

SPF Seniorerna Soft Center
Ronneby 29 oktober 2019
Det åldrande hjärtat.

Tavi.

Förma

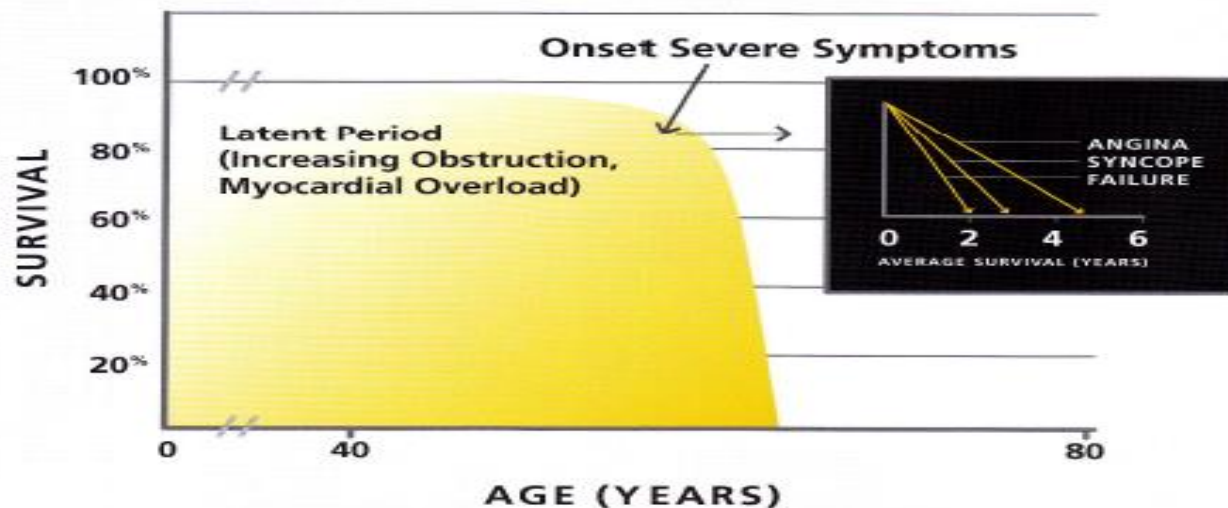
Aortaklaffstenos ålder och överlevnad.

AORTIC STENOSIS IS LIFE-THREATENING

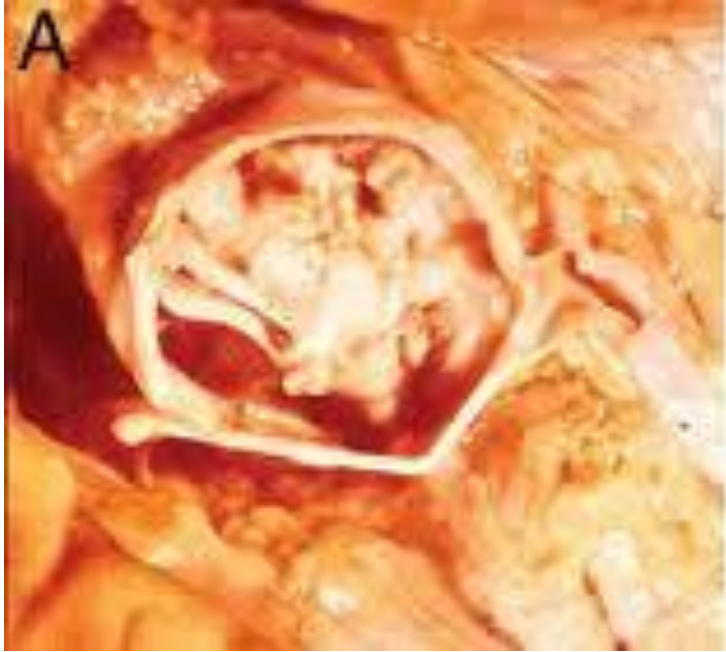
“Unless investigation and surgery can be performed very quickly, death, whether sudden or not, is still unacceptably common in severe aortic stenosis.”

~J. Chambers & P. Das, Guy's and St. Thomas' Hospitals, London

Progression of Aortic Stenosis⁶

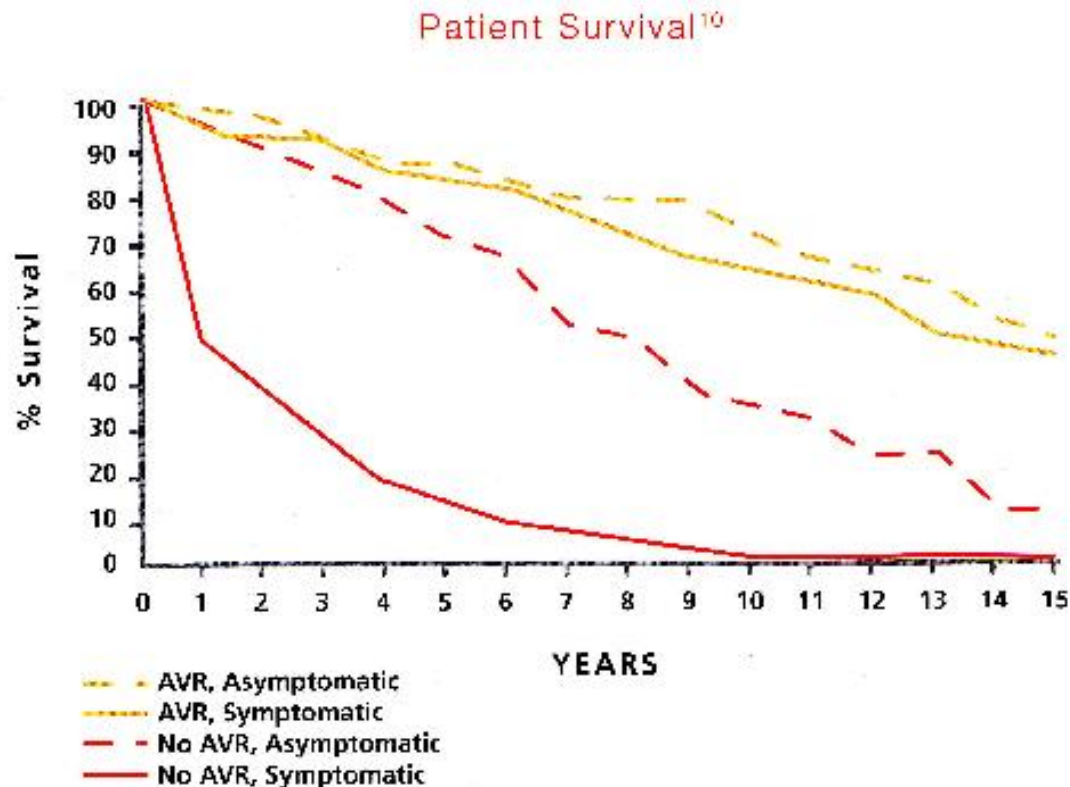


Valvular aortic stenosis is progressive and life-threatening. Once symptoms appear, untreated patients have a poor prognosis; they will experience worsening symptoms, eventually leading to death. After the onset of



Hur går det med eller utan

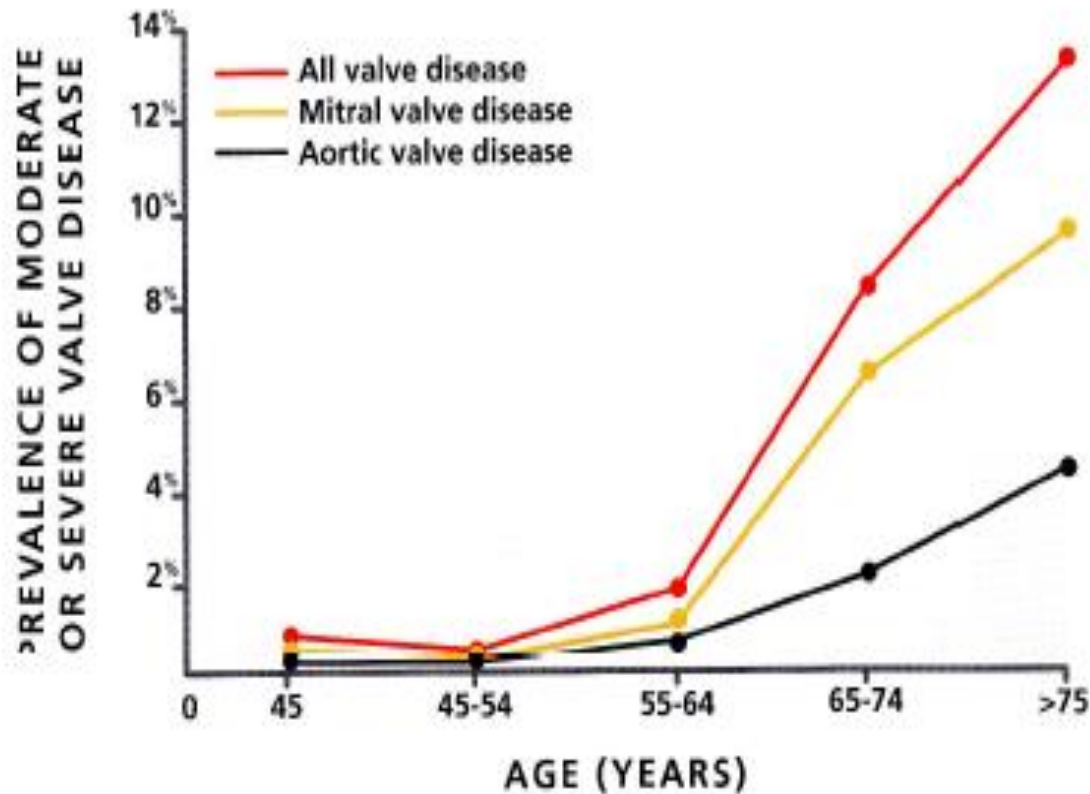
TREATMENT IS URGENT AND AORTIC VALVE REPLACEMENT IS EFFECTIVE



There are no medications to reverse or slow the progression of AS. AVR is the standard of care. Because of the risk of sudden death, AVR should be

Ålder och klaffåkomma

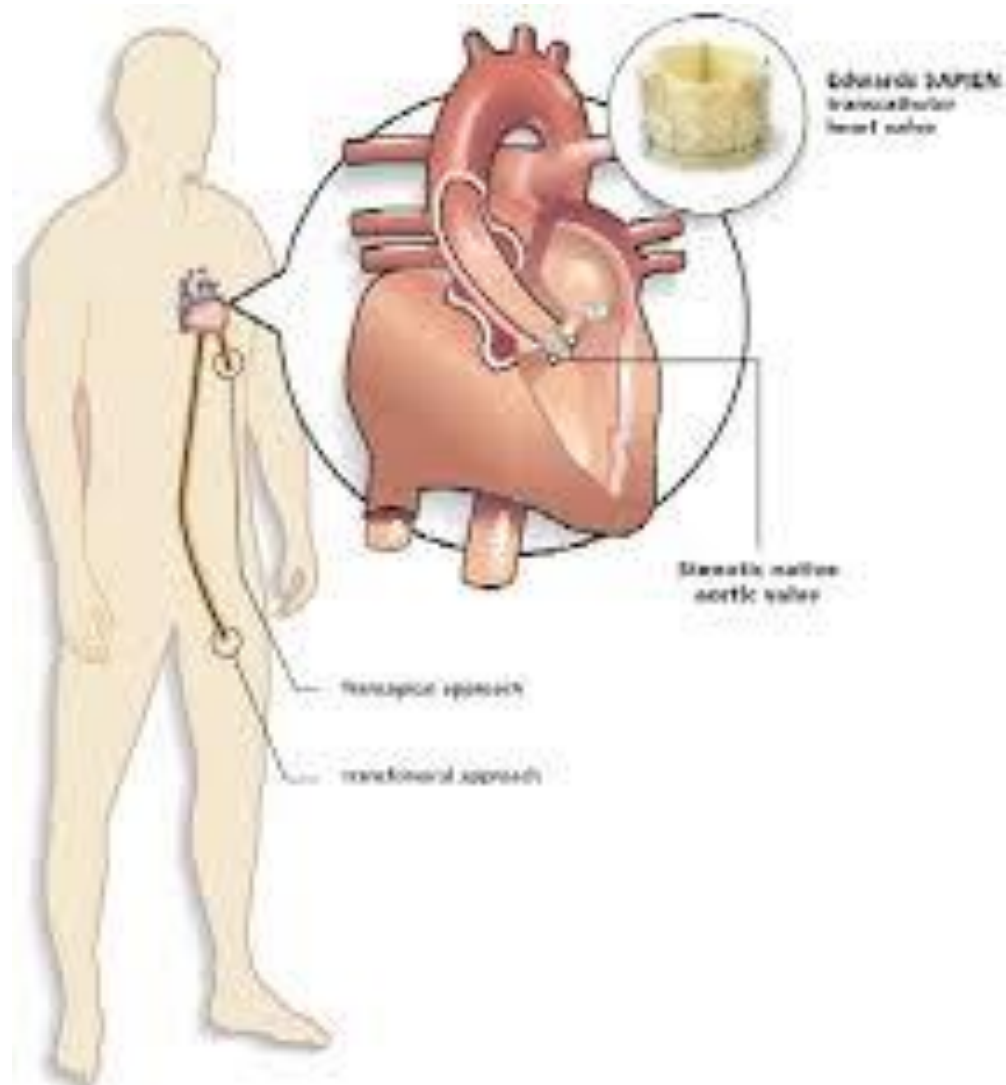
Prevalence of Valvular Heart Disease by Age³



As the chart illustrates, aortic valve disease is common and its prevalence increases with age. For people over the age of 75 years, the prevalence of aortic stenosis is 5%.⁴ More than one in eight people over the age of 75 have moderate or severe valve disease.¹ As the population ages, this condition becomes an important public health problem.³



Hur gör man?



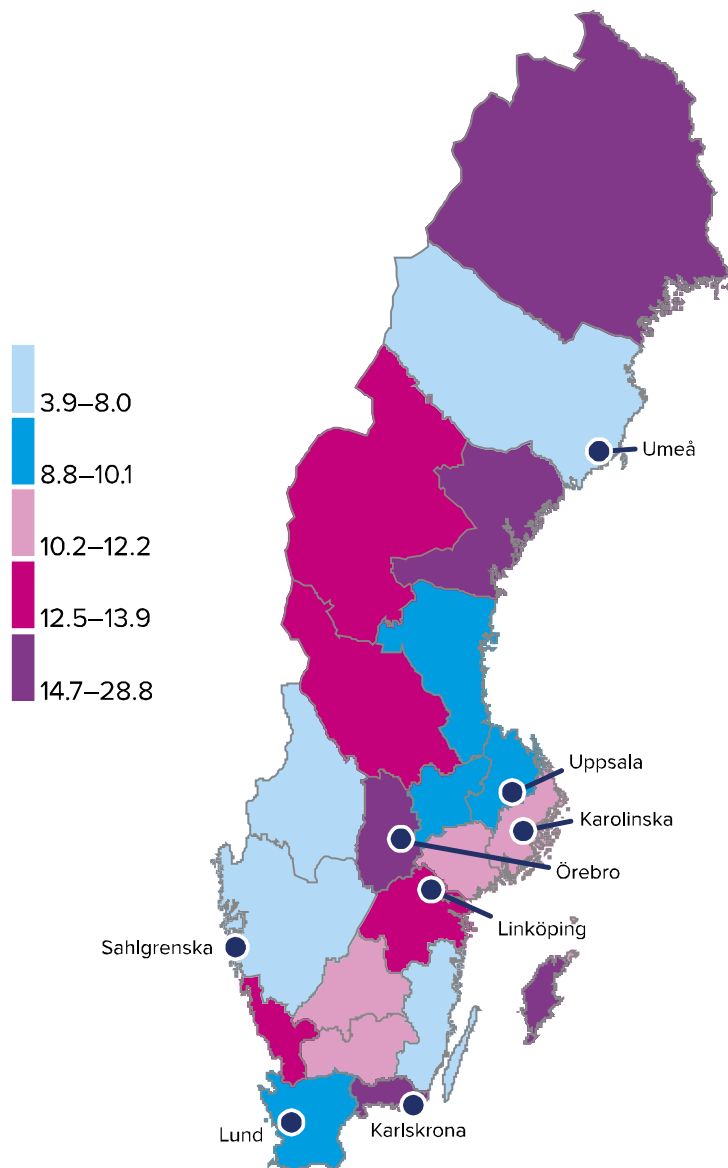


Figure 2. Number of TAVI procedures, per 100 000 inhabitants, 2018.

The number of TAVI procedures per 100 000 inhabitants in the different counties of Sweden still shows marked differences. For the less populated counties, some of the differences might be random fluctuations due to low case numbers. Stockholm (Karolinska), Gothenburg (Sahlgrenska) and Skåne (Lund) regions have over 1 million inhabitants each. Among these three, the Gothenburg region still has a lower TAVI rate than the other two, despite that the case numbers at Sahlgrenska increased by 37 %. Data are calculated on patients' place of residency, not on the hospital completing the procedure.

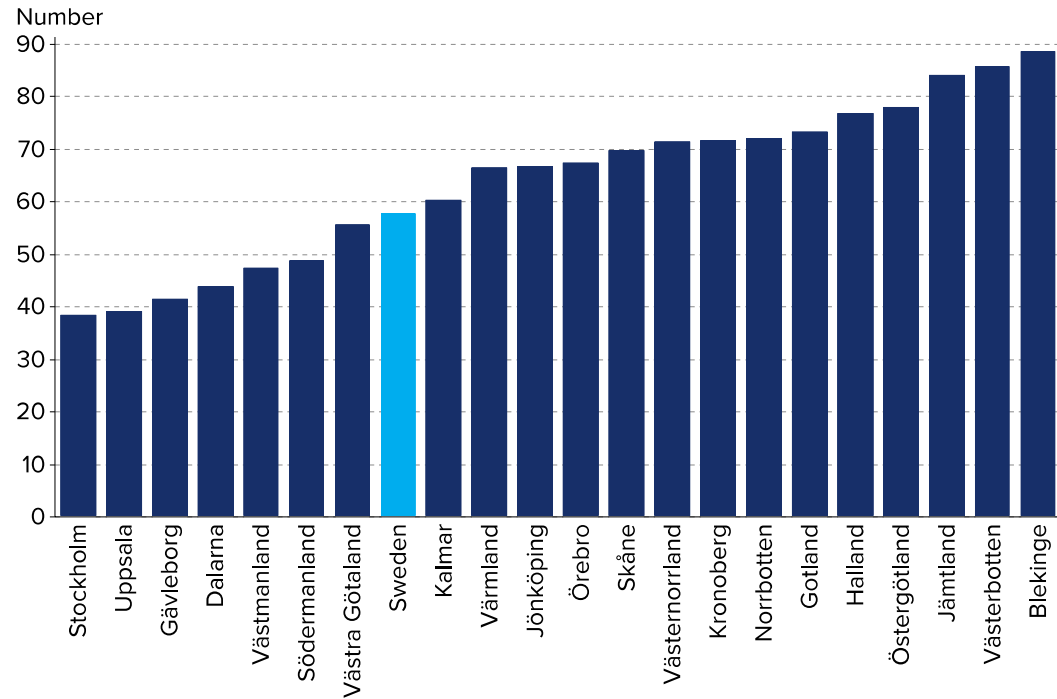
Table 5. Summary of 30-day and one-year mortality and EuroSCORE I and II, per center, 2018.

Centre	30-day mortality after TAVI, 2018 (%)	One-year mortality (proportion) after TAVI, 2017 (%)	Mean logistic EuroSCORE I (%) 2018	Mean logistic EuroSCORE II (%) 2018	Number of cases 2018
Karolinska	2.7	10.2	17	6	300
Uppsala	2.6	9.5	17	6	157
Linköping	1.8	7.8	18	7	114
Karlskrona	2.3	3.8	21	6	43
Lund	2.8	7.7	20	7	143
Sahlgrenska	3.2	14.7	18	7	159
Örebro	0.0	7.0	14	5	70
Umeå	0.0	5.7	17	7	116
Total	2.2	9.3	18	6	1 102

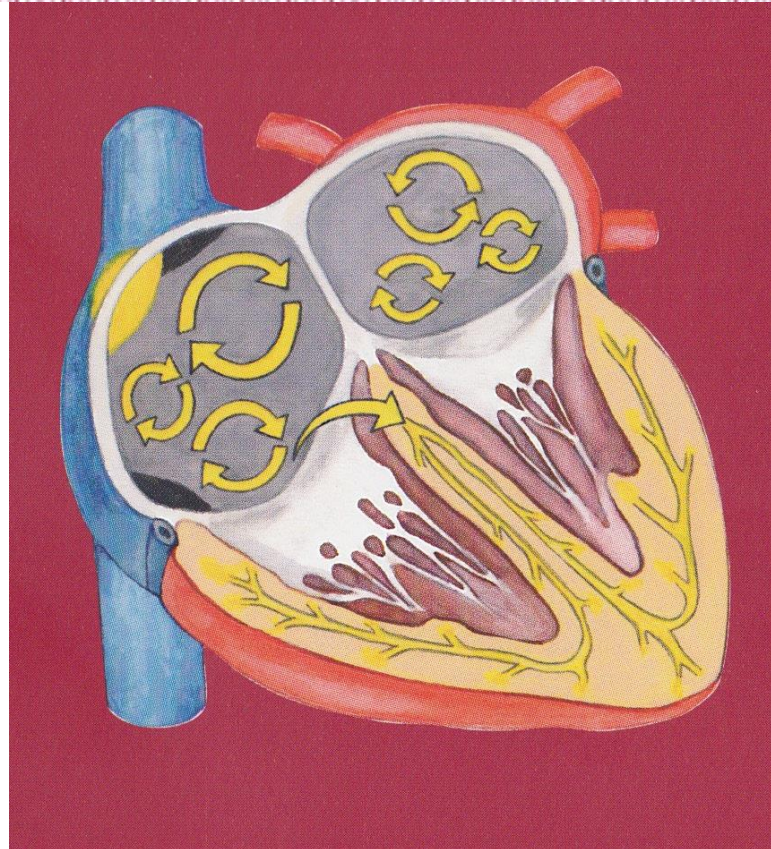


Figure 6. Distribution of cardiac surgery among counties, number of operated patients per 100 000 inhabitants, 2015.

The figures, as well as the hierarchical relationship between the counties, are similar to previous years. This represents an evident and fairly constant discrepancy between different counties regarding the volumes of cardiac surgery. Most of the differences in volumes cannot be explained by differences in demographics.



Förmaksflimmer



Förekomst av förmaksflimmer

- Förmaksflimmer är en av våra vanligaste hjärtrytmrubbningar och förekomsten ökar med åldern.
- Två till fyra procent av befolkningen över 60 års ålder har förmaksflimmer.

Symptom risker!

- **Många patienter kan leva väl med förmaksflimmer under många år.**
- **Det föreligger dock en ökad risk att drabbas av blodpropp om man har förmaksflimmer.**
- **Det beror på att förmaken inte sammandrar sig med samma kraft som i normala fall.**
- **Blodproppar kan då bildas i dessa och eventuellt spridas till andra delar av kroppen**

En episod med förmaksflimmer.....



ESC Guidelines 2010

En ihållande episod med förmaksflimmer är vare sig patientens första eller sista episod med förmaksflimmer !!

Vilka symtom ger förmaksflimmer?

- **Hjärtklappning**
- **Oregelbunden puls**
- **Trötthet**
- **Andfåddhet**
- **Bröstmärta**
- **Yrsel, svimningskänsla**



...eller inga symtom alls !

Diagnostiska möjligheter



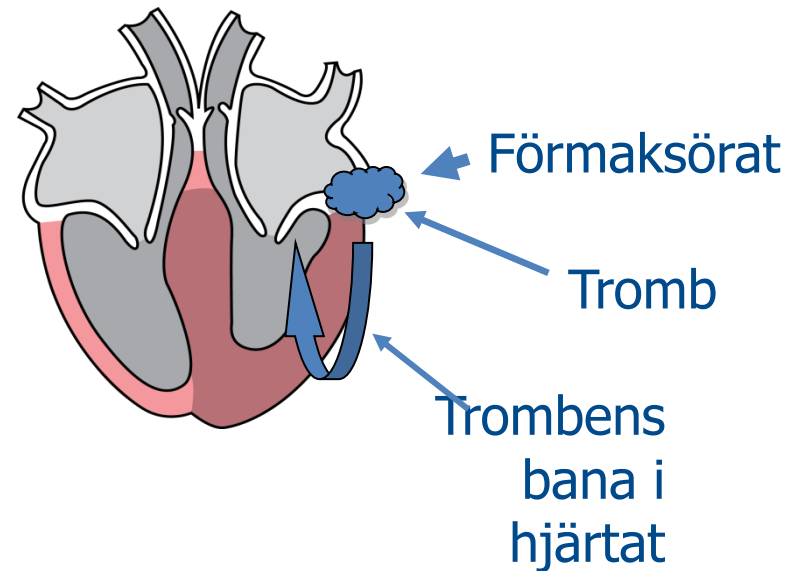
Tum-EKG



Implantable cardiac monitor (ICM)

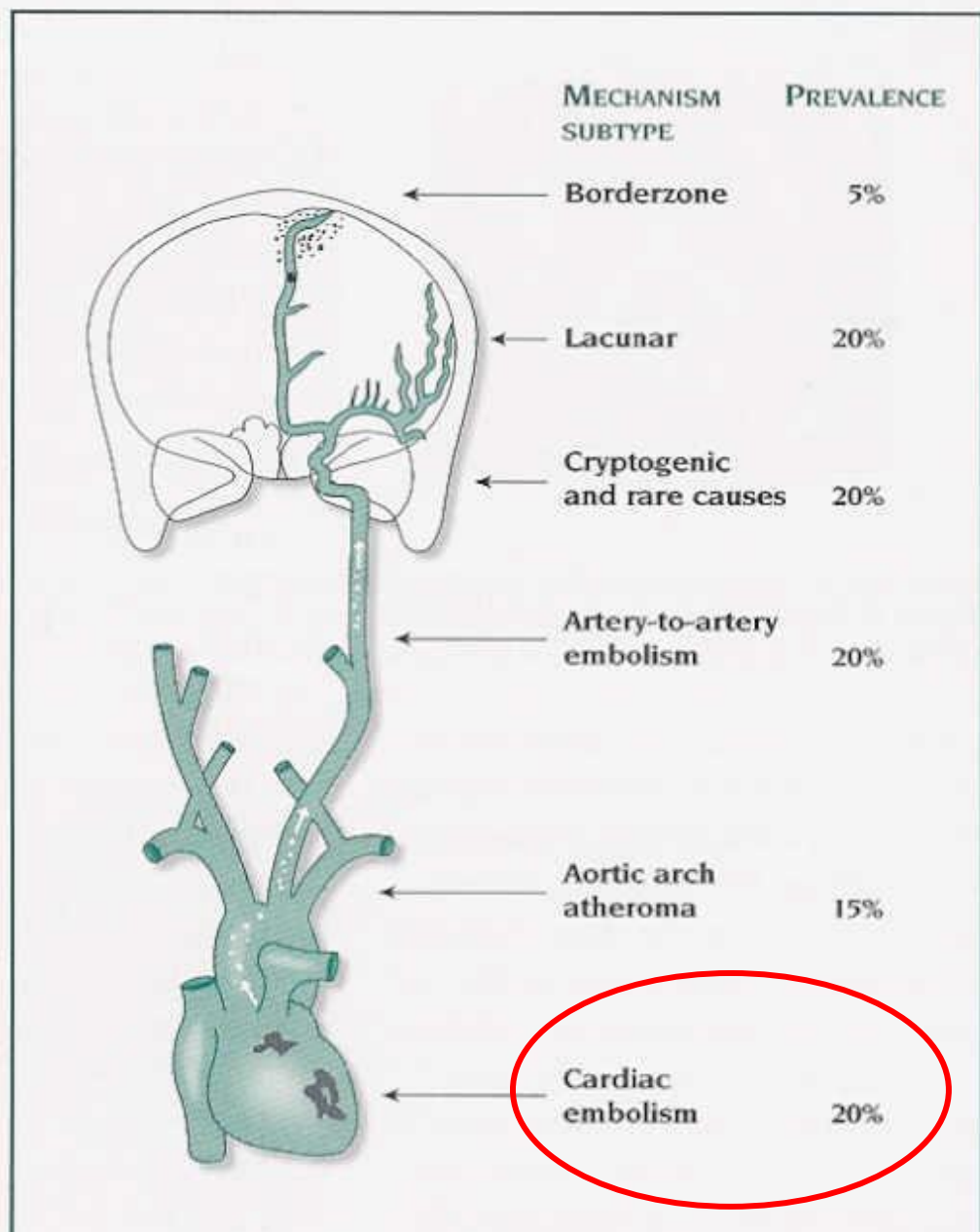
Vänster förmaksöra och trombbildning vid förmaksflimmer

- Förmaksörat är en liten ficka i förmaket
- Vid FF drar sig förmaken inte ihop sig som de ska, vilket leder till att blod stockar sig i förmaksörat
- ~90% av proppar i hjärtat bildas i vänster förmaksöra¹



Typer av stroke mekanismer

Selvom kardiaale embolier kun udgør ca. 20% er de større end de øvrige = større cerebrale infarkter

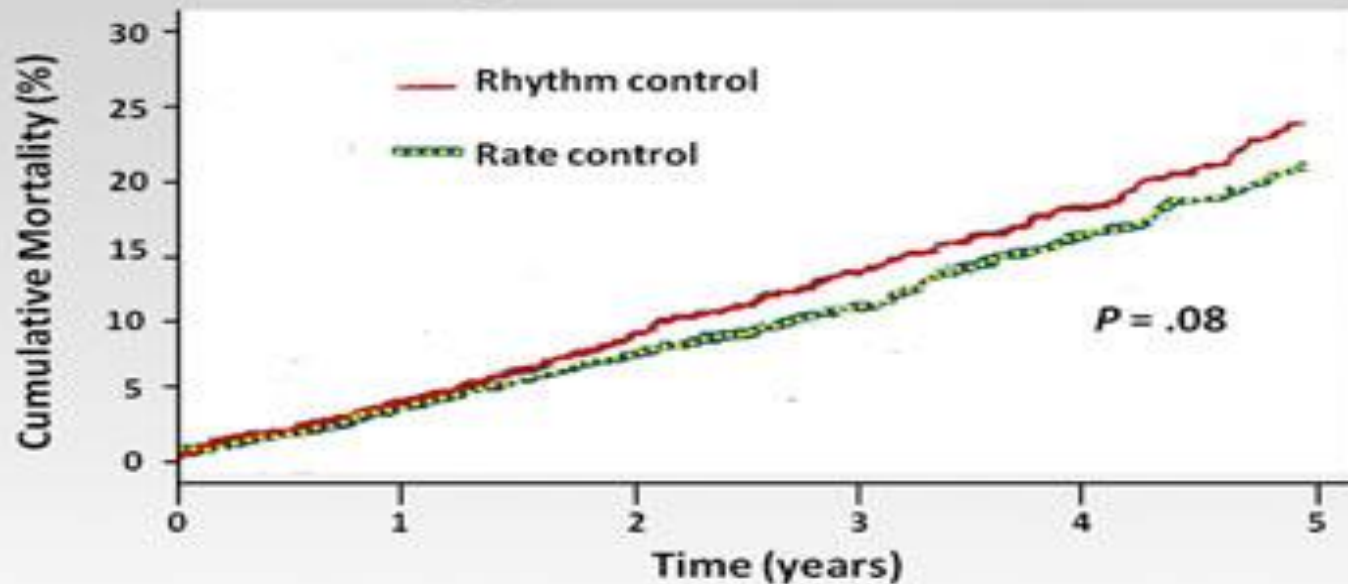


Tillstånd som disponera till förmaksflimmer

- Högt blodtryck
- Hjärtsvikt
- Klaffsjukdom
- Hypertrof
cardiomyopathi
- Medfödd
septumdefekt
- Kranskärlssjukdom
- Thyroideasjukdom
- Övervikt
- Diabetes
- KOL (rökning)
- Sömnapnoea

Frekvens eller rytme

AFFIRM: Primary Endpoint All-Cause Mortality



No. of deaths

Rhythm

0

80 (4)

175 (9)

Number (%)

257 (13)

314 (18)

352 (24)

Rate

0

78 (4)

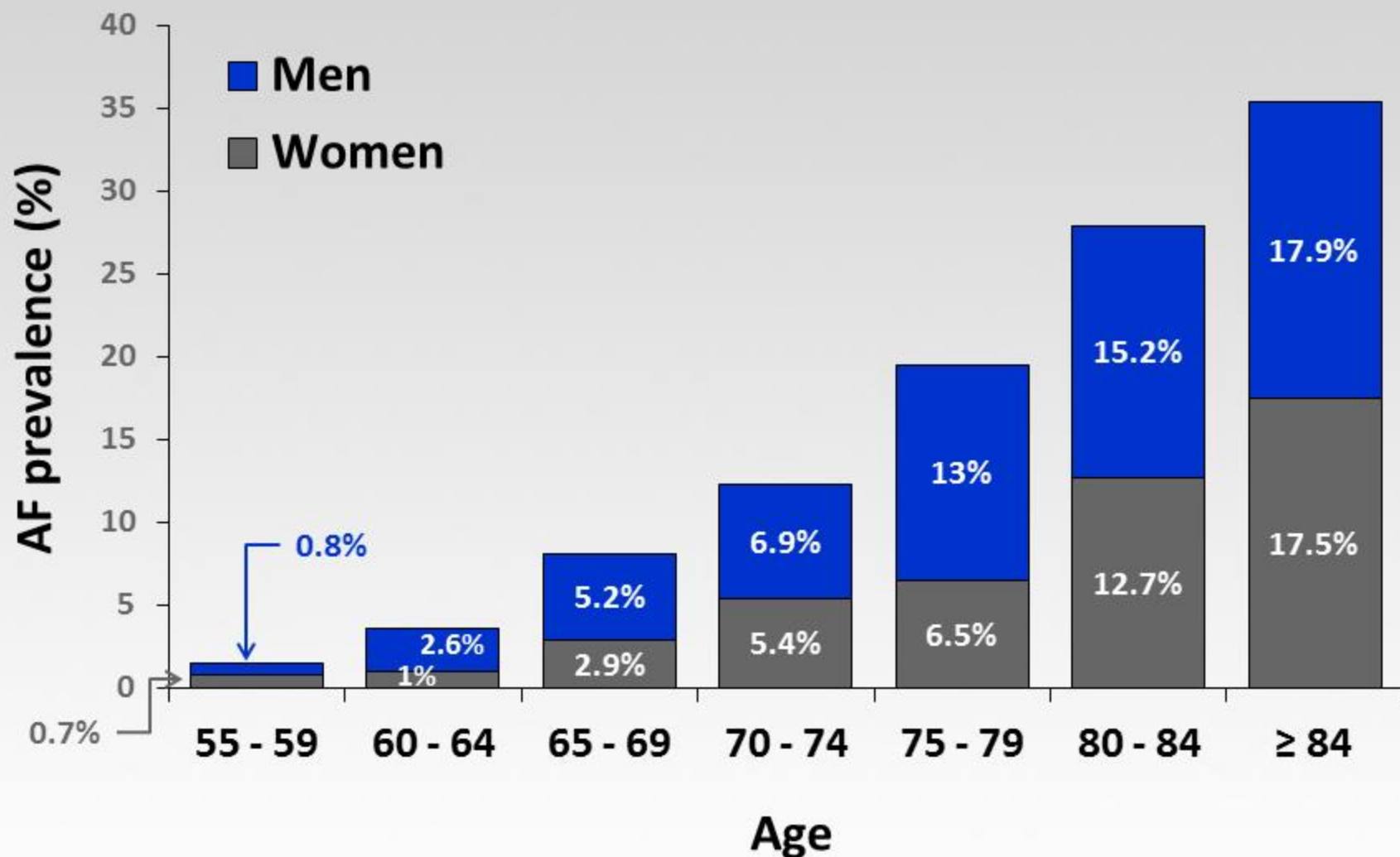
148 (7)

210 (11)

275 (16)

306 (21)

Atrial Fibrillation in the Elderly



Risk score

Risk factor	Score
Congestive heart failure/LV dysfunction	1
Hypertension	1
Age \geq 75 ans	2
Diabetes mellitus	1
Stroke/TIA/thrombo-embolism	2
Vascular disease*	1
Age 65-74	1
Sex category [i.e. femal sex]	1
Maximum score	9

STRESS

VIKTIGASTE STÖDPERSON FÖR MÄN



MAKA	SLÄKTING	VÄN	ANNAN	KOLLEGA	INGEN
65.5%	9.9%	9.2%	4.1%	1.9%	9.2%

VIKTIGASTE STÖDPERSON FÖR KVINNOR



SLÄKTING	VÄN	MAKE	ANNAN	KOLLEGA	INGEN
36,9%	28,1%	26,4%	3,2%	0,9%	4,3%

Takotsubo

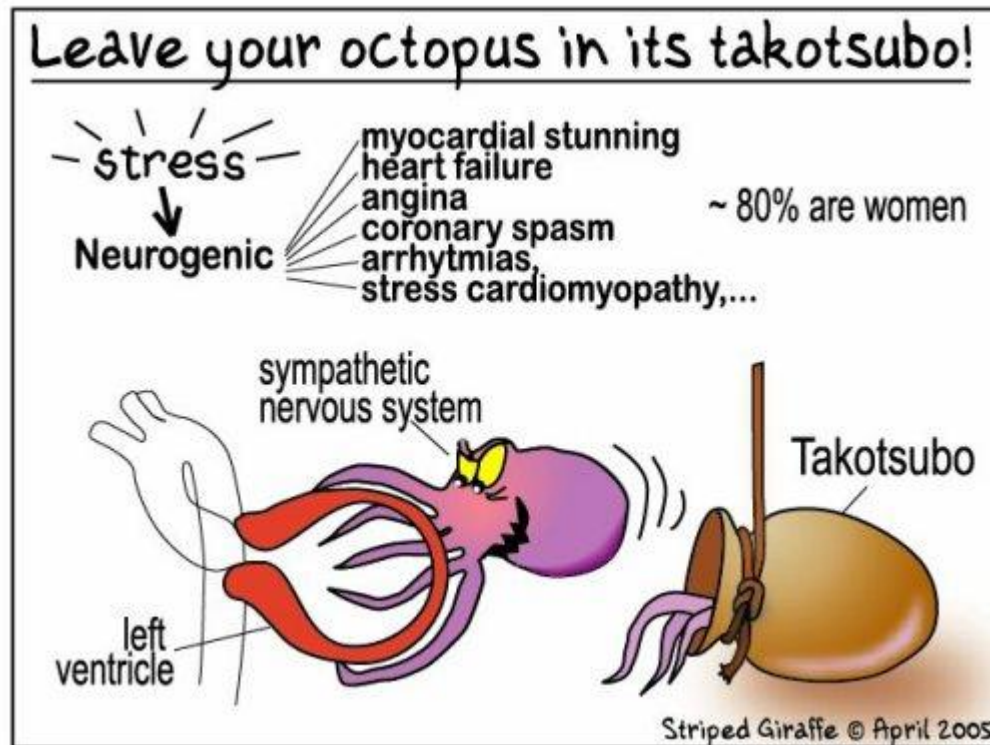
- **Brustet hjärta syndrom**
- **Övergående vänstra kammar ballooning.**
- **Stress kardiomyopathia**



Iengo R et al. Eur J Echocardiogr 2007;8:491-494

Brustet Hjärta

- 80 % är kvinnor.

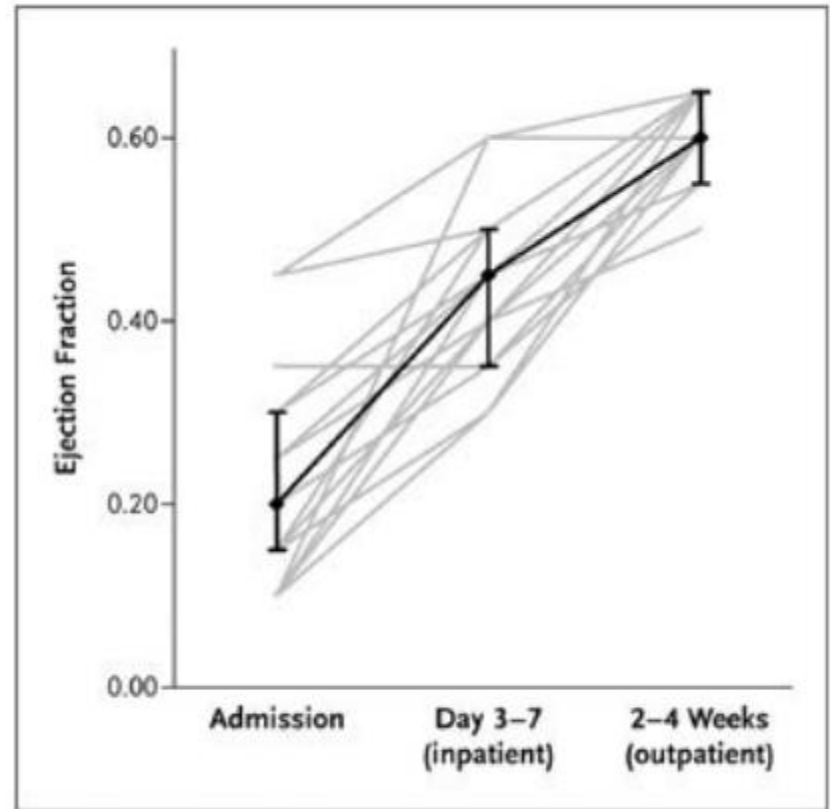


Orsaker / epidemiologi

- Extrem emotionell stress: Dödsfall, olyckor surprise party, väpnad röveri, gräl bl.a.
- Övervikt av postmenopausal kvinnor.
- Under diagnostiserad, 2% av alla ACS minst!

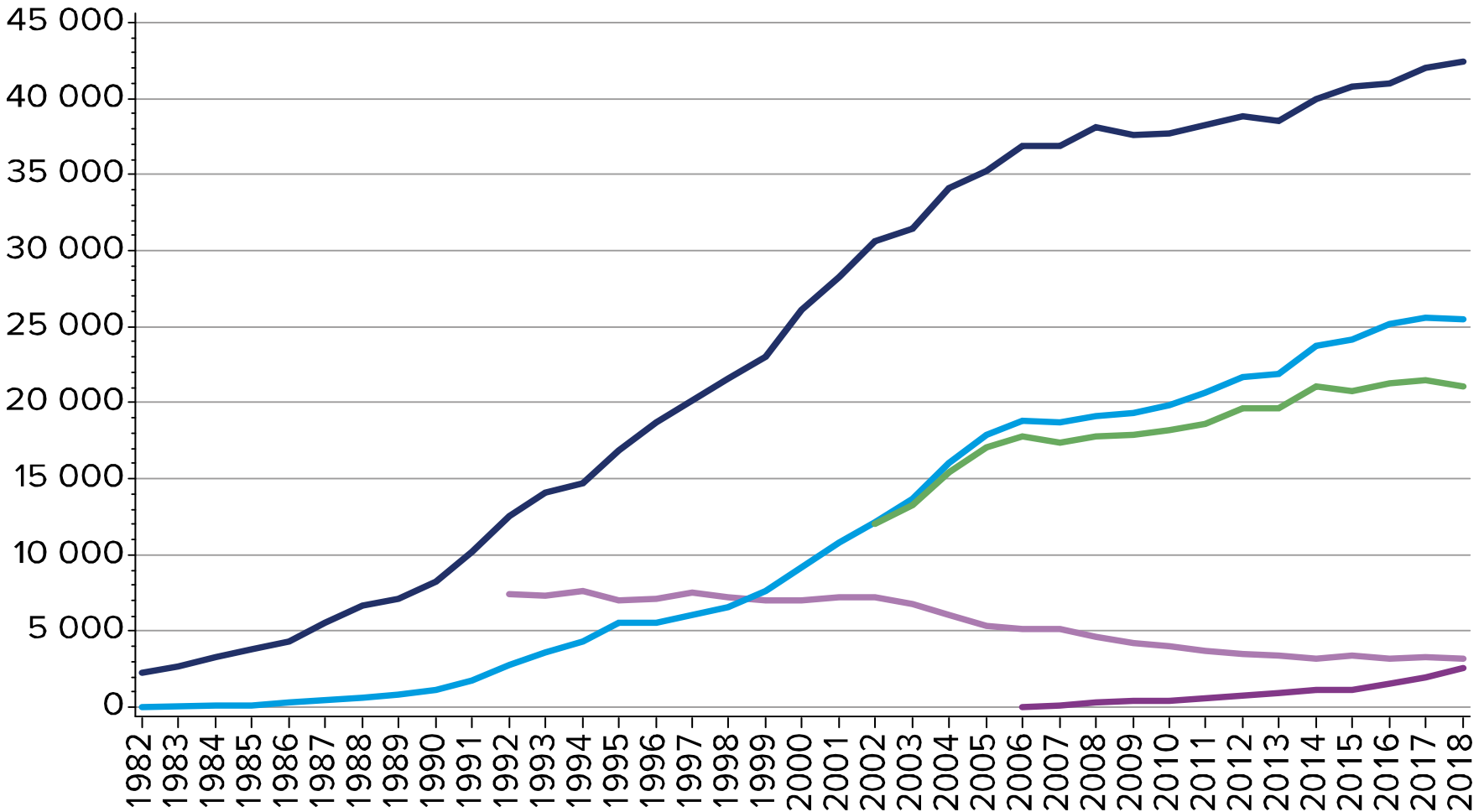
Prognose.

- ~1% dödlighet på sjukhus.
- ~10% återkomst/recidiv ??
- Normal hjärtfunktion inom 2-4 veckor



UTVECKLINGEN SEDAN 1982 TILL 2018.

Number/
Year



- Angio
- PCI including diagnostics
- CABG
- PCI
- CT

Trenden I 30 dages dödlighet hos pt. med hjärtinfarkt. 1995-2018.

Proportion

(%)

35
30
25
20
15
10
5
0

1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018

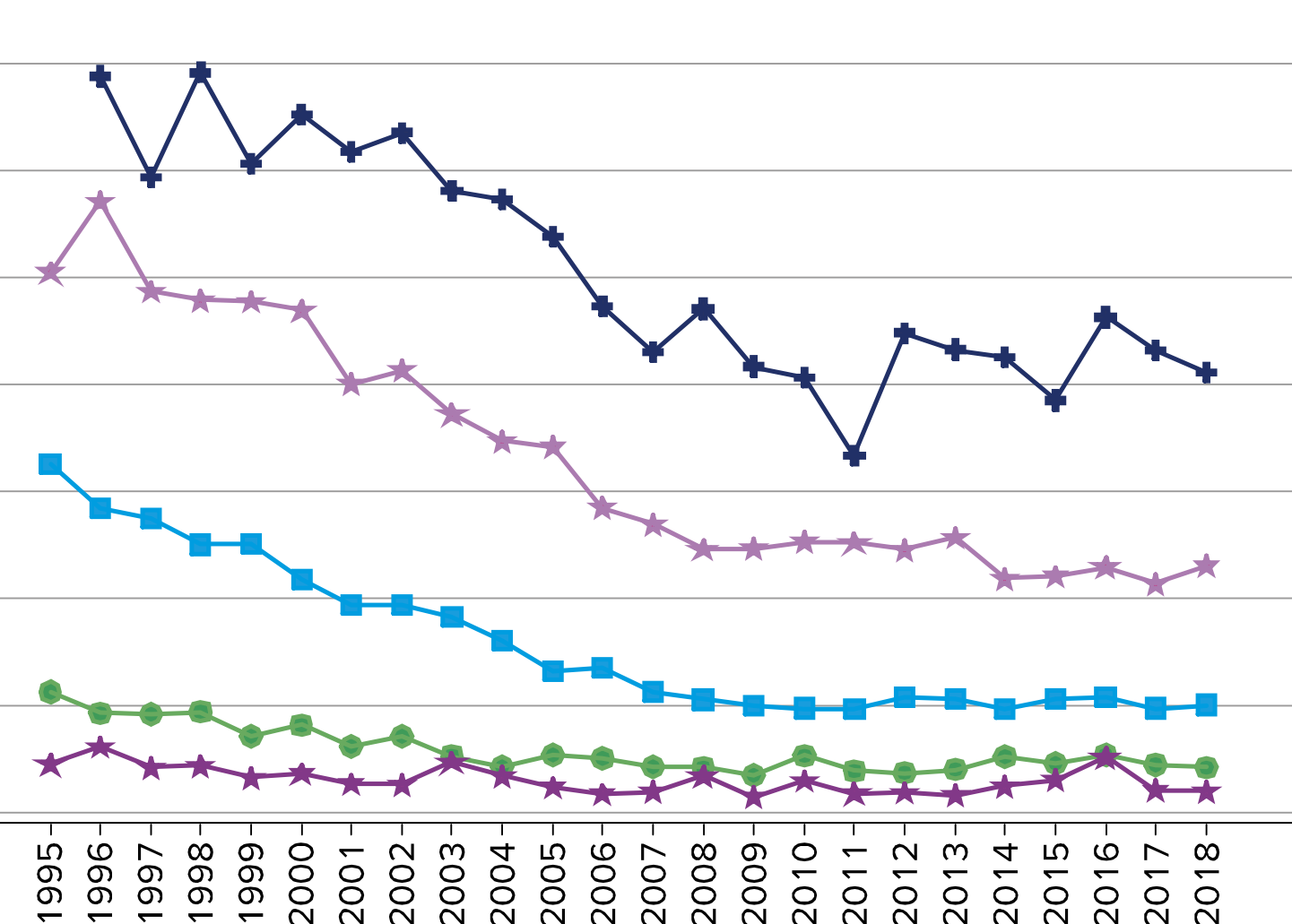
★ ★ ★ < 50 years

● ● ● 50–65 years

■ ■ ■ 65–79 years

★ ★ ★ 80–89 years

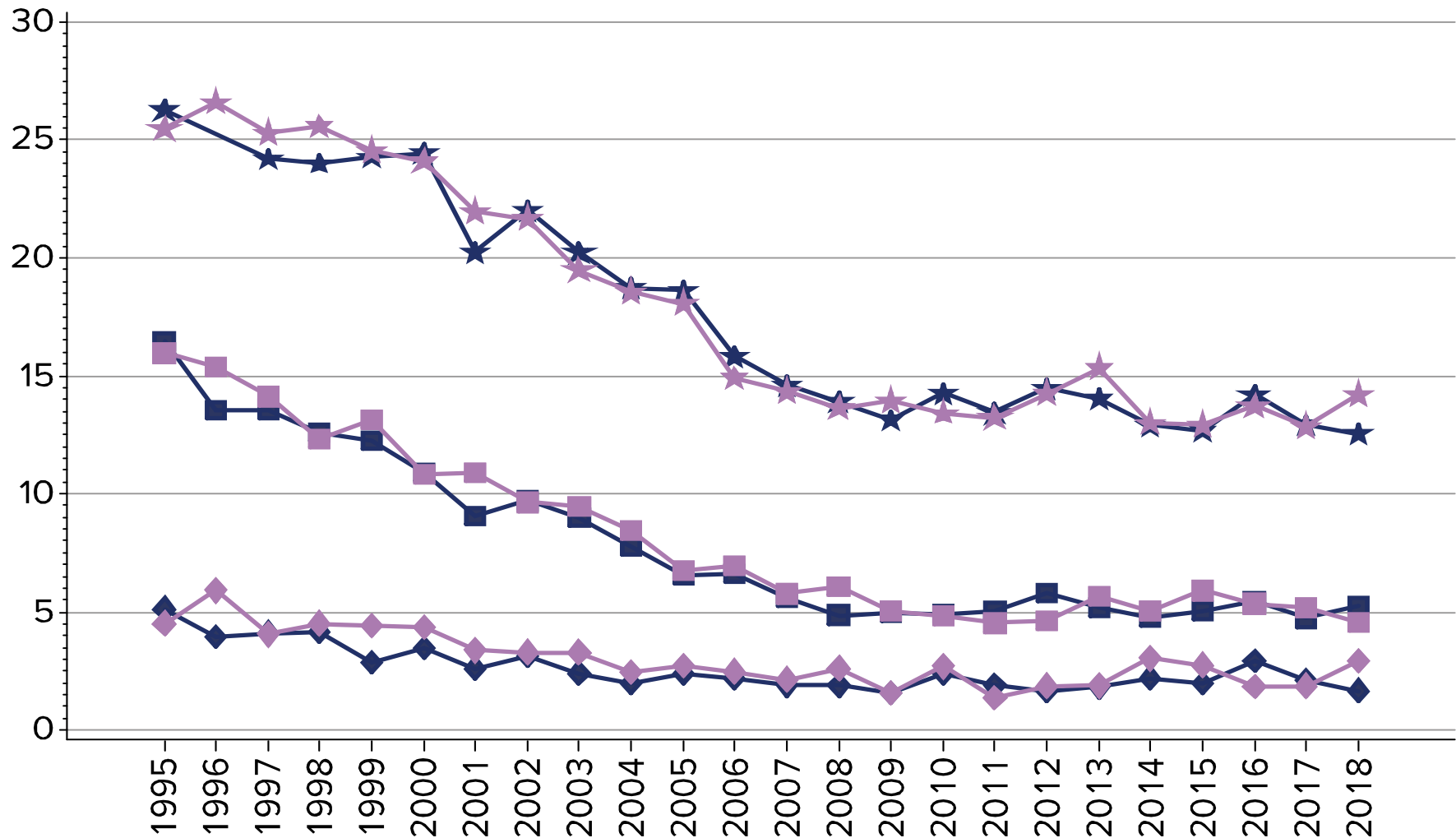
✚ ✚ ✚ ≥ 90 years



Ålder och 30 dages dödlighet 1995 till 2018

Proportion

(%)



◆◆◆ Female < 65 years

■◆◆ Female 65–79 years

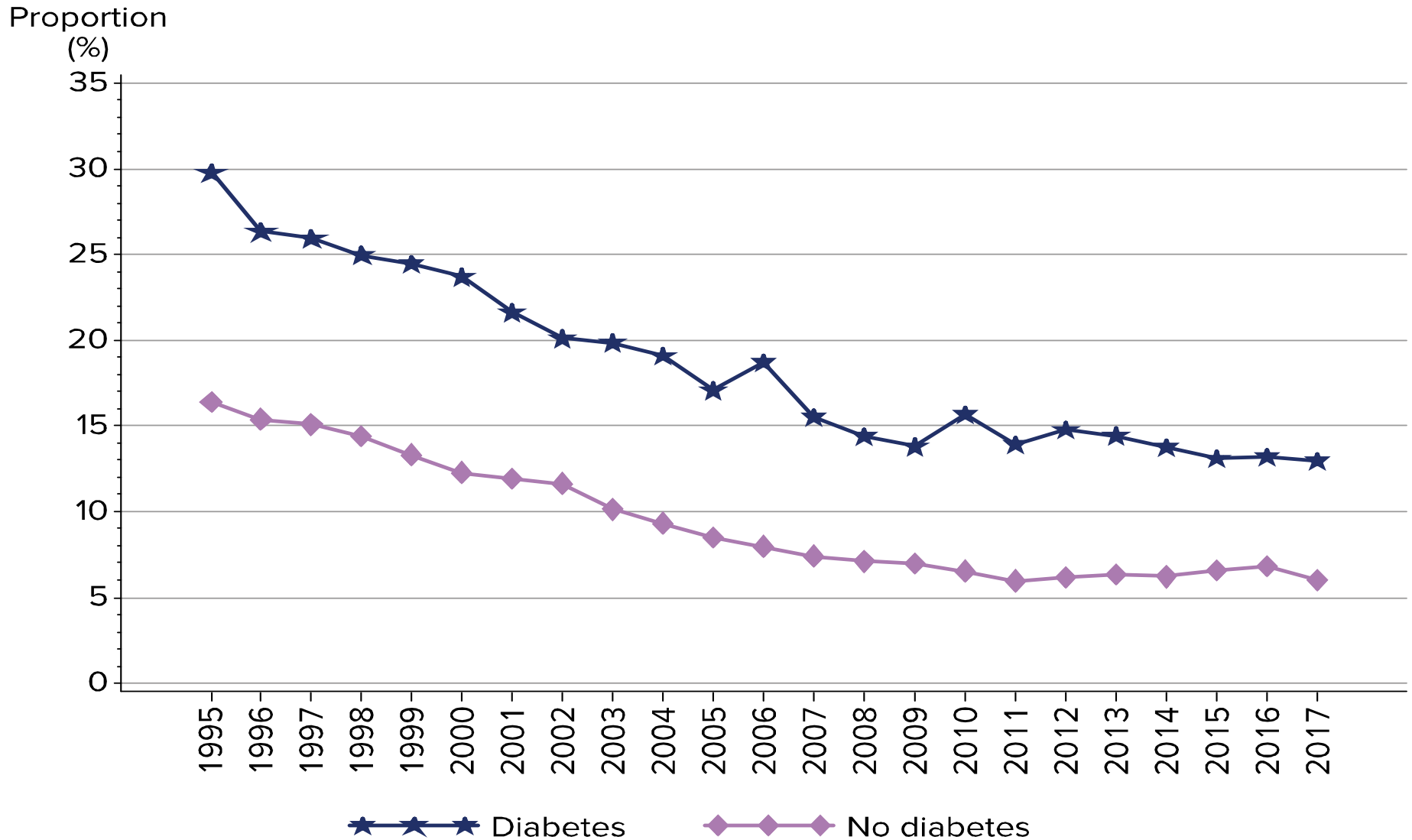
◆◆◆ Female ≥ 80 years

◆◆◆ Male < 65 years

■◆◆ Male 65–79 years

◆◆◆ Male ≥ 80 years

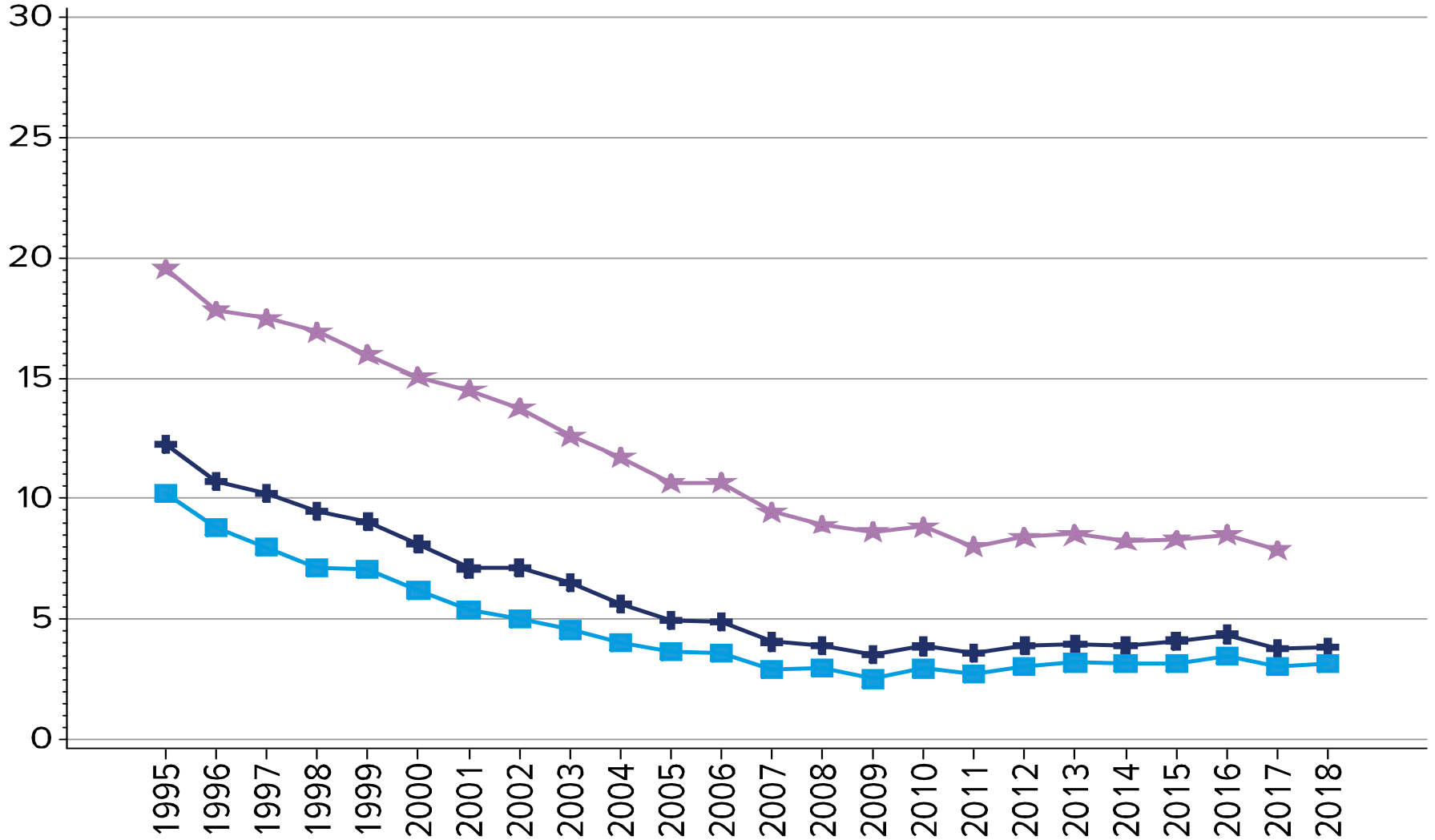
Figure 102. Diabets och dödlighetens utveckling över tiden 1995 till 2017. 1 år efter infarkten.



Treden I dödlighet hos patienter < 80 år med en hjärtinfarkt från 1995 till 2018

Proportion

(%)



Deceased within 30 days

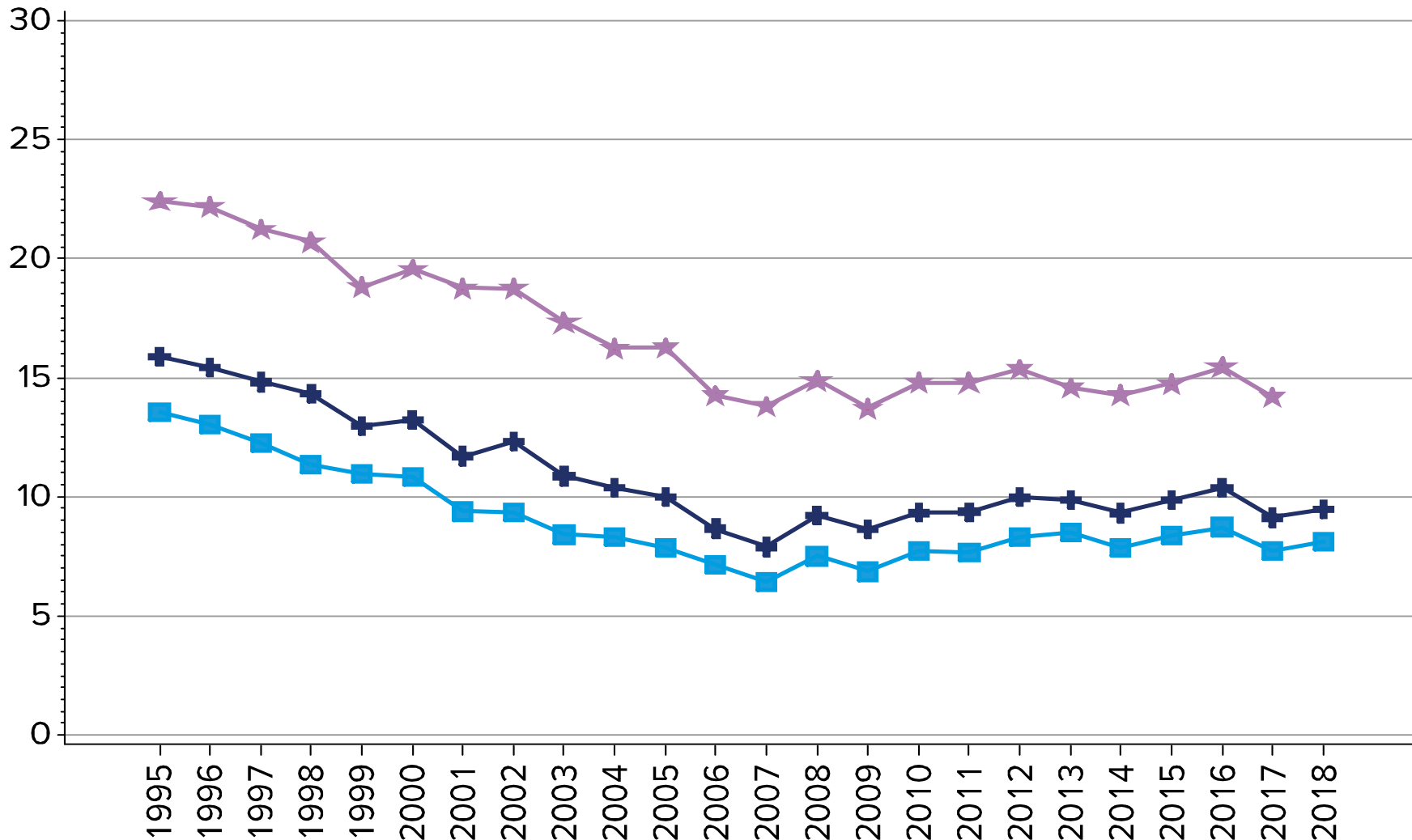
Deceased within 365 days

In hospital

Trend i dödligheten hos STEMI patienter

Proportion

(%)

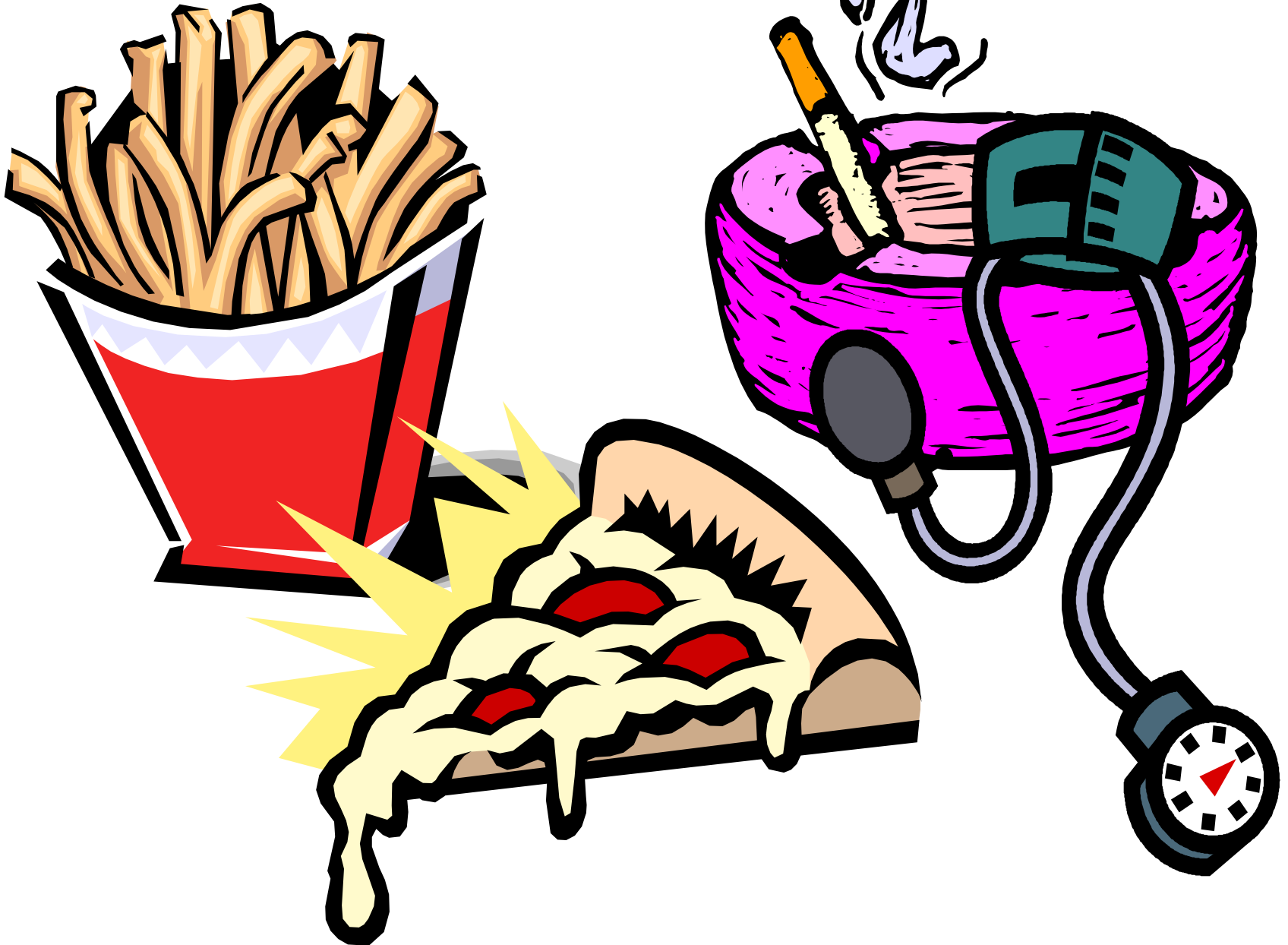


Deceased within 30 days

Deceased within 365 days

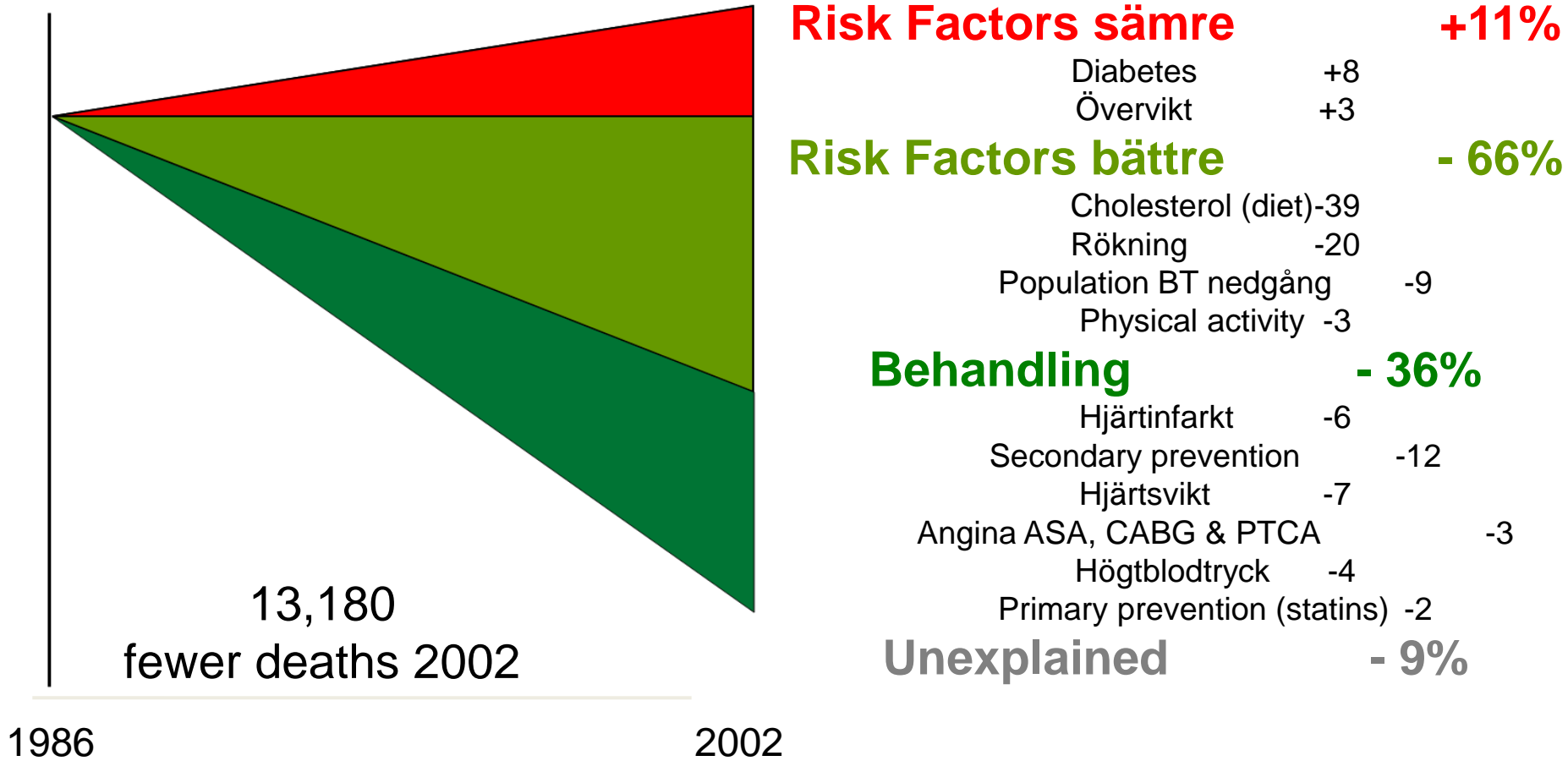
In hospital

Livsstil



Varför faller dödligheten

Swedish experiences



Mål for CVD prevention

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graph TD; A[Mål for CVD prevention] --> B[Beteende]; A --> C[Risk factors]; B --> D[Smoking<br/>Nutrition<br/>Physical activity<br/>Compliance]; C --> E[Hypertension<br/>Hyperlipidemia<br/>Diabetes mellitus];
```

Beteende

Smoking
Nutrition
Physical activity
Compliance

Risk factors

Hypertension
Hyperlipidemia
Diabetes mellitus

Foam cell

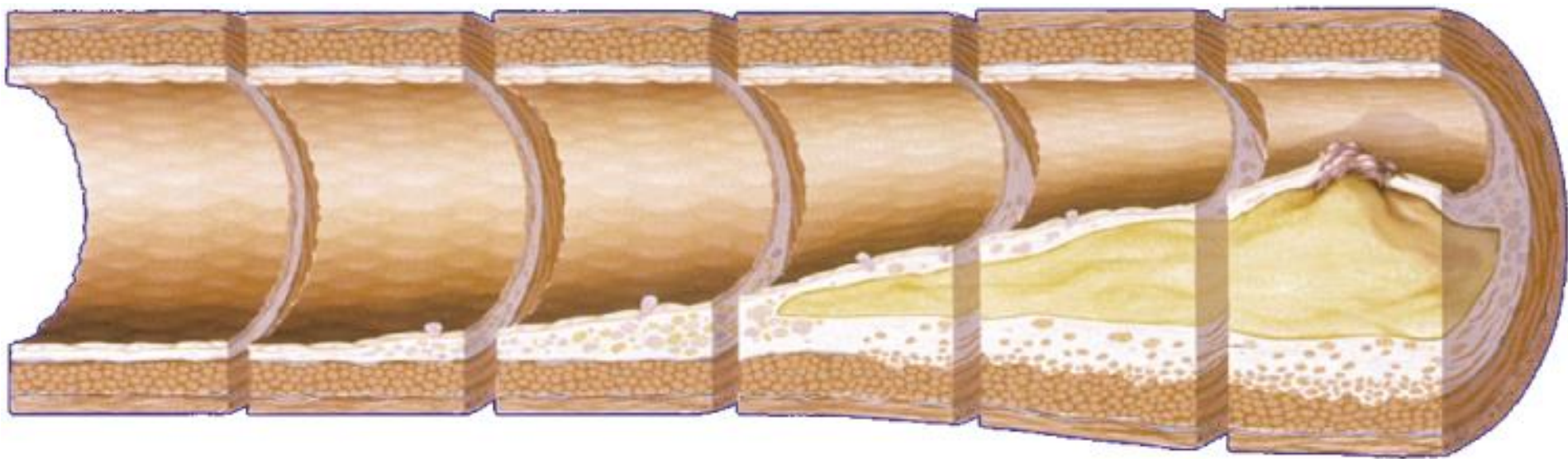
Fatty streak

Intermediary lesion

Atheroma

Fibrous plaque

Complicated lesion/rupture



Låg risk

Moderat risk

Hög risk

Mycket hög risk



Thresholds for definition of hypertension with different types of measurement

	SBP (mmHg)	DBP (mmHg)
Office or clinic	140	90
24-hour	125–130	80
Day	130–135	85
Night	120	70
Home	130–135	85

Regular self control

Check adherence!

Nurse-coordinated services

Dose titration

Hyperlipidemia: Mål värde för

LDL

In patients at very high risk the LDL-C goal is < 1.8 mmol/L and/or $\geq 50\%$ LDL-C reduction when target level cannot be reached.

In patients at high CV risk an LDL-C goal < 2.5 mmol/L should be considered.

In subjects at MODERATE risk an LDL-C goal < 3.0 mmol/L should be considered.

Tack