

Case Study 1

- 45 yr old Hispanic female
- DM II 1997
- 2005 DKA and pneumonia; +Proteinuria
- Jun 2010 ER visit bronchitis asthma
- Oct 2010 f/u MD = "weak heart and 50% kidney function". Given Lasix for edema, no follow up thereafter (no insurance)

- BP 164/88, HR 88/min
- Out Patient HD started 12/2010
- 87 Kg with ↑IDWG.
- Albumin 2.7 since December

ALLERGIES:					
Allergy Start Date:	Drug:	Common Allergy:	Other Allergy:	Type of Reaction:	
12/10/2010		NKA			
Medication Orders:					
Prescription					
Start Date	Medication Name	Dose	Route	Frequency	Stop Date
12/15/2010	FUROSEMIDE	80 mg	Oral	2 Times Daily	
	Notes:				
12/15/2010	amlodipine	10 mg	Oral	Daily	
	Notes: =norvasc				
12/15/2010	ALBUTEROL	0 puff	Inhaler	As Needed	
	Notes:				
01/03/2011	ATENOLOL	50 mg	Oral	Daily	
	Notes:				
01/03/2011	LISINOPRIL	10 mg	Oral	Daily	
	Notes: pt not taking per choice				

02/28/11	85.40 kg	80.60 kg		166 / 97	135 / 96	174 / 87	180 / 85
02/25/11	83.70 kg	79.70 kg		170 / 105	135 / 100	152 / 79	163 / 88
02/23/11	83.00 kg	79.20 kg		180 / 82	168 / 95	162 / 87	174 / 89
02/21/11	84.30 kg	79.70 kg		169 / 91	166 / 89	168 / 86	166 / 78
02/18/11	82.70 kg	79.00 kg		184 / 98	189 / 122	176 / 94	175 / 90
02/16/11	86.30 kg	82.60 kg		176 / 94	186 / 95	187 / 92	2
02/14/11	87.00 kg	82.70 kg		170 / 133	181 / 104	157 / 89	136 / 79
02/11/11	86.80 kg	83.00 kg		200 / 110	183 / 110	193 / 105	183 / 109
02/09/11	86.50 kg	82.50 kg		169 / 100	174 / 95	181 / 99	172 / 91

Yes No Hypotension avoided

Granted EDW is 75 kg, IDWG of 3% = 2.25 L

Dialysis Treatment
Current HD Order:

Order Date	Start Date	Prescribed Time (minutes)	Dialyzer	Prescribed BFR	Dialysate	Dry Weight
02/28/2011	02/28/2011	180	Optiflux F160NR	250	Bicarb K+ 3; Ca 2.5; Na 141; Bicarb 38; Glucose 100	78.00 kg

Review of last 12 HD Treatments:

Date	Pre-Weight	Post-Weight	Dry Weight	Pre BP Sitting	Pre BP Standing	Post BP Sitting	Post BP Standing
03/07/11	81.30 kg	76.70 kg	78.00 kg	166 / 98	167 / 98	186 / 98	163 / 82
03/04/11	83.10 kg	78.10 kg	78.00 kg	170 / 92	162 / 91	161 / 99	172 / 86
03/02/11	84.60 kg	79.40 kg	78.00 kg	162 / 91	173 / 96	165 / 85	162 / 72
02/28/11	85.40 kg	80.60 kg		166 / 97	135 / 96	174 / 87	180 / 85
02/25/11	83.70 kg	79.70 kg		170 / 105	135 / 100	152 / 79	163 / 88
02/23/11	83.00 kg	79.20 kg		180 / 82	168 / 95	162 / 87	174 / 89
02/21/11	84.30 kg	79.70 kg		169 / 91	166 / 89	168 / 86	166 / 78
02/18/11	82.70 kg	79.00 kg		184 / 98	189 / 122	176 / 94	175 / 90
02/16/11	86.30 kg	82.60 kg		176 / 94	186 / 95	187 / 92	2
02/14/11	87.00 kg	82.70 kg		170 / 133	181 / 104	157 / 89	136 / 79
02/11/11	86.80 kg	83.00 kg		200 / 110	183 / 110	193 / 105	183 / 109
02/09/11	86.50 kg	82.50 kg		169 / 100	174 / 95	181 / 99	172 / 91

Yes No Hypotension avoided

Case Study 2

- JM 62 yr old female
- IgA Nephropathy
- Hypertension
- LVH
- Started Hemo – CCPD (↓adequacy) –
back to Hemo

- Coreg 3.125 mg daily
- Severe intradialytic hypotension
- No heparin – (had NS drip)
- Argatroban
- ↓frequency from 6 – 5 days

Medication Orders:**Prescription**

Start Date	Medication Name	Dose	Route	Frequency	Stop Date
03/18/2009	ALPHAGAN - P Notes: eye drops	0.15 %	Other	Daily	
03/18/2009	TRAVATAN Z Notes: eye drop	0.004 %	Other	At Bed Time	
11/23/2009	Lovastatin Notes:	20 mg	Oral	Every Evening	
12/14/2009	SENSIPAR Notes:	30 mg	Oral	Every Other Day	
06/07/2010	ALLEGRA Notes: allegra(fexofenadine) 90mg if taken with claritin	180 mg	Oral	As Needed	
07/05/2010	NASONEX Notes: each nasal.use nasonex or astrepro daily(either one of them daily.not together)	1 puff	Nasal	Daily	
11/01/2010	Astrepro Notes: each nasal. pt use nasonex or astrepro daily(either one of them daily.not together)	1 puff	Nasal	Daily	
12/06/2010	COREG (Carvedilol)	3.125 mg	Oral	2 Times Daily	

Prescription

Start Date	Medication Name	Dose	Route	Frequency	Stop Date
05/18/2007	IMODIUM Notes: 2mg x2 tab	2 tablet	Oral	As Needed	
05/18/2007	NEXIUM Notes:	40 mg	Oral	Daily	
05/18/2007	Levoxyl / Levoxine / Synthroid Notes:	1 tablet	Oral	Daily	
03/18/2009	BENADRYL (DIPHENHYDRAMINE) Notes:	25 mg	Oral	As Needed	

OTC

Start Date	Medication Name	Dose	Route	Frequency	Stop Date
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**Dialysis Treatment
Current HD Order:**

Order Date	Start Date	Prescribed Time (minutes)	Dialyzer	Prescribed BFR	Dialysate	Dry Weight
2/28/2011	2/28/2011	150	Optiflux F160NR	300	Bicarb K+ 3.0; Ca 2.5; Na 141; Bicarb 38; Glucose 100	122.00 kg

Review of last 12 HD Treatments:

Date	Pre-Weight	Post-Weight	Dry Weight	Pre BP Sitting	Pre BP Standing	Post BP Sitting	Post BP Standing
03/07/11	124.80 kg	123.10 kg	122.00 kg	131 / 61	159 / 74	128 / 47	96 / 53
03/05/11	125.50 kg	123.50 kg	122.00 kg	136 / 82	176 / 89	95 / 74	113 / 44
03/04/11	125.50 kg	123.70 kg	122.00 kg	194 / 93	164 / 94	98 / 67	101 / 61
03/02/11	124.10 kg	122.50 kg	122.00 kg	142 / 68	140 / 83	107 / 59	104 / 65
03/01/11	124.70 kg	122.80 kg	122.00 kg	134 / 78	142 / 82	109 / 47	109 / 47
02/28/11	126.80 kg	124.60 kg	122.00 kg	194 / 89	171 / 96	104 / 61	126 / 49
02/26/11	125.70 kg	124.10 kg	122.00 kg	165 / 60	166 / 74	106 / 49	121 / 66
02/25/11	125.70 kg	123.90 kg	122.00 kg	159 / 57	166 / 86	106 / 59	110 / 69
02/23/11	124.20 kg	122.20 kg	122.00 kg	134 / 62	154 / 76	97 / 61	102 / 64
02/22/11	125.00 kg	122.00 kg	122.00 kg	139 / 74	174 / 90	143 / 56	98 / 61
02/21/11	124.80 kg	123.20 kg	122.00 kg	150 / 90	167 / 91	116 / 64	110 / 66
02/19/11	123.60 kg	122.00 kg	122.00 kg	146 / 67	171 / 79	113 / 54	139 / 75

Case Study 3

- 41 yr old male
- HD since 2007, DM 1 = labile Blood sugars
- LVH
- Smoker
- No edema
- 4x/wk HD

ALLERGIES:

Allergy Start Date:	Drug:	Common Allergy:	Other Allergy:	Type of Reaction:
05/16/2007		Penicillin		

Medication Orders:**Prescription**

Start Date	Medication Name	Dose	Route	Frequency	Stop Date
04/16/2008 Notes:	LANTUS	7 units	Subcutaneous	At Bed Time	
11/17/2008 Notes:	LANTUS	12 units	Subcutaneous	Every Morning	
05/20/2009 Notes:	HUMALOG	8 units	Subcutaneous	3 Times Daily	
02/17/2010 Notes: renvela 800mg 4tabs po x3 with meals & 2tabs x2 with snacks	RENVELA	800 mg	Oral	As Ordered	
02/24/2010 Notes: sensipar increased	SENSIPAR	60 mg	Oral	Daily	
09/03/2010 Notes:	PLAVIX	75 mg/L	Oral	Daily	
10/22/2010 Notes: changed per MD T. Kim	Lisinopril	40 mg	Oral	Daily	
10/25/2010 Notes:	Carvedilol	12.5 mg/L	Oral	2 Times Daily	
12/29/2010 Notes:	Amlodipine besylate	40 mg	Oral	Daily	

**Dialysis Treatment
Current HD Order:**

Order Date	Start Date	Prescribed Time (minutes)	Dialyzer	Prescribed BFR	Dialysate	Dry Weight
2/14/2011	2/14/2011	210	Optiflux F160NR	400	Bicarb K+ 1.0; Ca 2.5; Na 141; Bicarb 38; Glucose 100	62.00 kg

Review of last 12 HD Treatments:

Date	Pre-Weight	Post-Weight	Dry Weight	Pre BP Sitting	Pre BP Standing	Post BP Sitting	Post BP Standing
03/07/11	66.70 kg		62.00 kg	142 / 59	137 / 49	114 / 58	
03/05/11	64.50 kg	62.70 kg	62.00 kg	130 / 65	119 / 53	173 / 74	139 / 65
03/04/11	66.90 kg	62.40 kg	62.00 kg	159 / 65	160 / 63	164 / 61	154 / 73
03/02/11	66.40 kg	61.80 kg	62.00 kg	171 / 61	161 / 77	146 / 59	161 / 66
02/28/11	67.00 kg	62.90 kg	62.00 kg	185 / 60	185 / 91	163 / 71	163 / 67
02/26/11	65.80 kg	62.90 kg	62.00 kg	177 / 72	162 / 64	161 / 67	154 / 72
02/25/11	66.80 kg	62.80 kg	62.00 kg	167 / 68	152 / 68	155 / 59	130 / 60
02/23/11	67.10 kg	62.50 kg	62.00 kg	149 / 76	157 / 74	156 / 66	162 / 65
02/21/11	67.50 kg	62.40 kg	62.00 kg	163 / 66	161 / 59	162 / 64	150 / 61
02/18/11	64.70 kg	61.50 kg	62.00 kg	153 / 69	154 / 72	139 / 61	127 / 61
02/16/11	67.00 kg	64.20 kg	62.00 kg	173 / 61	163 / 75	173 / 65	172 / 70
02/14/11	65.90 kg	61.80 kg	63.50 kg	167 / 75	150 / 57	174 / 56	167 / 66

Yes No Hypotension avoided

$62 \text{ kg} \times 3\% = 1.86$

Date	Time	Result	Units	Reference
2/9/11	12:35	404 H	MG/DL	74-118
1/12/11	13:25	107	MG/DL	74-118
12/15/10	12:50	75	MG/DL	74-118
11/10/10	13:10	177 H	MG/DL	74-118
10/13/10	13:10	81	MG/DL	74-118
9/8/10	13:05	62 L	MG/DL	74-118
8/11/10	13:00	45 *L ☹	MG/DL	74-118
8/7/10	06:00	188 H	MG/DL	74-118
7/14/10	13:15	117	MG/DL	74-118
6/9/10	13:05	159 H	MG/DL	74-118
5/12/10	13:15	187 H	MG/DL	74-118
4/14/10	09:50	156 H	MG/DL	74-118
3/10/10	10:10	351 H	MG/DL	74-118
2/10/10	10:00	104	MG/DL	74-118
1/13/10	17:35	181 H	MG/DL	74-118
12/9/09	10:00	222 H	MG/DL	74-118
11/11/09	10:00	85	MG/DL	74-118
10/14/09	10:00	210 H	MG/DL	74-118
9/2/09	10:00	117	MG/DL	74-118
8/12/09	10:00	90	MG/DL	74-118
7/11/09	13:30	225 H	MG/DL	74-118
6/10/09	10:10	307 H	MG/DL	74-118
5/13/09	10:30	274 H ▲	MG/DL	74-118
4/8/09	10:15	74	MG/DL	74-118
3/11/09	17:30	54 *L ☹	MG/DL	74-118
2/27/09	10:00	☹	MG/DL	74-118
2/27/09	10:00	249 H	MG/DL	74-118
2/11/09	10:05	338 H ▲	MG/DL	74-118
1/14/09	10:00	189 H ▲	MG/DL	74-118
12/10/08	10:00	106	MG/DL	74-118
11/12/08	10:00	133 H	MG/DL	74-118
10/21/08	11:50	205 H ☹	MG/DL	74-118
10/13/08	06:40	353 H	MG/DL	74-118
10/12/08	21:30	480 H	MG/DL	74-118
10/12/08	07:45	688 *H ▲☹	MG/DL	74-118

Dialysis Treatment**Current HD Order:**

Order Date	Start Date	Prescribed Time (minutes)	Dialyzer	Prescribed BFR	Dialysate	Dry Weight
02/14/2011	02/14/2011	210	Optiflux F160NR	400	Bicarb K+ 1.0; Ca 2.5; Na 141; Bicarb 38; Glucose 100	62.00 kg

Review of last 12 HD Treatments:

Date	Pre-Weight	Post-Weight	Dry Weight	Pre BP Sitting	Pre BP Standing	Post BP Sitting	Post BP Standing
03/09/11	65.90 kg		62.00 kg	182 / 77	169 / 68		
03/07/11	66.70 kg	61.50 kg	62.00 kg	142 / 59	137 / 49	114 / 58	116 / 65
03/05/11	64.50 kg	62.70 kg	62.00 kg	130 / 65	119 / 53	173 / 74	139 / 65
03/04/11	66.90 kg	62.40 kg	62.00 kg	159 / 65	160 / 63	164 / 61	154 / 73
03/02/11	66.40 kg	61.80 kg	62.00 kg	171 / 61	161 / 77	146 / 59	161 / 66
02/28/11	67.00 kg	62.90 kg	62.00 kg	185 / 60	185 / 91	163 / 71	163 / 67
02/26/11	65.80 kg	62.90 kg	62.00 kg	177 / 72	162 / 64	161 / 67	154 / 72
02/25/11	66.80 kg	62.80 kg	62.00 kg	167 / 68	152 / 68	155 / 59	130 / 60
02/23/11	67.10 kg	62.50 kg	62.00 kg	149 / 76	157 / 74	156 / 66	162 / 65
02/21/11	67.50 kg	62.40 kg	62.00 kg	163 / 66	161 / 59	162 / 64	150 / 61
02/18/11	64.70 kg	61.50 kg	62.00 kg	153 / 69	154 / 72	139 / 61	127 / 61
02/16/11	67.00 kg	64.20 kg	62.00 kg	173 / 61	163 / 75	173 / 65	172 / 70