

Euro Heart Survey

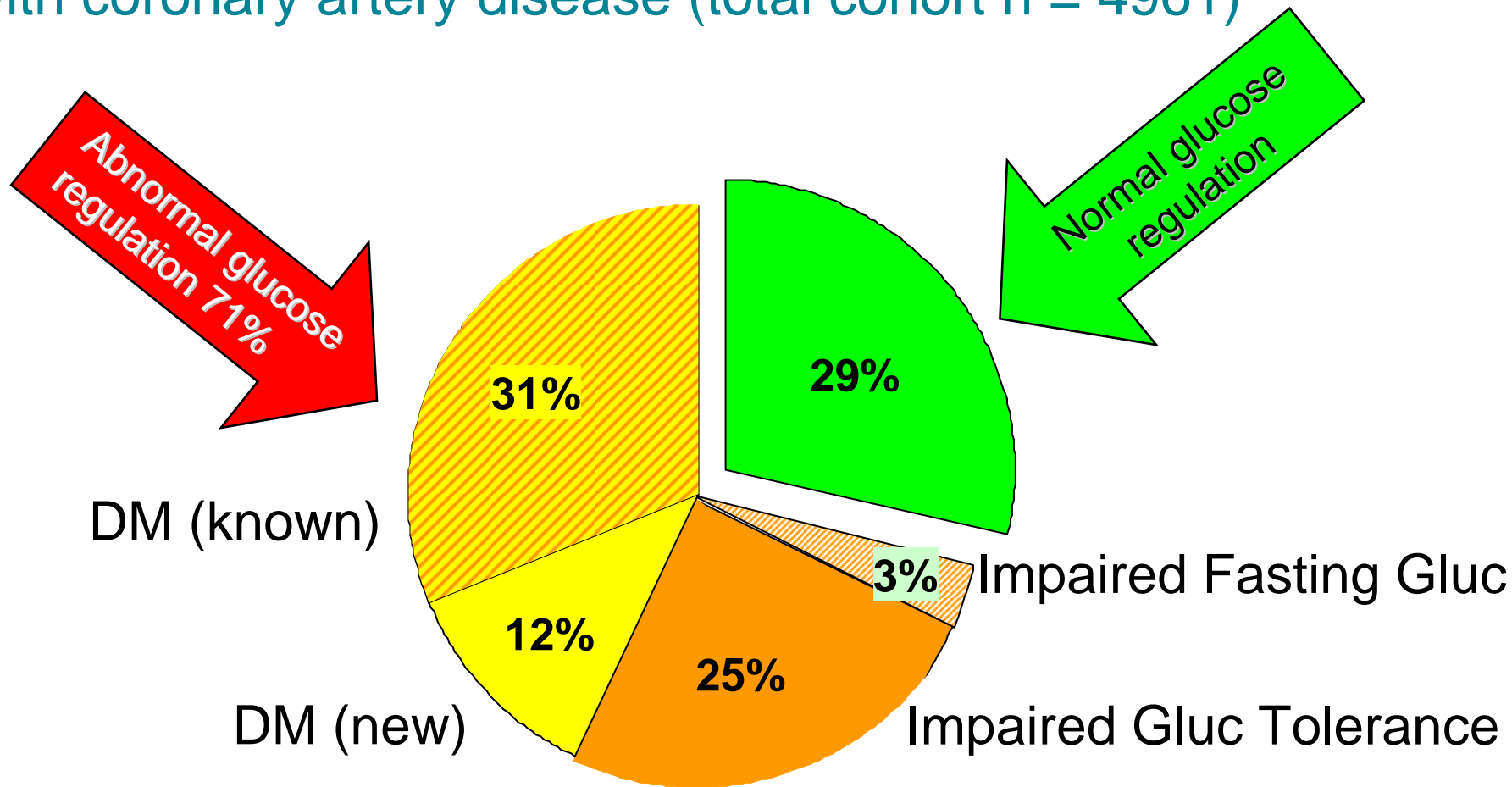
Diabetes and the Heart

Preliminary report 1-year follow up
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Estimated pattern of glucometabolic status in patients with coronary artery disease (total cohort n = 4961)



(Bartnik, et al Eur Heart J 2004; 25; 1880)

Patient characteristics

Variable	Followed (n=4646)	Lost to follow up (n=315 - 6%)
Age (years)	67	66
Males (%)	70	77
History (%)		
MI	44	46
PCI/CABG	36	24

Medical history at enrolment

Variable (%)	Followed (n=4646)	Lost to follow up (n=315)
Diabetes	31	33
Type 1	2	1
Type 2	28	32
Hyperlipidemia	63	50
Hypertension	66	60
Stroke	6	4

Pharmacological treatment - at enrolment

Medication (%)	Followed (n=4646)	Lost to follow up (n=315)
ASA/antiplatelet	74	71
Statins	54	44
β blocker	57	53
ACE-i/ARB	55	52
Glucose lowering in DM	(n=1409)	(n=105)
No	14	10
Insulin	26	29
Oral	54	56
Combined	6	6

Pharmacological treatment – at admission and follow up

Medication (%)	Admission (n=4646)	Follow up (n=4408)
ASA/antiplatelet	74	88
Statins	54	71
β blocker	57	73
ACE-i/ARB	55	66
Glucose lowering in DM	(n=1409)	(n=1304)
No	14	12
Insulin	26	26
Oral	54	56
Combined	6	6

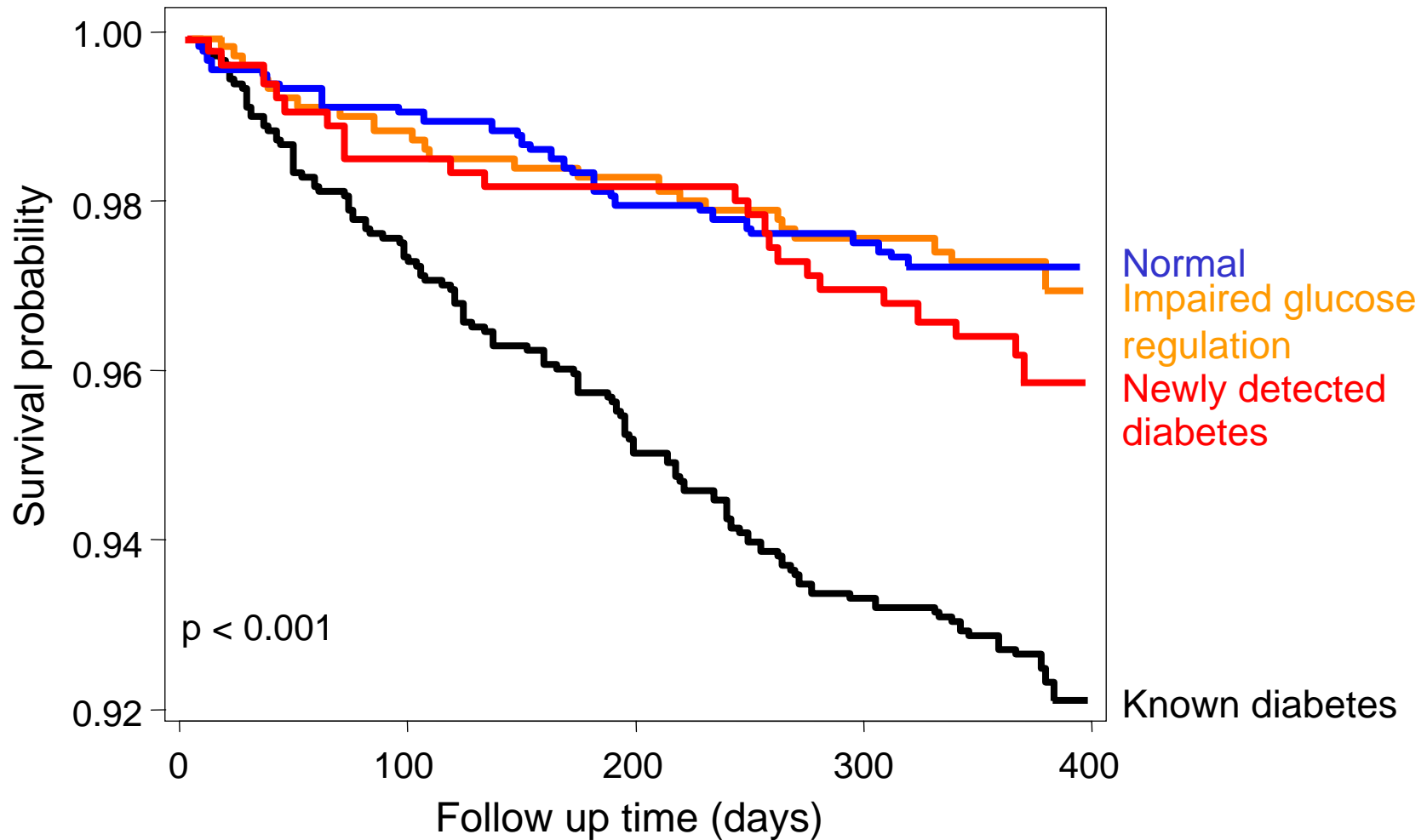
Cardiovascular events during 1-year in relation to type of admission

Event	Acute (n=1892)		Elective (n=2754)	
Death	120	(6.3%)	89	(3.2%)
MI	74	(3.9%)	78	(2.8%)
Death, MI	178	(9.4%)	149	(5.4%)
Death, MI, Stroke	205	(10.8%)	208	(7.6%)
PCI, CABG	376	(19.9%)	296	(10.8%)

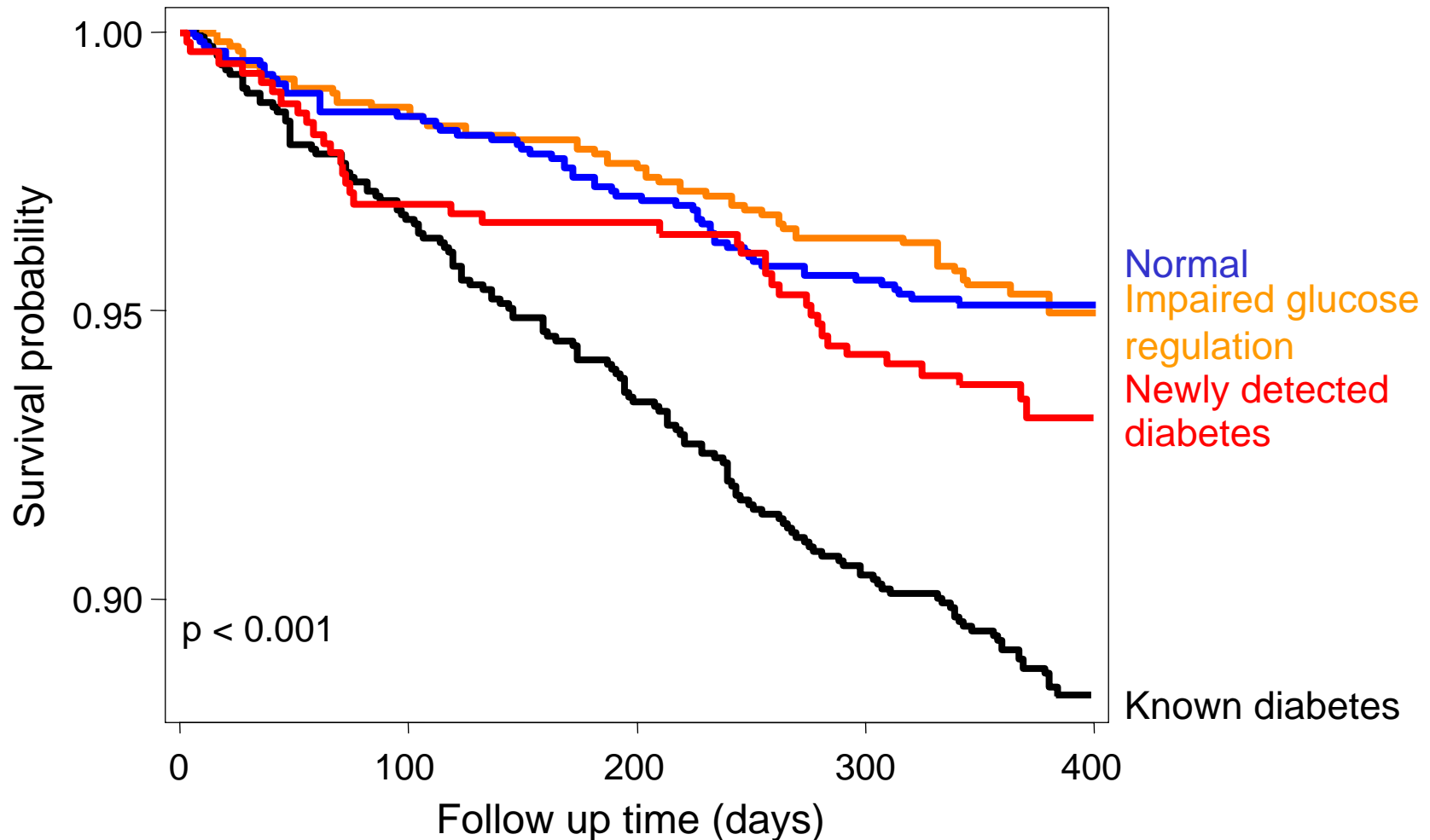
Events during 1-year in relation to glucometabolic state (known diabetes or classified by FPG, ADA 2003; n= 3917)

Patient category	Death (%)	MI (%)	Death/MI (%)	Death/MI/Stroke (%)
Normal (n=1 105)	2.7	2.4	4.8	5.7
Impaired (n=830)	2.8	2.4	4.7	6.3
New DM (n=563)	3.9	3.6	6.6	8.2
Known DM (n=1 419)	7.5	5.3	11.3	14.3
Total (n=3917)	4.6	3.6	7.4	9.3

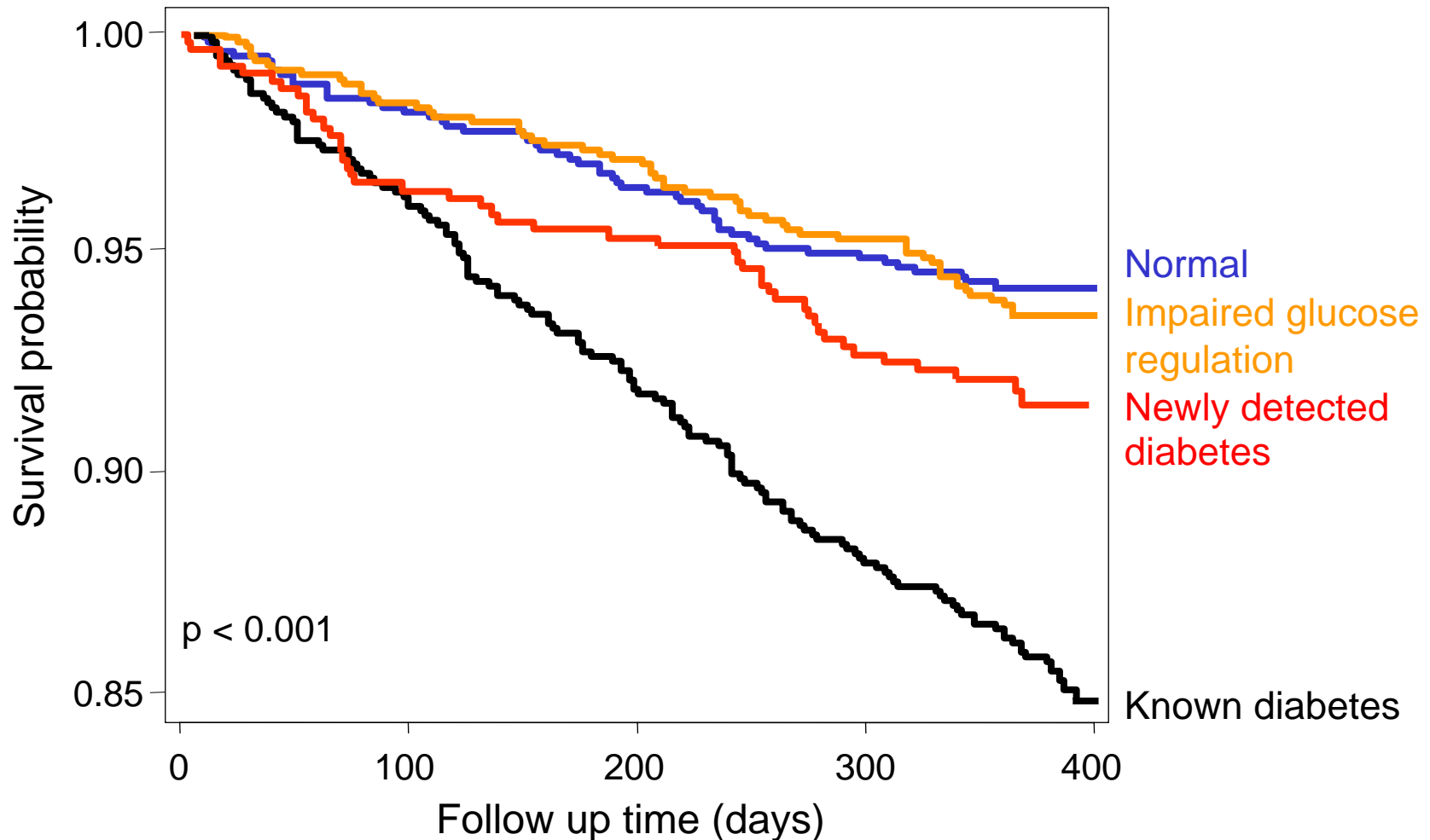
Survival in relation to fasting glucose (ADA 2003)



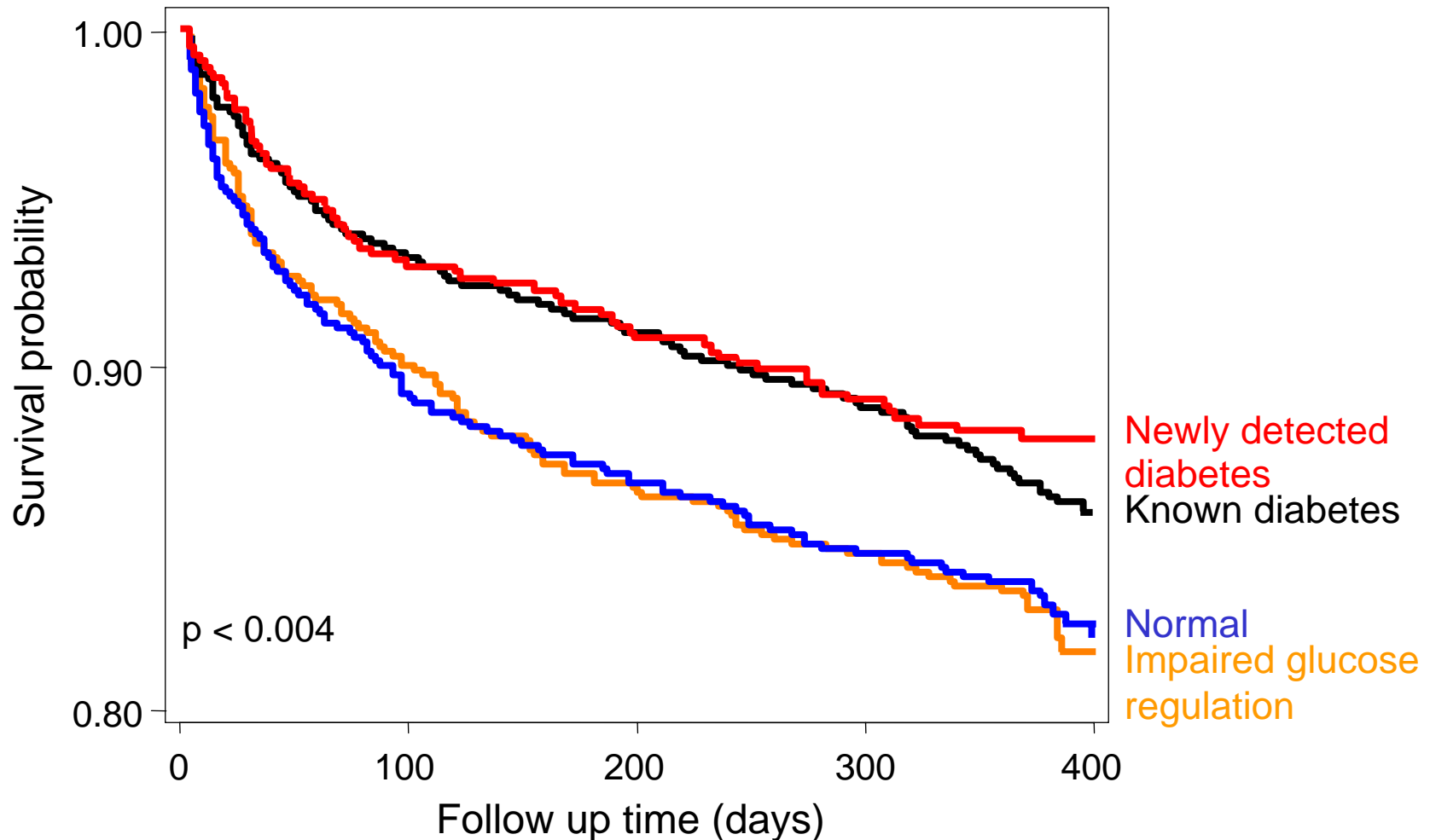
MI-free survival in relation fasting glucose (ADA 2003)



Survival free from MI or stroke in relation to fasting glucose (ADA 2003)



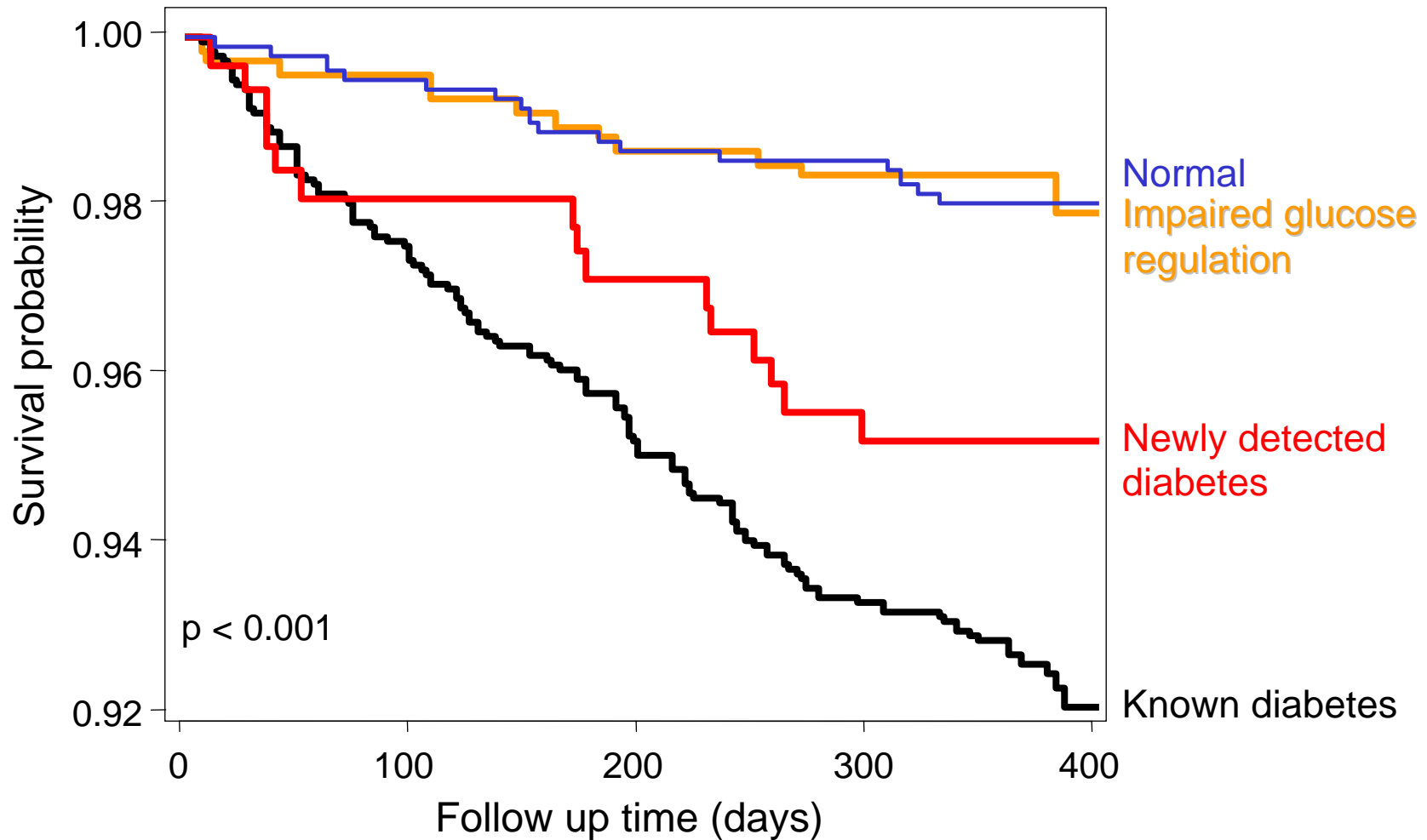
Survival without revascularisation in relation to fasting glucose (ADA 2003)



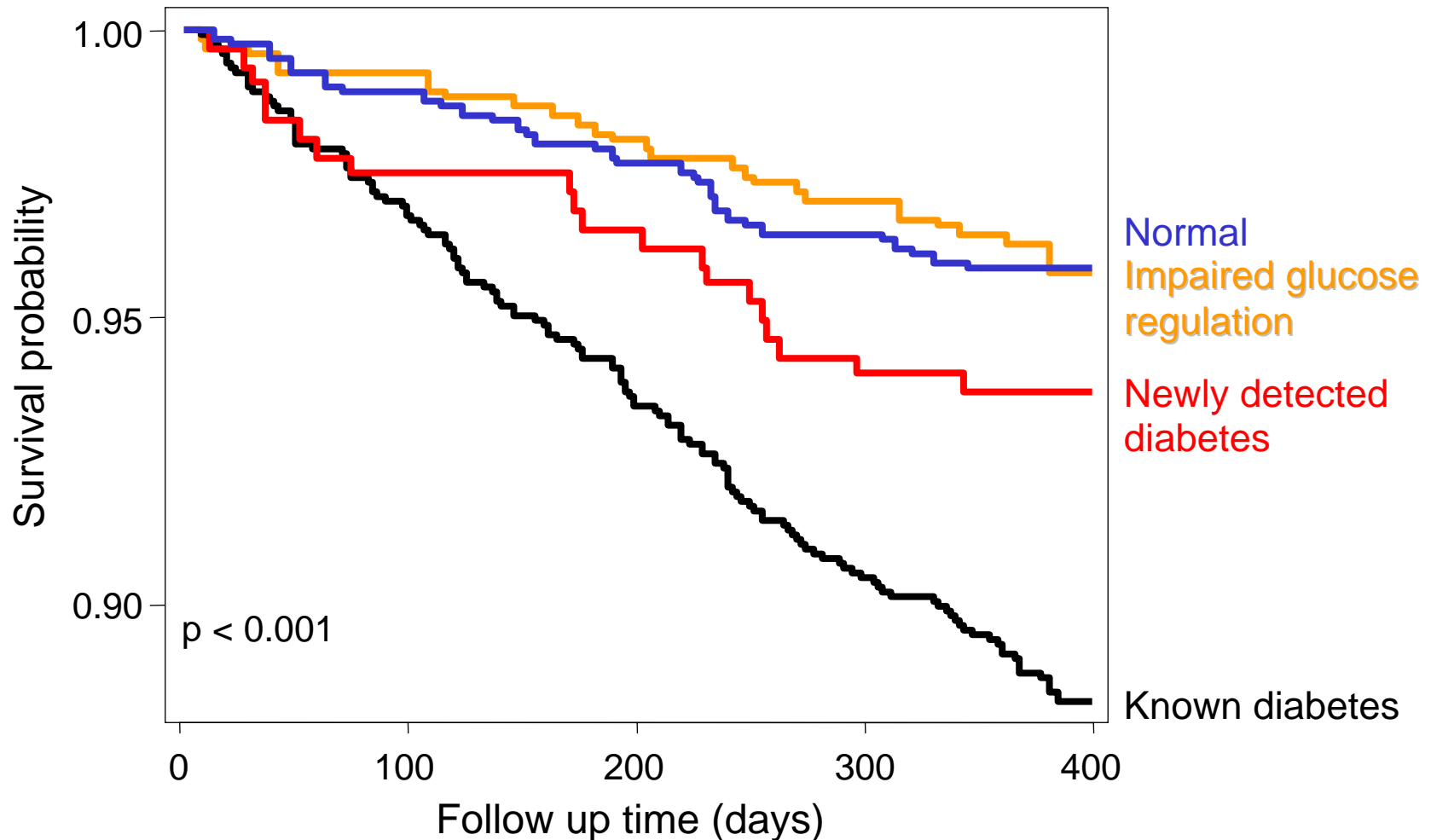
Events during 1-year in relation to glucometabolic state (known diabetes or classified by OGTT; n= 3219)

Patient category	Death (%)	MI (%)	Death/MI (%)	Death/MI/Stroke (%)
Normal (n=816)	2.0	2.2	4.2	4.9
Impaired (n=668)	1.8	2.4	3.9	5.5
New DM (n=316)	4.7	2.8	6.3	7.0
Known DM (n=1419)	7.5	5.3	11.3	14.3
Total (n=3219)	4.7	3.7	7.5	9.4

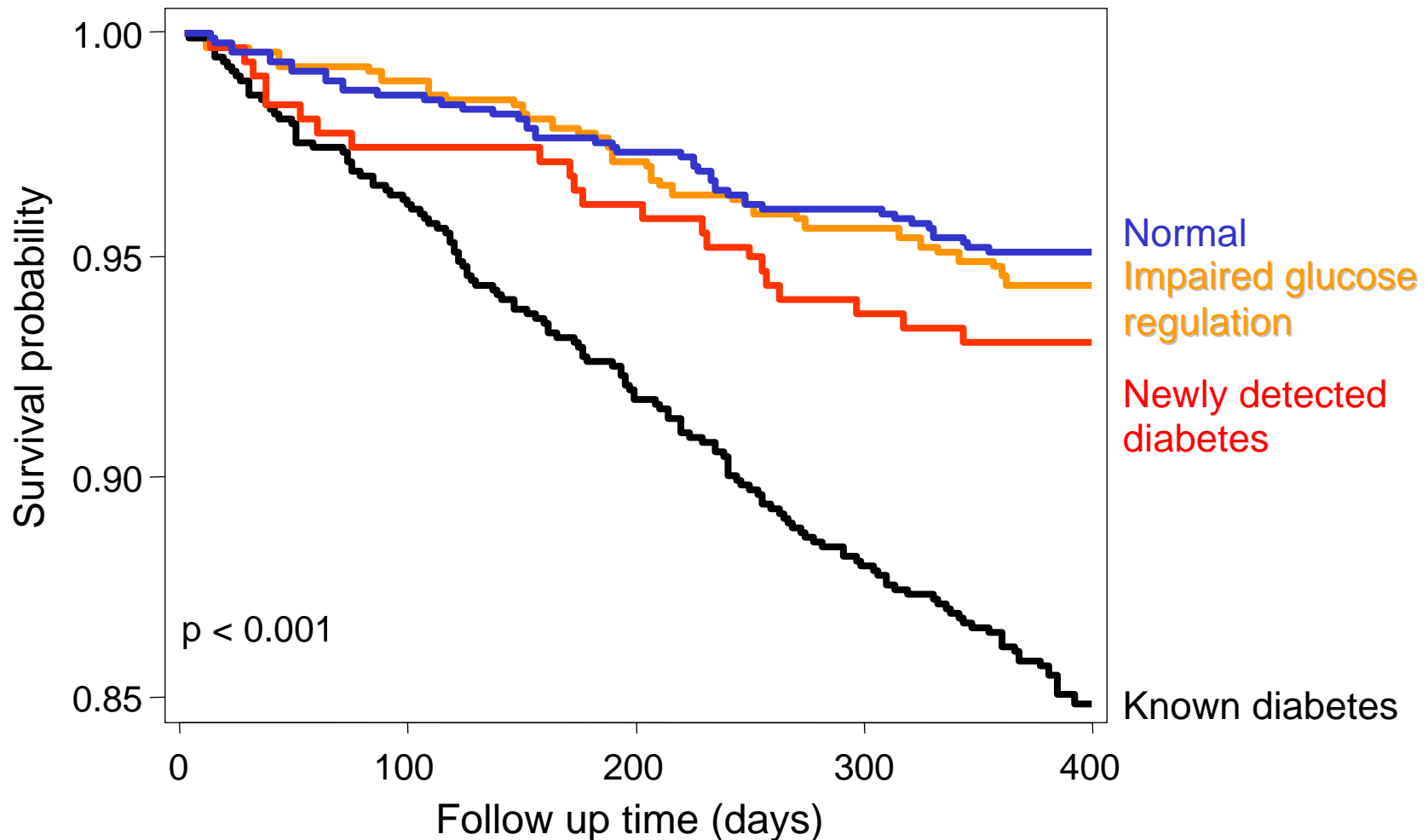
Survival in relation to glucometabolic state (OGTT)



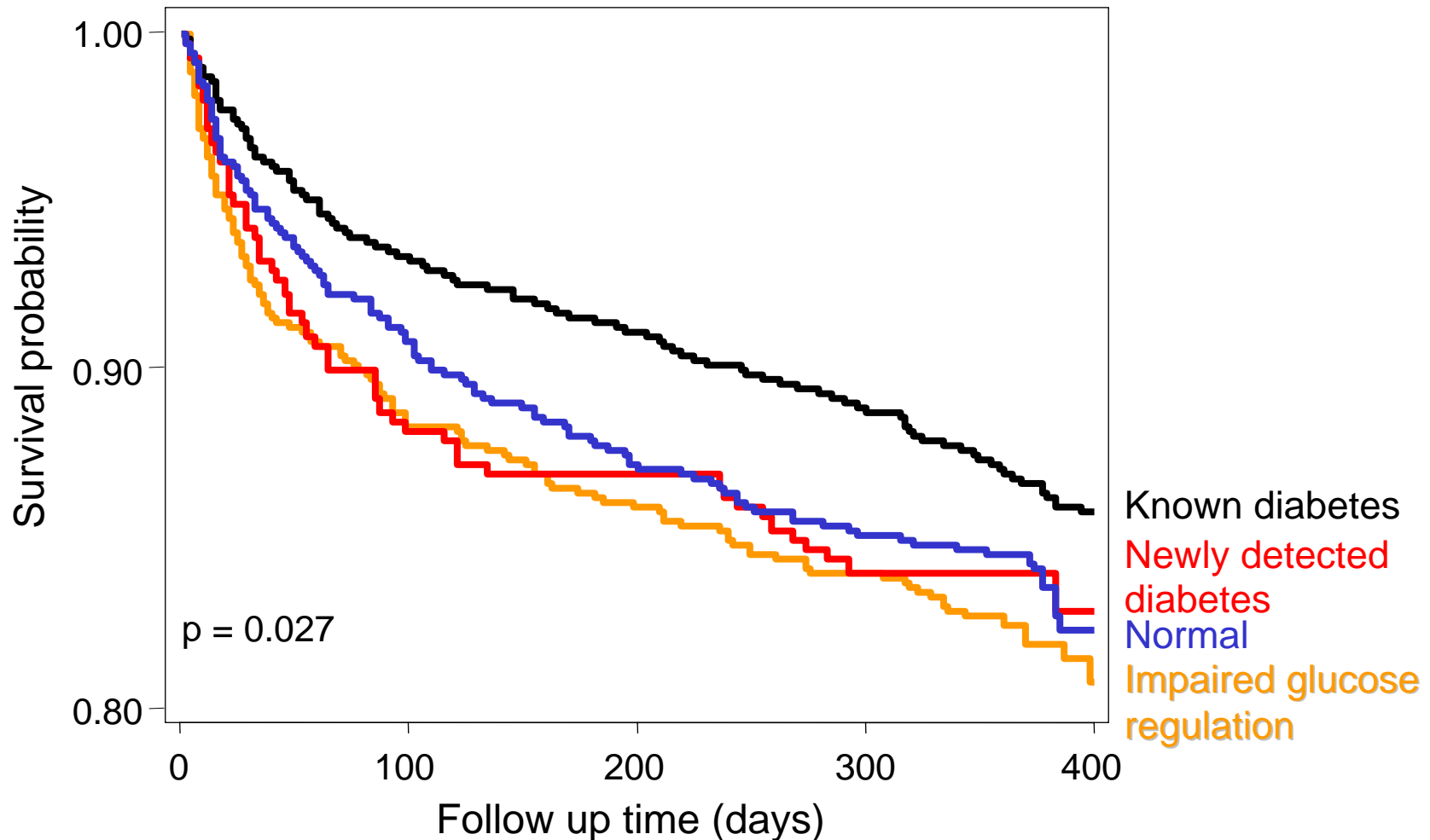
MI-free survival in relation glucometabolic state (OGTT)



Survival free from MI or stroke in relation glucometabolic state (OGTT)



Survival without revascularisation in relation to glucometabolic state (OGTT)



Euro Heart Survey in relation to GAMI

Comparable subgroups created by

EHS n = 725

Including MI patients only, without DM

Classifying IFG as normal

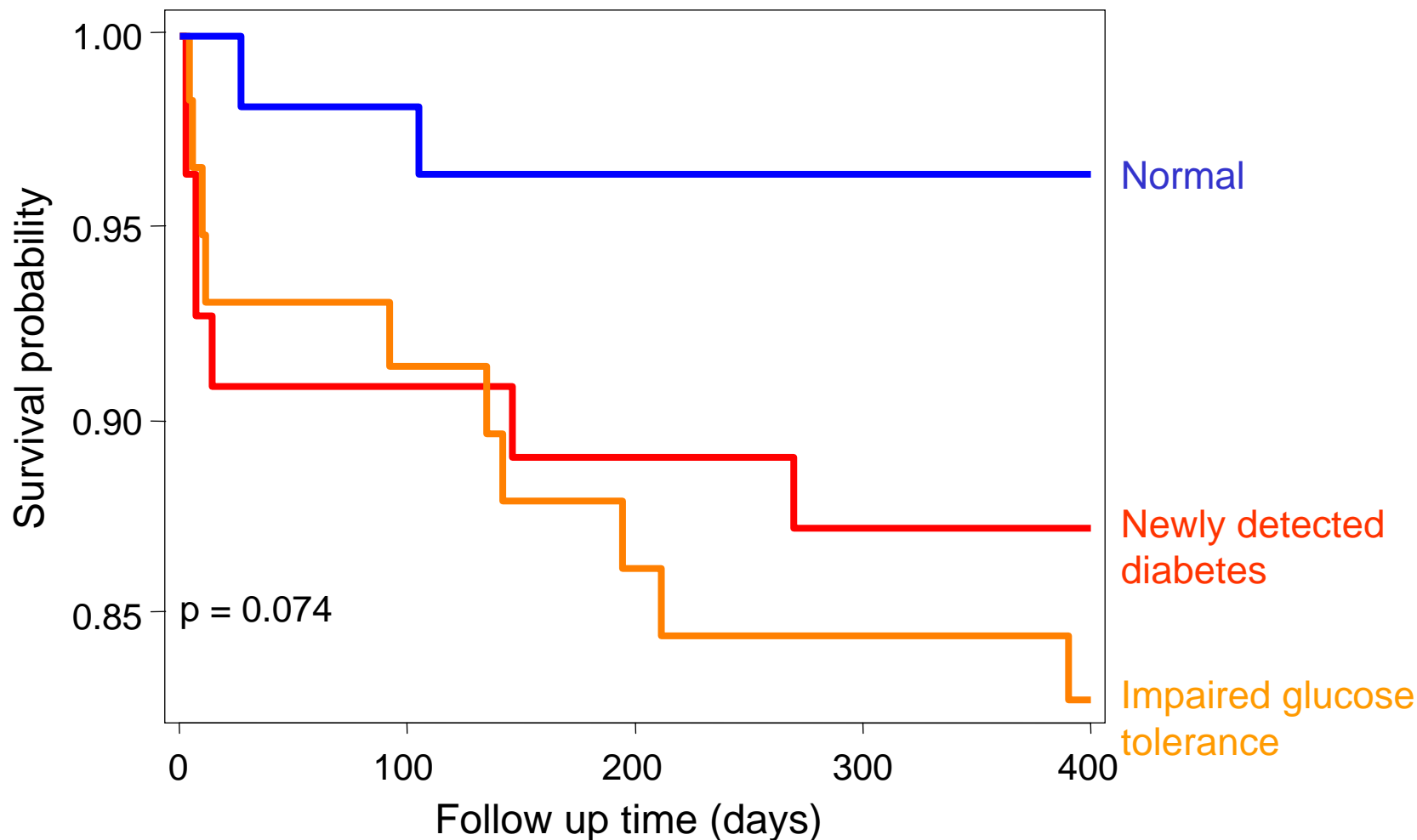
No of events (death, reinf or stroke) n = 52

GAMI n= 168

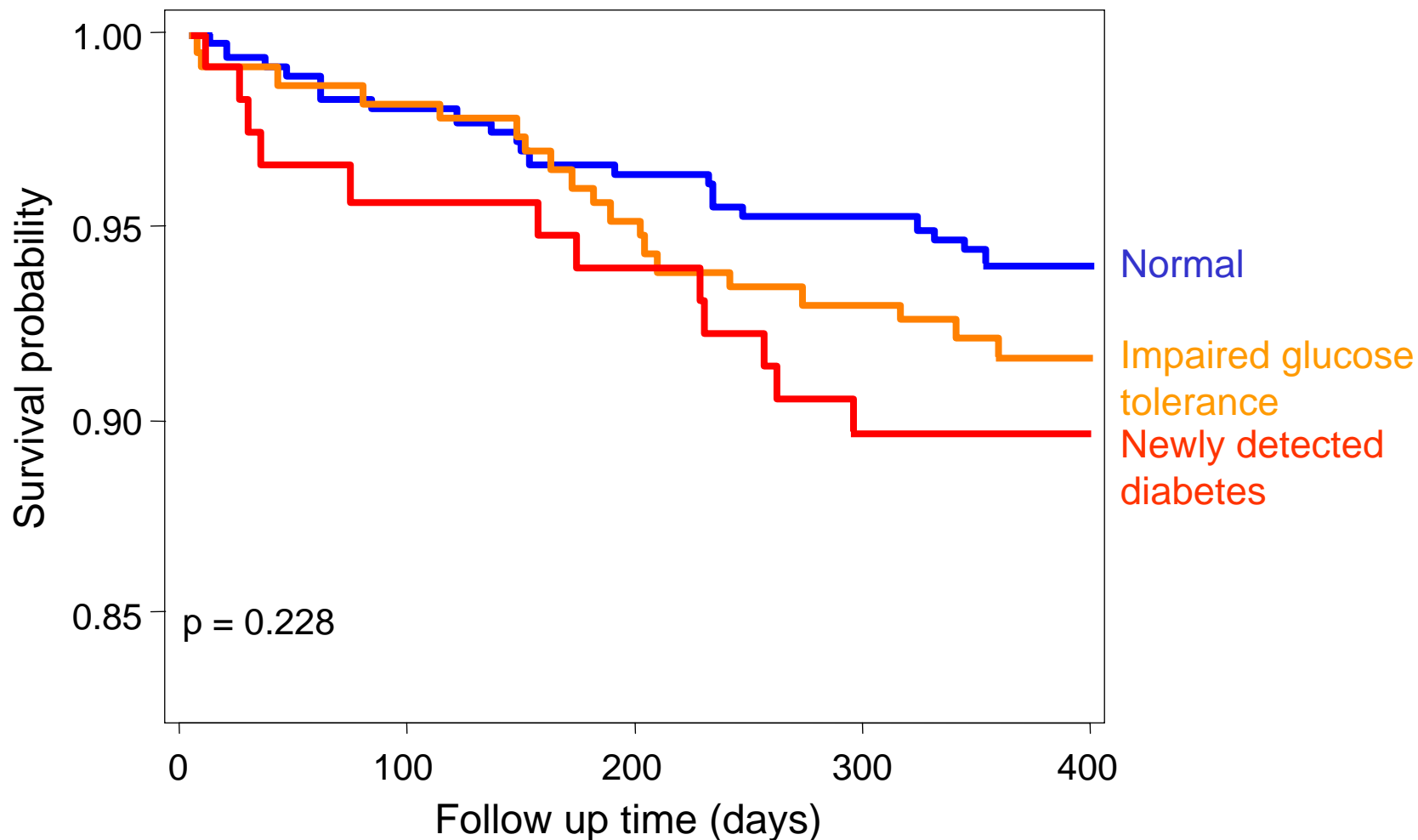
Limiting follow up to 400 days

No of events (death, reinf or stroke) n = 19

GAMI Survival free from reinfarction or stroke in relation to glucose tolerance



Euro Heart Survey Survival free from reinfarction or stroke in relation to glucose tolerance



Conclusions (preliminary)

- Patients with follow up reports are representative for the total cohort
- Known diabetic patients are at high risk for mortality and cardiovascular events
- Newly detected diabetes are at intermediate risk particularly as diagnosed by OGTT
- Patients with IGT probably at risk with longer Fup
- Diabetic patients get fewer revascularisations

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