Todesursache Schlaganfall

Quelle: The Global Burden of Disease
Update 2004, WHO 2008

Table 2: Leading causes of death by income group, 2004

	Disease or injury	Deaths (millions)	Per cent of total deaths
	World		
1	Ischaemic heart disease	7.2	12.2
2	Cerebrovascular disease	5.7	9.7
3	Lower respiratory infections	4.2	7.1
4	COPD	3.0	5.1
5	Diarrhoeal diseases	2.2	3.7
6	HIV/AIDS	2.0	3.5
7	Tuberculosis	1.5	2.5
8	Trachea, bronchus, lung cancers	1.3	2.3
9	Road traffic accidents	1.3	2.2
10	Prematurity and low birth weight	1.2	2.0
	Middle-income countries		
1	Cerebrovascular disease	3.5	14.2
2	Ischaemic heart disease	3.4	13.9
3	COPD	1.8	7.4
4	Lower respiratory infections	0.9	3.8
5	Trachea, bronchus, lung cancers	0.7	2.9
6	Road traffic accidents	0.7	2.8
7	Hypertensive heart disease	0.6	2.5
8	Stomach cancer	0.5	2.2
9	Tuberculosis	0.5	2.2
10	Diabetes mellitus	0.5	2.1

	Disease or injury	Deaths (millions)	Per cent of total deaths
	Low-income countries[a]		
1	Lower respiratory infections	2.9	11.2
2	Ischaemic heart disease	2.5	9.4
3	Diarrhoeal diseases	1.8	6.9
4	HIV/AIDS	1.5	5.7
5	Cerebrovascular disease	1.5	5.6
6	COPD	0.9	3.6
7	Tuberculosis	0.9	3.5
8	Neonatal infections[b]	0.9	3.4
9	Malaria	0.9	3.3
10	Prematurity and low birth weight	0.8	3.2
	High-income countries		
1	Ischaemic heart disease	1.3	16.3
2	Cerebrovascular disease	0.8	9.3
3	Trachea, bronchus, lung cancers	0.5	5.9
4	Lower respiratory infections	0.3	3.8
5	COPD	0.3	3.5
6	Alzheimer and other dementias	0.3	3.4
7	Colon and rectum cancers	0.3	3.3
8	Diabetes mellitus	0.2	2.8
9	Breast cancer	0.2	2.0
10	Stomach cancer	0.1	1.8

Gesellschaftliche Dimension des Schlaganfalls

Todesursachenstatistik in Deutschland (2010):

1. Platz: Herz-Kreislauf-Erkrankungen (25.3%)
2. Platz: Krebs (8.9%)
3. Platz: Schlaganfall (7.3%)

Weltweit (WHO 2008):
Platz 2. (5.7% aller Todesfälle)

Behinderung häufigste Ursache für lebenslange Behinderung im Erwachsenenalter (35%)

Krankheitskosten 2 Milliarden Euro/ Jahr (direkte Kosten)

Nicht modifizierbare Risikofaktoren

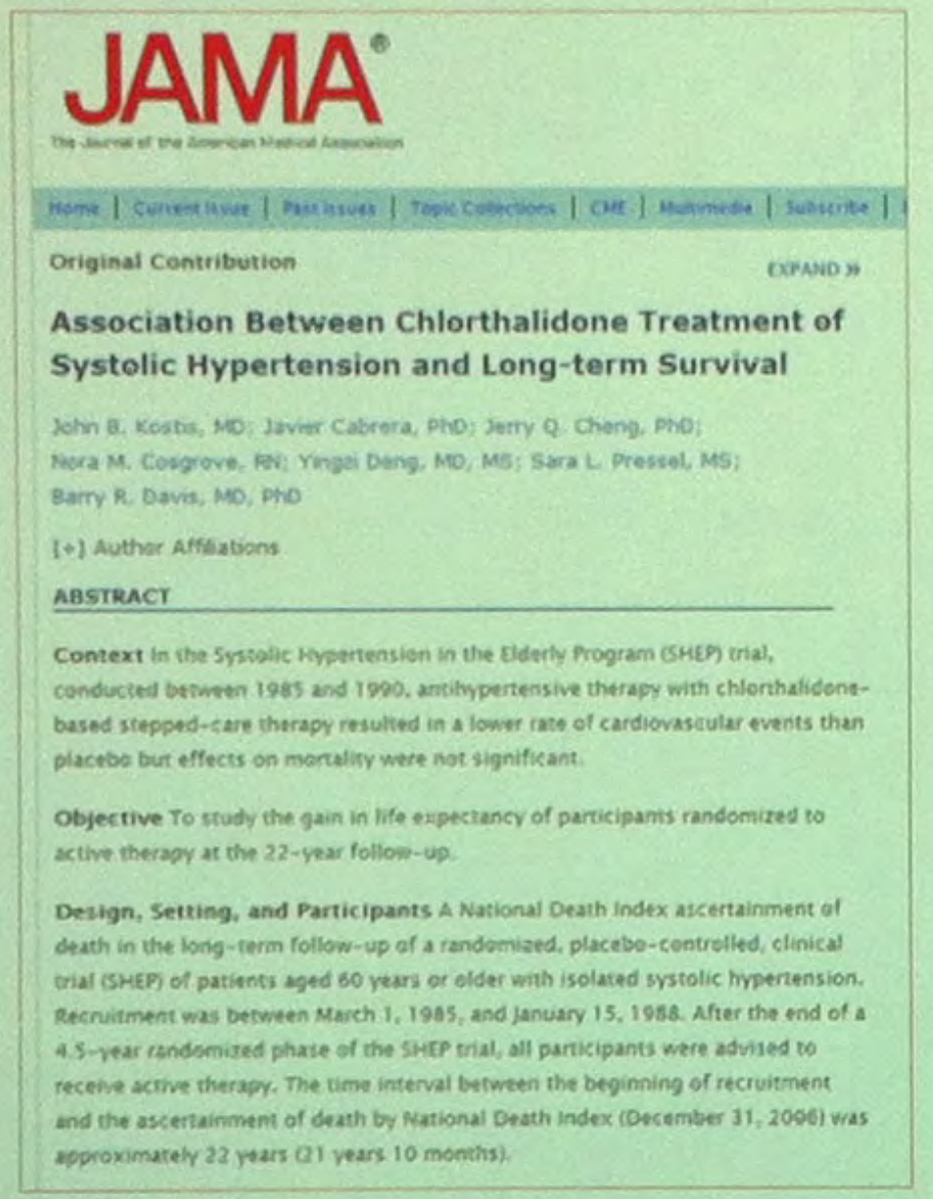
Quelle: Goldstein et al. Stroke 2001

Table 2. Nonmodifiable Risk Factors

Factor	Incidence	Population Attributable Risk	Relative Risk	Risk Reduction With Treatment
Age[9,10]	Doubling of stroke rate each 10 years after age 55	...	...	...
Race[11]	Blacks: 233/100 000 Hispanics: 196/100 000 Whites: 93/100 000	...	...	...
Sex[8]	Men: 174/100 000 Women: 122/100 000 Total: 145/100 000	...	...	...
Family history of stroke/TIA[27]	...	...	RR paternal history: 2.4 (95% CI 0.96–6.03) RR maternal history: 1.4 (95% CI 0.60–3.25)	...

RR indicates relative risk.

JAMA, 11 Januar 2012



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Original Contribution EXPAND »

Association Between Chlorthalidone Treatment of Systolic Hypertension and Long-term Survival

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ABSTRACT

Context In the Systolic Hypertension in the Elderly Program (SHEP) trial, conducted between 1985 and 1990, antihypertensive therapy with chlorthalidone-based stepped-care therapy resulted in a lower rate of cardiovascular events than placebo but effects on mortality were not significant.

Objective To study the gain in life expectancy of participants randomized to active therapy at the 22-year follow-up.

Design, Setting, and Participants A National Death Index ascertainment of death in the long-term follow-up of a randomized, placebo-controlled, clinical trial (SHEP) of patients aged 60 years or older with isolated systolic hypertension. Recruitment was between March 1, 1985, and January 15, 1988. After the end of a 4.5-year randomized phase of the SHEP trial, all participants were advised to receive active therapy. The time interval between the beginning of recruitment and the ascertainment of death by National Death Index (December 31, 2006) was approximately 22 years (21 years 10 months).

☑

Nach Berechnungen der SHEP-Autoren resultiert folgende Formel:

Mit jedem Monat, den ein Hypertoniker unter kontinuierlicher antihypertensiver Therapie verbringt, **erhöht sich die Lebenszeit**, die er ohne eine tödliche kardiovaskuläre Komplikation verbringt, **um einen zusätzlichen Tag.**

Häufigkeit	60-70% aller Personen > 60 Jahre ☑
	15 Millionen betroffen 5 Millionen nicht ausreichend behandelt 5 Millionen wissen dies nicht
Schlaganfall-Risiko	6-12fach
Haupt-Risikofaktor	bei 35-50% aller Hirninfarkte bei 60-70% aller Hirnblutungen
Ursachen	versteckte Salze: z.B. Japan: Soja-Sauce z. B. Neufundland: Pökelprodukte Deutschland: Wurstwaren, Sandwiches usw.

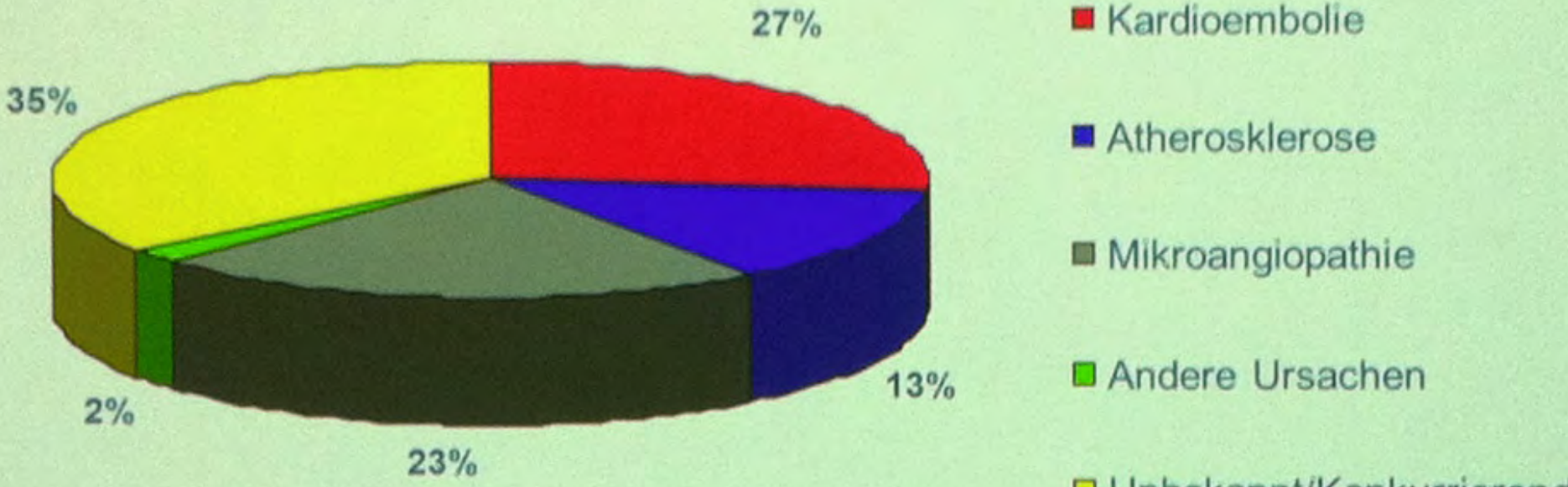
☑

Studien	UK Preventive Diabetes Study (5102 Patienten) Nachverfolgung von Diabetikern über 10 Jahre
Prävention	Senkung des Schlaganfall-Risikos um 12% pro 1% Senkung des **HbA1c (BZ-Gedächtnis)**
Behandlung	Gewichtsreduktion, Diät orale Antidiabetika Insulin
Regel	Senkung HbA1c unter 7% egal wie !!!

Häufigkeit	0.8% der Gesamtbevölkerung
Altersabhängigkeit	Framingham Heart Study 0.7% in Altersgruppe 50-59 18% in Altersgruppe >85
Schlaganfall-Risiko	6-fach
Hauptrisiko-Faktor	28% der Hirninfarkte in Altersgruppe 80-89 Jahre

Ursachen von Hirninfarkte in der Bevölkerung
Erlanger Schlaganfall Projekt

Quelle: Kolominsky-Rabas et al., Stroke 2001



Vorhofflimmern
Übersicht – orale Antikoagulantien
Quelle: Sander et al., Aktuelle Neurologie 2011

Tab. 6 Übersicht der oralen Antikoagulanzien (modifiziert nach: [55, 112]).

	Phenprocoumon	Dabigatran	Apixaban	Rivaroxaban
Wirkmechanismus	Vitamin-K-Antagonist	Thrombin-Inhibitor	Faktor Xa-Inhibitor	Faktor Xa-Inhibitor
Dosis	Nach INR	2 × täglich	2 × täglich	1 × täglich
orale Bioverfüg-barkeit (%)	Variabel	80	65	47
Plasmaspitze (h)	Variabel	1–3	1–3	2–4
Halbwertszeit (h)	Ca. 40	17	Ca. 12	9–12
Elimination	Hepatisch	Renal 80%	Renal 25%	Renal 54%
Antidot	Ja	Nein	Nein	Nein
Interaktionen	zahlreich	P-Glykoprotein-Inhibitor	CYP3A4-Inhibitor P-Glykoprotein-Inhibitor	CYP3A4-Inhibitor P-Glykoprotein-Inhibitor

Sander D et al. Primärprävention des Schlaganfalls... Akt Neurol 2011; 38: 414–427

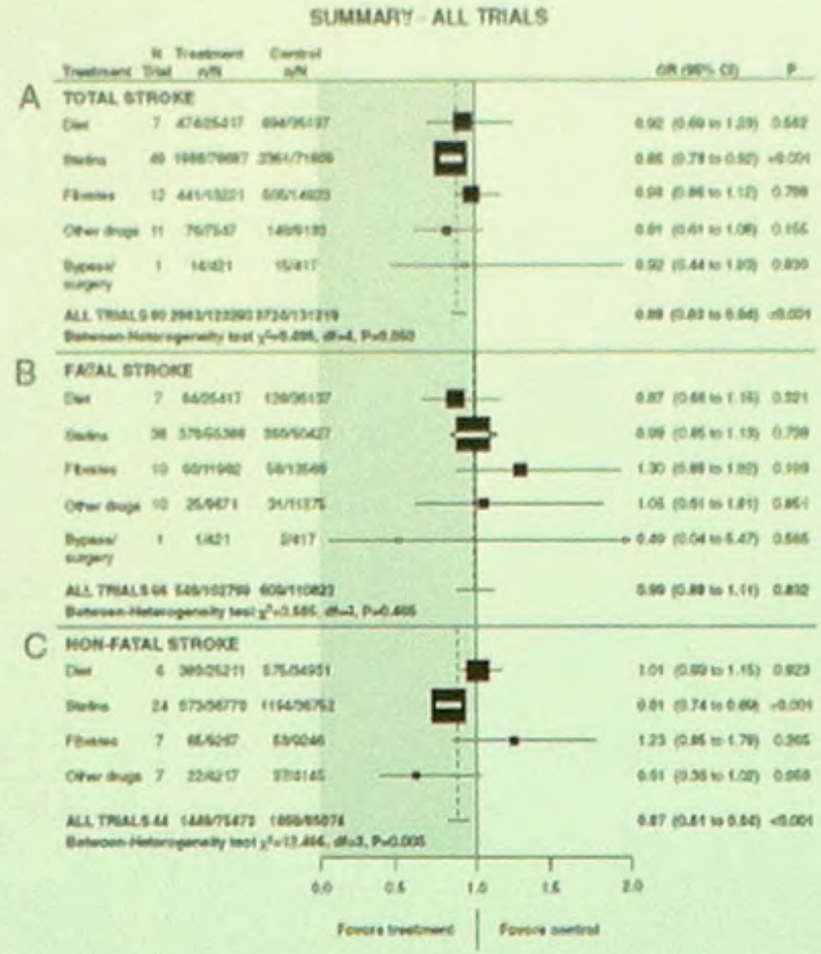
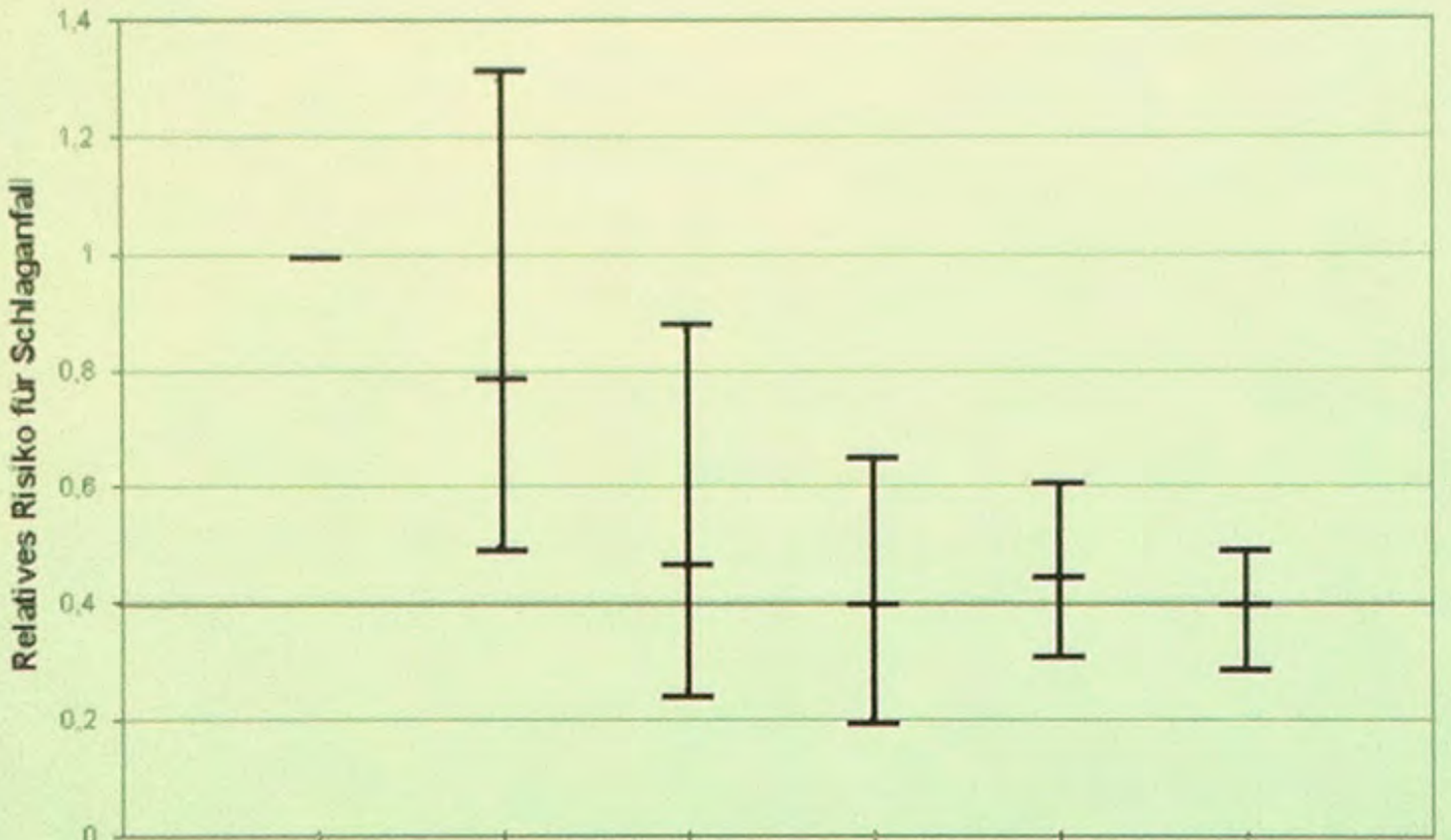


Figure 2 Cumulative OR and 95% CI for Total, Fatal, and Nonfatal Stroke

Cumulative odds ratios (ORs) and 95% confidence intervals (CIs) for the occurrence of total stroke (**A**), fatal stroke (**B**), and nonfatal stroke (**C**), each also separated for statin trials and trials involving other interventions: diet, fibrates, "other drugs," and surgery. The OR of an event in the treatment group compared with that in the control group is plotted for each trial (the **black square** indicates area proportional to the amount of statistical information contributed by trial) along with its 95% CI (**bars and dotted line**). The **black squares to the left of the solid vertical line** indicate benefit, which is significant at $p < 0.05$ only where the entire CI is to the left of the vertical line. The overall result of all trials (and 95% CI) is represented by a **vertical dashed line** (with a **horizontal line at the bottom of each panel** indicating its 95% CI). The OR and 95% CI are given to the right for each subcategory analyzed.

Schlaganfall-Risiko bei sog. Ex-Rauchern
Framingham Studie

Quelle: Wolf PA et al., JAMA 1988



WHO-Empfehlung für Alkoholkonsum

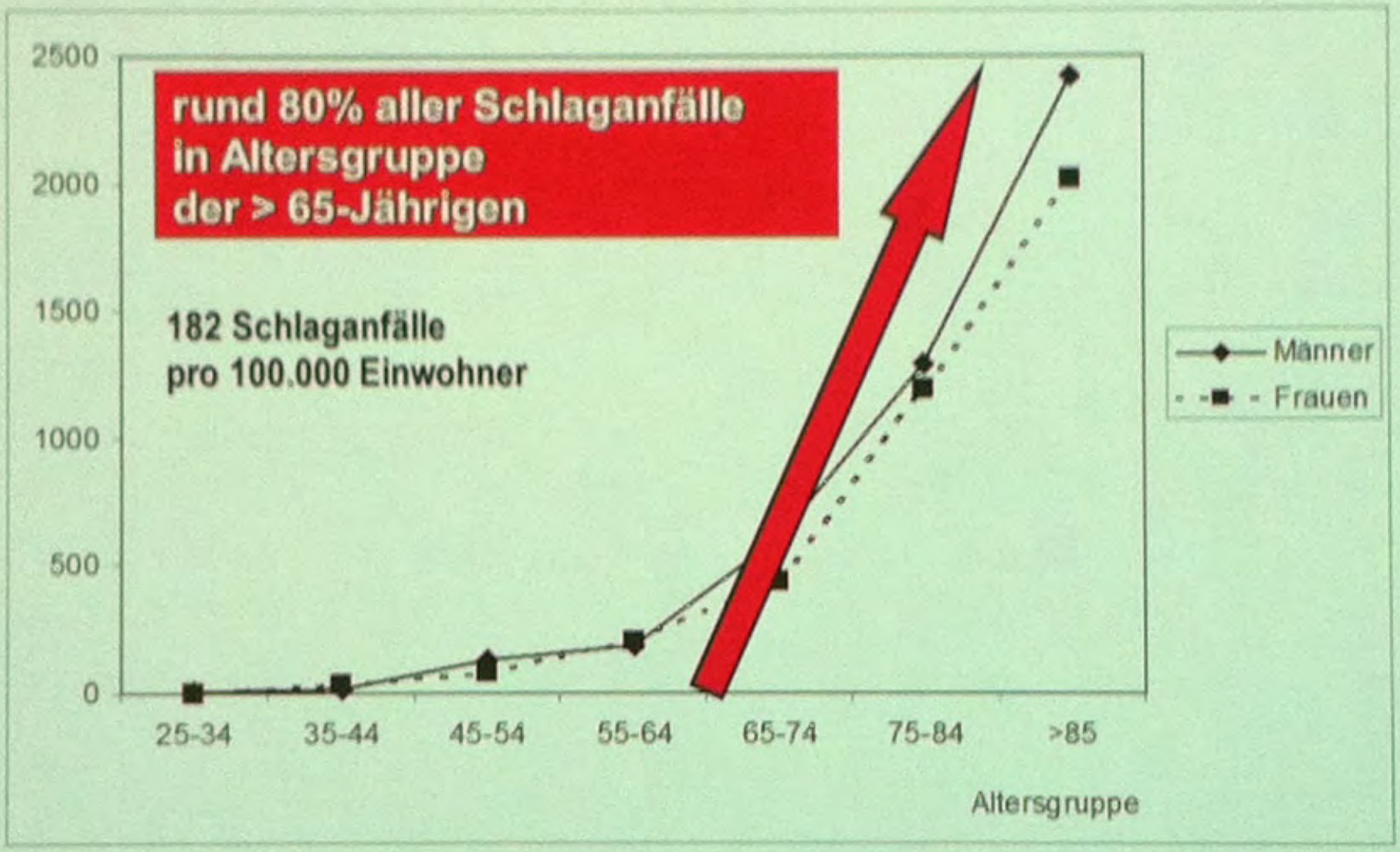
1. Die risikoarme Schwellendosis im Umgang mit Alkohol beim gesunden Menschen ohne zusätzliches genetisches oder erworbenes Risiko liegt beim

Mann bis 24 g Alkohol pro Tag	(0,6 Liter Bier oder 0,3 Liter Wein)
Frau bis 12 g Alkohol pro Tag	(0,3 Liter Bier oder 0,15 Liter Wein)

2. Auch bei dieser Alkoholdosis sollten mindestens 2 alkoholfreie Tage pro Woche eingehalten werde.

Die Menge des Alkohols entscheidet !
Art des Getränkes unbedeutend !

Inzidenz nach Altersgruppen Erlanger Schlaganfall Register



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Kosten der Schlaganfallversorgung 2006 - 2025

Quelle: Lifetime Cost of Ischemic Stroke in Germany
The Erlangen Stroke Project, Stroke 2006; 37: 1179-1183.

	Männer		Frauen		Gesamt	
Horizont	Fälle	Milliarden	Fälle	Milliarden	Fälle	Milliarden
2006-2010	331,000	13.8	425,000	16.1	756,000	29.9
2006-2015	701,000	27.1	880,000	30.9	1,581,000	58.0
2006-2020	1,108,000	39.7	1,367,000	44.6	2,475,000	84.3
2006-2025	1,547,000	51.5	1,883,000	57.1	3,430,000	108.6