Background
Complete revascularization (CR) – assessed by the residual SYNTAX score (rSS) following PCI - is associated with a better prognosis in chronic and acute coronary syndromes and in myocardial infarction (MI).

Whether, the completeness of revascularization impacts the prognosis of patients in cardiogenic shock (CS) has been poorly assessed.

Aim
Assess the prognosis value of rSS following primary PCI in multivessel patients undergoing MI-related CS.

Methods
The CULPRIT SHOCK trial - the largest randomized trial to date in CS – compared an immediate multivessel PCI to a culprit lesion only PCI strategy (with possible staged revascularization) in multivessel CAD patients with MI-related CS.

An independent Core Laboratory analysis of last angiogram - blind to clinical and procedural data - was held by the ACTION (Allies in Cardiovascular Trials, Initiatives and Organized Networks) Academic Research Organization (G. Montalescot, Pitié-Salpêtrière University Hospital, APHP, Paris, France).

Baseline and residual SS were assessed following last PCI (either index or staged) by ACTION CoreLab. Post-CABG patients (n=33) and patients with missing or incomplete angiogram (n=49) were excluded. The 604 patients with last rSS available were allocated in 4 different groups according to rSS: rSS = 0 (CR) and tertiles if rSS >0 (0 < rSS ≤ 5, 5 < rSS ≤ 14, rSS > 14).

Correlation between rSS and bSS and the prognostic impact of rSS on the 30-day composite endpoint (mortality and/or severe renal failure) and 30-day and 1-year mortality were assessed.

Conclusions
Among multivessel patients with MI-related cardiogenic shock,
1) complete revascularization is achieved only in one fourth of the patients using a MVPCI strategy
2) the residual SYNTAX score is independently associated with early and late mortality.