CLINICAL GUIDELINES ID TAG	
Title:	Chest pain flowchart (Sept 2020)
Author:	DR M CONNOLLY
Speciality / Division:	CARDIOLOGY
Directorate:	MEDCIAL
Date Uploaded:	4th SEPT 2020
Review Date	3RD AUGUST 2023
Clinical Guideline ID	CG0725[1]

Adult with suspected cardiac chest pain

Non Ischaemic ECG

ECG + T_0 + T_1

STEMI

Haemodynamically stable + pain free: Refer to ED chest pain nurse if available, otherwise risk stratify in ED

Move to resuscitation area if:
- High risk ECG
- Abnormal observations (pulse <50 or >100, RR <10 or >20, Sats <93%, BP < 90mmHg)
- Consider non-ACS diagnosis (see overleaf)
- ABCDE, IV access, consider CXR
- Seek early senior help

Activate Primary PCI pathway

Risk stratify

- ✓ Rapid increase in previously stable angina
- ✓ New onset exertional pain with reduced exercise tolerance
- ✓ Pain lasting >15mins
- ✓ Pain increasing in frequency and severity, rapid onset, rest pain
- ✓ Cardiac history with pain similar to previous MI / angina
- ✓ Pain associated with nausea / SOB / sweating
- ✓

SCORE:

0 = low risk 1-2 = medium risk 3+ = high risk

Pain > 3 hours ago And:

T_0 <5 or
T_0 <12 + T_1 Δ <3

Observation group*:

T_0 >12 but <52 + T_1 Δ <5 or → Requires T_3

T_0 <12 + T_1 Δ 3 or 4

High risk patient AND:
T_0 ≥ 52 or
T_1 Δ ≥ 5

Rule out group

T_1 – T_3 <20%

T_1 – T_3 >20%

Rule in group (beware of T2MI)

Risk score 0-1:
Discharge to GP follow-up

Risk score >2 including exertional symptoms and/or pain eased by rest or GTN:
Consider referral to cardiology (IP or OPC) for further testing

Refer to cardiology for admission

Treatment for ACS:
- Assess patient carefully for safety of DAPT
- Check Hb and PLTs result
- DAPT if deemed appropriate
- Aspirin 300mg
- Ticagrelor 180mg or clopidogrel 300mg (see full text)
- Enoxaparin 1mg/kg (0.75mg/kg if >75yrs)
- If unclear please discuss with cardiologist

Southern Health and Social Care Trust

Quality Care - for you, with you

Patient addressograph

Allergy status:

Patient times / results

	Time	hsTnT result
Pain		
T_0		
T_1		
T_3		

General notes

- **Pathways are designed to help, not to override, clinical decision making**
- **T_0 = baseline / arrival highly sensitive troponin**
- **T_1 = 1 hour troponin**
- **T_3 = 3 hour troponin**
- **Δ = absolute delta change between troponin samples**
- **If there is a good clinical reason to follow an alternative course of action then it should be done with expert input as necessary**
- **This pathway is based on European Society of Cardiology guidelines**
- **This pathway only applies to patients presenting with chest pain**
- **Be cautious of early presenting patients: If patients present within 3 hours of worst pain then will require T_0 + T_1 + T_3.**
- **If patient is unsure of onset then perform T_0 + T_1 as a minimum**
- **Renal dysfunction: Elevated troponin should not be primarily attributed to impaired creatinine clearance unless GFR<30 and there are no features in the history to suggest an acute cardiac cause**
- ***The observation group represents those patients requiring further assessment and a 3 hour troponin sample. A change of >20% between T_1 and T_3 (assuming one value is >14ng/L) is consistent with a diagnosis of ACS.**

Non-cardiac causes of raised troponin

- ✓ **Critical illness / sepsis**
- ✓ **PE / pulmonary hypertension**
- ✓ **Acute exac COPD**
- ✓ **Subarachnoid haemorrhage**
- ✓ **CVA**
- ✓ **ESRD**
- ✓ **Seizure**
- ✓ **Drug toxicity**
- ✓ **Rhabdomyolysis**
- ✓ **Strenuous exercise**
- ✓ **Infiltrative disease**

Cardiac causes of raised troponin

- ✓ **Acute coronary syndrome**
- ✓ **Tachyarrhythmia**
- ✓ **Cardiac failure**
- ✓ **Myocarditis**
- ✓ **Takotsubo cardiomyopathy**
- ✓ **Aortic dissection**
- ✓ **Coronary spasm**
- ✓ **Cardiac contusion**
- ✓ **Valvular disease e.g. aortic stenosis**
- ✓ **Hypertensive emergency**
- ✓ **Post procedure**