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APPENDICES

Appendix A

MEDICATIONS RECORD

NO_____ SEQ._____

NAME_____SEX_____HN_____

Address_____phone_____

Birthday_____age_____ yr. Allergy ☐ drug_____ ☐ food_____

Weight_____ kg. Height_____cm. (_____ft._____inches) LBW_____ kg. IBW_____kg.

BMI_____kg/m^2 ☐ $> 27\ kg/m^2$ ☐ $\leq 27 kg/m^2$

%IBW_____ ☐ %IBW >120 ☐ %IBW ≤ 120

PI	☐ HT	☐ OA	☐ history of PU
	☐ hyperuricemia	☐ RA	☐ stool occult blood positive
	☐ DM	☐ muscle pain	☐ hemoptysis
	☐ CAD	☐ tendinitis	☐ confirm by endoscopy
	☐ others_____	☐ others _____	☐ anemia

Medications wash out previous study	_____wash out _____ wks. From___/___/___ - ___/___/_____
	_____wash out _____ wks. From___/___/___ - ___/___/_____
	_____wash out _____ wks. From___/___/___ - ___/___/_____
	_____wash out _____ wks. From___/___/___ - ___/___/_____
	_____wash out _____ wks. From___/___/___ - ___/___/_____

	Drug	Regimen	Duration	Drug	Regimen	Duration
Concurrent Medications						

Note

LABORATORY RECORD

Test	visit1	visit2	visit3	visit4	visit5	visit6
Hgb gm%						
Hct %						
WBC						
Plt						
PMN						
Eo						
Baso						
Lymph						
Mono						
BUN						
Cr						
Glu						
Uric						
Na						
K						
SBP						
DBP						
SGOT						
SGPT						
Weight						
LBW						
BSA						
Pulse						
Urine 24 hr.						
output						
Cr						
Na						
K						
CrCl						
Others						

Appendix B

Naranjo's algorithm

No.....Seq..... Visit no.....date.....

Name.....HN..... treatment.....

Onset of treatment..... underlying disease.....

Questions	Yes	No	Do Not Know
Are there previous conclusive reports on this reaction?	+1	0	0
Did the adverse event appear after the suspected drug was adminstered?	+2	-1	0
Did the adverse reaction improve when the drug was discontinue?	+1	0	0
Did the adverse reaction reappear when the drug was readministered?	+2	-1	0
Are there alternative causes (other than the drug) that could solely have caused the reaction?	-1	+2	0
Did the reaction reappear when a placebo was given?	-1	+1	0
Was the drug detected in the blood (or other fluids) in a concentration known to be toxic?	+1	0	0
Was the reaction more severe when the dose was increased, or less severe when the dose was decreased?	+1	0	0
Did the patient have a similar reaction to the same or similar drugs in any previous exposure?	+1	0	0
Was the adverse event confirmed by objective evidence?	+1	0	0

The categories are defined as follows: definite (total score > 9) , probable (total score 5-8), possible (total score 1-4), doubtful (total score ≤ 0)

Appendix C_1 : Demographic data of the individual subjects

Subject number	Age	Sex	Ht[1] (cm)	Wt[2] (kg)	LBW[3] (kg)	IBW[4] (kg)	BMI[5] (w/ht^2)	BSA[6] (m^2)	Sequence
1	76	M	167	74	51.41	65.64	26.53	1.83	I
2	65	M	175	70.5	52.97	73	23.02	1.85	I
3	72	M	166	54	44.51	64.72	19.6	1.59	I
4	64	M	160	68	47.23	59.2	26.76	1.71	I
5	65	F	156	49	36.42	51.02	20.13	1.46	I
6	70	M	169	66	49.46	67.48	23.11	1.76	I
7	67	F	151	54	35.81	46.42	23.68	1.49	I
8	73	F	148	63	36.92	45.5	28.31	1.57	I
9	65	M	151	34	32.85	50.92	14.91	1.22	I
10	65	M	162	67	47.41	61.04	25.53	1.72	I
11	67	F	149	50	33.79	45.5	22.52	1.43	I
12	69	M	166	63	47.46	64.72	22.86	1.7	I
13	60	M	158	61.5	44.25	57.36	24.64	1.62	I
14	79	F	156	56.5	38.64	51.02	23.22	1.55	I
15	70	F	148	67.5	38.55	45.5	30.82	1.61	I
16	83	M	158	61.5	44.09	57.36	24.44	1.62	I
17	68	M	164	59	45.47	62.88	21.94	1.64	I
18	62	F	154	55.5	37.36	49.18	23.19	1.53	I
19	67	F	152	55	36.53	47.32	23.81	1.51	I
20	70	M	155	61	43.07	54.53	25.39	1.6	I
21	65	F	151	59	37.29	46.4	25.88	1.54	I
22	62	M	173	77	54.09	70.84	25.39	1.91	I
23	60	M	175	66	51.33	72.63	21.39	1.8	I
24	65	M	162	60	45.45	60.86	23.24	1.64	I
25	61	F	160	59	40.91	54.7	22.85	1.61	II
26	65	F	160	71	44.6	54.7	27.73	1.74	II
27	63	M	169	66.5	49.63	67.48	23.28	1.76	II
28	67	M	160	52.5	41.98	59.2	20.51	1.53	II
29	69	M	158	78.5	49.83	57.36	31.45	1.8	II
30	62	F	149	50.5	34.09	45.5	22.97	1.43	II
31	68	F	141	37.5	26.75	45.5	18.86	1.21	II

Subject number	Age	Sex	Ht[1] (cm)	Wt[2] (kg)	LBW[3] (kg)	IBW[4] (kg)	BMI[5] (w/ht^2)	BSA[6] (m^2)	Sequence
32	75	F	154	53	36.77	49.18	22.35	1.5	II
33	61	M	170	74	52.43	68.4	25.61	1.85	II
34	69	F	151	44.5	33	46.42	19.52	1.37	II
35	67	M	171	66	50.14	69.32	22.57	1.77	II
36	64	F	156	93.5	49.58	51.02	38.42	1.92	II
37	61	M	164	77.5	51.54	62.88	28.81	1.84	II
38	70	M	170	64	49.14	68.4	22.15	1.74	II
39	64	M	166	81.5	53.53	64.72	29.58	1.9	II
40	70	F	149	60.5	36.9	45.5	27.25	1.54	II
41	60	M	166	80	53.04	64.72	29.03	1.88	II
42	60	M	166	55	44.83	64.72	19.96	1.61	II
43	63	F	161	54.5	40.14	55.62	21.03	1.56	II
44	74	F	151	55	36.4	46.42	24.56	1.5	II
45	61	F	154	61.5	39.28	49.11	25.93	1.59	II
46	70	M	166	65	47.79	64.49	23.23	1.72	II
47	73	F	153	65	39.75	48.21	27.55	1.62	II
48	61	F	152	54	35.93	47.32	22.94	1.49	II
Mean ± SD	66.88±13.95	M = 26	159.23±8.21	61.92±11.17	43.13±6.87	56.71±8.89	24.34±3.87	1.63±0.17	SequenceI = 24
(Range)	(60-83)	F = 22	(141-175)	(34.00-93.50)	(26.75-54.09)	(45.50-73.00)	(14.91-38.42)	(1.21-1.92)	Sequence II =24

[1] Ht = height (cm)

[2] Wt = weight (kg)

[3] LBW = lean body weight (kg)

[4] IBW = ideal body weight (kg)

[5] BMI = body mass index (w/ht^2)

[6] BSA = body surface area (m^2)

Appendix C_2: Musculoskeletal problems, underlying diseases and concomitant medications in each patient

Subject	Musculoskeletal probems				Underlying diseases					Concomitant medications				
number	OA[1]	RA[2]	Gout	Muscle pain	Treated HT	Untreated HT	DM[3]	CAD[4]	Renal insuff	CCB[5]	Beta-blocker	Alpha-blocker	Allopurinol	ASA gr I[6]
1	/		/		/				/	/			/	
2			/		/				/	/	/		/	
3	/					/			/					
4	/				/						/	/		
5		/							/					
6			/		/					/	/		/	
7	/				/		/			/				
8	/				/		/			/	/			
9		/			/				/	/	/			
10			/	/	/					/			/	
11	/					/								
12	/				/				/	/				
13	/				/		/		/	/	/	/		
14	/	/				/			/					
15	/				/					/	/	/		
16	/		/		/					/			/	

Subject	Musculoskeletal probems				Underlying diseases					Concomitant medications				
number	OA[1]	RA[2]	Gout	Muscle pain	Treated HT	Untreated HT	DM[3]	CAD[4]	Renal insuff	CCB[5]	Beta-blocker	Alpha-blocker	Allopurinol	ASA gr I[6]
17			/		/		/		/			/	/	
18		/							/					
19	/				/		/			/				
20	/					/								
21	/													
22			/										/	
23	/		/		/				/	/			/	
24	/		/		/			/		/	/		/	/
25		/							/					
26	/		/	/	/					/			/	
27	/		/		/				/	/			/	
28			/	/		/			/				/	
29			/		/			/	/	/	/		/	/
30				/		/			/					
31				/										
32	/				/					/				
33			/										/	
34	/				/					/	/			
35			/		/				/	/	/		/	

Subject	Musculoskeletal probems				Underlying diseases					Concomitant medications				
number	OA[1]	RA[2]	Gout	Muscle pain	Treated HT	Untreated HT	DM[3]	CAD[4]	Renal insuff	CCB[5]	Beta-blocker	Alpha-blocker	Allopurinol	ASA gr I[6]
36	/		/		/					/			/	
37			/		/			/			/		/	/
38	/		/		/					/			/	
39	/				/				/	/	/	/		
40	/					/			/					
41	/		/		/					/	/	/	/	
42		/			/					/				
43		/							/					
44	/				/					/	/			
45		/												
46			/			/			/				/	
47	/					/								
48		/			/				/	/				
N	7	9	20	5	30	9	5	3	22	14	1	1	20	3

[1] OA = osteoarthritis

[2] RA = rheumatoid arthritis

[3] DM = diabetic mellitus

[4] CAD = coronary artery disease

[5] CCB = calcium channel blocker

[6] ASA gr I = aspirin 60 mg

Appendix D_1 : Laboratory data at baseline of all 24 patients in sequence I treatment group

Subject number	Cr[1] (mg/dl)	BUN[2] (mg/dl)	Uric acid (mg/dl)	SGOT[3] (U/L)	SGPT[4] (U/L)	Sodium (mmol/l)	Potassium (mmol/l)	CrCl[5] (ml/min/1.73m^2)
1	1.3	11	4.7	19	17	146	3.9	55.55
2	1.7*	25*	10.5*	40	56*	147	4.8	53.48
3	1	12	7.7*	54*	57*	149	4.7	70.84
4	1.4	19	10.1*	36	44*	146	4.9	60.22
5	0.9	18	4.9	30	15	144	4.3	56.69
6	0.9	14	7.1*	22	13	145	3.7	91.01
7	0.8	10	5.2	16	9	143	4.3	70.55
8	0.7	14	3.9	39	34	143	4.1	76.52
9	1.5	21*	8.7*	19	21	143	4.2	39.39
10	1.3	21*	6.1	82*	25	145	4.1	69.85
11	0.8	16	4.1	22	11	142	4.3	94.52
12	1.2	16	6.8	42*	40	142	4.1	53
13	1.4	19	7.8*	23	19	141	4.4	52.97
14	1.3	11	4.9	29	24	143	4.4	41.73
15	1	17	5.2	29	25	143	4.1	67.16
16	1.7*	15	9.1*	27	22	143	4.31	61.07
17	1.5	19	7.8	32	34	143	4.2	51.28
18	1.1	10	5	17	13	146	4.37	54.96
19	0.8	14	6.1	20	16	146	3.73	79.56
20	1.1	11	5.6	22	21	143	3.74	68.26
21	0.9	14	6.1	20	42*	146	4	65.01
22	1.2	14	6.5	39	54*	140	4.64	68.14
23	1.2	13	7.6*	24	24	142	3.94	55.62
24	1.3	9	3.9	26	17	141	3.99	73.25
Mean± SD	1.17±0.28	15.41±4.17	6.33±1.92	29.29±13.59	26.04±13.12	143.58±1.89	4.20±0.31	62.92±13.74
(Range)	(0.7-1.7)	(9-25)	(3.9-10.5)	(16-82)	(9-57)	(140-149)	(3.7-4.9)	(39.39-94.52)

[1] Cr = serum creatinine (mg/dl)

[2] BUN = blood urea nitrogen (mg/dl)

[3] SGOT = serum glutamic oxaloacetic transaminase

[4] SGPT = serum glutamic pyruvic transaminase

[5] CrCl = creatinine clearance (ml/min/1.73m^2)

* High level of laboratory data

Appendix D_2 : Laboratory data at baseline of all 24 patients in sequence II treatment group

Subject number	Cr [1] (mg/dl)	BUN [2] (mg/dl)	Uric acid (mg/dl)	SGOT [3] (U/L)	SGPT [4] (U/L)	Sodium (mmol/l)	Potassium (mmol/l)	CrCl [5] (ml/min/1.73m^2)
25	1	10	5.3	28	19	143	4	53.34
26	1.5	22*	13	27	17	143	3.8	47.51
27	1.4	23*	4.3	21	9	143	5	44.78
28	1.2	19	4.1	28	29	143	4.3	50.37
29	1.6*	22*	4.3	62*	66*	147	4.5	41.71
30	1.1	10	6.6	21	7	145	4.4	45.83
31	0.8	14	4.9	37	46*	141	4.9	62.05
32	0.9	18	5	25	18	143	4	87.15
33	1.3	11	4.8	20	11	142	4.1	69.94
34	0.9	12	4.1	24	13	148	4.3	70.16
35	1.4	18	4.5	17	13	144	4.2	53.33
36	0.9	14	8.5*	64*	67*	145	4.2	69.52
37	1.4	16	9.9*	20	22	142	4.6	60.63
38	1.2	11	8.8*	36	42*	144	4	63.29
39	1.5	14	7.1*	21	29	138	4.27	59.01
40	0.9	7	4.9	33	26	140	3.6	59.81
41	1.1	17	6.9	31	50*	144	4	87.14
42	0.9	13	5.1	20	16	143	4	99.49
43	1.1	15	5.3	28	35	144	4.39	59.51
44	1	21*	5	17	16	144	4.23	64.08
45	0.8	15	6.4	21	21	147	4.7	69.9
46	1.3	16	7	18	14	141	4.26	53.73
47	0.9	19	5.1	20	10	141	4.31	55.21
48	1.1	12	5.5	27	22	143	3.73	43.98
Mean± SD	1.13±0.24	15.08±4.26	6.25±2.12	28.83±13.37	26.92±18.19	143.50±2.54	4.26±0.35	62.16±14.14
(Range)	(0.8-1.6)	(7-23)	(4.1-13)	(17-64)	(7-67)	(138-148)	(3.6-5)	(41.71-99.49)

[1] Cr = serum creatinine (mg/dl)

[2] BUN = blood urea nitrogen (mg/dl)

[3] SGOT = serum glutamic oxaloacetic transaminase

[4] SGPT = serum glutamic pyruvic transaminase

[5] CrCl = creatinine clearance (ml/min/1.73m^2)

* High level of laboratory data

Appendix E_1 : Urine creatinine(Ucr), urine volume(Uvol) and body surface area(BSA) before and after receiving naproxen and celecoxib

Subject number	Naproxen						Celecoxib					
	Before			After			Before			After		
	Ucr[1]	Uvol[2]	BSA[3]	Ucr[1]	Uvol[2]	BSA[3]	Ucr[1]	Uvol[2]	BSA[3]	Ucr[1]	Uvol[2]	BSA[3]
1	1.1	3070	1.83	1.15	2125	1.84	1.1	3575	1.84	0.9	2930	1.84
2	1.4	1320	1.85	1.1	920	1.85	1.32	1036	1.85	1.1	940	1.85
3	0.8	1360	1.59	0.6	1900	1.63	0.8	1900	1.61	0.65	1310	1.61
4	1.16	3550	1.71	1.1	2150	1.71	1.2	3278	1.7	1.2	3575	1.72
5	0.62	540	1.46	0.57	660	1.47	0.59	1225	1.47	0.56	1176	1.46
6	1.3	2751	1.76	1.3	4588	1.76	1.3	2380	1.76	1	3014	1.75
7	0.7	1565	1.49	0.69	1445	1.47	0.7	922	1.46	0.58	2120	1.48
8	0.69	1655	1.57	0.67	1060	1.59	0.7	1850	1.57	0.59	1620	1.57
9	0.6	655	1.22	0.5	1100	1.22	0.62	650	1.22	0.5	830	1.22
10	1.3	1264	1.72	1.3	1010	1.72	1.3	1050	1.72	1.2	940	1.7
11	0.9	3000	1.43	0.7	2950	1.43	0.8	3450	1.43	0.7	2650	1.43
12	0.9	650	1.7	0.9	550	1.71	0.87	600	1.71	0.86	610	1.69
13	1	600	1.62	0.9	800	1.64	0.9	955	1.64	0.9	1250	1.66
14	0.7	1762	1.55	0.63	1626	1.57	0.68	1930	1.57	0.6	2500	1.55
15	0.9	520	1.61	0.8	910	1.62	0.82	1450	1.61	0.84	1150	1.61
16	1.2	1725	1.62	0.93	2070	1.64	1.4	2200	1.62	1.1	1500	1.61

Subject number	Naproxen						Celecoxib					
	Before			After			Before			After		
	Ucr[1]	Uvol[2]	BSA[3]	Ucr[1]	Uvol[2]	BSA[3]	Ucr[1]	Uvol[2]	BSA[3]	Ucr[1]	Uvol[2]	BSA[3]
17	1.05	1925	1.64	0.85	2005	1.65	1.1	1650	1.63	1	1940	1.65
18	0.7	2600	1.53	0.6	2510	1.54	0.6	2590	1.55	0.67	1950	1.55
19	0.8	825	1.51	0.86	1050	1.52	0.77	875	1.52	0.86	1000	1.54
20	1	915	1.6	1.1	1215	1.61	1.07	1760	1.6	1.1	840	1.61
21	0.75	810	1.54	0.73	600	1.54	0.64	1010	1.53	0.73	700	1.52
22	1.3	1550	1.91	1.25	1250	1.91	1.5	1800	1.89	1.4	1500	1.92
23	1	1360	1.8	0.8	950	1.8	1.1	1200	1.79	0.9	2100	1.81
24	1.3	2100	1.64	1.25	2080	1.65	1.4	3155	1.65	1.4	2320	1.67
25	0.66	1615	1.61	0.7	2925	1.61	0.83	2376	1.61	0.7	2300	1.62
26	0.8	3575	1.76	0.8	4438	1.76	1.17	4515	1.74	0.83	4380	1.76
27	0.98	880	1.76	1	720	1.73	1.05	580	1.76	1.1	980	1.76
28	0.8	1945	1.54	0.78	1654	1.54	0.8	1080	1.53	0.9	1050	1.53
29	1	1650	1.8	0.9	1125	1.8	1	1364	1.8	0.8	1350	1.8
30	0.7	1520	1.44	0.66	1580	1.44	0.6	1755	1.43	0.6	2400	1.45
31	0.5	2048	1.25	0.43	1725	1.24	0.5	1795	1.21	0.43	1970	1.24
32	0.95	1044	1.5	0.83	1400	1.5	0.72	900	1.5	0.8	860	1.5
33	1.6	2400	1.86	1.5	3238	1.87	1.4	2075	1.85	1.6	2426	1.85
34	0.7	1150	1.35	0.65	1100	1.36	0.72	1112	1.37	0.55	880	1.38

Subject number	Naproxen						Celecoxib					
	Before			After			Before			After		
	Ucr[1]	Uvol[2]	BSA[3]	Ucr[1]	Uvol[2]	BSA[3]	Ucr[1]	Uvol[2]	BSA[3]	Ucr[1]	Uvol[2]	BSA[3]
35	0.95	700	1.77	0.7	1200	1.76	1.1	768	1.77	1	765	1.77
36	1	2642	1.9	0.9	2144	1.92	1	1948	1.92	0.8	2445	1.93
37	1.4	2000	1.83	1.1	1550	1.85	1.3	1900	1.84	1.1	1572	1.85
38	0.96	1450	1.75	1	1800	1.75	1.1	1568	1.74	1.1	1194	1.75
39	1.35	850	1.89	0.9	550	1.9	1.4	760	1.9	1.4	700	1.91
40	0.7	1475	1.54	0.7	800	1.55	0.69	1280	1.54	0.64	1010	1.54
41	1.5	1654	1.88	1.5	2030	1.88	1.5	2250	1.88	1.5	3250	1.9
42	1.2	4800	1.62	1.15	3960	1.61	1.1	4020	1.61	1.1	4890	1.61
43	0.75	1100	1.55	0.65	1000	1.58	0.85	1050	1.56	0.78	578	1.57
44	0.78	1000	1.5	0.83	955	1.5	0.8	1200	1.5	0.78	1150	1.5
45	0.7	2850	1.61	0.8	2870	1.6	0.74	2140	1.59	0.68	2955	1.61
46	1.1	645	1.71	0.95	550	1.74	1.1	640	1.72	0.9	565	1.72
47	0.74	1000	1.62	0.75	1500	1.63	0.67	660	1.62	0.7	980	1.62
48	0.56	1100	1.48	0.54	700	1.49	0.6	980	1.49	0.51	1120	1.49

[1] Ucr = urine creatinine(g/day) [2] Uvol = urine volume(ml/day) [3] BSA = body surface area(m^2)

Appendix E_2: Creatinine clearance (CrCl), creatinine (Cr) and blood urea nitrogen (BUN) before and after receiving naproxen and celecoxib

Subject number	Naproxen									Celecoxib								
	Before			After			Change			Before			After			Change		
	CrCl[1]	Cr[2]	BUN[3]	CrCl[1]	Cr[2]	BUN[3]	CrCl[1]	Cr[2]	BUN[3]	CrCl[1]	Cr[2]	BUN[3]	CrCl[1]	Cr[2]	BUN[3]	CrCl[1]	Cr[2]	BUN[3]
1	55.55	1.3	11	53.63	1.4	17	-1.92	0.1	6	51.3	1.4	15	39.18	1.5	14	-12.12	0.1	-1
2	53.48	1.7	25	42.02	1.7	29	-11.46	0	4	47.63	1.7	20	42.02	1.8	21	-5.61	0.1	1
3	50.37	1.2	19	53.61	1.1	19	3.24	-0.1	0	45.91	1.3	12	52.23	1.1	18	6.32	-0.2	6
4	60.22	1.4	19	60.22	1.4	19	0	0	0	60.57	1.4	23	54.88	1.4	23	-5.69	0	0
5	56.69	0.9	18	58.66	0.8	13	1.97	-0.1	-5	53.57	0.9	12	51.2	0.9	15	-2.37	0	3
6	91.01	0.9	14	83.42	0.9	16	-7.59	0	2	93.86	0.8	16	85.82	0.8	16	-8.04	0	0
7	70.55	0.8	10	56.4	1	15	-14.15	0.2	5	72	0.8	11	47.08	1	10	-24.91	0.2	-1
8	76.52	0.7	14	63.68	0.7	12	-12.83	0	-2	75.43	0.7	14	73.24	0.7	12	-2.18	0	-2
9	39.39	1.5	21	39.39	1.4	20	0	-0.1	-1	43.6	1.4	21	42.67	1.5	19	-0.94	0.1	-2
10	69.85	1.3	21	69.84	1.3	18	-0.01	0	-3	60.54	1.5	21	60.57	1.4	21	0.03	-0.1	0
11	94.52	0.8	16	65.34	0.9	11	-29.18	0.1	-5	74.68	0.9	14	65.34	0.9	11	-9.34	0	-3
12	53	1.2	16	48.64	1.3	29	-4.36	0.1	13	50.94	1.2	16	51.62	1.2	17	0.68	0	1
13	52.97	1.4	19	54.94	1.2	19	1.97	-0.2	0	51.84	1.3	16	50.11	1.3	21	-1.73	0	5
14	41.73	1.3	11	34.43	1.4	12	-7.3	0.1	1	40.02	1.3	11	38.75	1.2	16	-1.27	-0.1	5
15	67.16	1	17	53.93	1.1	15	-13.23	0.1	-2	67.99	0.9	15	59.7	1	15	-8.28	0.1	0
16	61.07	1.7	15	42.41	1.9	20	-18.67	0.2	5	45.32	1.8	18	38.55	1.8	20	-6.77	0	2

Subject number	Naproxen									Celecoxib								
	Before			After			Change			Before			After			Change		
	CrCl[1]	Cr[2]	BUN[3]	CrCl[1]	Cr[2]	BUN[3]	CrCl[1]	Cr[2]	BUN[3]	CrCl[1]	Cr[2]	BUN[3]	CrCl[1]	Cr[2]	BUN[3]	CrCl[1]	Cr[2]	BUN[3]
17	51.28	1.5	19	38.68	1.6	21	-12.6	0.1	2	54.05	1.5	18	47.11	1.7	19	-6.95	0.2	1
18	54.96	1.1	10	42.55	1	8	-12.41	-0.1	-2	46.51	1	12	40.54	1.3	14	-5.97	0.3	2
19	79.56	0.8	14	75.52	0.9	17	-4.04	0.1	3	76.07	0.8	17	74.54	0.9	18	-1.54	0.1	1
20	68.26	1.1	11	68.4	1.2	12	0.15	0.1	1	73.04	1.1	13	68.4	1.2	14	-4.63	0.1	1
21	65.01	0.9	14	63.28	0.9	18	-1.73	0	4	62.82	0.8	15	64.11	0.9	17	1.29	0.1	2
22	68.14	1.2	14	65.51	1.2	18	-2.63	0	4	73.35	1.3	14	72.2	1.3	15	-1.15	0	1
23	55.62	1.2	13	44.49	1.2	16	-11.13	0	3	56.79	1.3	17	38.35	1.4	14	-18.44	0.1	-3
24	73.25	1.3	9	70	1.3	18	-3.25	0	9	72.81	1.4	14	71.93	1.4	12	-0.87	0	-2
25	49.26	1	11	47.48	1.1	12	-1.77	0.1	1	53.34	1	10	51.91	1	15	-1.43	0	5
26	60.68	0.9	13	54.61	1	14	-6.06	0.1	1	70.84	1	12	56.66	1	15	-14.18	0	3
27	47.78	1.4	29	46.29	1.5	24	-1.49	0.1	-5	47.51	1.5	22	46.93	1.6	25	-0.58	0.1	3
28	41.6	1.5	21	40.57	1.5	22	-1.03	0	1	44.78	1.4	23	50.38	1.4	23	5.61	0	0
29	44.49	1.5	17	42.9	1.4	17	-1.59	-0.1	0	41.71	1.6	22	31.41	1.7	25	-10.3	0.1	3
30	48.67	1.2	11	50.05	1.1	21	1.38	-0.1	10	45.83	1.1	10	45.18	1.1	15	-0.64	0	5
31	53.39	0.9	10	52.08	0.8	12	-1.31	-0.1	2	62.05	0.8	14	52.08	0.8	10	-9.97	0	-4
32	84.42	0.9	18	83.1	0.8	15	-1.33	-0.1	-3	87.15	0.9	18	80.09	0.8	20	-7.06	-0.1	2
33	79.5	1.3	11	74.13	1.3	12	-5.37	0	1	69.94	1.3	11	51.96	1.7	12	-17.98	0.4	1
34	69.21	0.9	11	63.79	0.9	17	-5.42	0	6	70.16	0.9	12	53.2	0.9	11	-16.96	0	-1

Subject number	Naproxen									Celecoxib								
	Before			After			Change			Before			After			Change		
	CrCl[1]	Cr[2]	BUN[3]	CrCl[1]	Cr[2]	BUN[3]	CrCl[1]	Cr[2]	BUN[3]	CrCl[1]	Cr[2]	BUN[3]	CrCl[1]	Cr[2]	BUN[3]	CrCl[1]	Cr[2]	BUN[3]
35	46.06	1.4	17	31.86	1.5	24	-14.2	0.1	7	53.33	1.4	18	48.48	1.4	21	-4.85	0	3
36	70.26	0.9	16	62.57	0.9	16	-7.69	0	0	69.52	0.9	14	55.33	0.9	14	-14.19	0	0
37	65.65	1.4	19	47.63	1.5	21	-18.02	0.1	2	60.63	1.4	16	50.93	1.4	16	-9.7	0	0
38	54.93	1.2	10	53.77	1.2	13	-1.16	0	3	63.29	1.2	11	62.93	1.2	17	-0.36	0	6
39	50.48	1.7	17	37.94	1.5	14	-12.54	-0.2	-3	59.01	1.5	14	58.7	1.6	21	-0.31	0.1	7
40	60.67	0.9	13	46.51	0.9	15	-14.16	0	2	59.81	0.9	7	55.47	0.9	11	-4.34	0	4
41	95.86	1	19	87.14	1.1	21	-8.7	0.1	2	87.14	1.1	17	87.14	1.1	18	0	0	1
42	90.64	0.9	10	91.21	0.9	14	0.56	0	4	99.49	0.9	13	82.91	0.9	11	-16.58	0	-2
43	58.13	1	12	44.94	1.1	18	-13.19	0.1	6	59.51	1.1	15	53.56	1	21	-5.94	-0.1	6
44	62.48	1	19	66.48	1	25	4	0	6	64.08	1	21	64.08	1	26	0	0	5
45	74.62	0.7	14	75.08	0.8	17	0.47	0.1	3	69.9	0.8	15	72.49	0.7	16	2.59	-0.1	1
46	59.45	1.3	16	36.99	1.4	23	-22.46	0.1	7	53.73	1.3	16	39.91	1.4	17	-13.82	0.1	1
47	60.97	0.9	17	60.59	1.1	22	-0.37	0.2	5	55.21	0.9	19	57.68	0.9	18	2.47	0	-1
48	45.46	1	16	31.11	1.2	19	-14.35	0.2	3	43.98	1.1	12	32.25	1.3	20	-11.73	0.2	8
Mean±SD	62.18±14.22		15.35±4.26		1.17±0.27		−6.39±7.39		2.15±3.86		1.16±0.28		55.66±13.77		16.88±4.14		0.03±0.10	
		1.15±0.27		55.79±14.93		17.50±4.55		0.02±0.09		61.30±13.94		15.35±3.77		1.19±0.31		−5.64±6.79		1.52±2.83

[1] CrCl = creatinine clearance (ml/min/1.73m^2)

[2] Cr = serum creatinine (mg/dl)

[3] BUN = blood urea nitrogen (mg/dl)

Appendix F_1: Systolic blood pressure (SBP) and diastolic blood pressure (DBP) before and after receiving naproxen and celecoxib

Subject number	Naproxen														Celecoxib											
	Before						After						Change		Before						After					Change	
	SBP_1	SBP_2	SBP	DBP_1	DBP_2	DBP	SBP_1	SBP_2	SBP	DBP_1	DBP_2	DBP	SBP	DBP	SBP_1	SBP_2	SBP	DBP_1	DBP_2	DBP	SBP_1	SBP_2	SBP	DBP_1	DBP_2	DBP	SBP	DBP
1	150	150	150	90	90	90	150	150	150	90	90	90	0	0	130	140	135	70	70	70	150	150	150	88	90	89	15	19
2	100	100	100	62	58	60	142	138	140	90	90	90	40	30	150	156	153	74	70	72	146	146	146	78	70	74	-7	2
3	140	140	140	78	82	80	160	160	160	88	92	90	20	10	158	156	157	82	90	86	160	164	162	88	88	88	5	2
4	168	168	168	92	96	94	150	150	150	74	74	74	-18	-20	180	182	181	92	96	94	162	164	163	84	80	82	-18	-12
5	112	108	110	70	70	70	124	124	124	78	82	80	14	10	128	128	128	78	76	77	110	108	104	68	70	69	-24	-8
6	150	148	149	90	84	87	154	150	152	86	78	82	3	-5	160	156	158	90	80	85	162	160	161	95	90	92	3	7
7	142	140	141	80	80	80	134	136	135	70	80	75	-6	-5	138	136	137	78	70	74	138	128	133	76	70	73	-4	-1
8	138	130	134	66	70	68	148	142	145	80	78	79	11	11	146	140	143	70	70	70	158	152	155	80	78	79	12	9
9	144	142	143	82	80	81	150	150	150	92	90	91	7	10	130	130	130	80	78	79	168	160	164	90	86	88	34	9
10	154	150	152	90	90	90	160	158	159	100	100	100	7	10	146	140	143	84	80	82	162	160	161	90	86	88	18	6
11	158	152	155	84	80	82	164	160	162	80	78	79	7	-3	156	156	156	84	84	84	164	160	162	84	80	82	6	-2
12	144	142	143	80	78	79	156	150	153	74	70	72	10	-7	146	144	145	70	70	70	160	158	159	60	56	58	14	-12
13	166	158	162	96	90	93	160	166	163	88	84	86	1	-7	154	150	152	80	80	80	150	150	150	80	76	78	-2	-2
14	144	142	143	80	76	78	148	140	144	72	70	71	1	-7	158	144	151	74	70	72	148	140	144	72	72	72	-7	0
15	158	152	155	68	68	68	162	160	161	64	62	62	6	-6	158	150	154	68	64	66	156	150	153	64	60	62	-1	-4
16	140	136	138	70	70	70	140	138	139	76	76	76	1	6	124	124	124	68	66	67	140	134	137	74	68	71	13	4

Subject number	Naproxen														Celecoxib									
	Before						After						Change		Before						After				Change	
	SBP_1	SBP_2	SBP	DBP_1	DBP_2	DBP	SBP_1	SBP_2	SBP	DBP_1	DBP_2	DBP	SBP	DBP	SBP_1	SBP_2	SBP	DBP_1	DBP_2	DBP	SBP_1	SBP_2	SBP	DBP_1	DBP_2	DBP	SBP	DBP
17	146	138	142	90	80	85	154	152	153	80	78	79	11	-6	140	138	139	86	80	83	140	140	140	82	76	79	1	-4
18	134	130	132	78	84	81	148	144	146	84	84	84	14	3	132	130	131	88	88	88	140	136	138	88	88	88	7	0
19	148	140	144	64	60	62	148	146	147	60	60	60	3	-2	140	140	140	70	68	69	148	146	147	66	66	66	7	-3
20	166	164	165	76	70	73	170	170	170	64	60	62	5	-11	168	170	169	60	60	60	160	162	161	60	60	60	-8	0
21	122	116	119	70	66	68	116	116	116	70	70	70	-3	2	138	132	135	80	78	79	126	128	127	80	80	80	-8	1
22	136	140	138	88	86	87	130	130	130	88	86	87	-8	0	136	134	135	88	86	87	140	136	138	88	88	88	3	1
23	152	152	152	100	100	100	160	160	160	100	98	99	8	-1	164	158	161	100	100	100	168	166	167	104	100	102	6	2
24	140	136	138	78	78	78	150	150	150	80	78	79	12	1	144	142	143	76	74	75	150	150	150	86	86	86	7	11
25	120	120	120	80	80	80	126	124	125	66	64	65	5	-15	112	110	111	60	60	60	118	116	117	64	60	62	6	2
26	112	108	110	80	80	80	152	150	151	90	88	89	41	9	158	158	158	90	90	90	132	128	130	90	90	90	-28	0
27	150	150	150	80	80	80	140	120	130	80	70	75	-20	-5	150	150	150	90	90	90	142	138	140	80	80	80	-10	-10
28	156	156	156	80	80	80	160	158	159	70	68	69	3	-11	140	140	140	70	70	70	162	158	160	72	72	72	20	2
29	158	158	158	100	98	99	160	154	157	98	98	98	-1	-1	154	150	152	100	100	100	166	158	162	100	100	100	10	0
30	132	128	130	90	90	90	130	130	130	90	90	90	0	0	126	114	120	72	64	68	116	114	115	70	70	70	-5	2
31	166	164	165	68	66	67	140	30	135	58	54	56	-30	-11	130	130	130	60	60	60	176	170	173	80	78	79	43	19
32	136	128	132	78	78	78	130	130	130	60	60	60	-2	-18	138	136	137	88	86	87	146	140	143	78	70	74	6	-13
33	100	100	100	64	60	62	132	130	131	70	70	70	31	8	130	126	128	80	78	79	110	110	110	76	74	75	-18	-4
34	124	120	122	70	70	70	140	134	137	78	76	77	15	7	160	140	150	90	80	85	148	148	148	68	68	68	-2	-17

Subject number	Naproxen														Celecoxib											
	Before						After						Change		Before						After					Change	
	SBP_1	SBP_2	SBP	DBP_1	DBP_2	DBP	SBP_1	SBP_2	SBP	DBP_1	DBP_2	DBP	SBP	DBP	SBP_1	SBP_2	SBP	DBP_1	DBP_2	DBP	SBP_1	SBP_2	SBP	DBP_1	DBP_2	DBP	SBP	DBP
35	150	150	150	80	80	80	140	136	138	70	66	68	-12	-12	152	152	152	88	86	87	154	152	153	78	82	80	1	-7
36	160	158	159	104	100	102	162	160	161	100	100	100	2	-2	148	140	144	78	76	77	170	170	170	84	80	82	26	5
37	150	144	147	100	100	100	146	144	145	90	88	89	-2	-11	138	138	138	96	90	93	148	142	145	100	98	99	7	6
38	160	154	157	98	96	97	168	166	167	90	88	89	10	-8	158	154	156	84	80	82	164	160	162	94	90	92	6	10
39	150	146	148	90	89	89	160	158	159	90	88	89	11	0	152	146	149	80	80	80	150	146	148	90	88	89	-1	9
40	136	132	134	76	70	73	138	136	137	78	70	74	3	1	148	146	147	82	80	81	156	150	153	84	80	82	6	1
41	170	168	169	90	88	89	178	176	177	90	94	92	8	3	164	160	162	96	92	94	154	150	152	86	80	83	-10	-11
42	150	146	148	80	80	80	148	140	144	60	60	60	-4	-20	140	138	139	80	78	79	140	140	140	80	78	79	1	0
43	116	108	112	70	66	68	114	114	114	68	68	68	2	0	124	124	124	78	76	77	110	110	110	68	60	64	-14	-13
44	150	150	150	70	68	69	164	164	164	76	76	76	8	7	156	154	155	70	68	69	160	158	159	72	72	72	4	3
45	120	120	120	74	74	74	118	118	118	80	80	80	-2	6	110	110	110	70	70	70	122	118	120	80	80	80	10	10
46	140	138	139	78	76	77	154	154	154	82	82	82	15	5	144	140	142	70	68	69	150	150	150	72	72	72	8	3
47	162	160	161	100	98	99	166	164	165	100	100	100	4	1	150	149	149	90	90	90	154	154	154	94	94	94	5	4
48	140	136	138	86	86	86	148	146	147	90	90	90	11	4	134	132	133	60	58	59	136	134	135	62	62	62	2	3
Mean±SD			141.42±17.29			80.69±10.95			146.54±14.87			79.65±11.89	−1.04±9.34				143.25±14.23			78.44±10.42			146.27±16.67			79.04±10.81	0.60±7.74	
													5.13±12.66													3.02±13.17	

SBP_1 / DBP_1 = systolic blood pressure/diastolic blood pressure at first measurement

SBP_2 / DBP_2 = systolic blood pressure/diastolic blood pressure at second measurement

Appendix F_2: Mean arterial blood pressure (MAP) before and after receiving naproxen and celecoxib

Subject number	Naproxen			Celecoxib		
	Before	After	Change	Before	After	Change
1	110	110	0	91.67	109.33	17.67
2	73.33	106.67	33.33	99	98	-1
3	100	113.33	13.33	109.67	112.67	3
4	118.67	99.33	-19.33	123	109	-14
5	83.33	94.67	11.33	94	80.67	-13.33
6	107.67	105.33	-2.33	109.33	115	5.67
7	100.33	95	-5.33	95	93	-2
8	90	101	11	94.33	104.33	10
9	101.67	110.67	9	96	113.33	17.33
10	110.67	119.67	9	102.33	112.33	10
11	106.33	106.67	0.33	108	108.67	0.67
12	100.33	99	-1.33	95	91.67	-3.33
13	116	111.67	-4.33	104	102	-2
14	99.67	95.33	-4.33	98.33	96	-2.33
15	97	95	-2	95.33	92.33	-3

Subject number	Naproxen			Celecoxib		
	Before	After	Change	Before	After	Change
16	92.67	97	4.33	86	93	7
17	104	103.67	-0.33	101.67	99.33	-2.33
18	98	104.67	6.67	102.33	104.67	2.33
19	89.33	89	-0.33	92.67	93	0.33
20	103.67	98	-5.67	96.33	93.67	-2.67
21	85	85.33	0.33	97.67	95.67	-2
22	104	101.33	-2.67	103	104.67	1.67
23	117.33	119.33	2	120.33	123.67	3.33
24	98	102.67	4.67	97.67	107.33	9.67
25	93.33	85	-8.33	77	80.33	3.33
26	90	109.67	19.67	112.67	103.33	-9.33
27	103.33	93.33	-10	110	100	-10
28	105.33	99	-6.33	93.33	101.33	8
29	118.67	117.67	-1	117.33	120.67	3.33
30	103.33	103.33	0	85.33	85	-0.33
31	99.67	82.33	-17.33	83.33	110.33	27
32	96	83.33	-12.67	103.67	97	-6.67

Subject number	Naproxen			Celecoxib		
	Before	After	Change	Before	After	Change
33	74.67	90.33	15.67	95.33	86.67	-8.67
34	87.33	97	9.67	106.67	94.67	-12
35	103.33	91.33	-12	108.67	104.33	-4.33
36	121	120.33	-0.67	99.33	111.33	12
37	115.67	107.67	-8	108	114.33	6.33
38	117	115	-2	106.67	115.33	8.67
39	108.67	112.33	3.67	103	108.67	5.67
40	93.33	95	1.67	103	105.67	2.67
41	115.67	120.33	4.67	116.67	106	-10.67
42	102.67	88	-14.67	99	99.33	0.33
43	82.67	83.33	0.67	92.67	79.33	-13.33
44	96	105.33	9.33	97.67	101	3.33
45	89.33	92.67	3.33	83.33	93.33	10
46	97.67	106	8.33	93.33	98	4.67
47	119.67	121.67	2	109.67	114	4.33
48	103.33	109	5.67	83.67	86.33	2.67
Mean±SD	100.93±11.57	101.94±10.87	1.01±9.56	100.04±9.96	101.45±10.55	1.41±8.48

Appendix G: Serum/ Urine electrolyte before and after receiving naproxen and celecoxib

Subject number	Naproxen												Celecoxib											
	Before				After				Change				Before				After				Change			
	Serum		Urine		Serum		Urine		Serum		Urine		Serum		Urine		Serum		Urine		Serum		Urine	
	Na	K	Na	K	Na	K	Na	K	Na	K	Na	K	Na	K	Na	K	Na	K	Na	K	Na	K	Na	K
1	146	3.9	246	34	145	4.2	116	23	-1	0.3	-130	-11	144	4.1	343	46	144	4.3	310	34	0	0.2	-33	-12
2	147	4.8	153	42	144	9	116	43	-3	4.2	-37	1	143	4.5	111	51	144	5.3	138	61	1	0.8	27	10
3	143	4.3	271	72	148	3.6	395	25	5	-0.7	124	-47	143	4.5	196	36	142	4.4	250	44	-1	-0.1	54	8
4	146	4.9	216	38	139	3.5	142	30	-7	-1.4	-74	-8	145	4.6	118	33	144	3.8	182	26	-1	-0.8	64	-7
5	144	4.3	43	25	143	4.4	84	35	-1	0.1	41	10	144	4.4	139	40	143	4.2	200	32	-1	-0.2	61	-8
6	145	3.7	360	55	142	4.9	317	50	-3	1.2	-43	-5	141	4.1	293	62	142	4.4	331	54	1	0.3	38	-8
7	143	4.3	188	22	144	3.6	118	20	1	-0.7	-70	-2	146	4.1	103	20	144	4.4	136	25	-2	0.3	33	5
8	143	4.1	152	50	146	4.1	123	41	3	0	-29	-9	143	4.3	103	47	139	4.3	112	33	-4	0	9	-14
9	143	4.2	100	20	137	4.37	132	28	-6	0.17	32	8	141	4.4	96	25	143	4	150	37	2	-0.4	54	12
10	145	4.1	178	29	143	4.4	267	33	-2	0.3	89	4	145	4.1	169	30	140	3.8	126	32	-5	-0.3	-43	2
11	142	4.3	225	36	142	4.5	94	30	0	0.2	-131	-6	146	4.6	183	73	144	4.3	90	28	-2	-0.3	-93	-45
12	142	4.1	132	47	145	4.3	83	30	3	0.2	-49	-17	140	3.7	108	22	144	3.7	113	21	4	0	5	-1
13	141	4.4	102	36	145	4.5	94	20	4	0.1	-8	-16	144	4.59	114	37	141	4.24	148	28	-3	-0.4	34	-9
14	143	4.4	106	65	148	4.4	63	39	5	0	-43	-26	142	4.7	68	81	142	5.1	135	50	0	0.4	67	-31
15	143	4.1	168	42	139	4.38	191	32	-4	0.28	23	-10	143	4.8	226	30	141	4.59	171	29	-2	-0.2	-55	-1

Subject number	Naproxen												Celecoxib											
	Before				After				Change				Before				After				Change			
	Serum		Urine		Serum		Urine		Serum		Urine		Serum		Urine		Serum		Urine		Serum		Urine	
	Na	K	Na	K	Na	K	Na	K	Na	K	Na	K	Na	K	Na	K	Na	K	Na	K	Na	K	Na	K
16	143	4.31	158	46	144	4.1	140	30	1	-0.21	-18	-16	146	3.9	133	24	133	4.37	93	26	-13	0.47	-40	2
17	143	4.2	217	40	141	4.31	210	43	-2	0.11	-7	3	138	4.39	96	25	141	5	132	30	3	0.61	36	5
18	146	4.37	122	55	150	4.58	58	28	4	0.21	-64	-27	143	4.2	85	41	143	4.3	78	34	0	0.1	-7	-7
19	146	3.73	118	34	143	3.97	114	28	-3	0.24	-4	-6	144	4.2	92	34	145	3.6	92	38	1	-0.6	0	4
20	143	3.74	184	31	141	3.93	172	32	-2	0.19	-12	1	143	4.3	161	46	145	4.3	156	36	2	0	-5	-10
21	146	4	122	31	141	3.71	113	29	-5	-0.29	-9	-2	145	3.71	142	21	142	4.52	110	26	-3	0.81	-32	5
22	140	4.64	220	49	144	4.7	198	21	4	0.06	-22	-28	144	4.3	248	58	140	5	200	49	-4	0.7	-48	-9
23	142	3.94	81	23	143	3.9	54	23	1	-0.04	-27	0	145	4.5	108	25	143	4.32	109	24	-2	-0.2	1	-1
24	141	3.99	151	25	135	4.53	125	22	-6	0.54	-26	-3	143	3.6	104	33	144	3.9	51	18	1	0.3	-53	-15
25	144	4	98	39	143	4.3	137	53	-1	0.3	39	14	143	4	107	78	143	4.7	115	51	0	0.7	8	-27
26	143	4	172	43	143	4.3	163	40	0	0.3	-9	-3	149	4.7	198	58	144	4.3	158	44	-5	-0.4	-40	-14
27	143	4	105	20	142	3.8	42	12	-1	-0.2	-63	-8	143	3.8	41	9	145	4.3	89	19	2	0.5	48	10
28	143	4.8	146	25	144	4.7	162	27	1	-0.1	16	2	143	5	127	28	144	4.5	180	28	1	-0.5	53	0
29	143	4.7	186	28	149	4.47	11	22	6	-0.23	-175	-6	147	4.5	158	33	142	4.8	177	28	-5	0.3	19	-5
30	149	4.2	87	49	146	4.3	84	28	-3	0.1	-3	-21	145	4.4	42	19	146	4.8	99	39	1	0.4	57	20
31	141	4.4	161	43	141	4.7	135	128	0	0.3	-26	85	141	4.9	104	37	143	5.1	144	47	2	0.2	40	10
32	143	4.1	127	37	145	4.3	168	56	2	0.2	41	19	143	4	182	35	143	4.1	116	35	0	0.1	-66	0
33	144	4.1	168	100	144	4.5	113	68	0	0.4	-55	-32	142	4.1	133	64	143	4.3	189	73	1	0.2	56	9

Subject number	Naproxen												Celecoxib											
	Before				After				Change				Before				After				Change			
	Serum		Urine		Serum		Urine		Serum		Urine		Serum		Urine		Serum		Urine		Serum		Urine	
	Na	K	Na	K	Na	K	Na	K	Na	K	Na	K	Na	K	Na	K	Na	K	Na	K	Na	K	Na	K
34	147	4	89	39	152	4.6	57	24	5	0.6	-32	-15	148	4.3	99	30	145	4.5	40	29	-3	0.2	-59	-1
35	144	3.8	53	23	147	4.4	163	31	3	0.6	110	8	144	4.2	50	25	143	3.9	66	24	-1	-0.3	16	-1
36	144	4.3	208	52	148	4.2	163	35	4	-0.1	-45	-17	145	4.2	86	29	143	4.9	72	25	-2	0.7	-14	-4
37	148	4.4	318	42	140	4.8	183	43	-8	0.4	-135	1	142	4.6	296	42	142	4.4	193	44	0	-0.2	-103	2
38	148	4.5	94	38	139	3.9	128	53	-9	-0.6	34	15	144	4	82	33	146	4.5	124	56	2	0.5	42	23
39	147	4.5	173	45	139	4.83	93	36	-8	0.33	-80	-9	138	4.27	137	49	146	4.5	127	34	8	0.23	-10	-15
40	140	3.72	165	36	145	4.08	122	37	5	0.36	-43	1	140	3.6	220	42	141	3.9	70	27	1	0.3	-150	-15
41	144	4.1	126	45	142	4.1	225	34	-2	0	99	-11	144	4	185	40	148	4.2	276	48	4	0.2	91	8
42	141	4.6	202	29	142	4.12	178	32	1	-0.48	-24	3	143	4	76	28	140	4	235	36	-3	0	159	8
43	145	4.12	136	53	142	4	89	28	-3	-0.12	-47	-25	144	4.39	109	42	144	4.01	48	24	0	-0.4	-61	-18
44	142	4.1	153	51	145	4.67	128	14	3	0.57	-25	-37	144	4.23	169	29	142	4.65	186	32	-2	0.42	17	3
45	144	0	103	50	147	4.31	152	41	3	0.07	49	-9	147	4.7	105	46	144	4.54	139	44	-3	-0.2	34	-2
46	140	4	135	26	140	4.19	86	23	0	0.19	-49	-3	141	4.26	116	30	141	4.06	55	16	0	-0.2	-61	-14
47	141	4.4	214	40	148	4.1	324	46	7	-0.3	110	16	141	4.31	116	27	140	4.57	87	30	-1	-0.3	-29	3
48	144	4	98	25	140	3.71	71	14	-4	-0.29	-27	-11	143	3.73	101	33	145	4.12	99	30	2	0.39	-2	-3
Mean±SD	143.71±2.19		156.88±63.16		143.44±3.42		139.50±73.82		-0.27±3.99		-17.38±63.06		143.44±2.24		137.04±64.93		142.83±2.36		139.52±65.15		-0.60±3.16		2.48±56.07	
	4.21±0.29		40.10±14.69		4.36±0.76		34.58±17.87		0.15±0.73		-5.52±19.03		4.27±0.33		38.04±15.43		4.37±0.38		34.96±11.86		0.10±0.39		-3.08±12.47	

Na = sodium K = potassium

Appendix H_1: Edema scale, body weight before and after receiving naproxen and celecoxib

Subject number	Naproxen				Celecoxib			
	Edema scale		Weight(kg)		Edema scale		Weight (kg)	
	Before	After	Before	After	Before	After	Before	After
1	0	0	74	75.5	0	0	75	75
2	0	0	70.5	70	0	0	70	70
3	0	2	54	57	0	0	55	55
4	0	0	68	68	0	0	67	69
5	0	0	49	50	0	0	49.5	49
6	0	0	66	66	0	0	66	65
7	0	0	54	52.5	0	0	52	53.5
8	1	2	63	65	1	2	63.5	63
9	0	0	34	34	0	0	34	34
10	0	0	67	67	0	1	67	66
11	0	0	50	50	0	0	50	50
12	0	0	63	63.5	0	0	63.5	62
13	0	0	61.5	62.5	0	0	62.5	65
14	0	1	56.5	58	0	1	58	56

Subject number	Naproxen				Celecoxib			
	Edema scale		Weight(kg)		Edema scale		Weight (kg)	
	Before	After	Before	After	Before	After	Before	After
15	0	1	67.5	68	0	1	67.5	67.5
16	0	0	61.5	62.5	0	0	61	60.5
17	0	0	59	59.5	0	0	58	59.5
18	0	1	55.5	57	0	0	57.5	57.5
19	0	0	55	56.5	0	0	56.5	58
20	0	0	61	62	0	0	61	62
21	0	0	59	58.5	0	0	57.5	57
22	0	0	77	77	0	0	76	78.5
23	0	0	66	66	0	0	65.5	66.5
24	1	2	60	61	0	1	61	62.5
25	0	0	59	59	0	0	59	60
26	0	0	72.5	73	0	0	71	73
27	0	0	66	64	0	0	66.5	66
28	0	0	53.5	53	0	0	52.5	52
29	0	2	78	78.5	0	0	78.5	78.5
30	0	0	51	51	0	0	50.5	52
31	0	1	40	39.5	0	1	37.5	39.5

Subject number	Naproxen				Celecoxib			
	Edema scale		Weight(kg)		Edema scale		Weight (kg)	
	Before	After	Before	After	Before	After	Before	After
32	0	0	53.5	53.5	0	0	53	53.5
33	0	0	75	75.5	0	0	74	74
34	0	0	43	43.5	0	0	44.5	45.5
35	0	1	65.5	65	0	1	66	66
36	0	1	92	93.5	0	1	93.5	94
37	0	0	76	78	0	0	77.5	78.5
38	0	0	65	65	0	0	64	65
39	0	0	81	82	0	0	81.5	82.5
40	1	3	60	61	1	2	60	60.5
41	0	0	80	80	0	2	80	81.5
42	0	0	56.5	55.5	0	0	55	55
43	0	0	53.5	55.5	0	0	54.5	55
44	0	0	55	55	0	0	55	55
45	0	0	63	62	0	0	61.5	63
46	0	0	64	66.5	0	0	65	65
47	0	2	64.5	65.5	1	2	65	65
48	0	1	53	54	0	1	54	54

Appendix H_2: Chi-Square table for assessment the occurrence of edema in all patients (N=48)

		Drug		Total
		Naproxen	Celecoxib	
Edema	Edema	7	3	10
	No edema	41	45	86
	Total	48	48	96

Appendix I_1: Overall secondary outcomes in naproxen treatment group

Subject number	Adverse drug reactions	Total score	The categories of ADR
3	echymosis	4	possible
5	rash	2	possible
6	dyspepsia	3	possible
7	headache	5	probable
10	abdominal pain	4	possible
11	heart burn	6	probable
	dyspepsia	6	probable
12	constipation	4	possible
13	heart burn	6	probable
25	rash	4	possible
	dyspepsia	5	probable
27	shortness of breath	4	possible
28	dyspepsia	3	possible
30	heart burn	4	possible
31	abdominal pain	5	probable
	heart burn	5	probable
33	abdominal pain	6	probable
	dyspepsia	6	probable
35	abdominal pain	6	probable
37	heart burn	5	probable
39	abdominal pain	6	probable
40	abdominal pain	6	probable
41	diarrhea	4	possible
	heart burn	6	probable
42	dyspepsia	5	probable
45	abdominal pain	6	probable

Appendix I_2: Overall secondary outcomes in celecoxib treatment group

Subject number	Adverse drug reactions	Total score	The categories of ADR
1	back pain	3	possible
2	dizziness	2	possible
9	diarrhea	5	probable
11	dizziness	3	possible
13	dyspepsia	4	possible
14	dyspepsia	3	possible
23	diarrhea	4	possible
24	ecchymosis	3	possible
25	headache	6	probable
	abdominal pain	4	possible
	nausea	2	possible
28	back pain	3	possible
30	dyspepsia	3	possible
	diarrhea	6	probable
37	dizziness	2	possible
	shortness of breath	3	possible
41	rash	4	possible
43	dizziness	4	possible

Appendix I_3: Chi-Square table for assessment the occurrence of secondary outcomes in all patients (N=48)

Secondary outcomes		Drug		Total
		Naproxen	Celecoxib	
Abdominal pain	Abdominal pain	7	1	8
	No abdominal pain	41	47	88
	Total	48	48	96
Dyspepsia	Dyspepsia	6	3	9
	No dyspepsia	42	45	87
	Total	48	48	96
Heart burn	Heart burn	6	0	6
	No heart burn	42	48	90
	Total	48	48	96
Diarrhea	Diarrhea	1	3	4
	No diarrhea	47	45	92
	Total	48	48	96
Headache	Headache	1	1	2
	No headache	47	47	94
	Total	48	48	96
Dizziness	Dizziness	0	4	4
	No dizziness	48	44	92
	Total	48	48	96
Back pain	Back pain	0	2	2
	No back pain	48	46	94
	Total	48	48	96
Rash	Rash	2	1	3
	No rash	46	47	93
	Total	48	48	96

Secondary outcomes		Drug		Total
		Naproxen	Celecoxib	
Ecchymosis	Ecchymosis	1	1	2
	No ecchymosis	47	47	94
	Total	48	48	96
Shortness of breath	Shortness of breath	1	1	2
	No shortness of breath	47	47	94
	Total	48	48	96
Decreased in Hct	Decreased Hct $\geq$ 5%	13	7	20
	No decreased Hct $\geq$ 5%	35	41	76
	Total	48	48	96
Decreased in Hgb	Decreased in Hgb > 1.5 g/dl	2	0	2
	No decreased in Hgb > 1.5 g/dl	46	48	94
	Total	48	48	96

Appendix J: The statistical levels of significance difference(P value) when comparing the mean CrCl observed between treatment in all patients and subgroup of patients based on renal function

P value	a	b	c
All patients (N=48)	< 0.001	< 0.001	0.501
Normal renal patients (N=26)	< 0.001	< 0.001	0.691
With normal blood pressure (N=5)	0.092	0.266	0.228
With high blood pressure (N=16)	0.014	0.001	0.075
With high blood pressure, other risk factors (e.g., DM, CAD) (N=5)	0.023	0.16	$
Renal insufficiency patients (N=22)	< 0.001	0.03	0.083
With normal blood pressure (N=4)	0.104	0.062	0.593
With high blood pressure (N=15)	0.002	0.041	0.075
With high blood pressure, other risk factors (e.g., DM, CAD) (N=3)	0.451	0.127	$

a naproxen versus baseline

b celecoxib versus baseline

c celecoxib versus naproxen

$ not enough sample size to compare celecoxib with naproxen

Appendix K: The statistical levels of significance difference(P value) when comparing the mean Scr observed between treatment in all patients and subgroup of patients based on renal function

P value	a	b	c
All patients (N=48)	0.063	0.016	0.604
Normal renal patients (N=26)	0.008	0.183	0.418
With normal blood pressure (N=5)	1	0.405	0.839
With high blood pressure (N=16)	0.027	1	0.743
With high blood pressure, other risk factors (e.g., DM, CAD) (N=5)	0.099	0.208	$
Renal insufficiency patients (N=22)	0.853	0.045	0.183
With normal blood pressure (N=4)	0.391	0.444	0.232
With high blood pressure (N=15)	0.486	0.138	0.586
With high blood pressure, other risk factors (e.g., DM, CAD) (N=3)	0.529	0.225	$

a naproxen versus baseline

b celecoxib versus baseline

c celecoxib versus naproxen

$ not enough sample size to compare celecoxib with naproxen

Appendix L: The statistical levels of significance difference(P value) when comparing the mean BUN observed between treatment in all patients and subgroup of patients base on renal function

P value	a	b	c
All patients (N=48)	< 0.001	0.001	0.375
Normal renal patients (N=26)	0.004	0.387	0.034
With normal blood pressure (N=5)	0.009	0.861	0.947
With high blood pressure (N=16)	0.127	0.191	0.414
With high blood pressure, other risk factors (e.g., DM, CAD) (N=5)	0.133	0.242	$
Renal insufficiency patients (N=22)	0.029	<0.001	0.637
With normal blood pressure (N=4)	0.258	0.154	0.611
With high blood pressure (N=15)	0.022	0.01	0.253
With high blood pressure, other risk factors (e.g., DM, CAD)(N=3)	0.423	0.122	$

a naproxen versus baseline

b celecoxib versus baseline

c celecoxib versus naproxen

$ not enough sample size to compare celecoxib with naproxen

Appendix M: The statistical levels of significance difference(P value) when comparing the mean CrCl observed between treatment in subgroup of patients based on blood pressure level

P value	a	b	c
Patients with normal blood pressure (N=9)	0.057	0.065	0.889
With normal renal (N=5)	0.092	0.266	0.228
With renal insufficiency (N=4)	0.104	0.062	0.593
Patients with high blood pressure (N=39)	< 0.001	< 0.001	0.424
With normal renal (N=16)	0.014	0.001	0.075
With normal renal , other risk factors (e.g., DM, CAD) (N=5)	0.023	0.16	$
With renal insufficiency (N=15)	0.002	0.041	0.075
With renal insufficiency, other risk factors (e.g., DM, CAD) (N=3)	0.451	0.127	$

a naproxen versus baseline

b celecoxib versus baseline

c celecoxib versus naproxen

$ not enough sample size to compare celecoxib with naproxen

Appendix N: The statistical levels of significance difference(P value) when comparing the mean Scr observed between treatment in subgroup of patients based on blood pressure level

P value	a	b	c
Patients with normal blood pressure level (N=9)	1	0.282	0.351
With normal renal (N=5)	1	0.405	0.839
With renal insufficiency (N=4)	0.391	0.444	0.232
Patients with high blood pressure level (N=39)	0.046	0.026	0.888
With normal renal (N=16)	0.027	1	0.743
With normal renal, other risk factors (e.g., DM, CAD) (N=5)	0.099	0.208	$
With renal insufficiency (N=15)	0.486	0.138	0.586
With renal insufficiency, other risk factors (e.g., DM, CAD) (N=3)	0.529	0.225	$

a naproxen versus baseline

b celecoxib versus baseline

c celecoxib versus naproxen

$ not enough sample size to compare celecoxib with naproxen

Appendix O: The statistical levels of significance difference (P value) when comparing the mean BUN observed between treatment in subgroup of patients based on blood pressure level

P value	a	b	c
Normal blood pressure level (N=9)	0.202	0.082	0.755
With normal renal (N=5)	0.009	0.861	0.947
With renal insufficiency (N=4)	0.258	0.154	0.611
High blood pressure level (N=39)	0.001	0.003	0.303
With normal renal (N=16)	0.127	0.191	0.414
With normal renal, other risk factors (e.g., DM, CAD) (N=5)	0.133	0.242	$
With renal insufficiency (N=15)	0.022	0.01	0.253
With renal insufficiency, other risk factors (e.g., DM, CAD) (N=3)	0.423	0.122	$

a naproxen versus baseline

b celecoxib versus baseline

c celecoxib versus naproxen

$ not enough sample size to compare celecoxib with naproxen

Appendix P: The statistical levels of significance difference (P value) when comparing the mean SBP observed between treatment in all patients and subgroup of patients

P value	a	b	c
All patients (N=48)	0.007	0.119	0.513
Normal blood pressure level (N=9)	0.663	0.936	0.827
High blood pressure level (N=39)	0.004	0.055	0.468
- No antihypertensive agents (N=9)	0.02	0.29	0.219
- Taking antihypertensive agents (N=30)	0.026	0.108	0.605

a naproxen versus baseline

b celecoxib versus baseline

c celecoxib versus naproxen

Appendix Q: The statistical levels of significance difference (P value) when comparing the mean DBP observed between treatment in all patients and subgroup of patients

P value	a	b	c
All patients (N=48)	0.444	0.388	0.221
Normal blood pressure level (N=9)	0.908	0.784	0.996
High blood pressure level (N=39)	0.384	0.412	0.167
- No antihypertensive agents (N=9)	0.501	0.057	0.118
- Taking antihypertensive agents (N=30)	0.509	0.847	0.451

a naproxen versus baseline

b celecoxib versus baseline

c celecoxib versus naproxen

Appendix R: The statistical levels of significance difference (P value) when comparing the mean MAP observed between treatment in all patients and subgroup of patients

P value	a	b	c
All patients (N=48)	0.466	0.255	0.569
Normal blood pressure level (N=9)	0.755	0.858	0.451
High blood pressure level (N=39)	0.519	0.199	0.982
- No antihypertensive agents (N=9)	0.608	0.356	0.396
- Taking antihypertensive agents (N=30)	0.644	0.124	0.802

a naproxen versus baseline

b celecoxib versus baseline

c celecoxib versus naproxen

Appendix S: The statistical levels of significance difference (P value) when comparing the mean electrolyte observed between treatment in all patients (N=48)

P value	a	b	c
Serum sodium	0.641	0.192	0.704
Serum potassium	0.15	0.069	0.572
Sodium excreted in urine	0.062	0.761	0.072
Potassium excreted in urine	0.05	0.093	0.477

a naproxen versus baseline

b celecoxib versus baseline

c celecoxib versus naproxen

Appendix T: The statistical levels of significance difference (P value) when comparing the adverse drug reactions observed between treatment in all patients (N=48)

P value	a	b	c
Abdominal pain	0.027	0.022	$
Dyspepsia	0.294	0.388	0.548
Heart burn	0.011	0.019	0.311
Diarrhea	0.307	1	0.147
Headache	1	0.313	0.311
Dizziness	0.041	0.313	0.072
Back pain	0.153	$	0.147
Rash	0.557	1	0.311
Ecchymosis	1	$	1
Shortness of breath	1	1	$
Decreased from baseline in Hct of ≥ 5%	0.132	0.737	0.058
Decreased from baseline in Hgb of > 1.5 g/dl	0.153	0.313	0.311

a celecoxib versus naproxen in all patients

b celecoxib versus naproxen in patients not taking omeprazole

c celecoxib versus naproxen in patients taking omeprazole

$ None of patients occurred this adverse effect

Appendix U: The statistical levels of significance difference (P value) when comparing the mean of primary outcomes observed after washout naproxen and celecoxib

P value	a	b
Creatinine clearance	0.108	0.627
Serum creatinine	0.845	0.067
Blood urea nitrogen	0.578	0.821
Systolic blood pressure	0.7	0.9
Diastolic blood pressure	0.084	0.299
Serum sodium	0.353	0.69
Serum potassium	0.737	0.157
Sodium excrete in urine	0.125	0.424
Potassium excrete in urine	0.911	0.688

a after wash out naproxen versus baseline (before treatment)

b after wash out celecoxib versus baseline (before treatment)

Appendix V: The statistical levels of significance difference (P value) when comparing the mean CrCl observed between treatment in hypertensive patients with normal renal function (N=16) and subgroup of this patients base on sex, uric acid level, concomittant medications and allpurinol use

P value		a	b	c
All hypertensive patients with normal renal function (N=16)		0.014	0.001	0.075
Sex	Male (N=8)	0.109	0.032	0.707
	Female (N=8)	0.079	0.01	0.119
Uric acid level	Patients with high uric acid level(uric acid > 7 mg/dl) (N = 6)	0.053	0.013	0.33
	Patients with normal uric acid level(uric acid ≤ 7 mg/dl) (N = 10)	0.118	0.022	0.175
Concomitant medications	Treated hypertension (N=13)	0.014	0.001	0.099
	Untreated hypertension (N=3)	0.418	0.38	$
Allopurinol use	Patients taking allopurinol (N = 7)	0.021	0.041	0.409
	Patients not taking allopurinol (N = 9)	0.185	0.01	0.143

a naproxen versus baseline (before treatment)

b celecoxib versus baseline (before treatment)

c naproxen versus celecoxib

$ not enough sample size to compare celecoxib with naproxen

Appendix W: The statistical levels of significance difference (P value) when comparing the mean Hgb and Hct observed between treatment in all patients (N=48)

P value	a	b	c
Hemoglobin (Hgb)	0.058	0.88	0.591
Hematocrit (Hct)	0.093	0.201	0.799

a naproxen versus baseline

b celecoxib versus baseline

c celecoxib versus naproxen

BIOGRAPHY

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