



คู่มือปรับขนาดการใช้ยาตามการทำงานของไต

Dose adjustment in renal impairment

รายชื่อยาที่ต้องปรับขนาดการใช้ยาตามการทำงานของไต

CrCl (ml/min)	ยาที่ต้องทำการปรับขนาดยา
< 90	Colistin, Tetracycline
< 60	Amikacin, Gentamicin, Streptomycin, Kanamycin, Tobramycin (Once-daily aminoglycosides)
< 50	Acyclovir, Allopurinol, Amoxicillin, Ampicillin, Atenolol, Bactrim, Cefazolin, Cefepime, Cefotaxime, Ceftazidime, Ciprofloxacin, Clarithromycin, Colchicine, Diclofenac, Didanosine, Doripenem, Enalapril, Ertapenem, Ethambutol, Fluconazole, Gabapentin, Glibenclamide, Glipizide, Imipenem, Insulin, Lamivudine, Levofloxacin, Meropenem, Metformin, Penicillin G, Piperacillin, Quinine, Ranitidine, Rifampicin, Stavudne, Tenofovir, Vancomycin
< 30	Enoxaparin, Oseltamivir
< 10	Metronidazole, Penicillin V, Pyrazinamide, Zidovudine

ขนาดการให้ยาตามการทำงานของไต

Once-daily Aminoglycosides

Drug	Creatinine Clearance (ml/min)						
	> 80	60 – 80	40 – 60	30 – 40	20 – 30	10 – 20	< 10
	Dose q 24 hr (mg/kg)				Dose q 48 hr (mg/kg)		Dose q 72 hr
Gentamicin/ Tobramycin ¹	5.1	4	3.5	2.5	4	3	2
Amikacin/ Streptomycin ¹	15	12	7.5	4	7.5	4	3

Antimicrobials

Drug	Normal Half life (hr)	Normal dose	Method	Adjustment for renal failure Estimated CrCl (ml/min)		
				> 50 – 90	10 – 50	< 10
Acyclovir ¹	2 – 4	5 – 12.4 mg/kg q 8 hr	D&I	Normal	100% q 12 – 24 hr	50% q 24 hr
Amoxicillin/Clavulanate ¹	1.3/ 5 – 20	500/125 mg q 8 hr	D&I	Normal	250 – 500 mg AM q 12 hr	250 – 500 mg AM q 24 hr
Ampicillin ¹	1.0	250 mg – 2 g q 6 hr	I	Normal	q 6 – 12 hr	q 12 – 24 hr
Bactrim (based on TMP) ¹	11	5 – 20 mg/kg/day divided q 6 – 12 hr	D	Normal	30 – 50 : 5 – 7.5 mg/kg q 8 hr 10 – 29 : 5 – 10 mg/kg q 12 hr	5 – 10 mg/kg q 24 hr (Not recommended)
Cefazolin ¹	1.9	1 – 2 g q 8 hr	I	Normal	q 12 hr	Q 24 – 48 hr
Cefepime ¹	2.2	2 g q 8 hr	D&I	Normal	2 g q 12–24hr	1 g q 24 hr
Cefotaxime ¹	1.7	2 g q 8 hr	I	q 8 – 12 hr	q 12 – 24 hr	q 24 hr
Ceftazidime ¹	1.2	2 g q 8 hr	I	q 8 – 12 hr	q 12 – 24 hr	q 24 hr
Ciprofloxacin ¹	3 – 6	500 – 750 PO q 12 hr	D	Normal	50 – 75%	50%
Clarithromycin ¹	5 – 7	0.5 – 1 g PO q 12 hr	D	Normal	50 – 75%	50%
Didanosine ¹	0.6– 1.6	250 – 400 mg q 24 hr	D	Normal	30 – 59 : 150 – 200 mg 10 – 29 : 100 – 150 mg	75 – 100 mg
Doripenem ¹	1	500 mg q 8 hr	D&I	Normal	30 – 50 : 250 q 8 hr 10 – 30 : 250 q 12 hr	No data

Antimicrobials (ต่อ)

Drug	Normal Half life (hr)	Normal dose	Method	Adjustment for renal failure Estimated CrCl (ml/min)		
				> 50 – 90	10 – 50	< 10
Ertapenem ¹	4	1 g q 24 hr	D	Normal	< 30 : 0.5 g q 24 hr	0.5 g q 24 hr
Ethambutol ¹	4	15 – 25 mg/kg q 24 hr	I	Normal	q 24 – 36 hr	q 48 hr
Fluconazole ¹	37	100 – 400 mg q 24 hr	D	Normal	50%	50%
Imipenem ¹	1	0.5 g q 6 hr	D&I	Normal	250 mg q 6 – 12 hr	125 – 250 mg q 12 hr
Lamivudine ¹	5 – 7	300 mg q 24 hr	D&I	Normal	50 – 150 mg q 24 hr	25 – 50 mg q 24 hr
Levofloxacin ¹	6 – 8	750 mg q 24 hr	D&I	Normal	20 – 49 : 750 mg q 48 hr	< 20 : 750 mg once then 500 mg q 48 hr
Meropenem ¹	1	1 g q 8 hr	D&I	Normal	1 g q 12 hr	0.5 g q 24 hr
Metronidazole ¹	6 – 14	7.5 mg/kg q 6 hr	D	Normal	Normal	50%
Oseltamivir ¹	6 – 10	75 mg PO BID	I	Normal	< 30 : OD	No data
Penicillin G ¹	0.5	0.5 – 4 MU q 4 hr	D	Normal	75%	20 – 50%
Penicillin V ²	0.5	250 – 500 mg q 6 hr	I	Normal	Normal	q 8 hr
Piperacillin ¹	1	3 – 4 g q 4 – 6 hr	I	Normal	q 6 – 8 hr	q 8 hr
Pyrazinamide ¹	9	25 mg/kg q 24 hr	D	Normal	Normal	50 – 100%
Quinine ¹	5 – 16	650 mg q 8 hr	I	Normal	q 8 – 12 hr	q 24 hr
Rifampicin ¹	1.5 – 5	600 mg/day	D	Normal	50 – 100%	50 – 100%
Stavudine ¹	1 – 1.4	30 mg q 12 hr	D&I	Normal	50% q 12–24hr	>60 kg: 20 mg/day <60 kg: 15 mg/day
Tenofovir ¹	17	300 mg q 24 hr	I	Normal	30–49: 300 mg q48h 10–29: 300 mg q72–96h	No data
Vancomycin ¹	6	1 g q 12 hr	D&I	Normal	q 24 – 96 hr	q 4 – 7 day
Zidovudine ¹	1.1 – 1.4	300 mg q 12 hr	D&I	Normal	Normal	100 mg q 8 hr
Colistine ¹	< 6	80 – 160 mg q 8 hr	D	160 mg q 12 hr	160 mg q 24 hr	160 mg q 36 hr
Tetracycline ¹	6 – 10	250 – 500 mg QID	I	q 8–12 hr	q 12–24 hr	q 24 hr

Other drugs

Drug	%Excreted Renally	Normal dose	Adjustment for renal failure		
			Estimated CrCl (ml/min)		
			> 50	10 – 50	< 10
Allopurinol ²	30%	300 mg q 24 hr	75%	50%	25%
Atenolol ²	90%	25 mg/day (starting dose)	100%	75%	50%
Colchicine ²	5 – 17%	0.6 – 1.2 mg q 24 hr	100%	50 – 100%	25%
Diclofenac ²	< 1%	25 – 75 mg TID	50 – 100%	25 – 50%	25%
Enalapril ²	45%	5 mg/day (starting dose)	100%	75%	50%
Enoxaparin ³	8%	30 mg or 1 mg/kg q 12 hr	100%	< 30 : q 24 hr	
Gabapentin ²	77%	150 mg TID (starting dose)	100%	50%	25%
Glibenclamide ²	50%	2.5 mg/day (starting dose)	100%	50%	Avoid
Glipizide ²	5%	5 mg/day (starting dose)	100%	50%	50%
Insulin ²	-	Variable	100%	75%	50%
Metformin ²	95%	500 mg/day (starting dose)	100%	Avoid	
Ranitidine oral ^{2,4}	80%	150 mg BID	100%	< 50 : 150 mg OD	
Ranitidine IV ^{2,4}	80%	50 mg q 8 hr	100%	< 50 : q 18 – 24 hr	

เอกสารอ้างอิง

1. The Sanford Guide to Antimicrobial Therapy 2010.
2. Pharmacologic approach to renal insufficiency: ACP medicine 2007.
3. http://www.globalrph.com/enoxaparin_renal.htm
4. Micromedex Healthcare Series [Internet database]. Greenwood Village, Colo: Thomson Reuters (Healthcare) Inc.

ตารางช่วยคำนวณค่า Creatinine Clearance โดยใช้สูตร MDRD (ผู้ชายที่มีค่า Scr = 1.3 – 3.0)

Age\Scr	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3
35	67	61	57	53	49	46	43	41	38	36	35	33	31	30	29	28	26	25
36	66	61	56	52	49	46	43	40	38	36	34	33	31	30	29	27	26	25
37	66	61	56	52	48	45	43	40	38	36	34	33	31	30	28	27	26	25
38	66	60	56	52	48	45	42	40	38	36	34	32	31	30	28	27	26	25
39	65	60	55	51	48	45	42	40	38	36	34	32	31	29	28	27	26	25
40	65	60	55	51	48	45	42	40	37	35	34	32	31	29	28	27	26	25
41	65	59	55	51	47	44	42	39	37	35	33	32	30	29	28	27	26	25
42	64	59	55	51	47	44	42	39	37	35	33	32	30	29	28	27	25	25
43	64	59	54	50	47	44	41	39	37	35	33	32	30	29	28	26	25	24
44	64	59	54	50	47	44	41	39	37	35	33	31	30	29	27	26	25	24
45	63	58	54	50	47	44	41	39	36	35	33	31	30	29	27	26	25	24
46	63	58	54	50	46	43	41	38	36	34	33	31	30	28	27	26	25	24
47	63	58	53	49	46	43	41	38	36	34	33	31	30	28	27	26	25	24
48	63	57	53	49	46	43	40	38	36	34	32	31	29	28	27	26	25	24
49	62	57	53	49	46	43	40	38	36	34	32	31	29	28	27	26	25	24
50	62	57	53	49	46	43	40	38	36	34	32	31	29	28	27	26	25	24
51	62	57	52	49	45	42	40	38	36	34	32	30	29	28	27	26	25	24
52	62	57	52	48	45	42	40	37	35	34	32	30	29	28	27	25	24	23
53	61	56	52	48	45	42	40	37	35	33	32	30	29	28	26	25	24	23
54	61	56	52	48	45	42	39	37	35	33	32	30	29	27	26	25	24	23
55	61	56	52	48	45	42	39	37	35	33	32	30	29	27	26	25	24	23
56	61	56	51	48	45	42	39	37	35	33	31	30	29	27	26	25	24	23
57	60	56	51	48	44	42	39	37	35	33	31	30	28	27	26	25	24	23
58	60	55	51	47	44	41	39	37	35	33	31	30	28	27	26	25	24	23
59	60	55	51	47	44	41	39	37	35	33	31	30	28	27	26	25	24	23
60	60	55	51	47	44	41	39	36	34	33	31	29	28	27	26	25	24	23
61	60	55	51	47	44	41	38	36	34	33	31	29	28	27	26	25	24	23
62	59	55	50	47	44	41	38	36	34	32	31	29	28	27	26	25	24	23
63	59	54	50	47	43	41	38	36	34	32	31	29	28	27	25	24	23	23
64	59	54	50	46	43	41	38	36	34	32	31	29	28	27	25	24	23	23
65	59	54	50	46	43	40	38	36	34	32	30	29	28	26	25	24	23	22

ตารางช่วยคำนวณค่า Creatinine Clearance โดยใช้สูตร MDRD (ผู้ป่วยที่มีค่า Scr = 1.3 – 3.0)

Age\Scr	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3
66	59	54	50	46	43	40	38	36	34	32	30	29	28	26	25	24	23	22
67	59	54	50	46	43	40	38	36	34	32	30	29	28	26	25	24	23	22
68	58	54	49	46	43	40	38	35	34	32	30	29	27	26	25	24	23	22
69	58	53	49	46	43	40	38	35	33	32	30	29	27	26	25	24	23	22
70	58	53	49	46	43	40	37	35	33	32	30	29	27	26	25	24	23	22
71	58	53	49	46	42	40	37	35	33	32	30	29	27	26	25	24	23	22
72	58	53	49	45	42	40	37	35	33	31	30	28	27	26	25	24	23	22
73	58	53	49	45	42	40	37	35	33	31	30	28	27	26	25	24	23	22
74	57	53	49	45	42	39	37	35	33	31	30	28	27	26	25	24	23	22
75	57	53	48	45	42	39	37	35	33	31	30	28	27	26	25	24	23	22
76	57	52	48	45	42	39	37	35	33	31	30	28	27	26	25	24	23	22
77	57	52	48	45	42	39	37	35	33	31	29	28	27	26	24	23	23	22
78	57	52	48	45	42	39	37	35	33	31	29	28	27	25	24	23	22	22
79	57	52	48	45	42	39	37	34	33	31	29	28	27	25	24	23	22	22
80	56	52	48	44	41	39	36	34	32	31	29	28	27	25	24	23	22	22
81	56	52	48	44	41	39	36	34	32	31	29	28	26	25	24	23	22	21
82	56	52	48	44	41	39	36	34	32	31	29	28	26	25	24	23	22	21
83	56	51	48	44	41	38	36	34	32	31	29	28	26	25	24	23	22	21
84	56	51	47	44	41	38	36	34	32	30	29	28	26	25	24	23	22	21
85	56	51	47	44	41	38	36	34	32	30	29	27	26	25	24	23	22	21
86	56	51	47	44	41	38	36	34	32	30	29	27	26	25	24	23	22	21
87	56	51	47	44	41	38	36	34	32	30	29	27	26	25	24	23	22	21
88	55	51	47	44	41	38	36	34	32	30	29	27	26	25	24	23	22	21
89	55	51	47	43	41	38	36	34	32	30	29	27	26	25	24	23	22	21
90	55	51	47	43	40	38	36	34	32	30	29	27	26	25	24	23	22	21
91	55	50	47	43	40	38	35	33	32	30	28	27	26	25	24	23	22	21
92	55	50	47	43	40	38	35	33	32	30	28	27	26	25	24	23	22	21
93	55	50	46	43	40	38	35	33	31	30	28	27	26	25	24	23	22	21
94	55	50	46	43	40	38	35	33	31	30	28	27	26	25	24	23	22	21
95	55	50	46	43	40	37	35	33	31	30	28	27	26	24	23	22	22	21

ตารางช่วยคำนวณค่า Creatinine Clearance โดยใช้สูตร MDRD (ผู้ป่วยที่มีค่า Scr = 3.1 – 5.0)

Age\Scr	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0
35	24	24	23	22	21	21	20	19	19	18	18	17	17	16	16	16	15	15	14	14
36	24	23	23	22	21	20	20	19	19	18	18	17	17	16	16	15	15	15	14	14
37	24	23	23	22	21	20	20	19	19	18	18	17	17	16	16	15	15	15	14	14
38	24	23	22	22	21	20	20	19	18	18	17	17	17	16	16	15	15	15	14	14
39	24	23	22	22	21	20	20	19	18	18	17	17	16	16	16	15	15	14	14	14
40	24	23	22	21	21	20	19	19	18	18	17	17	16	16	16	15	15	14	14	14
41	24	23	22	21	21	20	19	19	18	18	17	17	16	16	15	15	15	14	14	14
42	24	23	22	21	21	20	19	19	18	18	17	17	16	16	15	15	15	14	14	14
43	23	23	22	21	20	20	19	19	18	18	17	17	16	16	15	15	15	14	14	14
44	23	23	22	21	20	20	19	18	18	17	17	16	16	16	15	15	14	14	14	13
45	23	22	22	21	20	20	19	18	18	17	17	16	16	16	15	15	14	14	14	13
46	23	22	22	21	20	19	19	18	18	17	17	16	16	15	15	15	14	14	14	13
47	23	22	21	21	20	19	19	18	18	17	17	16	16	15	15	15	14	14	14	13
48	23	22	21	21	20	19	19	18	18	17	17	16	16	15	15	15	14	14	14	13
49	23	22	21	21	20	19	19	18	18	17	17	16	16	15	15	15	14	14	13	13
50	23	22	21	20	20	19	19	18	17	17	16	16	16	15	15	14	14	14	13	13
51	23	22	21	20	20	19	18	18	17	17	16	16	16	15	15	14	14	14	13	13
52	23	22	21	20	20	19	18	18	17	17	16	16	15	15	15	14	14	14	13	13
53	23	22	21	20	20	19	18	18	17	17	16	16	15	15	15	14	14	14	13	13
54	22	22	21	20	19	19	18	18	17	17	16	16	15	15	15	14	14	14	13	13
55	22	22	21	20	19	19	18	18	17	17	16	16	15	15	15	14	14	13	13	13
56	22	21	21	20	19	19	18	18	17	17	16	16	15	15	14	14	14	13	13	13
57	22	21	21	20	19	19	18	18	17	17	16	16	15	15	14	14	14	13	13	13
58	22	21	21	20	19	19	18	17	17	16	16	16	15	15	14	14	14	13	13	13
59	22	21	20	20	19	19	18	17	17	16	16	16	15	15	14	14	14	13	13	13
60	22	21	20	20	19	18	18	17	17	16	16	15	15	15	14	14	14	13	13	13
61	22	21	20	20	19	18	18	17	17	16	16	15	15	15	14	14	14	13	13	13
62	22	21	20	20	19	18	18	17	17	16	16	15	15	15	14	14	13	13	13	13
63	22	21	20	20	19	18	18	17	17	16	16	15	15	15	14	14	13	13	13	13
64	22	21	20	19	19	18	18	17	17	16	16	15	15	14	14	14	13	13	13	12
65	22	21	20	19	19	18	18	17	17	16	16	15	15	14	14	14	13	13	13	12

ตารางช่วยคำนวณค่า Creatinine Clearance โดยใช้สูตร MDRD (ผู้ป่วยที่มีค่า Scr = 3.1 – 5.0)

Age\Scr	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0
66	22	21	20	19	19	18	18	17	17	16	16	15	15	14	14	14	13	13	13	12
67	21	21	20	19	19	18	18	17	16	16	16	15	15	14	14	14	13	13	13	12
68	21	21	20	19	19	18	17	17	16	16	16	15	15	14	14	14	13	13	13	12
69	21	21	20	19	19	18	17	17	16	16	15	15	15	14	14	14	13	13	13	12
70	21	21	20	19	18	18	17	17	16	16	15	15	15	14	14	13	13	13	13	12
71	21	20	20	19	18	18	17	17	16	16	15	15	15	14	14	13	13	13	13	12
72	21	20	20	19	18	18	17	17	16	16	15	15	15	14	14	13	13	13	12	12
73	21	20	20	19	18	18	17	17	16	16	15	15	14	14	14	13	13	13	12	12
74	21	20	20	19	18	18	17	17	16	16	15	15	14	14	14	13	13	13	12	12
75	21	20	20	19	18	18	17	17	16	16	15	15	14	14	14	13	13	13	12	12
76	21	20	19	19	18	18	17	17	16	16	15	15	14	14	14	13	13	13	12	12
77	21	20	19	19	18	18	17	17	16	16	15	15	14	14	14	13	13	13	12	12
78	21	20	19	19	18	18	17	16	16	16	15	15	14	14	14	13	13	13	12	12
79	21	20	19	19	18	17	17	16	16	15	15	15	14	14	14	13	13	13	12	12
80	21	20	19	19	18	17	17	16	16	15	15	15	14	14	13	13	13	13	12	12
81	21	20	19	19	18	17	17	16	16	15	15	15	14	14	13	13	13	12	12	12
82	21	20	19	19	18	17	17	16	16	15	15	15	14	14	13	13	13	12	12	12
83	21	20	19	18	18	17	17	16	16	15	15	14	14	14	13	13	13	12	12	12
84	21	20	19	18	18	17	17	16	16	15	15	14	14	14	13	13	13	12	12	12
85	20	20	19	18	18	17	17	16	16	15	15	14	14	14	13	13	13	12	12	12
86	20	20	19	18	18	17	17	16	16	15	15	14	14	14	13	13	13	12	12	12
87	20	20	19	18	18	17	17	16	16	15	15	14	14	14	13	13	13	12	12	12
88	20	20	19	18	18	17	17	16	16	15	15	14	14	14	13	13	13	12	12	12
89	20	20	19	18	18	17	17	16	16	15	15	14	14	14	13	13	13	12	12	12
90	20	19	19	18	18	17	16	16	16	15	15	14	14	13	13	13	13	12	12	12
91	20	19	19	18	18	17	16	16	15	15	15	14	14	13	13	13	12	12	12	12
92	20	19	19	18	17	17	16	16	15	15	15	14	14	13	13	13	12	12	12	12
93	20	19	19	18	17	17	16	16	15	15	15	14	14	13	13	13	12	12	12	12
94	20	19	19	18	17	17	16	16	15	15	15	14	14	13	13	13	12	12	12	12
95	20	19	19	18	17	17	16	16	15	15	14	14	14	13	13	13	12	12	12	12

ตารางช่วยคำนวณค่า Creatinine Clearance โดยใช้สูตร MDRD (ผู้ป่วยที่มีค่า Scr = 5.1 – 7.0)

Age\Scr	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0
35	14	13	13	13	13	12	12	12	12	11	11	11	11	11	10	10	10	10	10	10
36	14	13	13	13	13	12	12	12	12	11	11	11	11	11	10	10	10	10	10	10
37	14	13	13	13	12	12	12	12	12	11	11	11	11	10	10	10	10	10	10	9
38	14	13	13	13	12	12	12	12	11	11	11	11	11	10	10	10	10	10	10	9
39	13	13	13	13	12	12	12	12	11	11	11	11	11	10	10	10	10	10	10	9
40	13	13	13	13	12	12	12	12	11	11	11	11	11	10	10	10	10	10	9	9
41	13	13	13	13	12	12	12	12	11	11	11	11	10	10	10	10	10	10	9	9
42	13	13	13	12	12	12	12	11	11	11	11	11	10	10	10	10	10	10	9	9
43	13	13	13	12	12	12	12	11	11	11	11	11	10	10	10	10	10	9	9	9
44	13	13	13	12	12	12	12	11	11	11	11	11	10	10	10	10	10	9	9	9
45	13	13	13	12	12	12	12	11	11	11	11	10	10	10	10	10	10	9	9	9
46	13	13	12	12	12	12	11	11	11	11	11	10	10	10	10	10	10	9	9	9
47	13	13	12	12	12	12	11	11	11	11	11	10	10	10	10	10	9	9	9	9
48	13	13	12	12	12	12	11	11	11	11	11	10	10	10	10	10	9	9	9	9
49	13	13	12	12	12	12	11	11	11	11	10	10	10	10	10	10	9	9	9	9
50	13	13	12	12	12	12	11	11	11	11	10	10	10	10	10	10	9	9	9	9
51	13	12	12	12	12	11	11	11	11	11	10	10	10	10	10	9	9	9	9	9
52	13	12	12	12	12	11	11	11	11	11	10	10	10	10	10	9	9	9	9	9
53	13	12	12	12	12	11	11	11	11	11	10	10	10	10	10	9	9	9	9	9
54	13	12	12	12	12	11	11	11	11	10	10	10	10	10	10	9	9	9	9	9
55	13	12	12	12	12	11	11	11	11	10	10	10	10	10	10	9	9	9	9	9
56	13	12	12	12	11	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9
57	12	12	12	12	11	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9
58	12	12	12	12	11	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9
59	12	12	12	12	11	11	11	11	10	10	10	10	10	10	9	9	9	9	9	9
60	12	12	12	12	11	11	11	11	10	10	10	10	10	10	9	9	9	9	9	9
61	12	12	12	12	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	9
62	12	12	12	11	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	9
63	12	12	12	11	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8
64	12	12	12	11	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8
65	12	12	12	11	11	11	11	10	10	10	10	10	10	9	9	9	9	9	9	8

ตารางช่วยคำนวณค่า Creatinine Clearance โดยใช้สูตร MDRD (ผู้ป่วยที่มีค่า Scr = 5.1 – 7.0)

Age\Scr	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0
66	12	12	12	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	9	8
67	12	12	12	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	9	8
68	12	12	12	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	9	8
69	12	12	11	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8
70	12	12	11	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8
71	12	12	11	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8
72	12	12	11	11	11	11	10	10	10	10	10	10	9	9	9	9	9	9	8	8
73	12	12	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	9	8	8
74	12	12	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8	8
75	12	12	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8	8
76	12	12	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8	8
77	12	11	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8	8
78	12	11	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8	8
79	12	11	11	11	11	10	10	10	10	10	10	9	9	9	9	9	9	8	8	8
80	12	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	9	8	8	8
81	12	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8	8	8
82	12	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8	8	8
83	12	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8	8	8
84	12	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8	8	8
85	12	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8	8	8
86	11	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8	8	8
87	11	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8	8	8
88	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8	8	8	8
89	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8	8	8	8
90	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8	8	8	8
91	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8	8	8	8
92	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8	8	8	8
93	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8	8	8	8
94	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8	8	8	8
95	11	11	11	11	10	10	10	10	10	9	9	9	9	9	9	8	8	8	8	8

ตารางช่วยคำนวณค่า Creatinine Clearance โดยใช้สูตร MDRD (ผู้หญิงที่มีค่า Scr = 1.1 – 3.0)

Age\Scr	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3
35	60	54	50	45	42	39	36	34	32	30	28	27	26	24	23	22	21	20	20	19
36	60	54	49	45	42	39	36	34	32	30	28	27	26	24	23	22	21	20	20	19
37	59	54	49	45	42	39	36	34	32	30	28	27	25	24	23	22	21	20	19	19
38	59	53	49	45	41	38	36	33	31	30	28	27	25	24	23	22	21	20	19	19
39	59	53	48	44	41	38	36	33	31	29	28	26	25	24	23	22	21	20	19	18
40	58	53	48	44	41	38	35	33	31	29	28	26	25	24	23	22	21	20	19	18
41	58	53	48	44	41	38	35	33	31	29	28	26	25	24	23	22	21	20	19	18
42	58	52	48	44	40	38	35	33	31	29	27	26	25	24	22	21	21	20	19	18
43	58	52	48	44	40	37	35	33	31	29	27	26	25	23	22	21	20	20	19	18
44	57	52	47	43	40	37	35	32	31	29	27	26	24	23	22	21	20	20	19	18
45	57	52	47	43	40	37	35	32	30	29	27	26	24	23	22	21	20	19	19	18
46	57	51	47	43	40	37	34	32	30	29	27	26	24	23	22	21	20	19	19	18
47	57	51	47	43	40	37	34	32	30	28	27	25	24	23	22	21	20	19	18	18
48	56	51	46	43	39	37	34	32	30	28	27	25	24	23	22	21	20	19	18	18
49	56	51	46	42	39	36	34	32	30	28	27	25	24	23	22	21	20	19	18	18
50	56	51	46	42	39	36	34	32	30	28	26	25	24	23	22	21	20	19	18	18
51	56	50	46	42	39	36	34	32	30	28	26	25	24	23	22	21	20	19	18	17
52	55	50	46	42	39	36	34	31	30	28	26	25	24	23	21	21	20	19	18	17
53	55	50	46	42	39	36	33	31	29	28	26	25	24	22	21	20	20	19	18	17
54	55	50	45	42	38	36	33	31	29	28	26	25	23	22	21	20	20	19	18	17
55	55	50	45	41	38	36	33	31	29	27	26	25	23	22	21	20	19	19	18	17
56	55	49	45	41	38	35	33	31	29	27	26	25	23	22	21	20	19	19	18	17
57	54	49	45	41	38	35	33	31	29	27	26	24	23	22	21	20	19	19	18	17
58	54	49	45	41	38	35	33	31	29	27	26	24	23	22	21	20	19	18	18	17
59	54	49	45	41	38	35	33	31	29	27	26	24	23	22	21	20	19	18	18	17
60	54	49	44	41	38	35	33	31	29	27	26	24	23	22	21	20	19	18	18	17
61	54	49	44	41	38	35	32	30	29	27	25	24	23	22	21	20	19	18	18	17
62	53	48	44	40	37	35	32	30	28	27	25	24	23	22	21	20	19	18	17	17
63	53	48	44	40	37	35	32	30	28	27	25	24	23	22	21	20	19	18	17	17
64	53	48	44	40	37	34	32	30	28	27	25	24	23	22	21	20	19	18	17	17

ตารางช่วยคำนวณค่า Creatinine Clearance โดยใช้สูตร MDRD (ผู้หญิงที่มีค่า Scr = 1.1 – 3.0)

Age\Scr	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3
65	53	48	44	40	37	34	32	30	28	27	25	24	23	22	21	20	19	18	17	17
66	53	48	44	40	37	34	32	30	28	26	25	24	23	21	20	20	19	18	17	17
67	53	48	43	40	37	34	32	30	28	26	25	24	22	21	20	20	19	18	17	17
68	52	47	43	40	37	34	32	30	28	26	25	24	22	21	20	19	19	18	17	16
69	52	47	43	40	37	34	32	30	28	26	25	24	22	21	20	19	19	18	17	16
70	52	47	43	40	36	34	32	30	28	26	25	23	22	21	20	19	19	18	17	16
71	52	47	43	39	36	34	31	29	28	26	25	23	22	21	20	19	18	18	17	16
72	52	47	43	39	36	34	31	29	28	26	25	23	22	21	20	19	18	18	17	16
73	52	47	43	39	36	34	31	29	28	26	25	23	22	21	20	19	18	18	17	16
74	52	47	43	39	36	33	31	29	27	26	24	23	22	21	20	19	18	18	17	16
75	51	47	42	39	36	33	31	29	27	26	24	23	22	21	20	19	18	18	17	16
76	51	46	42	39	36	33	31	29	27	26	24	23	22	21	20	19	18	17	17	16
77	51	46	42	39	36	33	31	29	27	26	24	23	22	21	20	19	18	17	17	16
78	51	46	42	39	36	33	31	29	27	26	24	23	22	21	20	19	18	17	17	16
79	51	46	42	39	36	33	31	29	27	26	24	23	22	21	20	19	18	17	17	16
80	51	46	42	38	36	33	31	29	27	25	24	23	22	21	20	19	18	17	17	16
81	51	46	42	38	35	33	31	29	27	25	24	23	22	21	20	19	18	17	17	16
82	51	46	42	38	35	33	31	29	27	25	24	23	22	21	20	19	18	17	17	16
83	50	46	42	38	35	33	31	29	27	25	24	23	22	20	20	19	18	17	16	16
84	50	45	41	38	35	33	30	28	27	25	24	23	21	20	20	19	18	17	16	16
85	50	45	41	38	35	33	30	28	27	25	24	23	21	20	19	19	18	17	16	16
86	50	45	41	38	35	32	30	28	27	25	24	22	21	20	19	19	18	17	16	16
87	50	45	41	38	35	32	30	28	27	25	24	22	21	20	19	19	18	17	16	16
88	50	45	41	38	35	32	30	28	27	25	24	22	21	20	19	18	18	17	16	16
89	50	45	41	38	35	32	30	28	26	25	24	22	21	20	19	18	18	17	16	16
90	50	45	41	38	35	32	30	28	26	25	24	22	21	20	19	18	18	17	16	16
91	49	45	41	37	35	32	30	28	26	25	23	22	21	20	19	18	18	17	16	16
92	49	45	41	37	35	32	30	28	26	25	23	22	21	20	19	18	18	17	16	16
93	49	45	41	37	34	32	30	28	26	25	23	22	21	20	19	18	17	17	16	15
94	49	44	41	37	34	32	30	28	26	25	23	22	21	20	19	18	17	17	16	15
95	49	44	40	37	34	32	30	28	26	25	23	22	21	20	19	18	17	17	16	15

ตารางช่วยคำนวณค่า Creatinine Clearance โดยใช้สูตร MDRD (ผู้หญิงที่มีค่า Scr = 3.1 – 5.0)

Age\Scr	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0
35	18	18	17	16	16	15	15	14	14	14	13	13	12	12	12	12	11	11	11	10
36	18	17	17	16	16	15	15	14	14	13	13	13	12	12	12	11	11	11	11	10
37	18	17	17	16	16	15	15	14	14	13	13	13	12	12	12	11	11	11	11	10
38	18	17	17	16	16	15	15	14	14	13	13	13	12	12	12	11	11	11	11	10
39	18	17	17	16	15	15	14	14	14	13	13	13	12	12	12	11	11	11	10	10
40	18	17	16	16	15	15	14	14	14	13	13	12	12	12	12	11	11	11	10	10
41	18	17	16	16	15	15	14	14	14	13	13	12	12	12	11	11	11	11	10	10
42	18	17	16	16	15	15	14	14	13	13	13	12	12	12	11	11	11	11	10	10
43	17	17	16	16	15	15	14	14	13	13	13	12	12	12	11	11	11	11	10	10
44	17	17	16	16	15	15	14	14	13	13	13	12	12	12	11	11	11	10	10	10
45	17	17	16	16	15	15	14	14	13	13	13	12	12	12	11	11	11	10	10	10
46	17	17	16	15	15	14	14	14	13	13	12	12	12	11	11	11	11	10	10	10
47	17	17	16	15	15	14	14	14	13	13	12	12	12	11	11	11	11	10	10	10
48	17	16	16	15	15	14	14	13	13	13	12	12	12	11	11	11	11	10	10	10
49	17	16	16	15	15	14	14	13	13	13	12	12	12	11	11	11	11	10	10	10
50	17	16	16	15	15	14	14	13	13	13	12	12	12	11	11	11	10	10	10	10
51	17	16	16	15	15	14	14	13	13	13	12	12	12	11	11	11	10	10	10	10
52	17	16	16	15	15	14	14	13	13	12	12	12	11	11	11	11	10	10	10	10
53	17	16	16	15	15	14	14	13	13	12	12	12	11	11	11	11	10	10	10	10
54	17	16	15	15	14	14	14	13	13	12	12	12	11	11	11	11	10	10	10	10
55	17	16	15	15	14	14	14	13	13	12	12	12	11	11	11	11	10	10	10	10
56	17	16	15	15	14	14	13	13	13	12	12	12	11	11	11	10	10	10	10	10
57	16	16	15	15	14	14	13	13	13	12	12	12	11	11	11	10	10	10	10	9
58	16	16	15	15	14	14	13	13	13	12	12	12	11	11	11	10	10	10	10	9
59	16	16	15	15	14	14	13	13	13	12	12	12	11	11	11	10	10	10	10	9
60	16	16	15	15	14	14	13	13	12	12	12	11	11	11	11	10	10	10	10	9
61	16	16	15	15	14	14	13	13	12	12	12	11	11	11	11	10	10	10	10	9
62	16	16	15	15	14	14	13	13	12	12	12	11	11	11	11	10	10	10	10	9
63	16	16	15	14	14	14	13	13	12	12	12	11	11	11	10	10	10	10	10	9
64	16	15	15	14	14	14	13	13	12	12	12	11	11	11	10	10	10	10	9	9
65	16	15	15	14	14	13	13	13	12	12	12	11	11	11	10	10	10	10	9	9

ตารางช่วยคำนวณค่า Creatinine Clearance โดยใช้สูตร MDRD (ผู้หญิงที่มีค่า Scr = 3.1 – 5.0)

Age\Scr	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0
66	16	15	15	14	14	13	13	13	12	12	12	11	11	11	10	10	10	10	9	9
67	16	15	15	14	14	13	13	13	12	12	12	11	11	11	10	10	10	10	9	9
68	16	15	15	14	14	13	13	13	12	12	12	11	11	11	10	10	10	10	9	9
69	16	15	15	14	14	13	13	13	12	12	11	11	11	11	10	10	10	10	9	9
70	16	15	15	14	14	13	13	12	12	12	11	11	11	11	10	10	10	10	9	9
71	16	15	15	14	14	13	13	12	12	12	11	11	11	11	10	10	10	10	9	9
72	16	15	15	14	14	13	13	12	12	12	11	11	11	10	10	10	10	9	9	9
73	16	15	15	14	14	13	13	12	12	12	11	11	11	10	10	10	10	9	9	9
74	16	15	15	14	14	13	13	12	12	12	11	11	11	10	10	10	10	9	9	9
75	16	15	14	14	14	13	13	12	12	12	11	11	11	10	10	10	10	9	9	9
76	16	15	14	14	13	13	13	12	12	12	11	11	11	10	10	10	10	9	9	9
77	15	15	14	14	13	13	13	12	12	12	11	11	11	10	10	10	10	9	9	9
78	15	15	14	14	13	13	13	12	12	12	11	11	11	10	10	10	10	9	9	9
79	15	15	14	14	13	13	13	12	12	11	11	11	11	10	10	10	10	9	9	9
80	15	15	14	14	13	13	13	12	12	11	11	11	11	10	10	10	10	9	9	9
81	15	15	14	14	13	13	12	12	12	11	11	11	11	10	10	10	9	9	9	9
82	15	15	14	14	13	13	12	12	12	11	11	11	10	10	10	10	9	9	9	9
83	15	15	14	14	13	13	12	12	12	11	11	11	10	10	10	10	9	9	9	9
84	15	15	14	14	13	13	12	12	12	11	11	11	10	10	10	10	9	9	9	9
85	15	15	14	14	13	13	12	12	12	11	11	11	10	10	10	10	9	9	9	9
86	15	15	14	14	13	13	12	12	12	11	11	11	10	10	10	10	9	9	9	9
87	15	15	14	14	13	13	12	12	12	11	11	11	10	10	10	10	9	9	9	9
88	15	15	14	14	13	13	12	12	12	11	11	11	10	10	10	10	9	9	9	9
89	15	14	14	14	13	13	12	12	12	11	11	11	10	10	10	10	9	9	9	9
90	15	14	14	13	13	13	12	12	12	11	11	11	10	10	10	10	9	9	9	9
91	15	14	14	13	13	13	12	12	11	11	11	11	10	10	10	9	9	9	9	9
92	15	14	14	13	13	13	12	12	11	11	11	11	10	10	10	9	9	9	9	9
93	15	14	14	13	13	13	12	12	11	11	11	10	10	10	10	9	9	9	9	9
94	15	14	14	13	13	13	12	12	11	11	11	10	10	10	10	9	9	9	9	9
95	15	14	14	13	13	12	12	12	11	11	11	10	10	10	10	9	9	9	9	9

ตารางช่วยคำนวณค่า Creatinine Clearance โดยใช้สูตร MDRD (ผู้หญิงที่มีค่า Scr = 5.1 – 7.0)

Age\Scr	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0
35	10	10	10	10	9	9	9	9	9	8	8	8	8	8	8	8	7	7	7	7
36	10	10	10	10	9	9	9	9	9	8	8	8	8	8	8	8	7	7	7	7
37	10	10	10	9	9	9	9	9	9	8	8	8	8	8	8	8	7	7	7	7
38	10	10	10	9	9	9	9	9	9	8	8	8	8	8	8	7	7	7	7	7
39	10	10	10	9	9	9	9	9	8	8	8	8	8	8	8	7	7	7	7	7
40	10	10	10	9	9	9	9	9	8	8	8	8	8	8	8	7	7	7	7	7
41	10	10	9	9	9	9	9	9	8	8	8	8	8	8	7	7	7	7	7	7
42	10	10	9	9	9	9	9	8	8	8	8	8	8	8	7	7	7	7	7	7
43	10	10	9	9	9	9	9	8	8	8	8	8	8	8	7	7	7	7	7	7
44	10	10	9	9	9	9	9	8	8	8	8	8	8	8	7	7	7	7	7	7
45	10	10	9	9	9	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7
46	10	9	9	9	9	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7
47	10	9	9	9	9	9	8	8	8	8	8	8	8	7	7	7	7	7	7	7
48	10	9	9	9	9	9	8	8	8	8	8	8	8	7	7	7	7	7	7	7
49	10	9	9	9	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7
50	10	9	9	9	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7
51	9	9	9	9	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7
52	9	9	9	9	9	8	8	8	8	8	8	8	7	7	7	7	7	7	7	7
53	9	9	9	9	9	8	8	8	8	8	8	8	7	7	7	7	7	7	7	7
54	9	9	9	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7	7
55	9	9	9	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6
56	9	9	9	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6
57	9	9	9	9	8	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6
58	9	9	9	9	8	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6
59	9	9	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6
60	9	9	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6
61	9	9	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6
62	9	9	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6
63	9	9	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6
64	9	9	9	8	8	8	8	8	8	8	7	7	7	7	7	7	7	6	6	6
65	9	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6	6

ตารางช่วยคำนวณค่า Creatinine Clearance โดยใช้สูตร MDRD (ผู้หญิงที่มีค่า Scr = 5.1 – 7.0)

Age\Scr	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0
66	9	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6	6
67	9	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6	6
68	9	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6	6
69	9	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6	6
70	9	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	6	6	6	6
71	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6	6	6
72	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6	6	6
73	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6	6	6
74	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6	6	6
75	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6	6	6
76	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	6	6	6	6	6
77	9	9	8	8	8	8	8	8	7	7	7	7	7	7	7	6	6	6	6	6
78	9	9	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6	6	6	6
79	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6	6	6	6
80	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6	6	6	6
81	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6	6	6	6
82	9	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6	6	6	6
83	9	8	8	8	8	8	8	7	7	7	7	7	7	7	6	6	6	6	6	6
84	9	8	8	8	8	8	8	7	7	7	7	7	7	7	6	6	6	6	6	6
85	9	8	8	8	8	8	8	7	7	7	7	7	7	7	6	6	6	6	6	6
86	9	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6	6	6	6	6
87	9	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6	6	6	6	6
88	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6	6	6	6	6
89	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6	6	6	6	6
90	8	8	8	8	8	8	7	7	7	7	7	7	7	6	6	6	6	6	6	6
91	8	8	8	8	8	8	7	7	7	7	7	7	7	6	6	6	6	6	6	6
92	8	8	8	8	8	8	7	7	7	7	7	7	7	6	6	6	6	6	6	6
93	8	8	8	8	8	8	7	7	7	7	7	7	7	6	6	6	6	6	6	6
94	8	8	8	8	8	8	7	7	7	7	7	7	7	6	6	6	6	6	6	6
95	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6	6	6	6	6	6