

**Table S2** Baseline data in included studies

Trial id	Paper id	Age (yr)	Women	White	GC duration	GC dosage (mg/d)	Spine BMD	Hip BMD	PVF	Prior therapy	IM	FRAX	Intervention		Usage and dosage	
													Group 1	Group 2	Group 1	Group 2
1	1	61.0	62.0	90.0	<3 mo	22.5	-0.55	-0.86	10.00	0	NR	NR	Alen	Alfacalcidol	10 mg/day, oral	1 µg/day, oral
2	2	61.7	55.7	NR	>3 mo	6.7	-0.73	-1.34	47.55	0	NR	NR	Alen	Placebo	5 or 10 mg/day, oral	-
3	3	55.0	70.3	88.7	8 mo	10.3	NR	NR	15.66	0	NR	NR	Alen	Placebo	5 or 10 mg/day, oral	-
3	4	53.3	70.9	88.7	8 mo	19.7	-1.19	NR	12.50	0	NR	NR	Alen	Placebo	5 or 10 mg/day, oral	-
4	5	52.8	58.4	73.4	51.3 mo	16.2	-0.35	-0.42	0.00	NR	NR	NR	Alen	Placebo	70 mg/week, oral	-
5	6	59.2	43.0	2.3	25 d	16.5	-0.54	NR	0.00	0	72.4	NR	Alen	Placebo	10 mg/day, oral	-
6	7	80	70.1	>50	3.9 mo	8.1	NR	NR	9.95	0	NR	NR	Alen	Nonusers	NR	-
7	8	72	66.1	NR	<3 mo	17.2	NR	NR	10.20	0	NR	NR	Alen	Nonusers	NR	-

8	9	75.4	57.0	NR	<6 mo	25	NR	NR	2.80	0	NR	NR	Alen	Nonusers	NR	-
9	10	53.5	18.1	69.0	21 d	14.8	-0.64	-0.43	NR	NR	100	NR	Alen	Calcitriol	10 mg/day, oral	0.5 µg/day, oral
10	11	47.8	100.0	0.0	1 w	≥20	NR	NR	1.60	0	NR	NR	Alen	Alfacalcidol	35 mg/week, oral	1 µg/day, oral
11	12	60.7	68.8	NR	>6 mo	6.8	NR	NR	NR	0	NR	NR	Alen	Vitamin D	10 mg/day, oral	0.75 mg/week
12	13	32.0	100.0	0.0	0	21.5	NR	NR	0.00	0	NR	NR	Alen	Nonusers	5 mg/day, oral	-

Age, Mean age. Women, Proportion of women (%). White, Proportion of Caucasians (%).

GC duration, the duration (mean value) of glucocorticoid use prior to study enrollment.

GC dosage, the daily dosage (mean value) of prednisone or equivalent during the study.

Spine BMD, Lumbar spine bone mineral density T score at baseline.

Hip BMD, Total hip bone mineral density T score at baseline.

PVF, Proportion of previous vertebral fracture (%).

Prior therapy, Proportion of previous anti-osteoporotic therapy (%).

IM, Proportion of baseline immunosuppressant use (%).

FRAX, 10-year probability of major osteoporotic fracture calculated with country-specific models adjusted for glucocorticoid use via the Fracture Risk Assessment Tool (FRAX).

NR, No report. Alen, Alendronate. d, day(s); w, week(s); mo, month(s); yr, year(s).