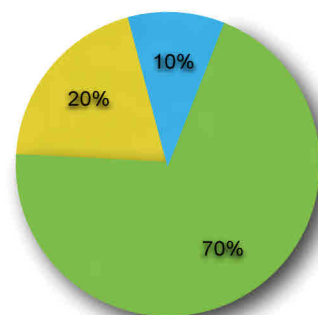


Thrombolysis History

History: This patient has chest pain and ST elevation on the ECG. The PCI lab is full.

Task: Determine this patients' suitability for thrombolysis.



- examination
- communication
- clinical

Marking criteria	Not Completed	Partially Completed	Completed
Washed hands, introduction, patient identity			
Reviews notes, ECG, CXR (mediastinum)			
Reviews patient: asks timing of pain			
Offer analgesia			
Establishes patients knowledge			
Warfarin			
Haemophilia			
Severe liver disease			
Thrombocytopenia			
Stroke			
Recent surgery			
Trauma +/- Resuscitation			
Proliferative eye bleeding or vitreous haemorrhage			
Upper & lower GI bleeding			
Serious vaginal bleeding			
Pregnancy			
Hypertension Sys BP >200mmHG, Dia > 120			
History suggestive of Dissection			
Aortic aneurysm			
Previous streptokinase			
Previous allergies			
1-2% Bleed rate			
Asks for questions			
Asks patient her decision?			
Organises treatment			
Thanks patient			
Overall			

Thrombolysis History

Level 1 Understanding (basic sciences)

Describe the evolution of a ST elevation (Q wave) myocardial infarction as seen on a ECG in terms of minutes, hours, days.

Minutes to hours: peaked T wave, Hours: ST elevation, Hours to days: T wave inversion and loss of R Wave, Days: Q wave (>0.04 sec in duration and >25% height of total QRS)

In non-ST elevation MI the timing is variable and the ECG shows horizontal ST depression and deep inverted T waves.

Level 2 Understanding (applied sciences)

Draw a graph representing the elevation of three cardiac enzymes in myocardial infarction with relation to time.

Lactate dehydrogenase: rises slowly, peaks at 3 days, remains elevated for 12-14 days

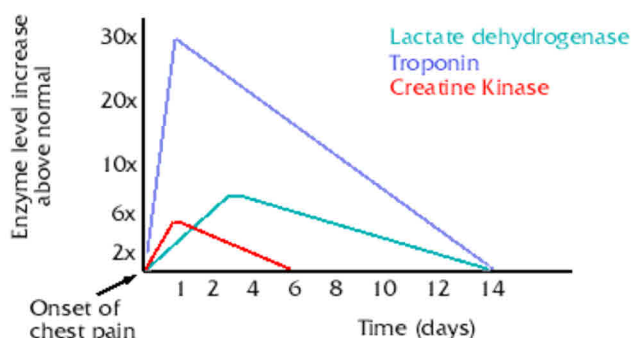
Troponin I: rises quickly, peaks 12 hours, remains elevated for 7-14 days

Creatine kinase: moderate early rise, peaks 24 hours, remains elevated for 2-6 days

AST rises 12 hours, peaks 36 hours, remains elevated for 3 days

LDH1 rises 18 hours, peaks 48 hours, remains elevated for 5 days

Cardiac enzyme changes with MI



Level 3 Understanding (advanced sciences/management)

What is the TIMI score?

List five components of the TIMI score

TIMI = Thrombolysis in Myocardial Infarction trials.

(Age ≥ 65 years, ≥ 3 CAD risk factors, Prior CAD (stenosis $>50\%$), Aspirin in last 7 days, ≥ 2 anginal events in ≤ 24 hours, ST deviation ≥ 0.5 mm, Elevated cardiac markers

Score	Risk Factor
0-1	4.7%
2	8.3%
3	13.2%
4	19.9%
5	26.2%
6-7	40.9%

The score (0-7) gives the risk of cardiac events (death, MI or urgent revascularisation) within 14 days in TIMI IIB.