

## Case conference 10/29/08

### Case 1:

56 yo WM with history of hypertension, ascending aortic aneurysm, aortic insufficiency, and hepatitis C related liver disease, s/p aneurysm repair, and aortic valvuloplasty in March/2008 – presented with relapsed sternal wound infection requiring partial sternal debridement and VAC dressing placement on 7/29/08.

Post op course notable for large volume overload (+ 16 liters), increased FIO2 requirements, thrombocytopenia, and urine output in the 800 cc/day (on high dose diuretics).

Started on SCUF (8/1 – 8/5) – frequent clotter, subsequently switched to CVVHD (8/6 – 8/15)

	7/31/2008	8/1/2008	8/2/2008	8/3/2008	8/4/2008	8/5/2008	8/6/2008
BUN	33	36	42	50	51	57	62
Creatinine	1.39	2.01	2.65	3.31	3.53	3.93	4.12
Sodium	139	139	142	142	145	150	147
Potassium	4.7	3.8	3.8	3.5	3.4 (L)	3.9	4.2
Chloride	106	106	105	105	102	103	99

	8/7/2008	8/8/2008	8/9/2008	8/10/2008	8/11/2008	8/12/2008	8/14/2008
Albumin	1.6	2.1	2.1	2.0	2.1	2.0	2.3
Calcium	7.1	7.1	8.6	9.0	9.4	10.8	10.1
Bili	2.2	3.2	2.1	2.1	2.2	2.5	3.1
Alk Phos	130	74	111	141	130	125	151
AST	19	22	26	26	25	33	41
PO4	3.6	3.0	1.8	1.8	1.6	1.0	1.5
BUN	51	48	33	13	7	4	5

Creatinine	5.41	4.98	3.68	1.63	1.09	0.89	0.88
Sodium	132	131	130	131	130	134	135
Potassium	4.7	3.8	3.8	4.0	3.9	3.9	3.7
Chloride	100	98	97	98	97	98	97
CO2	19	20	21	22	25	28	28

	8/15/2008	8/16/2008	8/17/2008	8/18/2008	8/19/2008	8/21/2008
Albumin	2.0	2.0	2.0	2.1	1.9	1.9
Calcium	13.3	10.6	8.6	8.3	8.0	7.4
Bili	3.3	6.4	6.3	6.7	8.3	7.4
Alk Phos	144	171	161	163	252	152
AST	39	40	35	31	32	25
PO4	1.1	0.7	4.0	3.4	2.4	5.7
BUN	5	5	10	12	15	41
Creatinine	0.83	0.88	1.06	1.20	1.34	2.53
Sodium	135	136	133	134	134	135
Potassium	3.9	4.0	3.9	3.9	3.5	3.6
Chloride	96	96	96	101	101	101
CO2	28	26	28	27	21	24

## Case 2:

85yo WF with a history of severe MR (multiple recent hospitalizations for decompensated CHF), coronary artery disease (LAD 80%), PAF, hypertension, and hyperlipidemia admitted 6/7 with heart failure for CTS evaluation.

Her long hospital course was notable for: bilateral pleural effusion and a leukocytosis as high as 20K - left side thoracentesis removed 1250cc of fluid that appears to be transudative.

Underwent OHS on 7/17/08 -

Op note "...the patient was taken to the Operating Room and clearly she was very sick and short of breath.... The patient had some arrhythmias and required inotropes, and was somewhat unstable... At that time we were getting ready to close, there was evidence of venous bleeding that could not be controlled ... we decided to leave the patient with chest open..."

We were consulted on post operative day one for hypernatremia –

On exam:

GEN: Intubated, sedated

CV: on multiple pressors, and IABP in place

EXT: ++ generalized edema, mottled and cold extremities

	6/16/2008		6/18/2008			6/19/2008
	04:00	01:30	10:50	18:30	21:52	01:00
Sodium	130	134	136	165	158	151
Potassium	4.9	5.2	6.6	5.1	5.2	5.7
Chloride	90	99	96	96	95	94
CO2	34	21	15	38	26	17
Creatinine	1.1	1.3	1.7	1.6	1.5	1.4
BUN	22	17	23	25	23	22

AST		363	8316	16821	24801	21693
ALK		53	90	158	198	200
Phos						
Bili		2.5	2.8	3.1	3.7	3.4

	6/17/20 08 17:51	6/18/2008 10:53	12:26	15:11	6/19/20 08 08:11
pH	7.30	7.23	7.26	7.49	7.22
pCO2	47	39	49	49	22
pO2	76	143	106	75	138
Bicarb	23	16	21	37	9
lactate	9.7	12.9	17.0	19.0	>23.3

### **Questions:**

1. Discuss electrolyte, acid-base and divalent cat ion abnormalities in ICU patients
2. Discuss management of these abnormalities
3. Discuss CRRT anticoagulation options