

## **Supplementary data**

### **Pubmed/Medline/Embase query**

(paricalcitol OR maxacalcitol OR calcitriol OR "vitamin D analogue" OR "vitamin D receptor activator" OR VDRA OR "vitamin D receptor agonist") AND (proteinuria OR albuminuria OR (urinary AND albumin))

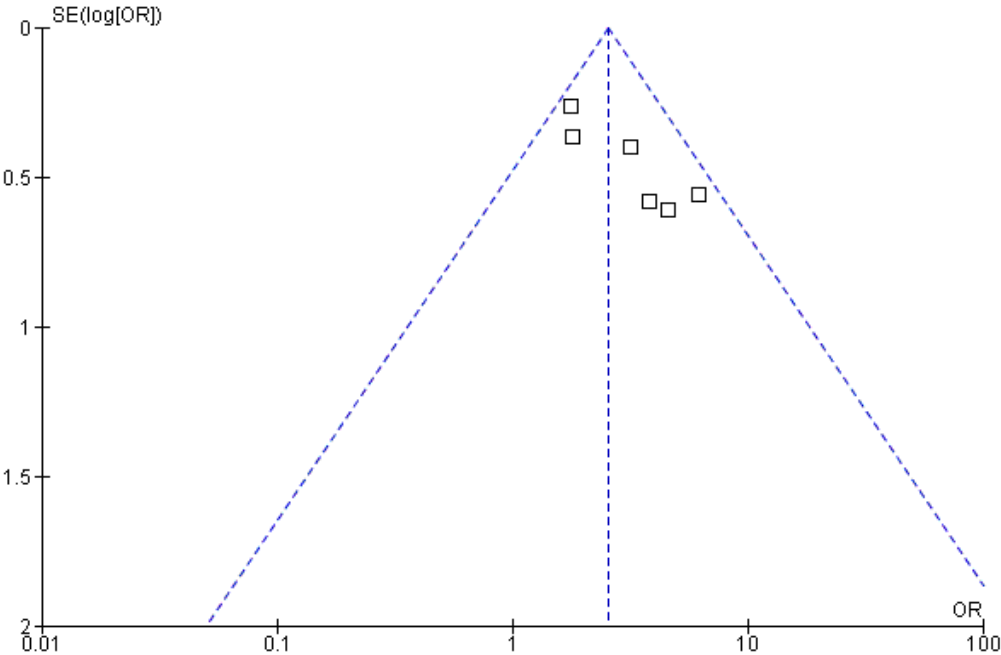
### **Supplementary Figure. Funnel plot with pseudo 95% CI**

**Supplementary Table 1. Baseline characteristics of patients with albuminuria at baseline and at least 1 follow-up visit (n=121) in the PRIMO trial**

**Supplementary Table 2. Estimated ACR among patients with albuminuria at baseline and at least one follow up visit in the PRIMO trial**

**Supplementary Table 3. Change from baseline to follow-up albumin to creatinine ratio among patients with albuminuria at baseline in the PRIMO trial**

**Supplementary Figure. Funnel plot with pseudo 95% CI**



**Supplementary Table 1. Baseline characteristics of patients with albuminuria† at baseline and at least 1 follow-up visit (n=121) in the PRIMO trial**

	<b>Paricalcitol (n=62, 51.2%)</b>	<b>Placebo (n=59, 48.8%)</b>	<b>P value</b>
Age (years)	61.8 ± 10.1	63.6 ± 13.0	0.28
Male (%)	77.4 (48)	71.2 (42)	0.43
Race (%)			0.24
Caucasian	79.0 (49)	69.5 (41)	
Black or African American	9.7 (6)	10.2 (6)	
Asian	8.1 (5)	20.3 (12)	
Other	3.2 (2)	0.0 (0)	
Cardiovascular history (%)			
Hypertension	98.4 (61)	94.9 (56)	0.29
Smoking (past or current)	58.1 (36)	37.3 (22)	0.02
Peripheral vascular disease (arterial)	12.9 (8)	13.6 (8)	0.92
Diabetes mellitus	58.1 (36)	55.9 (33)	0.81
Diabetic nephropathy	35.5 (22)	44.1 (26)	0.33
Diabetic retinopathy	22.6 (14)	23.7 (14)	0.88
RAAS inhibitor use (%)	83.9 (52)	79.7 (47)	0.55
Diuretics use (%)	35.5 (22)	40.7 (24)	0.56
Body Mass Index (kg/m <sup>2</sup> )	31.0 ± 6.5	30.0 ± 6.8	0.17
Blood pressure			
Systolic (mmHg)	136 ± 16	134 ± 18	0.57
Diastolic (mmHg)	76 ± 12	75 ± 11	0.42
<i>Laboratory tests</i>			
Serum albumin (g/dL)	4.4 (4.1 to 4.5)	4.4 (4.1 to 4.6)	0.19
Serum calcium (mg/dL)	9.5 (9.2 to 9.8)	9.5 (9.3 to 9.8)	0.32
Serum phosphate (mg/dL)	3.7 (3.3 to 4.2)	3.6 (3.2 to 4.0)	0.37
Serum intact parathyroid hormone (pg/mL)	117 (67 to 176)	121 (72 to 165)	0.88
Hematocrit (%)	37.7 (35.4, 42.7)	38.3 (36.1, 42.0)	0.81
Serum BUN (mg/dL)	38.7 (32.0 to 49.0)	37.0 (28.0 to 44.0)	0.14
Serum creatinine (mg/dL)	2.4 (1.8 to 2.9)	2.2 (1.7 to 2.9)	0.48
eGFR by creatinine (ml/min/1.73m <sup>2</sup> )	30 (24 to 36)	31 (23 to 39)	0.81
Urine ACR (mg/g)	450 (156 to 1040)	278 (88 to 980)	0.32

†Albuminuria defined as ACR > 30 mg/g  
ACR=albumin to creatinine ratio

**Supplementary Table 2. Estimated ACR among patients with albuminuria at baseline and at least one follow up visit in the PRIMO trial**

Baseline			48 weeks			Overall
Paricalcitol	Placebo	<i>P</i> value	Paricalcitol	Placebo	<i>P</i> value	<i>P</i> value
424 (302 to 596)	320 (228 to 450)	0.26	358 (237 to 540)	384 (258 to 567)	0.82	0.54

- Models contain 24 week estimates, treatment, visit, and treatment\*visit interaction
- ACR values were log transformed due to non-normality
- ACR=albumin to creatinine ratio

**Supplementary Table 3. Change from baseline to follow-up albumin to creatinine ratio among patients with albuminuria at baseline in the PRIMO trial**

<b>Group</b>	<b>≤15% ACR change</b>	<b>&gt;15% ACR change</b>	<b><i>P</i> value</b>
Paricalcitol	53.1%	46.9%	0.12
Placebo	67.9%	32.1%	

-ACR % change is defined as change between baseline and 48-weeks

-19 subjects without 48-week follow-up data were excluded from the analysis

- ACR=albumin to creatinine ratio

Section/topic	#	Checklist item	Reported on page #
<b>TITLE</b>			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	1
<b>ABSTRACT</b>			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	2
<b>INTRODUCTION</b>			
Rationale	3	Describe the rationale for the review in the context of what is already known.	3-4
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	4
<b>METHODS</b>			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	N/A
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	12
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	12
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	Appendix
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	12
Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	12-13
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	12-13
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	13
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).	12,14
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., $I^2$ ) for each meta-analysis.	14

Section/topic	#	Checklist item	Reported on page #
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	14
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	14
<b>RESULTS</b>			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	Fig1
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	Tab1,2
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	5
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	Fig2
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	6, Fig2
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	5, App
Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	6, Fig3
<b>DISCUSSION</b>			
Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).	8-11
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	11
Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	8-11
<b>FUNDING</b>			
Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.	15

From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(6): e1000097. doi:10.1371/journal.pmed1000097

For more information, visit: [www.prisma-statement.org](http://www.prisma-statement.org).



## PRISMA 2009 Flow Diagram

