the right lower lobe posteriorly. This is right where the infiltrate was also noted on CT. I discussed these findings with We will start this patient on Levaquin 500 IV. He recommended Lovenox 100 mg subcutaneously. He will come in to evaluate this patient and admit this patient. The patient is in stable condition. He remains stable here in the department. A repeat electrocardiogram was unchanged.

FINAL DIAGNOSIS:

1. Right-sided chest pain.
2. Acute pulmonary embolus.
3. Right lower lobe infiltrate.

PLAN: The patient will be admitted. He remains stable at this time.

Any lab, electrocardiograms, and/or x-rays ordered have been interpreted by the undersigned physician.

mrl
dd: 10/09
dt: 10/09/

DATE/ TIME	NOTES
10-9	Pulm/CCM Consult Note
11:42	Requesting Physician:
	Reason for Consult: ? PE
PMHx:	HPI: Pt is a 49 y/o ♂ c̄ PMHx significant for recent prostate
Prostate CA (s/p)	CA → S/P (b) pelvic lymphadenectomy and radical retropubic
~~Seasonal Allergies~~	prostatectomy on 8/13/ → Node negative, Gleason
Hx Lap Ch?	Score of 6. Pt presented to ED 10/8/ c̄ abrupt onset
Hx CP 41	(R) neck, shoulder, and chest pain. ⊕ Fevers c̄ chills x 2 days.
Gastro test negative	Daughter ~~Dx c̄ [illegible]~~ ? viral gastroenteritis last week. ⊕ Pleuritic pain
Hx bowel [illegible]	on (R) chest. ⊕ Calf tenderness (pt thinks 2° to ↑ [illegible]).
Meds	ø SOB. Father had DVT 5 yrs ago (Prostate CA S/P XRT).
Levaquin 500 QD	
Lovenox 100 mg SC QD	
Ambien PRN	
Mylanta PRN	ROS: CNS: + Migraines [illegible], Recent BPPV, CV: ø palpitation ø HTN
Vicodin PRN	Lungs: HPI GI: Some skin tenderness around incision, some loose stools ø blood
	GU: ø bleeding c̄ [illegible], ø flow ø dysuria. MSK: Some myalgias
All: NKDA	
	PE: VS: T_c 97.9 T_m 96.7 HR 66 R 20 BP 114/61 O_2 96% RA
FHx:	Gen: Awake, alert, in bed, comfortable, pleasant, NAD
F: 74 valvular heart disease, Prostate CA, DVT	HEENT: MMM
M: 77 ~~[illegible]~~ ? thyroid	CV: RRR ø murmurs
2 children: Allergies	Lungs: Crackles (R) ↓ ½ of post chest (L) = CTA, ø wheezes
12 & 17 Asthma	Abd: Scar from recent surgery below umbilicus, ⊕ BS, soft, NT,
	ND
SHx:	Ext: Warm, without edema
Occ EtOH	Neuro: CN II-XII intact, no focal abnormalities.
Tobacco: Lifetime non-smoker	
Teaches seminars	
for [illegible]	
Divorced	
Lives Alone	
	(Cont. →)

NS-[illegible]

Progress Notes

DATE/ TIME	NOTES
10/9/	Laboratories: 10/9/ CPK = 54, CPK-MB = 1, TnI = < 0.3
	10/9: 8.3 \ 13.6 / 214 / 39 → 66% S, 24% L, 9% M, 1% E
	141 / 3.5 | 105 / 29 | 14 / 1.1 | 112 ; CPK = 63 ; TnI < 0.3
	Imaging: Spiral CT Chest: ① Low attenuation filling defects worrisome for PE w/n post + medial basilar seg of RLL. ② 4-5cm infiltrate w/n post basilar seg of RLL infectious [illegible] vs. inflammatory ③
	Assessment: 49 y/o male c̄ abrupt onset CP, CT → PE, Hx of prostate CA s/p radical prostatectomy.
	① PE - From Sxs and spiral CT of chest. Source of emboli is most likely from pelvic veins, but possibly also from LE DVT. ⊕ FHx of DVT in father, but c̄ recent surgery + bedrest the cause seems known and no further coagulopathy w/u required at this time.
	② Lung infiltrate vs. Infarcted Lung - Likely infarcted lung but fevers + CHILLS make infiltrate possible.
	③ Prostate CA: S/P resection. Following c̄ urology. Recs - see below.
	Seen / examined / discussed [illegible]
	Rec 1) 6 mos Rx for PE Lovenox → warfarin 2) 10 days Levaquin for pneumonia 3) F/U CXR 2-3 wks
	I'll see pm. Call if needed

Progress Notes

NS

LOC: MT
RM :

************************************* COAGULATION STUDIES *************************************

TEST:	PROTIME		DIMER
UNITS:	INR		NG/ML
LO:			68
HI:			497
10/13/			
+ 0626	2.1	PRINR	
10/12/			
0550	1.6	PRINR	
10/11/			
0605	1.3	PRINR	
10/10/			
0603	1.1	PRINR	
10/08/			
2249			**>1000**

---FOOTNOTES---

PRINR THERAPEUTIC INR RANGES:MOST CONDITIONS 2.0-3.0 MECHANICAL PROSTHETIC VALVES 2.5-3.5, PREVENTION OF RECURRENT MI 2.5-3.5

CONTINUED

Final Authenticated Copy **Reviewed by Phy**

CTPULME CT PULMONARY EMBOLISM EXAM COMPLETED 10/9 2:08 am

Signs and Symptoms: CREAT: 1.1 NECK AND ARM PAIN/SOB
Comments: RM 10

10/09, 'T OF THE CHEST

History: Neck and arm pain/shortness of breath.

CT examination of the chest with iodinated contrast using the pulmonary embolism protocol.

Low attenuation filling defects located within the medial basilar and posterior basilar segments of the right lower lobe worrisome for segmental pulmonary emboli. The remainder of the pulmonary arteries are negative. Focal 4-5 cm alveolar infiltrate within the posterior basilar segment of the right lower lobe is nonspecific and may be infectious or inflammatory in nature. Follow-up recommended. Left lung is negative. Pulmonary hila and mediastinum are negative.

IMPRESSION:

1) Low attenuation filling defects worrisome for pulmonary emboli within the posterior and medial basilar segments of the right lower lobe.

2) 4-5 cm alveolar infiltrate within the posterior basilar segment of the right lower lobe is nonspecific and may be infectious or inflammatory in nature.

3) Remainder of the examination is negative.

4) Findings discussed with the Emergency Room.

End of diagnostic report for accession: :00:00A
Transcriptionist:
Interpreted by:

Requesting Provider:
Report To Provider:

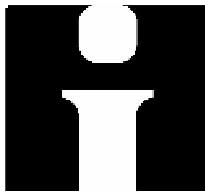
Radiology Result: Chart Copy

Patient Type: F
Visit #:
Completed:

Exam: (LH) CTPULMEMB - CT PULMONARY EMBOLISM

IHI Global Trigger Tool:
Training Record # 3

Institute for Healthcare Improvement
December 2006



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Cambridge, MA

Principal Diagnosis

*8054 CLOSED FRACTURE OF LUMBAR VERTEBRA, WITHOUT MENTION OF SPINAL CORD INJURY

Secondary Diagnoses

E8809 ACCIDENTAL FALL ON/FROM STAIRS/STEPS
72402 SPINAL STENOSIS OF LUMBAR REGION
7213 LUMBOSACRAL SPONDYLOSIS WITHOUT MYELOPATHY
V6549 COUNSELING
2729 UNSPECIFIED DISORDER OF LIPOID METABOLISM
V1582 PERSONAL HISTORY OF TOBACCO USE

Principal Procedure

0353 REPAIR OF VERTEBRAL FRACTURE
10/21/[illegible] 21455

Other Procedures

*8108 LUMBAR/LUMBOSACRAL FUSION, POSTERIOR TECHNIQUE
10/21/[illegible] 21455
8162 FUSION OR REFUSION OF 2-3 VERTEBRAE
10/21/[illegible] 21455

DATE: 10/26/[redacted]

FINAL DIAGNOSIS:

L3 compression fracture
Right L3-4 foraminal stenosis

PROCEDURES:

Right L3-4 fasciectomy, bilateral L3-4 intertransverse fusion using locally obtained bone and morselized cancellous allograft
Bilateral pedicle screw fixation at L3-4
Intraoperative chest fluoroscopy

SUMMARY:

CLINICAL COURSE: This 74-year-old lady had a fall down her basement steps nearly four months ago where she sustained an L3 vertebral body compression fracture. Initially she had primarily low back pain which gradually progressed to radiating pain along the anterolateral aspect of her right thigh and the superolateral aspect of her right shin. She was also having intermittent numbness and paresthesias in a similar distribution. She is currently on a Duragesic patch and taking Neurontin for pain control.

On exam, she had mild atrophy without fasciculation along the right iliopsoas and quadriceps. Her patellar and Achilles tendons reflexes were absent. There was moderate weakness 3/5 of the right iliopsoas and right thigh adductors. The quadricep strengths were normal bilaterally and there were no other weaknesses in her extremities. The patient had a lumbar spine MRI which showed the compression fracture of the L3 vertebral body that resulted in a scoliotic curve that is concave on the right and there was a clinically significant foraminal stenosis at the L3-4 level on the right resulting in L3 radicular impingement. It was also noted that she had degenerative spondylolisthesis at L5-S1 as well as pervasive lumbar spondylosis.

HOSPITAL COURSE: The patient was admitted to the hospital on the day of her surgery. The L3-4 fusion was performed and she had no complicating events. She had some incisional pain but her radicular pain was resolved. During her hospital stay she did have some complaints of Charlie horse aches in her thighs and she was started on Robaxin. This did not help with that pain so she was switched to Soma. She started to have some confusion and inappropriate conversation so the Soma was discontinued and her cognition cleared. She had a slight elevation of temperature postoperatively and incentive spirometry was encouraged and it did return to a normal level by the time of discharge. She was discharged on October 26, [redacted] in satisfactory condition to her home. She was given instructions regarding activities, restrictions and incisional

AGE
74Y

care and was instructed to call ... fice for a followup appointment on the Monday following her discharge. She was encouraged to call ... fice if she was having any concerns or problems.

MEDICATIONS: She was given instructions to continue any preoperative medications she may have been taking and was given a prescription for Darvocet-N 100, one tablet every four hours as needed for pain.

jmw
dd: 11/05/
dt: 11/06/

FOR:

CC

Patient Name

AGE
74Y

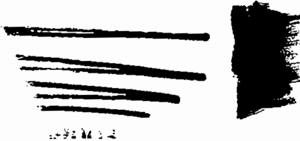
Attending Physician

Room

Date of Birth

Date of Discharge

DISCHARGE SUMMARY
AUTHENICATED COPY STORED ELECTRONICALLY



TITLE: 10/20/

10/20/ NTERNAL MEDICINE

SUBJECTIVE: This is a 74-year-old patient well-known to me who fell down her basement stairs on about July 28 and sustained an L3 compression fracture and has had persistent pain since that time, which has gradually progressed to a radicular pain down the right leg. She has neurologic abnormalities on MRI and is now scheduled for surgery by tomorrow morning. She does not feel she has had any significant improvement in her pain now over the last couple of months or so. She feels it is gradually getting worse. She is on a Duragesic patch 100 mcg every three days as well as Percocet two pills twice daily. She is controlling her pain to some degree. She has no chest pain, shortness of breath, abdominal complaints, exertional symptoms. Really no other recent problems.

REVIEW OF SYSTEMS: Negative. She does get a little bit of heartburn and indigestion at times, but it is generally well-controlled with her Zantac.

PAST HISTORY: Listed in my assessment below.

MEDICATIONS: Her current medications include Pravachol 20 mg daily, aspirin once daily, which has been held, Zantac 250 mg twice daily, Duragesic 100 mcg every 72 hours, Percocet 5 mg two pills twice daily, Miralax 17 grams daily, Colace twice daily, Senokot once or twice daily. She is also using an occasional Fleets enema for some constipation problems with her analgesics.

ALLERGIES: She had some previous dyspnea in a dental office with using either Lidocaine or novocaine medications quite a few years ago. No other known allergies.

She quit smoking about two years ago ~~and has~~ about a 20 pack year history previous. She drinks alcohol occasional. She is married and lives with her husband. She has one child and one stepchild.

FAMILY HISTORY: Significant for five siblings that have passed away including two brothers with Parkinson's disease in their 80s. Another brother had a stroke at age 64. She had a brother that had a myocardial infarction at age 39. A sister died of unknown causes at age 80.

PHYSICAL EXAMINATION: Blood pressure 142/80. Pulse is 80. Weight 149. Tympanic membranes are clear. Eye examination is normal. Pharynx is normal. Neck is supple. No bruits are heard. Chest is clear. Cardiac examination reveals a regular rate and rhythm. No significant murmurs are heard. Abdomen is soft, nontender. No organomegaly or masses. There is no lower extremity edema. I did not repeat a more thorough neurologic examination today. She has some difficulty walking because of her back and right leg pain. We did preoperative studies, which are still pending including CBC and chemistries. She is due to have her lipids checked so I did this as well and we also did an electrocardiogram today.

ASSESSMENT:
1. Fall with an L3 compression fracture and subsequent radicular symptoms into her right leg as previously noted.
2. Degenerative joint disease.
3. Dyslipidemia.
4. History of osteopenia on bone density studies.
5. Prior smoking abuse, none times two years with a prior 20 pack year history.
6. History of rosacea.
7. History of peptic ulcer disease.
8. Allergic rhinitis.
9. Status post hysterectomy, bilateral salpingo-oophorectomy and prior cesarean section.

PLAN: Wait for preoperative studies to return. If these are stable, she is okayed for her surgery. We will follow her postoperatively and we will check on her preoperative studies as soon as the are back later today.

jrl
dd: 10/20
dt: 10/20

PROGRESS NOTE 2

Date	Time	#	Orders
10-23 0740			D/C Decadron. D/C Robaxin 750 ꝑ po Q8H. AP/lateral L-spine films today
			10/23 0822
			10/24 10⁰⁰
10/23 20³⁰			bowel regime per pt's choice (enema) t.o. Dr.
			10/23 10³⁰
10-24 0735			D/C Robaxin. Soma ꝑ po Q8H. Neurontin 300 mg po Q8H.
			10/24 0935
			CR 10/24

PLEASE
MARK ALL PHARMACY
ORDERS IN RED.

PHYSICIAN'S ORDERS

DO NOT USE
UNLESS NUMBE[R]
← SHOWS

DATE/ TIME	NOTES
10-24 0730	T 98.6. Up + about now. Reports resolution of (R) radicular pain but persistence of longstanding aches in [illegible]. Will switch to [illegible]. Radiographs look fine.
10/24/[illegible] 1845 Atkinson	Temp 100°F. Wound - No evidence of infection. No evidence of DVT / No ↑'d respirations. Doubt serious etiology! Will give incentive spirometry
10/25/[illegible] Atkinson 0700 hrs	Afebrile since single elevation last pm. Wound A No evidence of DVT. However, confused at the present time answering she is "at home" and today is "Monday". In fact, her answers are so inappropriate, from her conversation yesterday, it begs speculation as to the reason. Will order a CXR, CBC + lytes. Reassess this afternoon.
10/25/[illegible] Atkinson 1530 hrs	Much more alert + conversant off Soma. Will DC other sedatives as well - Plan DC in am

Progress Notes

2/02 we

DATE/ TIME	DISCIPLINE	PROBLEM	PROGRESS NOTES
10/25/[illegible] 0800	Nsg	MSC	Pt. walks c̄ walker & SBA.
0825	Nsg	Data Entry	DR. notified of pt. new Xanax 1mg
			q 8° order started 10/24 @ 1740. ~~Possibibe~~ ?
			Possible reason for pt's lethargy & disorienta-
			tion this AM. D/C xanax per MD
10/25/[illegible] 1500	Nsg	PAIN	Pt. c/o incisional pain & (R) thigh pain. MD
			aware - See analgesic flow sheet
		GI	Eating & drinking from floor stock - was
			too lethargic when trays were in room.
			Encouraging PO intake

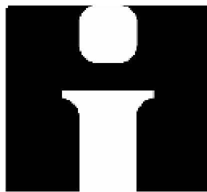
Progress Notes

DATE/ TIME	DISCIPLINE	PROBLEM	PROGRESS NOTES
10/24/[redacted]	NSg	GU	Pt's urine concentrated → clear yellow. Enc ↑ in PO fluids. After ↑, urine less concentrate Will con't to monitor fluid intake & urine output.
10/24/[redacted]	NSg	Skin	Lumbar incision CDI. Drain site leaking small amts. Dressing reinforced c̄ 2 ABDs @ this tim s̄ any shadow. Δ drsg prn.
10/24/[redacted]	NSg	MSC	Pt up c̄ SBA or Ⓘ. Knows how to put on TLSO Ⓘ & to use it when up >5 min. Requires encourag of Ⓘ. Knows proper body mechanics.
10/24/ 08	NSg.	pain	c/o stiffness, muscle aches in quads bila Ø radicular pain present, switched to Neurontin + Soma for this also Vicodin for inc. pain
10/24/ 1450	NSg.	GU	Urine dark Ⓑ xs - encourage po fluids
10/24/[redacted] 1950	NSg	P/E	Pt needing excessive encouragement. Not initiating tasks on own. RN promoting independ + its importance. Will continue to support
10/25/[redacted] 0520	NSg	ΔE	pt rested soundly t/o noc inbetween VS + meds. Still requires maximum encourageme + promotion of independence. Refused pain meds (Vicodin) since middle of pm shift - as pain was "OK" per her report.
10/25/[redacted] 0800	NSg	Neuro	Pt. disoriented this AM, lethargic, unable to open eyes unless verbally stimulated. Dr. [redacted] here to eval. pt. @ 0700 - See new orders. Will cont. to monitor neuro status for additional Δ's
		Pain	Pt. C/o incisional pain - See MAR/comfort
		GI	Pt. not alert to eat breakfast. Drinking sips PO - 25% eaten.

Progress Notes

IHI Global Trigger Tool:
Training Record # 4

Institute for Healthcare Improvement
December 2006



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Disposition : Home, Self Care (1)

Principal Diagnosis

*6185	PROLAPSE OF VAGINAL VAULT AFTER HYSTERECTOMY

Secondary Diagnoses

#2851	ACUTE POSTHEMORRHAGIC ANEMIA
#9973	RESPIRATORY COMPLICATION, NOT ELSEWHERE CLASSIFIED
#5180	PULMONARY COLLAPSE (ATELECTASIS)
#9982	ACCIDENTAL PUNCTURE OR LACERATION DURING A PROCEDURE, NOT ELSEWHERE CLASSIFIED
E8700	ACCIDENTAL CUT/PUNCTURE/PERFORATION/HEMORRHAGE DURING SURGICAL OPERATION
6256	STRESS INCONTINENCE, FEMALE
78057	SLEEP APNEA
4019	ESSENTIAL HYPERTENSION, UNSPECIFIED BENIGN OR MALIGNANT
7226	DEGENERATION OF INTERVERTEBRAL DISC, SITE UNSPECIFIED
311	DEPRESSIVE DISORDER, NOT ELSEWHERE CLASSIFIED
27800	OBESITY, UNSPECIFIED
71590	OSTEOARTHROSIS, UNSPECIFIED WHETHER GENERALIZED OR LOCALIZED, UNSPECIFIED SITE
V1582	PERSONAL HISTORY OF TOBACCO USE

Principal Procedure

*7050	REPAIR OF CYSTOCELE AND RECTOCELE	
		4235

Other Procedures

7077	VAGINAL SUSPENSION & FIXATION	
		4235
5732	CYSTOSCOPY	
		17051
8777	CYSTOGRAM	
		17484

DATE:

FINAL DIAGNOSIS:

Symptomatic pelvic organ prolapse.
Grade III cystocele.
Grade II rectocele.
Grade II to III vaginal vault prolapse.
Status post hysterectomy.
Stress urinary incontinence.
Acute blood loss anemia.

PROCEDURES:

1. CYSTOCELE REPAIR.
2. RECTOCELE REPAIR.
3. SACROSPINOUS LIGAMENT FIXATION.
4. ATTEMPTED INCONTINENCE PROCEDURE BY DR.

SUMMARY:

HISTORY: The patient is a 59-year-old white female who presented for a follow up of pelvic organ prolapse. She was recently seen by and evaluated for stress urinary incontinence. At the time, she was found to have a significant cystocele. She was therefore referred back to me by or re-evaluation of the cystocele, and possible surgery. The patient had been previously seen by me on more than one occasion, and during that time, was found to have a grade II cystocele. The patient, at the time, initially was asymptomatic. However, she said that lately she has been experiencing a worsening incontinence and some bulge in the vagina. She was also feeling some sense of something falling out of the vagina. She said that she is now more interested in a surgical correction of the cystocele, and pelvic organ prolapse. She is status post hysterectomy for endometriosis.

The patient continued to experience pain in the left lower quadrant of the abdomen. The pain has been present for quite some time. She had seen a gastroenterologist, and had colonoscopy with negative findings. The patient was examined in the clinic, and pelvic organ prolapse was confirmed. She had requested to have a surgical correction. She was therefore scheduled for surgery.

HOSPITAL COURSE: On he patient was admitted to where she underwent the procedures mentioned above. During the gynecological surgery, she had an attempted incontinence procedure by Dr. However, he had to abandon the

AGE
59Y

procedure because of some perforation of the bladder with the mesh. Please see his dictation for details of the operation on his part.

The patient's postoperative course, as well as hospital stay, was essentially unremarkable. On postoperative day number one, the patient reports some pain in the lower abdomen. Otherwise, she said that she was feeling tired. She was not passing flatus. She denied nausea or vomiting. Her intravenous fluid was later discontinued, and she was advanced to a regular diet. She was able to tolerate the regular diet well. Her urine output was good. The only significant finding in the hospital milieu is the patient seemed to be dependent on oxygen while in the hospital. On postoperative day number one, she was found to have an oxygen saturation in the 70s without oxygen. However, with oxygen, the saturation increased to 99 to 100%. Her physical examination was unremarkable. She was also evaluated by Dr. and . The patient was able to ambulate without difficulty.

On postoperative day number two, the patient continued to make excellent progress. She was passing flatus. She continued to tolerate a regular diet well. She continued to ambulate without difficulty. Her physical examination was unremarkable.

On postoperative day number three, the patient was evaluated, and at that time, she did have a cystogram, which was ordered by Dr. This was reported as being negative. Please see his note for the details of the cystogram. At that time, her Foley catheter was discontinued, and she was allowed to have a voiding try out. Dr. plans to manage the patient's voiding with regards to whether she needs to be discharged with the catheter. She continues to be dependent on oxygen. On room air, she was having an oxygen saturation of 88 to 89%. With oxygen 2 L, she was having a saturation of 93 to 97%. The patient said that she does not have any shortness of breath, even without oxygen. She said she just feels tired. The plan was for her to be evaluated again on postoperative day number three by Dr. who is the patient's regular internist. I would defer to him to decide whether the patient needs further evaluation with regard to her dependence on oxygen. If it is okay with Dr. the patient will be discharged to home on postoperative day number three.

DISCHARGE INSTRUCTIONS: The patient was given a detailed instruction sheet, and she verbalized understanding. She was advised to abstain from intercourse for 12 weeks. She was advised not to lift anything more than 20 pounds for 12 weeks. She was advised to follow up in six weeks for a postoperative evaluation.

DISCHARGE MEDICATIONS:
1. Vicodin one to two by mouth every four hours as needed, #30 with no refills.
2. Self-administered medication kit.
3. Ferrous sulfate 325 mg one by mouth daily, #60 with no refills.

ACTIVITIES: As tolerated.

AGE
59Y

Room

The patient's preoperative hemoglobin, and hematocrit were 12.0, and 36 respectively. Her postoperative hemoglobin, and hematocrit were 9.4, and 28 respectively.

DIET: Regular diet.

Again, the patient will be discharged to home today, if it is okay with Dr. [redacted] from the standpoint of the patient's requirement for oxygen.

Date	Time	#	Orders
2/1			Hct Hgb this am - call if Hct < 28
2/1			@ 0650
2/1	9AM		2/2 [illegible] 2/21 - r/o bladder perforation please have radiology page me results
2/1			- MOM - 30cc P.O q day prn - Miralax - i pkt in 8oz H2O q day
2/2	9AM		- Foley D/C'd - measure voided volume & scan for post void residual - if residual >200 cc please page me - If residual <200cc ok to d/c from Urology standpoint c f/u c me 3 months
2/2	0930		@ 0945

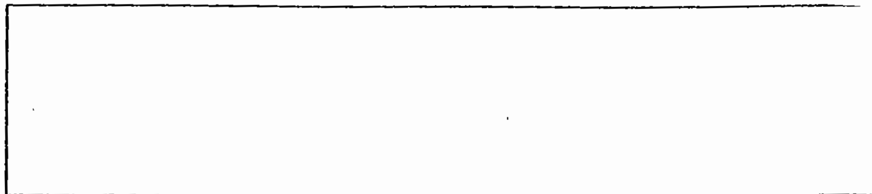
PLEASE
MARK ALL PHARMACY
ORDERS IN RED.

PHYSICIAN'S ORDERS

DO NOT USE
UNLESS NUMB
← SHOWS

DATE/ TIME	NOTES
2/21 1000	GYN
	POD #3
	Feels good. ⊕ Flatus. ⊕ BM ×1
	Ready to go ~~me~~ home
	VSS, Afebrile
	O_2 sat 88-89% on RA; 93-97% on O_2
	Lungs: CTA (B)
	Heart: RRR
	ABD: soft, NT, ⊕ [redacted]
	EXT: NT
	H/H 9.4 28
	A/P: (1) POD #3
	(2) Doing well
	(3) Foley out
	(4) Negative Cystogram per Dr
	∴ Begin voiding trial
	(5) Continues to require O_2 by NC
	will defer to Dr to
	decide if pulmonary consult is
	necessary
	(6) Home today if OK with
	Dr

Progress Notes



DATE/ TIME	NOTES
1/3	GYN
11^00	POD#1
	c/o soreness in lower abdomen. Feels tired.
	Otherwise doing well. ⊕ Flatus. Denies
	nausea or vomiting. Hungry for regular diet.
	VSS, Afebrile. urine output good
	O2 sat in the 70's s̄ oxygen per RN
	O2 sat 100% on oxygen
	Lungs: CTA (B)
	Heart: RRR
	ABD: soft, mildly tender. non distended
	⊕ BS
	GT: NT, SCD's in place.
	H/H 8.5 / 25
	A/P: ① POD #1
	② Stable
	③ Acute blood anemia - will observe
	for now. Give Fe ~~replacem~~ supplement
	when discharged to home
	④ D/c ~~Heplock~~ PCA and Heplock I.V.
	⑤ pulmonary consult if OK with
	Dr to check with
	Dr

NS

Progress Notes

NAME:
MR# :
SEX :
DR :

BIRTHDATE:
ACCT#

LOC:
RM :

HEMATOLOGY

TEST:	HGB	HCT	WBC	RBC	MCV	MCH	MCHC	RDW	PLT
UNITS:	GM/DL	%	K/UL	M/UL	FL	PG	%	%	K/UL
LO:	11.4	33	3.5	3.72	82	28.2	33.5	11.5	150
HI:	15.4	45	11.2	5.00	98	33.5	35.5	14.6	416
02/02/ + 0645	**9.4**	**28**							
02/01/ 0715	**9.1**	**27**							
01/31/ 0705	**8.5** CKDS	**25** CKDS							
01/30/ 0640	12.0	36	6.4	4.04	88	29.7	33.7	13.2	298

DIFFERENTIAL

TEST:	DIFF	SEGS	LYMPHS	MONOS	EOS	BASOS
UNITS:		%	%	%	%	%
LO:		46	15	4	0	0
HI:		77	40	13	6	1
01/30 0640	AUTO	70	22	6	2	0

---FOOTNOTES---
CKDS RECHECKED POST SURGICAL

DATE: 01/30

PHYSICIAN:

ASSISTANT:

ANESTHESIOLOGIST/ANESTHESIA: 1/4% Marcaine with epinephrine, 20 cc, general anesthesia.

PREOPERATIVE DIAGNOSIS:
1. Stress urinary incontinence.
2. Post hysterectomy pelvic prolapse.

POSTOPERATIVE DIAGNOSIS:
1. Stress urinary incontinence.
2. Post hysterectomy pelvic prolapse.

PROCEDURE: ATTEMPTED PUBOVAGINAL SLING WITH MESH, CYSTOSCOPY

ESTIMATED BLOOD LOSS: 100 cc.

DRAIN: 16 French Foley catheter.

COMPLICATION: Bladder perforation from mesh.

SPECIMEN: None.

INDICATIONS: The patient is a [redacted] year-old woman with a history of post hysterectomy pelvic vault prolapse. She presents now today for anterior/posterior repair by Dr. [redacted] as well as supraspinous ligament fixation. She underwent a CMG preoperatively which demonstrated a leak point pressure as low as 63 cm of water. She presents now for sling placement.

FINDINGS:
1. The needle placement was uneventful. The cystoscopy with the bladder distended demonstrated no evidence of needle perforation.
2. Cystoscopy was performed after placement of the mesh which demonstrated a 1 cm segment of mesh within the bladder, buttonholing through. For this reason the mesh was removed.
3. No additional mesh was placed due to concerns of urinary contamination of the mesh causing subsequent infection.

OPERATIVE PROCEDURE: After informed consent was obtained the patient was brought to the Operating Room and placed in the supine position. After the induction of general anesthesia she was placed in the high lithotomy position and prepped and draped in the usual sterile fashion over her abdomen, groin and genitals. Dr. [redacted] then performed his portion of the procedure and I was subsequently called to the room.

A 16 French Foley catheter was placed per urethra and the bladder was emptied. The Foley catheter was then clamped. The bladder neck was palpated along with the inferior pubic ramus bilaterally. The midline of the pubic symphysis was then marked. Two cm lateral to the midline on either side a second mark was made. These regions were then infiltrated with the 1/4% Marcaine with epinephrine. Stab incisions were then made over each mark and carried down through the subcutaneous tissues to the pubis. The first SPARC needle was then placed through the right abdominal incision. It was passed down directly onto the pubic symphysis and then skived directly behind the bone and into the vaginal incision lateral to the urethra. The identical procedure was then performed on the left side. Again care was taken to bring the needle down directly onto the pubic symphysis and skived directly behind the pubic symphysis and maintained contact with it as the needle was passed into the vagina. Cystoscopy was then performed and the bladder was entirely filled with approximately 300 cc. The needles were wiggled and could be seen pushing against the bladder on both sides anterior towards the bladder neck. No evidence of perforation was noted. The patient had been given indigo carmine and clear blue efflux was seen from each ureteral orifice.

The Foley catheter was then replaced back into the bladder and the bladder was drained completely. The SPARC mesh was attached to the needles and brought up, first on the patient's right and then on the patient's left. A curvec [illegible] cissor was used as a spacer between the mesh and the urethra. Excess mesh was then excised at the skin level. Cystoscopy was then performed again after Dr. [redacted] had ligated several bleeders within the anterior vaginal wall. The small buttonholing mesh was noted at the left anterior bladder. No abnormalities were noted on the right side. The ureteral orifices had clear blue efflux bilaterally.

The decision was made to remove the mesh. It was grasped in its location over the urethra and removed gently. The mesh appeared intact with the removal.

I considered redoing the mesh sling, moving the left pelvic needle more laterally. Needles were passed on the right and the left and repeat cystoscopy was performed. At this time it appeared that the bladder perforation was approximately 1 cm in size and had some oozing. For this reason I abandoned performing a second sling.

The reason for abandoning the sling were concerns of urine contamination of mesh leading to foreign body infection. The area of the perforation was re-inspected and no significant bleeding was noted. The bladder was emptied through the Foley catheter which remained in place after the procedure.

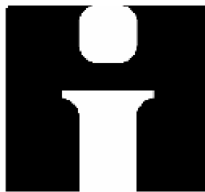
Dr[redacted] then completed his portion of the procedure.

The Foley catheter remained in and clear blue efflux was noted in the Recovery Room.

The patient will be maintained on Ancef for the next 24 hours. I will continue to follow her postoperatively.

IHI Global Trigger Tool:
Training Record # 5

Institute for Healthcare Improvement
December 2006



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Institute for Healthcare Improvement
Cambridge, MA

Prin
MR(
Disp

Principal Diagnosis

***7464** CONGENITAL INSUFFICIENCY, AORTIC VALVE

Secondary Diagnoses

4293 CARDIOMEGALY
#2762 ACIDOSIS
4019 ESSENTIAL HYPERTENSION, UNSPECIFIED BENIGN OR MALIGNANT
2724 UNSPECIFIED HYPERLIPIDEMIA
2449 UNSPECIFIED ACQUIRED HYPOTHYROIDISM
30000 ANXIETY STATE, UNSPECIFIED
V173 FAMILY HISTORY OF ISCHEMIC HEART DISEASE

Principal Procedure

***3522** REPLACEMENT OF AORTIC VALVE
01/29, 21386

Other Procedures

3961 EXTRACORPOREAL CIRCULATION AUXILIARY TO OPEN HEART SURGERY
01/29/ 21386
3964 INTRAOPERATIVE CARDIAC PACEMAKER
01/29 21386
9671 CONTINUOUS MECHANICAL VENTILATION FOR LESS THAN 96 CONSECUTIVE HOURS
01/29 21386
8964 PULMONARY ARTERY WEDGE MONITORING (Swan-Ganz)
01/29 14400
8961 SYSTEMIC ARTERIAL PRESSURE MONITORING
01/29/ 14400
8872 DIAGNOSTIC ULTRASOUND OF HEART
01/29/ 7225
9604 INSERTION OF ENDOTRACHEAL TUBE
01/29, 14400

DATE: 02/02/

FINAL DIAGNOSIS:

Aortic stenosis.
Mild left ventricular enlargement.
Anxiety disorder.
History of hypothyroidism.
History of hyperlipidemia.
Status post inguinal hernia repair in

PROCEDURES:

Aortic valve replacement with 23-mm St. Jude mechanical valve prosthesis January 29,
Dr.
Placement of temporary epicardial pacing wires January 29,
Placement of right radial arterial line January 29, Dr.
Right internal jugular introducer and pulmonary artery catheter placement January 29,
Dr.
Transesophageal echocardiogram transducer insertion January 29,
Transesophageal echocardiogram January 29,

COMPLICATIONS:

None.

SUMMARY:

This is a year-old gentleman that was referred by Dr. for a surgical evaluation of aortic insufficiency and cardiomegaly. The patient apparently has had a known heart murmur since age nine, and was followed at the early after the murmur was diagnosed. Serial echocardiograms started at age 18, and the patient has been essentially asymptomatic. In the last several days, the patient has put on about 20 pounds and had a marked decrease in exercise capacity and activity level, although he denies dyspnea or exercise intolerance. His wife states that he has indeed had decreased exercise tolerance. He denies chest pain or exertional chest pressure or exertional dyspnea. He states he did have a fair amount of exercise limitation while elk hunting in this year. No problems with paroxysmal nocturnal dyspnea, orthopnea, or lower extremity edema. He denies syncopal episode or lightheadedness. He had an echocardiogram on January 7, which demonstrated moderate severe aortic insufficiency with diastolic reversible flow in the aorta. The echocardiogram demonstrated a

AGE

large ventricular dimension of 6.4 cm in diastole and 4.8 cm in systole. This is increased in size over the January :hocardiogram.

PAST MEDICAL/SURGICAL HISTORY: The patient has a history of hyperlipidemia. He has a bicuspid aortic valve with severe aortic insufficiency and mild left ventricular hypertrophy. There is also a history of hypothyroidism and an anxiety disorder for which he takes medications. He denies hypertension, peptic ulcer disease, diabetes mellitus, gallbladder, liver, lung, kidney, or thyroid problems. No history of stroke, convulsion, or seizures. No significant gastrointestinal or genitourinary complaints. No history of blood dyscrasias.

ALLERGIES: No known drug allergies.

PREHOSPITAL MEDICATIONS: Synthroid 0.15 mg a day; Paxil 30 mg a day; Klonopin 1 mg twice daily; atenolol 50 mg a day; Lipitor 10 mg a day; Restoril 30 mg a day; high complex B vitamin daily; vitamin D and vitamin C daily; Aleve as needed for migraine headaches.

SOCIAL HISTORY: The patient is married and li He works as a meat manager a rks quite hard. He gets little physical exercise. He has He does not smoke tobacco or use alcoholic beverages. He states he eats a low-fat diet and takes ibuprofen for migraine headaches.

FAMILY HISTORY: His father is 83, has peripheral vascular disease and had right leg bypass. He also has hypertension. His mother died at 69 of end-stage emphysema and was a heavy smoker. She had bypass surgery at age 59, repair of an abdominal aortic aneurysm in her 60s, and had renal insufficiency, hypertension, and emphysema. He has a brother who sister who is blind. He had a maternal uncle die of a heart attack in his early 50s, and he had his first heart attack at age 40. He states his as an atrial septal defect that was repaired.

PHYSICAL EXAMINATION: The patient is a well-developed, well-nourished male in no acute distress who is alert and oriented times three, pleasant, and cooperative to talk to. Blood pressure is 113/73. Pulse is 84 and regular. Respirations are 16 and regular. Room air oxygen saturation is 95%. He weighs 91.1 kg. HEENT is grossly within normal limits with the patient balding. Neck supple without lymphadenopathy or thyromegaly. No carotid bruits were heard. He does have bilateral noises that appear to be radiated from the aortic valve. Lungs are clear to auscultation. CARDIAC: Regular rate and rhythm with a grade 3/6 holosystolic murmur heard best at the base, and a 2/6 diastolic murmur. Abdomen soft, benign, without tenderness or organomegaly with deep palpation. Bowel sounds are present throughout. EXTREMITIES: The upper and lower extremity pulses are 2+ and equal bilaterally. No significant cyanosis, clubbing, or edema is noted.

The patient was admitted on January 29, . The procedure, risks, possible complications, and postop care have been explained to the patient. He was taken to the operating room on January 29, where he underwent aortic valve replacement with a 23-mm mechanical valve prosthesis. The patient tolerated the procedure well, came off cardiopulmonary bypass without difficulty. Transesophageal echocardiogram intraoperatively showed no obvious regional wall motion abnormalities with mildly delayed thickening in the left ventricular septum consistent with bundle branch block. The aortic prosthesis appeared in stable position. No perivalvular leak was noted. There was physiologic prosthetic regurgitation. The aortic root appeared normal. Mean gradient obtained from transgastric position was approximately 10 mmHg. The right ventricle was normal size and function. The patient was subsequently sent to the Critical Care Unit in satisfactory condition.

HOSPITAL COURSE: The patient was awake, alert, and responding, moving all four extremities, and extubated by the first day postop. He was hemodynamically stable in sinus rhythm with a blood pressure of 112/67, hematocrit 32, creatinine 0.8. His chest tubes were removed and he was transferred to Intermediate Care. On Intermediate Care, he continued to progress in a satisfactory manner. Dr. assisted with pulmonary toilet postop, and the patient did use some BiPAP as needed and was much improved pulmonary wise. No significant pericardial effusion was noted on echocardiogram. His level of activity was improving, his appetite was improving, and his pulmonary toilet was improving his oxygen saturation. Since he was doing well, his Blakes and temporary pacing wires were discontinued, and it was felt the patient could be discharged. It was noted his creatinine was 1.0, INR was 1.0, hematocrit was 34%. The patient was started on Coumadin on February 1 and will need to remain on Coumadin because of the mechanical prosthetic valve. The INR should be kept between 2.5 and 3.5.

DISCHARGE STATUS: Improving.

FOLLOWUP: The patient will see Dr. in one week, in two weeks, and Dr. in three weeks. He is instructed to call Dr. office at any time should he have any questions or concerns about his progress.

LABORATORY: CBC, potassium, blood sugar, electrocardiogram, and posteroanterior and lateral of his chest on his one week appointment with Dr. He will have an INR drawn on February 3 with the results to be called to Dr. office who will manage his INR and keep it between 2.5 and 3.5. They will instruct him on how often he needs to get his INR and what dose of Coumadin to take.

ACTIVITY: Should not lift anything heavier than 20 pounds or drive a vehicle until after he sees Dr. Phase II cardiac rehab should begin within five days post discharge in a place convenient for the patient. He should keep his legs elevated while sitting. Continue Incentive spirometry four to five times a day for a period of four weeks. He should ambulate a minimum of four times a day.

DIET: Low-cholesterol, low-fat, no-added salt diet.

DISCHARGE MEDICATIONS: Pinoxepin 1 mg by mouth twice daily; Lipitor 10 mg by mouth every day; Synthroid 0.15 mg by mouth every day; Paxil 30 mg by mouth every day; D-S-S 100 mg by mouth twice daily as needed for loose stool; Protonix 40 mg by mouth every day; atenolol 50 mg by mouth every night; amiodarone 200 mg by mouth every day for 21 days, then discontinue; hydrocodone/acetaminophen 5/500 mg one to two tablets every four hours as needed for pain; enteric-coated aspirin 81 mg by mouth with breakfast; warfarin 5-mg tablets dispensed, and he is to take as directed.

DATE: 01/29/

ATTENDING MD:

CONSULTING MI

Consultation request by

REASON FOR CONSULTATION: Postoperative pulmonary management.

HISTORY OF PRESENT ILLNESS: Mr. is a 45-year-old gentleman who was evaluated for aortic insufficiency and cardiomegaly. The patient apparently has had murmurs since youth, which was being serially followed by echocardiography. Recently noticed was decrease in exercise tolerance and increased weight.

The patient was recently evaluated by Dr. and had an echocardiogram on January 7, that showed left ventricular enlargement significantly over his previous echocardiogram of January

The patient was evaluated by Dr. and underwent aortic valve replacement with a #23 St. Jude mechanical valve earlier today and was transferred out to the Intensive Care Unit.

The patient was extubated around three hours ago and initially did well but subsequently had increasing somnolence and shallow respirations. An arterial blood gas was drawn that showed arterial pH of 7.18, pCO2 of 64, and a pO2 of 86. The patient had received pain medications postoperatively as well. I was called for a pulmonary consultation for further management. Patient was also placed on BiPAP postoperative.

PAST MEDICAL HISTORY: Significant for hyperlipidemia; hypothyroidism on replacement therapy; anxiety disorder; and bicuspid aortic valve with severe aortic insufficiency.

PAST SURGICAL HISTORY: Hernia repair in

ALLERGIES: None.

SOCIAL HISTORY: The patient is married, is a meat manager at Kerm's. Two children. No history of smoking or alcohol use.

AGE

FAMILY HISTORY: Patient's father has peripheral vascular disease and hypertension. He is in his 80s. Patient's mother died at age 69 from smoking related lung disease. She also has had significant cardiac problems and had bypass surgery.

REVIEW OF SYSTEMS: Currently not possible, as the patient is pretty somnolent and not really able to give a detailed history. Most of this information is obtained by reviewing the chart and talking to Dr. [redacted] and the nurses.

CURRENT MEDICATIONS: OxyContin 10 mg by mouth every 12; metoprolol 25 mg by mouth every eight; amiodarone 200 mg once a day; Bactroban for local application; Protonix 40 mg every day; cefazolin 1 g every eight; atorvastatin 10 mg a day; levothyroxine 0.15 mg every day; Paxil 30 mg every day; clonazepam 1 mg twice daily; Lasix 40 mg times one.

PHYSICAL EXAMINATION:
GENERAL: Patient is quite somnolent, has a full faced BiPAP mask in place.
VITAL SIGNS: Temperature is 99; blood pressure 104/62; pulse 103; respirations are 22; BiPAP is set to FiO2 of 60%, IPAP of 12; and EPAP of 4. Pupils are reactive.
NECK: Supple. No jugular venous distention or thyromegaly. Swan-Ganz catheter is still in place.
LUNGS: Lung fields are fairly clear but decreased at the bases. There are some rhonchi at the left base. First, second heart sounds normal. No murmur or gallop.
ABDOMEN: Soft but positive bowel sounds.
EXTREMITIES: Do not reveal any edema.

Recent hemodynamic perimeters show pulmonary artery pressure 42/26, right atrial pressure 17, cardiac output 7.4, cardiac index 3.44, SVR 609. Repeat arterial blood gas after BiPAP application in 20 minutes showed a pH of 7.22, pCO2 of 59, and pO2 of 137.

ASSESSMENT:
1. Status post aortic valve replacement with mechanical valve.
2. Extubation postoperatively with increased somnolence and respiratory acidosis, likely secondary to anesthesia and medications.
3. Trend towards improvement after application of BiPAP, although, close monitoring will need to be continued.
4. Other medical problems as described above.

PLAN: I will repeat an arterial blood gas in approximately one hour. Continue current BiPAP settings. The patient seems to be a little more alert clinically and hopefully we will not need reintubation. I will continue to follow the patient on pulmonary standpoint, and I thank Dr. [redacted] allowing my participation.

DATE/TIM' | Immediate Post-Op Cardiac Surgery Orders for CCU

1/29

1230

[✓] 1. Admit to CCU. Operation performed: AVR #
[✓] 2. Add to Physician Computer Census 10,000 (if not already done)
[✓] 3. Elevate HOB 30 degrees unless SBP less than 90.
[✓] 4. Monitor Parameters: Notify MD if unable to maintain with current orders.

HR 70-120 | SBP 90-140 | Hourly chest drainage ≤ 200 cc/hr
CI ≥ 2 | SVO2 ≥ 55 | SaO2 ≥ 92

Temperature 37°C - 39°C

Urine output ≥ 30 cc/hr within 8 hours of arrival in CCU

[✓] 5. **Expected time of extubation**: 4-6 hours
[✓] 6. Maintenance IV: Lactated Ringers at 50 cc/hour per central line. Hep lock peripheral IV sites PRN.
[✓] 7. Discontinue PA catheter & Arterial Line when extubated & off Vasoactive drips. LA line to be discontinued by doctor or PA only.
   a. PA catheter (not arterial line) may be disconnected if patient only on NTG.
   b. Check hemodynamics with underlying rhythm before discontinuing lines.
[✓] 8. VOLUME REPLACEMENT:
   a. Notify M.D. for hematocrit < 25.
   b. Use Hespan for volume replacement.
   c. Call M.D. if volume replacement still necessary after 1 liter of Hespan.
[✓] 9. Wean ventilator and administer post extubation Oxygen per CCU Cardiac Surgery Standing Orders.
[✓] 10. Labs in a.m.: Hct, K+, Creat.
[✓] 11. CXR: [✓] Now [ ] in a.m.
[✓] 12. Temporary Pacemaker and Wound Care per CCU Cardiac Surgery Standing Orders.
[✓] 13. Mediastinal/Chest Tubes to Atrium with 20 cm suction. Strip blake drains q 2hrs.
[✓] 14. Bair Hugger Blower under blanket for temp ≤ 36 degrees C.
[✓] 15. Ted hose ✗

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SCHEDULED MEDICATIONS:

[✓] 16. Cefazolin [✓] 2 Gm [ ] ________ Gm IVPB at ________
   Cefazolin WSS q 8Hr x 3 doses
[ ] 17. If PCN anaphylaxis give Vancomycin 1Gm IV at ________ (instead of Cefazolin)
[✓] 18. Famotidine (Pepcid) 20 mg ~~PO~~/IV q 12 hrs.
[✓] 19. ~~Lansoprazole 15 mg PO q a.m. (D/C Pepcid if patient on Prevacid)~~ → Protonix 40mg po q day
[✓] 20. Magnesium 6 Gm IV to infuse over 6 hrs. Hold for third degree heart block and on dialysis patients.
[✓] 21. Oxycontin 10-20mg PO q 12hrs after extubation.
[✓] 22. Metoprolol 25mg PO q 8hr after extubation (hold for HR < 60 off pacer or SBP < 100).
[✓] 23. Amiodarone 200 mg PO TID. (Hold for underlying P < 60.)
[✓] 24. NTP 2 inches at 6 a.m. on POD #1 if patient extubated and only on NTG.

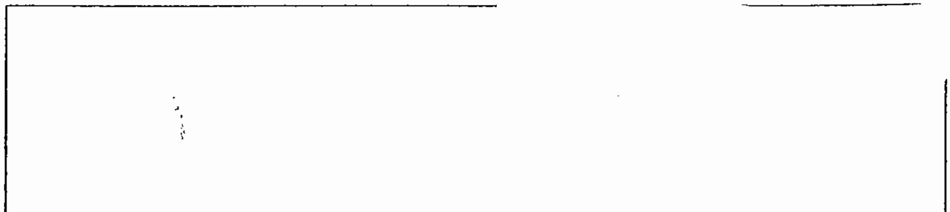
PHYSICIAN'S ORDERS

DATE/ TIME	DISCIPLINE	PROBLEM	PROGRESS NOTES
1/30/	g 1900	Transfer	Pt transfered from CCU @ 1215 via W/c – he is
			A+O x 3 oriented to room and call light ———
		Resp.	lungs ↓ @ bases c̄ bibasilar crackles, O2 sats high
		CV	90's c̄ 2L N/C – telemetry applied, is SR 60-80
			has trace pedal edema and trace generalized –
		pain	has MSI pain c̄ coughing and movement —
			will tx PRN per his Request, lunch provided
			@ 1230 pt became nauseated c̄ 100 cc emesis
			of bile colored liquid, zofran provided (in error)
		GU	since ~~foley d/c @ 1300~~ ~~s diff~~ error
			~~pt tolerated well~~, will monitor u/o
		Skin	MSI is D+I, area c̄ no redness or s/sx
			of infections – Drsg applied to blake + CT sites
		gait	Ambulates c̄ SBA was (I) prior to surgery –
			will monitor
1-30-1600	Nsg	GI	Pt stated appetite is returning since his
			emesis @ 1230. Ate some crakers + drank
			~300 cc juice. Pt no longer nauseated.
1-30-1600	Nsg	Skin	Pt has bruise on (R) groin from heart
			cath on Tuesday.
1-30 1600	Nsg	Resp	Pt has bibasilar crackles c̄ expiratory
			wheezes, more pronounced on (R). Pt
			encouraged to cough + deep breath. Will
			continue to monitor
1-30-18	Nsg	Data	Pt went for a walk ~1630. Became
			nauseated. Stated he had pain of 7
			midsternal chest. Two Lortabs given
			@ 1700. He hasn't had much relief.
			Pain still @ 6-7. Stated it helps to
			lay down. Pt also had small
			emesis (40cc) after eating a few
			bites of supper tray. Refused to eat
			anymore. Zofran given @ 1245. Will cont

Progress Notes

Multidisciplinary Progress Notes & Nursing Assessments

01/29 12:25	-- Continued from previous page - dry & intact. - Site(sheath,,Int. Jug R): Site assessed q 2 hours. Site dry & intact. Dressing dry & intact. - Site(Art Line,,Radial R): Site assessed q 2 hours. Site bloody, dressing changed - Mucous Membranes: Mucous membranes are moist. - Integrity Impairment(Surgical Incision,,Mediastinal): Appearance clean. Telfa dressing intact. . - Skin: Pt.'s skin appears healthy, except for: bruise noted to right groin.
14:30	Assessment Cardiopulm. Dept. - Breath Sounds : equal and clear - Mental Status: Drowsy,follows commands. - Respiratory Pattern: Ventilator assisted (see Respiratory Flowsheet for details). RR is normal (12-20). Symmetric - Level of Activity: Pt. is on bedrest. - CXR: See radiologist report for details. - Med/Surg Hx: aortic valve repair - Triage Level: Level IV; re-evaluate in 3 days. - Plan of Care: Pt. to be weaned per Cardiac Surgery guidelines. Pt tolerating weaning well at this time. - Smoking Status: Never smoked. - Sputum: No cough. - Aerosols: Aerosols are not indicated. - Pulmonary Toilet: Suctioning prn. - Hyperinflation Techniques: per mechanical ventilation - Pulse Oximetry: Continuous pulse oximetry until stable, then Q4 & PRN in between is indicated - Oxygen: Patient is currently on oxygen at 40% per cool aerosol via T-piece. - Airway: Pt. is endotracheally intubated with a # 8.0 tube, which is patent and secured with tape @ 23 cm with cuff inflated via minimal leak technique.
15:00	**Tests/Procedures (Nrsg.)** Extubation Extubation readiness determined by: Pt tolerated weaning trials per protocol (See VS Flowsheet). Pt is awake and oriented and /or able to keep airway open; demonstrates good cough. Pt's vital signs are stable (See VS Flowsheet). Pt placed on aerosol mask at 60 % oxygen. No complications, respiratory rate, vital signs and work of breathing within normal limits for this pt.
	Cardiopulm. Dept. Extubation Pre-extubation assessment: Mental status is lethargic but follows commands Secretions Frequency of suction < Q2 hrs Coughis adequate attempted & successful Difficult Intubation 1 Medically stable for extubation Yes See Vital Signs Flowsheet for pre-procedure vital signs. Instruction given to patient regarding procedure. Pt. determined to be ready for extubation per standing order for Cardiac Surgery weaning protocol. Hands were washed, suction made available, the head of the bed elevated, gloves donned, pharynx suctioned with yankauer tip catheter and the tape securing the ETT removed. The required supplemental oxygen device was located and made available. The patient was hyperoxygenated with a self-inflating bag. The patient was instructed to take a deep breath, then at peak inspiration the cuff was deflated and the ETT pulled out. The patient's pharynx was suctioned. A cool aerosol was placed on patient per order at 60%. Please see Flowsheet for post-extubation assessment.
15:14	Assessment - STATUS SINCE LAST ASSESS.: SAME, EXCEPT FOR THE FOLLOWING: Neurological (Nrsg.) - LOC: Pt. is drowsy. - Eye Opening Response: Pt. opens eyes to verbal stimuli. - Speech: Pt.'s speech is clear. voice is hoarse - Motor Response: All extremities move(s) spontaneously. - Sleep: Pt. falls asleep when left alone. Psychosocial (Nrsg.) - Family Observations: Family is supportive of patient - Comfort Level: Pt c/o pain. See VS flowsheet. Respiratory (Nrsg.) - Rhythm & Character: Patient's respiratory pattern is spontaneous & eupneic. No visible respiratory distress. Respirations are unlabored. - Cough & Sputum: Pt.'s cough is fair unproductive Pt. coughs on command. Gastrointestinal (Nrsg.) - Tube(Salem Sump): d/c'd Integumentary/Skin (Nrsg.) - Site(Art Line,,Radial R): Site assessed q 2 hours. Site dry & intact. Dressing dry & intact.
17:25	**Cardiopulm. Dept.** Respiratory Assesment Pt extubated earlier this shift. See flow sheet. presently drifting in and out of sleep. and desates. -- Continued on next page --



Multidisciplinary Progress Notes & Nursing Assessments

01/29 17:25	-- Continued from previous page - on 40 - 60 % FIO@. becomes hypopniec during sleep. ABG obtained and results assessed. Bipap started secondary to increased co2. will monitor. tolerating large full face mask well and appears confortable at this time.
17:30	**Respiratory (Nrsg.)** Ineffective Breathing Pattern Pt's O2 sat 90-92% on 60 % O2. Lungs sound clear. Pt gets IS 750-1000. Fair cough on command. ABG's checked and results discussed with Pt placed on Bipap and pulmonology consulted. Pt's sats 99-100% on Bipap.
18:48	**Cardiopulm. Dept.** Bipap Pt. remains on FFM with sats 99%. Pt. groaning and sleepy. Will continue with bipap until pt. more alert. Pt. to have another gas at 1930 per Dr. Will monitor status.
19:00	Assessment Neurological (Nrsg.) - LOC: Pt. is drowsy. Pt. is oriented to person, place, situation. Pt. is cooperative. - Eye Opening Response: Pt. opens eyes spontaneously. - Pupil Response: Bilateral pupils are round. Bilateral pupils reacts(s) sluggishly Bilateral pupils are 2 mm. - Speech: Pt.'s speech is clear - Motor Response: All extremities move(s) spontaneously. All extremities no numbness or tingling noted. - Sleep: Pt. falls asleep when left alone. Awakens easily due to environmental Noise Psychosocial (Nrsg.) - Observed Behaviors: Pt. is cooperative.Pt.is quiet.. - Verbalized Feelings: None verbalized - Family Observations: Family member(s) in waiting room. - Comfort Level: Pt c/o pain yet falls asleep quickly and resp are shallow. Cardiovascular (Nrsg.) - Rhythm : Primary rhythm is,Normal Sinus Rhythm. - Rhythm Strip Analysis: see strip - Heart Sounds: Normal S1, S2 ,pericardial friction rub ,ejection click murmur - Skin Vitals: Entire body skin is warm ,dry ,turgor elastic and pale-pink colored with capillary refill < 3 seconds. All extremities nailbeds pink. - Pacemaker: Pt. has atrial epicardial pacing wires per right chest. Site is assessed q 2 hours. Site appears dry & intact. Sutures appear intact. Pt. has a temporary pacemaker. Atrial wire connection is intact. Pacer is on stand-by. Pt. has ventricular epicardial pacing wires per left chest. Site is assessed q 2 hours. Site appears dry & intact. Sutures appear intact. Pt. has a temporary pacemaker. Ventricular wire connection is intact. Pacer is on stand-by. - Radial R/L: 3+ (normal)/3+ (normal) - Dorsalis Pedis R/L: 3+ (normal)/3+ (normal) - Posterior Tibialis R/L: 3+ (normal)/3+ (normal) - Edema: Slight generalized - JVP: Unable to visualize jugular veins. - Homans: Homans is bilaterally negative Respiratory (Nrsg.) - Rhythm & Character: Patient's respiratory pattern is spontaneous No visible respiratory distress. Respirations are shallow. - Breath Sounds: Bilateral breath sounds equal and clear, sl diminished bibasilar.. - Chest Movement: Symmetric. - Subcutaneous Emphysema: None. - Mediastinal Tube #1: No air leak noted in collection chamber. No drainage noted - Blake Drain(,#3 Lt. side): Blake has small amount of drainage. Drainage is ,thin ,bloody Bulb is fully compressed. Site appears ,intact ,dry ,clean Dressing is ,clean ,dry ,intact - Blake Drain(,#1 Rt. side): Blake has small amount of drainage. Drainage is ,thin ,bloody Bulb is fully compressed. Site appears ,intact ,dry ,clean Dressing is ,clean ,dry ,intact - Blake Drain(,#2 Mid): Blake has small amount of drainage. Drainage is ,thin ,bloody Bulb is fully compressed. Site appears ,intact ,dry ,clean Dressing is ,clean ,dry ,intact - Cough & Sputum: Pt.'s cough is fair unproductive Pt. coughs on command. Gastrointestinal (Nrsg.) - Abdomen: Abdomen ,soft ,non-tender ,non-distended. - Bowel Sounds: Bowel sounds present. in left lower quadrant. - Stool: No stool. Renal/Genitourinary (Nrsg.) - Urine: Source of urine: foley cath. Pt.'s urine is yellow colored. ,clear. Integumentary/Skin (Nrsg.) - Site(Peripheral IV,,Lower Forearm L): Site assessed q 2 hours. Site dry & intact. Dressing dry & intact. - Site(Art Line,,Radial R): Site assessed q 2 hours. Site dry & intact. Dressing dry & intact. - Site(sheath,,Int. Jug R): Site assessed q 2 hours. Site dry & intact. Dressing dry & intact. - Mucous Membranes: Mucous membranes are moist & intact. - Integrity Impairment(Surgical Incision,,Mediastinal): Telfa drsg to incision clean,dry and intact. Appearance clean. Wound dry. Wound -- Continued on next page --

Quality (Description)	Duration	What makes it worse?	What makes it better?	Pain Scale	Neonatal Pain Scale
1 – Aching/dull 2 – Sharp/stabbing 3 – Cramping/pressure 4 – Burning/tingling 5 – Other:_______	C – Constant O – Off & On	1 – Activity 2 – Positioning 3 – Other:_______ 4 – Other:_______	1 – Medication 2 – Heat 3 – Cold 4 – Position Change 5 – Support/Rest 6 – Other:_______	0 – No pain 2 – Mild 4 – Discomforting 6 – Distressing 8 – Horrible 10 – Excruciating	⓪- Relaxed ①- Fussy ②- Inconsolable

Nonverbal Pain Indicators: N – Vocal, non-verbal F – Facial Grimaces B – Bracing R – Restlessness U – Rubbing
NI – No indicators present V – Vocal, verbal H - ↑ HR P - ↑ BP T – Tears S – Sticky moist skin

Location (Please use space provided to write in location of pain)
1. Midsternal 2.________ 3.________ 4.________

☐ = an empty box indicates: Not Assessed * = See Progress Note

Date/Time	A = Assessment R = Reassessment	Nonverbal Pain Indicators (Only if appropriate)	Pain Scale Neonatal (circled number)	Location	Quality (description)	Acceptable Parameters ✓	Duration	What makes it worse?	What makes it better?	Nausea (X = symptoms present)	Insomnia (X = Symptoms present)	Anxiety (X = Symptoms present)	Itching (X = Symptoms present)	Interventions 1 = Med given 2 = Heat 3 = Cold 4 = Repositioning 5 = Support/Rest 6 = Diversion 7 = Massage 8 = Anticipatory 9 = MD notified 10 = PCA/Epidural 11 = ______	Response Δ = Intervention ineffective ◇ - Intervention effective	Initials
1/30 1245										X				①		
	R															
1/30	A	b	7	1	2									①		
1/30 1804			6-7	1	2									④⑤ Pt stated laying down helps relieve pain	Δ	
1/30 190	A									X				①		
1/30 2000															◇	
1/30 2315	A	V F	7-8/10	1	1-C 2-O		1-C 2-O				X			ii Lortab Ambien 1, 4, 5		
1/31 0000	R														◇ pt sleeping	
1/31 0345	A	V F	7/10	1	1-C 2-O		1-C 2-O			X	X			ii Lortab Zofran 1,4,5		
1/31 0430	R					✓										
1/31 1600			6/10	1	1-C 2-O		1-C							ii lortab 1,4,5		
1/31 1830	R														◇	

Analgesia/Comfort Flowsheet

NAME:	BIRTHDATE:	LOC
MR# :	ACCT# :	RM
SEX :		
DR :		

** BLOOD GASES **

TEST:	PH	PCO2	PO2	O2S	HCO3	BASE EXCESS	SAMPLE	O2F	ASITE
UNITS:		MM HG	MM HG	%	MMOL/L	MMOL/L			
LO:	7.35	35	80	96	22	0.0			
HI:	7.45	45	100	99	26	2.3			
01/29									
1930	**7.33**	43	**126**	99	22	NEG 3	ARTERIAL	60%	LINE DRAW
1802	**7.22**	**59**	**137**	99	**20**	NEG 4	ARTERIAL	60%	LINE DRAW
1704	**7.18**	**64**	86	**95**	**19**	NEG 4	ARTERIAL	60%	LINE DRAW
1235	7.43	36	**130**	**100**	24	0.6	ARTERIAL	50%	LINE DRAW

** BLOOD GASES **

TEST:	ALLEN TST
UNITS:	
LO:	
HI:	
01/29/	
1930	NAPP
1802	NAPP
1704	NAPP
1235	NAPP

---FOOTNOTES---

NAPP NOT APPLICABLE