DAPT
Pour une durée longue!

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Disclosures

Research Grants to the Institution or Consulting/ Lecture Fees from:
Amgen, AstraZeneca, Bayer, Boehringer Ingelheim, Boston, Biotronik, Bristol-Myers Squibb, Daiichi-Sankyo, Eli-Lilly, Europa, Fédération Française de Cardiologie, Medtronic, MSD, Pfizer, Sanofi-Aventis, The Medicine Company

Duration of DAPT

Courte *VS* **Longue**

Duration of DAPT

For the stent

What is the mandatory period? minimal period of DAPT for this stent

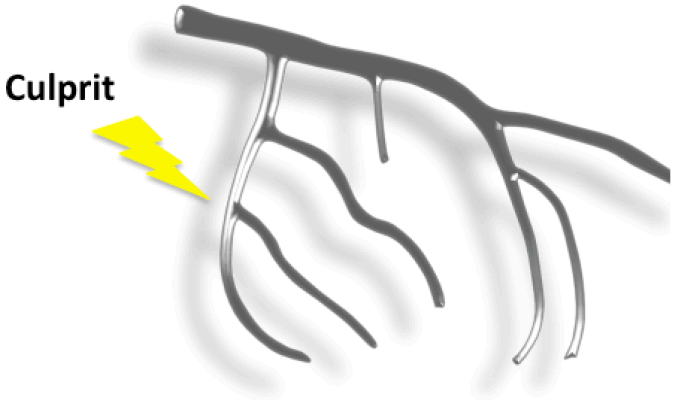
For the patient

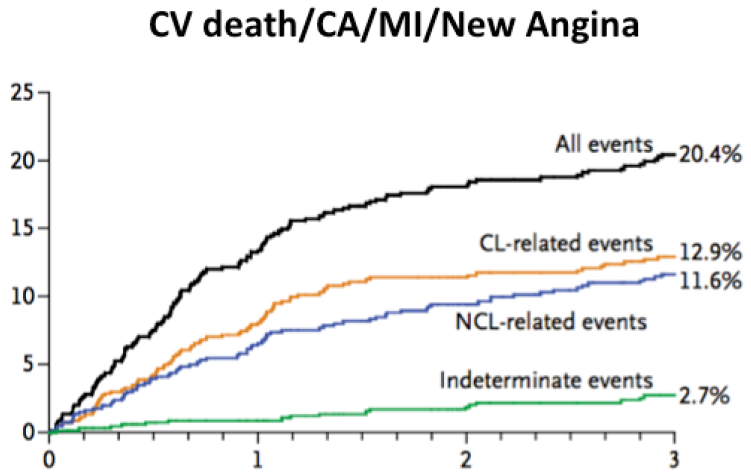
What is the optimal duration of DAPT for my patient

Pourquoi proposer DAPT longue?

Recurrent ACS

697 ACS



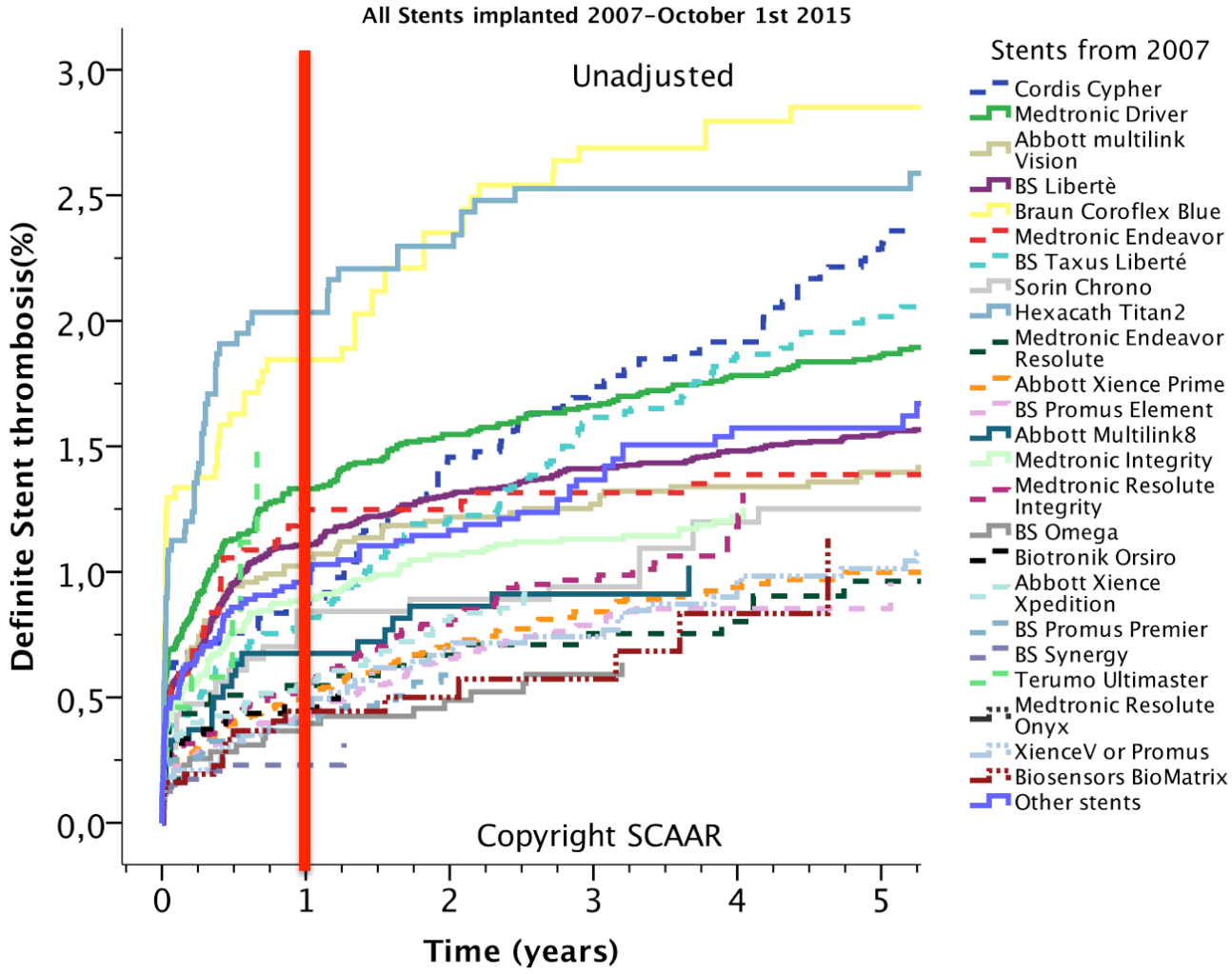


- 3 ans angioplastie post-SCA: 20,4% ECV
- Dans 50 % des cas, ce n'est pas la lésion coupable qui récidive

3 years FU

PROSPECT NEJM 2011

Late and very late Stent thrombosis



SCAAR registry

Objectifs d'une DAPT longue

Reduce new ACS

Reduce late and very late ST

Reduce death (CV) without increase non CV death

Limit the excess of bleeding

Long vs short Duration of DAPT

RCT

Focused on STENT

ZEST+REAL

EXCELLENT

ARCTIC

PRODIGY

OPTIMIZE

RESET

ITALIC

ISAR SAFE

DAPT

Focused on patients/disease

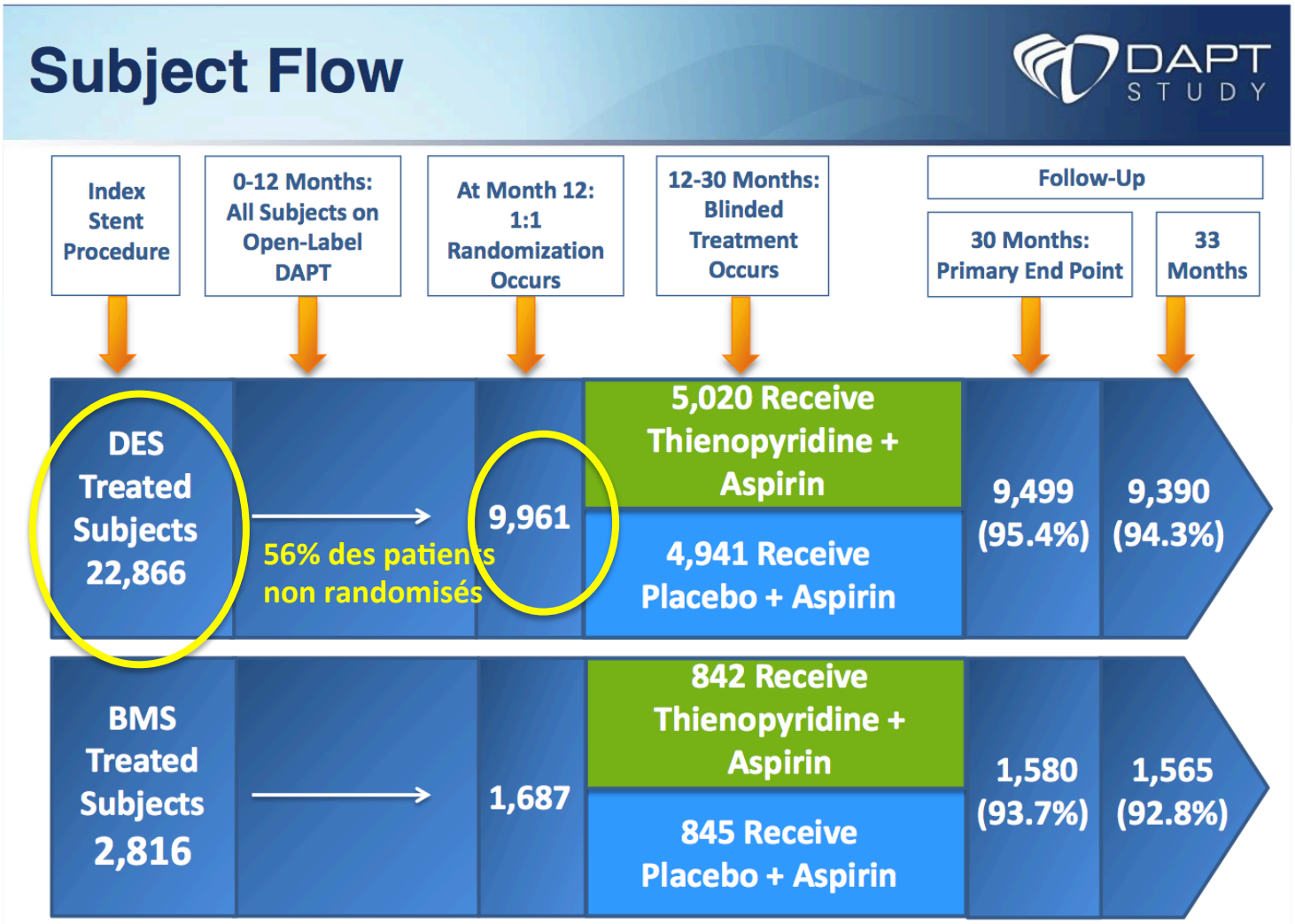
CHARISMA subgroup

TRA 2P

TRILOGY ACS angio Sub

PEGASUS

DAPT study



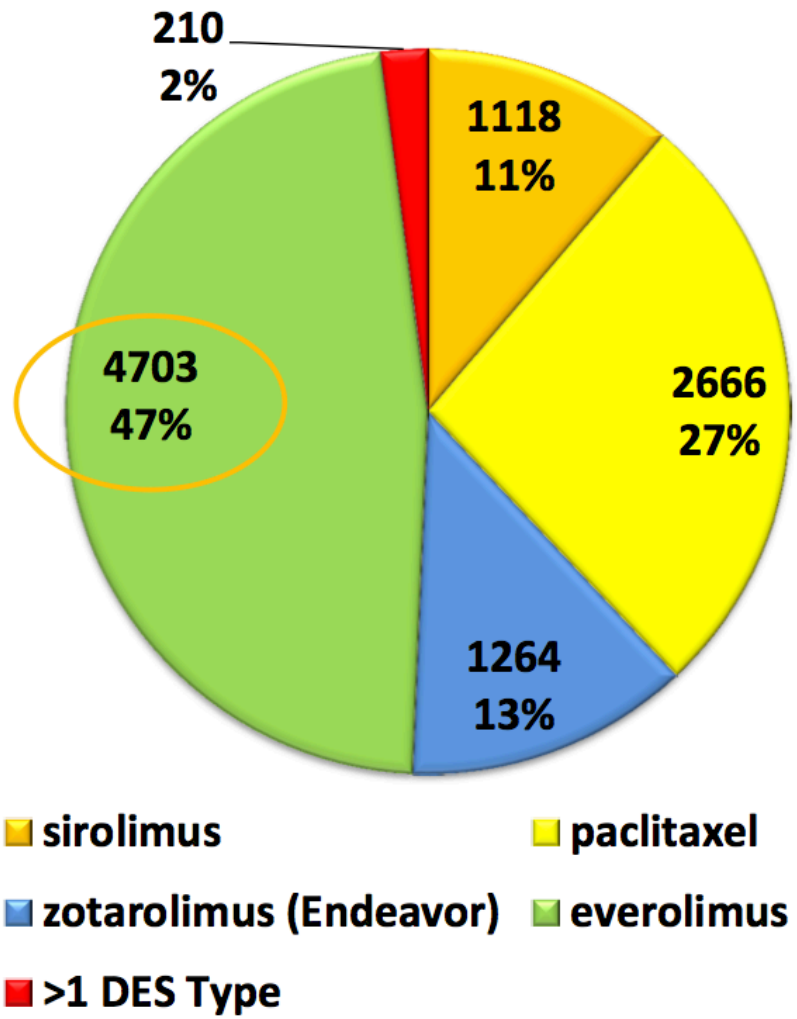
Randomized: Free from MI, stroke, repeat revascularization, and moderate or severe bleeding, and adherent with thienopyridine (80% to 120% of doses taken and no interruption > 14 days).

Mauri et al, NEJM 2014

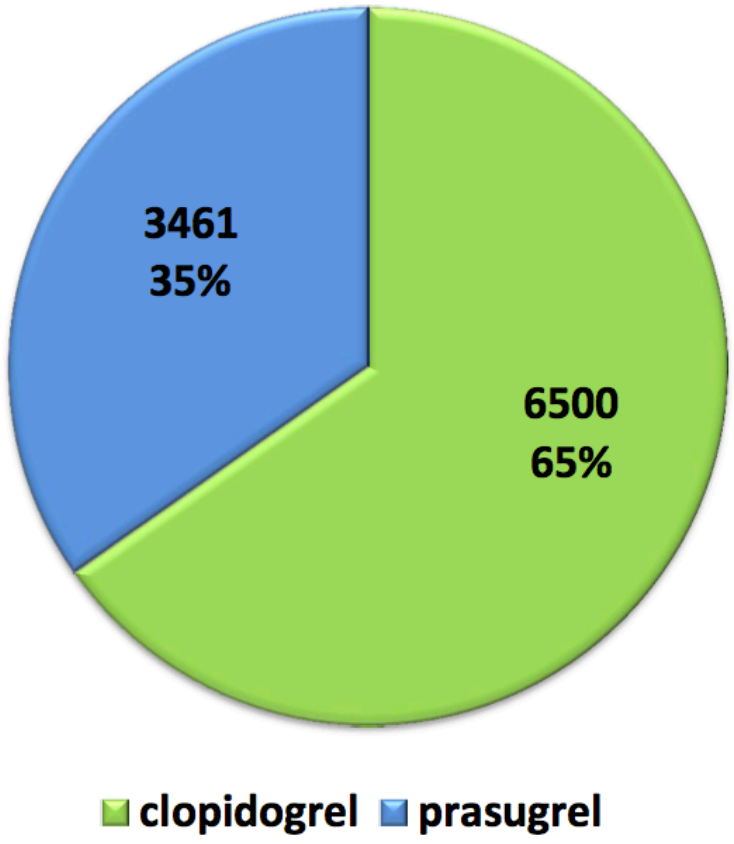
Stent & Drug Types

DAPT STUDY

Drug Eluting Stent Type

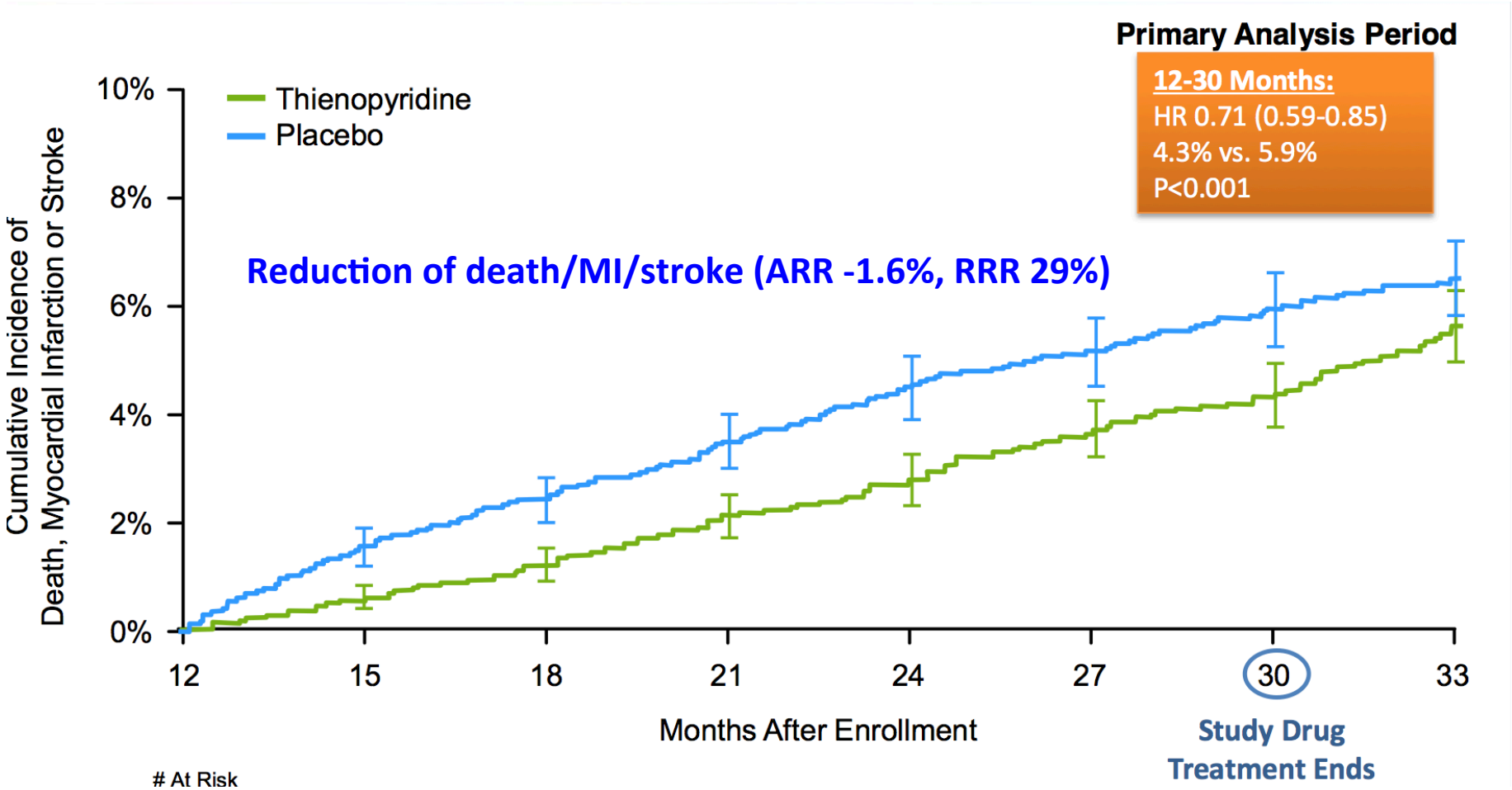


Thienopyridine Type



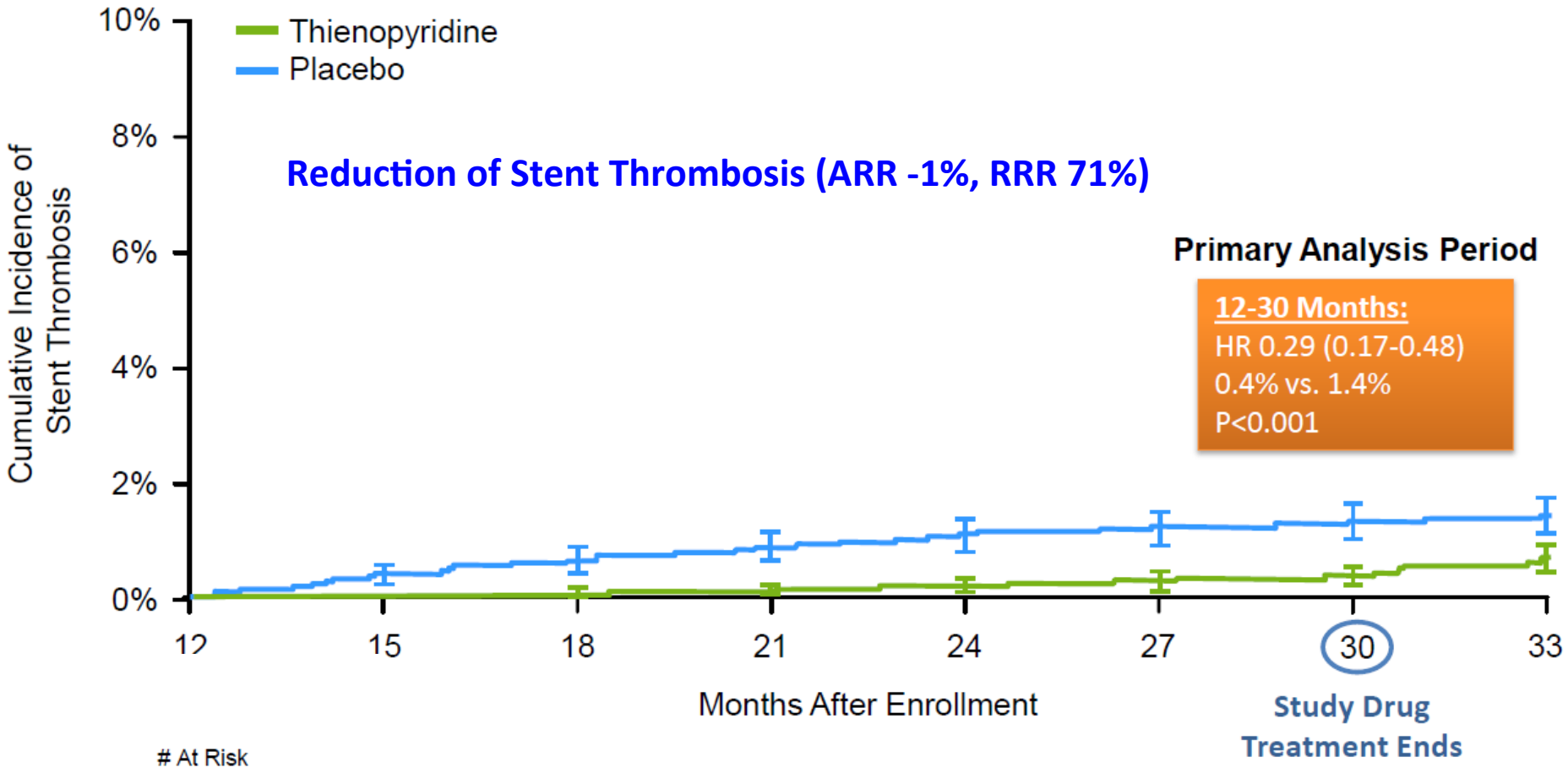
25% de SCA

DAPT study



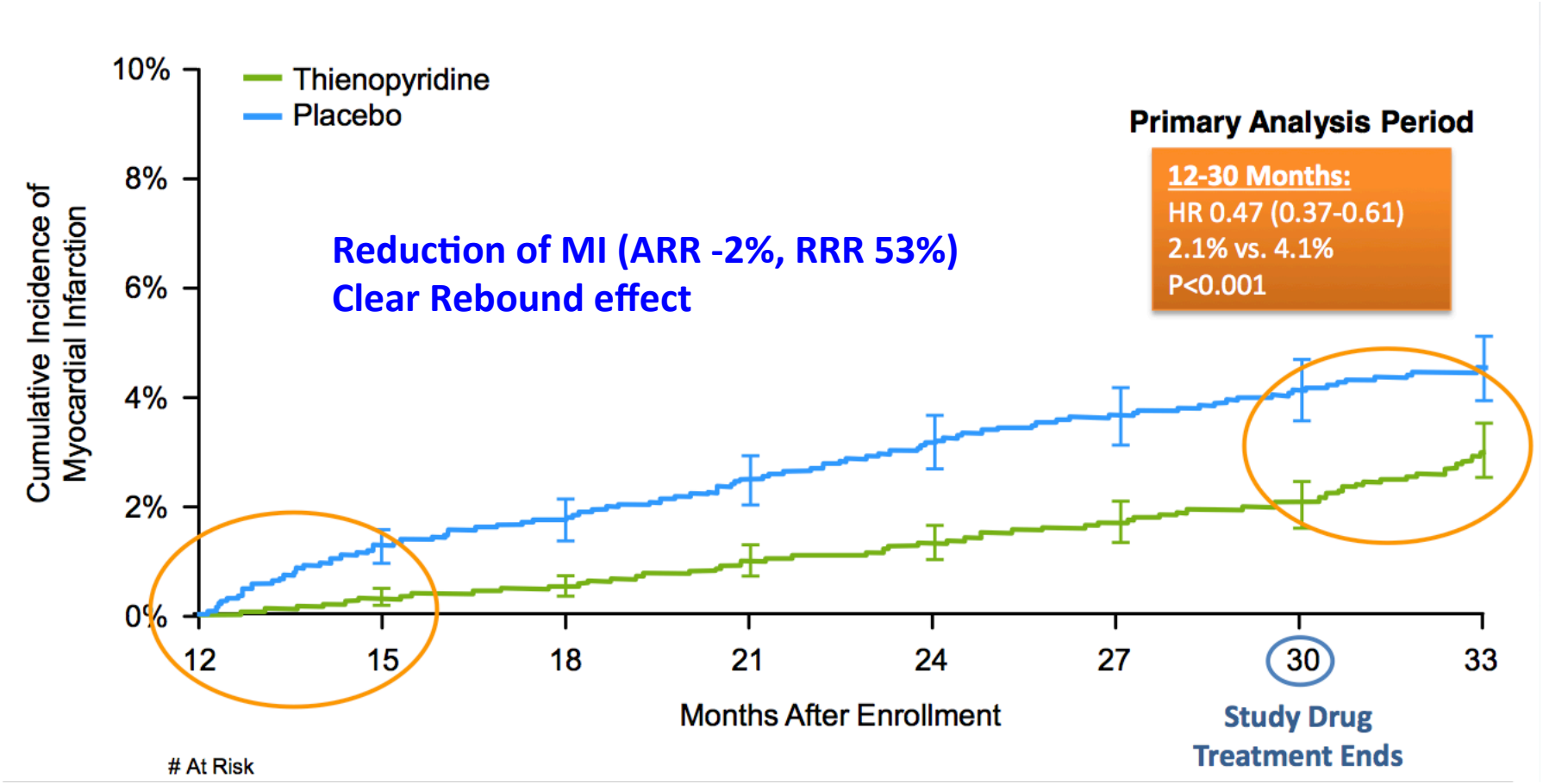
Mauri et al, NEJM 2014

DAPT study



Mauri et al, NEJM 2014

DAPT study



Mauri et al, NEJM 2014

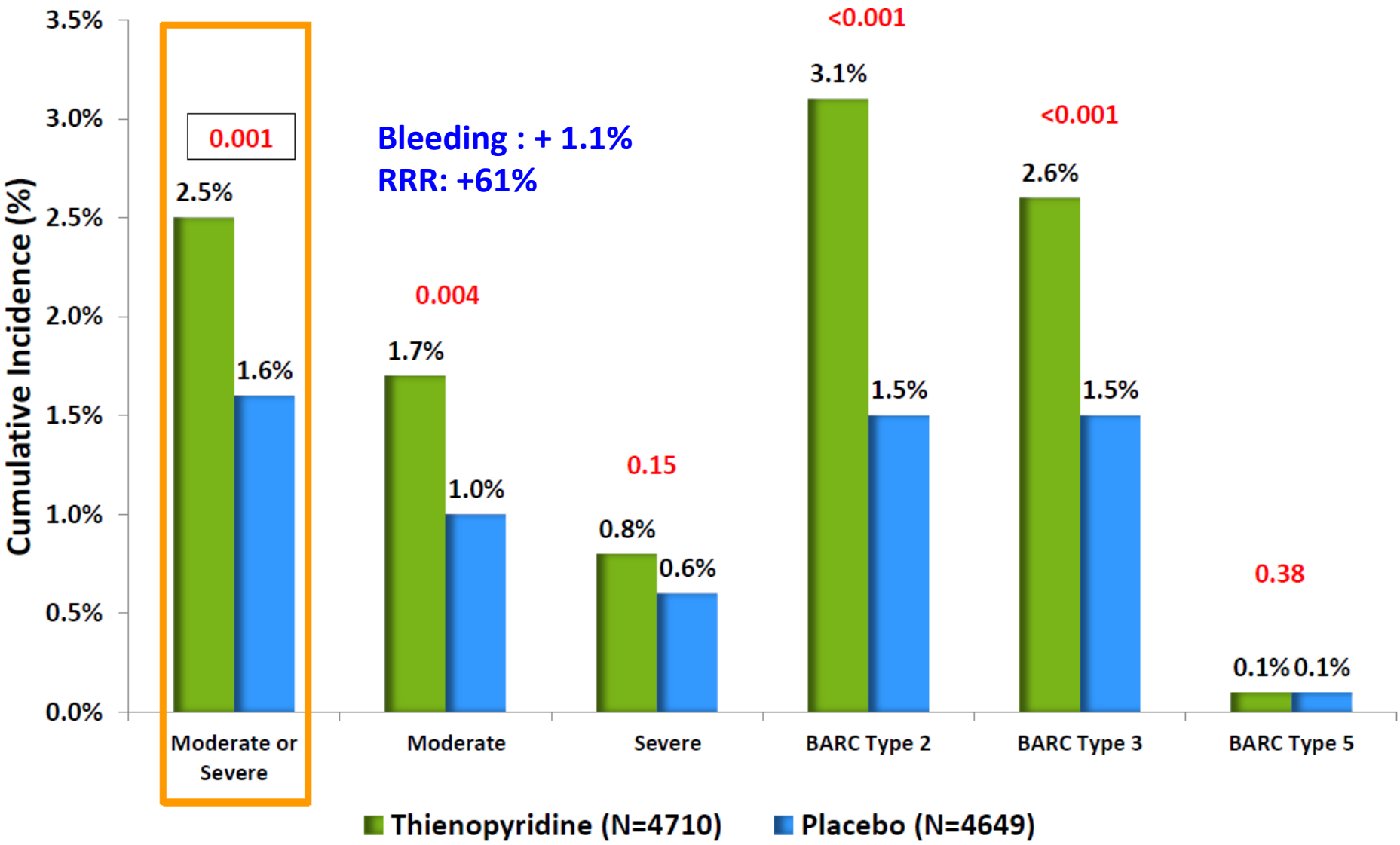
All-Cause Mortality

No effect on CV death (ARR: -0.1%, RRR 2%)
↑ Non CV death (ARR: +0.5%, RRR +26%)

	12-30 Months			
	Thienopyridine N=5020	Placebo N=4941	P-Value	Absolute Difference
All-Cause Mortality	**98 (2.0%)**	**74 (1.5%)**	**0.052**	**24 (0.5%)**
Cardiac	45 (0.9%)	47 (1.0%)	0.98	-2 (-0.1%)
Vascular	5 (0.1%)	5 (0.1%)	0.98	0 (-)
Non-Cardiovascular	48 (1.0%)	22 (0.5%)	0.002	26 (0.5%)

Mauri et al, NEJM 2014

Primary Safety End Point (Moderate or Severe Bleeding): 12-30 Months



Mauri et al, NEJM 2014

Conclusions from DAPT study

Long duration of DAPT in a large RCT

- ↓ **Stent thrombosis (-1%)**
- ↓ **MI (-2%)**
- ↑ **Bleeding events (+1.1%)**

No reduction of CV mortality

Rebound effect after stop DAPT

Is there a different effect for ACS studies?

Post SCA studies

N=33 435 patients

CHARISMA Prior MI

PRODIGY

ARCTIC

DAPT ACS sub group

DES Late

PEGASUS-TIMI 54

Long duration of platelet inhibition

↓

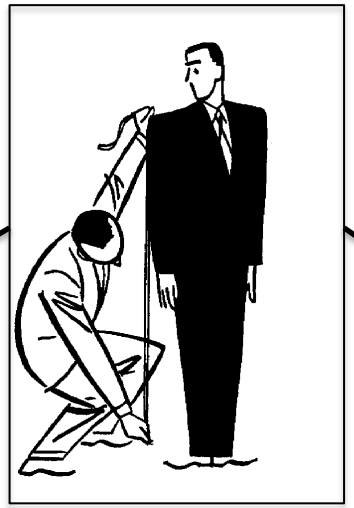
Reduction of MACCE (22%)
Reduction of CV death (15%)
Reduction of stroke (19%)
Reduction ST (50%)
Reduction of MI (30%)
Increase risk of major bleeding events (73%)
No effect non CV death, Total death

↓

Clinical implication: we need to select patients (High I R, Low B R)

Udell et al Eur Heart J 2016

How to individualize the DAPT?



DAPT score

Paris score

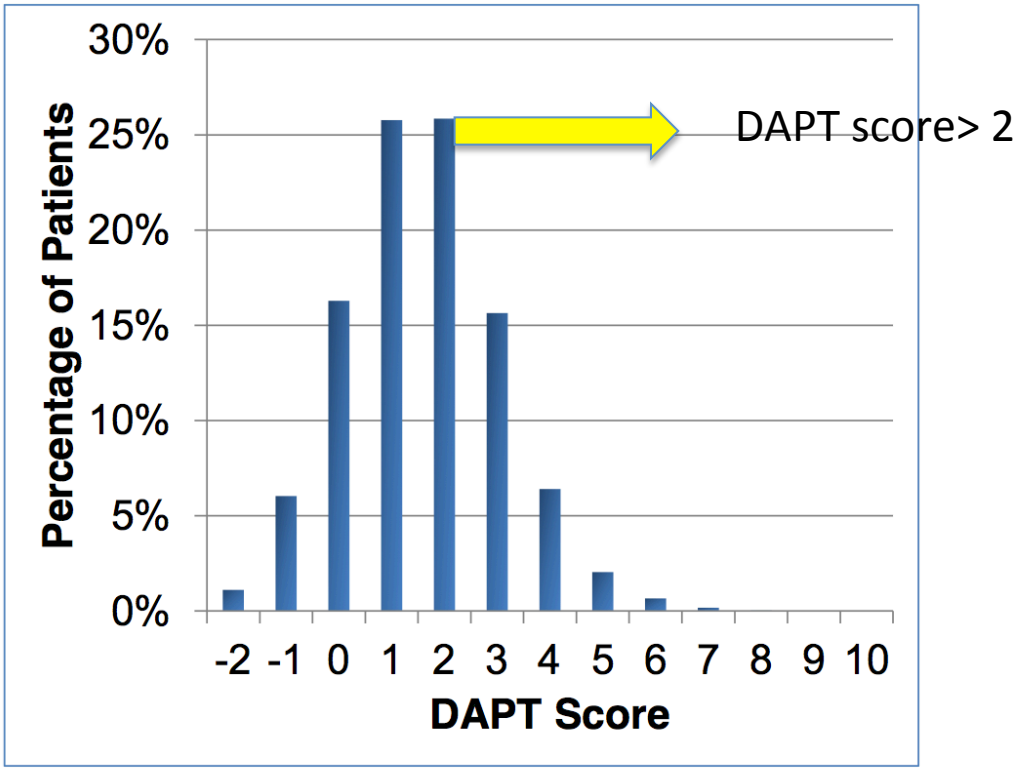
Precise DAPT score

Intuitive physician decision

DAPT Scoring?

Variable	Points
Patient Characteristic	
Age	
≥ 75	-2
65 - <75	-1
< 65	0
Diabetes Mellitus	1
Current Cigarette Smoker	1
Prior PCI or Prior MI	1
CHF or LVEF < 30%	2
Index Procedure Characteristic	
MI at Presentation	1
Vein Graft PCI	2
Stent Diameter < 3mm	1

Distribution of DAPT Scores among all randomized subjects in the DAPT Study



Predictors of both bleeding and ischemic events were excluded (PAD, HTA, CKD)

www.datpstudy.org

PARIS Score

6 factors

Risk of coronary thrombotic events	
Diabetes mellitus	
None	0
Non-insulin-dependent	+1
Insulin-dependent	+3
Acute coronary syndrome	
No	0
Yes, Tn-negative	+1
Yes, Tn-positive	+2
Current smoking	
Yes	+1
No	0
CrCl <60 ml/min	
Present	+2
Absent	0
Prior PCI	
Yes	+2
No	0
Prior CABG	
Yes	+2
No	0

Max : 12 points

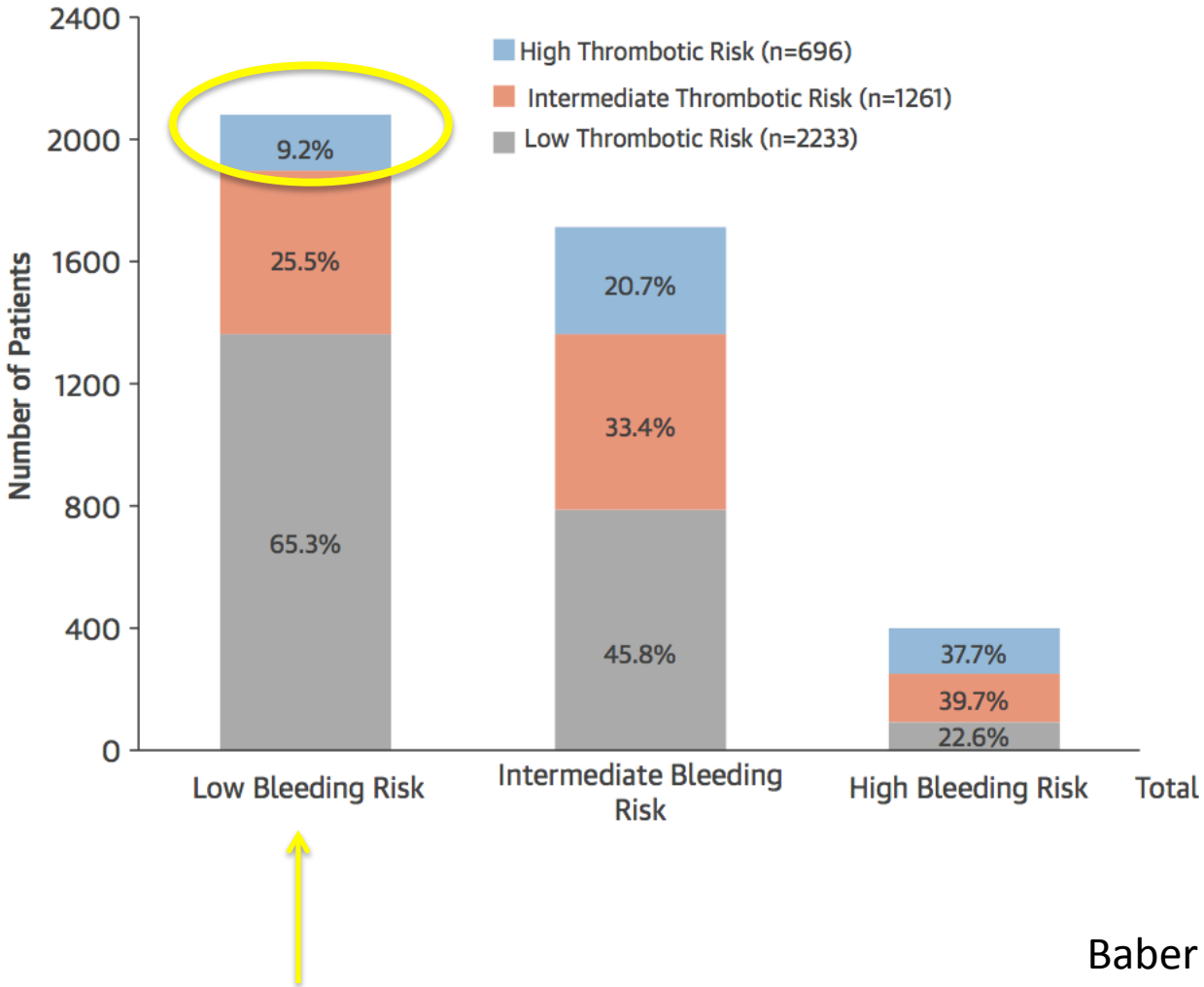
6 factors

Risk of bleeding events	
Age, yrs	
<50	0
50-59	+1
60-69	+2
70-79	+3
≥80	+4
BMI, kg/m^2	
<25	+2
25-34.9	0
≥35	+2
Current smoking	
Yes	+2
No	0
Anemia	
Present	+3
Absent	0
CrCl <60 ml/min	
Present	+2
Absent	0
Triple therapy on discharge	
Yes	+2
No	0

Max : 15 points

Baber et al JACC 2016

PARIS Score



Baber et al JACC 2016

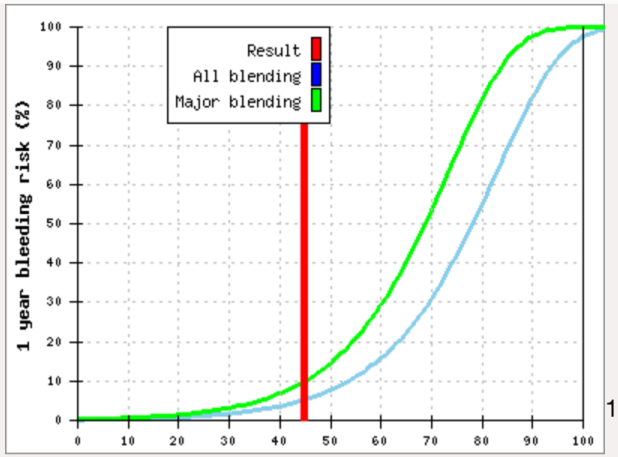
PRECISE DAPT Score

Predictor of bleeding events based on 5 factors

The score has been derived from a pooled database of 8 contemporary clinical trials in which 14,963 patients have been treated with coronary stents and subsequent dual antiplatelet therapy.

Haemoglobin at Baseline (g/dl)	11.01 - 11.25
Age (years)	54
White Blood Cells at Baseline (10^9/L)	8.6 - 9.0
Creatinine Clearance (ml/min)	66 - 70
Prior Bleeding	☑

CALCULATE



Results:

Score Calculated

45

12 months risk of clinically significant bleeding

8%

12 months risk of major bleeding

4%

Cluster of risk:

High

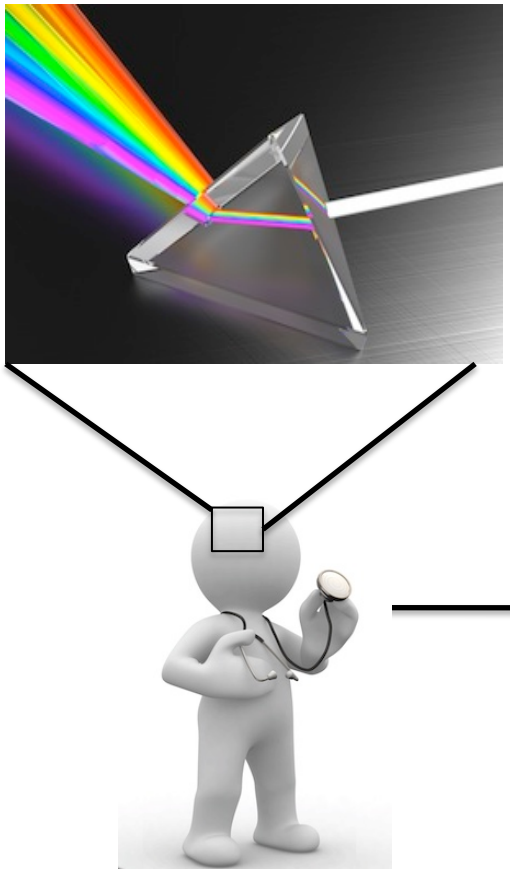
www.precisedaptscore.com

Intuitive physician decision

Patients characteristics

Angiographic factors

Other factors



Decision of the optimal duration for my patient

Conclusion

La durée longue de la bithérapie réduit la survenue d'évenements cardiovasculaires

Après une période "minimale" la durée doit être individalisée, certains patients beneficient durée longue

Type de patients: ACS à bas risque hémorragique et haut risque ischémique

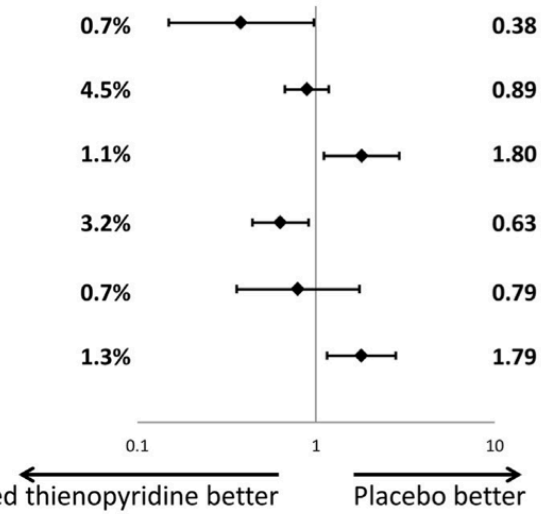
Score prédictifs intéressant mais doivent être validés

L'intuition médicale reste aussi une bonne option pour ajuster la durée de la bithérapie

Back up slide

A

Outcome	Continued Thienopyridine N=2345	Placebo N=2358	HR (95% CI)	P Value
Stent Thrombosis	0.3%	0.7%	0.38 (0.15, 0.97)	0.04
MACCE	4.3%	4.5%	0.89 (0.67, 1.18)	0.42
Death	2.2%	1.1%	1.80 (1.11, 2.92)	0.02
Myocardial Infarction	2.1%	3.2%	0.63 (0.44, 0.91)	0.01
Stroke	0.6%	0.7%	0.79 (0.36, 1.75)	0.56
Bleeding	2.5%	1.3%	1.79 (1.15, 2.80)	0.01



B

Outcome	Continued Thienopyridine N=5020	Placebo N=4941	HR (95% CI)	P Value
Stent Thrombosis	0.4%	1.4%	0.29 (0.17, 0.48)	<0.001
MACCE	4.3%	5.9%	0.71 (0.59, 0.85)	<0.001
Death	2.0%	1.5%	1.36 (1.00, 1.85)	0.052
Myocardial Infarction	2.1%	4.1%	0.47 (0.37, 0.61)	<0.001
Stroke	0.8%	0.9%	0.80 (0.51, 1.25)	0.32
Bleeding	2.5%	1.6%	1.61 (1.21, 2.16)	0.001