

Table A – TG-43 simulations (in Gy) for single/double plane concerning five lead (Pb) thickness variations at various distances (in mm) from the lateral source (the numbers in brackets represent the percentage doses to the 60 Gy reference dose at the lateral border of source at 5 mm).

		Single-Plane							
		Distance from Centre of Lateral Source							
		5	10	15	20	25	30	35	40
Pb- Thickness									
0	600	307	201	147	110	85	67	53	
	(100)	(51.2)	(33.5)	(24.5)	(18.3)	(14.2)	(11.2)	(8.8)	
1	600	244	160	116	87	68	53	43	
	(100)	(40.7)	(26.7)	(19.3)	(14.5)	(11.3)	(8.8)	(7.2)	
2	600	194	127	92	69	54	42	34	
	(100)	(32.3)	(21.2)	(15.3)	(11.5)	(9)	(7)	(5.7)	
3	600	-	101	73	55	43	34	27	
	(100)	-	(16.8)	(12.2)	(9.2)	(7.2)	(5.7)	(4.5)	
4	600	-	80	58	43	34	27	21	
	(100)	-	(13.3)	(9.7)	(7.2)	(5.7)	(4.5)	(3.5)	
5	600	-	63	46	35	27	21	17	
	(100)	-	(10.5)	(7.7)	(5.8)	(4.5)	(3.5)	(2.8)	
		Double-Plane							
0	600	278	171	119	88	68	53	43	
	(100)	(46.3)	(28.5)	(19.8)	(14.7)	(11.3)	(8.8)	(7.2)	
1	600	220	134	95	70	54	42	34	
	(100)	(36.7)	(22.3)	(15.8)	(11.7)	(9)	(7)	(5.7)	
2	600	175	108	75	56	43	34	27	
	(100)	(29.2)	(18)	(12.5)	(9.3)	(7.2)	(5.7)	(4.5)	
3	600	-	85	60	44	34	27	21	
	(100)	-	(14.2)	(10)	(7.3)	(5.7)	(4.5)	(3.5)	
4	600	-	68	47	35	27	21	17	
	(100)	-	(11.3)	(7.8)	(5.8)	(4.5)	(3.5)	(2.8)	
5	600	-	54	38	28	21	17	13	
	(100)	-	(9)	(6.3)	(4.7)	(3.5)	(2.8)	(2.2)	

A modular spacer for the treatment and planning of tongue cancer

Table B – *The effect of lead shielding (based on TG-43). Values indicate the percentage doses (in %) compared to the Gy value at Pb-thickness = 0 (mm) for that distance.*

Single-Plane								
Distance from Centre of Lateral Source								
	5	10	15	20	25	30	35	40
Pb-Thickness								
0	600	307	201	147	110	85	67	53
1	600	79.5%	79.6%	78.9%	79.1%	80.0%	79.1%	81.1%
2	600	63.2%	63.2%	62.6%	62.7%	63.5%	62.7%	64.2%
3	600	-	50.2%	49.7%	50.0%	50.6%	50.7%	50.9%
4	600	-	39.8%	39.5%	39.1%	40.0%	40.3%	39.6%
5	600	-	31.3%	31.3%	31.8%	31.8%	31.3%	32.1%
Double-Plane								
0	600	278	171	119	88	68	53	43
1	600	79.1%	78.4%	80.5%	79.5%	79.4%	79.2%	79.1%
2	600	62.9%	63.2%	63.6%	63.6%	63.2%	64.2%	62.8%
3	600	-	49.7%	50.8%	50.0%	50.0%	50.9%	48.8%
4	600	-	39.8%	39.8%	39.8%	39.7%	39.6%	39.5%
5	600	-	31.6%	32.2%	31.8%	30.9%	32.1%	30.2%

A modular spacer for the treatment and planning of tongue cancer

Table C – Monte-Carlo Simulations (in Gy) for single/double plane concerning five lead (Pb) thickness variations at various distances (in mm) from the lateral source (the numbers in brackets represent the percentage doses to the 60 Gy reference dose at the lateral border of source at 5 mm).

		Single-Plane							
		Distance from Centre of Lateral Source							
		5	10	15	20	25	30	35	40
Pb-	Thickness								
0	600	350	249	190	151	124	104	88	
	(100)	(58.4)	(41.5)	(31.6)	(25.2)	(20.6)	(17.4)	(14.6)	
1	600	254	181	139	112	92	77	65	
	(100)	(42.3)	(30.2)	(23.1)	(18.6)	(15.3)	(12.8)	(10.8)	
2	600	184	134	103	83	68	56	48	
	(100)	(30.7)	(22.3)	(17.1)	(13.9)	(11.3)	(9.4)	(8.0)	
3	600	-	100	77	62	52	44	37	
	(100)	-	(16.8)	(12.8)	(10.4)	(8.6)	(7.3)	(6.0)	
4	600	-	76	59	48	39	33	29	
	(100)	-	(12.6)	(9.8)	(8.0)	(6.5)	(5.6)	(4.8)	
5	600	-	59	46	38	31	26	23	
	(100)	-	(9.8)	(7.7)	(6.3)	(5.2)	(4.4)	(3.8)	
		Double-Plane							
0	600	319	215	158	124	99	83	68	
	(100)	(53.1)	(35.8)	(26.4)	(20.6)	(16.5)	(13.9)	(11.4)	
1	600	229	155	115	91	73	60	50	
	(100)	(38.2)	(25.9)	(19.2)	(15.1)	(12.2)	(10.0)	(8.4)	
2	600	165	115	86	68	54	44	37	
	(100)	(27.5)	(19.1)	(14.3)	(11.3)	(9.0)	(7.3)	(6.2)	
3	600	-	85	64	50	41	34	28	
	(100)	-	(14.2)	(10.6)	(8.4)	(6.8)	(5.7)	(4.7)	
4	600	-	65	48	39	31	26	22	
	(100)	-	(10.8)	(8.0)	(6.4)	(5.2)	(4.3)	(3.7)	
5	600	-	50	38	31	25	21	18	
	(100)	-	(8.3)	(6.3)	(5.1)	(4.1)	(3.4)	(3.0)	