Initial report of Japanese CTO expert Registry 2014

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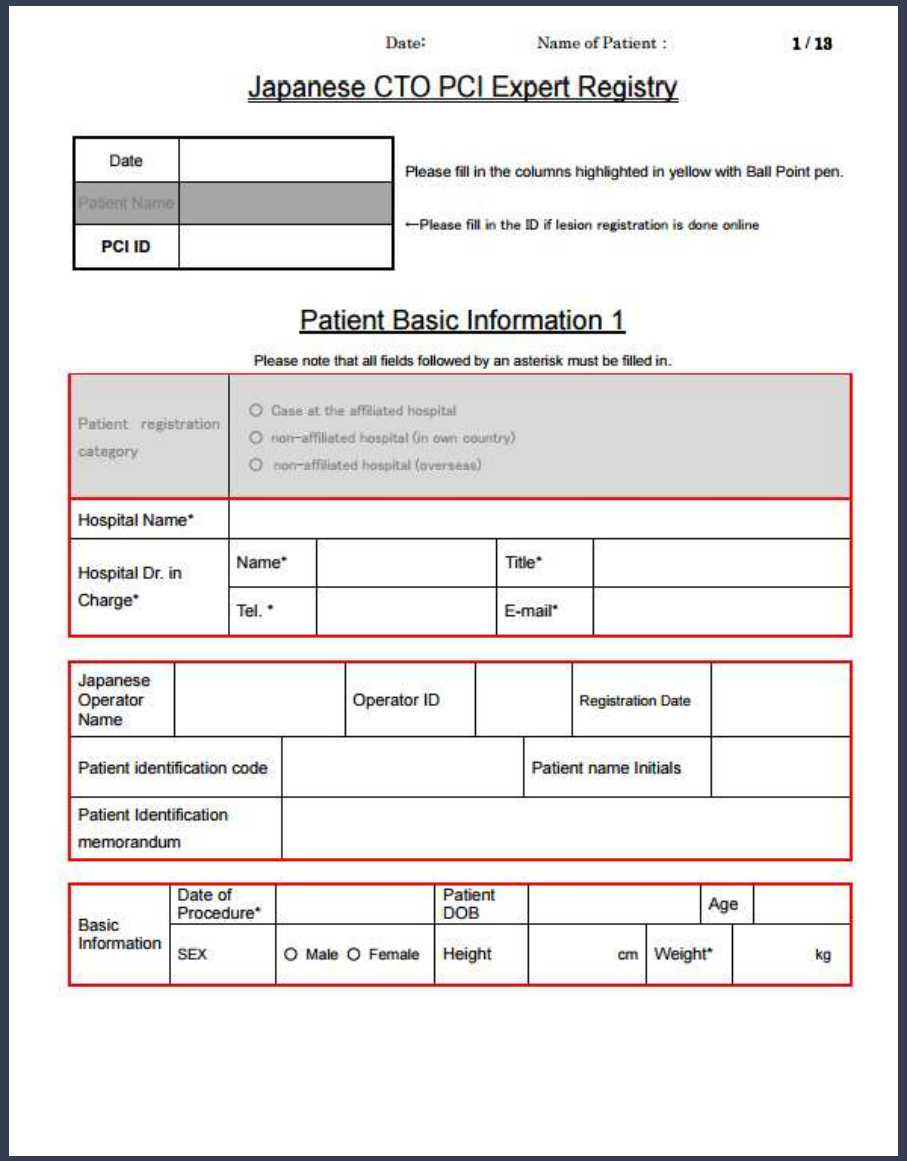
Japanese CTO PCI Expert Registry

- The Japanese Board of CTO Interventional Specialists was established in 2013 to accumulate quantitative and reliable data to identify issues such as stagnation in the development of CTO-PCI techniques and to compare with other databases of foreign countries.
- Japanese CTO PCI Expert Registry started a database of CTO-PCI performed by certified expert physicians who have a certain level of CTO-PCI skills from JAN/2014
- Patients are enrolled by certified expert operators.
- Procedure success is adjudicated by a Corelab

Japanese CTO Expert Registry Overview

Pts. Enrollment	Jan.2014~
Participants as of JUN.2015	40 of Japanese Expert physicians
Criteria for Participants	• More than 300 cases of experience of CTO-PCI • More than 50 cases of CTO-PCI per year • Recommendation from two or more steering committee member
Core lab.	Adjudication of Indication and Procedure Success
Organization	Japanese Board of CTO interventional specialist
Chairman	Etsuo Tsuchikane(initiated by Osamu Katoh and Kazuaki Mitsudo)

Registration Method



Date: Name of Patient : 1 / 13

Japanese CTO PCI Expert Registry

Date	
Patient Name	
PCI ID	

Please fill in the columns highlighted in yellow with Ball Point pen.

←Please fill in the ID if lesion registration is done online

Patient Basic Information 1

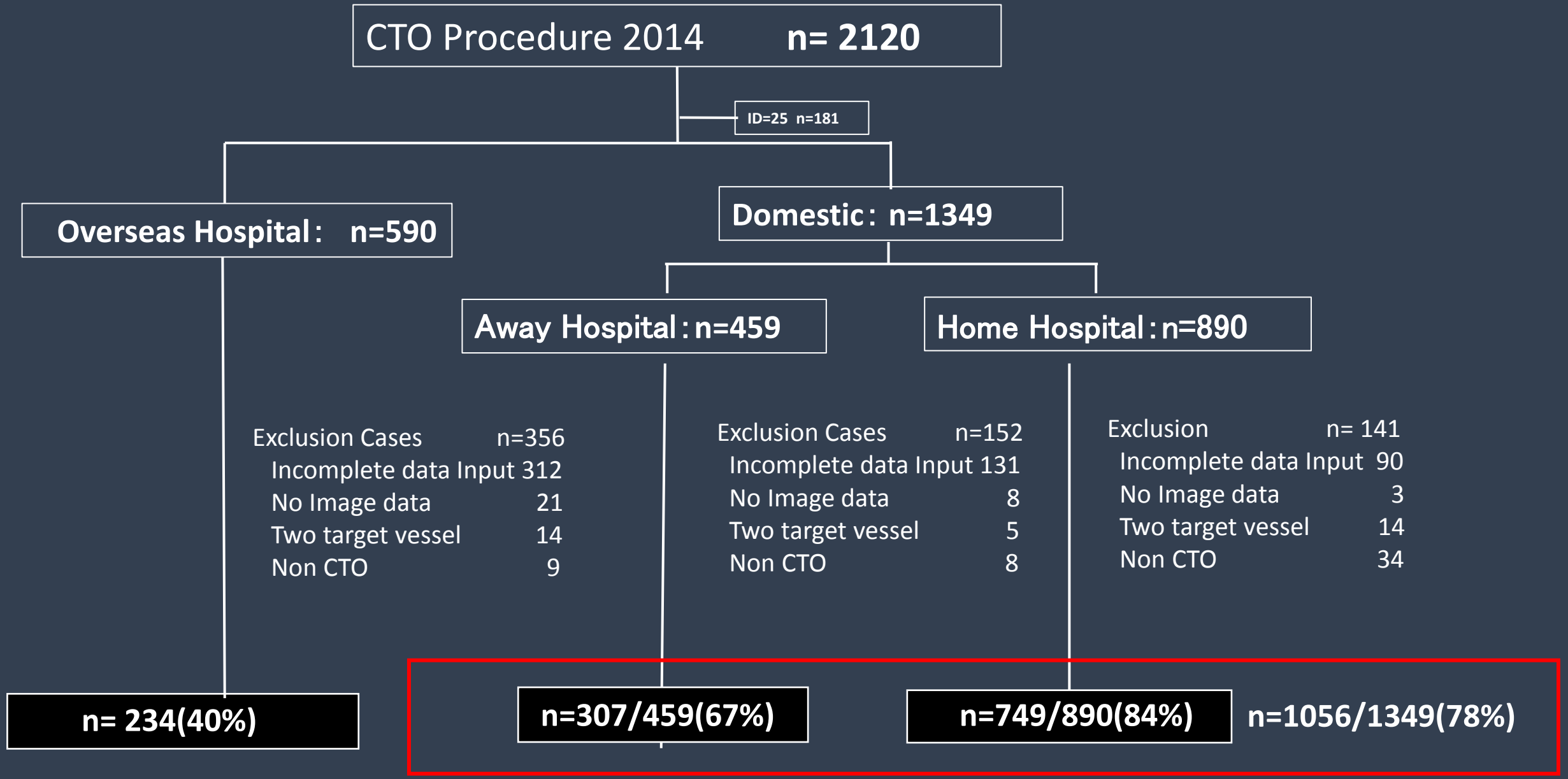
Please note that all fields followed by an asterisk must be filled in.

Patient registration category	○ Case at the affiliated hospital ○ non-affiliated hospital (in own country) ○ non-affiliated hospital (overseas)			
Hospital Name*				
Hospital Dr. in Charge*	Name*		Title*	
	Tel. *		E-mail*	

Japanese Operator Name		Operator ID		Registration Date	
Patient identification code			Patient name Initials		
Patient Identification memorandum					

Basic Information	Date of Procedure*		Patient DOB		Age		
	SEX	○ Male ○ Female	Height	cm	Weight*		kg

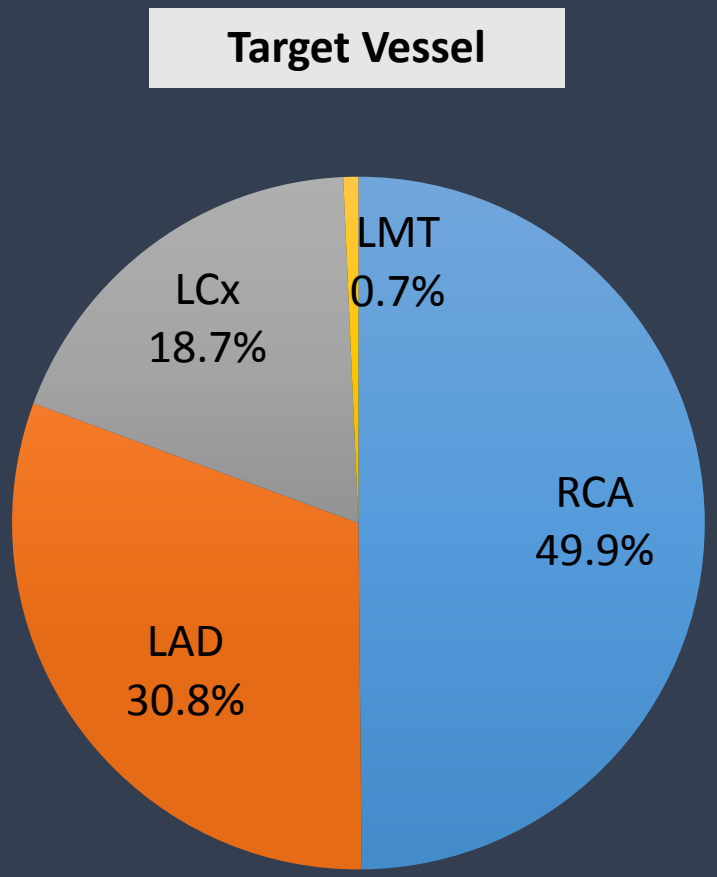
- Web based registration
- All cases registration
- Input articles
  - Patient basic data
  - CTO lesion data
  - Procedure data
  - Procedural and clinical result
  - Follow up data(1M and Max 5years)
- Certificate of Consent
- Angiographic data


CTO Procedure 2014 n= 2120
ID=25 n=181
Overseas Hospital : n=590
Domestic : n=1349
Away Hospital : n=459
Home Hospital : n=890
Exclusion Cases n=356
Incomplete data Input 312
No Image data 21
Two target vessel 14
Non CTO 9
Exclusion Cases n=152
Incomplete data Input 131
No Image data 8
Two target vessel 5
Non CTO 8
Exclusion n= 141
Incomplete data Input 90
No Image data 3
Two target vessel 14
Non CTO 34
n= 234(40%)
n=307/459(67%)
n=749/890(84%)
n=1056/1349(78%)

General Information

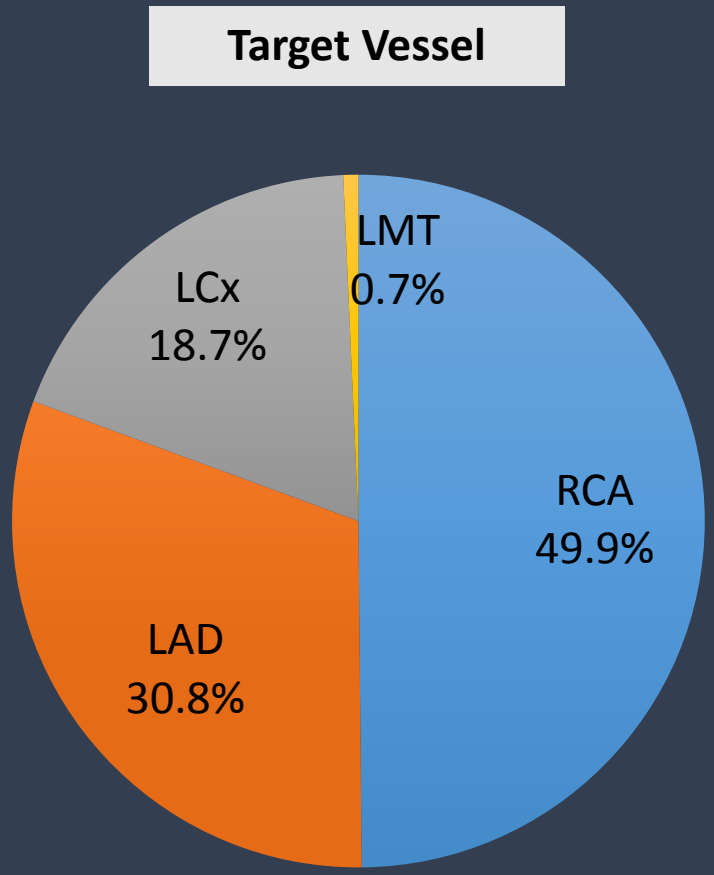
Patient Characteristics	N= 1056
Male	85.4%
Age (years)	67±11
Prior MI	51.8%
Previous CABG	8.6%
Multi Vessel Disease	59.7%
Hypertension	77.2%
Diabetes Mellitus	44.4%
Dyslipidemia	77.7%
Smoking	52.5%

Lesion Characteristics(1)



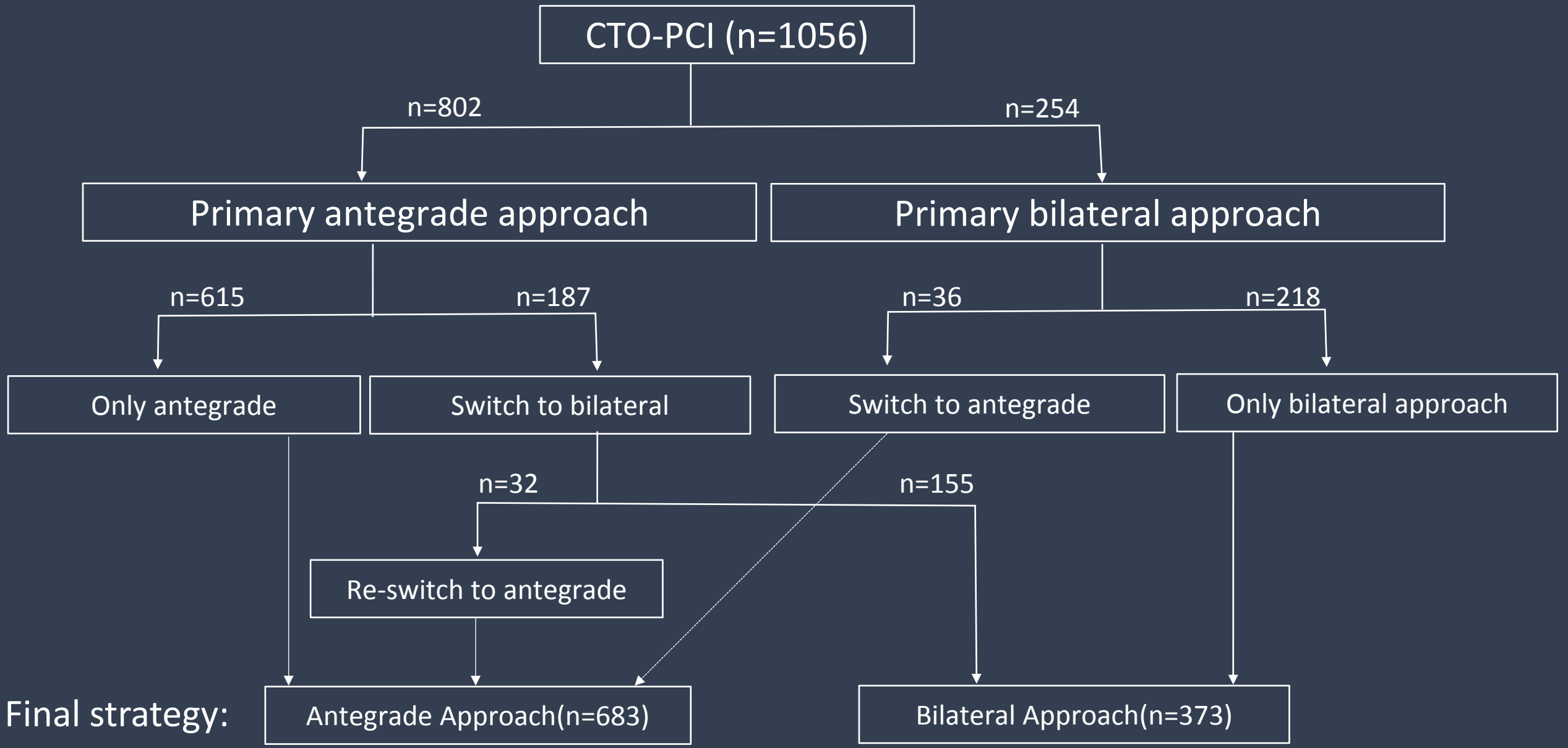
Prior attempt		26.0%
Calcification		56.6%
Bending >45°		26.3%
Stump morphology		
	Blunt	25.5%
	Tapered	53.0%
	No stump	21.5%
Occlusion length	≧20mm	52.5%
J-CTO score		2.0±1.2

Lesion Characteristics(2)

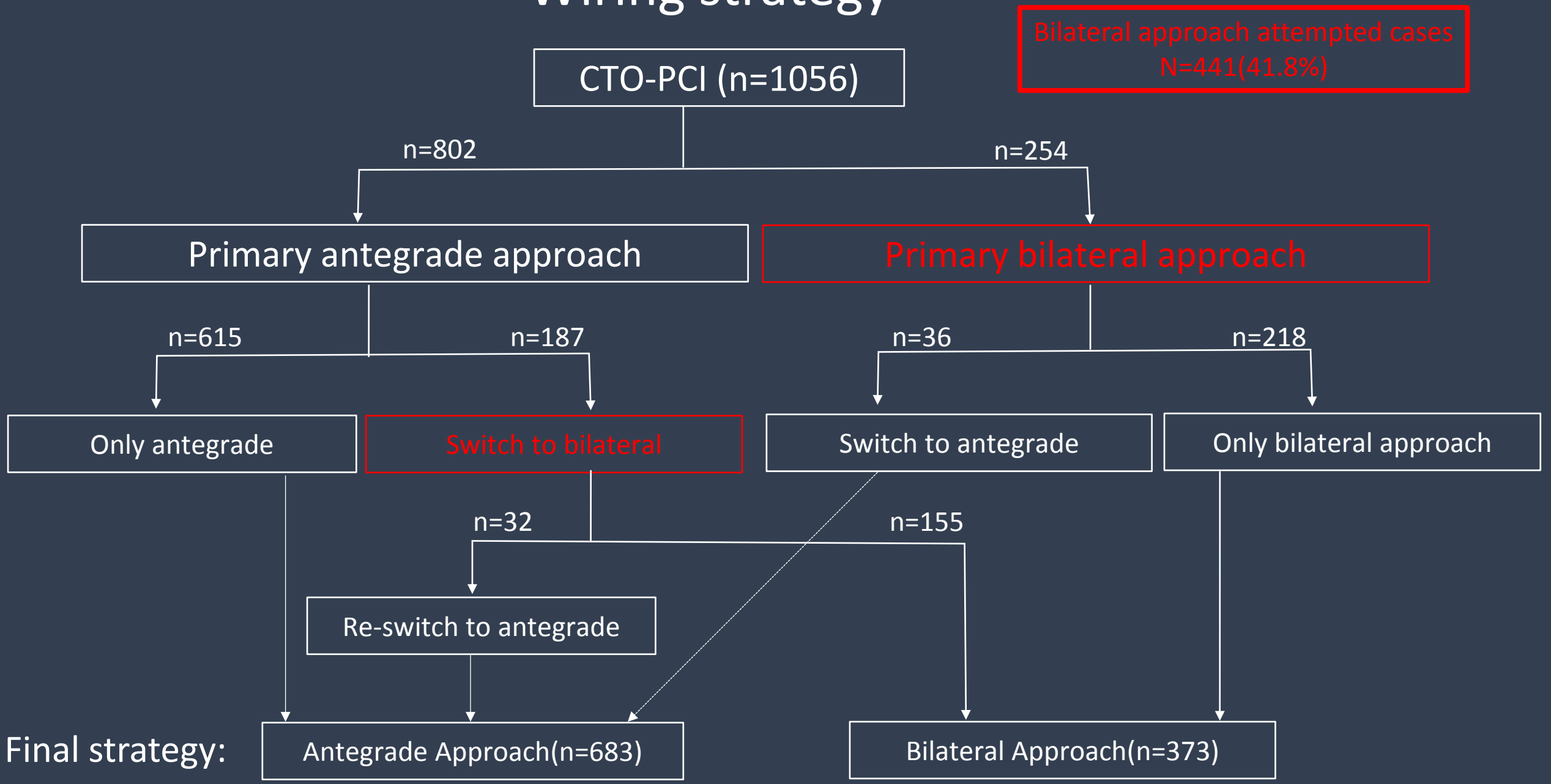


Proximal tortuosty	44.7%
Bifurcation	32.8%
Reference diameter <3.0mm	67.8%
Collateral filling	
ipsilateral	14.3%
contralateral	47.0%
Both	38.1%
None	0.7%
In-stent occlusion	14.3%

Wiring strategy



Wiring strategy



New Strategy classification(planning by Osamu Prof. Osamu Katoh.)

ITT	actual strategy	additional strategy	n=1042
antegrade	antegrade only	(-)	608
	rescue bidirectional	(-)	156
		Antegrade	26
bidirectional	primary bidirectional	(-)	218
		Antegrade	34

Procedural Outcomes

	N= 1056
CTO Guidewire pass	93.0%
Procedure success(TIMI 3 + <50% stenosis+ no branch loss)	91.1%
Patient success(no clinical complication)	89.7%
Procedure Time(min)	161±9.1
Contrast Volume(ml)	233±106

Complication and In-Hospital Outcomes

Death	0%
MI	1.2%
Stent thrombosis	0.2%
Stroke	0.3%
Emergency CABG	0.1%
Emergency PCI	0.3%
Coronary Perforation	5.5%
Cardiac Tamponade	0.5%
Vascular complication	0.6%
CIN	5.7%

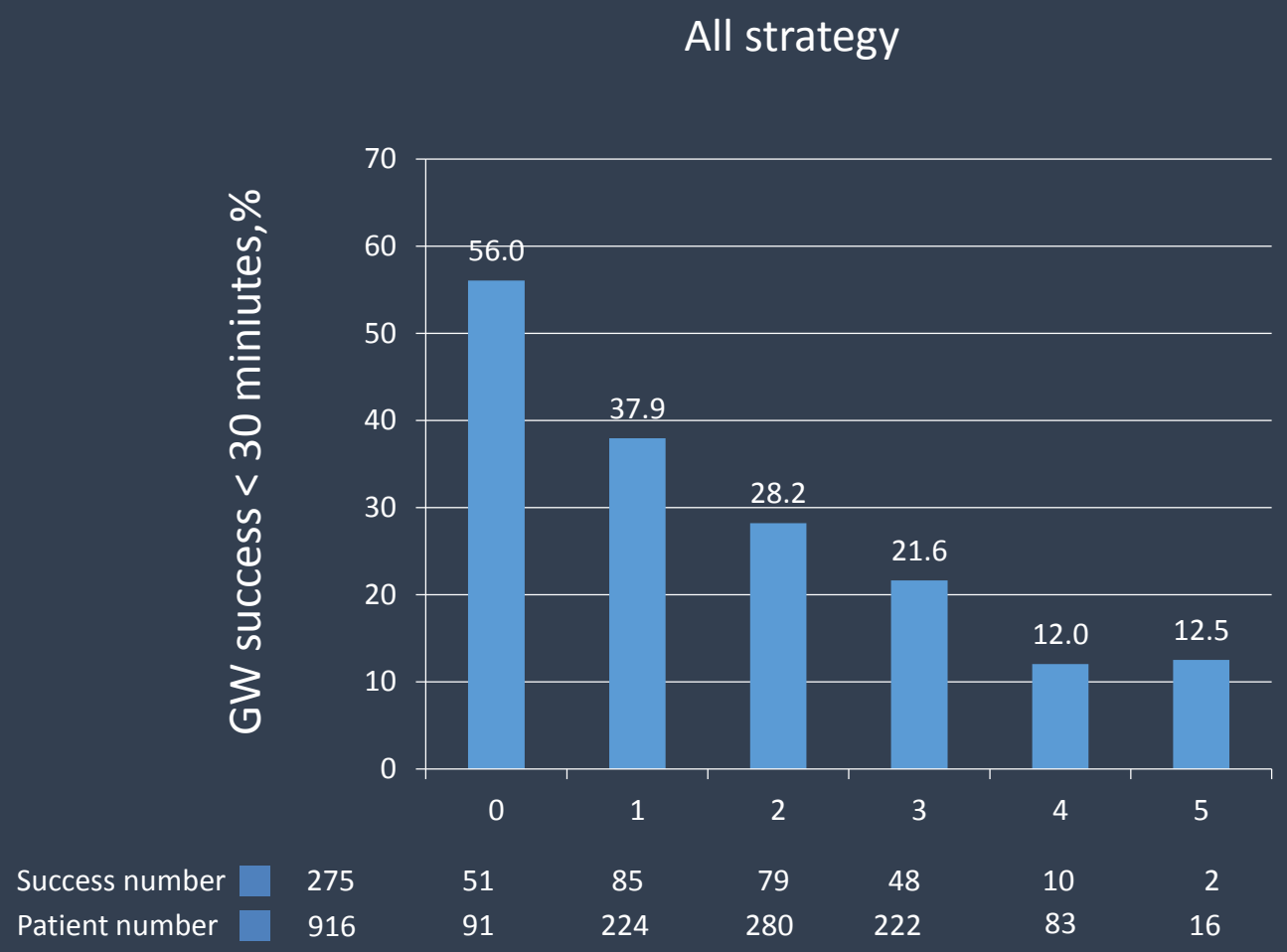
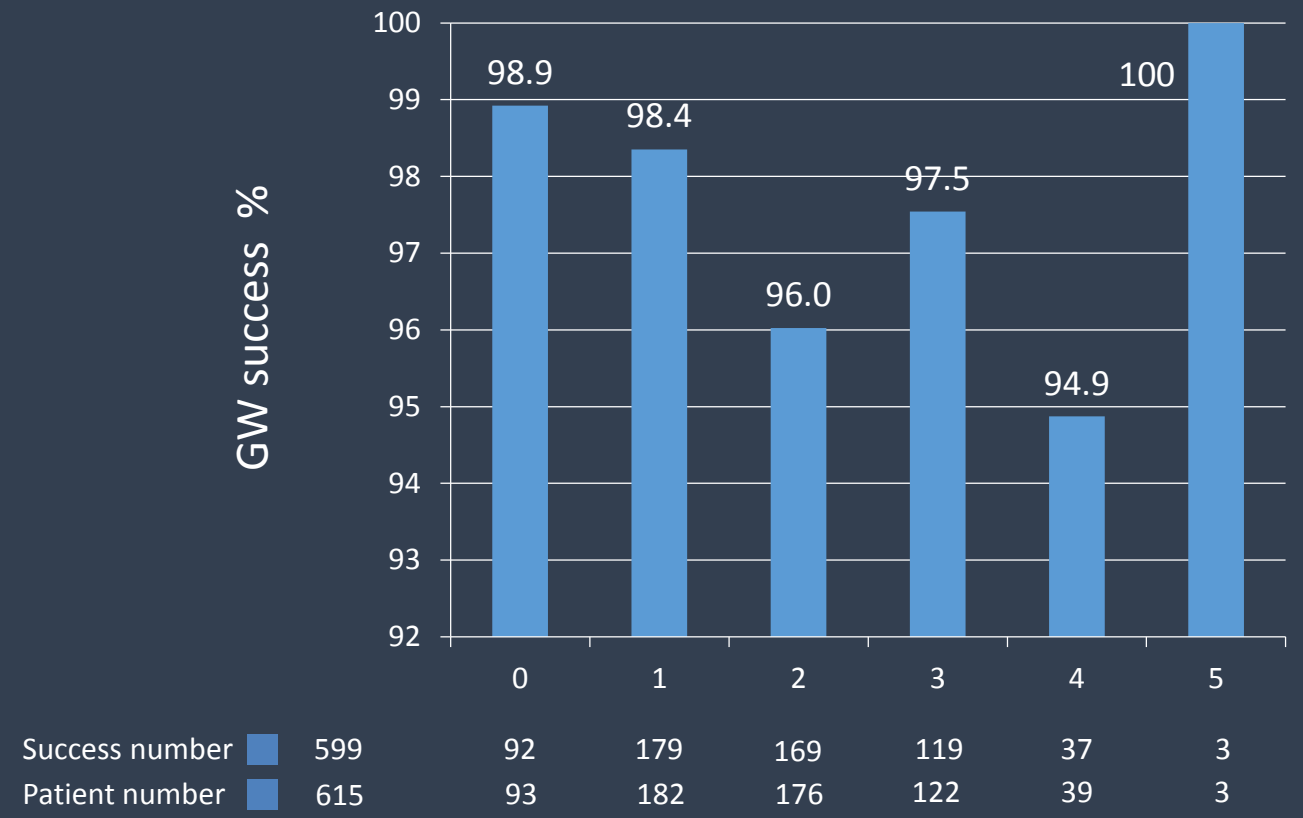


Figure 1. Relationship Between J-CTO Score and GW Success < 30 Min

Success Rates of GW Crossing According to J-CTO Score in Antegrade Only Group



Relationship Between J-CTO Score and GW Success

Summary

- The first report of Japanese CTO Expert Registry.
- In 2014, 2120 CTO cases were registered and 1056 cases were analysed in this initial report. All angiographic datas were adjudicated in the core lab.
- Mean J-CTO score was high(average 2.0±1.2). However, excellent high success rate was achieved without serious complications.
- Recent CTO PCI strategy is changing to more complicated manner due to new innovative technique and devices. New ITT based new strategy classification is necessary.
- J-CTO score is still effective score to predict CTO wire passing time but no impact to predict wire success.