

Dallas
**CARDIOVASCULAR
INNOVATIONS 2013**



Radial for All: *the debate continues*

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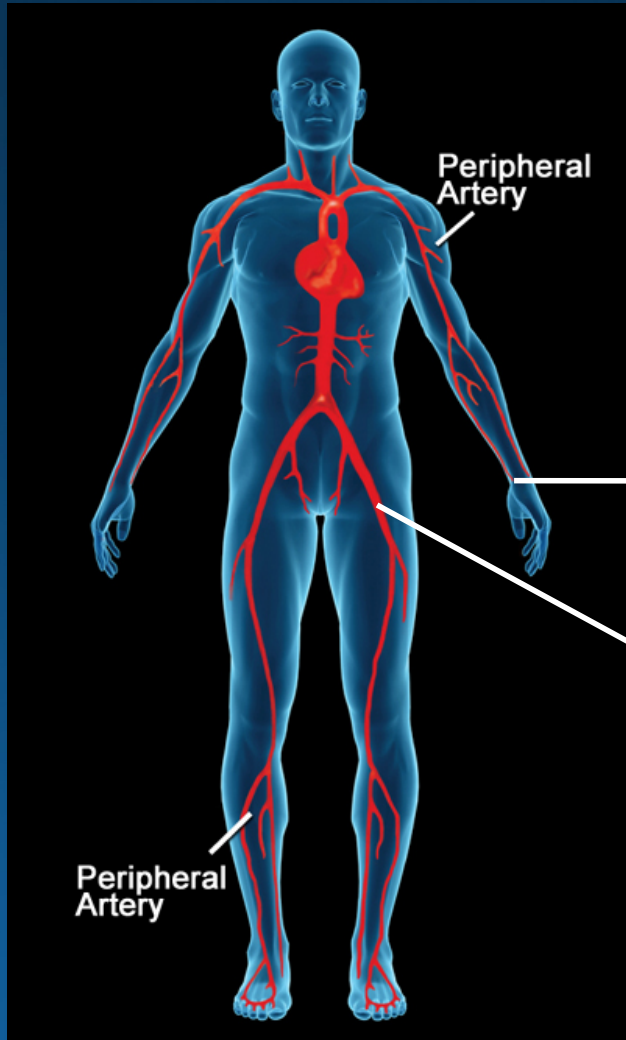
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Disclosures

- Consultant honoraria: Medtronic, Covidien
- Research grants: Gilead, Boston Scientific
- Ownership: Mdcare Global, HygeiTel

Radial Artery Catheterization



Arterial puncture

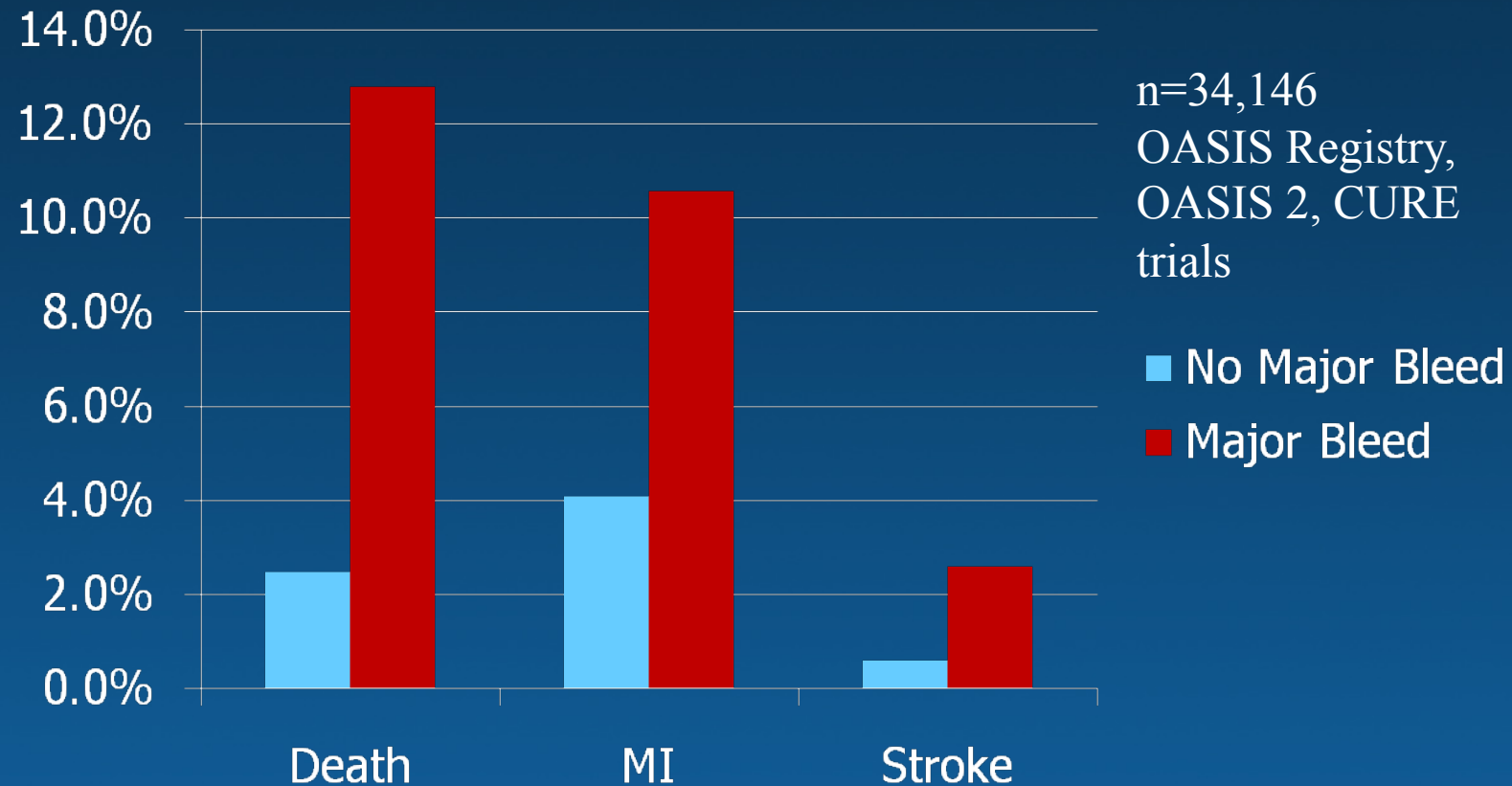


Sheath insertion



Patent hemostasis

Bleeding is associated with Death and Ischemic Events



Eikelboom JW et al. Circulation 2006;114(8):774-82

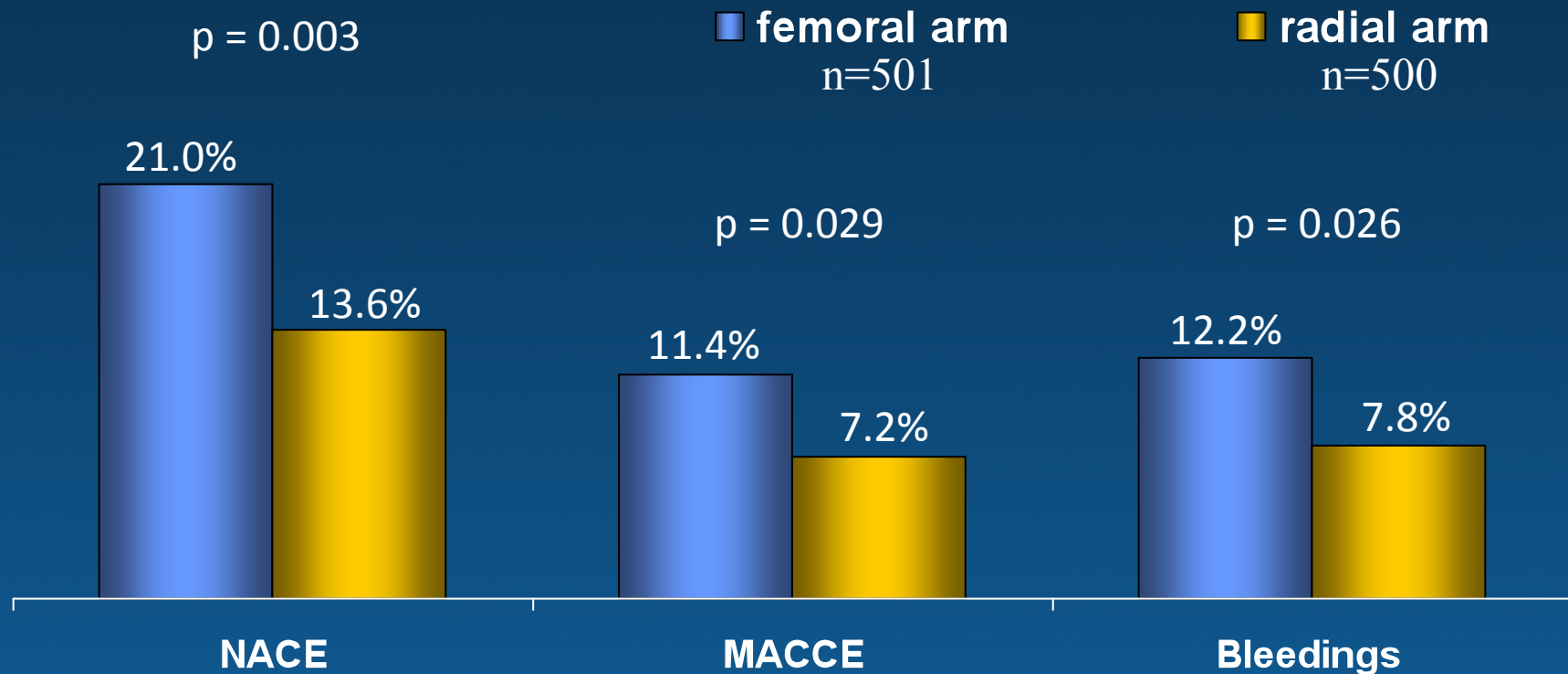
RIVAL: 30-day Vascular Complications & Hemorrhage

	Radial (n=3507) %	Femoral (n=3514) %	HR	95% CI	P
Vascular Complications					
Major Vascular Access Site Complications	1.4	3.7	0.37	0.37-0.52	<0.001
Major Bleeding					
TIMI Non-CABG	0.5	0.5	1.00	0.53-1.89	1.00
ACUITY Non- CABG	1.9	4.5	0.43	0.32-0.57	<0.001

Radial vs. Femoral

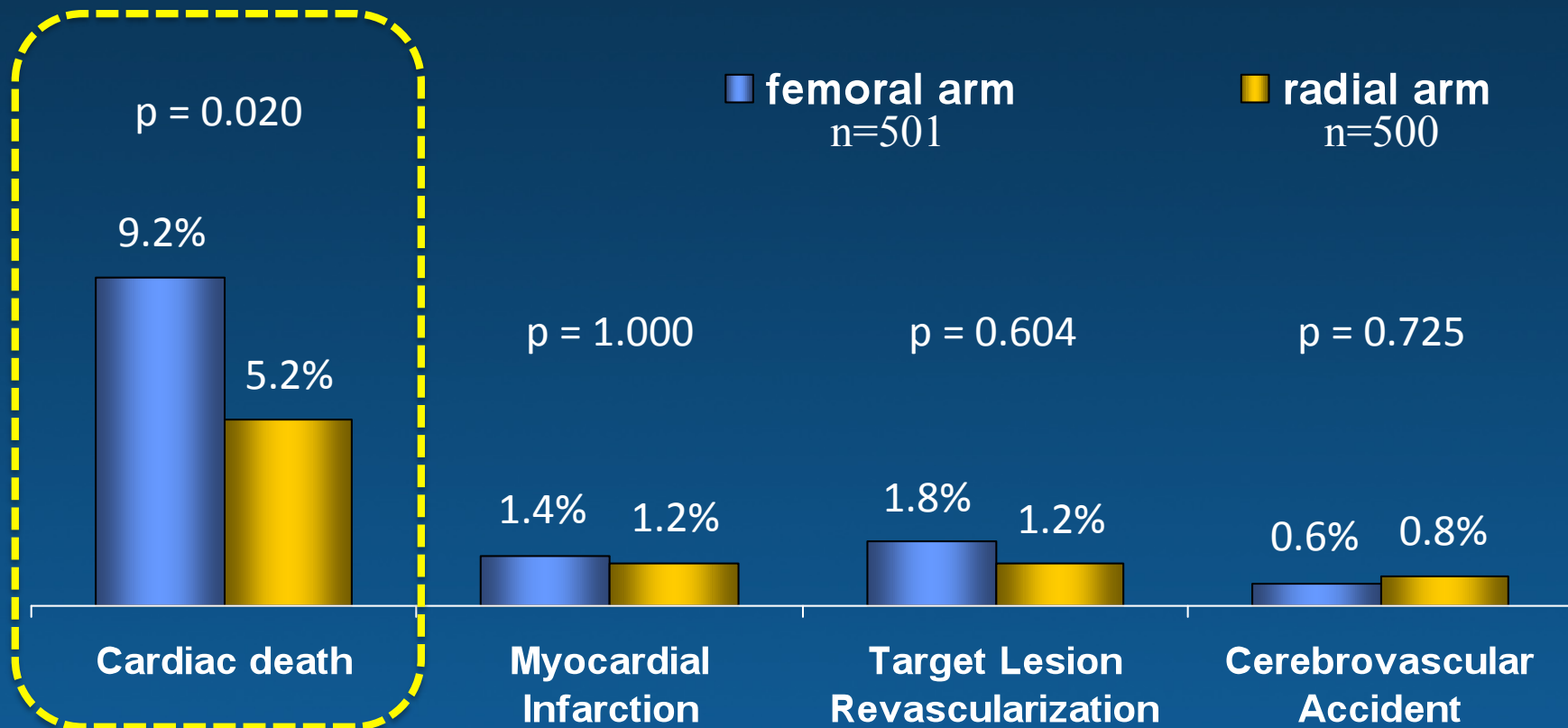
RIVAL trial. Jolly <i>et al.</i> Lancet. 2011;377:1409–1420	Radial	Femoral
Percentage of total stent procedures performed in US	<4	>95
Bed rest (h)	0	2-6
Procedural success (%)	95	95
Need to switch access site (%)	7.6	2.0★
Fluoroscopy time (min)	9.3	8.0★
Major vascular complications (%)	1.4	3.7★
Artery closure requiring surgery (%)	0	0
Patient preference/satisfaction (%)	90	50

RIFLE STEACS: 30-day CV Events, Vascular Complications & Hemorrhage



- Net Adverse Clinical Event (NACE) = MACCE + bleeding
- Major Adverse Cardiac and cerebrovascular event (MACCE) = composite of cardiac death, myocardial infarction, target lesion revascularization, stroke

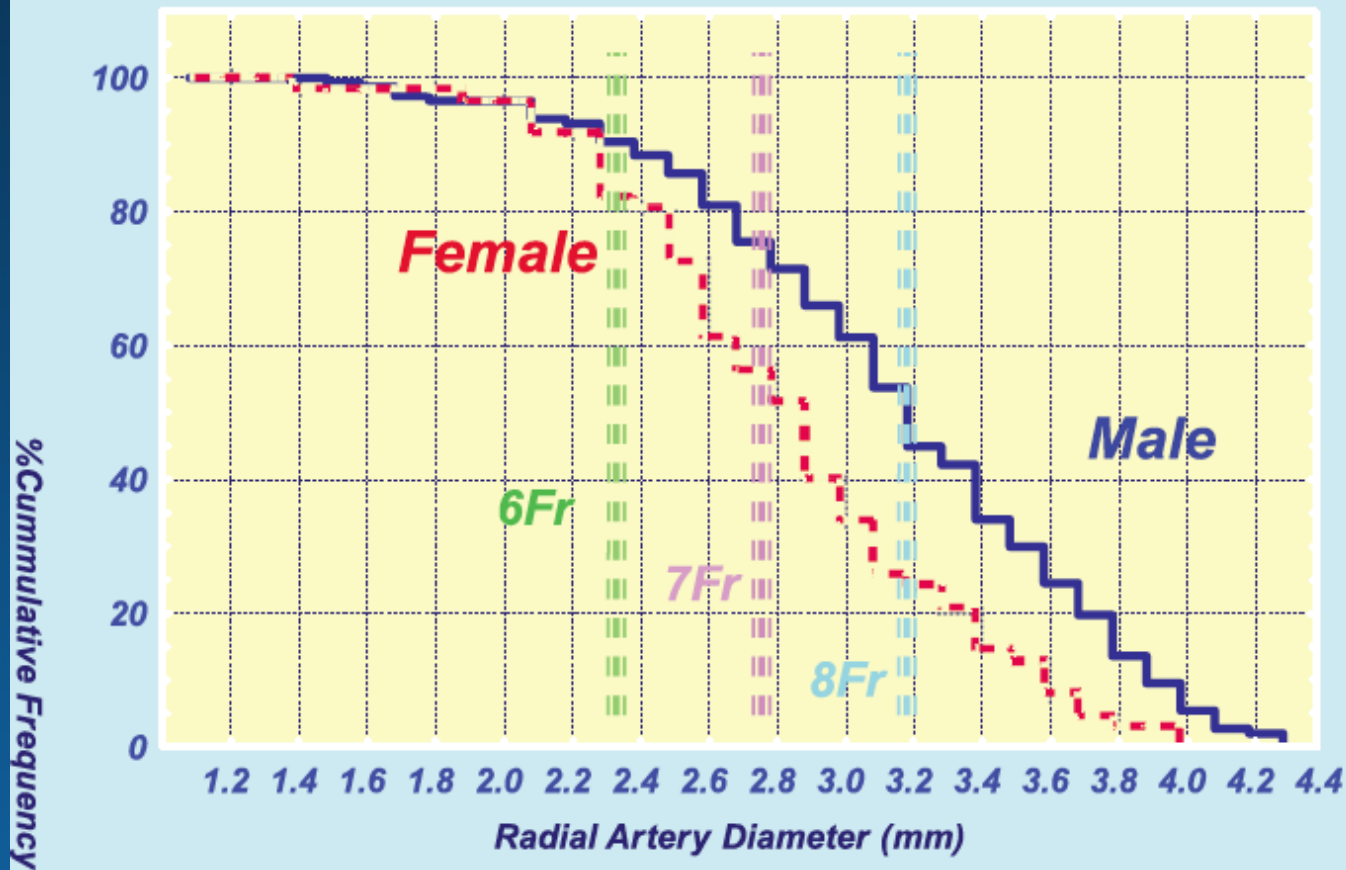
RIFLE STEACS: 30-day CV Events, Vascular Complications & Hemorrhage



**47% reduction in
access-site bleeding**

SAFE PCI: Radial Cath/PCI in Women

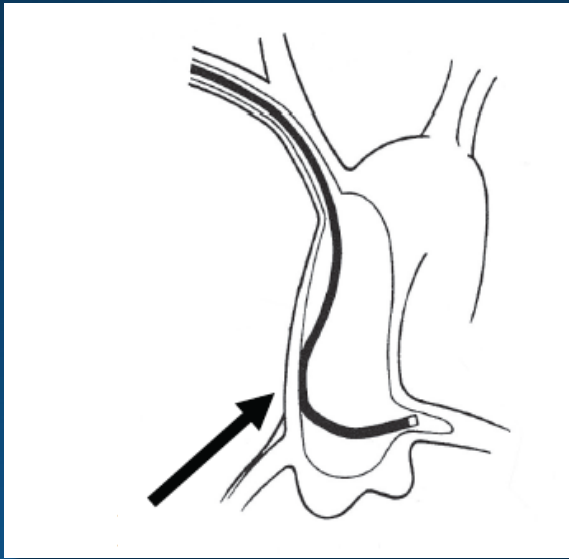
Cummulative Frequency of Radial Artery Inner Diameter



- Fealibility in women
- n=691, randomly assigned to radial or femoral cath./PCI
- Prematurely halted due to low event rates
- Bleeding (BARC 2, 3 or 5):
 - Radial=1.2%
 - Femoral=2.9%
- Greater crossover in radial arm (6.1% vs. 1.7%)

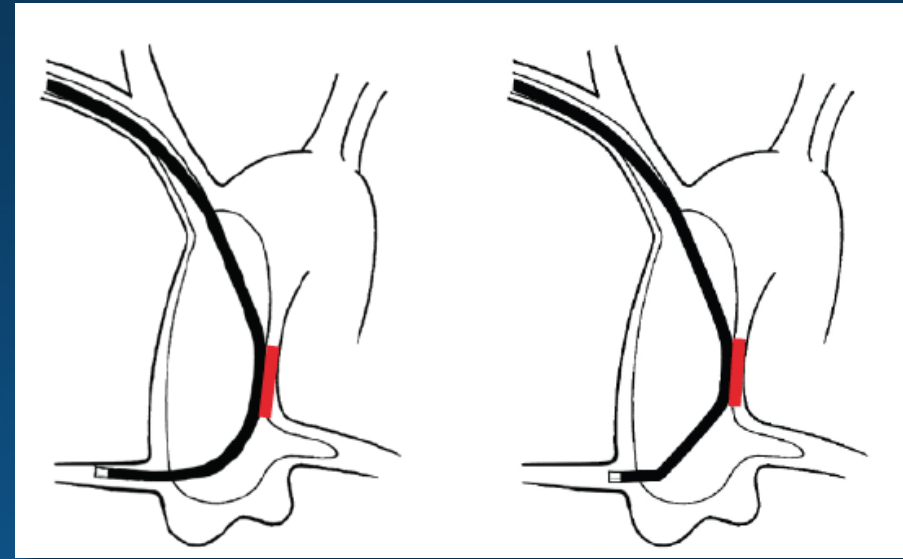
Technical Expertise & Radial Experience

Engaging left coronary ostium



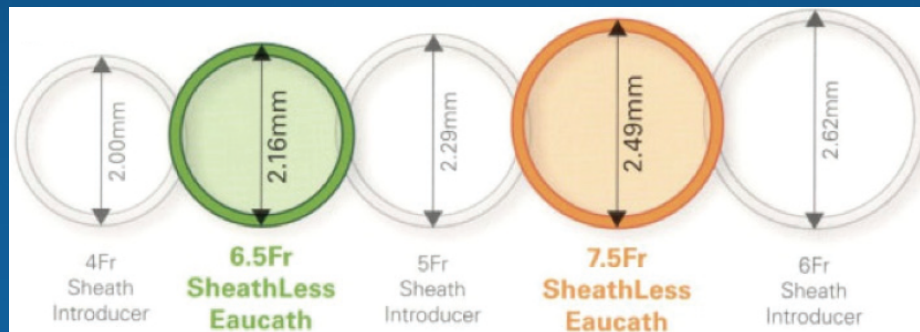
Ikari left

Engaging right coronary ostium



Ikari right

Ikari left



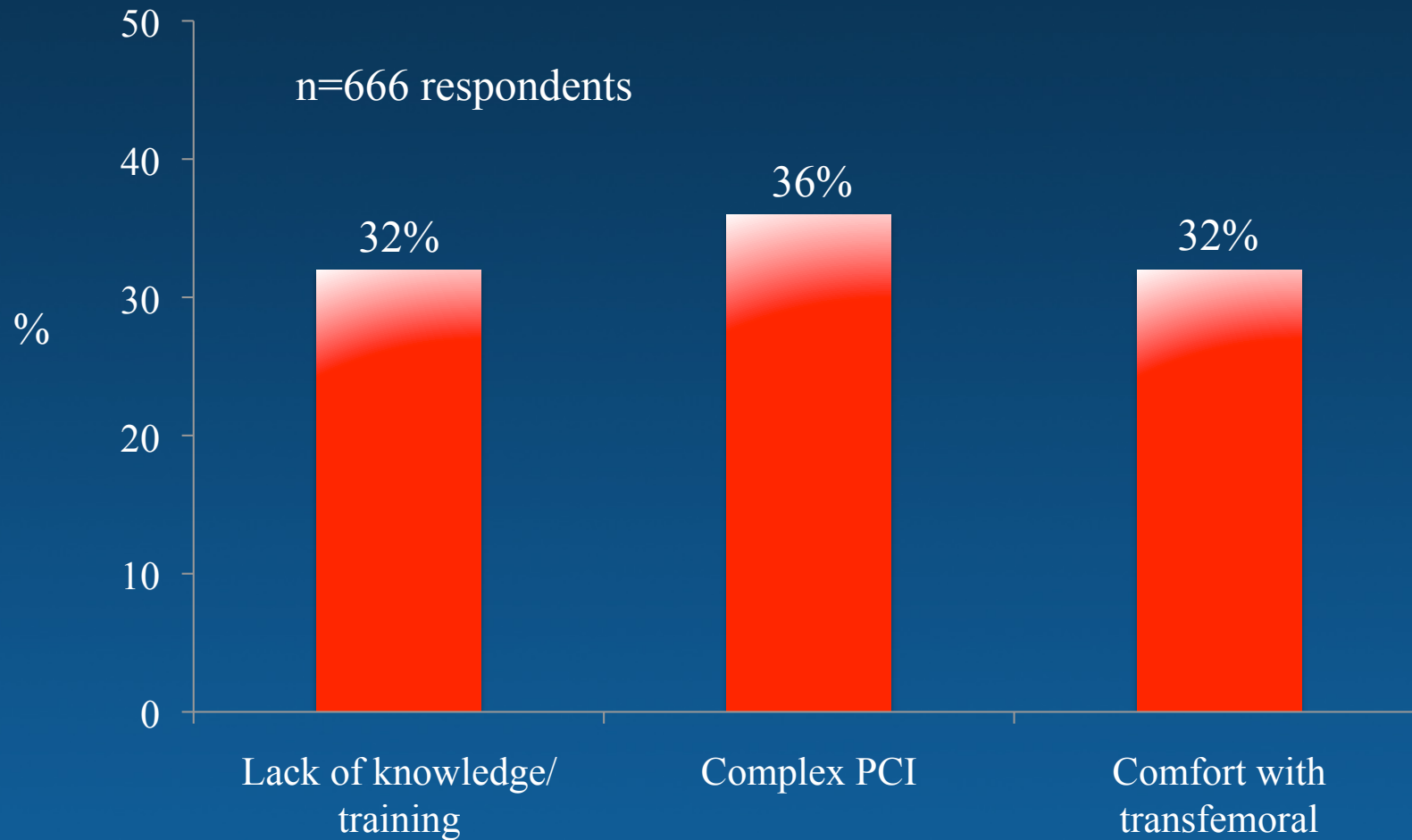
Advances in sheath & catheter technology (thin walls, larger internal diameters)

>30 PCI/y, >40% radial, success>95%

Common Sense Measures

- Use >4000 units of UFH to avoid radial artery occlusion
- Patent hemostasis
- Use left radial for tortuous arch vessels (lower radiation exposure)
- Avoid fluoroscopic tracking
- Specialized catheters/guides
- Better femoral technique/outcomes
- Persistence & willingness to go an extra mile for greater patient safety/satisfaction

Reasons for Not Using Radial Approach



Conclusions

- My partner neither lacks knowledge, skill, conviction or awareness of current evidence
- During this debate, while attempting to articulate a point of view at the fringes of current practice standards, I am confident that my esteemed colleague will finally convince himself of the futility of this debate, will switch to a all-radial approach & propose to scrap this debate from the next Dallas CVI agenda