

Data Generated

Saturday, July 1, 2023 10:09 PM

ModelingComplexSystems.net
Collection: Model Construction
Title: Methodology
Section: Drug Levels Model.Preview.data generated

Program Title: Drug Levels
Created: 2023-01-02
Last Modified: 2023-03-05
Version: v2.1.7
Run Description: Total Drug Levels
Date: 2023-03-05
Time: 09:58

Model Parameters

runtime: 4 (weeks)
DT: 1 (hours/tick)
runlength: 672 (ticks)

Patient's Current Prescription

name: clonazepam
half-life: 35 hours
dose: 0.25 milligrams
frequency: 3x daily

Attribution:

Garrett A. Hughes
gah@ModelingComplexSystems.net

time (hours)	drug level (mg)	concentration (ng/ml)
0	0.000000	0.000000
0	0.250000	50.000000
1	0.245049	49.009790
2	0.240196	48.039190
3	0.235439	47.087812
4	0.230776	46.155275
5	0.226206	45.241207
6	0.221726	44.345240
7	0.217335	43.467018
8	0.213031	42.606188
8	0.463031	92.606188
9	0.453861	90.772197
10	0.444873	88.974525
11	0.436062	87.212456
12	0.427426	85.485282
13	0.418962	83.792314
14	0.410664	82.132874
15	0.402531	80.506298
16	0.394560	78.911934
16	0.644560	128.911934

17	0.631795	126.358936
18	0.619282	123.856498
19	0.607018	121.403618
20	0.594997	118.999316
21	0.583213	116.642629
22	0.571663	114.332615
23	0.560342	112.068348
24	0.549245	109.848924
24	0.799245	159.848924
25	0.783416	156.683243
26	0.767901	153.580256
27	0.752694	150.538721
28	0.737787	147.557421
29	0.723176	144.635164
30	0.708854	141.770779
31	0.694816	138.963122
32	0.681055	136.211067
32	0.931055	186.211067
33	0.912617	182.523305
34	0.894543	178.908576
35	0.876827	175.365434
36	0.859462	171.892461
37	0.842441	168.488267
38	0.825757	165.151491
39	0.809404	161.880797
40	0.793374	158.674877
40	1.043374	208.674877
41	1.022711	204.542237
42	1.002457	200.491440
43	0.982604	196.520867
44	0.963145	192.628927
45	0.944070	188.814064
46	0.925374	185.074752
47	0.907047	181.409493
48	0.889084	177.816823
48	1.139084	227.816823
49	1.116525	223.305092
50	1.094414	218.882712
51	1.072740	214.547914
52	1.051495	210.298963
53	1.030671	206.134159
54	1.010259	202.051836
55	0.990252	198.050360
56	0.970641	194.128130
56	1.220641	244.128130
57	1.196467	239.293366
58	1.172772	234.554351
59	1.149546	229.909189
60	1.126780	225.356020
61	1.104465	220.893023
62	1.082592	216.518412
63	1.061152	212.230437
64	1.040137	208.027382
64	1.290137	258.027382
65	1.264587	252.917355

66	1.239543	247.908528
67	1.214994	242.998896
68	1.190932	238.186496
69	1.167347	233.469402
70	1.144229	228.845726
71	1.121568	224.313619
72	1.099356	219.871266
72	1.349356	269.871266
73	1.322633	264.526680
74	1.296440	259.287939
75	1.270765	254.152948
76	1.245598	249.119650
77	1.220930	244.186034
78	1.196751	239.350123
79	1.173050	234.609985
80	1.149819	229.963720
80	1.399819	279.963720
81	1.372096	274.419261
82	1.344923	268.984606
83	1.318288	263.657580
84	1.292180	258.436051
85	1.266590	253.317930
86	1.241506	248.301170
87	1.216919	243.383763
88	1.192819	238.563741
88	1.442819	288.563741
89	1.414245	282.848965
90	1.386237	277.247366
91	1.358784	271.756703
92	1.331874	266.374777
93	1.305497	261.099436
94	1.279643	255.928570
95	1.254301	250.860108
96	1.229460	245.892023
96	1.479460	295.892023
97	1.450161	290.032116
98	1.421441	284.288261
99	1.393291	278.658158
100	1.365698	273.139554
101	1.338651	267.730243
102	1.312140	262.428058
103	1.286154	257.230879
104	1.260683	252.136626
104	1.510683	302.136626
105	1.480765	296.153050
106	1.451440	290.287974
107	1.422695	284.539052
108	1.394520	278.903982
109	1.366903	273.380510
110	1.339832	267.966427
111	1.313298	262.659564
112	1.287289	257.457801
112	1.537289	307.457801
113	1.506844	301.368843
114	1.477002	295.400473

115	1.447752	289.550301
116	1.419080	283.815988
117	1.390976	278.195238
118	1.363429	272.685802
119	1.336427	267.285476
120	1.309961	261.992100
120	1.559961	311.992100
121	1.529067	305.813344
122	1.498785	299.756954
123	1.469103	293.820506
124	1.440008	288.001624
125	1.411490	282.297981
126	1.383536	276.707294
127	1.356137	271.227326
128	1.329279	265.855884
128	1.579279	315.855884
129	1.548003	309.600610
130	1.517346	303.469216
131	1.487296	297.459249
132	1.457842	291.568305
133	1.428970	285.794027
134	1.400671	280.134103
135	1.372931	274.586270
136	1.345742	269.148307
136	1.595742	319.148307
137	1.564139	312.827828
138	1.533163	306.632522
139	1.502800	300.559909
140	1.473038	294.607558
141	1.443865	288.773090
142	1.415271	283.054168
143	1.387243	277.448506
144	1.359769	271.953858
144	1.609769	321.953858
145	1.577889	315.577818
146	1.546640	309.328050
147	1.516010	303.202054
148	1.485987	297.197379
149	1.456558	291.311621
150	1.427712	285.542426
151	1.399437	279.887485
152	1.371723	274.344536
152	1.621723	324.344536
153	1.589606	317.921150
154	1.558125	311.624974
155	1.527267	305.453489
156	1.497021	299.404226
157	1.467374	293.474763
158	1.438314	287.662729
159	1.409829	281.965797
160	1.381908	276.381688
160	1.631908	326.381688
161	1.599590	319.917958
162	1.567911	313.582238
163	1.536860	307.371991

164	1.506424	301.284733
165	1.476590	295.318028
166	1.447347	289.469489
167	1.418684	283.736776
168	1.390588	278.117595
168	1.640588	328.117595
169	1.608097	321.619487
170	1.576250	315.250068
171	1.545034	309.006791
172	1.514436	302.887157
173	1.484444	296.888718
174	1.455045	291.009073
175	1.426229	285.245869
176	1.397984	279.596802
176	1.647984	329.596802
177	1.615347	323.069399
178	1.583356	316.671266
179	1.551999	310.399844
180	1.521263	304.252622
181	1.491136	298.227140
182	1.461605	292.320989
183	1.432659	286.531804
184	1.404286	280.857269
184	1.654286	330.857269
185	1.621525	324.304904
186	1.589412	317.882303
187	1.557934	311.586897
188	1.527081	305.416166
189	1.496838	299.367642
190	1.467195	293.438903
191	1.438138	287.627579
192	1.409657	281.931344
192	1.659657	331.931344
193	1.626789	325.357707
194	1.594571	318.914256
195	1.562992	312.598413
196	1.532038	306.407650
197	1.501697	300.339490
198	1.471958	294.391505
199	1.442807	288.561315
200	1.414233	282.846588
200	1.664233	332.846588
201	1.631274	326.254826
202	1.598968	319.793608
203	1.567302	313.460350
204	1.536263	307.252517
205	1.505838	301.167625
206	1.476016	295.203240
207	1.446785	289.356974
208	1.418132	283.626489
208	1.668132	333.626489
209	1.635096	327.019282
210	1.602715	320.542925
211	1.570974	314.194827
212	1.539862	307.972448

213	1.509366	301.873299
214	1.479475	295.894938
215	1.450175	290.034974
216	1.421455	284.291062
216	1.671455	334.291062
217	1.638353	327.670693
218	1.605907	321.181435
219	1.574103	314.820692
220	1.542930	308.585919
221	1.512373	302.474620
222	1.482422	296.484350
223	1.453064	290.612713
224	1.424287	284.857360
224	1.674287	334.857360
225	1.641129	328.225776
226	1.608628	321.725525
227	1.576770	315.354007
228	1.545543	309.108671
229	1.514935	302.987020
230	1.484933	296.986603
231	1.455525	291.105019
232	1.426700	285.339916
232	1.676700	335.339916
233	1.643494	328.698775
234	1.610946	322.189157
235	1.579042	315.808457
236	1.547771	309.554122
237	1.517118	303.423648
238	1.487073	297.414584
239	1.457623	291.524525
240	1.428756	285.751113
240	1.678756	335.751113
241	1.645509	329.101829
242	1.612921	322.584229
243	1.580979	316.195705
244	1.549669	309.933700
245	1.518979	303.795710
246	1.488896	297.779277
247	1.459410	291.881995
248	1.430508	286.101504
248	1.680508	336.101504
249	1.647226	329.445281
250	1.614604	322.920879
251	1.582628	316.525688
252	1.551286	310.257148
253	1.520564	304.112752
254	1.490450	298.090041
255	1.460933	292.186604
256	1.432000	286.400081
256	1.682000	336.400081
257	1.648690	329.737945
258	1.616039	323.207747
259	1.584034	316.806874
260	1.552664	310.532766
261	1.521915	304.382911

262	1.491774	298.354850
263	1.462231	292.446169
264	1.433273	286.654505
264	1.683273	336.654505
265	1.649937	329.987330
266	1.617261	323.452193
267	1.585232	317.046480
268	1.553838	310.767626
269	1.523066	304.613120
270	1.492902	298.580500
271	1.463337	292.667350
272	1.434357	286.871306
272	1.684357	336.871306
273	1.650999	330.199838
274	1.618302	323.660492
275	1.586253	317.250653
276	1.554839	310.967756
277	1.524046	304.809287
278	1.493864	298.772781
279	1.464279	292.855824
280	1.435280	287.056047
280	1.685280	337.056047
281	1.651905	330.380920
282	1.619190	323.837989
283	1.587123	317.424635
284	1.555691	311.138292
285	1.524882	304.976445
286	1.494683	298.936629
287	1.465082	293.016427
288	1.436067	287.213470
288	1.686067	337.213470
289	1.652676	330.535225
290	1.619946	323.989237
291	1.587864	317.572888
292	1.556418	311.283609
293	1.525594	305.118885
294	1.495381	299.076248
295	1.465766	293.153281
296	1.436738	287.347613
296	1.686738	337.347613
297	1.653334	330.666712
298	1.620591	324.118120
299	1.588496	317.699218
300	1.557037	311.407438
301	1.526201	305.240261
302	1.495976	299.195220
303	1.466349	293.269897
304	1.437310	287.461920
304	1.687310	337.461920
305	1.653894	330.778755
306	1.621140	324.227944
307	1.589034	317.806868
308	1.557565	311.512955
309	1.526718	305.343689
310	1.496483	299.296600

311	1.466846	293.369268
312	1.437797	287.559323
312	1.687797	337.559323
313	1.654371	330.874229
314	1.621608	324.321528
315	1.589493	317.898598
316	1.558014	311.602869
317	1.527159	305.431822
318	1.496915	299.382987
319	1.467270	293.453945
320	1.438212	287.642323
320	1.688212	337.642323
321	1.654778	330.955585
322	1.622006	324.401273
323	1.589884	317.976763
324	1.558397	311.679486
325	1.527535	305.506922
326	1.497283	299.456600
327	1.467631	293.526100
328	1.438565	287.713049
328	1.688565	337.713049
329	1.655125	331.024911
330	1.622346	324.469225
331	1.590217	318.043370
332	1.558724	311.744774
333	1.527855	305.570917
334	1.497597	299.519328
335	1.467938	293.587585
336	1.438867	287.773317
336	1.688867	337.773317
337	1.655420	331.083984
338	1.622636	324.527129
339	1.590501	318.100127
340	1.559002	311.800407
341	1.528127	305.625448
342	1.497864	299.572779
343	1.468200	293.639978
344	1.439123	287.824672
344	1.689123	337.824672
345	1.655672	331.134323
346	1.622882	324.576471
347	1.590742	318.148492
348	1.559239	311.847814
349	1.528360	305.671916
350	1.498092	299.618326
351	1.468423	293.684623
352	1.439342	287.868433
352	1.689342	337.868433
353	1.655886	331.177217
354	1.623093	324.618516
355	1.590949	318.189704
356	1.559441	311.888210
357	1.528558	305.711512
358	1.498286	299.657138
359	1.468613	293.722667

360	1.439529	287.905723
360	1.689529	337.905723
361	1.656069	331.213769
362	1.623272	324.654343
363	1.591124	318.224822
364	1.559613	311.922632
365	1.528726	305.745252
366	1.498451	299.690211
367	1.468775	293.755084
368	1.439687	287.937498
368	1.689687	337.937498
369	1.656225	331.244915
370	1.623424	324.684873
371	1.591274	318.254747
372	1.559760	311.951964
373	1.528870	305.774004
374	1.498592	299.718393
375	1.468914	293.782708
376	1.439823	287.964575
376	1.689823	337.964575
377	1.656357	331.271455
378	1.623554	324.710887
379	1.591401	318.280246
380	1.559885	311.976959
381	1.528993	305.798503
382	1.498712	299.742407
383	1.469031	293.806247
384	1.439938	287.987648
384	1.689938	337.987648
385	1.656470	331.294071
386	1.623665	324.733055
387	1.591510	318.301975
388	1.559991	311.998258
389	1.529097	305.819380
390	1.498814	299.762870
391	1.469132	293.826305
392	1.440037	288.007309
392	1.690037	338.007309
393	1.656567	331.313342
394	1.623760	324.751945
395	1.591602	318.320491
396	1.560082	312.016407
397	1.529186	305.837170
398	1.498902	299.780308
399	1.469217	293.843397
400	1.440120	288.024062
400	1.690120	338.024062
401	1.656649	331.329764
402	1.623840	324.768042
403	1.591681	318.336269
404	1.560159	312.031872
405	1.529262	305.852329
406	1.498976	299.795166
407	1.469290	293.857961
408	1.440192	288.038338

408	1.690192	338.038338
409	1.656719	331.343757
410	1.623909	324.781758
411	1.591749	318.349713
412	1.560225	312.045050
413	1.529326	305.865246
414	1.499039	299.807828
415	1.469352	293.870372
416	1.440253	288.050503
416	1.690253	338.050503
417	1.656778	331.355681
418	1.623967	324.793446
419	1.591806	318.361169
420	1.560281	312.056280
421	1.529381	305.876253
422	1.499093	299.818617
423	1.469405	293.880948
424	1.440304	288.060869
424	1.690304	338.060869
425	1.656829	331.365842
426	1.624017	324.803405
427	1.591855	318.370932
428	1.560329	312.065849
429	1.529428	305.885632
430	1.499139	299.827811
431	1.469450	293.889959
432	1.440349	288.069702
432	1.690349	338.069702
433	1.656873	331.374500
434	1.624059	324.811892
435	1.591896	318.379250
436	1.560370	312.074002
437	1.529468	305.893625
438	1.499178	299.835645
439	1.469488	293.897638
440	1.440386	288.077229
440	1.690386	338.077229
441	1.656909	331.381878
442	1.624096	324.819123
443	1.591932	318.386339
444	1.560405	312.080951
445	1.529502	305.900435
446	1.499212	299.842320
447	1.469521	293.904182
448	1.440418	288.083643
448	1.690418	338.083643
449	1.656941	331.388165
450	1.624126	324.825286
451	1.591962	318.392379
452	1.560434	312.086871
453	1.529531	305.906239
454	1.499240	299.848009
455	1.469549	293.909757
456	1.440446	288.089108
456	1.690446	338.089108

457	1.656968	331.393522
458	1.624153	324.830537
459	1.591988	318.397526
460	1.560460	312.091916
461	1.529556	305.911184
462	1.499264	299.852856
463	1.469573	293.914509
464	1.440469	288.093765
464	1.690469	338.093765
465	1.656990	331.398087
466	1.624175	324.835011
467	1.592010	318.401912
468	1.560481	312.096215
469	1.529577	305.915398
470	1.499285	299.856987
471	1.469593	293.918557
472	1.440489	288.097734
472	1.690489	338.097734
473	1.657010	331.401977
474	1.624194	324.838824
475	1.592028	318.405650
476	1.560499	312.099879
477	1.529595	305.918989
478	1.499303	299.860506
479	1.469610	293.922007
480	1.440506	288.101116
480	1.690506	338.101116
481	1.657026	331.405292
482	1.624210	324.842073
483	1.592044	318.408834
484	1.560515	312.103000
485	1.529610	305.922049
486	1.499318	299.863506
487	1.469625	293.924947
488	1.440520	288.103997
488	1.690520	338.103997
489	1.657041	331.408116
490	1.624224	324.844842
491	1.592058	318.411548
492	1.560528	312.105660
493	1.529623	305.924656
494	1.499330	299.866061
495	1.469637	293.927452
496	1.440532	288.106453
496	1.690532	338.106453
497	1.657053	331.410523
498	1.624236	324.847201
499	1.592069	318.413861
500	1.560540	312.107927
501	1.529634	305.926878
502	1.499341	299.868239
503	1.469648	293.929587
504	1.440543	288.108545
504	1.690543	338.108545
505	1.657063	331.412574

506	1.624246	324.849212
507	1.592079	318.415831
508	1.560549	312.109859
509	1.529644	305.928771
510	1.499350	299.870095
511	1.469657	293.931406
512	1.440552	288.110328
512	1.690552	338.110328
513	1.657072	331.414322
514	1.624255	324.850925
515	1.592088	318.417510
516	1.560558	312.111504
517	1.529652	305.930384
518	1.499358	299.871676
519	1.469665	293.932956
520	1.440559	288.111847
520	1.690559	338.111847
521	1.657079	331.415811
522	1.624262	324.852384
523	1.592095	318.418941
524	1.560565	312.112907
525	1.529659	305.931759
526	1.499365	299.873024
527	1.469671	293.934277
528	1.440566	288.113142
528	1.690566	338.113142
529	1.657085	331.417080
530	1.624268	324.853628
531	1.592101	318.420160
532	1.560571	312.114102
533	1.529665	305.932930
534	1.499371	299.874172
535	1.469677	293.935402
536	1.440571	288.114245
536	1.690571	338.114245
537	1.657091	331.418161
538	1.624273	324.854688
539	1.592106	318.421199
540	1.560576	312.115120
541	1.529670	305.933929
542	1.499376	299.875150
543	1.469682	293.936361
544	1.440576	288.115185
544	1.690576	338.115185
545	1.657095	331.419083
546	1.624278	324.855591
547	1.592110	318.422084
548	1.560580	312.115988
549	1.529674	305.934779
550	1.499380	299.875984
551	1.469686	293.937178
552	1.440580	288.115986
552	1.690580	338.115986
553	1.657099	331.419868
554	1.624282	324.856361

555	1.592114	318.422839
556	1.560584	312.116728
557	1.529678	305.935504
558	1.499383	299.876694
559	1.469689	293.937875
560	1.440583	288.116669
560	1.690583	338.116669
561	1.657103	331.420537
562	1.624285	324.857017
563	1.592117	318.423482
564	1.560587	312.117358
565	1.529681	305.936122
566	1.499386	299.877300
567	1.469692	293.938468
568	1.440586	288.117251
568	1.690586	338.117251
569	1.657106	331.421107
570	1.624288	324.857576
571	1.592120	318.424029
572	1.560589	312.117895
573	1.529683	305.936648
574	1.499389	299.877816
575	1.469695	293.938974
576	1.440589	288.117746
576	1.690589	338.117746
577	1.657108	331.421593
578	1.624290	324.858052
579	1.592122	318.424496
580	1.560592	312.118352
581	1.529685	305.937096
582	1.499391	299.878255
583	1.469697	293.939405
584	1.440591	288.118169
584	1.690591	338.118169
585	1.657110	331.422007
586	1.624292	324.858458
587	1.592124	318.424894
588	1.560594	312.118742
589	1.529687	305.937478
590	1.499393	299.878630
591	1.469699	293.939772
592	1.440593	288.118528
592	1.690593	338.118528
593	1.657112	331.422360
594	1.624294	324.858803
595	1.592126	318.425233
596	1.560595	312.119074
597	1.529689	305.937804
598	1.499395	299.878949
599	1.469700	293.940085
600	1.440594	288.118835
600	1.690594	338.118835
601	1.657113	331.422660
602	1.624295	324.859098
603	1.592128	318.425522

604	1.560597	312.119357
605	1.529690	305.938082
606	1.499396	299.879221
607	1.469702	293.940351
608	1.440595	288.119096
608	1.690595	338.119096
609	1.657115	331.422916
610	1.624297	324.859349
611	1.592129	318.425768
612	1.560598	312.119599
613	1.529692	305.938318
614	1.499397	299.879453
615	1.469703	293.940579
616	1.440597	288.119319
616	1.690597	338.119319
617	1.657116	331.423135
618	1.624298	324.859563
619	1.592130	318.425978
620	1.560599	312.119804
621	1.529693	305.938519
622	1.499398	299.879650
623	1.469704	293.940772
624	1.440598	288.119509
624	1.690598	338.119509
625	1.657117	331.423321
626	1.624299	324.859745
627	1.592131	318.426156
628	1.560600	312.119979
629	1.529693	305.938691
630	1.499399	299.879819
631	1.469705	293.940937
632	1.440598	288.119671
632	1.690598	338.119671
633	1.657117	331.423479
634	1.624300	324.859901
635	1.592132	318.426308
636	1.560601	312.120129
637	1.529694	305.938837
638	1.499400	299.879962
639	1.469705	293.941078
640	1.440599	288.119808
640	1.690599	338.119808
641	1.657118	331.423614
642	1.624300	324.860033
643	1.592132	318.426438
644	1.560601	312.120256
645	1.529695	305.938962
646	1.499400	299.880084
647	1.469706	293.941197
648	1.440600	288.119926
648	1.690600	338.119926
649	1.657119	331.423729
650	1.624301	324.860146
651	1.592133	318.426549
652	1.560602	312.120364

653	1.529695	305.939068
654	1.499401	299.880188
655	1.469706	293.941300
656	1.440600	288.120026
656	1.690600	338.120026
657	1.657119	331.423827
658	1.624301	324.860242
659	1.592133	318.426643
660	1.560602	312.120456
661	1.529696	305.939159
662	1.499401	299.880277
663	1.469707	293.941387
664	1.440601	288.120111
664	1.690601	338.120111
665	1.657120	331.423911
666	1.624302	324.860324
667	1.592134	318.426723
668	1.560603	312.120535
669	1.529696	305.939236
670	1.499402	299.880353
671	1.469707	293.941461