

What have we learned from Syntax?

Surgery vs PCI with 1st generation stent (Taxus)

1800 patients with MV disease and/or LM disease

Primary endpoint

Death, MI, stroke, any revasc at 12 month

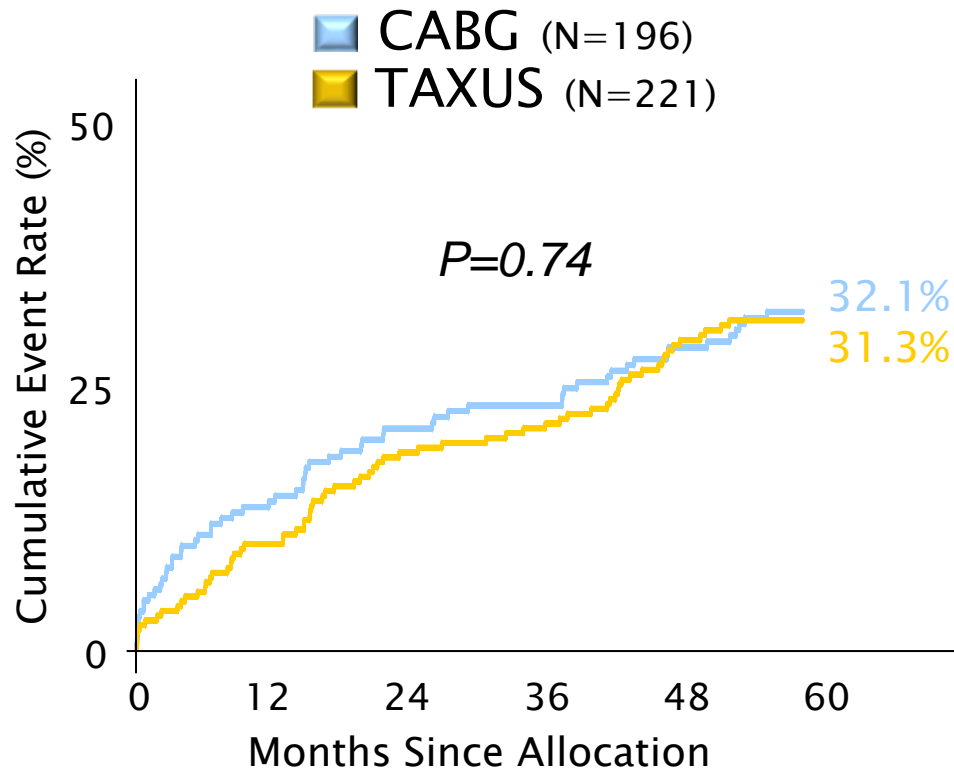
Not met

LM subgroup analysis (705 patients)

1. Complexity matters

MACCE to 5 Years by SYNTAX Score Tercile

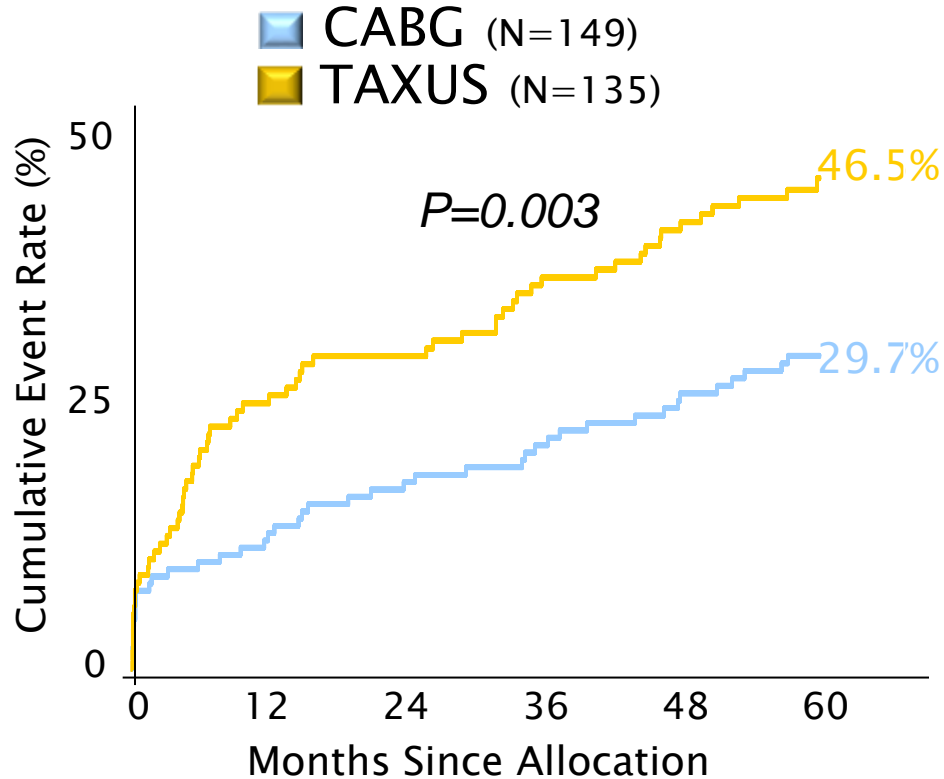
LM Subset-Low to Intermediate Scores (0-32)



	CABG	PCI	P value
Death	15.1%	7.9%	0.02
CVA	3.9%	1.4%	0.11
MI	3.8%	6.1%	0.33
Death, CVA or MI	19.8%	14.8%	0.16
Revasc.	18.6%	22.6%	0.36

MACCE to 5 Years by SYNTAX Score Tercile

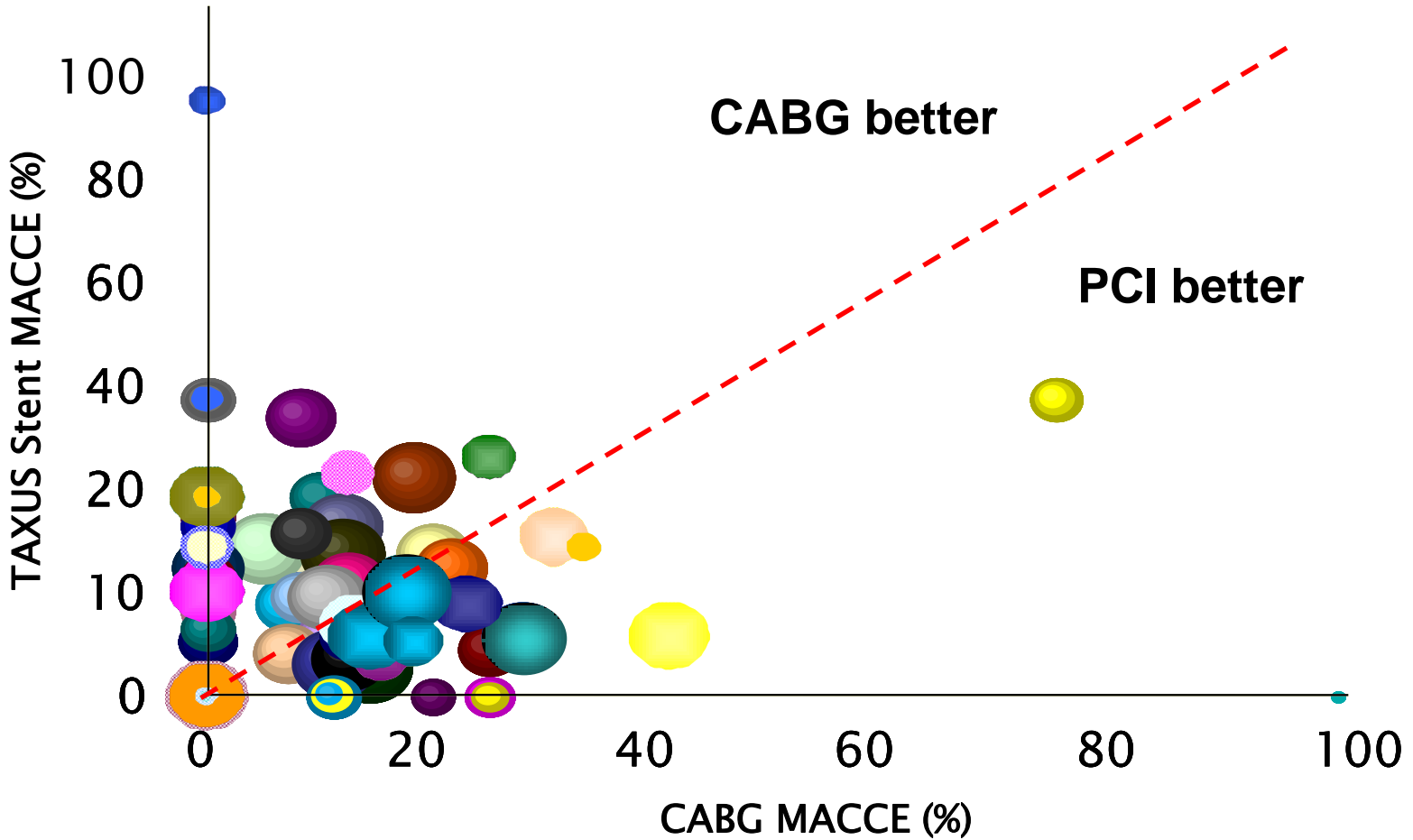
LM Subset-High Scores (≥ 33)



	CABG	PCI	P value
Death	14.1%	20.9%	0.11
CVA	4.9%	1.6%	0.13
MI	6.1%	11.7%	0.13
Death, CVA or MI	22.1%	26.1%	0.40
Revasc.	11.6%	34.1%	<0.001

- 1. Complexity matters**
- 2. Experience matters**

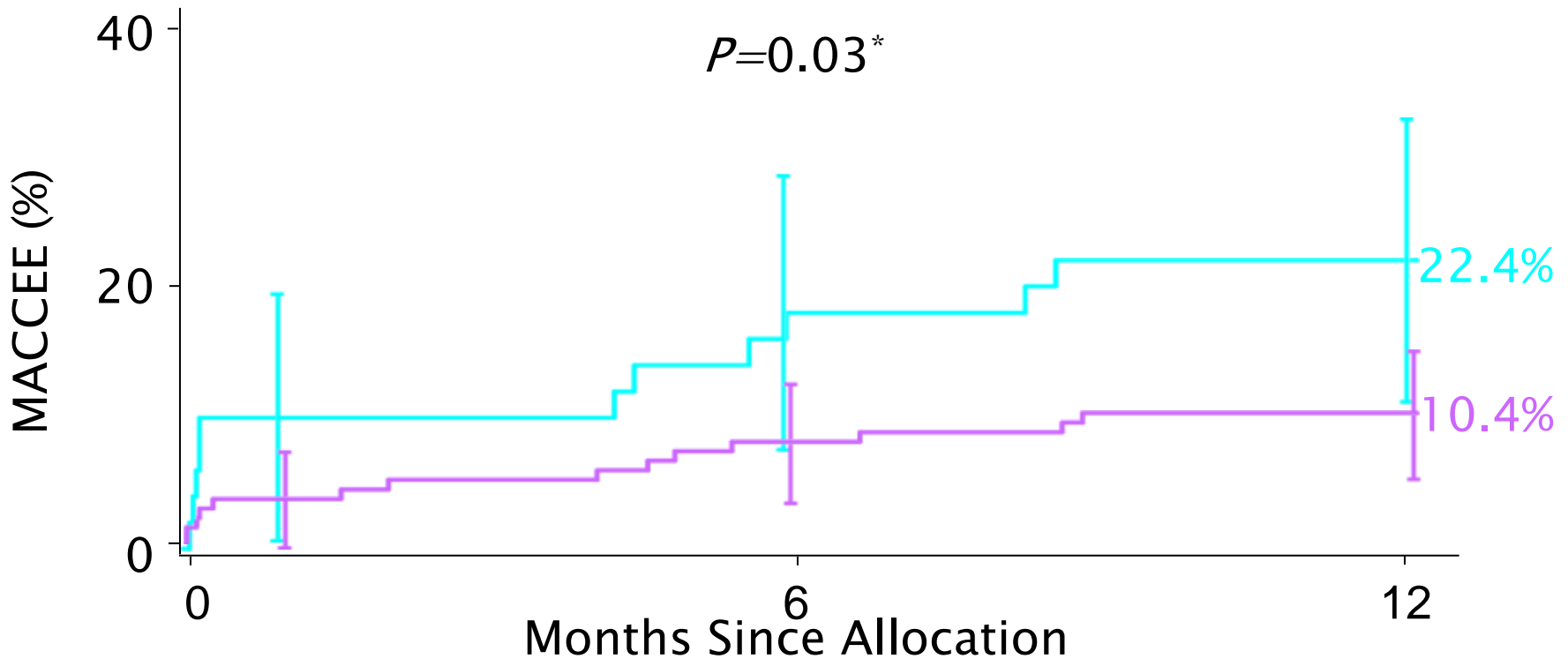
Syntax: 12-month MACCE Rate



1. Complexity matters
2. Experience matters
3. One stent when we can
(two stents when needed)

Syntax-Distal LM Subset

■ Provisional T-stenting (n=135) ■ 2-stent strategy (n=49)



What about EXCEL?

Surgery vs PCI with 2nd generation stent (Xience)

1905 patients with LM disease

Syntax score < 32

PCI recommendations (provisional, FFR, IVUS, complete ...)

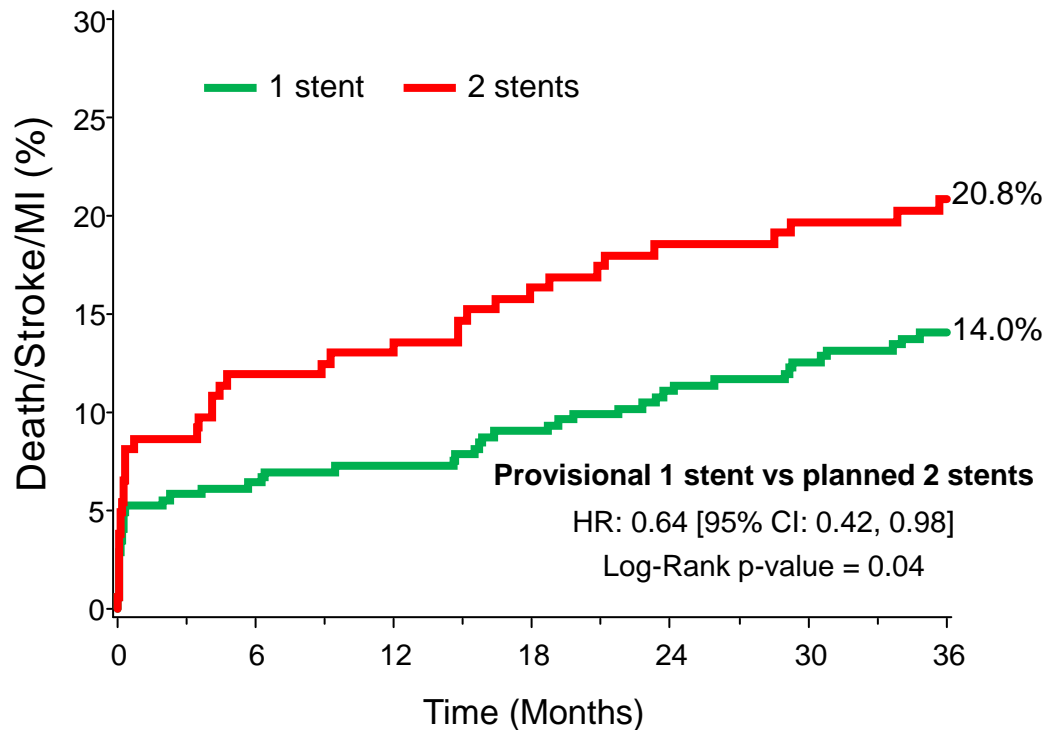
CABG recommendations (arterial conduits, complete ...)

Primary endpoint: Death, MI, stroke at a median of 3 years

Non inferiority was met

1. Complexity matters
2. Experience matters
3. **One stent when we can
(two stents when needed)**

Death, MI, or Stroke Through 3 Years



Number at risk:

1 stent	344	322	318	309	302	296	268
2 stents	185	162	159	150	146	142	129

EXCEL Multivariable Predictors of 3-Year Clinical Events

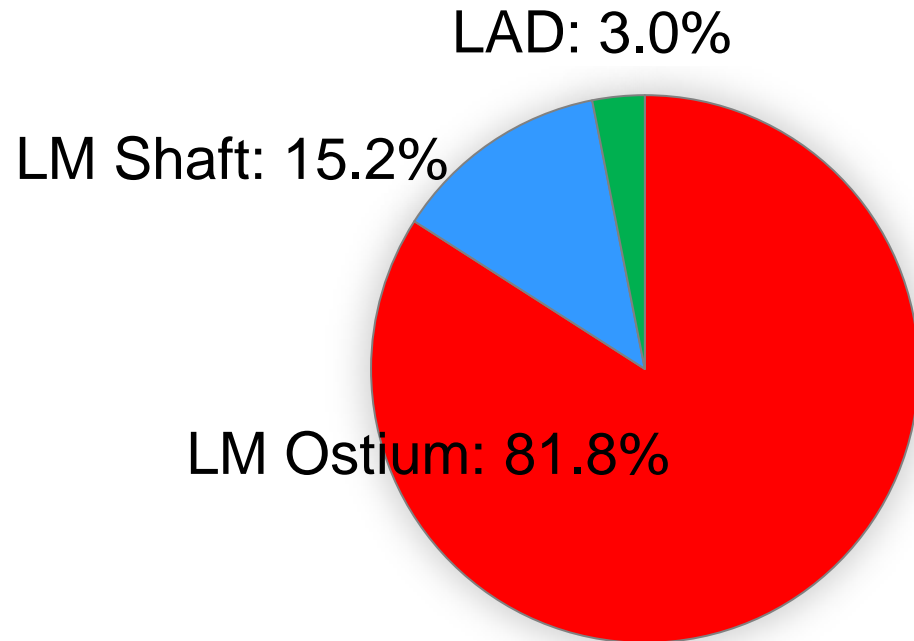
Death, MI, or Stroke at 3 Years

Variable	Hazard Ratio, 95% CI	P Value
Planned provisional vs 2 stents	0.55 [0.35 - 0.87]	0.005
Age (per year)	1.04 [1.01 - 1.07]	0.006
Male	0.61 [0.37 - 1.01]	0.056

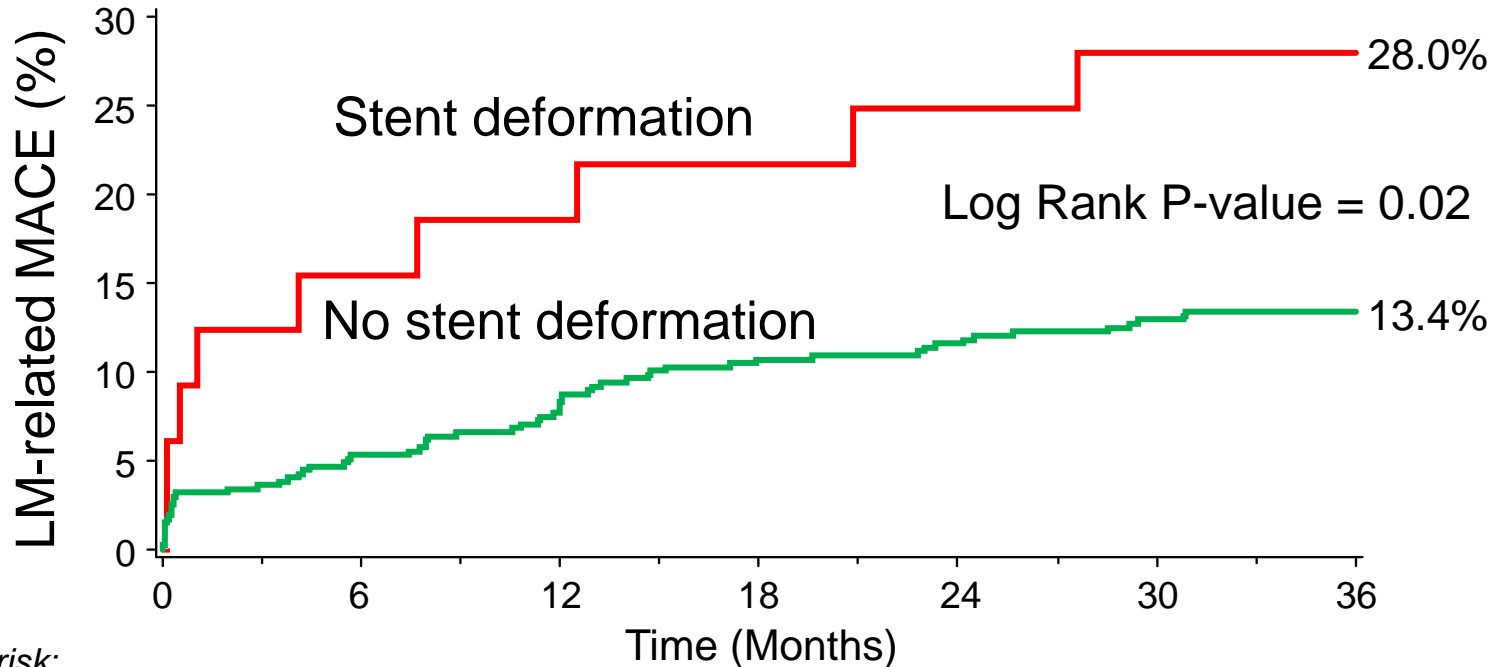
1. **Complexity matters**
2. **Experience matters**
3. **One stent when we can
(two stents when needed)**

Excel-Longitudinal compression

- Prevalence: 6.5% (33/506)
- Location:



Excel-Longitudinal compression



Number at risk:

Stent deformation	33	27	26	25	24	23	23
No stent deformation	473	443	426	407	397	383	341

What about DK crush V ?

482 patients with true bifurcation LM disease (111 or 011)

DK crush vs provisional side branch stenting

Mainly 2nd generation stent Xience

Systematic angiographic follow up at 13 months

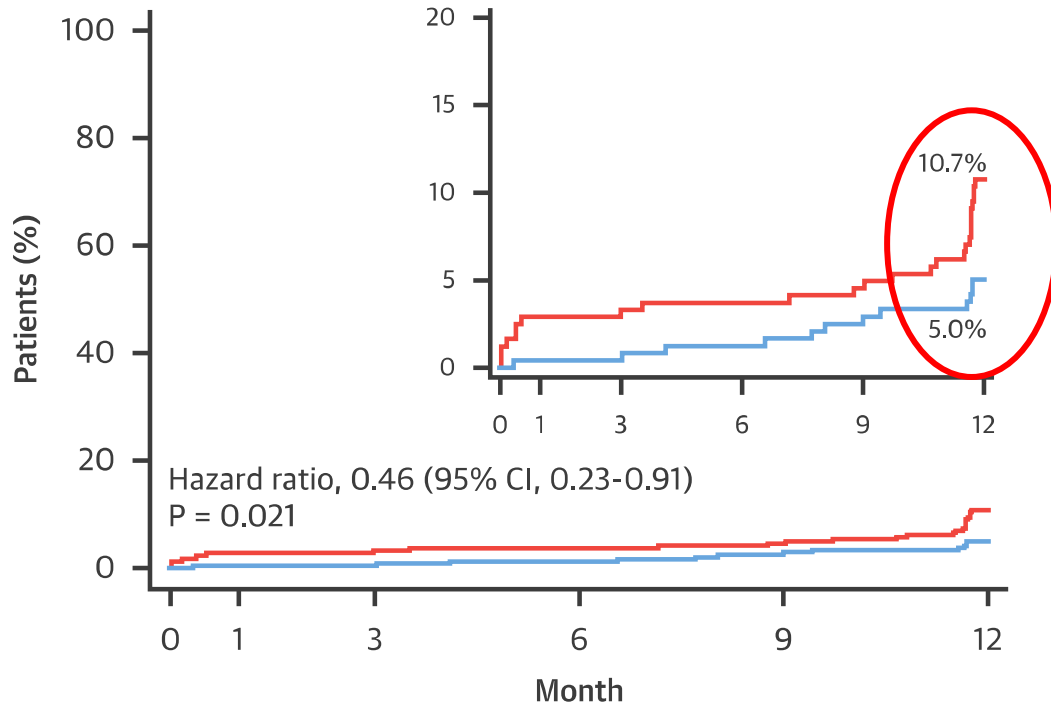
Primary endpoint: 12 months TLF (cardiac death, Target Vessel MI, target vessel revascularisation)

DK crush V

« Participating primary operators were required to have performed 300 PCIs/year for 5 years, including at least 20 LM PCIs/year. In addition, each operator performed 3 to 5 DK crush cases, which were reviewed by the steering committee to ensure appropriate technique before randomization commencing ».

In the provisional group, an additional SB stent was implanted if suboptimal results (including a residual DS >75%, dissection type B, SB predilatation 40%, kissing 79.9 vs 99.6%, p<0.001) were still present after KBI. SB stenting 47%, Technique ?

DK crush V: Primary endpoint-TLF



No. at risk

DK crush	240	239	239	236	230	224
Provisional stenting	242	236	235	234	231	216

What about EBC main ?

450 patients with true bifurcation LM disease (111 or 011)

Provisional side branch stenting vs 2 stents technique

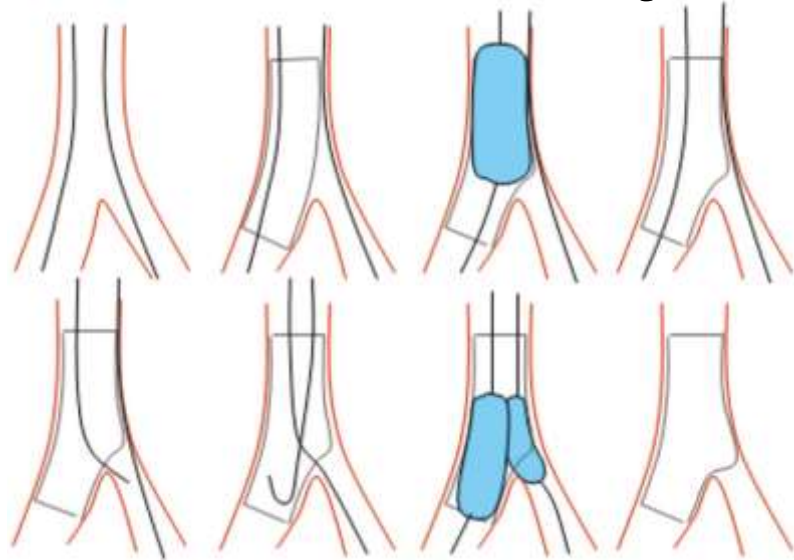
2nd generation stent Onyx

No systematic angiographic follow up

Primary endpoint: Death, MI, TLR at 12 months

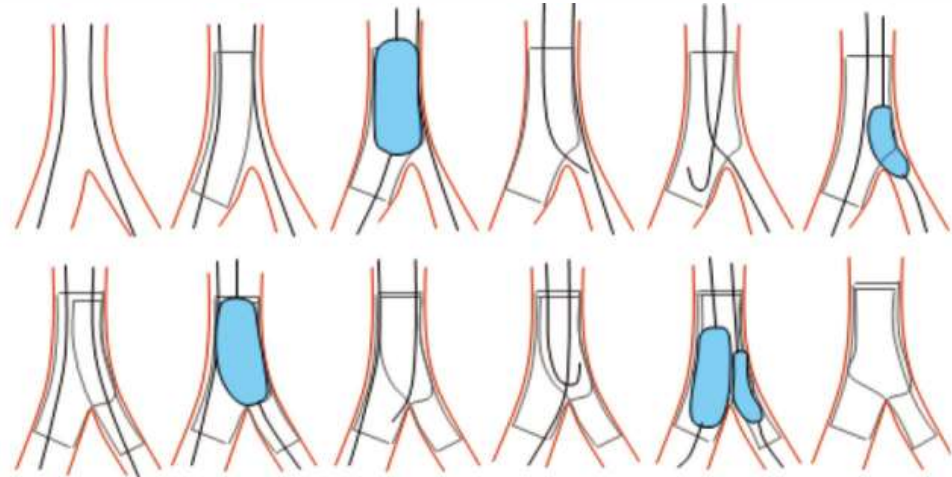
EBC main

Provisional side branch stenting



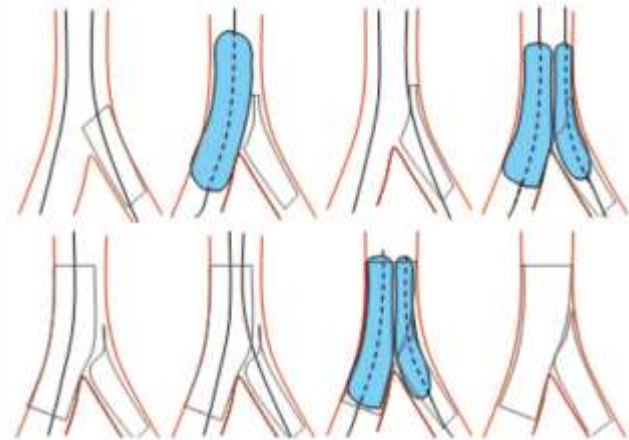
A

“Straight” culotte

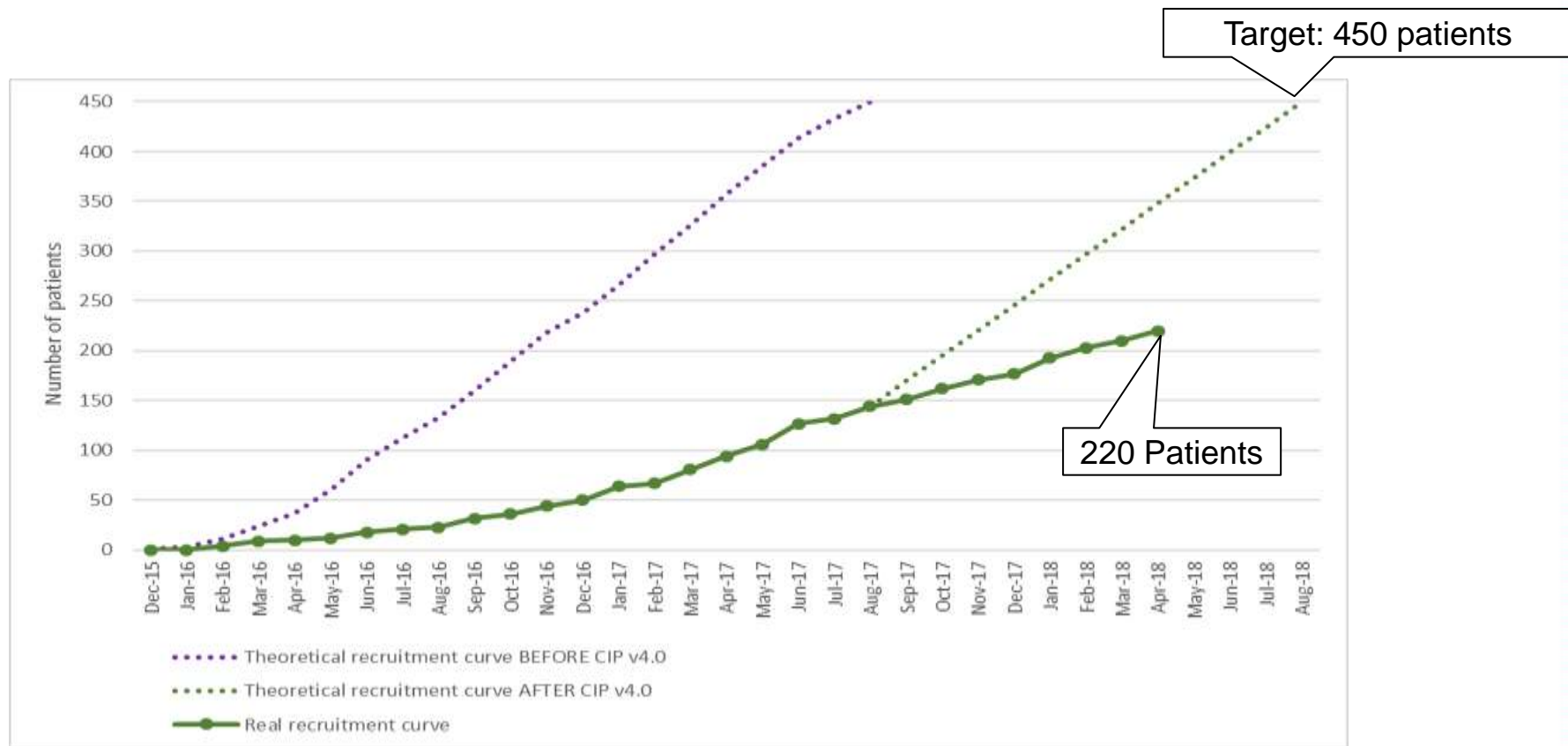


B

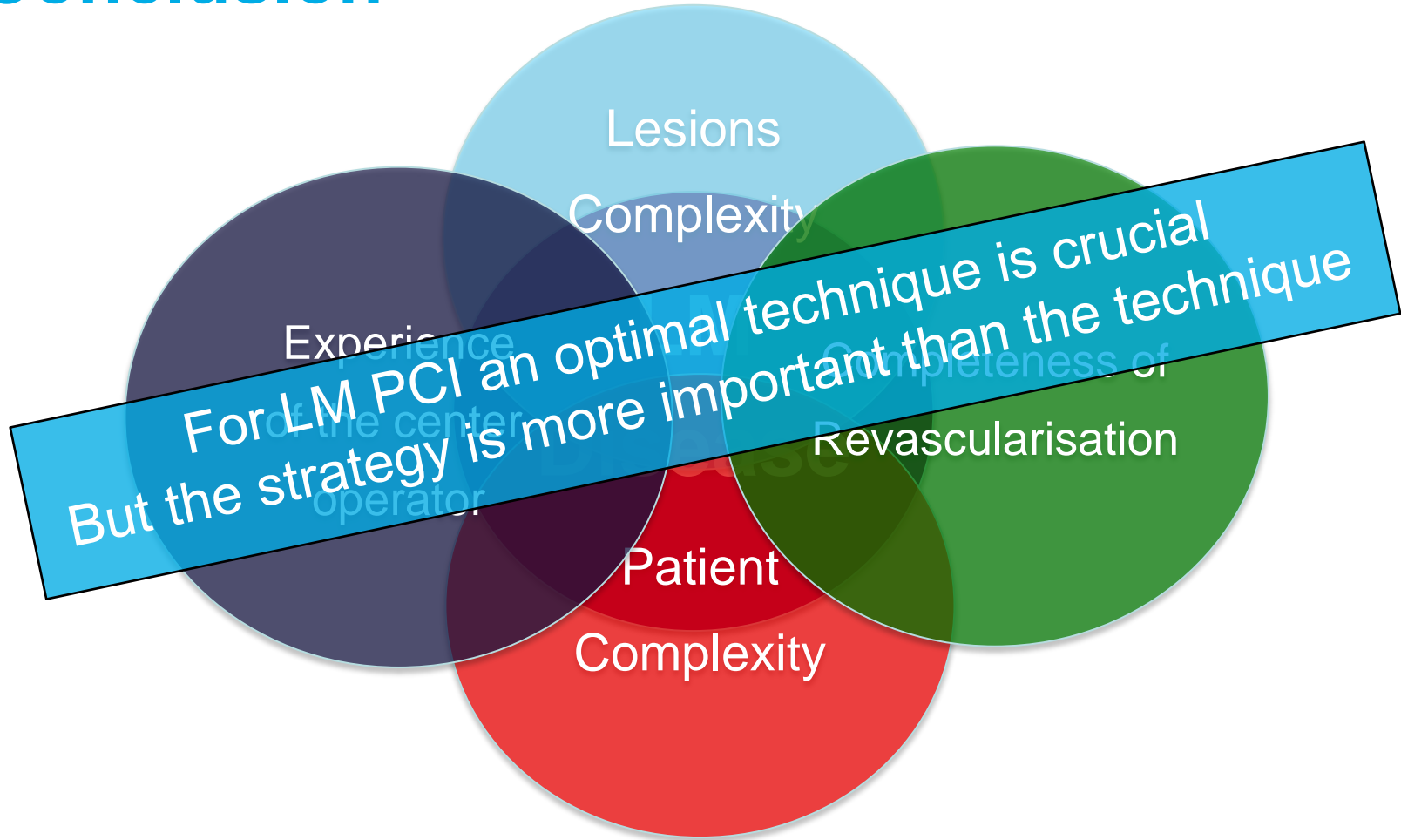
DK mini-crush



EBC main



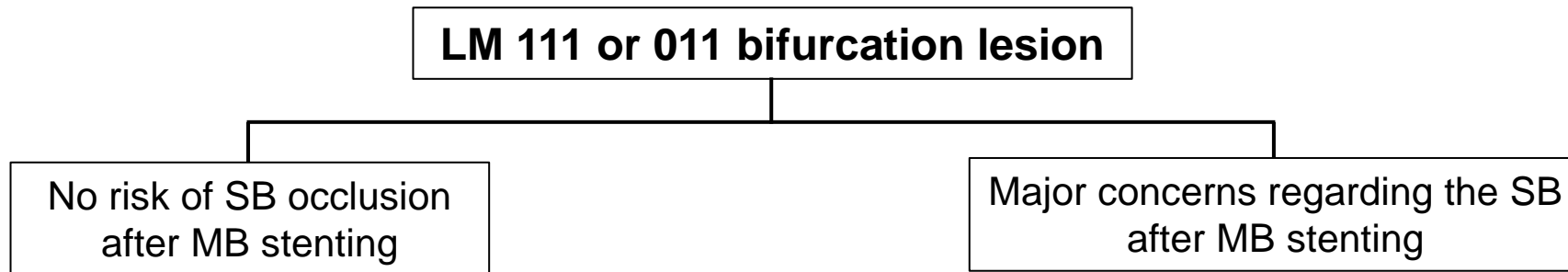
Conclusion



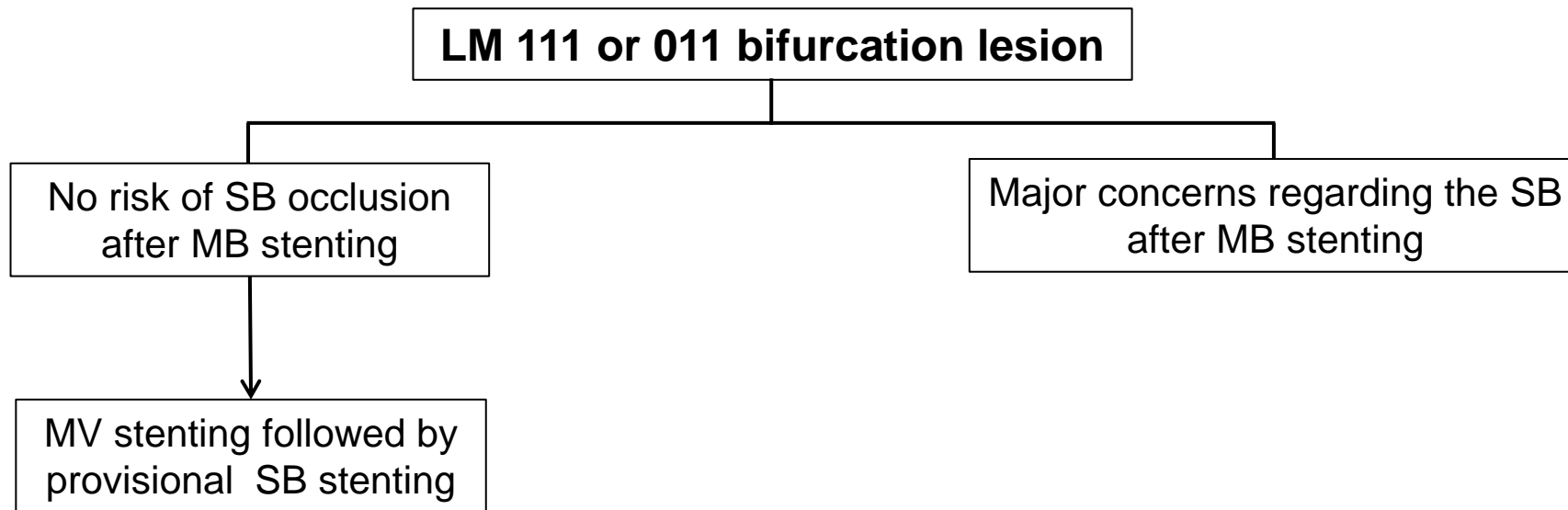
Technical options for “true LM bifurcation lesions”

LM 111 or 011 bifurcation lesion

Technical options for “true LM bifurcation lesions”



Technical options for “true LM bifurcation lesions”



Technical options for “true LM bifurcation lesions”

LM 111 or 011 bifurcation lesion

No risk of SB occlusion after MB stenting

Major concerns regarding the SB after MB stenting

MV stenting followed by provisional SB stenting



T stent



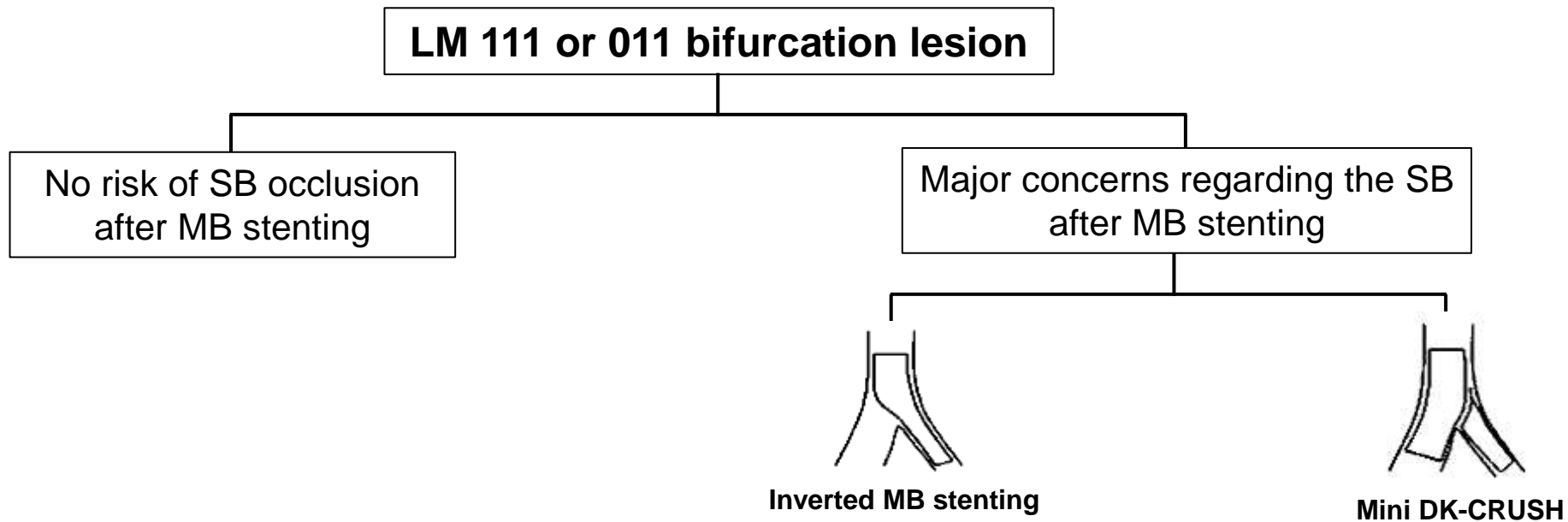
TAP



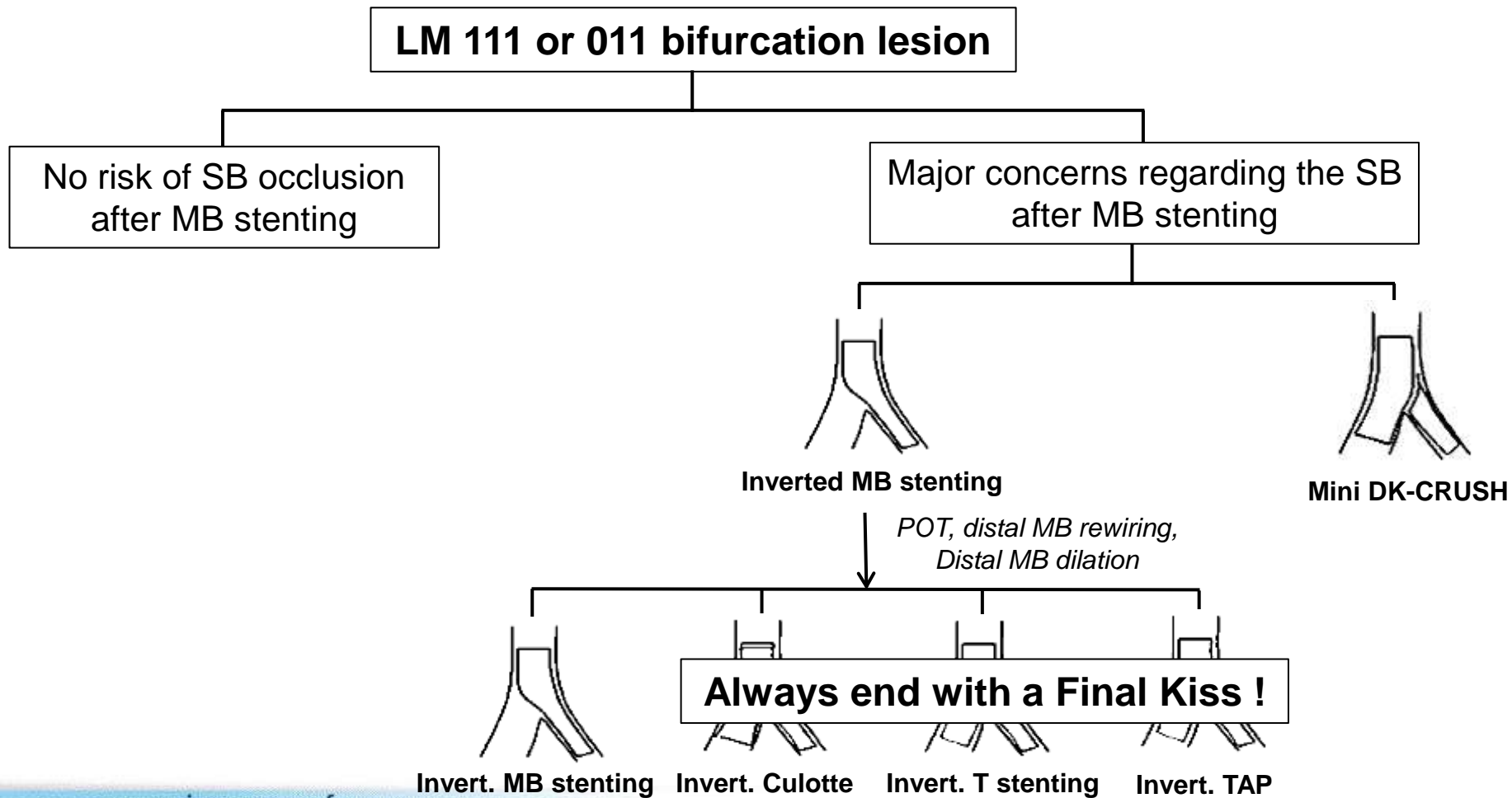
Culotte

Always end with a Final Kiss !

Technical options for “true LM bifurcation lesions”



Technical options for “true LM bifurcation lesions”



Back-up Slides

Provisional approach

