



Qualitative data

Using qualitative data in a clinical trial context

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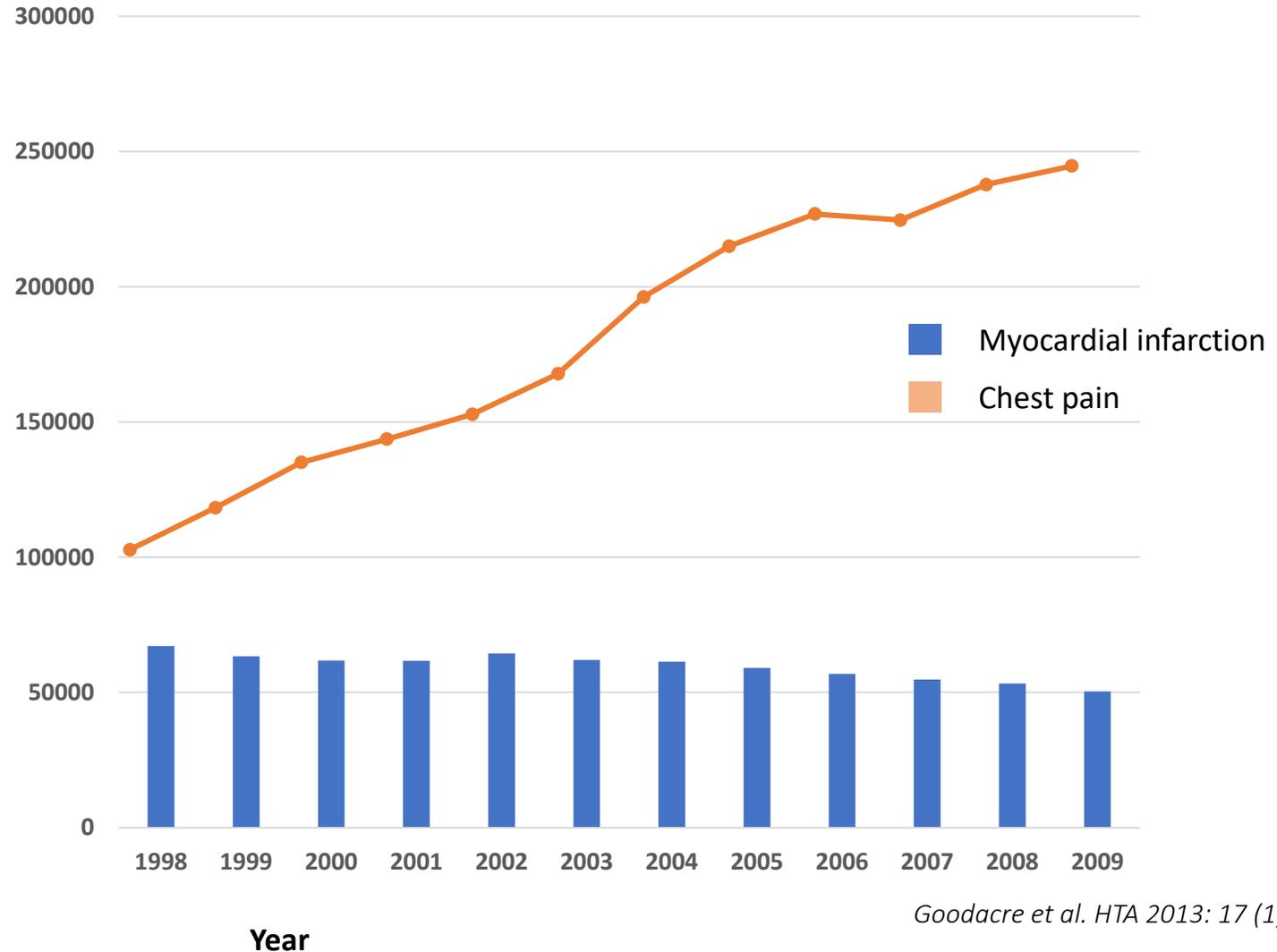




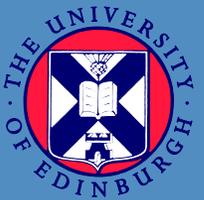
Trends in hospital admissions with myocardial infarction and chest pain

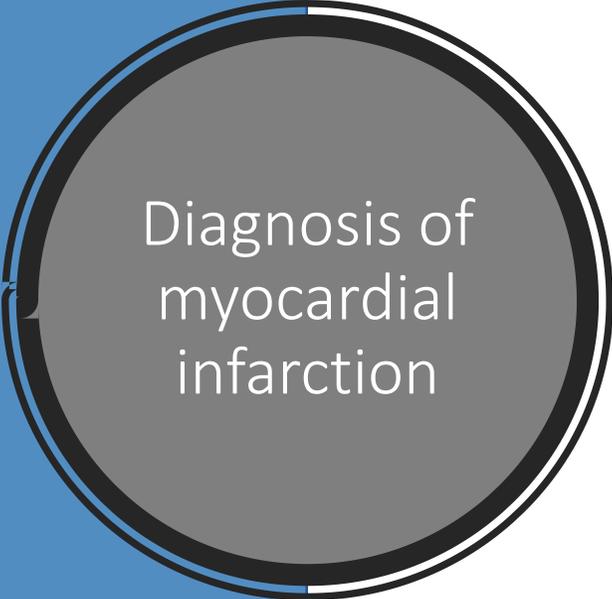


The problem



Goodacre et al. HTA 2013: 17 (1) 1-188





Diagnosis of myocardial infarction

01

Signs of
myocardial
ischaemia on
the ECG

02

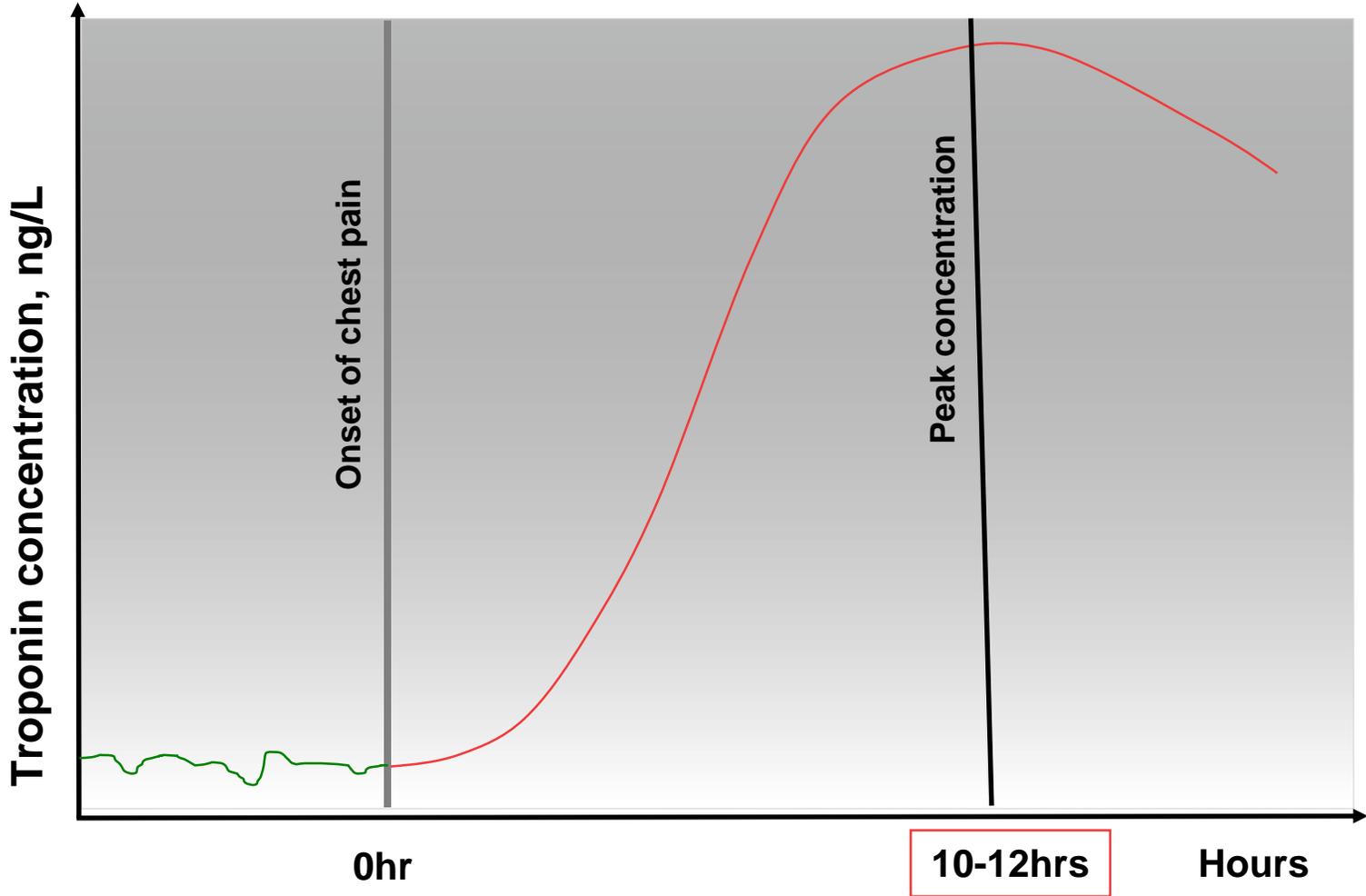
Clinical
symptoms

03

Rise in
troponin



Timing of troponin testing

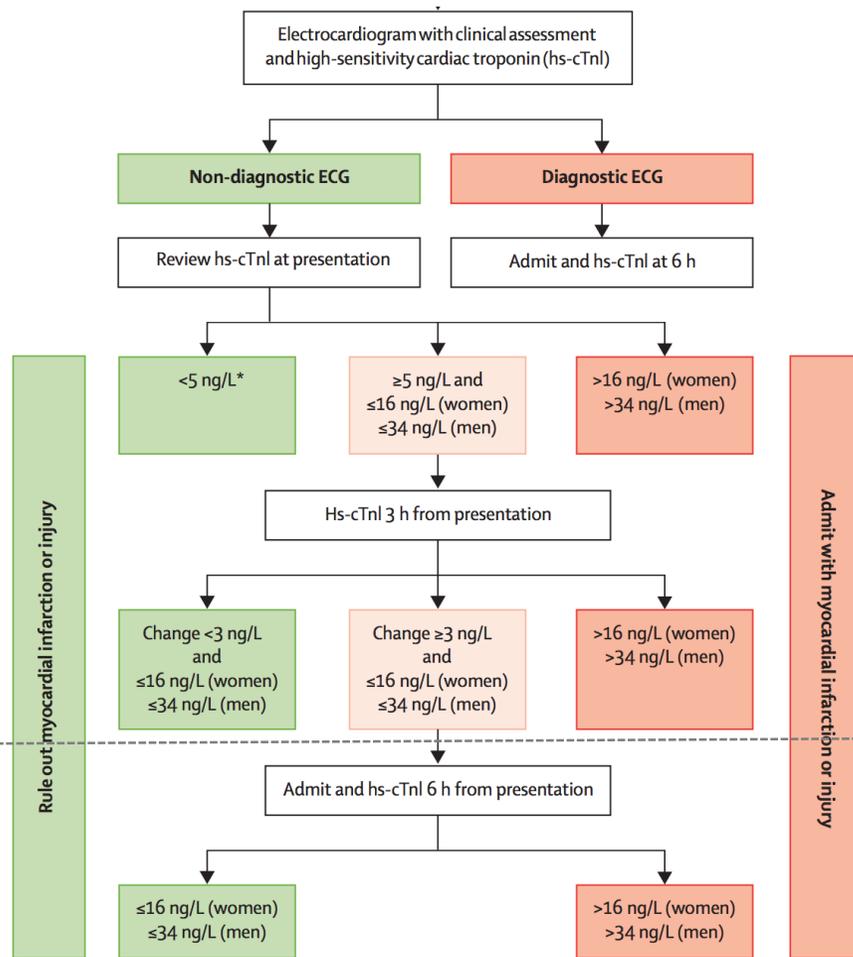




Development of the High-STEACS pathway



www.clinicaltrials.gov number: NCT01852123



* Retest at 3h if <2h from onset

Shah et al. Lancet 2016;387:2289-91

RCN International Research conference 2019





Qualitative methods

Patient experience

Phase 1
Pre
early
discharge
pathway

Phase 2
Post
early
discharge
pathway

1 week
post
discharge

In-depth
interview
(n=23)

In-depth
interview
(n=26)

Clinician experience



Semi-structured interviews
'Think aloud' methodology



Pre-hospital
influence



Lay networks



NHS 24 consultation



GP consultation

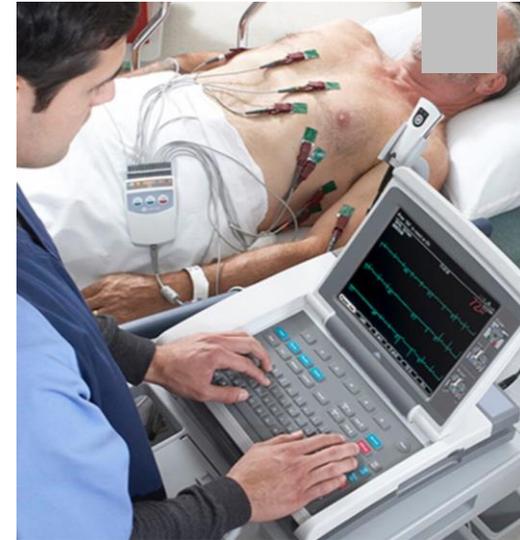
Oh, that...that...it...it then went from, I've got a pain in my chest to, I've got a pain in my chest and someone thinks that my symptoms are serious. Um, so it...it escalated a wee bit.

So I went from thinking, well, maybe there's something wrong to, well, it's maybe more than a maybe



Validation of symptoms

“They hooked me up to the ECG machine, and took blood pressure, very, very quickly. Erm, didn't say anything about any of the, the machines or anything. It was, it was very fast. Slightly, a bit concerned why everything was moving so fast.”



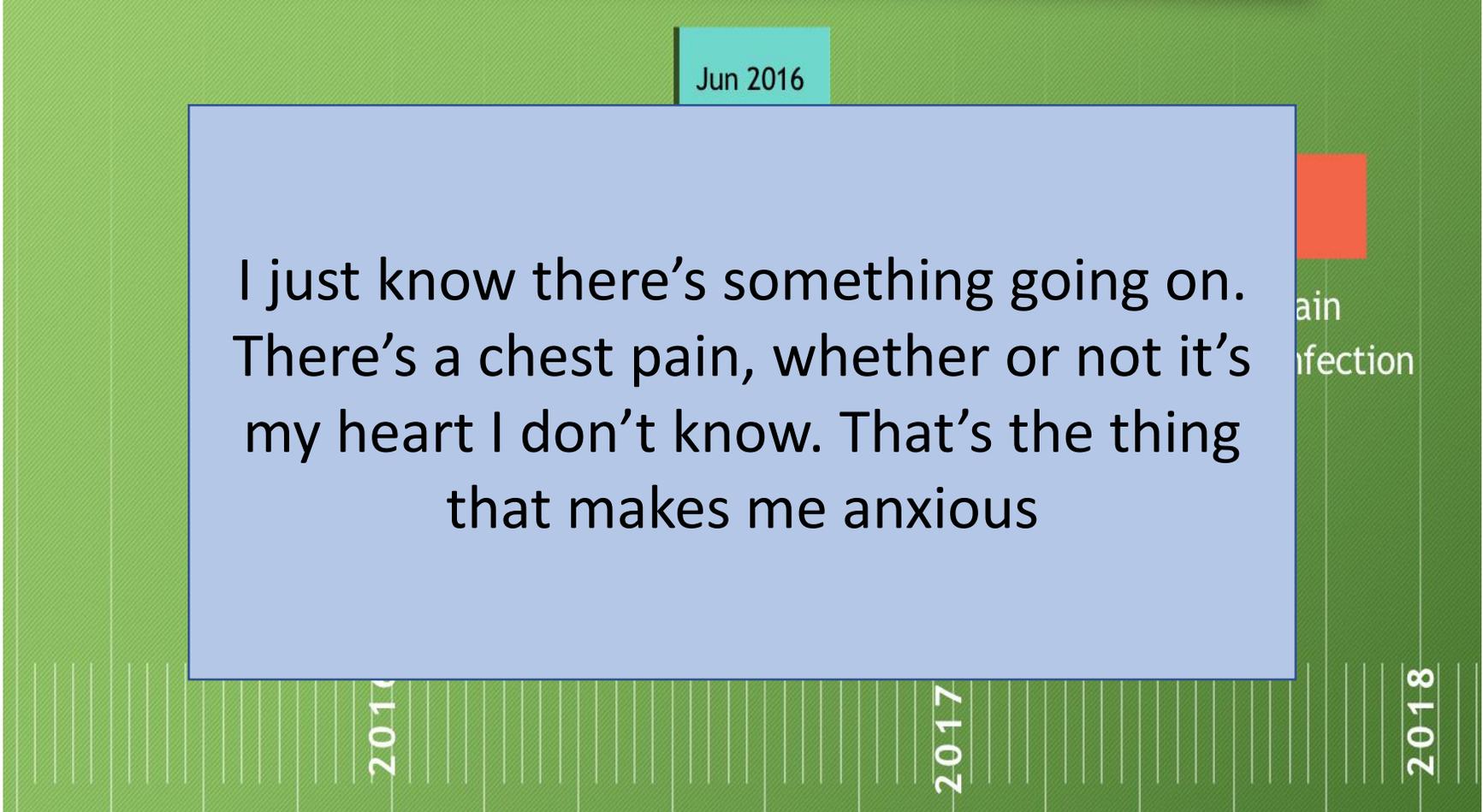
“Em, and then I thought, oh, no. Then it was...slight panic set in, because I thought, it's not as straight forward as I thought. Em...what if they have found something?”



Participant illness story



Significance
of chest pain



Jun 2016

I just know there's something going on. There's a chest pain, whether or not it's my heart I don't know. That's the thing that makes me anxious

ain
infection

2016 2017 2018



Reassurance

“You know, they were...well they were confident it was an attack and they were like, you know, I don't know if I still could see me after a heart attack.”

“There's always been an element of incompleteness, where I felt like it was not complete this time. It felt like it came to an end.”

“I felt as though nobody had done anything to help me. It was right, you know, when you go out, you can go out, you can go out. Nobody had helped me because I still felt the same as when I went in.”

- Pre-test informatior



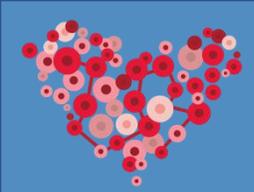
- Trust



- Clinician-patient int



Reassurance



Future health

“I suppose you’ve still got that niggling thing, as I say, there, but okay, this wasn’t a heart attack as such, but it doesn’t mean that there’s not, that I’m totally fit and healthy and not at risk of it... are they saying I’ve got a healthy heart, or are they just saying, you haven’t had a heart attack?”

for granted

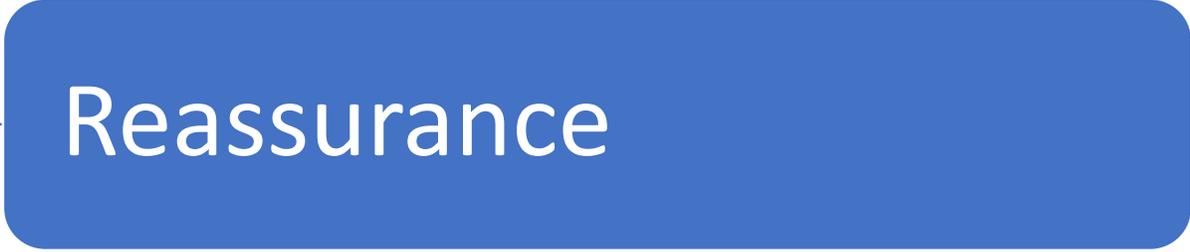
ill health

- Improve cardiovascular health





Pre-hospital



Reassurance



Future health



Patient
Summary

Clinician experience



Formulation
of study
population

Approach	Participants	Interview method
Individual e-mail	5 Consultants 2 Nurse practitioners	7 individual interviews
Permission to attend end of Registrar teaching session	6 Registrars	1 group interview
Permission to attend end of junior doctor teaching session	8 Junior doctors	2 group interviews
Personal approach	2 Nurse practitioners 1 ST1	1 group interview 1 individual interview



Level 1 – Immediate resuscitation

Level 2 – Very Urgent

Level 3 – Urgent

Level 4 – Standard

Level 5 – Non-urgent



Hospital
factors





Rapid rule out of myocardial infarction

Chest pain and suspected acute coronary syndrome (ACS)

Review of pre-hospital and departmental ECG by Senior Staff within 10 mins
Immediate IV access and bloods including high-sensitivity cardiac troponin (hs-cTnI)
Cardiac monitoring

Review baseline hs-cTnI

Admit and hs-cTnI at 6 hours

Myocardial infarction ruled out

A) Clear alternative diagnosis
Treat as appropriate

B) Atypical chest pain or recent negative investigations
Reassure patient low cardiac risk, advice and GP follow up

C) Typical cardiac pain on exertion with no previous investigations
Reassure, aspirin 75mg od and GTN spray, consider referral to the RACPC

<5 ng/L*

≥5 ng/L AND
≤16 ng/L (women)
≤34 ng/L (men)

>16 ng/L (women)
>34 ng/L (men)

hs-cTnI 3 hours from presentation

CHANGE <3 ng/L
AND
≤16 ng/L (women)
≤34 ng/L (men)

CHANGE ≥3 ng/L
AND
≤16 ng/L (women)
≤34 ng/L (men)

>16 ng/L (women)
>34 ng/L (men)

Myocardial injury or Infarction

Arrange for admission, senior medical review and repeat hs-cTnI testing at 6 hours

A) Consider other causes of myocardial injury (e.g. heart failure, arrhythmia, sepsis, pulmonary embolism)

B) If diagnosis of type 1 myocardial infarction confirmed:

- Clopidogrel 300 mg
- Fondaparinux 2.5mg SC
- Sub-lingual nitrate

EMERGENCY DEPARTMENT AND PAA

EMERGENCY DEPARTMENT AND PAA

HOSPITAL ADMISSION

Admit and hs-cTnI 6 hours from presentation

Myocardial infarction ruled out
Senior medical review or referral to cardiology

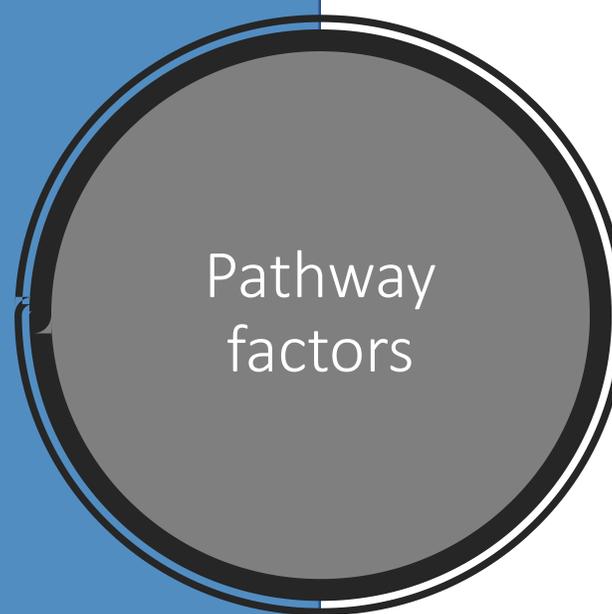
≤16 ng/L (women)
≤34 ng/L (men)

>16 ng/L (women)
>34 ng/L (men)

Myocardial injury or infarction
Referral to cardiology for in-patient assessment

*All patients with chest pain for 2 hours repeat hs-cTnI at 6 hours

Lothian protocol version 34.0, 21 November 2015





I wouldn't have done that troponin so I would ignore that

It's elevated so you have to repeat it



So it's personalities you're dealing with as well, not just physical issues.

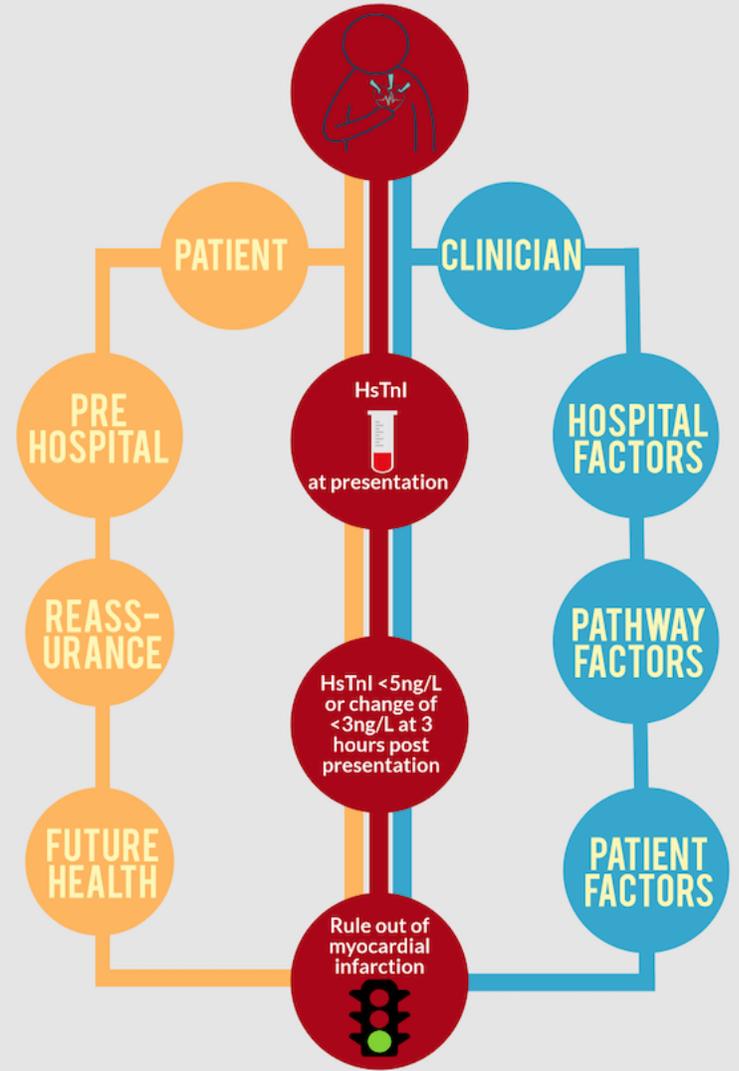
Patient
factors



Summary



Suspected acute coronary syndrome



Discharge from the Emergency Department