New ESC STEMI guidelines were issued in 2017, 5 years after the prior edition, to include the last evidence concerning diagnosis, risk stratification and treatment of patients with acute MI. Some relevant key points should be highlighted: 1) Patients should undergo primary PCI as first choice reperfusion therapy, provided that the procedure can be done in a timely fashion by an experienced team, and this is recommended even in patients with resuscitated out-of-hospital cardiac arrest. DES and the radial approach should be privileged on other revascularization strategies as many times as possible; 2) time limits for primary PCI are clearly given as well as timing for coronary angiography after successful thrombolysis, with a more clear definition of first medical contact; 3) there are precise indication about the extension of revascularization of a multivessel coronary disease in the acute phase and the use of ancillary antithrombotic therapies. Among the new parts there is a chapter completely dedicated to myocardial infarction with non-obstructive coronary artery disease (MINOCA), making the point on both diagnosis and potentially effective treatment. There is also a chapter addressing the gap between optimal guideline-based therapy and actual care of STEMI patients. In this regard the Authors stress the role of measuring established quality indicators to audit practice and improve outcome in real life and recommend the use of such quality indicators to monitor and improve STEMI care.