

# RISK FACTORS FOR CARDIOVASCULAR EVENTS AND ALL-CAUSE MORTALITY IN DIABETIC HEMODIALYSIS PATIENTS

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## OBJECTIVES

There are uncertainties regarding risk factors for cardiovascular events and all-cause mortality in diabetic hemodialysis patients. We assessed possible associations in a post hoc analysis of the AURORA trial.

## METHODS

AURORA was a randomized, double-blind, placebo-controlled study to investigate the effect of rosuvastatin on cardiovascular outcomes and mortality in hemodialysis patients.

We evaluated association between baseline risk factors and:

- 1) All-cause mortality
- 2) Cardiac events and
- 3) MACE

Cox survival analyses were performed adjusted for all baseline variables listed in the table.

Variable	BASELINE DATA:		Alive at end of follow-up		Dead at end of follow-up	
	n	Means(SD) Frequencies(%)	n	Means (SD) Frequencies(%)	n	Means (SD) Frequencies(%)
Age	299	63,5 (8,1)	432	66.0 (8.4)		
BMI	291	26.3 (5.2)	425	26.7 (5.5)		
Phosphate	298	1.7 (0.5)	430	1.8 (0.6)		
Albumin	298	39.9 (3.4)	430	38.9 (3.6)		
LDL	298	2.5 (0.9)	429	2.4 (0.9)		
HsCRP	198	0.77 (1.0)	429	1.2 (1.2)		
Hemoglobin	291	11.5 (1.7)	422	11.5 (1.6)		
Systolic BP	299	141.1 (25.0)	432	140.5 (25.3)		
Diastolic BP	299	76.1 (12.0)	432	74.3 (1.3)		
Years on dialysis	299	2.4 (1.9)	432	2.4 (2.1)		
Male Gender	299	200 (66.9)	432	279 (64.6)		
Current Smoker	299	28 (9.4)	432	60 (13.9)		
Kt/V $\geq 1.2$	287	122 (42.5)	406	153 (37.7)		

## RESULTS

In total, 731 patients with median age of 65 years were available for analysis. During a median follow-up of 3.6 years there were 432 deaths.

### In multivariate analysis;

1) All-cause mortality was significantly associated with :

Age (HR 1.02, CI 1.01 – 1.04), Albumin (HR 0.96 CI 0.93 -0.99) and HsCRP (HR 1.26 CI 1.11 – 1.32).

1) Cardiac events were associated with

Phosphate (HR 1.32 CI 1.02 – 1.75), Albumin (HR 0.95 CI 0.90 – 0.99) and HsCRP (HR 1.15 CI 1.00 – 1.31).

2) MACE was significantly associated with

Age (HR 1.02 CI 1.00 – 1.04), Smoking (HR 1.47 CI 1.02 – 2.12), Phosphate (HR 1.43 CI 1.14 – 1.78), Albumin (HR 0.95 CI 0.91 -0.98), HsCRP (HR 1.16 CI 1.05 – 1.32) and Hemoglobin (HR 1.01 CI 1.00 – 1.02).

	Age	Albumin	HsCRP	Baseline CVD	Phosphate	Smoking
All-cause mortality	1.01	0.96	1.26	1.47		
Cardiac events		0.95	1.15	1.48	1.32	
MACE	1.02		1.16	1.46	1.43	1.47

## CONCLUSIONS

Non-traditional cardiovascular risk factors are predominant in dialysis patients with diabetes

