Cardiac Biomarkers & Rapid Algorithms for NSTE-ACS
ESC 2020 Updates

**Case to Consider with Rapid Algorithms**

- **Patients with Suspected NSTE-ACS**
  - 0h/1h algorithm recommendation
  - 0h/2h algorithm is preferred alternative to the 0h/1h
  - 0h/3h algorithm recommendation

**Clinical Strategy in Suspected NSTE-ACS**

- **ESC 0h/1h Algorithm is Now the Preferred**
  - hs-cTn measurement at admission (0h) and 1h later

**Diagnostic Strategy in Suspected NSTE-ACS**

- **0h/3h Algorithm**
  - Measurement can be used to detect peak levels of cardiac troponin
  - The higher the hs-cTn levels, the greater the risk of death
  - Serial measurements can be used to detect peak levels of cardiac troponin

**Assessment of Tools for Prognostication and Risk Assessment**

- **Echocardiography**
  - Optional

**Rationale Underlying the Recommendation of 0h and 1h Algorithms**

- **Rapid diagnostic cost.**
  - Lower hospital and overall AMI
  - Substantial differences

**Additional cTn in Patients Presenting <1h and ≥1h**

- **Duration of high-sensitivity assays immediately after admission**
  - Turnaround time = 60 minutes
  - Turnaround time = 120 minutes
  - Shorter LOS

**Abbreviations**

- ESC: European Society of Cardiology
- NSTE-ACS: Non ST-elevation acute coronary syndrome
- ACS: Acute coronary syndrome
- CKD: Chronic kidney disease
- hs-cTn: high-sensitivity cardiac troponin
- ED: Emergency department
- AMI: Acute myocardial infarction
- MI: Myocardial infarction
- BNP: B-type natriuretic peptide
- NT-proBNP: N-terminal pro-B-type natriuretic peptide
- eGFR: Estimated glomerular filtration

**References**

1. Patients with Suspected NSTE-ACS
2. Diagnostic Strategy in Suspected NSTE-ACS
3. Assessment of Tools for Prognostication and Risk Assessment