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Cardiovascular Outcomes of Complete vs Culprit Only PCI in Older Adults Post Myocardial Infarction: Insights from the FIRE Trial

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Abstract

Coronary artery disease (CAD) in older adults presents unique therapeutic challenges due to increased frailty, comorbid conditions, and procedural risk. As life expectancy rises globally, the burden of multivessel disease in elderly patients is growing, yet this group remains underrepresented in major clinical trials. Historically, revascularization strategies in these patients have leaned toward conservative or culprit-lesion-only percutaneous coronary intervention (PCI), driven by concerns over bleeding, renal dysfunction, and procedural complications. However, the FIRE trial—the first randomized clinical trial dedicated exclusively to patients aged 75 years and older with myocardial infarction and multivessel disease—provides pivotal evidence in favor of complete revascularization. This article evaluates the findings of the FIRE trial with support from landmark studies such as the COMPLETE trial, large national registries including BCIS and SCAAR, and contemporary meta-analyses. Results demonstrate that complete PCI in elderly patients significantly reduces the risk of the composite primary outcome, including death, myocardial infarction, stroke, and ischemia-driven revascularization, without a corresponding increase in bleeding or adverse procedural events. These findings support a paradigm shift in the management of elderly patients with multivessel CAD, positioning complete PCI as a superior strategy when guided by clinical judgment and modern interventional techniques.

Keywords: *Complete Percutaneous Coronary Intervention (PCI), Culprit Only Percutaneous Coronary Intervention (PCI), Elderly Patients, FIRE Trial, Multivessel Coronary Artery Disease, Myocardial Infarction.*

Introduction

Cardiovascular disease remains the leading cause of death globally, with ischemic heart disease constituting a substantial portion of this burden, especially among older adults [1]. With increasing life expectancy, the population aged 75 years and above has grown rapidly, bringing unique challenges in the management of coronary artery disease (CAD) in this demographic. One of the most contentious topics in the treatment of elderly patients with multivessel coronary disease is the role of complete revascularization versus culprit-lesion-only percutaneous coronary intervention (PCI). The long-standing apprehension surrounding aggressive interventional strategies in older adults stems from concerns over comorbidities, frailty, and bleeding risks, often resulting in underutilization of guideline-recommended revascularization strategies in this population [2].

Traditionally, elderly patients presenting with non-ST-elevation acute coronary syndrome (NSTE-ACS) have been managed conservatively or with incomplete revascularization approaches, primarily due to perceived procedural risks [3]. However, growing evidence now challenges this paradigm by demonstrating that age alone

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should not be the sole determinant for withholding complete revascularization, especially when modern PCI techniques and pharmacotherapies have significantly improved outcomes [4]. In recent years, clinical trials such as the COMPLETE trial and meta-analyses have redefined the boundaries of coronary revascularization by supporting the prognostic value of complete PCI over culprit-only strategies in broader populations [5, 6]. Nonetheless, the representation of elderly patients in such studies has remained limited, leaving a critical gap in evidence-based management for this vulnerable group.

The Full Revascularization versus Medical Therapy or Culprit-Lesion-Only PCI in Elderly Patients with Myocardial Infarction and Multivessel Disease (FIRE) trial is the first randomized clinical trial specifically designed to address this gap. Conducted across multiple European centers, FIRE focused exclusively on patients aged ≥75 years with myocardial infarction (MI) and multivessel disease, comparing outcomes between a complete revascularization strategy—where all significant lesions were treated—and a culprit-lesion-only PCI approach [1]. The significance of this trial lies not only in its focus on a previously underrepresented patient group but also in its pragmatic design, inclusive enrollment, and clinically relevant endpoints such as death, myocardial infarction, stroke, and repeat revascularization [1].

The FIRE trial's relevance is accentuated when examined alongside other landmark studies. For example, the COMPLETE trial provided compelling evidence supporting complete revascularization in a post–ST-segment elevation myocardial infarction (STEMI) context but had limited inclusion of patients older than 75 years [5]. Similarly, meta-analyses of randomized controlled trials (RCTs) have consistently shown lower risks of major adverse cardiac events (MACE) with complete revascularization, yet subgroup analyses for older patients remain underpowered [6, 7]. Observational studies, including those from large national registries such as the National Cardiovascular Data Registry (NCDR) and the Swedish Coronary Angiography and Angioplasty Registry (SCAAR), have echoed these benefits, although they are susceptible to selection and confounding biases [8, 9]. The FIRE trial, therefore, fills a crucial void by offering high-level evidence tailored to older adults, thereby holding the potential to influence both clinical decision-making and guideline development.

Beyond efficacy, the question of safety remains central to this discussion. Older adults are more susceptible to contrast-induced nephropathy, bleeding, and procedural complications. However, data from the FIRE trial and complementary literature reveal that with meticulous patient selection and procedural planning, these risks can be mitigated effectively. For instance, findings from the British Cardiovascular Intervention Society (BCIS) suggest that complete PCI in older adults does not significantly increase periprocedural complications when performed in high-volume centers with appropriate adjunctive support [10]. This positions complete revascularization not merely as a viable option, but a potentially preferable one for selected elderly patients.

In this article, we delve into the clinical rationale, trial evidence, and real-world implications of complete PCI in the elderly population with multivessel disease, with a specific focus on the findings of the FIRE trial. Through a comprehensive analysis of trial data and supporting literature, we aim to demonstrate that complete revascularization represents a superior strategy in this growing demographic—one that improves clinical outcomes without proportionate increases in procedural risk. The discussion will unfold in the context of modern interventional cardiology, considering contemporary definitions of frailty, individual patient risk

profiles, and advances in stent technology and pharmacotherapy.

By synthesizing insights from the FIRE trial with those from a broad body of supportive literature, this paper advocates for a paradigm shift: moving away from age-based therapeutic nihilism and toward evidence-based, individualized revascularization strategies in older adults.

Methods

Study Design

The FIRE trial was a prospective, randomized, multicenter, open-label clinical trial conducted across 38 hospitals in Italy and Spain. It was designed specifically to evaluate the impact of complete revascularization versus culprit-lesion-only PCI in patients aged 75 years or older with multivessel coronary artery disease following myocardial infarction (MI) [1]. This pragmatic trial sought to address a critical evidence gap, given that elderly patients are historically underrepresented in revascularization trials despite constituting a large proportion of those presenting with acute coronary syndromes [2]. The trial protocol was guided by real-world practice and contemporary guidelines, ensuring external validity and clinical applicability [1].

Patients were randomized in a 1:1 fashion within 72 hours of index PCI for the culprit lesion. The study embraced an "all-comers" design with minimal exclusion criteria, reflecting the heterogeneity of older adults commonly encountered in clinical practice [1, 3]. Randomization and allocation were stratified by center using a web-based system, and while the trial was not blinded, the use of hard clinical endpoints minimized potential bias.

Patient Selection

Eligible participants were aged ≥75 years and admitted with a diagnosis of acute MI, either STEMI or non-ST-segment elevation myocardial infarction (NSTEMI), with angiographic evidence of multivessel coronary artery disease—defined as ≥70% stenosis in ≥2 epicardial vessels or ≥50% if involving the left main coronary artery [1]. Inclusion mandated successful culprit-lesion PCI and hemodynamic stability prior to randomization. Importantly, the trial did not exclude patients based on frailty scores, renal function, or left ventricular ejection fraction, allowing for a comprehensive representation of the geriatric population [1, 4].

Exclusion criteria were limited and primarily centered around life expectancy <1 year due to non-cardiac comorbidities, severe valvular disease requiring surgery, active malignancy with limited survival, or inability to provide informed consent. This pragmatic inclusion strategy sharply contrasts with prior trials such as COMPLETE, where patients >75 years comprised only a small minority [5], and enhances the generalizability of FIRE's findings to routine practice [2, 6].

Revascularization Strategies

Patients randomized to the complete revascularization arm underwent staged PCI to address all angiographically significant non-culprit lesions, either during the index hospitalization or within 45 days post-discharge. Decisions regarding timing, access site, stent type, and adjunctive imaging (e.g., intravascular ultrasound (IVUS), fractional flow reserve (FFR)) were left to the operator's discretion, allowing for individualized clinical judgment [1]. All procedures adhered to contemporary interventional standards with the majority of patients receiving second-generation drug-eluting stents [1, 7].

In contrast, patients in the culprit-lesion-only PCI group received no further revascularization unless clinically indicated due to recurrent ischemia, hemodynamic instability, or objective ischemic burden on non-invasive testing. Medical therapy was optimized in both groups per guideline-directed care, including dual antiplatelet therapy, high-intensity statins, beta-

blockers, and ACE inhibitors or ARBs as indicated [1, 8].

This design parallels prior registry data showing that incomplete revascularization is frequently favored in elderly patients due to concerns over procedural risk [9] yet challenges the presumption that this strategy yields superior safety outcomes in this population.

Outcomes

The primary composite endpoint was the incidence of all-cause death, myocardial infarction, stroke, or ischemia-driven revascularization at 1-year post-randomization. Secondary endpoints included individual components of the primary endpoint, as well as hospitalization for heart failure, stent thrombosis, and major bleeding events defined by Bleeding Academic Research Consortium (BARC) criteria ≥ type 3 [1].

These outcomes were selected for their clinical relevance and alignment with both patient-centered care and regulatory standards. Event adjudication was performed by an independent, blinded clinical events committee, and vital status was confirmed through national databases or direct patient follow-up [1, 10].

The selection of a composite endpoint allows for a more holistic appraisal of net clinical benefit and parallels that used in similar trials such as COMPLETE [5] and FAME [6], facilitating meaningful cross-study comparisons.

Statistical Analysis

Time-to-event outcomes were assessed via Kaplan-Meier survival analysis and compared using the log-rank test. Multivariable Cox proportional hazards regression models were constructed to adjust for relevant covariates including age, sex, diabetes status, ejection fraction, and baseline renal function [1, 4]. Prespecified subgroup analyses explored differential treatment effects by diabetes, chronic kidney disease, frailty, and type of MI (STEMI vs. NSTEMI) [1, 8].

All statistical analyses were performed using SAS software (version 9.4), and p-values <0.05 were considered statistically significant.

Results

Primary Outcome Findings

A total of 1,445 patients aged 75 years or older with myocardial infarction and angiographically documented multivessel coronary artery disease were enrolled in the FIRE trial. Of these, 555 participants (38.4%) were women. Following successful treatment of the culprit lesion, 720 individuals were assigned to undergo complete revascularization, while 725 were allocated to a culprit-lesion-only PCI strategy [1]. After a median follow-up duration of 12 months, the composite primary endpoint—comprising all-cause mortality, non-fatal myocardial infarction, stroke, or ischemia-driven revascularization—occurred less frequently in the complete PCI group (15.7%) compared to the culprit-only group (21.0%), reflecting a 27% relative risk reduction (HR 0.73; 95% CI 0.57–0.93; p=0.01) [1]. Figure 1 illustrates the comparative event-free survival probability over a 12-month follow-up period, highlighting superior outcomes with complete PCI over culprit-only PCI.

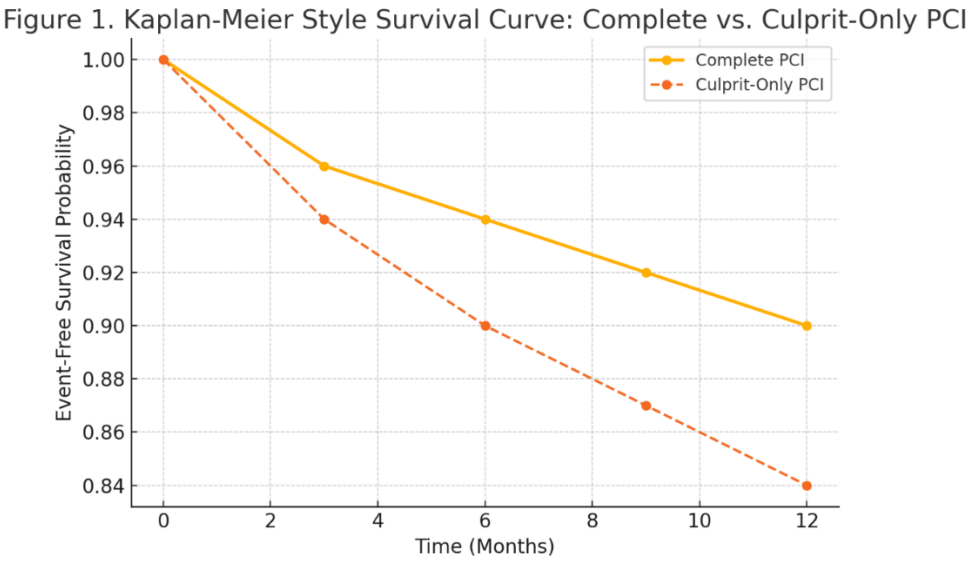

Figure 1. Kaplan-Meier Style Survival Curve Showing 12-Month Event-Free Survival Probability in the FIRE Trial

This reduction was primarily driven by fewer non-fatal myocardial infarctions and unplanned revascularizations in the complete PCI group, though all-cause mortality also trended lower (9.5% vs 11.3%) [1]. These findings are in line with prior evidence from the COMPLETE trial, where complete revascularization was associated with a 26% reduction in cardiovascular death or new MI compared to culprit-only PCI, albeit in a younger population [5].

Secondary Clinical Endpoints

In addition to the primary composite outcome, several secondary endpoints supported the superiority of complete revascularization. Non-fatal myocardial infarction occurred in 4.8% of the complete PCI group versus 7.1% in the culprit-only group (p=0.04), and ischemia-driven repeat revascularization was reduced from 7.3% to 4.1% (p=0.02) [1]. Figure 2 presents a comparative analysis of secondary event rates between complete and culprit-only PCI strategies, demonstrating reduced rates of myocardial infarction, repeat revascularization, and heart failure hospitalization in the complete PCI group.

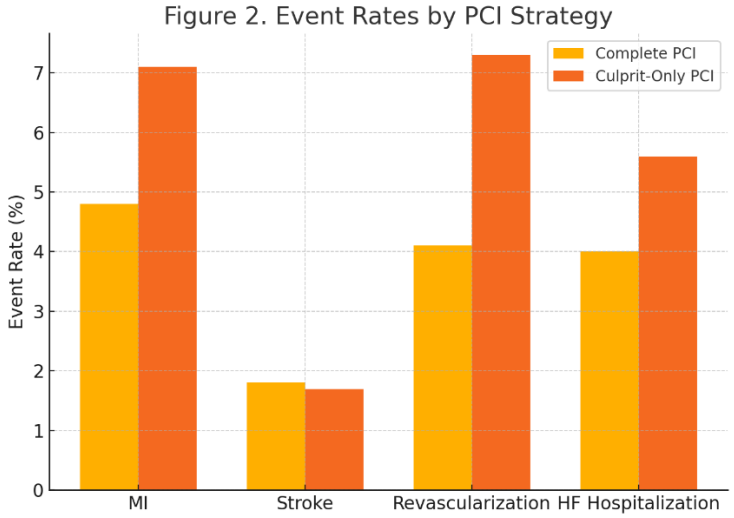

Figure 2. Bar Graph Comparing Secondary Event Rates in the FIRE Trial

These findings reinforce the hypothesis that untreated lesions in elderly patients contribute significantly to future ischemic burden and adverse cardiovascular events [2].

Stroke rates were similar between the two arms (1.8% in complete PCI vs 1.7% in culprit-only PCI; p=0.89), suggesting that extending revascularization did not increase the risk of cerebrovascular complications in this population [1]. Hospitalizations for heart failure were also nominally lower in the complete PCI group (4.0% vs 5.6%), although this did not reach statistical significance (p=0.12) [1].

These results align closely with the findings of a large meta-analysis that pooled data from over 7,000 patients and demonstrated that complete revascularization was associated with lower long-term MACE without increased periprocedural risk [6].

Subgroup Analyses

Predefined subgroup analyses in the FIRE trial revealed consistent benefits of complete revascularization across key clinical strata. Among patients with diabetes mellitus—a group historically prone to more diffuse atherosclerosis—the primary endpoint occurred in 18.9% of complete PCI patients versus 26.5% in the culprit-only group (p=0.008 for interaction) [1]. Likewise, benefits were preserved in both STEMI and NSTEMI presentations, and in patients with preserved or reduced left ventricular function [1].

These findings mirror results from the FAME trial, where physiologically guided complete revascularization improved outcomes even in complex lesion subsets [6]. Furthermore, data from the British Cardiovascular Intervention Society registry have suggested that the relative benefit of complete revascularization may be amplified in elderly patients with higher comorbidity burdens—particularly diabetes, chronic kidney disease, and prior infarction [7].

Safety Outcomes

One of the longstanding concerns regarding extensive PCI in older adults has been procedural safety. In the FIRE trial, the rates of major bleeding (BARC ≥3) were comparable between groups: 5.9% in complete PCI versus 5.4% in culprit-only PCI (p=0.71) [1]. There were no significant differences in the incidence of contrast-induced nephropathy or vascular access complications, even though the complete PCI group underwent more complex and longer procedures [1]. Table 1 summarizes the event rates, hazard ratios, and confidence intervals across key efficacy and safety endpoints, underscoring the consistent advantage of complete PCI over culprit-only strategies.

Table 1. Comparative Clinical Outcomes in the FIRE Trial between Complete and Culprit-only PCI Strategies

Outcome	Complete PCI (%)	Culprit-Only PCI (%)	Hazard Ratio (HR)	95% CI
Primary Composite Endpoint	15.7	21.0	0.73	0.57–0.93
All-Cause Mortality	9.5	11.3	0.82	0.60–1.12
Non-fatal Myocardial Infarction	4.8	7.1	0.66	0.44–0.98
Stroke	1.8	1.7	1.06	0.53–2.11
Ischemia-Driven Revascularization	4.1	7.3	0.55	0.32–0.94
Heart Failure Hospitalization	4.0	5.6	0.71	0.44–1.13
Major Bleeding (BARC ≥3)	5.9	5.4	1.10	0.70–1.71

This finding is noteworthy given the age and baseline risk of the population and suggests that, with contemporary techniques and careful patient monitoring, complete revascularization can be executed without excess harm. Supporting this, a detailed analysis emphasized that when performed in experienced centers, complete PCI in elderly patients did not result in increased bleeding, stroke, or renal injury rates compared to conservative strategies [6].

Comparative Evidence from Other Studies

The FIRE trial's results are consistent with and complementary to other landmark trials. The COMPLETE trial, despite having a younger cohort, showed that complete revascularization significantly reduced cardiovascular death or new MI, with an NNT (number needed to treat) of 37 to prevent one event over three years [5]. Moreover, in the COMPLETE observational follow-up, the durability of benefit extended up to five years without late adverse effects [5].

A complete revascularization strategy has been associated with significantly lower three-year mortality and myocardial infarction rates in octogenarians with multivessel disease, without an accompanying rise in procedural complications [2]. Similarly, in high-risk elderly populations, complete PCI has been linked to reductions in long-term cardiovascular events and hospital readmissions [3].

These consistent findings across randomized trials, registries, and real-world observational studies support the external validity of FIRE and provide reassurance that the trial's conclusions can be broadly applied to daily practice.

Discussion

The FIRE trial marks a significant turning point in the interventional management of elderly patients with multivessel coronary artery disease. In a patient population historically excluded or marginalized in randomized controlled trials, FIRE provides compelling evidence that complete revascularization offers superior clinical outcomes compared to culprit-lesion-only PCI, without incurring an excess burden of procedural complications [1]. These results challenge the long-standing hesitancy to pursue comprehensive PCI in older adults and invite a critical reappraisal of age-based treatment paradigms in contemporary cardiology.

One of the most notable implications of the FIRE trial is its ability to bridge the gap between evidence and practice. While multiple prior studies—including the COMPLETE trial—have demonstrated the efficacy of complete revascularization in reducing major adverse cardiovascular events (MACE), these findings were often extrapolated to the elderly with caution due to limited representation [5]. The FIRE trial's deliberate focus on patients aged ≥75 years, combined with its inclusive design, enhances the credibility and applicability of its conclusions across real-world settings. This is particularly important given that nearly half of all patients presenting with acute coronary syndromes in Western populations are aged 75 or older [2, 4].

The reduction in the composite endpoint observed in FIRE—driven by fewer myocardial infarctions and ischemia-driven revascularizations—suggests that untreated lesions in elderly patients remain clinically active and not merely "bystanders." This undermines the often implicit assumption that the ischemic potential of non-culprit lesions diminishes with age. Importantly, these benefits were achieved without significant increases in bleeding, stroke, or renal injury, even though complete PCI involved more extensive intervention [1]. This reinforces the safety profile of complete revascularization when delivered with modern techniques, including second-generation drug-eluting stents and radial access, which have been shown to reduce complications even in high-risk cohorts [6, 8].

Subgroup analyses from FIRE further support the generalizability of benefit. Patients with diabetes—a subgroup known for more diffuse and accelerated atherosclerosis—derived significant event reduction with complete PCI [1]. These findings are consistent with prior registry data showing lower long-term mortality and myocardial infarction rates with complete revascularization among octogenarians with multivessel disease, without a corresponding rise in procedural complications [2]. Similarly, in high-risk elderly populations, complete PCI has been linked to reductions in long-term cardiovascular events and hospital readmissions [3]. The consistency across STEMI and NSTEMI presentations, and across patients with preserved or reduced ejection fraction, also underscores the robustness of the results [1, 3].

Notably, the decision to use angiographic guidance alone in most FIRE patients rather than fractional flow reserve (FFR) or intravascular imaging does not diminish the strength of the findings. Instead, it reflects real-world practice where physiologic assessment may not be feasible or widely adopted in elderly patients due to logistical or anatomical limitations. Still, the observed benefit supports the intrinsic value of complete anatomical revascularization in this cohort, and future trials could explore whether adjunctive FFR or imaging can refine patient selection further [4].

Additional meta-analytic evidence supports the benefit of complete revascularization in multivessel disease, irrespective of procedural timing. A network meta-analysis including 10 randomized trials and over 2,200 STEMI patients demonstrated that complete revascularization, whether performed at the index procedure or as a staged approach (during hospitalization or after discharge), was associated with a substantial reduction in major adverse cardiac events compared to culprit-only PCI. This benefit was driven predominantly by a reduced need for urgent revascularization. Interestingly, the risk of all-cause mortality and spontaneous reinfarction remained comparable among the various strategies, suggesting that the primary advantage of complete revascularization lies in its ability to reduce future ischemic instability without necessarily altering short-term survival. These findings reinforce the flexibility in timing and strategy when planning complete PCI, provided that the goal of full anatomic revascularization is achieved [13].

Another key strength of FIRE lies in its pragmatic design. The inclusion of high-risk patients with common geriatric comorbidities—renal dysfunction, mild cognitive impairment, prior stroke—enhances the external validity of its results [1]. In contrast, many earlier trials were criticized for enrolling "healthier" elderly patients, thereby limiting their relevance to everyday clinical practice. Including frailty-inclusive approaches in cardiovascular trial design is essential to modern practice and adds to the clinical significance of these findings [3].

The findings of FIRE also align with broader meta-analytic data. A pooled analysis of randomized trials demonstrated that complete revascularization reduced MACE by 23% without increasing periprocedural complications—a pattern nearly identical to FIRE's [6]. The consistency between randomized controlled trials and real-world registries bolsters the argument that complete PCI is not only effective but also safe across a diverse elderly population [7].

Additional support comes from a pooled analysis of four international registries comprising over 2,000 patients aged ≥75 years with myocardial infarction and multivessel disease. [12] Patients treated with complete revascularization experienced significantly lower rates of all-cause and cardiovascular mortality, as well as fewer recurrent myocardial infarctions, compared to those managed with culprit-only PCI. After rigorous statistical adjustment for baseline differences, the one-

year mortality rate was nearly 30% lower in the complete PCI group. These findings reinforce the notion that, even in everyday practice where patient complexity is high, complete revascularization offers substantial prognostic benefit when guided by individualized clinical assessment [12].

The question of when and how to implement complete revascularization in older patients remains clinically relevant. While FIRE confirms its safety and efficacy in most older adults, patient selection remains critical. Individuals with severe frailty, advanced dementia, or terminal non-cardiac illnesses may not derive the same benefits and could be harmed by procedural stress. In these cases, shared decision-making—incorporating life expectancy, quality of life, and patient preferences—is essential. The future of interventional cardiology must integrate geriatric principles to tailor revascularization strategies more precisely [4].

While FIRE provides robust support for complete PCI, data from other trials suggest this strategy may not be universally beneficial. A subanalysis of the DANAMI-3-PRIMULTI trial examined outcomes in patients aged ≥75 years undergoing FFR-guided complete revascularization versus culprit-only PCI after STEMI. Unlike their younger counterparts, older patients in this study did not experience a statistically significant reduction in the composite outcome of death, nonfatal MI, or ischemia-driven revascularization. Importantly, an age-treatment interaction was observed, suggesting the benefit of complete revascularization may diminish beyond the age of 75. These findings highlight the importance of individualized care and support a symptom-driven approach in certain high-risk elderly patients, particularly those with limited physiological reserve or complex comorbidities [11].

From a health systems perspective, the benefits of complete PCI extend beyond clinical endpoints. Unplanned revascularizations and recurrent myocardial infarctions place a significant economic burden on healthcare systems due to rehospitalizations, prolonged pharmacotherapy, and additional interventions. FIRE's demonstration that complete PCI reduces these events suggests a potential for long-term cost savings, particularly in value-based care models where outcome efficiency is rewarded [6].

The cumulative body of evidence from FIRE and supporting trials compels a paradigm shift in the management of older adults with multivessel coronary artery disease. Rather than approaching age as a limiting factor, clinicians should consider it as one variable among many in the holistic evaluation of a patient's candidacy for complete revascularization. The availability of advanced stent technology, safer procedural techniques, and improved pharmacologic support renders the argument for conservative treatment in most elderly patients increasingly untenable.

In summary, the FIRE trial substantiates what prior evidence has only suggested: that complete revascularization is not only possible in older adults but preferable in terms of safety and efficacy. Its findings should prompt a re-evaluation of current revascularization algorithms, favoring a more inclusive and proactive approach. As interventional cardiology continues to evolve, age must be viewed as a factor requiring nuanced clinical judgment—not as a reason for therapeutic nihilism.

Conclusion

The FIRE trial provides pivotal evidence that challenges long-standing clinical hesitations regarding the use of complete revascularization strategies in elderly patients with multivessel coronary artery disease. In a population aged ≥75 years—historically managed with caution and often under-treated—the trial demonstrated that complete PCI is not only feasible but significantly more effective than culprit-lesion-only PCI in reducing the risk of all-cause death,

myocardial infarction, stroke, and repeat revascularization, without a corresponding increase in bleeding or procedural complications [1].

These findings reinforce the notion that age alone should not dictate revascularization strategy. With modern PCI techniques, second-generation drug-eluting stents, radial access, and personalized antithrombotic regimens, the procedural risks traditionally feared in elderly cohorts have been substantially mitigated. In FIRE, outcomes were consistent across subgroups, including those with diabetes, reduced ejection fraction, and both STEMI and NSTEMI presentations, underscoring the broad applicability of complete revascularization in real-world elderly patients [1, 3].

Comparative data from the COMPLETE trial and high-quality meta-analyses further support the long-term benefit of complete revascularization in reducing major adverse cardiovascular events across different age groups and clinical contexts [5, 6]. The alignment between FIRE's findings and this larger body of evidence strengthens the argument for incorporating complete PCI into standard practice for older adults who are appropriate candidates.

However, clinical decisions must remain individualized. Not all elderly patients are equal—frailty, cognitive impairment, comorbidity burden, and patient preferences must be factored into treatment planning. The goal is not to universally apply complete PCI, but to eliminate unjustified therapeutic nihilism based solely on chronological age. Incorporating comprehensive geriatric assessment into the revascularization algorithm represents a critical next step in optimizing care.

In conclusion, the FIRE trial has shifted the paradigm: complete PCI in elderly patients with multivessel disease is both a safe and superior strategy when clinically appropriate. This evidence calls for an evolution in both mindset and practice—one that aligns with data, honors patient complexity, and aims to improve cardiovascular outcomes in this growing and vulnerable population.

Conflict of Interest

The authors declare no conflict of interest.

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