

새로 시작하는 센터를 위한 AMC 타비 가이드

타비를 위한 시술실 준비

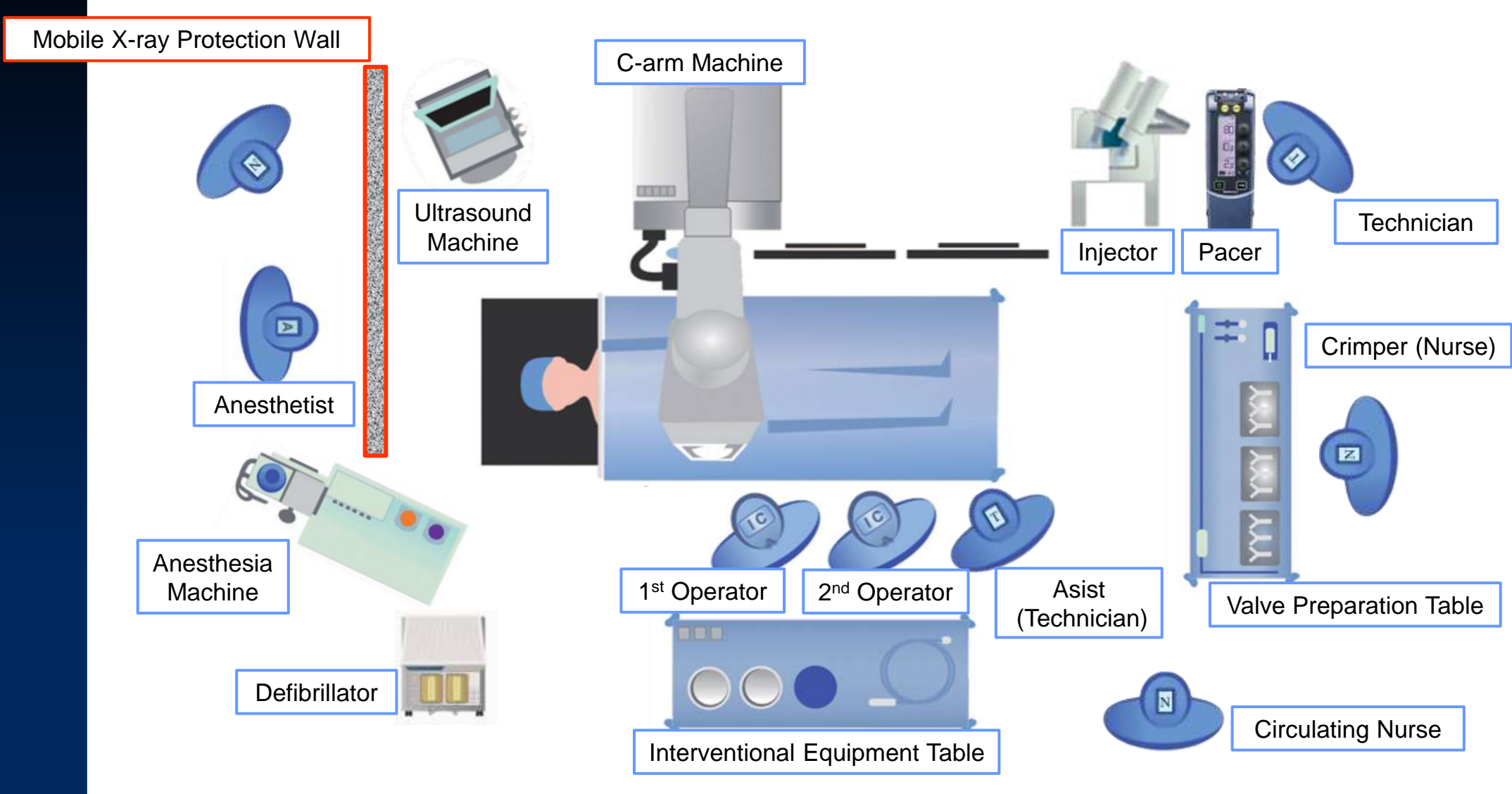
노진석

서울아산병원

Room Set Up

Machine, Equipment, Large Display

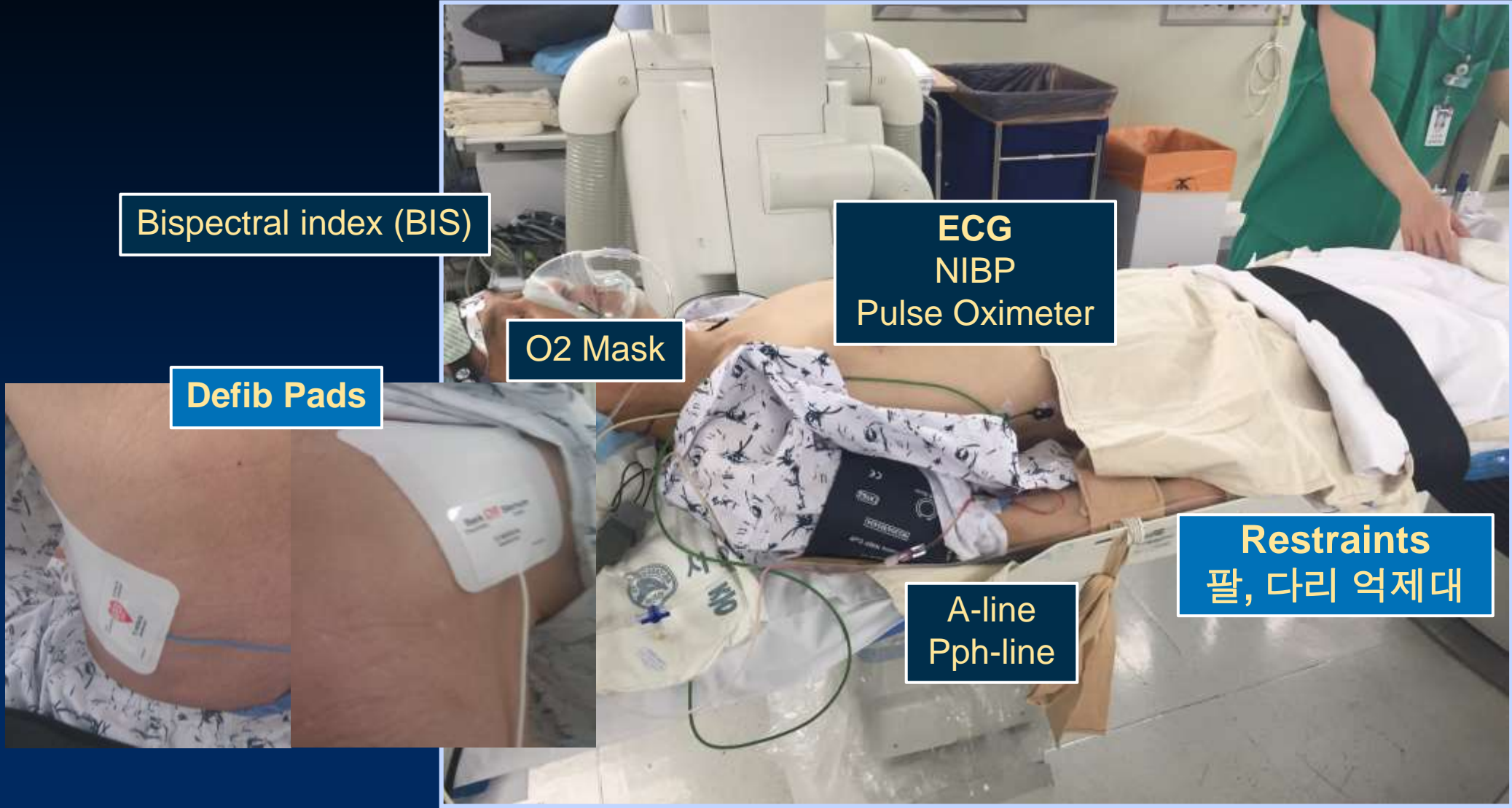
TAVR Room set up (AMC)







Conscious Sedation for TAVR



Bispectral index (BIS)

ECG
NIBP
Pulse Oximeter

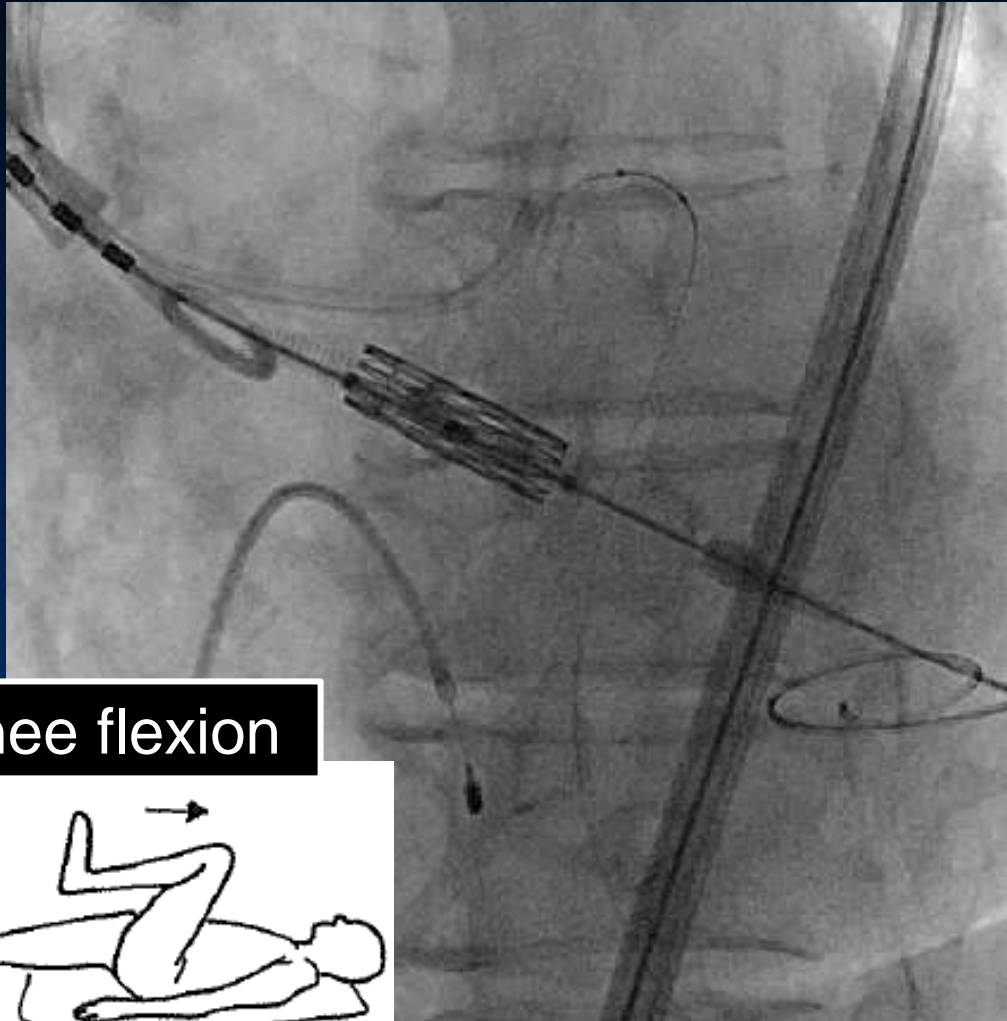
O2 Mask

Defib Pads

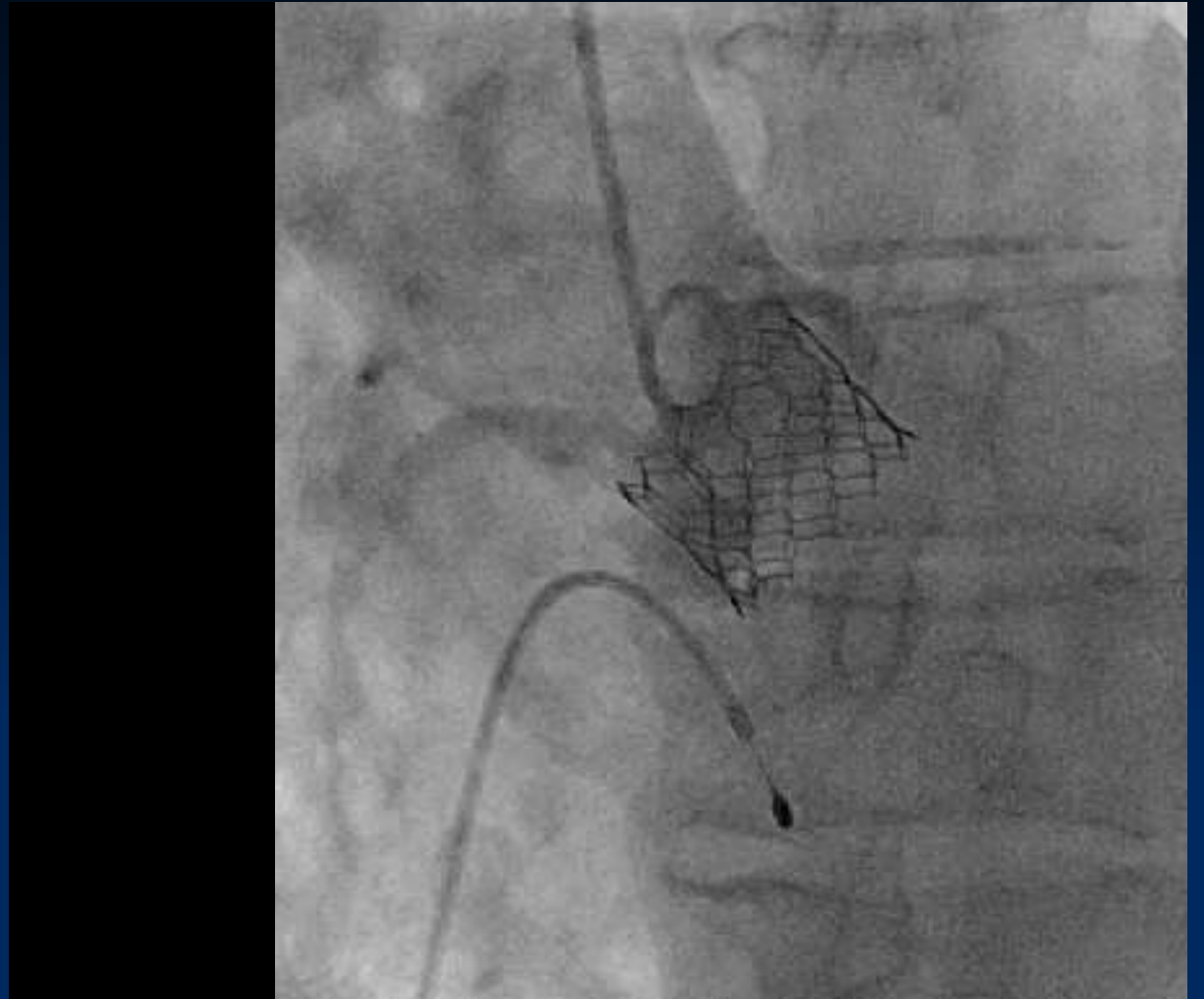
Restraints
팔, 다리 억제대

A-line
Pph-line

Restraints : Should be tight



Knee flexion



Interventional Equipment Table

Temporary pacing lead
Pacing Cable

035 Terumo Curved
035 Straight Teflon Soft
035 Straight Teflon Stiff
035 Amplatzer Stiff
035 Extra-Small Safari

Pigtail(2), AL1, JR...
Per-close

Heparinized Saline

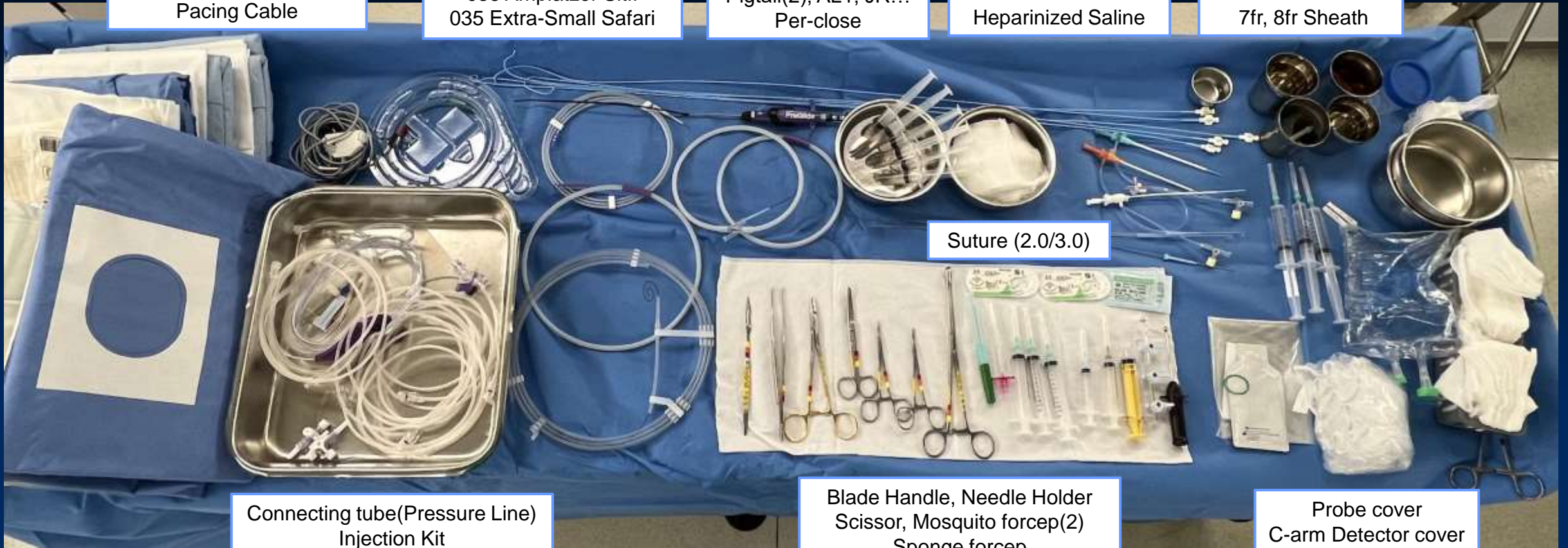
6fr Lock Sheath
7fr, 8fr Sheath

Suture (2.0/3.0)

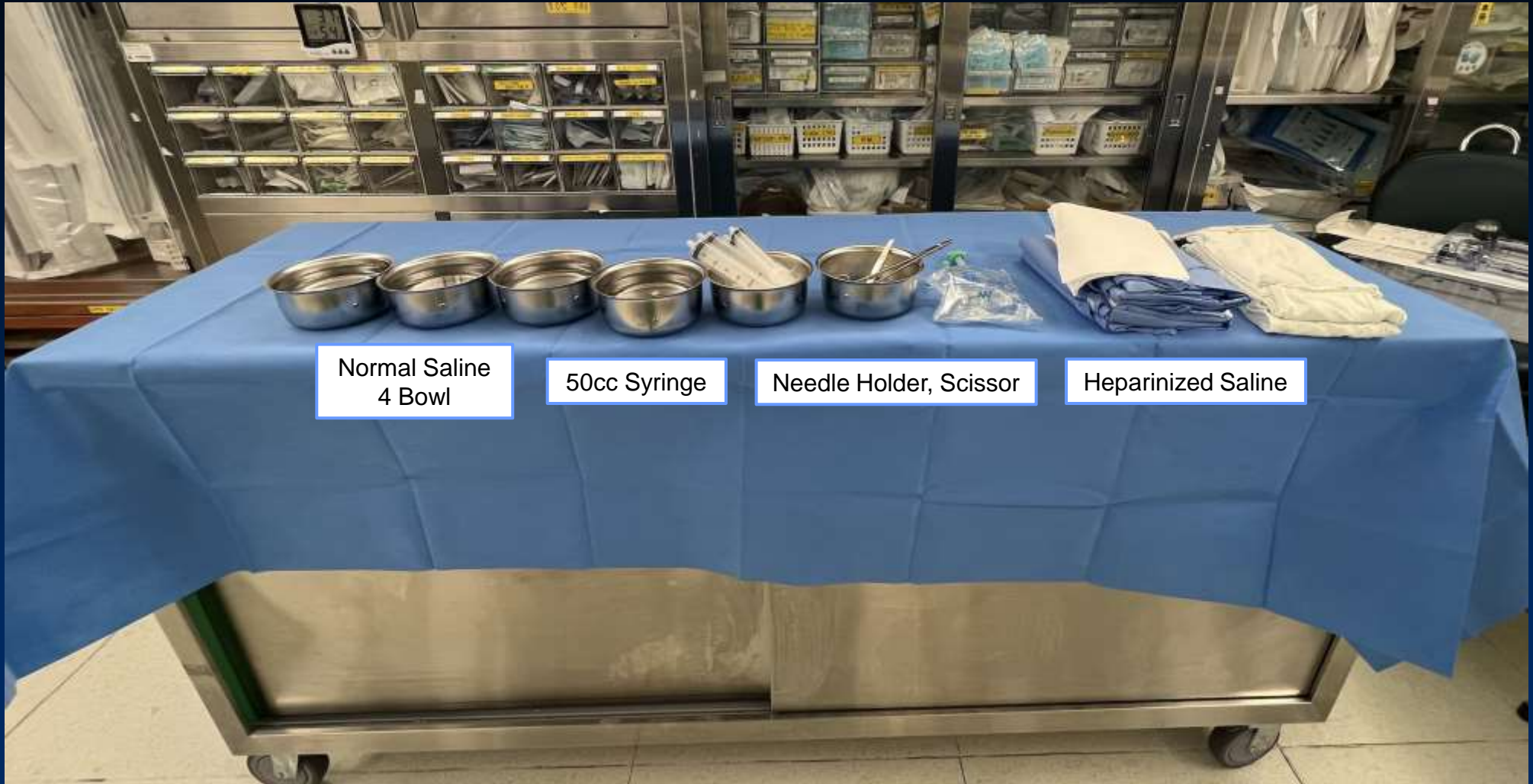
Connecting tube(Pressure Line)
Injection Kit

Blade Handle, Needle Holder
Scissor, Mosquito forcep(2)
Sponge forcep

Probe cover
C-arm Detector cover



Valve Preparation Table



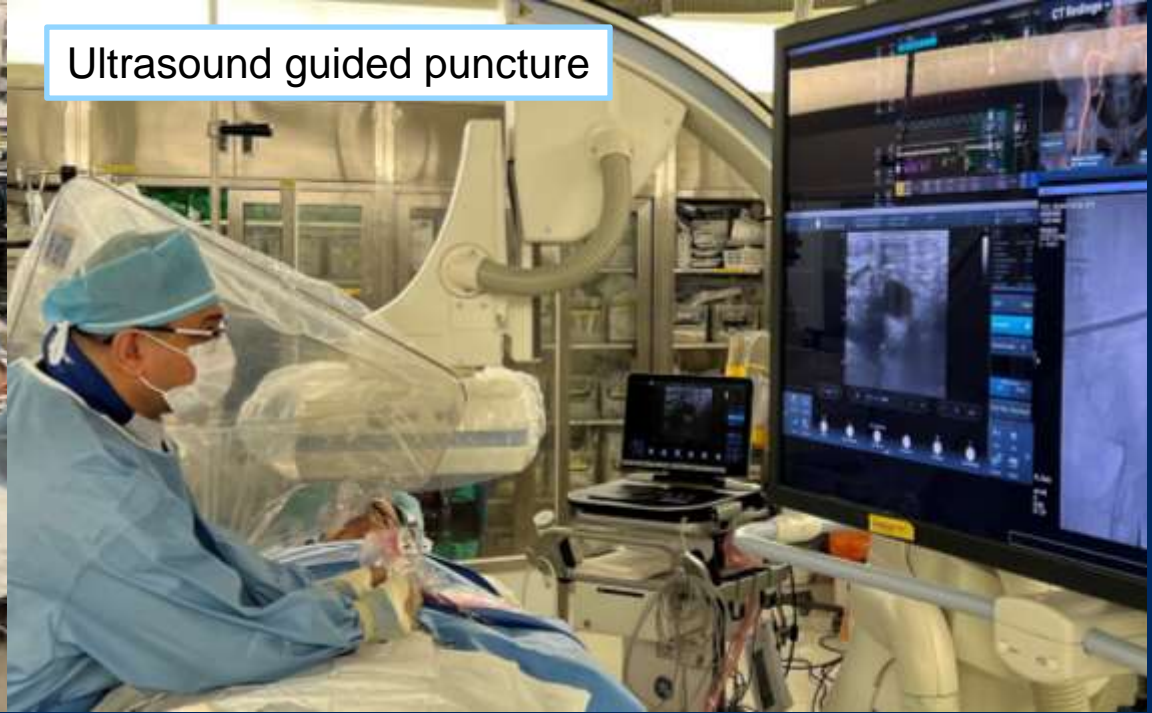
Normal Saline
4 Bowl

50cc Syringe

Needle Holder, Scissor

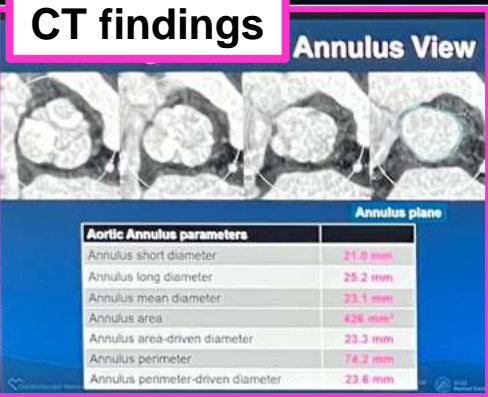
Heparinized Saline

Echocardiography



TAVR 시술을 위한 Monitor (Large Display)

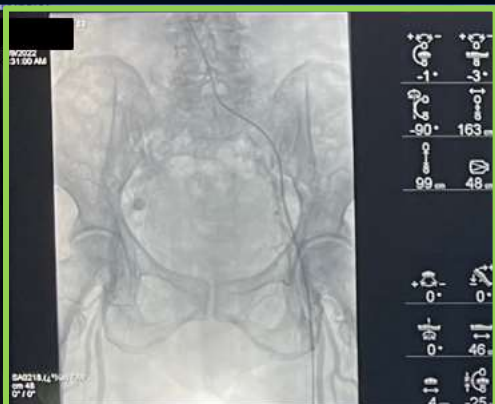
CT findings



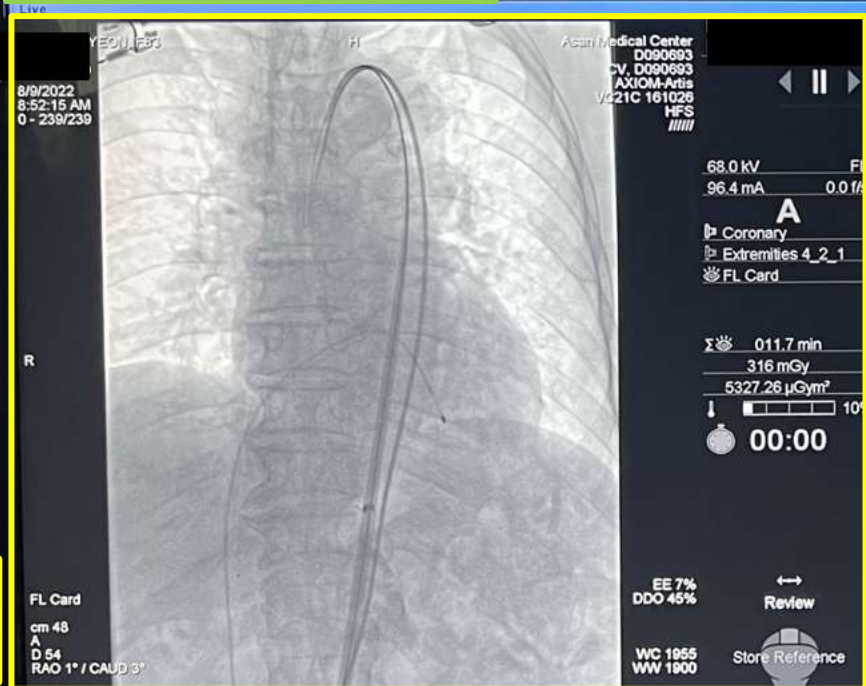
Echo



Ref



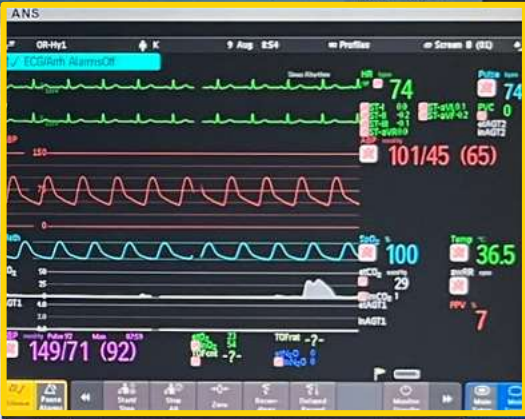
Fluoro
Angio



Hemodynamics (CV)



Patient Monitor (ANS)



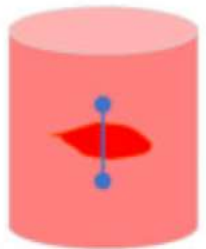
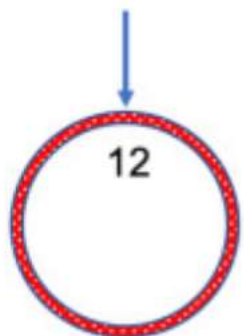
TAVR 시술을 위한 Monitor (Large Display)

Sono guided puncture

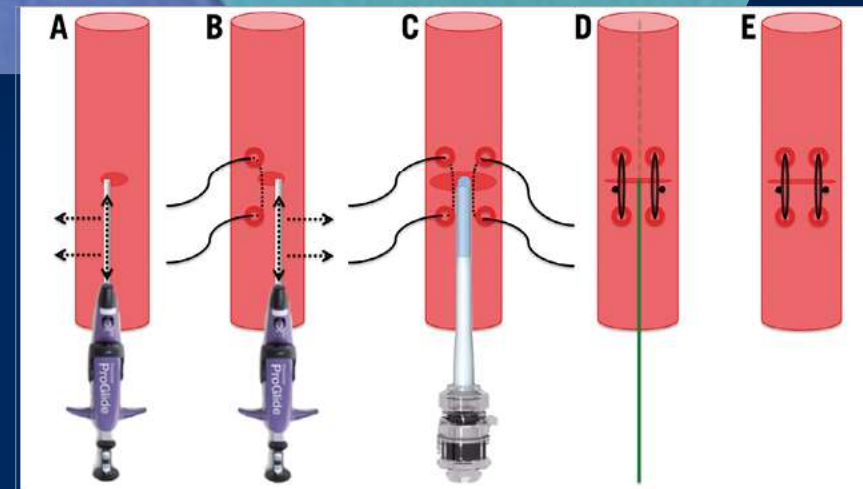
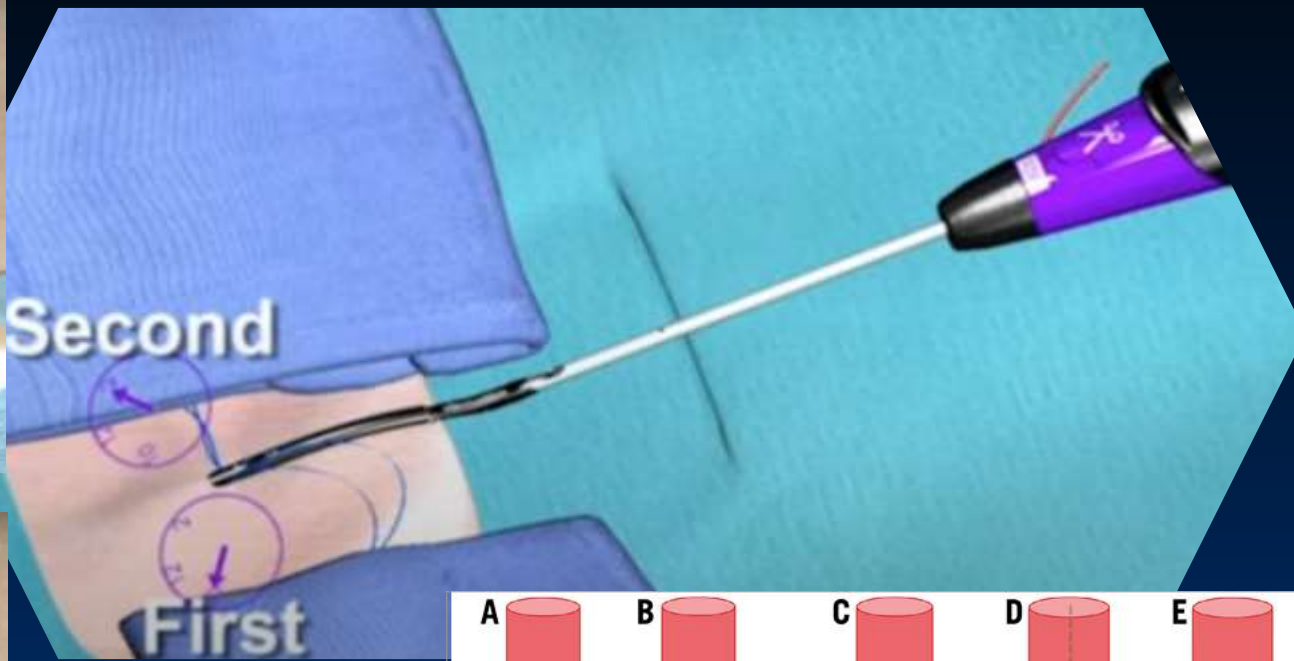
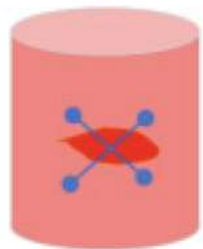
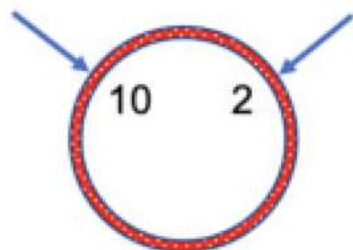


Pre-close Technique

Single ProGlide



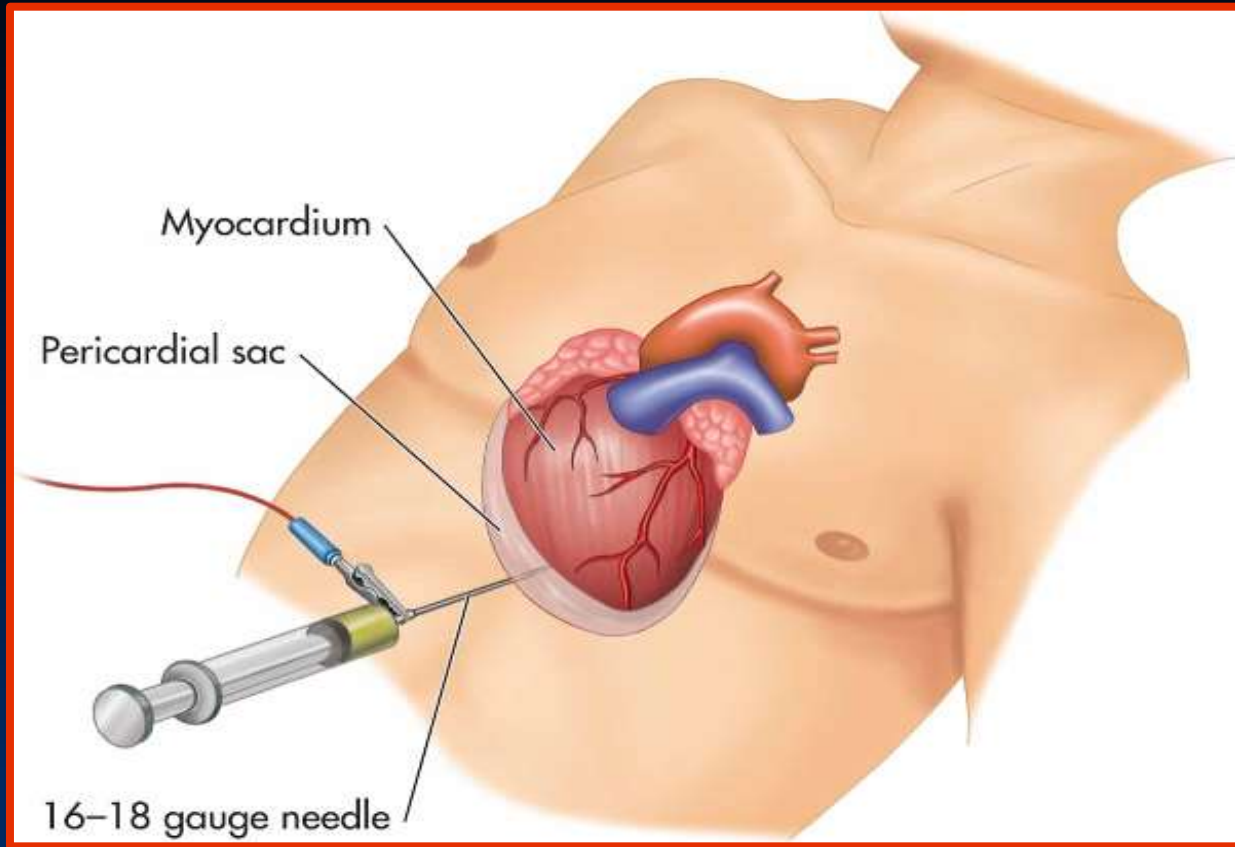
Double ProGlide



14Fr

<16Fr

Pericardiocentesis Kit for Pericardial Effusion



ECMO, CPB for OP Conversion



Contras Injector

Contrast Injector



150cc Syringe
재충전시 Tube 분리 해야함



100cc Syringe
재충전시 Tube 분리 필요없음

Continuous BP Monitoring

The image displays a patient in a catheterization laboratory with several monitors providing real-time data:

- CT findings – Aortic Annulus View:** Shows cross-sectional CT scans of the aortic annulus with the following parameters:

Aortic Annulus parameters	
Annulus short diameter	21.6 mm
Annulus long diameter	25.2 mm
Annulus mean diameter	23.1 mm
Annulus area	428 mm ²
Annulus area-driven diameter	23.3 mm
Annulus perimeter	74.2 mm
Annulus perimeter-driven diameter	23.6 mm
- EP_Live:** Displays electrophysiology data for the Left Ventricle (LV) and Aortic Orifice (AO). The LV pressure waveform is highlighted in red, and the AO pressure waveform is highlighted in green. The LV pressure is 141/15/14 mmHg and the AO pressure is 95/46/66 mmHg.
- ANS (Anesthesia/Physiology Station):** Shows multiple vital signs and waveforms:
 - Heart Rate: 74 bpm
 - SpO2: 101/45 (65%)
 - Temp: 36.5 °C
 - FiO2: 29
 - MAP: 149/71 (92)
 - Respiration: -7
- Fluoroscopy:** Shows a chest X-ray with a catheter in place. Technical parameters include 68.0 kV, 96.4 mA, and 0.0 f/s.

Injection Volume

15 mL/s . 15mL . 600psi



SOV diameter	
NCC	26.8 mm
LCC	24.0 mm
RCC	23.9 mm



SOV diameter	
NCC	31.9 mm
LCC	31.8 mm
RCC	31.7 mm



SOV diameter	
NCC	36.5 mm
LCC	35.9 mm
RCC	34.1 mm

Optimized Injection Volume

SOV diameter	
NCC	26.8 mm
LCC	24.0 mm
RCC	23.9 mm

SOV diameter	
NCC	31.9 mm
LCC	31.8 mm
RCC	31.7 mm

SOV diameter	
NCC	41.0 mm
LCC	39.5 mm
RCC	38.6 mm

10 mL . 10 mL/s

15 mL . 15 mL/s

20 mL . 15 mL/s

Rapid Pacing

Bipolar Pacing Catheter

Right Heart Curve : IVC
Femoral



60 Degree Curve : SVC
Jugular



Right Heart Curve
Balloon Tip



Generator / Connecting Cable



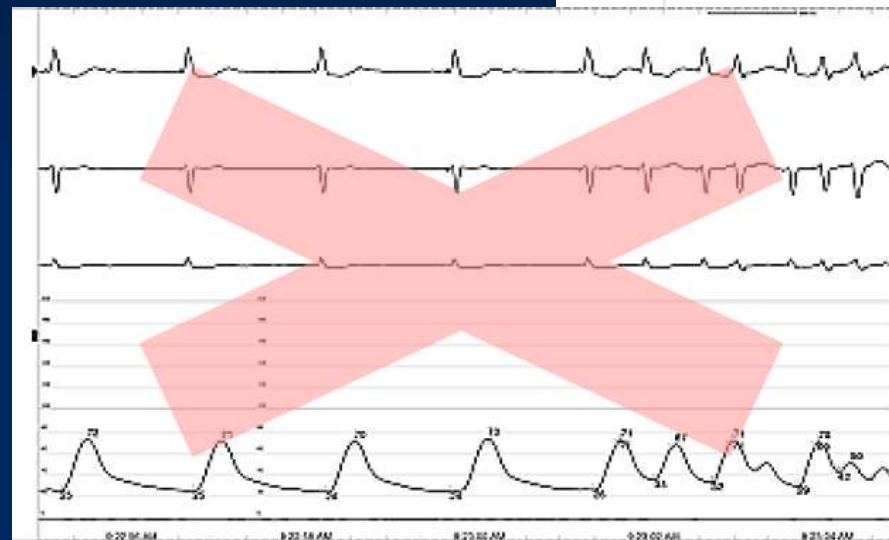
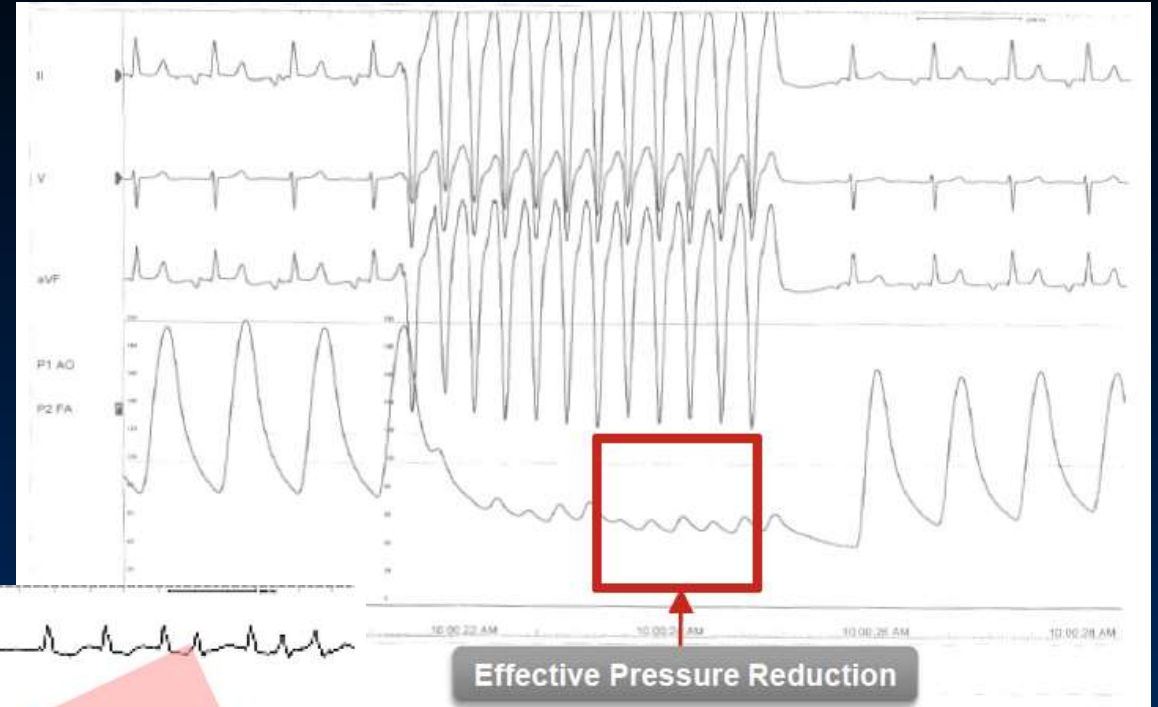
Rapid Pacing Using the LV Guidewire



Setting of the temporary pacemaker with **maximal output** & **minimal sensitivity(async)**

Rapid Ventricular Pacing

- RVP 150~200 ppm
- SBP \leq 50 mmHg
- Pulse pressure $<$ 10 mmHg
- 1:1 Capture



180 → 160 → 150

Room Equipment Checklist

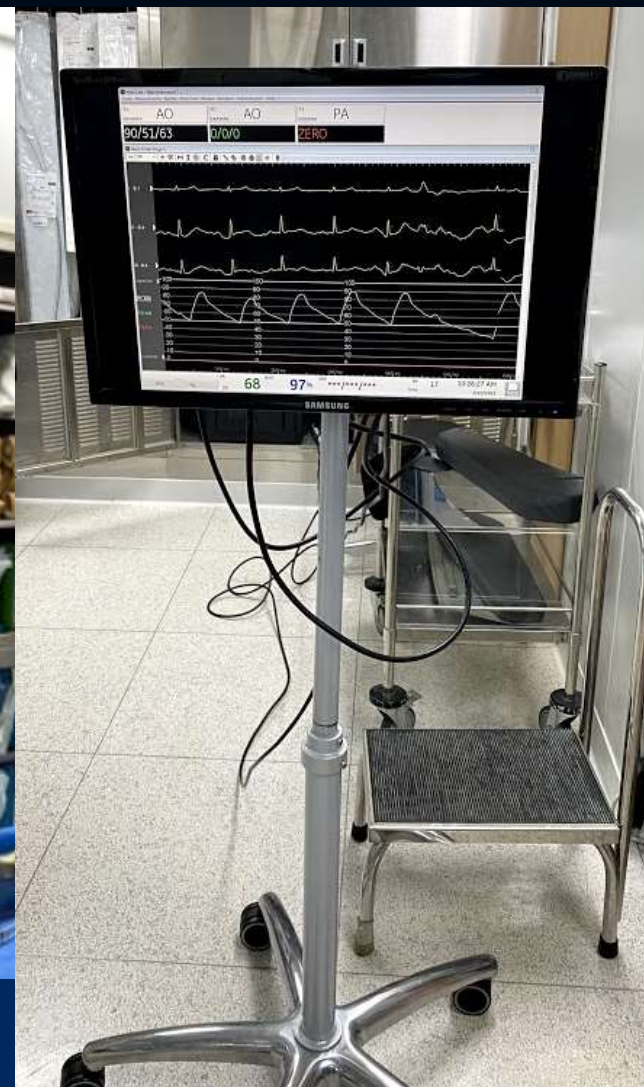
- Standard operation room ventilation requirements
- Fixed C-arm fluoroscopic imaging
- Transesophageal echocardiography (TEE) imaging
- Anesthesia support
- Rapid pacer (with capability of > 200 bpm)
- Back-up pacer
- Power injector
- Cardiopulmonary bypass support cannulas (primed)
- Intra-aortic balloon pump
- Defibrillator



All Staff은 Hemodynamics Monitoring이 가능해야 함



All Staff은 Hemodynamics Monitoring이 가능해야 함



Back-up Pacing Catheter 고정



배터리 잔량표시가
없는 경우
환전안전사고 발생

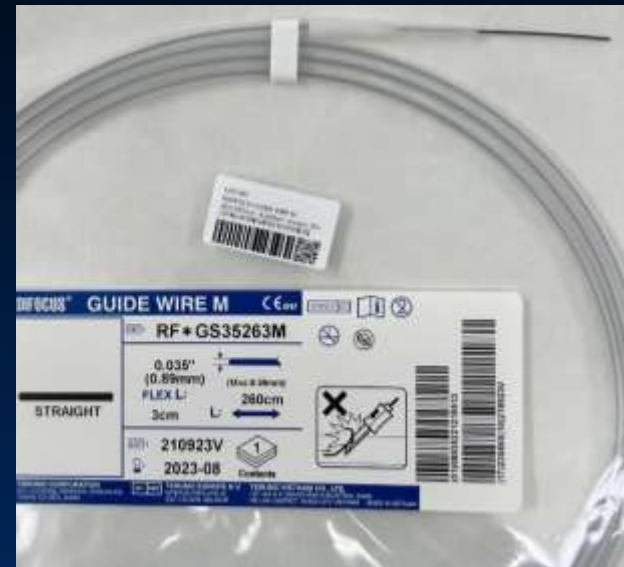


Wire & Balloon

Guide Wires for LV Passing

Soft

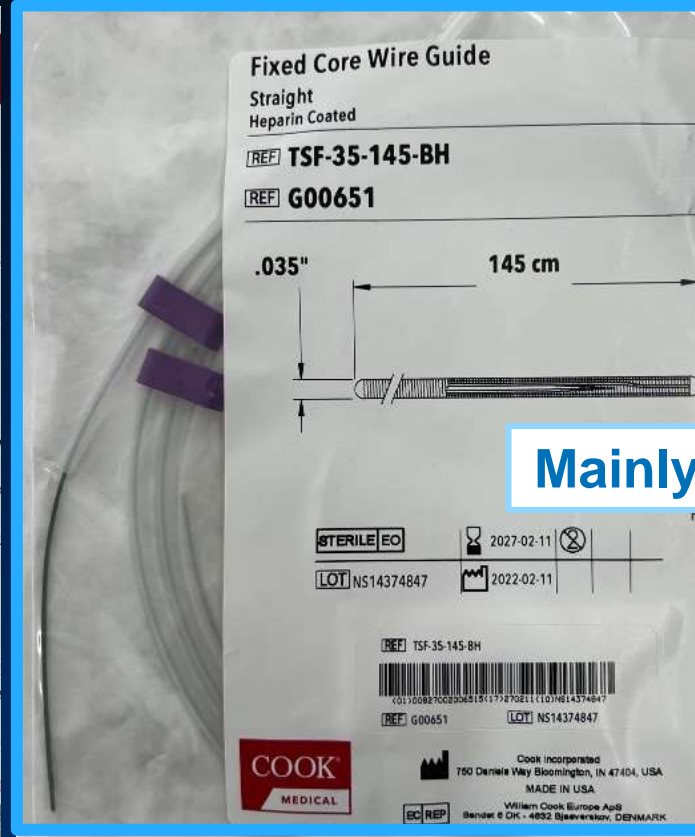
Stiff



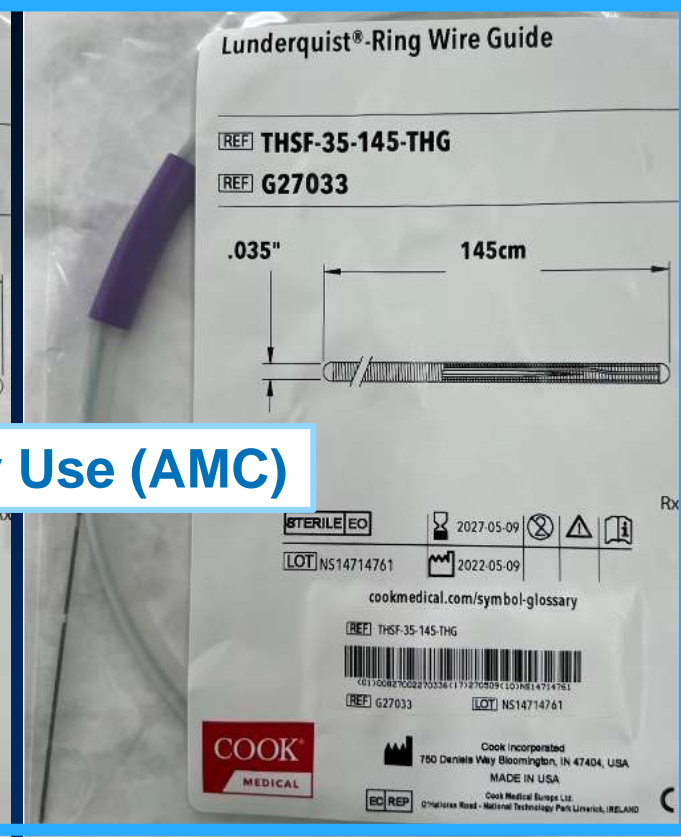
RADIFOCUS
035" Straight 260cm
TERUMO



InQ 035" Straight 150cm
MERIT MEDICAL



TSF-35-145-BH
Fixed Core Straight
COOK



THSF-35-145-THG
Lunderquist-Ring Straight
COOK

Mainly Use (AMC)

Guide Wires for LV apex

Less Stiff

More Stiff



Pre-shaped



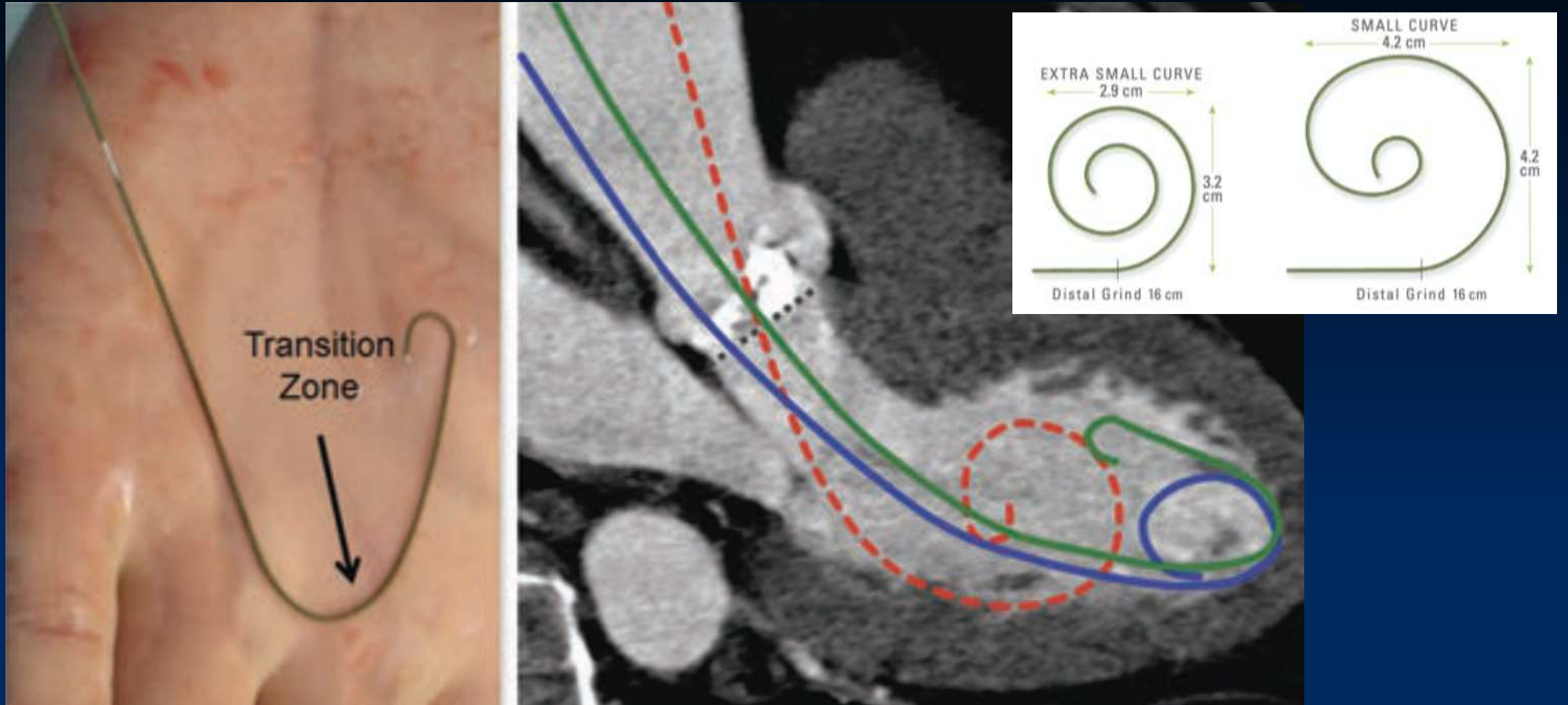
035" Amplatz Extra Stiff
TERUMO

035" SAFARI PRE-SHAPED
Boston Scientific

035" Confida Brecker
Medtronic

035" Lunderquist Extra Stiff
Double Curved / COOK

Recommended shape & Correct wire positioning

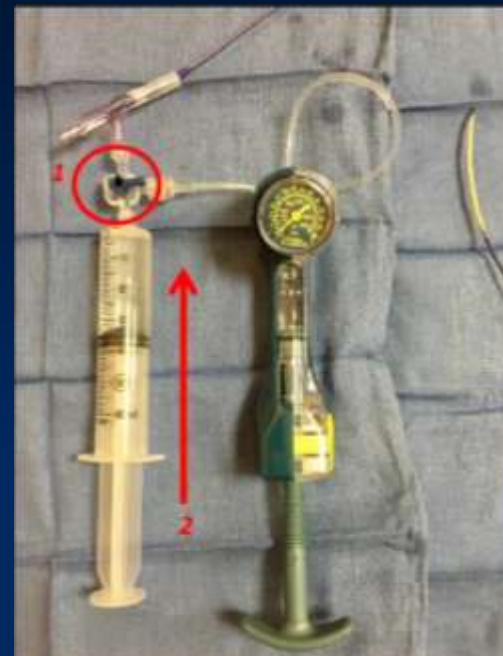
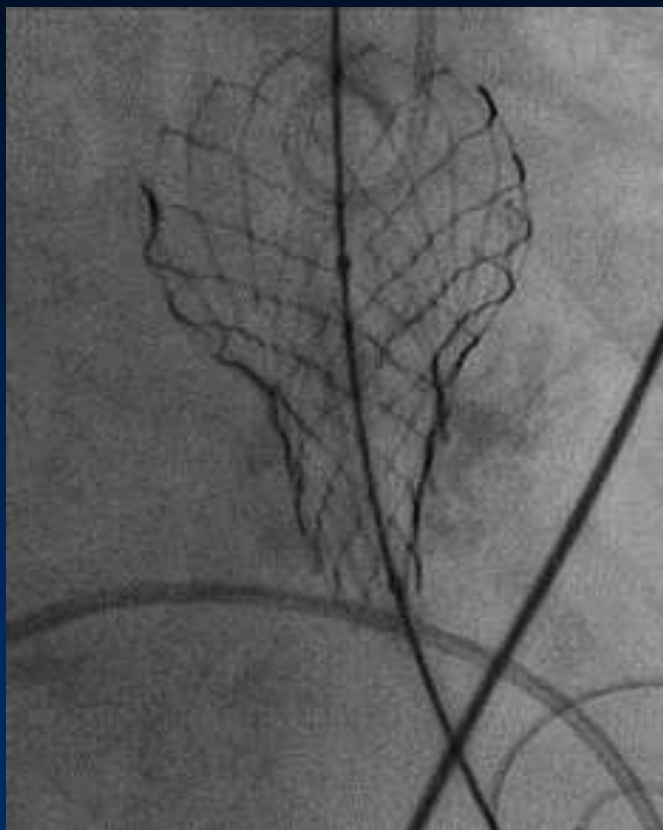


Non-compliant Balloon

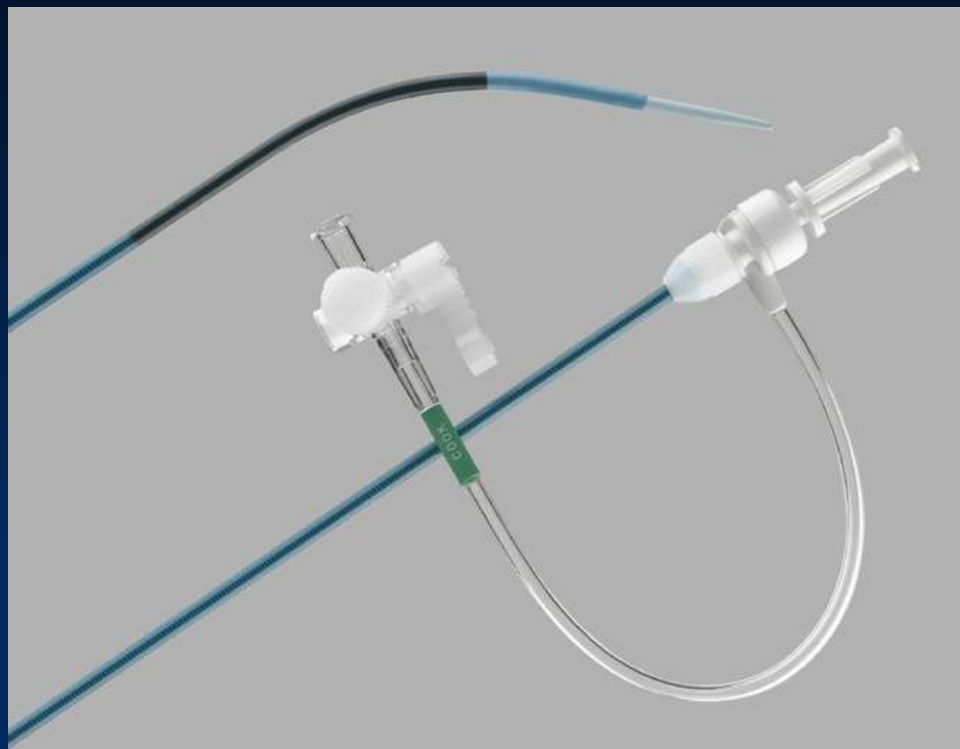
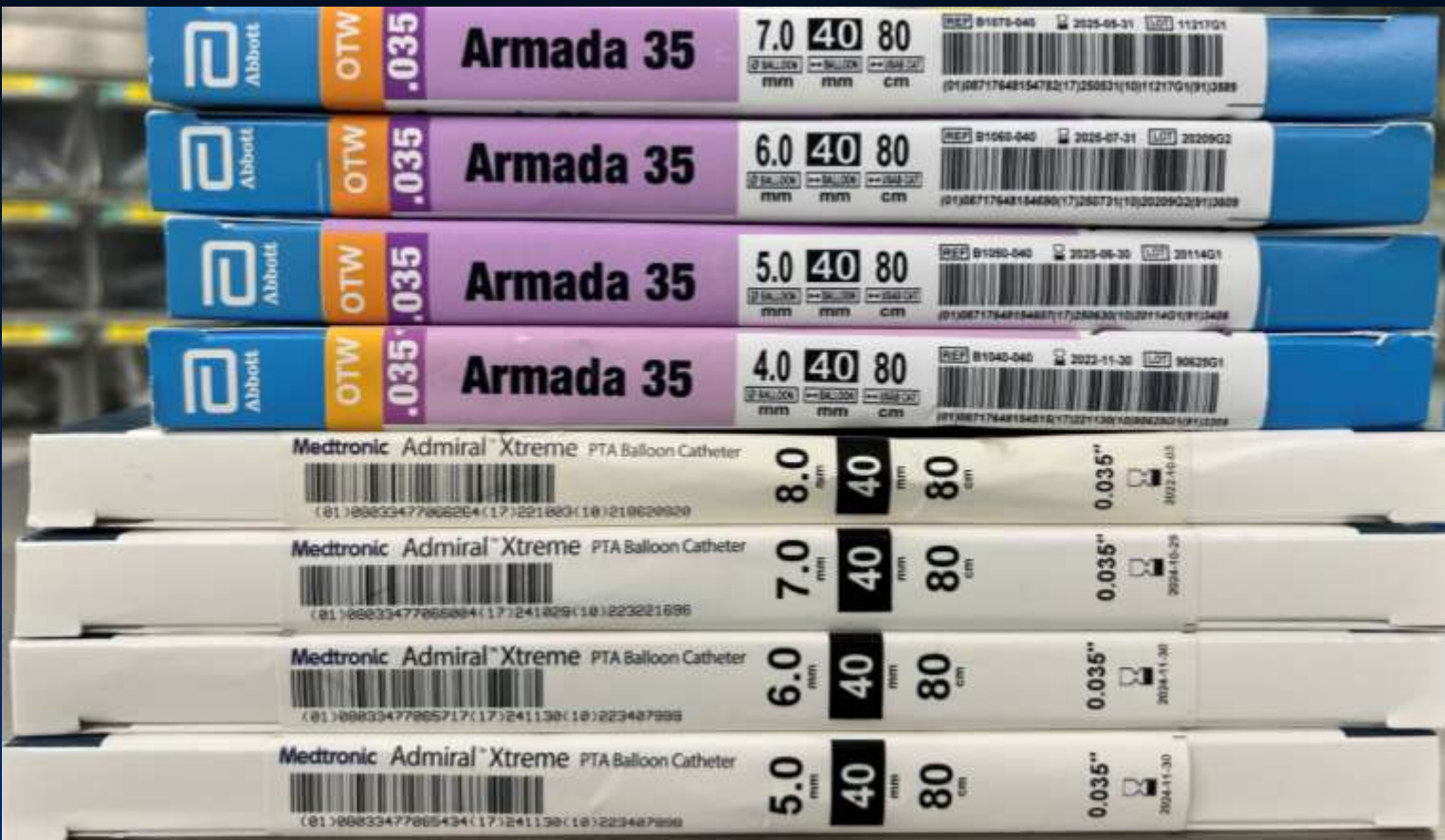
Valve Under expansion



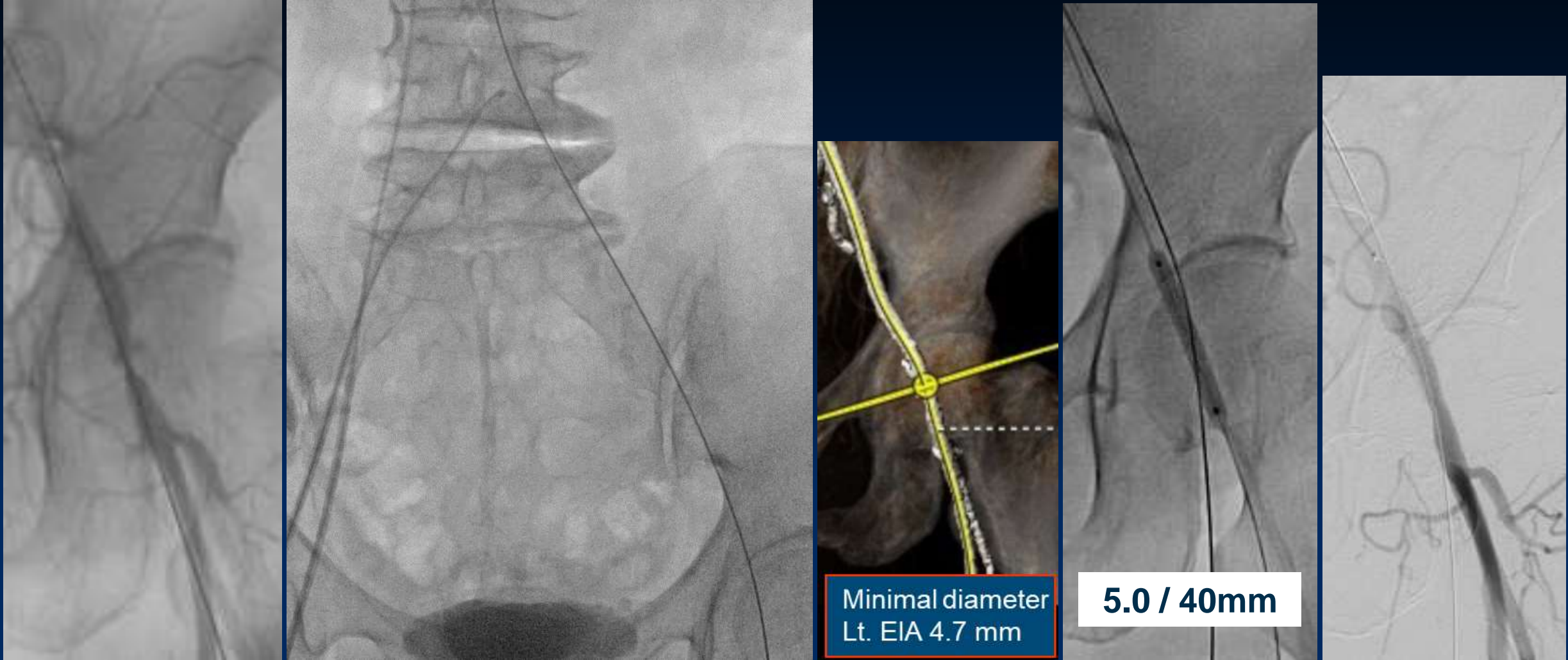
ATLAS® GOLD



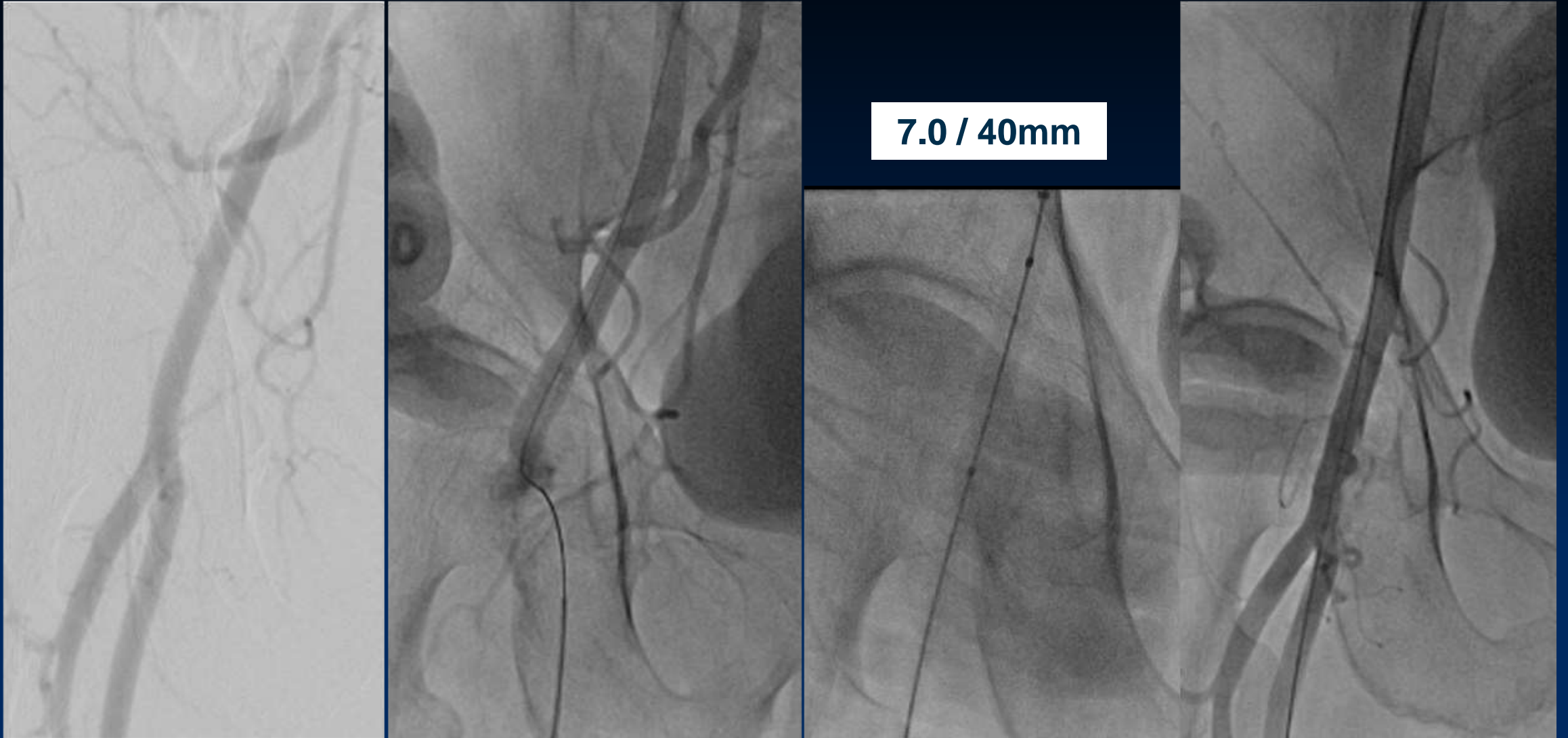
PTA device for access site complication



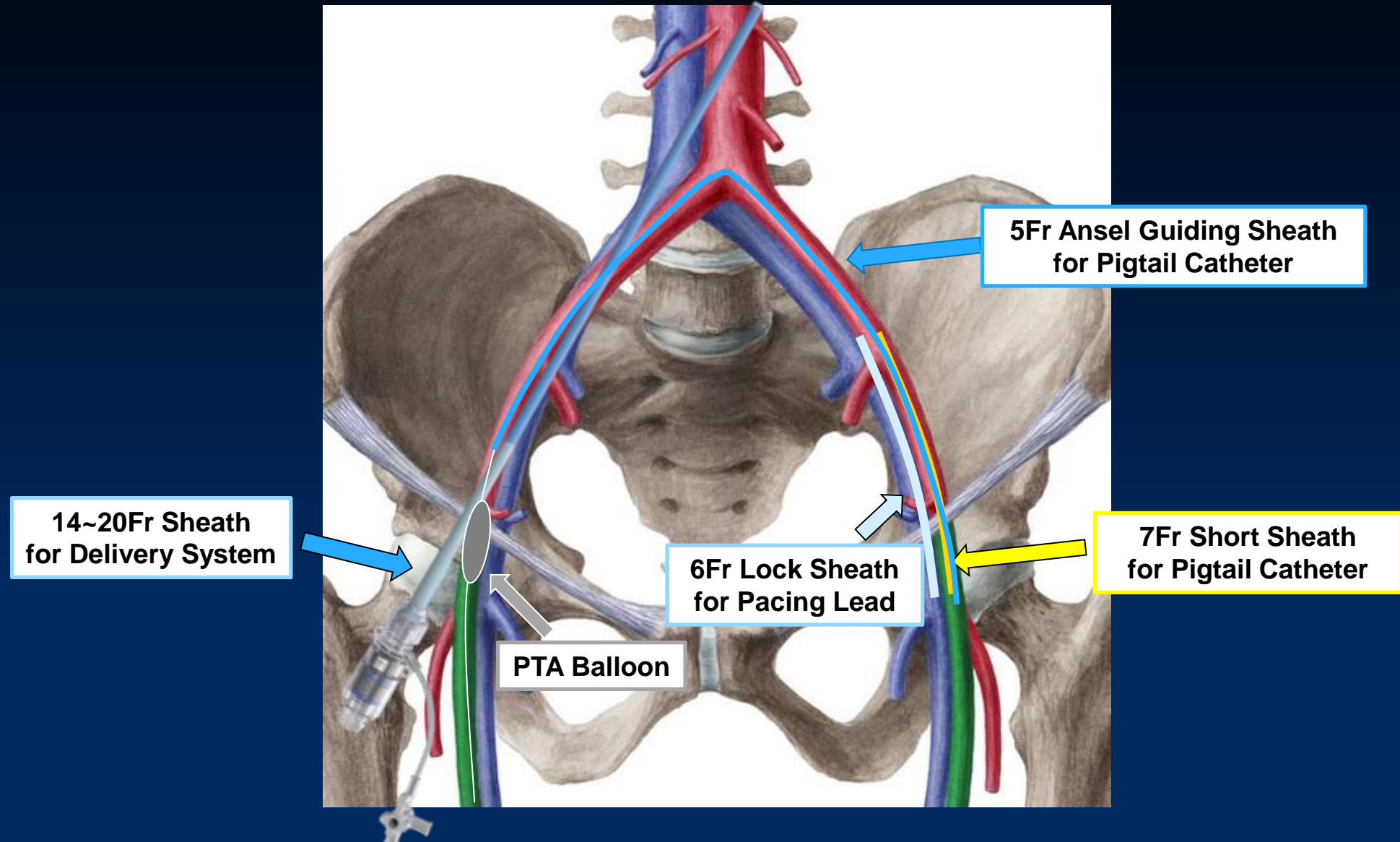
Vascular Complication : Access Site Dissection



Vascular Complication : Access Site Dissection

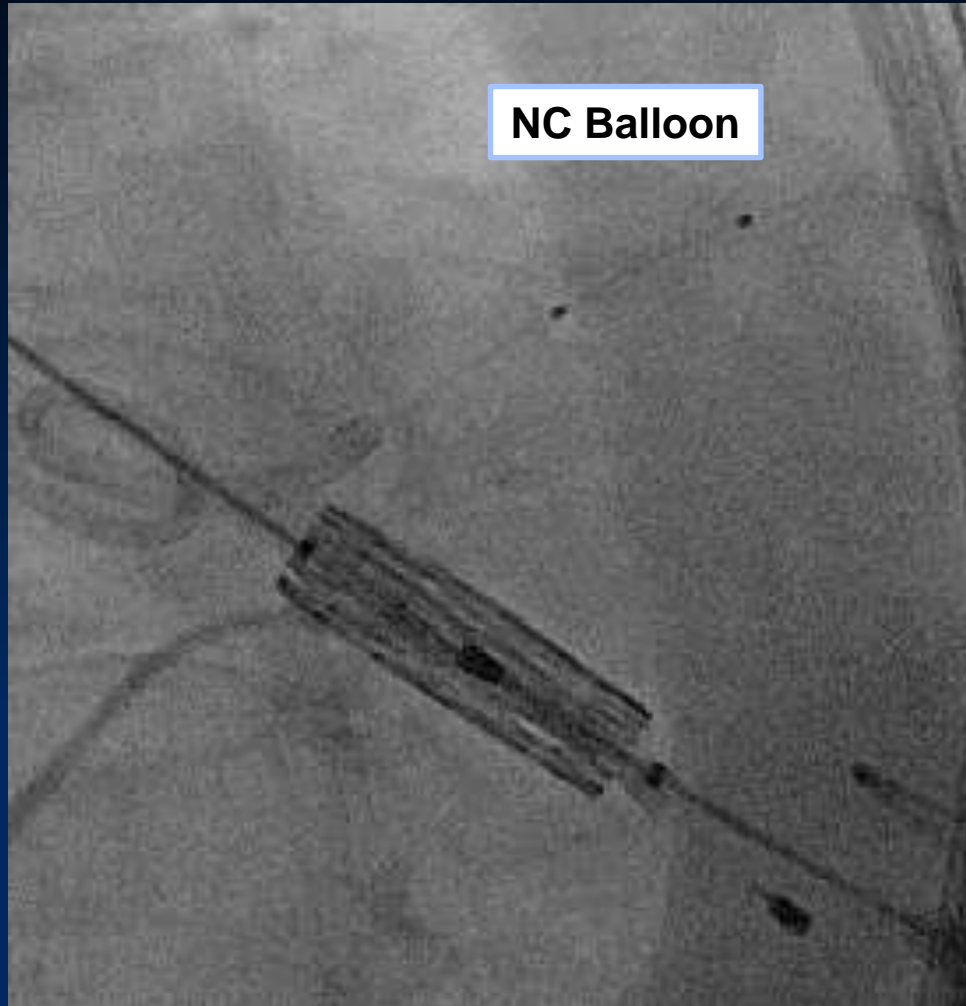


PTA for access site complication



Coronary Protection with NC Balloon

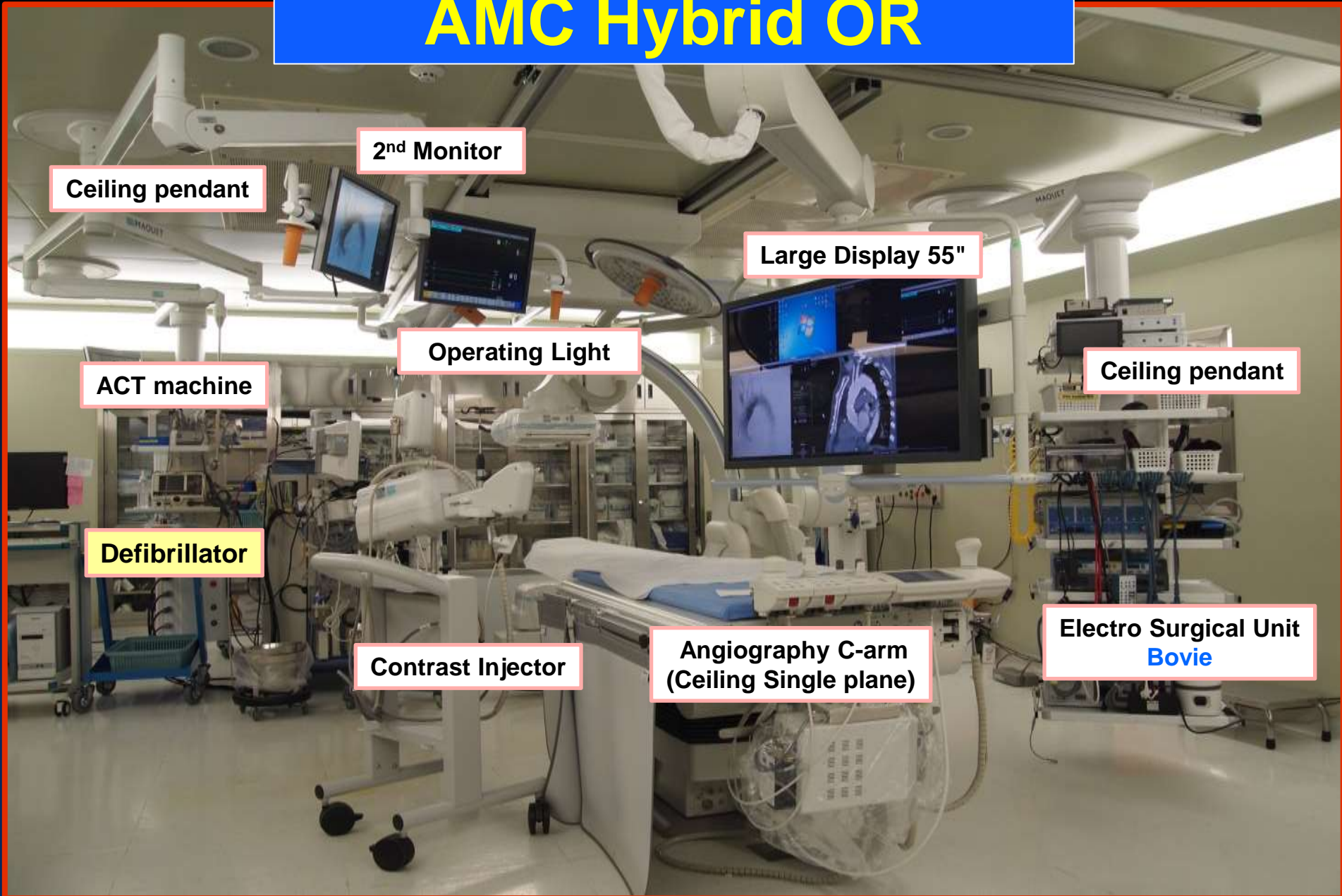
Provisional Strategy Chimney Stenting



Mobile Shelf for Emergent PCI, PTA



AMC Hybrid OR



Ceiling pendant

2nd Monitor

Large Display 55"

Operating Light

ACT machine

Ceiling pendant

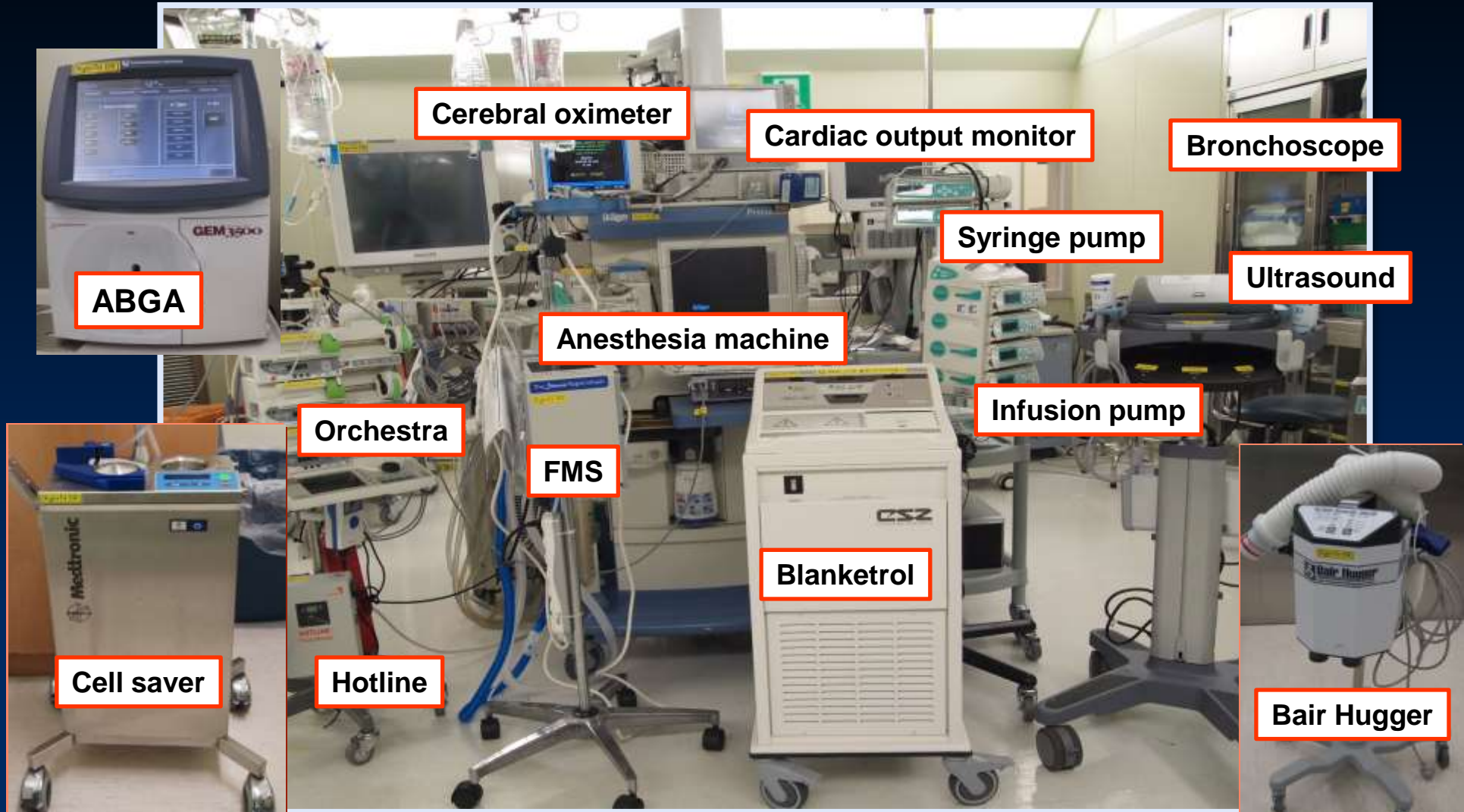
Defibrillator

Contrast Injector

Angiography C-arm
(Ceiling Single plane)

Electro Surgical Unit
Bovie

Anesthesia Equipment



Preparation for OP Conversion



Preparation for OP Conversion



Anesthesia screen holder

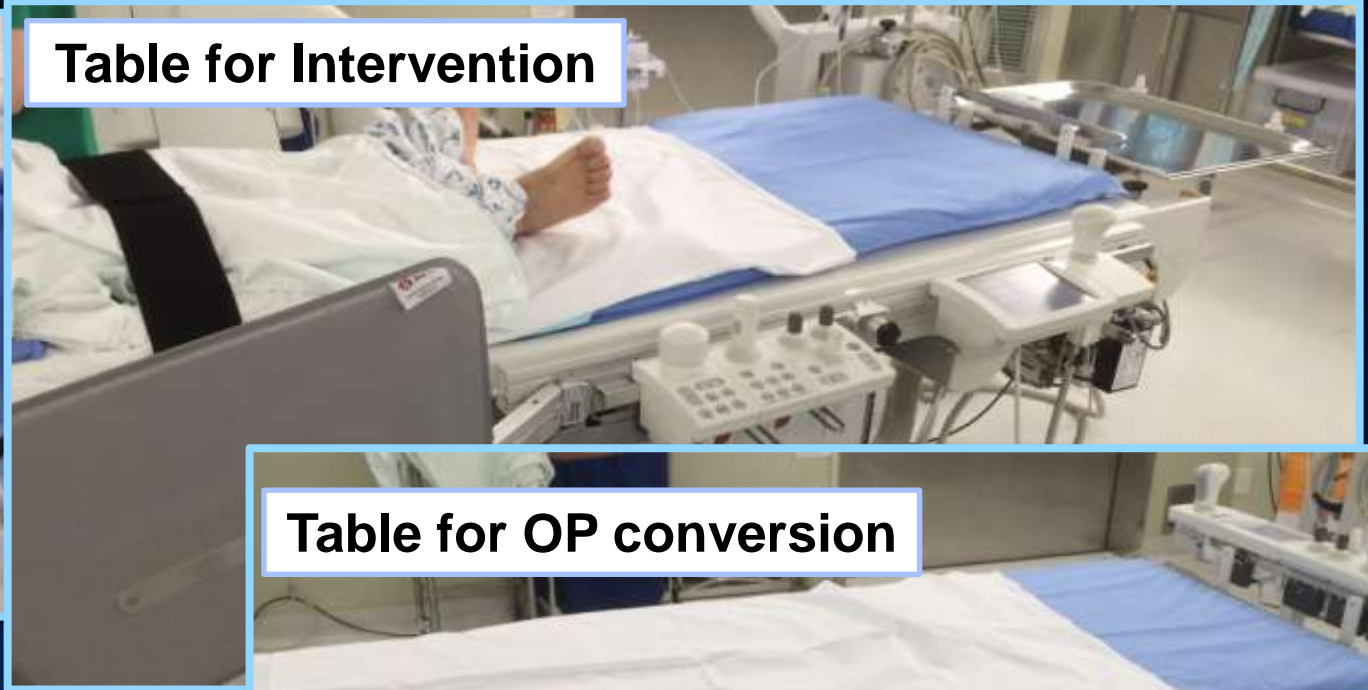
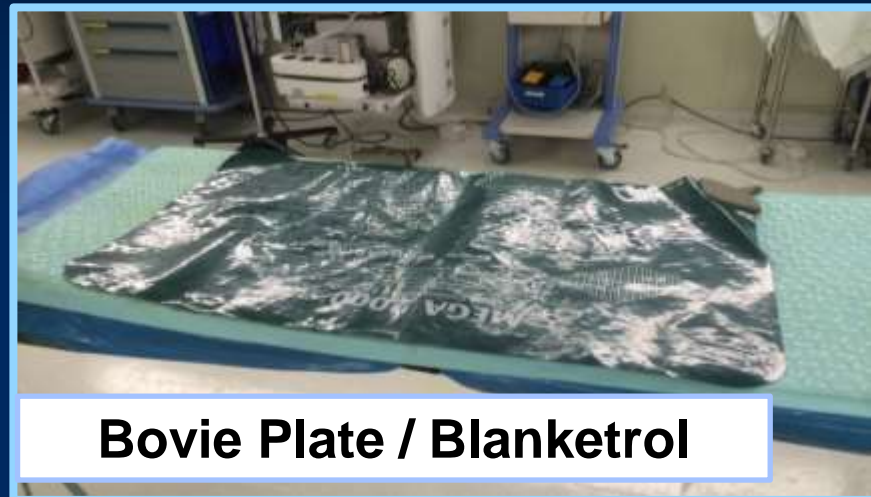


Table for Intervention



Bovie Plate / Blanketrol



Table for OP conversion

