ACC Latin America Conference 2017

MEXICO CITY

JUNE 22 – 24, 2017

Common Dilemmas in ACS and SIHD

"Cardiogenic Shock in STEMI"

Moderator: Marco A. Martínez Ríos

GLOBAL EXPERTS, LOCAL LEARNING

ACC Latin America Conference 2017

CARDIOGENIC SHOCK IN STEMI

Case Presenter:

Armando García-Castillo MD FACC

Interventional Cardiology

Governor ACC Chapter MEXICO

DISCLOSURE

ACC Latin America Conference 2017

Categories of potential conflict of interest	Company
Sponsoring of transport and/or hotel accommodations in Congresses	SANOFI, Pfizer AstraZeneca, MSD, Servier, Medtronico, Boston Sci, Abbot Vascular
Sponsored in clinical trials and/or in basic research funded by pharmaceutical companies	SANOFI, AZ, Daichi, Esai, AMGEN
Speaker in meetings sponsored by pharmaceutical companies	SANOFI, AZ, Pfizer, MSD, Abbot
Participate in normative committees of scientific trials sponsored by pharmaceutical companies	SANOFI, , Daichi, Esai
Receive institutional support from pharmaceutical companies	--
Writing of educative materials sponsored by pharmaceutical companies	BI, MSD, Pfizer, Sanofi
Hold stocks from pharmaceutical companies	–

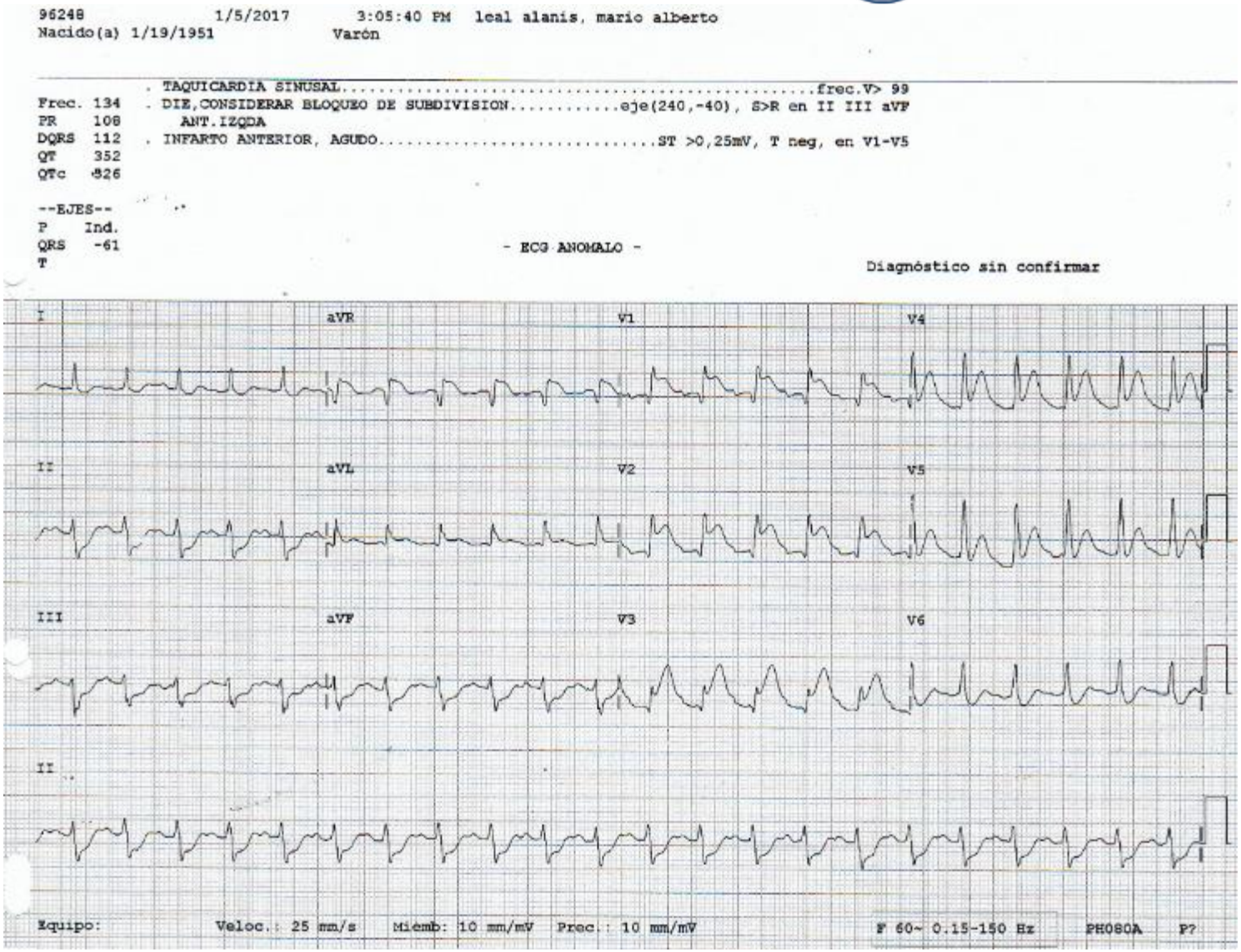
CLINICAL CASE

ACC Latin America Conference 2017

* MLA male 65 years old
- Smoking suspended in 2003
- HTN dx in 2006
- PCI in 2003 with BMS to LAD & RC for UA
- PCI in 2007 with DES to LAD & RC secondary to progression disease
- Asymptomatic from 2007 to 2016 with several negative echostress tests
- On Jan 2017 during excercise activities developed chest pain and syncope
- Receive CPR in home and was transfered to Tertiary Hospital
- Arrive to ER with BP 80/40 HR 100x´ and short breath 8x´
- Presented VF requiring AED with 200 joules and intubation
- Was transfered immediatly to cath lab

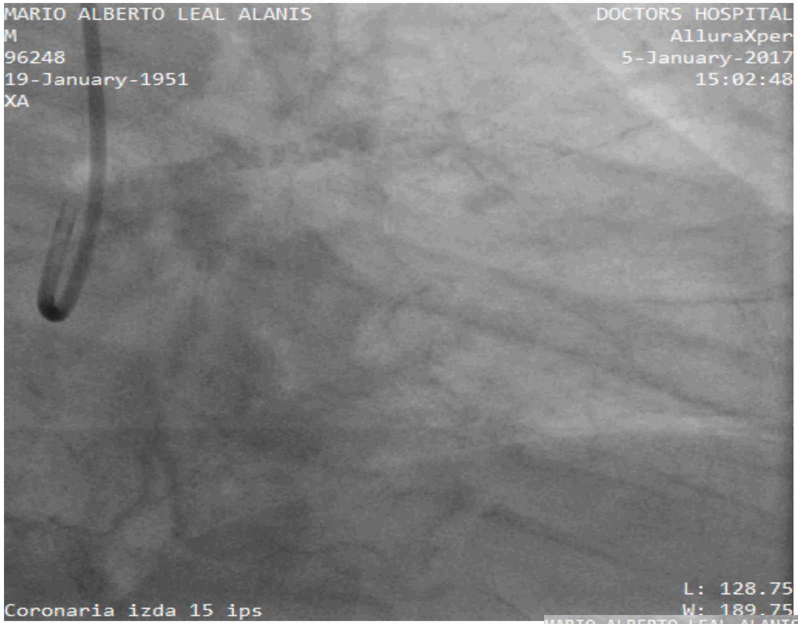
BASAL EKG

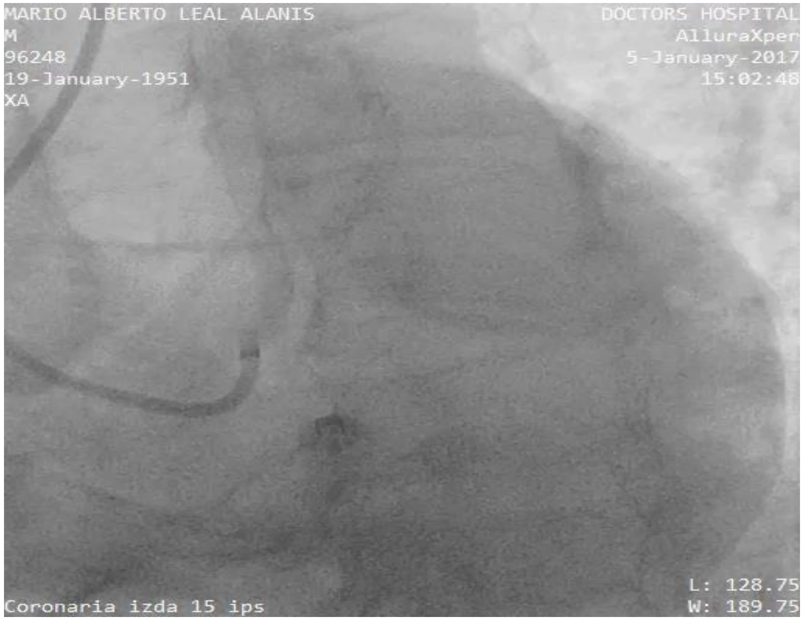
ACC Latin America Conference 2017

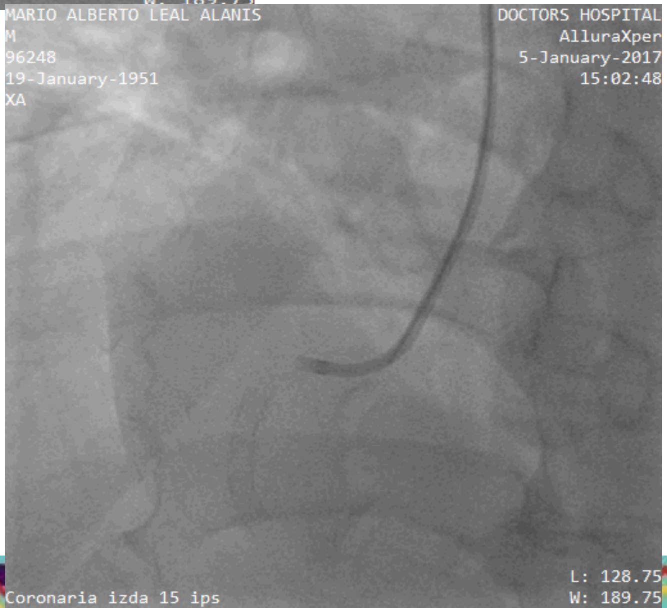


Coronary Angiogram

ACC Latin America Conference 2017

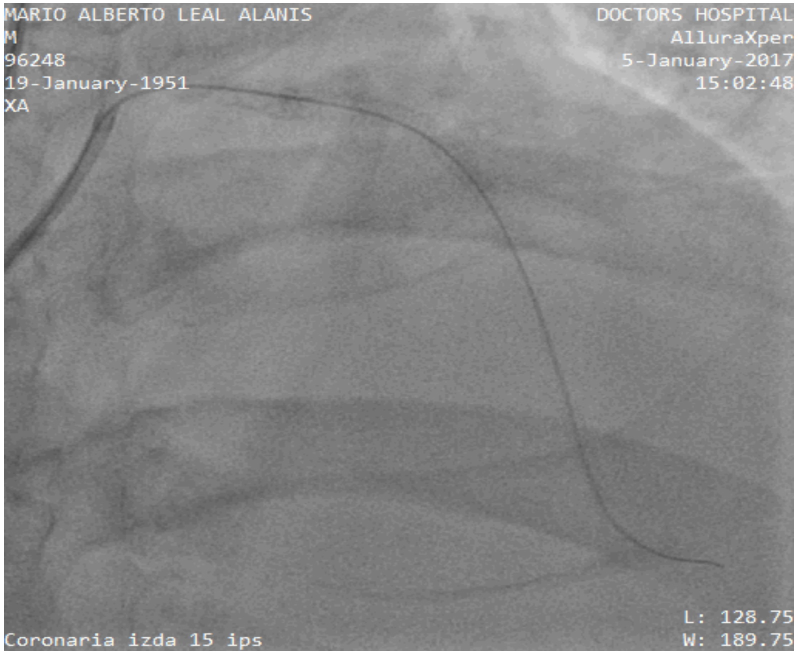


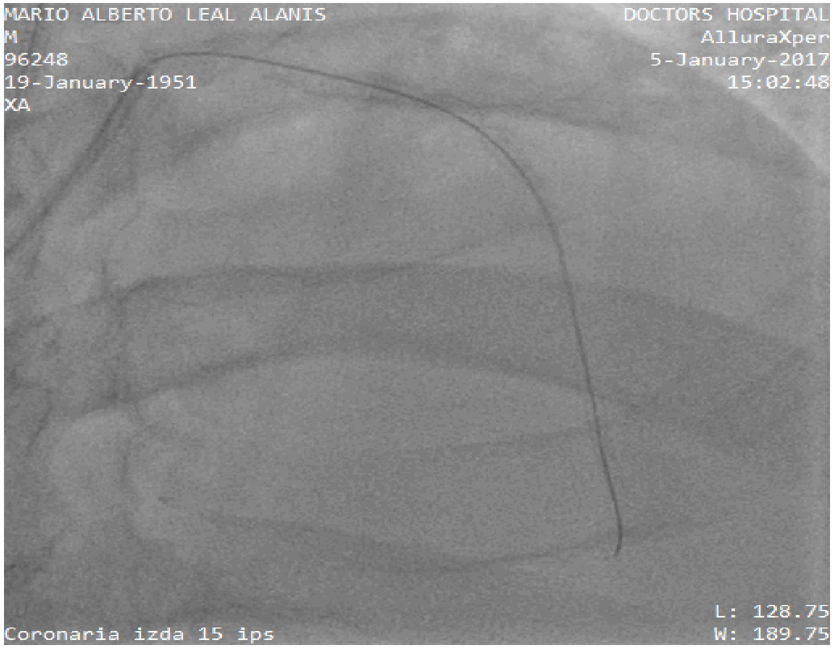


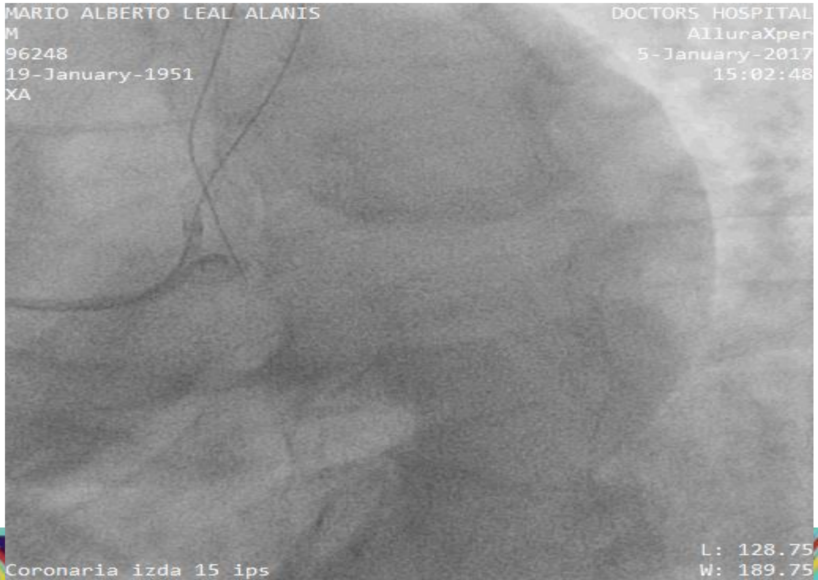


P C I

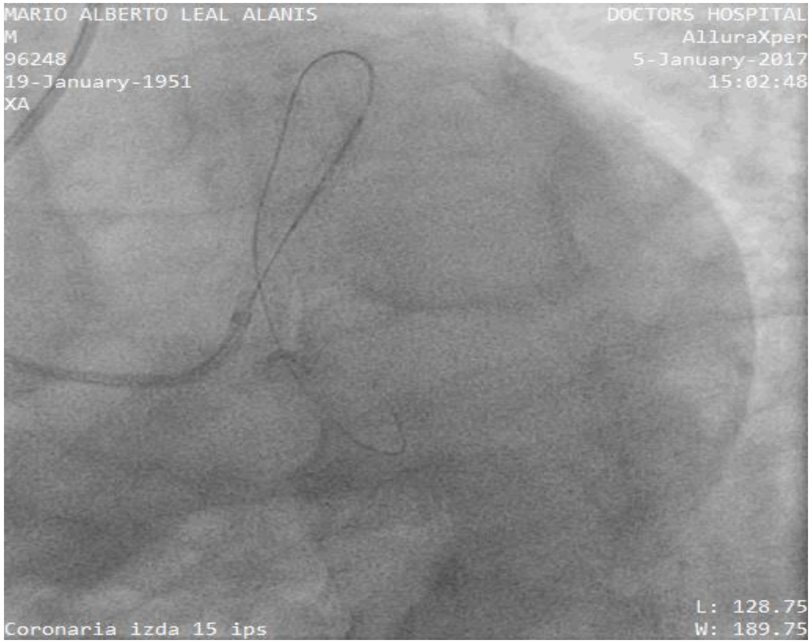
ACC Latin America Conference 2017

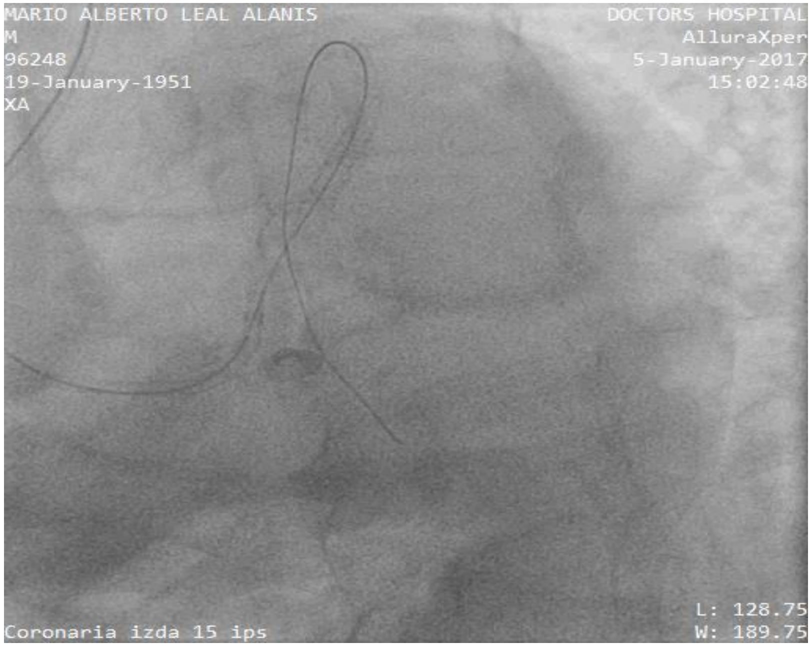


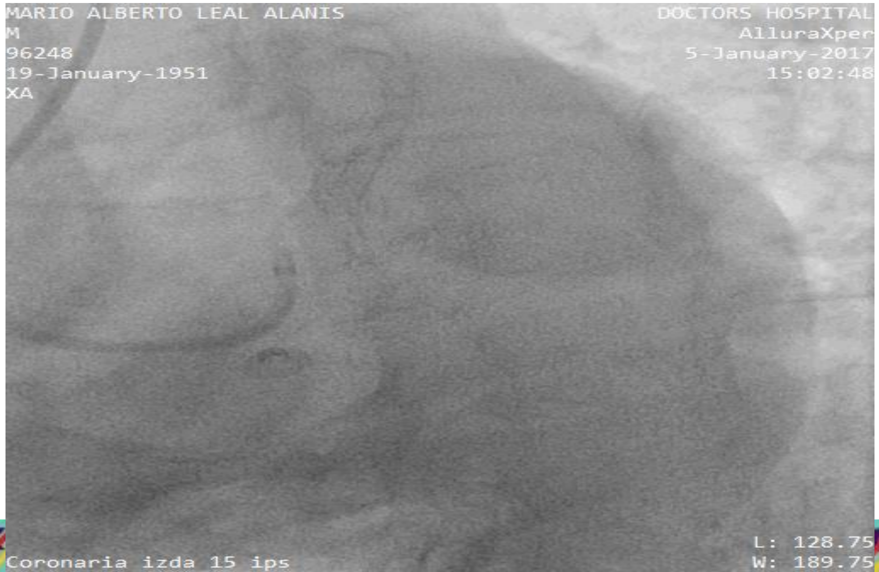




P C I

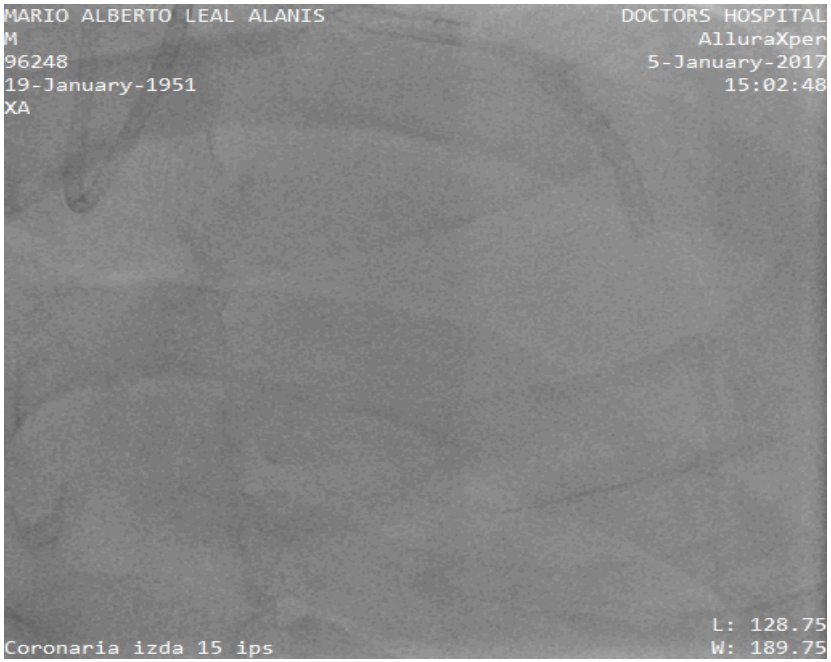

MARIO ALBERTO LEAL ALANIS
M
96248
19-January-1951
XA
DOCTORS HOSPITAL
AlluraXper
5-January-2017
15:02:48
Coronaria izda 15 ips
L: 128.75
W: 189.75

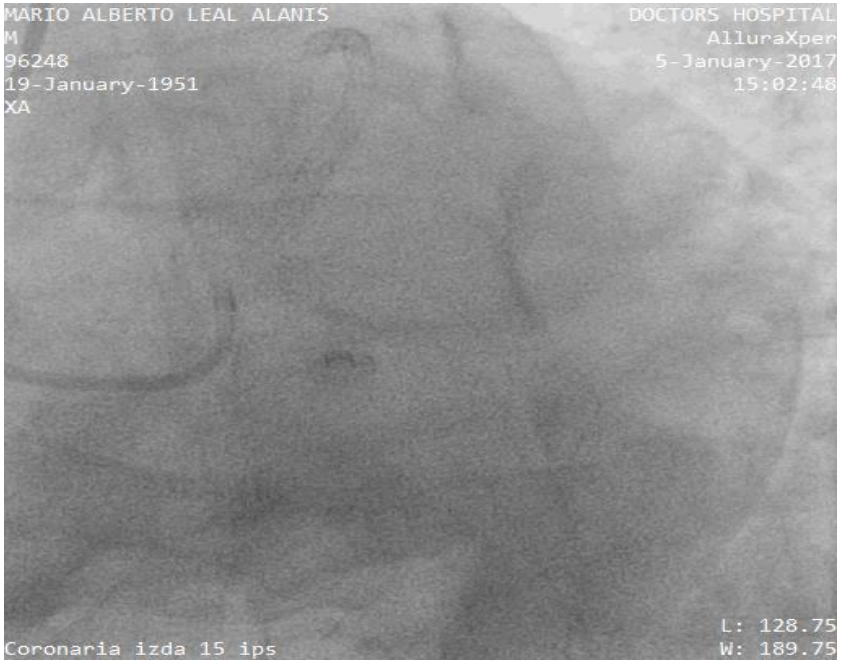

MARIO ALBERTO LEAL ALANIS
M
96248
19-January-1951
XA
DOCTORS HOSPITAL
AlluraXper
5-January-2017
15:02:48
Coronaria izda 15 ips
L: 128.75
W: 189.75

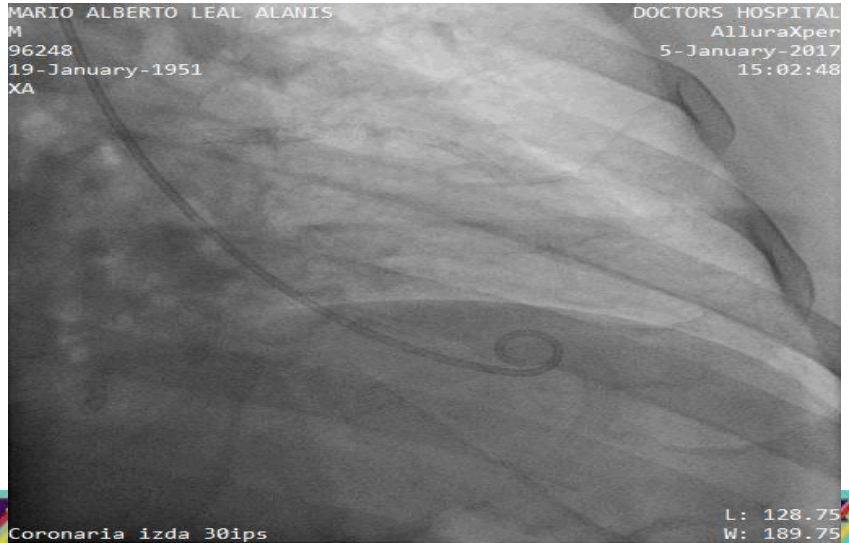

MARIO ALBERTO LEAL ALANIS
M
96248
19-January-1951
XA
DOCTORS HOSPITAL
AlluraXper
5-January-2017
15:02:48
Coronaria izda 15 ips
L: 128.75
W: 189.75

PCI

ACC Latin America Conference 2017







Clinical Evolution

- After succesfull PCI arrives to ICU with BP 105/70 HR 90 and MV 14x´
- MV was retired 48 hours later
- Developed AKD with creatinine elevation until 6.2 mg and requeried haemodyalisis
- Renal function was recovered on 7th day and Majurkal catheter was removed
- Levels of BNP reached > 5000 pcg/dl
- Patient was discharged on 10th day of MI
- Predischarge TTE showed EF 40%

In Hospital & Diascharge Pharmacological Therapy

- Dopamine and Levosimendan inotropic agnets
- IV Nitroglicerin
- Bisoprolol 2.5 mg TID
- Ramipril 2.5 mg TID
- Rosuvastatin 40 mg QD
- Ticagrelor 90 mg BID
- Aspirin 100 mg QD
- Furosemide 40 mg QD

DISCHARGE EKG

ACC Latin America Conference 2017

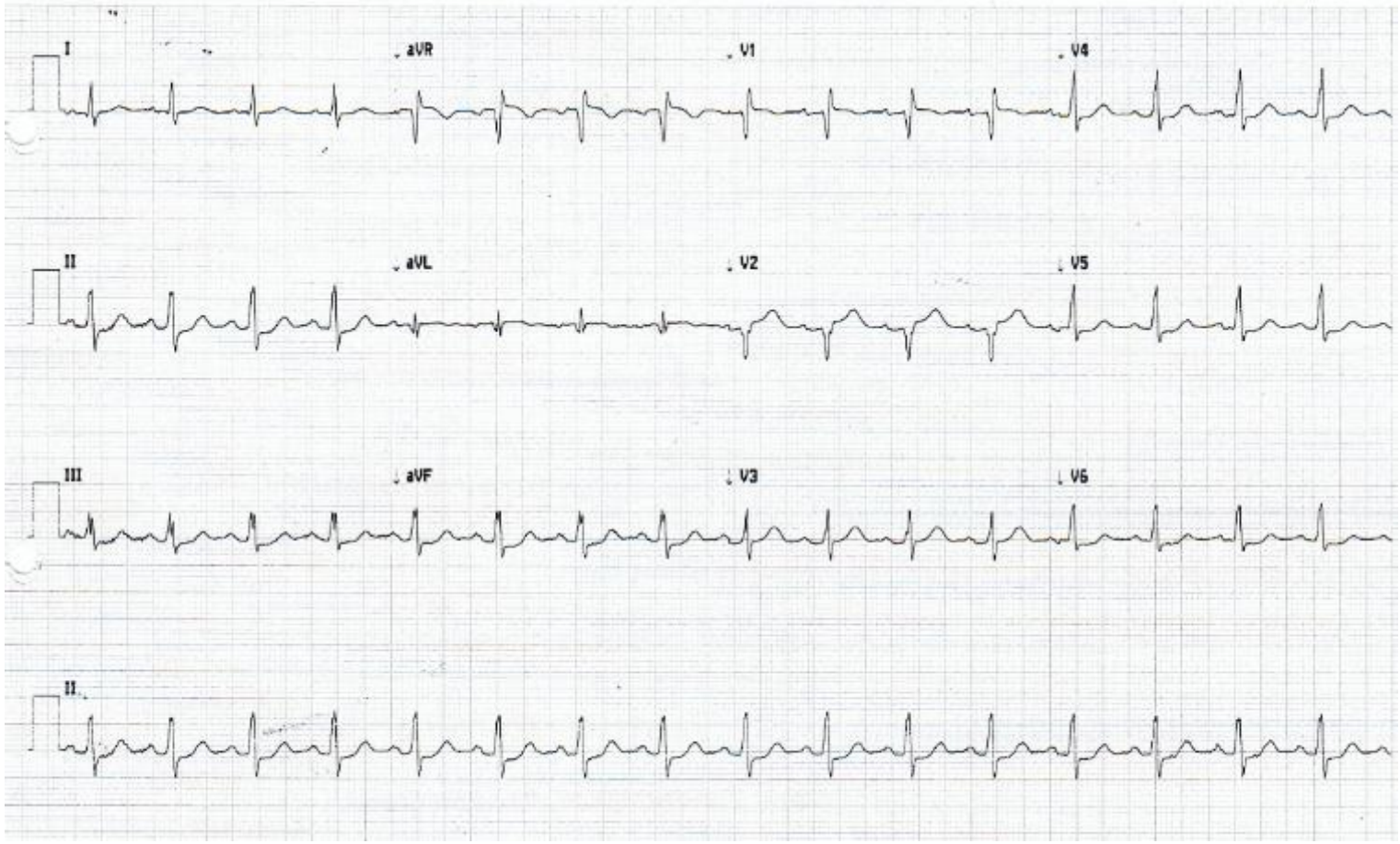
Leal alanis, Mario
ID: 96248
FdN:
años, Masc

5-Ene-2017 17:07:46

Frec Ventr:	97 LPM
Int PR:	171 ms
Dur QRS:	97 ms
QT/QTc:	360/414 ms
Ejes P-R-T:	73 60 69

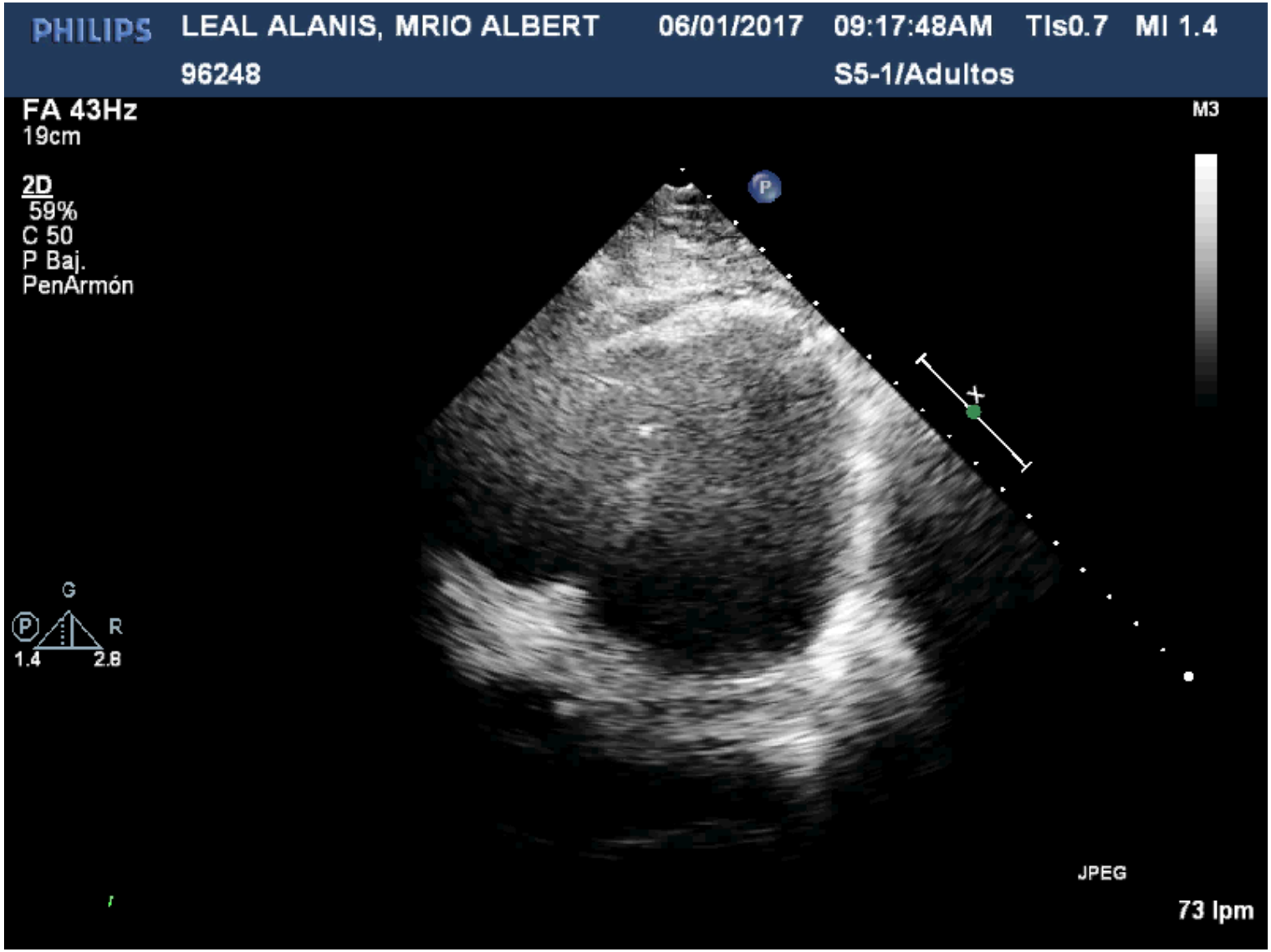
RITMO SINUSAL
POSIBLE RETRASO EN LA CONDUCCION VENTRICULAR DERECHA (RSR (QR) EN V1/V2)
INFARTO DE MIOCARDIO SEPTAL (40+ ms ONDA Q EN V1/V2), DE EDAD INDERTEMINADA
ECG NO NORMAL
INTERPRETACIÓN BASADA EN UNA EDAD POR DEFECTO DE 40 AÑOS

NO CONFIRMADO



DISCHARGE TTE

ACC Latin America Conference 2017



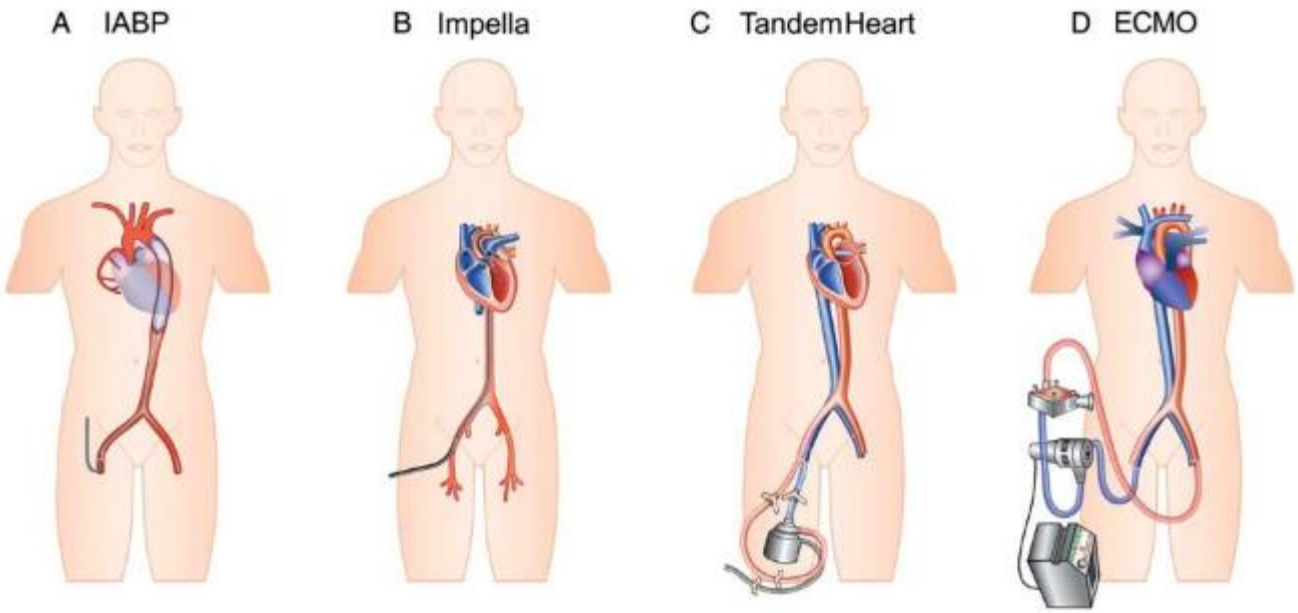
TEACHING POINTS

- Imperative developing Regional Networks of Reperfusion Therapy
- To spread massively the App “Codigo Infarto”
- CS treated in the first hours get good results

CONTROVERSY POINTS

- IABP in CS : Routine pre PCI or Bailout?
- VAD (Impella): Convenient or Indispensable?
- ECMO: Routine for Refractary CS?
- PCI approach: Culprit lesion or Multivascular?

Percutaneous assist devices in cardiogenic shock.



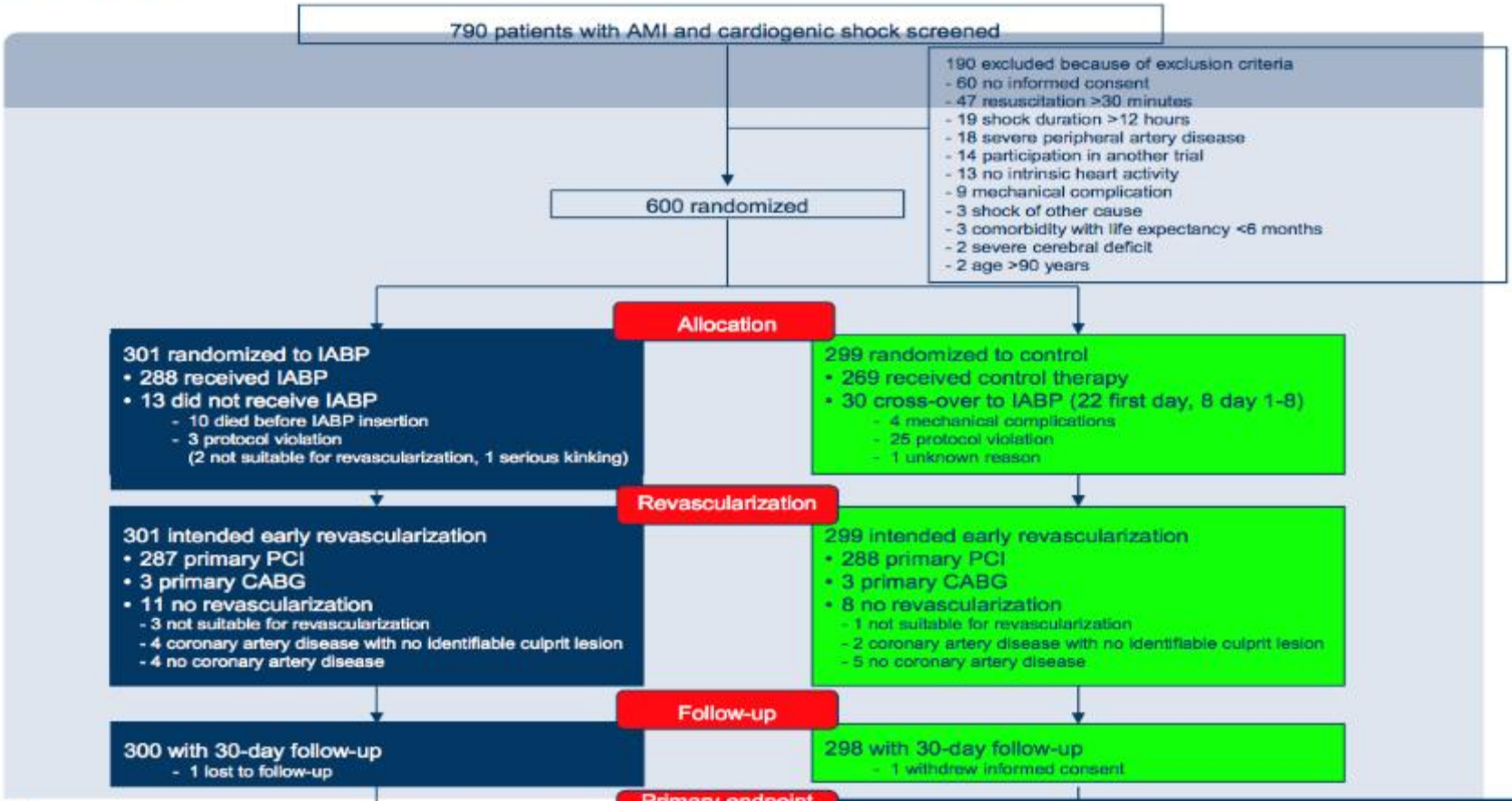
Werdan K et al. Eur Heart J 2014;35:156-167

Published on behalf of the European Society of Cardiology. All rights reserved. © The Author 2013. For permissions please email: journals.permissions@oup.com

European Heart Journal

IABP SHOCK II

Trial Flow and Treatment



Thiele et al. NEJM 2012;367:1287-1296

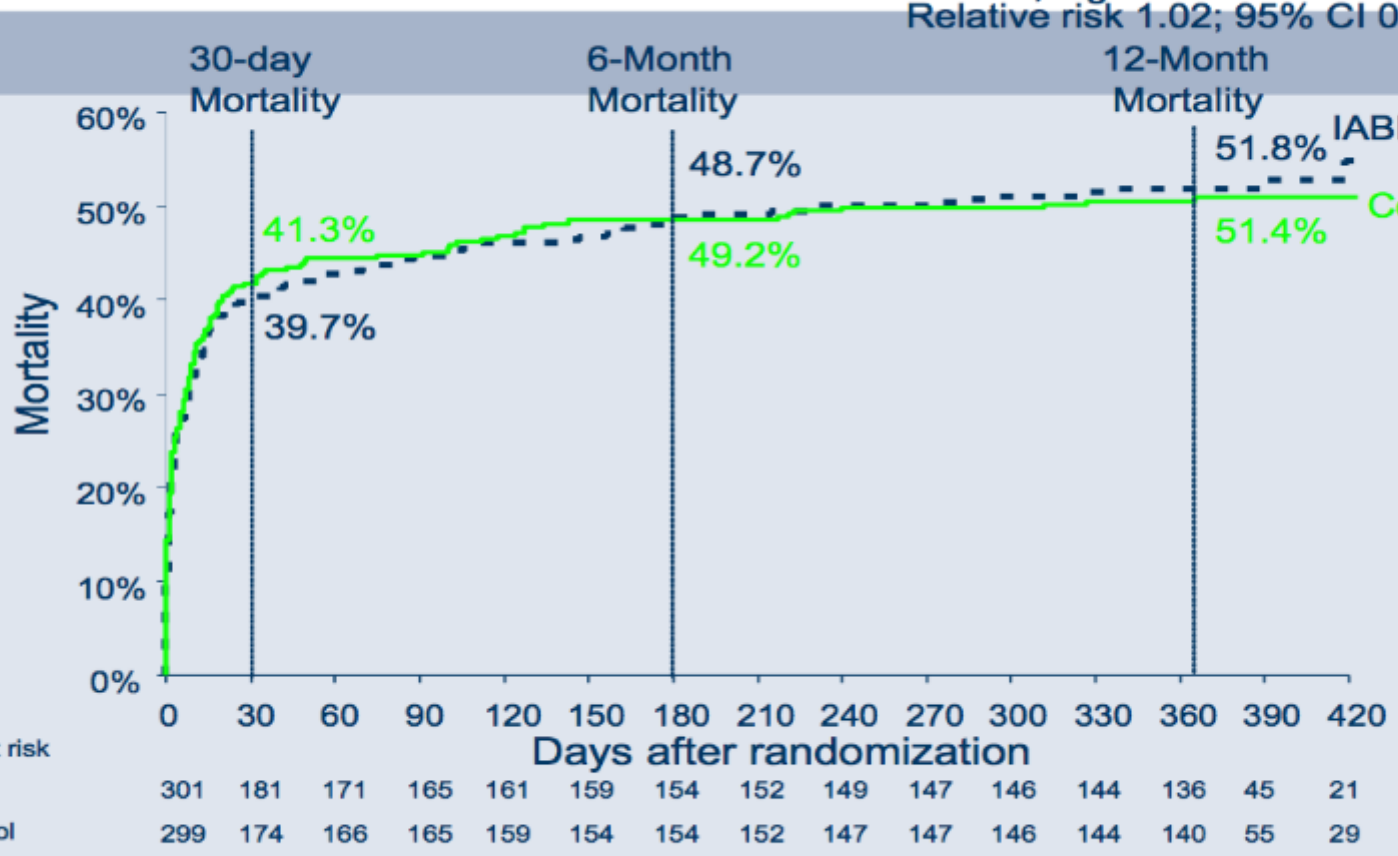
UK SH

UNIVE Schleswig-Holstein

IABP SHOCK II

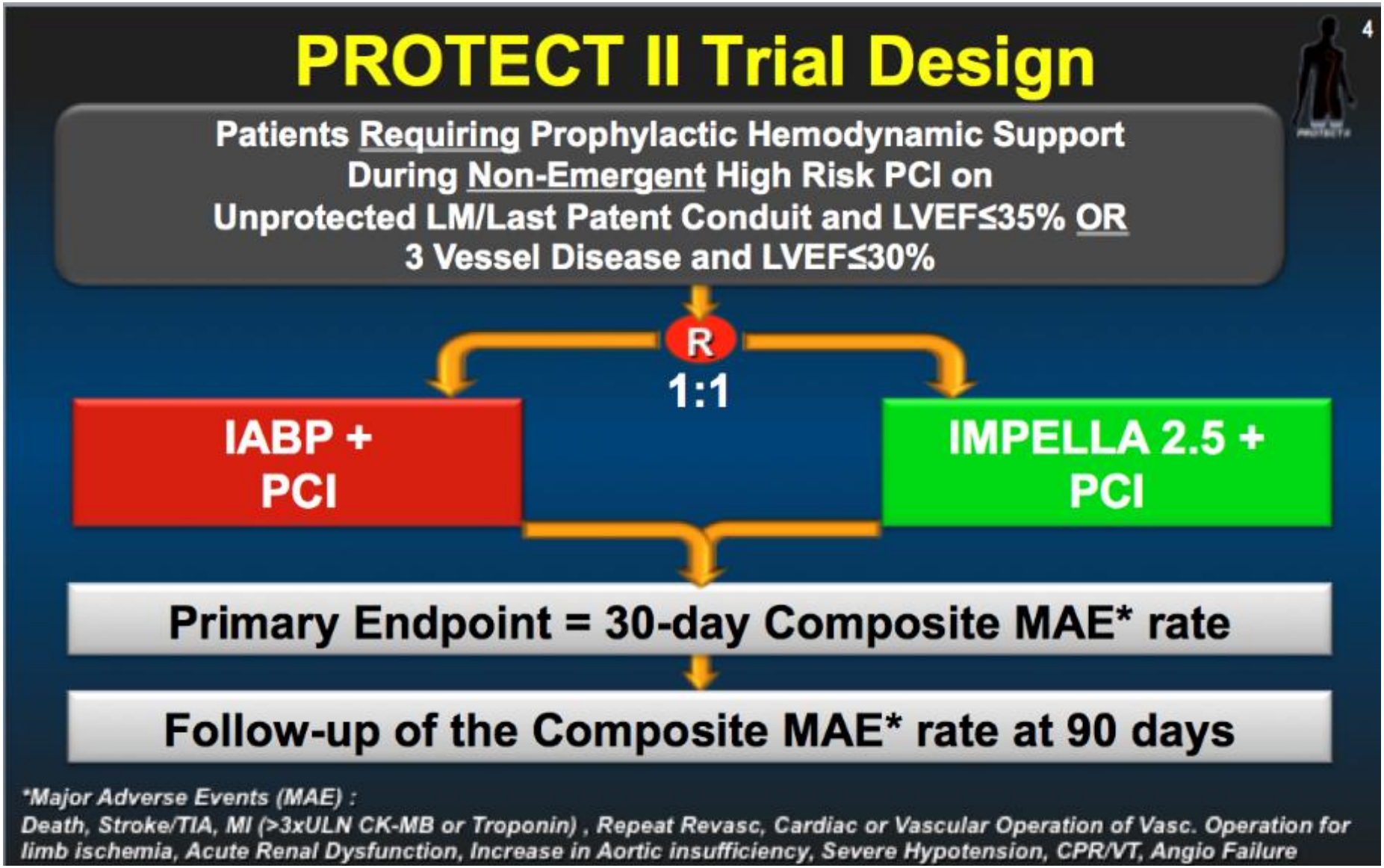
Mortality 12-Month Follow-up

P=0.94; log-rank test
Relative risk 1.02; 95% CI 0.88-1.19



UKSH UNIVERSITÄTSKLINIKUM Schleswig-Holstein

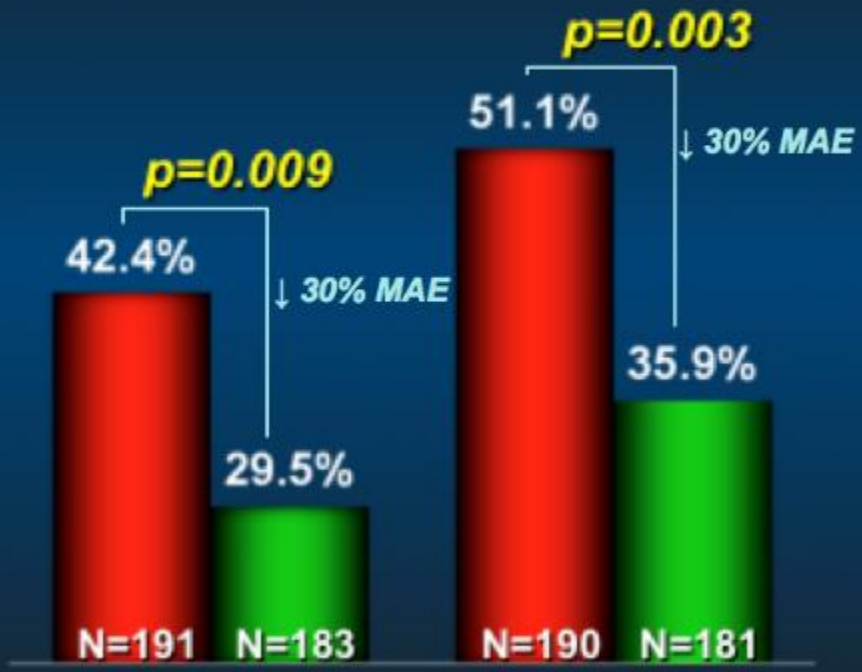
Thiele et al. Lancet 2013;382:1638-1645


PROTECT II Trial Design
4
Patients Requiring Prophylactic Hemodynamic Support
During Non-Emergent High Risk PCI on
Unprotected LM/Last Patent Conduit and LVEF≤35% OR
3 Vessel Disease and LVEF≤30%
R
1:1
IABP + PCI
IMPELLA 2.5 + PCI
Primary Endpoint = 30-day Composite MAE* rate
Follow-up of the Composite MAE* rate at 90 days
*Major Adverse Events (MAE) :
Death, Stroke/TIA, MI (>3xULN CK-MB or Troponin) , Repeat Revasc, Cardiac or Vascular Operation of Vasc. Operation for limb ischemia, Acute Renal Dysfunction, Increase in Aortic insufficiency, Severe Hypotension, CPR/VT, Angio Failure

PROTECT II MAE Outcome

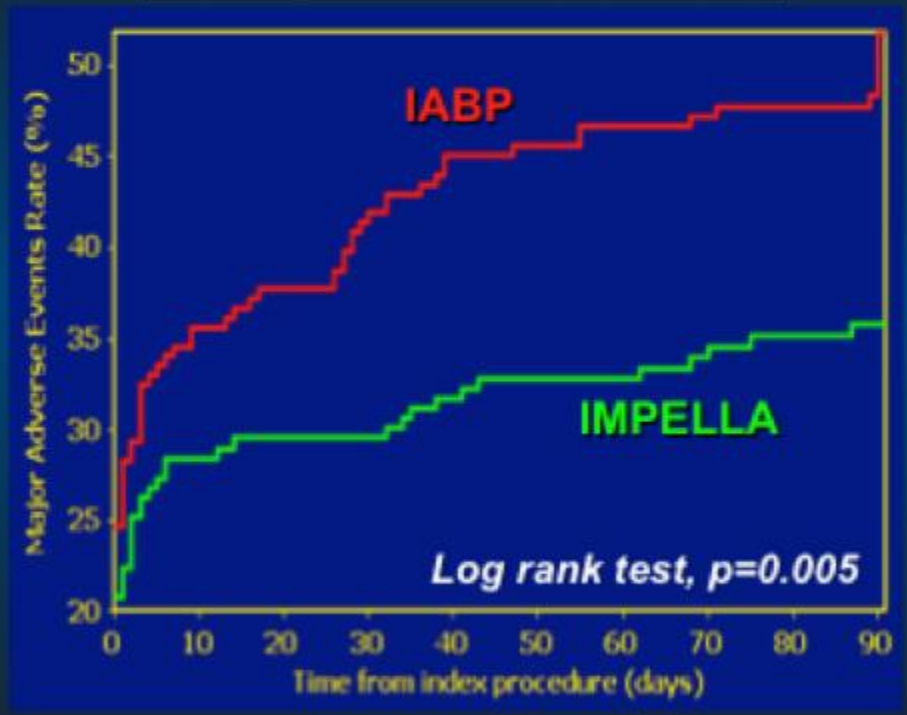
Pre-specified High Risk PCI Without Atherectomy Group

Per Protocol (N=374)



Per Protocol= Patients that met all incl./ excl. criteria.

Per Protocol (N=374)



ECMO?

ECLS Registry Report

International Summary

January, 2016

Extracorporeal Life Support Organization
2800 Plymouth Road
Building 300, Room 303
Ann Arbor, MI 48109

Overall Outcomes

	Total Patients	*Survived ECLS*		*Survived to DC or Transfer*	
Neonatal					
Respiratory	28,723	24,155	84%	21,274	74%
Cardiac	6,269	3,885	62%	2,599	41%
ECPR	1,254	806	64%	514	41%
Pediatric					
Respiratory	7,210	4,787	66%	4,155	58%
Cardiac	8,021	5,341	67%	4,067	51%
ECPR	2,788	1,532	55%	1,144	41%
Adult					
Respiratory	9,102	5,989	66%	5,254	58%
Cardiac	7,850	4,394	56%	3,233	41%
ECPR	2,379	948	40%	707	30%
Total	73,596	51,837	70%	42,947	58%

Cardiac – 7850 pts
56% survived ECLS
41% survived to DC
ECPR 2379 → 30% survived to DC

Respiratory – 9102 pts
66% survived ECLS
58% survived to DC