

THE CHALLENGE BEYOND THE 5-6%

CTO-PCI: HIGH SUCCESS IN EXPERT HANDS, BUT AT THE COST OF MAJOR TRADE-OFFS

CTO AS A PROPORTION
OF PCI PROCEDURES¹⁻³



Only a small fraction of PCI procedures are performed for CTO.

HIGH TECHNICAL SUCCESS, EVEN IN THE MOST COMPLEX LESIONS



Overall success rate in experienced centers

75-80%



Up to **~90%** success in highly specialized hypercenters

Technical success is achievable, but **only with significant trade-offs** in terms of time, radiation, resources, cost and complications.

CTO-PCI: EXTREMELY COMPLEX, RESOURCE-INTENSIVE AND RISKIER



EXTREMELY LONG PROCEDURES

Typical procedure time (median)¹

~120-130 min

Complex cases frequently 3+ hours (IQR up to ~190 min)^{1,2}



HIGH RADIATION EXPOSURE

Radiation dose (air kerma) (median)¹

~3.0 Gy

Complex cases can exceed 5 Gy (IQR up to ~5 Gy)¹



HEAVY USE OF DEVICES AND RESOURCES

Mean use per procedure (OPEN-CTO)⁴

• Guidewires	10.1
• Balloons	5.1
• Guiding catheters	3.4
• Stents	2.6



HIGH PROCEDURAL AND HOSPITAL COST

Procedural cost (OPEN-CTO)⁴

\$12,280
(mean)

Index hospitalization cost⁴

\$17,048
(mean)



HIGHER RISK OF COMPLICATIONS

Major complications^{1,4}

~2-4%
overall

~8-12%

in high-risk / complex cases or failed procedures^{1,2,5}

Perforation rate^{1,2,5}: **~4.8-6.2%**



CTO-PCI remains one of the most demanding interventions in interventional cardiology.

Longer, more complex, more resource-intensive and costlier — with higher risks, leaving a large number of patients untreated.

REFERENCES

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Note: Data derived from large contemporary registries and meta-analyses. Outcomes vary by patient risk profile and operator/center experience.