

Supplementary Appendix

This appendix has been provided by the authors to give readers additional information about their work.

Supplement to: Black DM, Bilezikian JP, Ensrud KE, et al. One year of alendronate after one year of parathyroid hormone (1-84) for osteoporosis. *N Engl J Med* 2005;353:555-65.

Web Supplementary Table 2a: 0-24 Month Changes

BMD site	Treatment	Mean % change	Comparison to PTH/ALN		Comparison to PTH-ALN/ALN	
			% difference	p-value	% difference	p value
DXA spine	PTH-PBO	4.1	-8.0	<.0001	-3.8	0.0017
	PTH-ALN	12.1	--		4.1	0.0006
	PTH/ALN-ALN	7.9	-4.1	0.0006	--	
	ALN-ALN	7.7	-4.4	0.0003	-0.2	0.84
DXA total hip	PTH-PBO	-0.1	-4.6	<.0001	-3.3	0.0002
	PTH-ALN	4.5	--		1.3	0.15
	PTH/ALN-ALN	3.2	-1.3	0.15	--	
	ALN-ALN	3.3	-1.2	0.17	0.1	0.95
DXA femoral neck	PTH-PBO	1.2	-3.1	0.005	-1.8	0.1
	PTH-ALN	4.3	--		1.3	0.23
	PTH/ALN-ALN	3	-1.3	0.23	--	
	ALN-ALN	3.2	-1.1	0.3	0.2	0.86
DXA radius (1/3)	PTH-PBO	-3.7	-1.6	0.04	-3.1	<.0001
	PTH-ALN	-2.1	--		-1.5	0.052
	PTH/ALN-ALN	-0.8	1.5	0.052	--	
	ALN-ALN	0.03	2.1	0.005	0.6	0.4
DXA Total Body	PTH-PBO	1	0.1	0.91	-1.1	0.21
	PTH-ALN	0.9	--		-1.2	0.16
	PTH/ALN-ALN	2	1.2	0.16	--	
	ALN-ALN	1.3	0.4	0.61	-0.7	0.37
QCT trabecular spine BMD	PTH-PBO	14	-16.6	0.0004	2.7	0.55
	PTH-ALN	30.5	--		19.3	<.0001
	PTH/ALN-ALN	11.2	-19.3	<.0001	--	
	ALN-ALN	6.1	-24.4	<.0001	-5.1	0.26
QCT trabecular hip BMD	PTH-PBO	4.5	-8.1	0.03	-8.2	0.09
	PTH-ALN	12.6	--		2.0	0.59
	PTH/ALN-ALN	10.7	-2.0	0.59	--	
	ALN-ALN	4.4	-8.2	0.02	-6.2	0.09
QCT trabecular hip BMC	PTH-PBO	4.3	-8.8	0.09	-13.9	0.008
	PTH-ALN	13.1	--		-5.1	0.31
	PTH/ALN-ALN	18.3	5.1	0.31	--	
	ALN-ALN	6.8	-6.3	0.21	-11.5	0.03
QCT cortical hip BMD	PTH-PBO	-2.9	-0.3	0.75	-1.6	0.13
	PTH-ALN	-2.5	--		-1.3	0.23
	PTH/ALN-ALN	-1.3	1.3	0.23	--	
	ALN-ALN	-1.7	0.8	0.45	-0.5	0.65
QCT cortical hip BMC	PTH-PBO	-1.4	-4.8	0.16	-7.2	0.04
	PTH-ALN	3.4	--		-2.4	0.48
	PTH/ALN-ALN	5.8	2.4	0.48	--	
	ALN-ALN	4.4	1.1	0.76	-1.4	0.69
QCT cortical hip volume	PTH-PBO	1.1	-4.8	0.1	-5.7	0.054
	PTH-ALN	5.9	--		-1.0	0.74
	PTH/ALN-ALN	6.9	1.0	0.74	--	
	ALN-ALN	6.2	0.3	0.91	-0.7	0.82

Web Supplementary Table 2b: 12-24 Month Changes

BMD site	Treatment	Mean % change	Comparison to PTH/ALN		Comparison to PTH-ALN/ALN	
			% difference	p-value	% difference	p value
DXA spine	PTH-PBO	-1.7	-6.6	<.0001	-3.4	<.0001
	PTH-ALN	4.9	--		3.3	<.0001
	PTH/ALN-ALN	1.6	-3.3	<.0001	--	
	ALN-ALN	2.8	-2.1	0.0016	1.2	0.07
DXA total hip	PTH-PBO	0.03	-3.6	<.0001	-1.2	0.06
	PTH-ALN	3.6	--		2.4	0.0006
	PTH/ALN-ALN	1.2	-2.4	0.0005	--	
	ALN-ALN	0.3	-3.4	<.0001	-1.0	0.16
DXA femoral neck	PTH-PBO	0.6	-3.0	0.0005	-0.7	0.46
	PTH-ALN	3.6	--		2.4	0.007
	PTH/ALN-ALN	1.2	-2.4	0.007	--	
	ALN-ALN	0.9	-2.7	0.002	-0.4	0.67
DXA radius (1/3)	PTH-PBO	0.2	-0.7	0.27	-0.5	0.42
	PTH-ALN	0.8	--		0.2	0.76
	PTH/ALN-ALN	0.6	-0.2	0.76	--	
	ALN-ALN	0.7	-0.1	0.9	0.1	0.86
DXA Total Body	PTH-PBO	2.6	0.7	0.64	2.7	0.02
	PTH-ALN	1.9	--		2.0	0.06
	PTH/ALN-ALN	-0.1	-2.0	0.06	--	
	ALN-ALN	-0.8	-2.7	0.02	-0.7	0.66
QCT trabecular spine BMD	PTH-PBO	-9.8	-13.3	<.0001	-7.6	0.003
	PTH-ALN	3.4	--		5.7	0.03
	PTH/ALN-ALN	-2.2	-5.7	0.03	--	
	ALN-ALN	-0.9	-4.3	0.09	1.4	0.69
QCT trabecular hip BMD	PTH-PBO	-4.2	-10.1	0.006	-9.2	0.01
	PTH-ALN	5.9	--		0.9	0.79
	PTH/ALN-ALN	5	-0.9	0.79	--	
	ALN-ALN	1.2	-4.8	0.17	-3.8	0.26
QCT trabecular hip BMC	PTH-PBO	-1.9	-11.1	0.02	-9.2	0.06
	PTH-ALN	9.1	--		1.8	0.7
	PTH/ALN-ALN	7.3	-1.8	0.7	--	
	ALN-ALN	2.9	-6.2	0.2	-4.4	0.37
QCT cortical hip BMD	PTH-PBO	-1.4	-1.5	0.13	-0.8	0.42
	PTH-ALN	0.1	--		0.7	0.49
	PTH/ALN-ALN	-0.6	-0.7	0.49	--	
	ALN-ALN	-1.9	-2.0	0.04	-1.3	0.16
QCT cortical hip BMC	PTH-PBO	-0.8	-5.4	0.09	-2.2	0.49
	PTH-ALN	4.6	--		3.2	0.3
	PTH/ALN-ALN	1.4	-3.2	0.3	--	
	ALN-ALN	1.2	-3.3	0.26	-0.2	0.96
QCT cortical hip volume	PTH-PBO	0.4	-4.0	0.16	-1.5	0.69
	PTH-ALN	4.4	--		2.5	0.37
	PTH/ALN-ALN	1.9	-2.5	0.37	--	
	ALN-ALN	3.1	-1.3	0.63	1.1	0.66

Web Supplementary Table 2c: 0-12 Month Changes

BMD site	Treatment	Mean % change	Comparison to PTH/ALN		Comparison to PTH/ALN/ALN	
			% difference	p-value	% difference	p-value
DXA spine	PTH-PBO	5.8	-0.9	0.41	-0.4	0.72
	PTH-ALN	6.7	--		0.5	0.63
	PTH/ALN-ALN	6.2	-0.5	0.63	--	
	ALN-ALN	4.7	-2.0	0.06	-1.5	0.16
DXA total hip	PTH-PBO	-0.1	-0.9	0.26	-2.1	0.008
	PTH-ALN	0.8	--		-1.2	0.13
	PTH/ALN-ALN	2	1.2	0.13	--	
	ALN-ALN	3	2.2	0.005	1.0	0.18
DXA femoral neck	PTH-PBO	0.9	0.1	0.67	-0.9	0.29
	PTH-ALN	0.7	--		-1.0	0.21
	PTH/ALN-ALN	1.8	1.0	0.21	--	
	ALN-ALN	2.3	1.6	0.06	0.5	0.51
DXA radius (1/3)	PTH-PBO	-3.9	-1.0	0.13	-2.7	<0.001
	PTH-ALN	-2.9	--		-1.7	0.01
	PTH/ALN-ALN	-1.2	1.7	0.01	--	
	ALN-ALN	-0.7	2.2	0.001	0.5	0.46
DXA Total Body	PTH-PBO	-1.5	-0.6	0.51	-3.7	<0.001
	PTH-ALN	-0.9	--		-3.1	0.0007
	PTH/ALN-ALN	2.3	3.1	0.0007	--	
	ALN-ALN	2.4	3.2	0.0005	0.1	0.91
QCT trabecular spine BMD	PTH-PBO	29.8	0.6	0.9	15.1	0.002
	PTH-ALN	29.2	--		15.4	0.002
	PTH/ALN-ALN	13.7	-15.4	0.002	--	
	ALN-ALN	7.7	-21.5	<0.001	-6.0	0.22
QCT trabecular hip BMD	PTH-PBO	9.1	1.0	0.77	1.9	0.58
	PTH-ALN	8.1	--		0.9	0.79
	PTH/ALN-ALN	7.2	-0.9	0.79	--	
	ALN-ALN	2.2	-5.9	0.08	-5.0	0.15
QCT trabecular hip BMC	PTH-PBO	7.5	1.6	0.7	-4.5	0.34
	PTH-ALN	5.7	--		-6.3	0.17
	PTH/ALN-ALN	12	6.3	0.17	--	
	ALN-ALN	4.1	-1.6	0.72	-7.9	0.09
QCT cortical hip BMD	PTH-PBO	-1.4	1.2	0.09	-0.5	0.47
	PTH-ALN	-2.6	--		-1.7	0.02
	PTH/ALN-ALN	-0.9	1.7	0.02	--	
	ALN-ALN	0.3	2.9	<0.001	1.2	0.09
QCT cortical hip BMC	PTH-PBO	0.1	1.3	0.66	-4.1	0.18
	PTH-ALN	-1.2	--		-5.5	0.07
	PTH/ALN-ALN	4.3	5.5	0.07	--	
	ALN-ALN	4.3	5.5	0.07	0.03	0.99
QCT cortical hip volume	PTH-PBO	1.6	0.3	0.93	-3.4	0.22
	PTH-ALN	1.3	--		-3.7	0.18
	PTH/ALN-ALN	5	3.7	0.18	--	
	ALN-ALN	3.9	2.6	0.33	-1.1	0.7