

Supplementary material

Definition of morbidities displayed in patient characteristics

morbidity	definition
Atherosclerotic cardiovascular disease	ICPC2 in ('K74','K75','K76','K89','K90','K91','K92') OR ATC in ('B01AC04','B01AC22','B01AC24','B01AC25')
Severe chronic kidney disease	GFR < 30 ml/min
Moderate chronic kidney disease	30 ml/min ≤ GFR < 60 ml/min
Diabetes mellitus	ICPC2 = T89 OR T90 OR HbA1c > 6.5% OR ATC in 'A10'
Hypertension	ICPC2 in ('K85','K86','K87') OR two bp measurements > 140/90 mmHg OR ATC in 'C02/C03A/C03EA01/C0[78]/C09[AB]'

Definition of additional morbidities required for definition of CV risk categories

morbidity	definition
obesity	BMI > 30 kg /m ² or ICPC2 = T82
target organ damage	Microalbuminuria (Albumin/creatinin quotient > 30) OR Retinopathie (ICPC2 = F83) OR neuropathie (ICPC2 = N94)
dyslipidemia	Triglyceride >1.7 mmol/l OR Total Cholesterol >5 mmol/l OR LDL-Cholesterol > 3 mmol/l OR (sex = female AND HDL-Cholesterol ≤1.2 mmol/l) OR (sex = male AND HDL-Cholesterol ≤1 mmol/l)

Definition of CV risk category

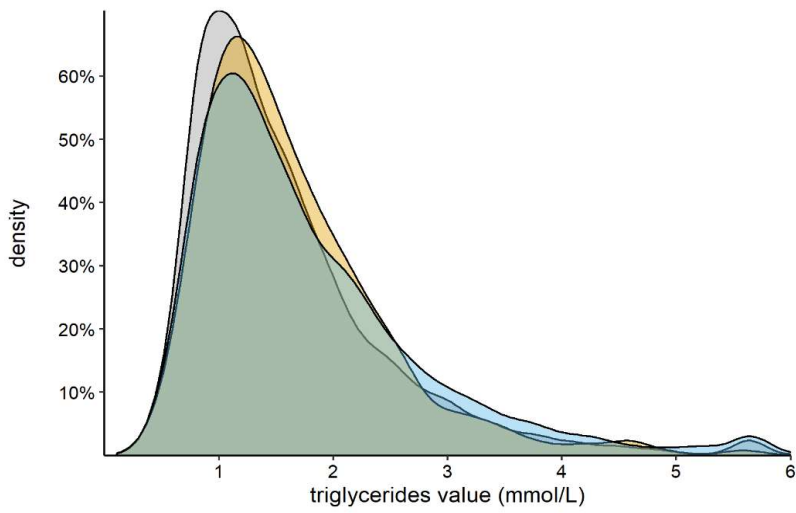
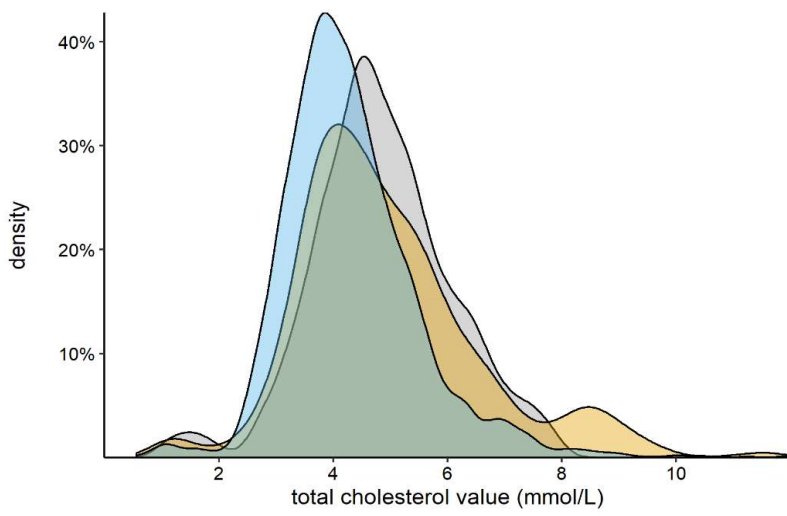
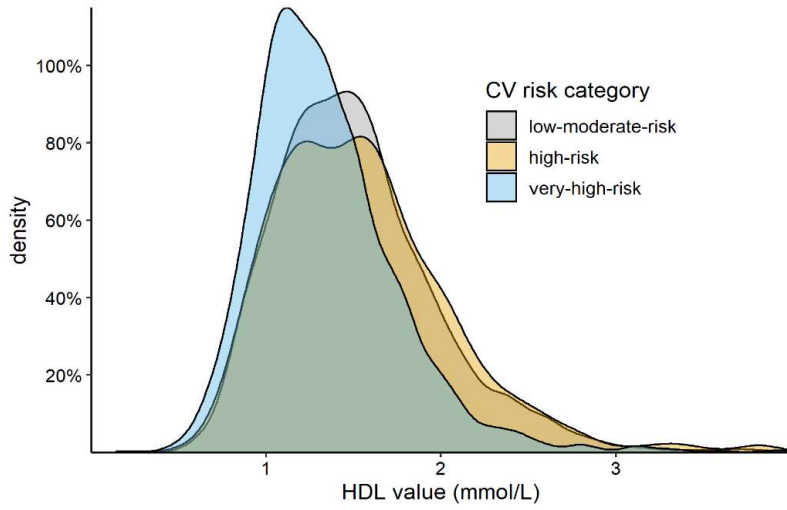
risk category	definition
very high risk	Atherosclerotic cardiovascular disease OR Diabetes mellitus with target organ damage OR Diabetes mellitus with a major risk factor* OR Severe chronic kidney disease
high risk	Diabetes mellitus without risk factors or without target organ damage OR Single risk factors: cholesterol > 8mmol/l or blood pressure > 180/110 OR Moderate chronic kidney disease
low/moderate risk	Patients without an above defined identifier

*according to ESC hypertension guideline 2013, the following are considered as major risk factors: gender = male, age (men ≥55 years; women ≥65 years), smoking, dyslipidemia, hypertension, obesity

Statin treatment intensity

intensity	product and daily dose
high intensity	atorvastatin 40-80 mg OR rosuvastatin 20-40 mg
moderate intensity	atorvastatin, 10-20 mg OR rosuvastatin 5-10 mg OR simvastatin 20-40 mg OR pravastatin 50-80 mg OR lovastatin 40 mg OR fluvastatin 80 mg OR Pitavastatin 2-4 mg
low intensity	simvastatin 10 mg OR pravastatin 10-20 mg OR lovastatin 20 mg OR fluvastatin 20-40 mg OR pitavastatin 1 mg

Distributions of lipid levels by CV risk category



Regression analysis

Model: target achievement (0/1) ~ CV risk category * gender * age * (1/GP)

Reference levels: low-/moderate-risk (CV risk category), female (gender)

Abbreviations: CV=cardiovascular, CI=Confidence Interval, p=p-value, ref=reference, low/mod=low-/moderate-

Results of regression analysis:

	OR	CI	p
gender	2.347	1.90 to 2.90	<0.001
age	1.082	0.92 to 1.27	0.346
high-risk	0.576	0.42 to 0.79	0.001
very-high-risk	0.302	0.24 to 0.37	<0.001
gender:age	1.441	1.17 to 1.78	0.001
gender:high-risk	1.015	0.63 to 1.62	0.950
gender:very-high-risk	0.615	0.47 to 0.81	0.001
age:high-risk	1.221	0.85 to 1.75	0.274
age:very-high-risk	0.897	0.71 to 1.13	0.360
gender:age:high-risk	0.624	0.38 to 1.04	0.069
gender:age:very-high-risk	0.695	0.52 to 0.93	0.013

Results of multiple comparison (by R multcomp package)

	OR	CI	p
Comparison of risk categories			
High risk vs. low/mod-risk	0.576	0.418 to 0.794	<0.001
Very high-risk vs. low/mod-risk	0.302	0.244 to 0.373	0.008
Very high risk vs. high-risk	0.524	0.379 to 0.725	0.001
Gender effect (ref=female)			
Low-/moderate-risk	2.347	1.902 to 2.897	<0.001
High-risk	2.382	1.564 to 3.630	0.001
Very high-risk	1.443	1.201 to 1.734	0.001
Age effect in female patients			
Low-/moderate-risk	1.082	0.919 to 1.273	0.976
High-risk	1.320	0.959 to 1.817	0.566
Very high-risk	0.971	0.822 to 1.146	1.000
Age effect in male patients			
Low-/moderate-risk	1.559	1.360 to 1.787	<0.001
High-risk	1.188	0.851 to 1.660	0.976
Very high-risk	0.972	0.871 to 1.085	1.000