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Topic 1:	Interventional and Structural
PatientsEnrolled:	1171
PublishedAcronym:	FLOWER-MI
PublishedNameofTrail:	FLOWER-MI
TrialType:	Late-breaking clinical trial: major study
Publishing Title:	Fractional Flow Reserve-guided Versus Angio-guided Multivessel Revascularization In ST-Elevation Myocardial Infarction Patients. The FLOWER-MI Randomized Trial
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Abstract Body:	**Background:** In patients with chronic coronary syndromes, fractional flow reserve (FFR)-guided percutaneous coronary intervention (PCI) is superior to angiography-guided PCI. In ST-elevation myocardial infarction (STEMI) patients with multivessel disease (MVD), FFR-guided PCI for non-culprit lesions is superior to culprit lesion treatment-only therapy. In such STEMI patients with MVD, however, FFR-guided PCI has not been compared with angio-guided PCI. **Methods:** We conducted a randomized, multicenter (40 centers in France) trial in 1171 patients with successful primary PCI, and ≥50% stenosis in ≥1 additional non-culprit lesion suitable for PCI. Consecutive patients were randomized to complete revascularization of non-infarct-related arteries guided by FFR (590 patients) or by angiography (581 patients). Patients were randomized immediately after culprit vessel revascularization; non-culprit lesions PCI was done during the index procedure or during a staged procedure before discharge (≤5 days). The primary endpoint was a composite of all-cause death, non-fatal myocardial infarction, and unplanned hospitalization with urgent revascularization at 12 months. Cost-effectiveness and cost utility at 12 months were secondary endpoints. **Results:** Mean age was 62±11 years, 83% were men and 16% had diabetes; 32% had an anterior MI. Non-culprit lesions PCI was done during a staged procedure in 96.2%. Number of procedures was 2.48±0.85 in the angio-guided and 2.07±0.99 in FFR-guided groups. Mean duration of follow-up was 12 months; 6 patients (0.5%) were lost to follow-up. Full results will be available before the 2021 ACC Congress and both clinical results and cost effectiveness analysis will be presented. **Conclusion:** In this population of STEMI patients with MVD and successful culprit lesion PCI, the trial will therefore determine whether an FFR-guided strategy for non-culprit vessels is superior to an angio-guided strategy. In addition, the trial will determine which of the strategies is the most cost-effective. Funded by a grant from the French Ministry of Health with financial assistance provided by the Abbott Company; FLOWER-MI ClinicalTrials.gov Identifier, NCT02943954