



**SAPIENZA**  
UNIVERSITÀ DI ROMA



# Image Quality and Protocol Adherence in the DISCHARGE Pilot Study

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# Topic

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- Purpose
- Material and Methods
- Results CT
- Results ICA
- Limitations
- Take Home Message

# Purpose

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- Protocol Adherence
- Error Analysis

# Material and Methods

178 cases were reviewed:

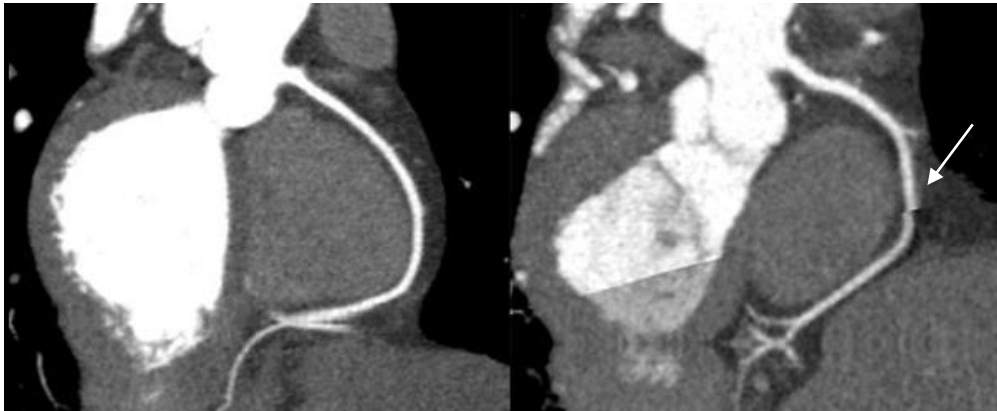
- 113 Cardiac-CT:
  - Protocol adherence (10 steps guide)
- 65 ICA
  - Protocol adherence (general recommendation)

Deviation degree	Example
Critical/Red	Know CAD, missing lung recon
Major/Orange	Incorrect slice increment or slice thickness in CTA
Minor/Yellow	Missing IR recon
No deviation/Green	

# Results CT

General Protocol Part	Parameters	Number and percentage
NDX	Gap >50%	15 (13,3%)
	Noise	8 (7,1%)

NDX  
23 (20%)



*Hausleiter et al, 2009*

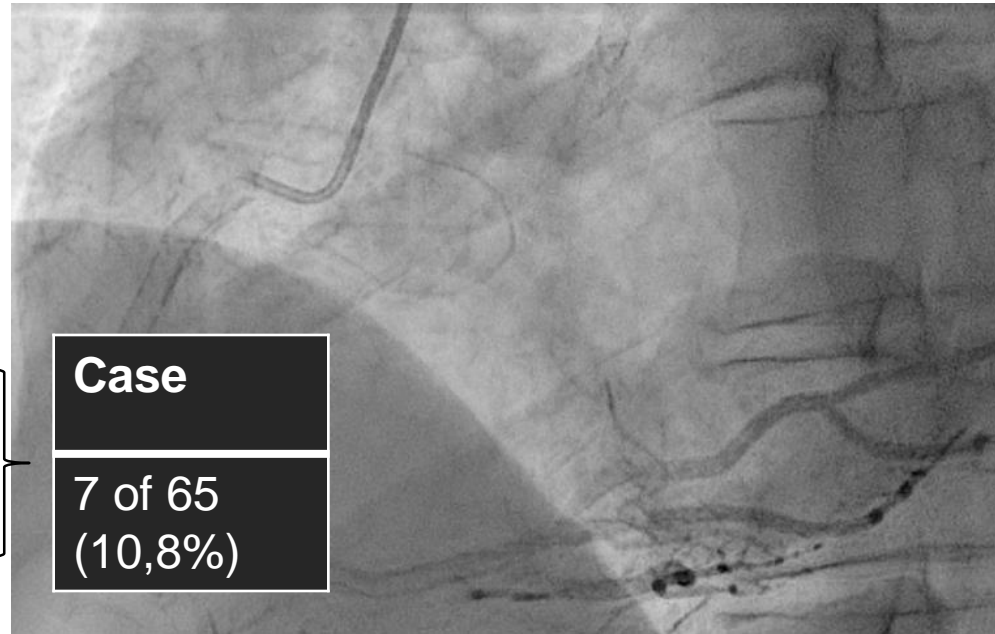
# Results CT

	1° row	3° row	p
Red	4 of 53 (82,8%)	4 of 11 (36,4%)	<0,01
Orange	3 of 64 (4,7%)	2 of 11 (18,2%)	> 0,05
Yellow	3 of 64 (4,7%)	0 of 11 (0%)	> 0,05
Green	5 of 64 (7,8%)	5 of 11 (45,5%)	<0,01

	1° row	3° row	p
Yellow + Green	8 of 64 (12,5%)	5 of 11 (45,5%)	<0,01

# Results ICA

	Parameters	Number and percentage
<b>Exclusion Criteria</b>	CABG	1 of 65 (1,5%)
	Stent	1 of 65 (1,5%)
<b>Projection</b>	Left (n 4)	3 of 65 (4,6%)
	Right (n 2)	6 of 65 (9,2%)



# Limitations

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- Large differences in terms of **generation** and **rows**
- **Difficult to fit** in the 10-steps guide into the routine protocol
- Only a **subset** of the pilot study patients was transferred to the core lab for review.



# Take Home Message

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- Follow **the 10 steps guide** to perform a Cardiac-CT
- Follow **general recommendation** to perform a ICA
- Do **not** send **all** series but only the series **requested** to avoid server **overwhelm**





Thank you very much!

