



# Impact des Alters auf kardiovaskuläre Medikamente - Was ist vernünftig?

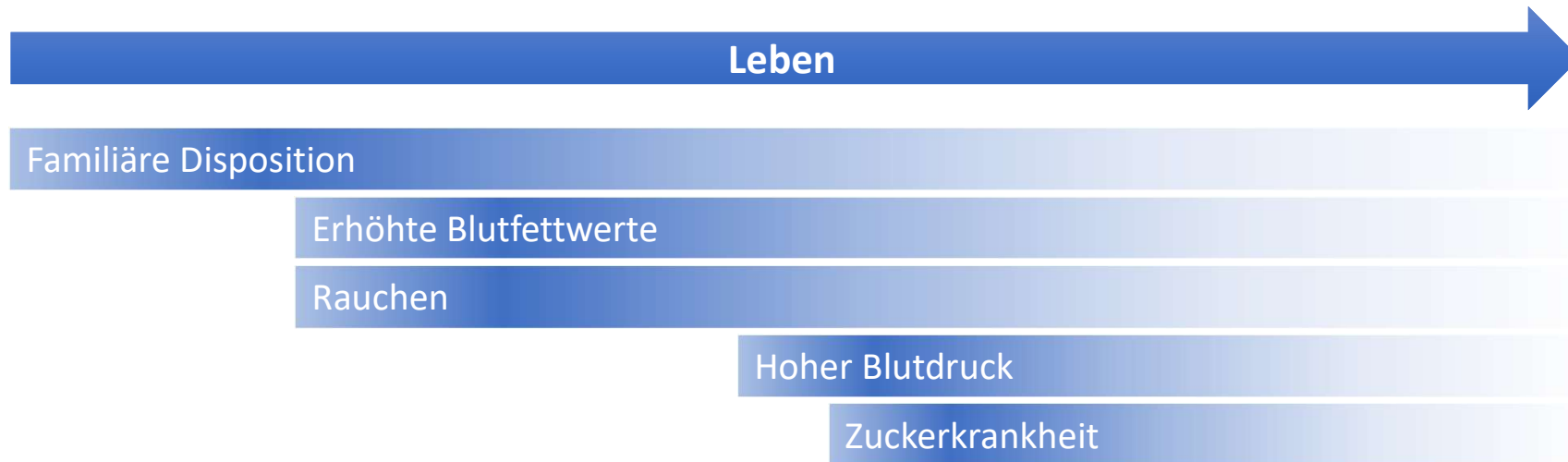
Prof. Dr. med. Andreas Schoenenberger

Chefarzt Medizinische Klinik, Kantonsspital Münsterlingen

## Wichtigkeit der restlichen Lebenserwartung

Wertung von Nutzen und Risiko von Therapien in  
Anbetracht der restlichen Lebenserwartung ist wichtig,  
nicht das kalendarische Alter

# Segensreiche Medikamente für die Gefässe



**Atherosklerose**

# Segensreiche Medikamente gegen hohen Blutdruck

**Table 2. Main Fatal and Nonfatal End Points in the Intention-to-Treat Population.**

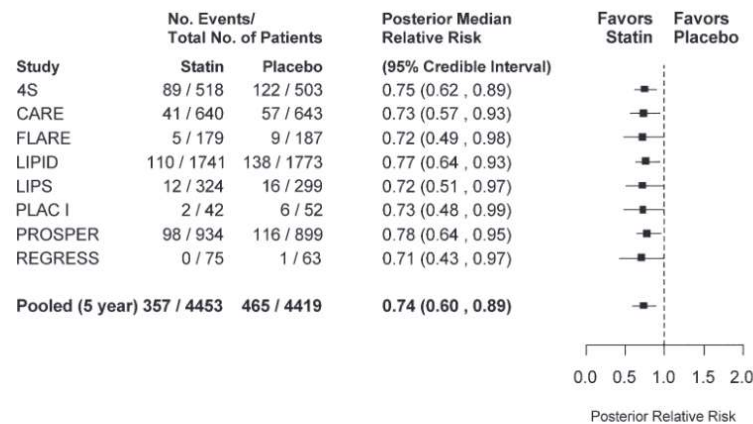
End Point	Rate per 1000 Patient-Yr (No. of Events)		Unadjusted Hazard Ratio (95% CI)	P Value
	Active	Placebo		
	no. (%)			
Stroke				
Fatal or nonfatal	12.4 (51)	17.7 (69)	0.70 (0.49–1.01)	0.06
Death from stroke	6.5 (27)	10.7 (42)	0.61 (0.38–0.99)	0.046
Death				
From any cause	47.2 (196)	59.6 (235)	0.79 (0.65–0.95)	0.02
From noncardiovascular or unknown causes	23.4 (97)	28.9 (114)	0.81 (0.62–1.06)	0.12
From cardiovascular cause	23.9 (99)	30.7 (121)	0.77 (0.60–1.01)	0.06
From cardiac cause*	6.0 (25)	8.4 (33)	0.71 (0.42–1.19)	0.19
From heart failure	1.5 (6)	3.0 (12)	0.48 (0.18–1.28)	0.14
Fatal or nonfatal				
Any myocardial infarction	2.2 (9)	3.1 (12)	0.72 (0.30–1.70)	0.45
Any heart failure	5.3 (22)	14.8 (57)	0.36 (0.22–0.58)	<0.001
Any cardiovascular event†	33.7 (138)	50.6 (193)	0.66 (0.53–0.82)	<0.001

\* Death from cardiac causes was defined as fatal myocardial infarction, fatal heart failure, and sudden death.

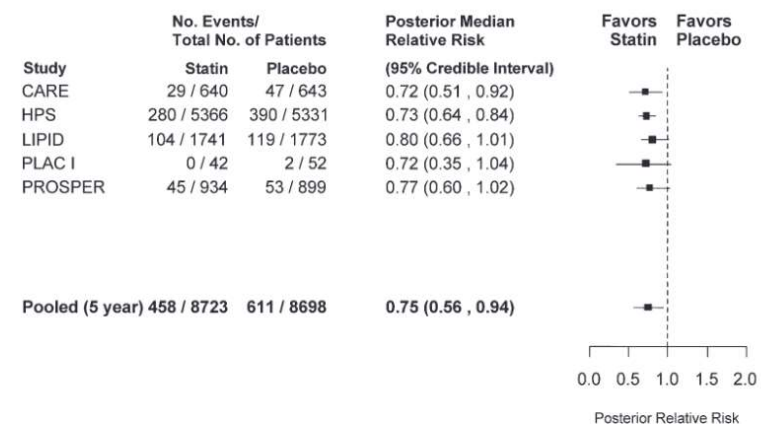
† Any cardiovascular event was defined as death from cardiovascular causes or stroke, myocardial infarction, or heart failure.

# Segensreiche Medikamente gegen hohes Cholesterin

## Statins for Secondary Prevention in Elderly Patients



Forest Plot for Nonfatal Myocardial Infarction



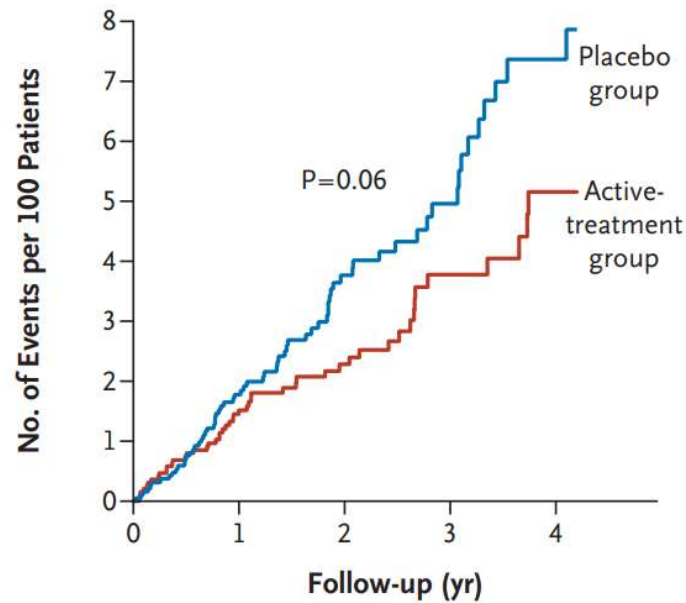
Forest Plot for Stroke

### Conclusions

Statins reduce all-cause mortality in elderly patients and the magnitude of this effect is substantially larger than had been previously estimated. (J Am Coll Cardiol 2008;51:37-45) © 2008 by the American College of Cardiology Foundation

# Nutzen am Beispiel Behandlung gegen hohen Blutdruck

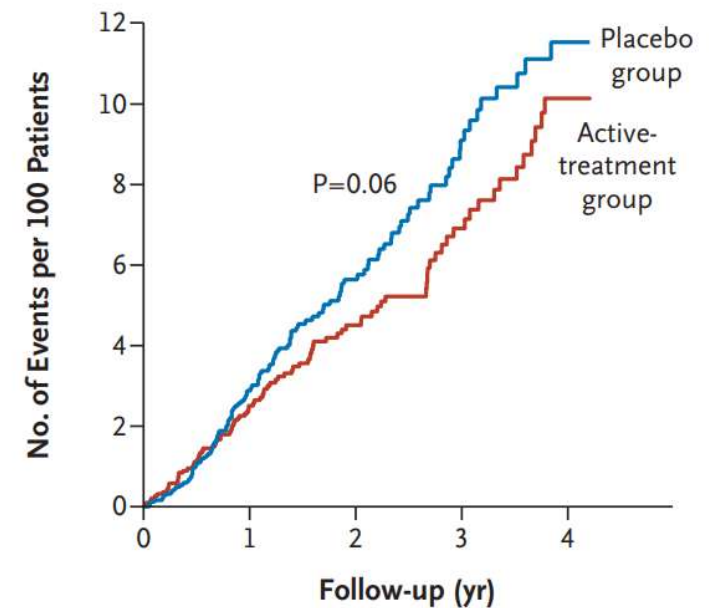
**A Fatal or Nonfatal Stroke**



**No. at Risk**

Placebo group	1912	1484	807	374	194
Active-treatment group	1933	1557	873	417	229

**C Death from Cardiovascular Causes**

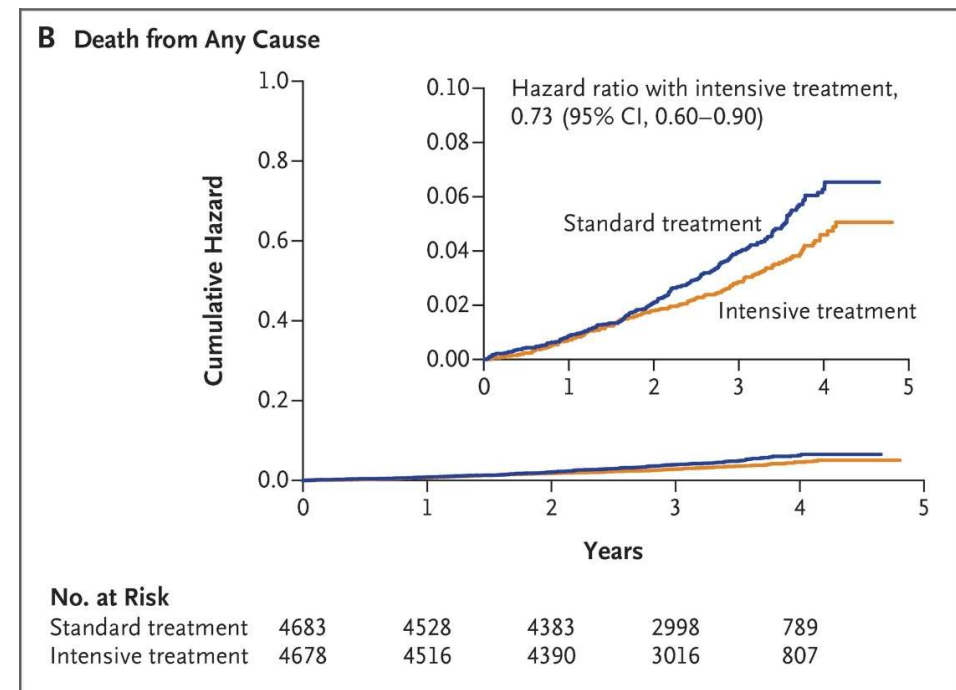
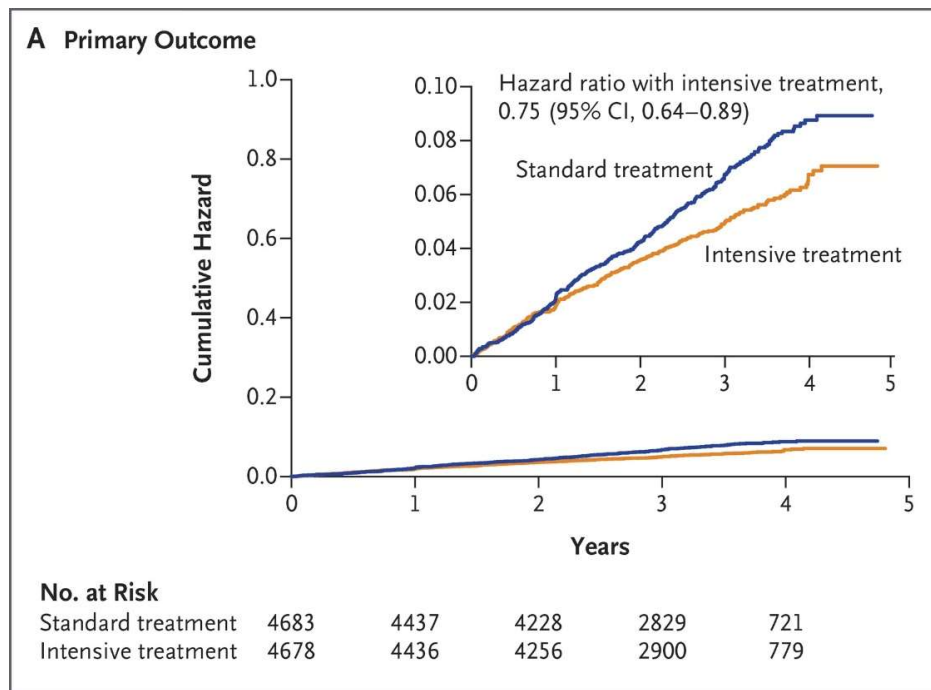


**No. at Risk**

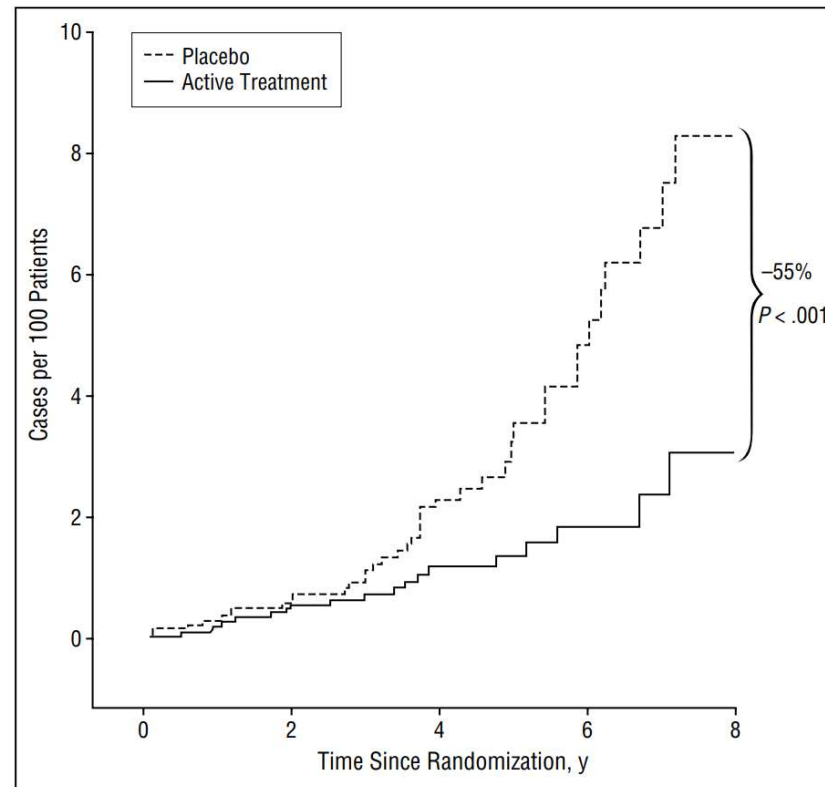
Placebo group	1912	1492	814	379	202
Active-treatment group	1933	1565	877	420	231



# Nutzen am Beispiel Behandlung gegen hohen Blutdruck

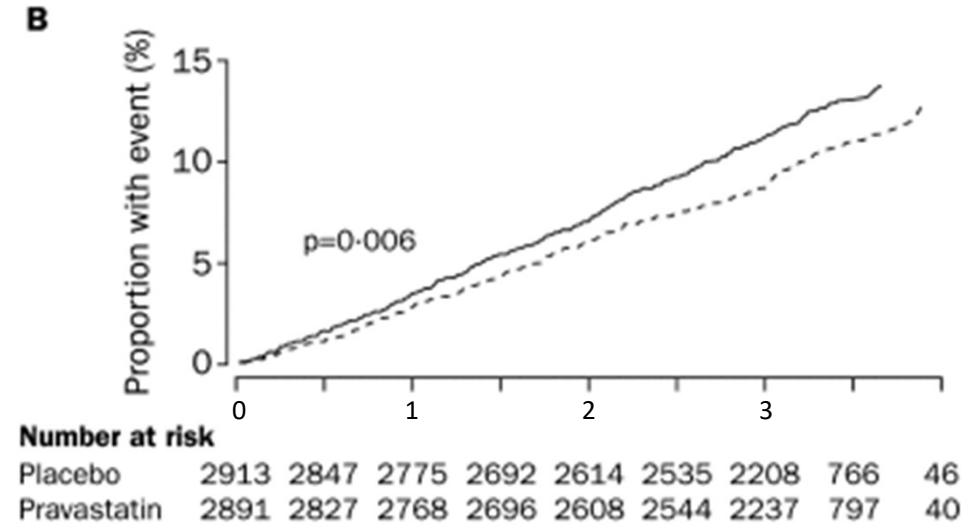
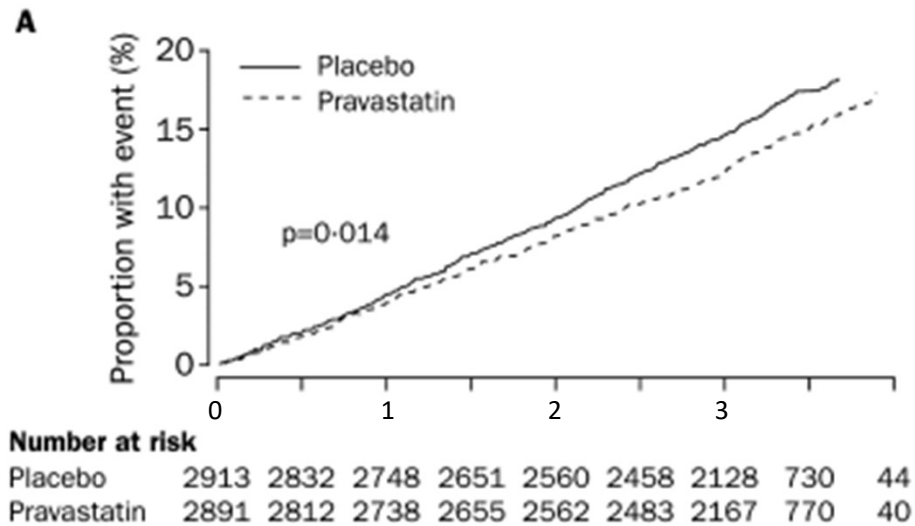


# Nutzen am Beispiel Behandlung gegen hohen Blutdruck

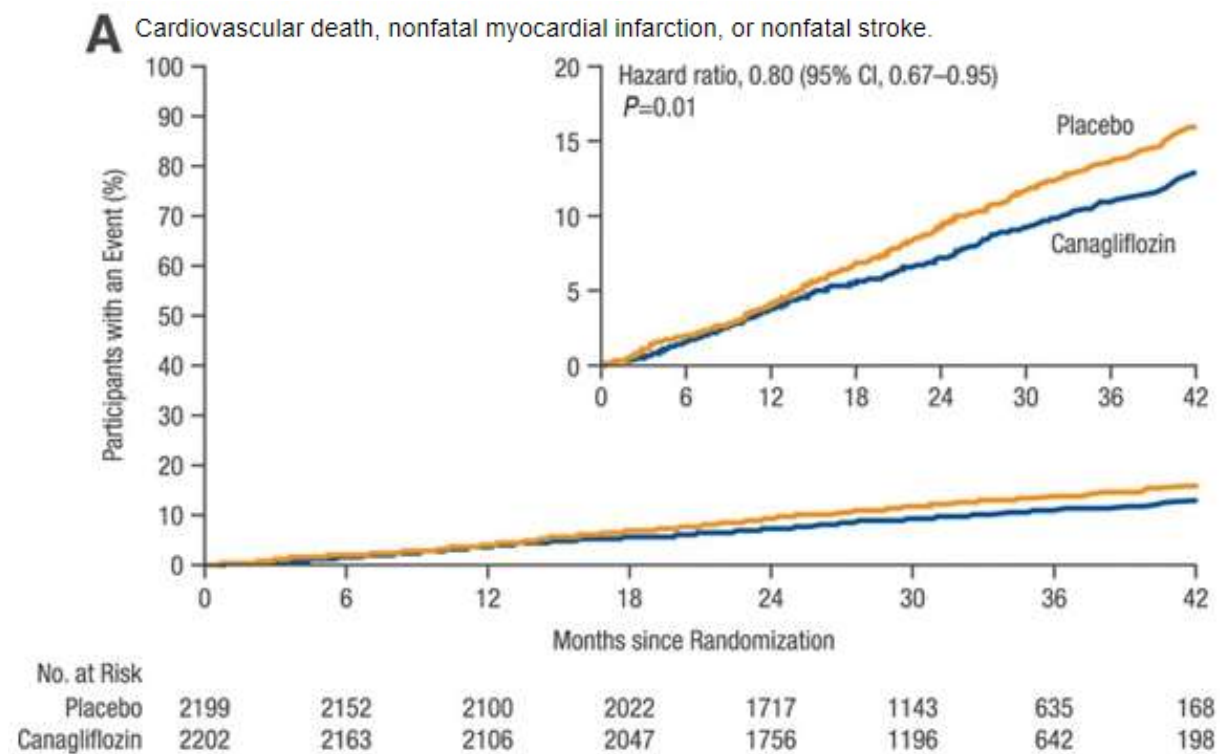




# Nutzen am Beispiel Behandlung gegen Cholesterin



# Nutzen am Beispiel Behandlung gegen Diabetes

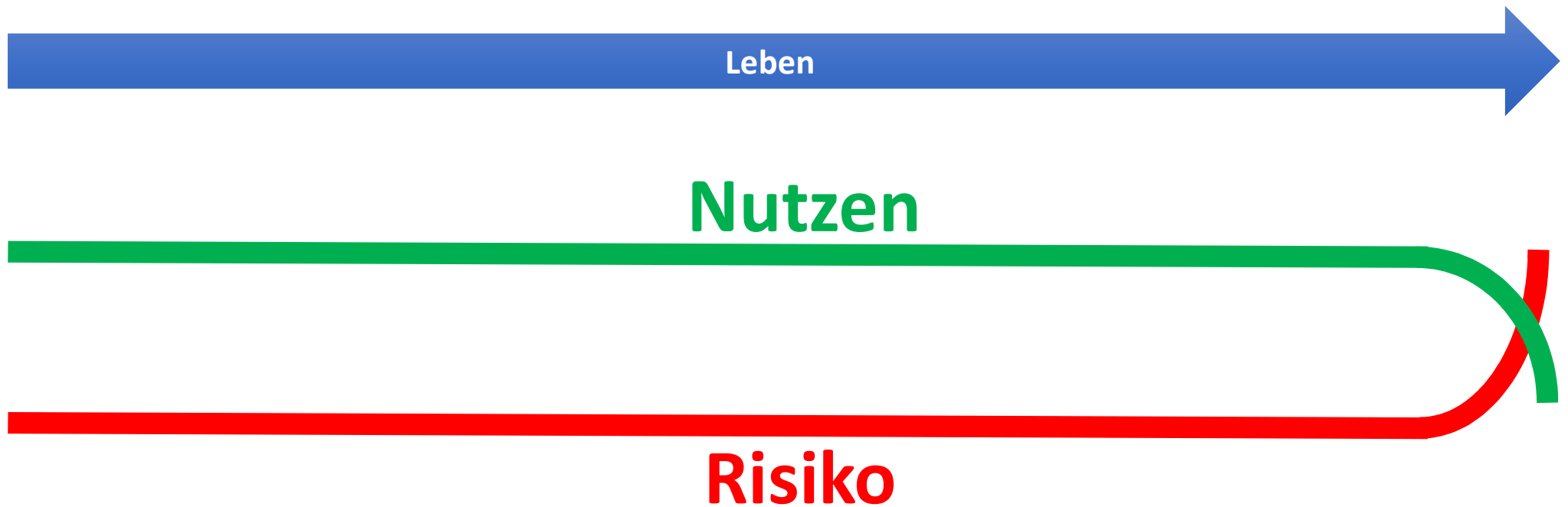


# Risiko am Beispiel Behandlung gegen hohen Blutdruck

**Table 2. Effect of Antihypertensive Medication Use on the Occurrence of Serious Fall Injuries in Older Adults With Hypertension**

Antihypertensive Use	Adjusted Hazard Ratio (95% CI)	
	Full Cohort (n = 4961) <sup>a</sup>	PS-Matched Subcohort (n = 2849) <sup>b</sup>
Antihypertensive intensity <sup>c</sup>		
None	1 [Reference]	1 [Reference]
Antihypertensive intensity <sup>c</sup>		
None	1 [Reference]	1 [Reference]
Moderate	1.40 (1.03-1.90)	1.22 (0.80-1.71)
High	1.28 (0.91-1.80)	1.24 (0.83-1.84)

# Nutzen und Risiko von Behandlungen am Lebensende



## Wichtigkeit der restlichen Lebenserwartung

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# CRIME-Liste (CRITERia to assess appropriate Medication use among Elderly complex patients)

## Antihypertensiva

*Recommendation 1: In patients with dementia or cognitive impairment or functional limitation, a tight blood pressure control (<140/90 mmHg) is not recommended.*

*Recommendation 2: In patients with dementia or cognitive impairment or functional limitation, use of more than three antihypertensive drugs should be avoided.*

*Recommendation 3: In patients with limited life expectancy (<2 years), a tight blood pressure control (<140/90 mmHg) is not recommended.*

*Recommendation 4: In case of falls associated with orthostatic hypotension (or symptomatic orthostatic hypotension), the number of antihypertensive drugs should be reduced and concomitant use of multiple antihypertensive agents should be avoided.*

## Statine

*Recommendation 1: The use of statins for secondary prevention in older adults with limited life expectancy (<2 years) or advanced dementia is not recommended.*

## Antikoagulantien

*Recommendation 1: In patients with non-valvular atrial fibrillation and limited life expectancy (<6 months), the use of oral anticoagulants should be avoided.*

## Antidiabetika

*Recommendation 1: In patients with limited life expectancy (<5 years) or functional limitation, intensive glycemic control (HbA1c <7 %) is not recommended.*

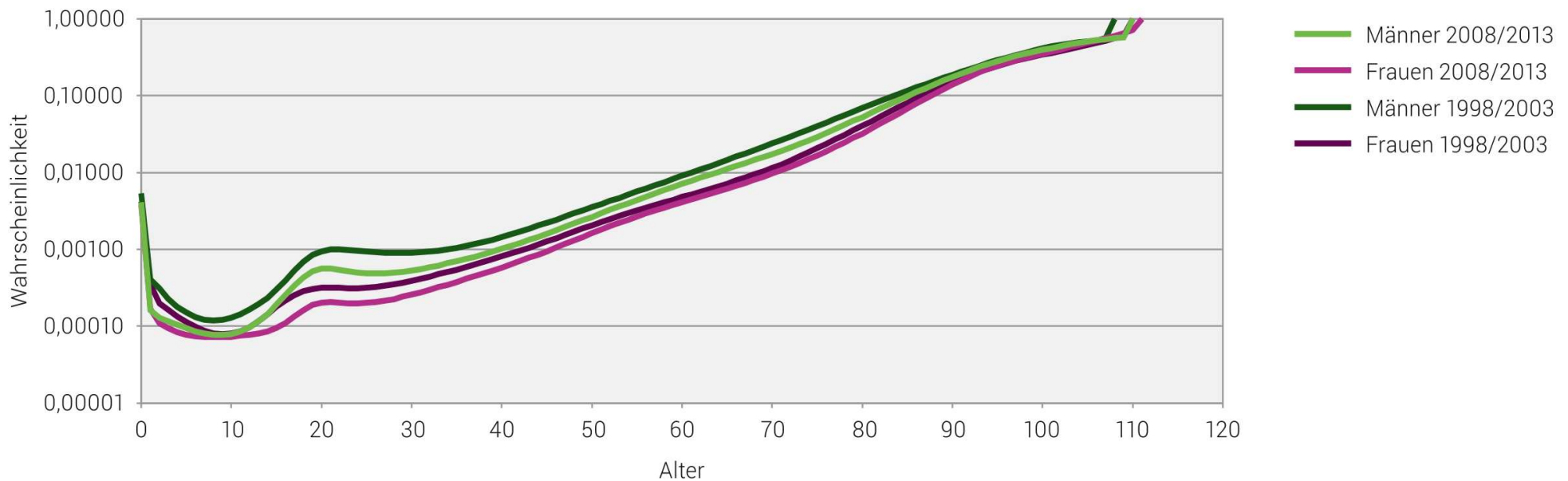
## Das Problem der restlichen Lebenserwartung im Alter

	1981	1991	2001	2011	2021
<b>Bei der Geburt</b>					
Männer	72.4	74.1	77.4	80.3	81.6
Frauen	79.2	81.2	83.1	84.7	85.7
<b>Im Alter von 80 Jahren</b>					
Männer	6.2	6.8	7.6	8.4	9.0
Frauen	7.6	8.7	9.4	10.1	10.6
<b>Im Alter von 90 Jahren</b>					
Männer	3.3	3.4	3.7	3.9	4.0
Frauen	3.8	4.0	4.4	4.6	4.7



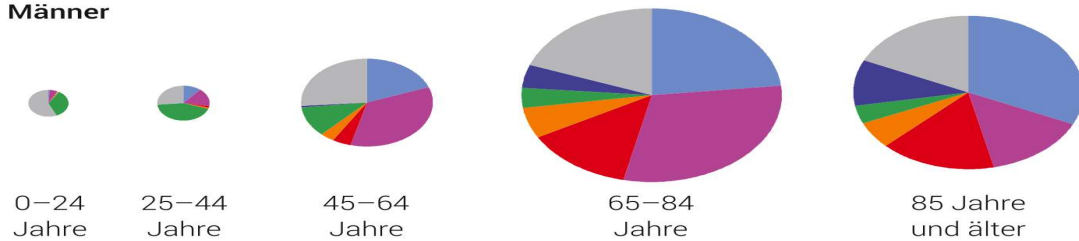
# Das Problem der restlichen Lebenserwartung im Alter

## Sterbewahrscheinlichkeit in der CH 1998 und 2008



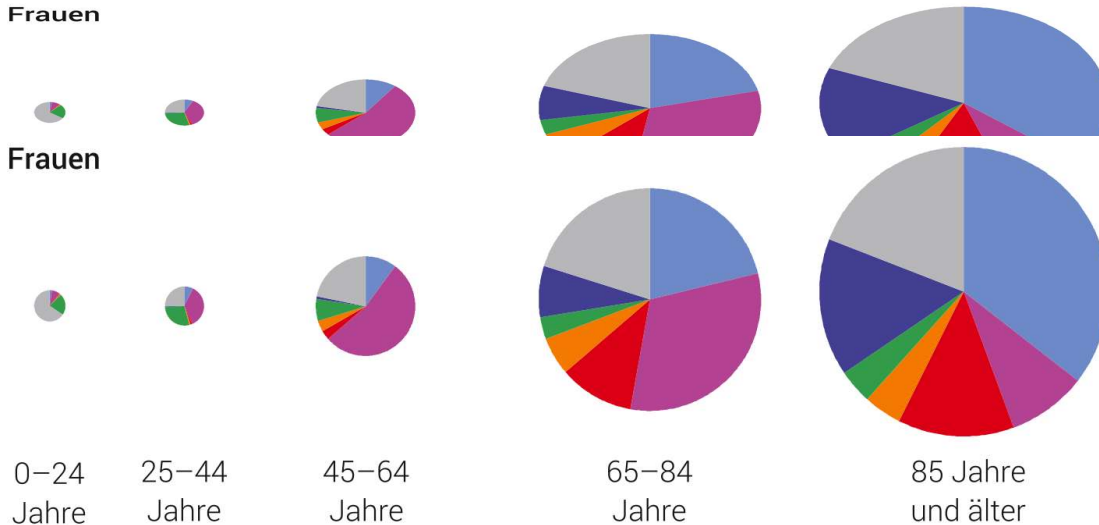
# Demenz als lebenslimitierende Diagnose

## Männer

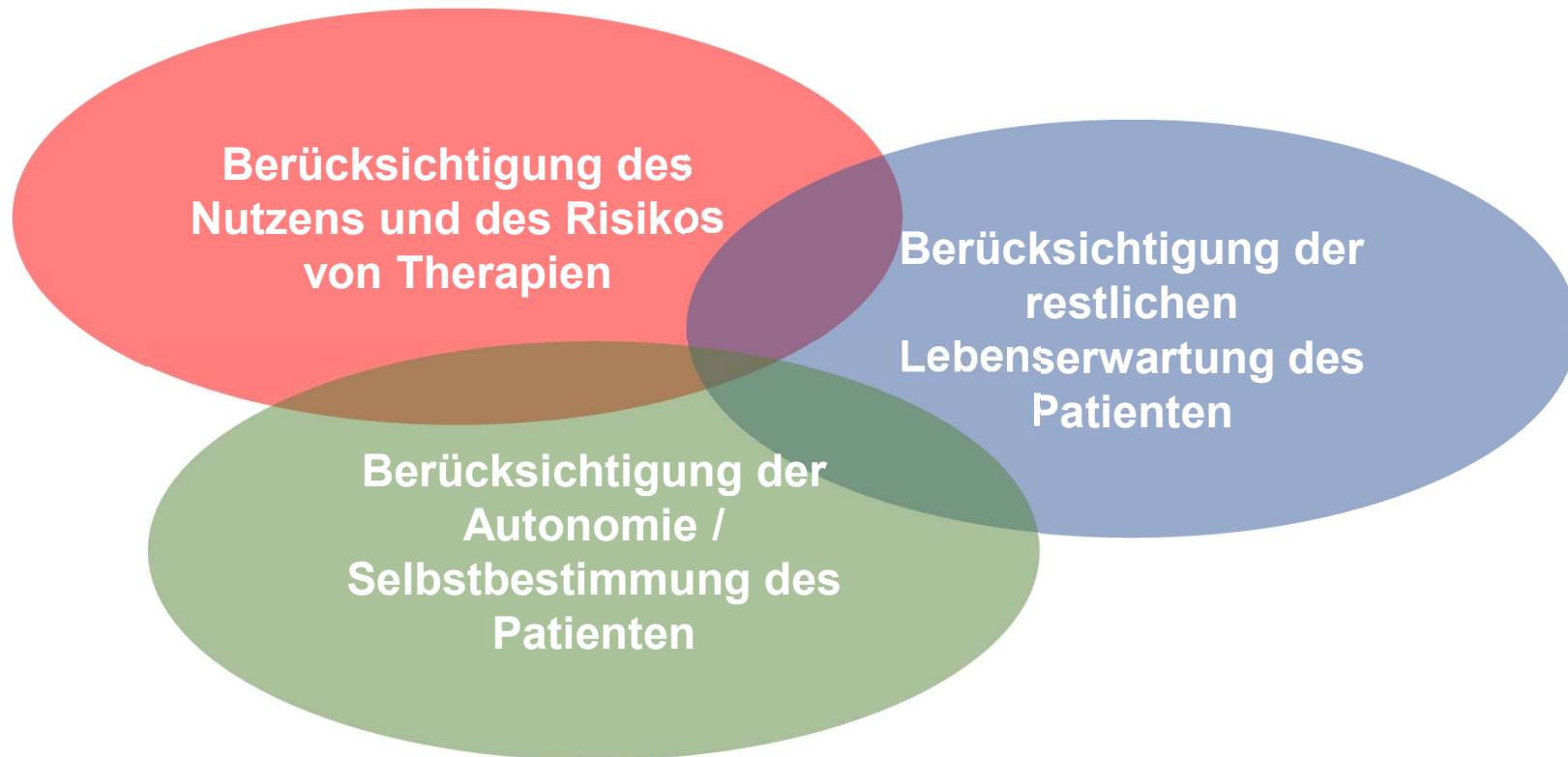


## Frauen

### Frauen



## Fachkompetenz und Erfahrung wichtig



# Diskussion