SUPPLEMENTARY APPENDIX FOR

Effects of statin medication on mortality risk associated with type 2 diabetes in older persons The population-based AGES-Reykjavik Study

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Running title: Statins and mortality in T2D

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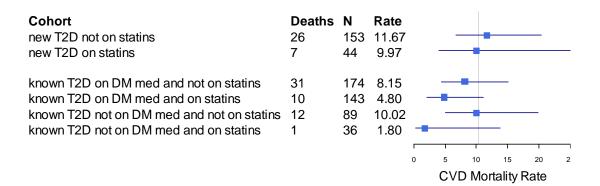
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eTable 1. Statin medication (med) according to history of type 2 diabetes (T2D) and coronary heart disease (CHD). Not T2D are the non-diabetic individuals, T2D known are those with prevalent type 2 diabetes at baseline and T2D new were diagnosed at study entry. The AGES-Reykjavik study from 2002-2006.

	Men and women	Men and women	Men	Women
Diabetes and CHD status	n	% on statin med	% on statin med	% on statin med
Not T2D with prevalent CHD	647	75.8	76.0	75.6
Not T2D without CHD	3866	11.1	9.9	11.7
All T2D	639	35.1	35.8	33.8
T2D known with prevalent CHD	107	69.2	69.7	64.5
T2D known without CHD	335	31.6	27.8	35.5
T2D new with prevalent CHD	42	61.9	67.6	37.5
T2D new without CHD	155	11.6	6.3	17.1

eTable 2. Percentage reduction in mortality hazard between statin users and non-statin users, stratified according to prevalent coronary heart disease (CHD). Reduction in both cardiovascular desease (CVD) mortality rate and all-cause mortality rates in persons with and without type 2 diabetes (T2D) is shown. The AGES-Reykjavik study from 2002-2006.

	Persons	with T2D	Persons	without T2D
	% reduced hazard	95% CI in %	% reduced hazard	95% CI in %
CVD mortality				
With CHD	54	(14 to 75)	24	(-19 to 51)
Without CHD	48	(1 to 73)	14	(-32 to 44)
With and without CHD	50	(8 to 72)	16	(-24 to 43)
All-cause mortality				
With CHD	55	(31 to 71)	34	(10 to 52)
Without CHD	52	(26 to 69)	30	(8 to 46)
With and without CHD	53	(29 to 68)	30	(11 to 46)



b)

Cohort	Deaths	N	Rate	
new T2D not on statins	48	153	31.6	
new T2D on statins	11	44	21.9	
known T2D on DM med and not on statins	57	174	26.5	
known T2D on DM med and on statins	26	143	17.6	
known T2D not on DM med and not on statins	31	89	38.4	
known T2D not on DM med and on statins	5	36	12.6	
			0 5	10 15 20 25 30 35 40 45 Mortality Rate

eFigure 1. Mortality rate by diabetes status; the use of glucose lowering (DM med) and statin medication. a) Cardiovascular disease (CVD) mortality rate and b) all-cause mortality rate per 1000 person years for subjects with diabetes diagnosed at study entry (new T2D) and prevalent type 2 diabetes (known T2D). Rates have been adjusted to age 75, sex and the mean levels of cardiovascular risk factors (cholesterol, HDL-cholesterol, systolic blood pressure, BMI, triglycerides, hypertensive medication and current smoking). Follow up was through 2009 (a median period of 5.3 years) for the AGES-Reykjavik study. The vertical lines represent the mortality rate of all T2D (N=639), see Figure 1 a) and b).

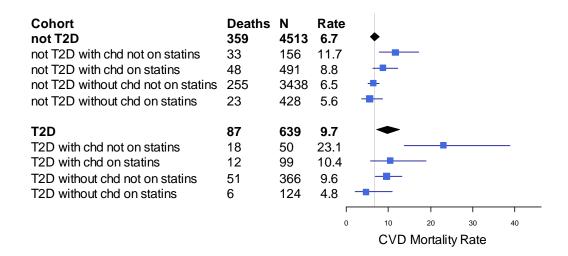
Cohort Bottom third HbA1c not on statins Middle third HbA1c not on statins Top third HbA1c not on statins Bottom third HbA1c on statins	Deaths 25 15 20 4	106	Rate 12.0 10.7 12.0 7.53		-		
Middle third HbA1c on statins	5	64	7.24				
Top third HbA1c on statins	9	88	8.64				
				I	1		
			0	10	20		
			CVD Mortality Rate				

b)

a)

Cohort Bottom third HbA1c not on statins Middle third HbA1c not on statins	Deaths 52 30	-	Rate 36.8 29.9				-	
Top third HbA1c not on statins	42		35.9				•	
Bottom third HbA1c on statins Middle third HbA1c on statins Top third HbA1c on statins	8 12 20	54 64 88	19.4 21.4 25.2	_	-			
				1	1		1	1
			0 10 20 30 40 50 Mortality Rate					

eFigure 2. Mortality rate by statin use and tertiles of HbA1c. a) Cardiovascular disease (CVD) mortality rate and b) all cause mortality rate per 1000 person years for subjects with type 2 diabetes (T2D) according to statin use and tertiles of HbA1c. Rates have been adjusted to age 75, sex and the mean levels of cardiovascular risk factors (cholesterol, HDL-cholesterol, systolic blood pressure, BMI, triglycerides, hypertensive medication and current smoking). Follow up was through 2009 (a median period of 5.3 years) for the AGES-Reykjavik study. The vertical lines represent the mortality rate of all T2D (N=639), see Figure 1 a) and b).



Cohort	Deaths	N	Rate	•
not T2D	874	4513	21.1	
not T2D with chd not on statins	58	156	29.0	
not T2D with chd on statins	93	491	19.0	
not T2D without chd not on statins	666	3438	22.3	
not T2D without chd on statins	57	428	16.0	
T2D T2D with chd not on statins T2D with chd on statins T2D without chd not on statins T2D without chd on statins	178 31 27 105 15	639 50 99 366 124	28.0 61.5 26.2 28.5 13.7	0 20 30 40 50 60 70 80 90 Mortality Rate

eFigure 3. a) Cardiovascular disease (CVD) mortality rate and b) all cause mortality rate per 1000 person years for subjects without type 2 diabetes (not T2D) and with type 2 diabetes (T2D) according to statin use and prevalent coronary heart disease (chd). Rates have been adjusted to age 75, sex and the mean levels of cardiovascular risk factors (cholesterol, HDL-cholesterol, systolic blood pressure, BMI, triglycerides, hypertensive medication, current smoking) as well as education level and physical activity. Follow up was through 2009 (a median period of 5.3 years) for the AGES-Reykjavik study. The vertical lines represent the mortality rate of all without diabetes (not T2D, N=4513)