ACUTE CORONARY SYNDROME INTEGRATED CARE PATHWAY: PRE-HOSPITAL APRIL 2022

ELEGIBILITY:
All patients presenting with chest pain or associated symptoms consistent with a diagnosis of cardiac ischaemia/MI. Usually left sided/central radiating to neck/jaw/arm, slow rather than abrupt onset, associated nausea

Action	Notes
1) 12 lead ECG PRINT TWO COPIES (ONE STAYS WITH PATIENT, ONE FOR SAS AUDIT)	Suspected STEMI? - send ECG to GJNH CCU by telemetry to confirm diagnosis. Contact GJNH by phone after transmission for support on **0141 951 5299**. CREW CALL GJNH AFTER FIVE MINUTES **JUBILEE WILL NOT CONTACT CREW AND WILL EXPECT YOUR CALL.**
Whilst waiting for telemetry support commence the following	
2) Attach Continuous Cardiac Monitoring	Patients with chest pain are at high risk of arrhythmias. The early identification and management of these is essential and is only possible by monitoring
3) Aspirin 300mg orally (soluble/crushed)	Avoid enteric coated
4) Clopidogrel 300mg orally (STEMI patients over 75: current licence is for a dose of 75mg as the loading dose)	Only if STEMI on ECG- no age limit (JRCALC Scotland) Avoid 600mg dose pre-hospital (used if thrombolysis not given prior to transfer to tertiary centre) **Avoid if patient on Ticagrelor**
5) GTN spray s/l	Give at 5 minute intervals as required for chest pain
6) Attach Pulse oximetry	Record if on air or O2 (%)
7) Administer O_2 to maintain target O_2 saturation opposite *(O_2 only required if hypoxaemic)*	Target O_2 sat 94-98%. (COPD patients/hypercapnia risk 88-92%) If SpO2 < 85% administer 10-15 l/min oxygen via a reservoir mask If SpO2 85-93% administer 2-6 l/min via nasal cannulae or 5-10l/min via a simple face mask (Use 28% Venturi mask at 4 l/min if history of hypercapnic respiratory failure)
8) IV Access-two cannulas if possible	Avoid IM injections
9) Anti-emetic: Ondansetron 4mg IV (give slow over 2 minutes)	Avoid Cyclizine due to risk of peripheral vasoconstriction
10) Analgesia: Morphine 2.5 – 20 mg	Note clearly drug name and dose given and attach wristband.
11) See STEP 1-5 below	
12) Transfer and Updates. Ensure you update control. Inform them if patient is going to airport for transfer or to A&E for further treatment and keep updating as necessary. If you have an estimated time for air ambulance arrival, pass this to control.	Contact air ambulance air desk on **03333990201**. Make sure you have all the patient details including patient weight and any escort details. Pass your mobile number to air desk as they may need to contact you.
	Record time of call to Air transport service (for audit) — Date: Time:
	All NSTEMI patients should be transferred to WIH/OUAB/ St Brendan's for assessment.
13) Pass referral to Cardiac Rehabilitation	Once case complete please call cardiac nursing team 01851 608711 (24 hr. answer phone) with patient details – this will ensure that patient is followed up by Cardiac Rehabilitation Team on return home.

ECG INTERPRETATION

- ST elevation ≥1mm in two or more adjacent limb leads?
- ST elevation≥2mm in two or more contiguous chest leads?
- Presumed new onset Left Bundle Branch Block?
- Posterior Infarction?

If "Yes" to any of the above then administer thrombolysis according to the protocol.
If not trained to administer thrombolysis liaise with colleague/ GP to administer if at all possible pre-hospital.
If "No" to all alert A+E staff and arrange immediate transfer to hospital for further assessment.
Remember the benefits of thrombolysis decrease *rapidly* with every minute that passes from the time of arterial occlusion. Pre hospital thrombolysis should be the goal whenever possible regardless of distance and time to A+E. Transfer prior to thrombolysis when the indication is clear *always* creates a delay.

CHECKLIST OF CONTRAINDICATIONS FOR THROMBOLYSIS

Symptom onset > 6hours prior to presentation
Recent (within 8 weeks) haemorrhage, trauma, surgery or major dental procedure
Ischaemic Stroke in the last 12/12 or permanent disability from a previous stroke
Aortic Dissection
Coma (or unable to understand the procedure)
Previous intracerebral haemorrhage or known intracerebral lesion including neoplasms.
Uncontrolled hypertension (SBP >180 and/ or DBP >110).
Heart rate must be between 40 and 140 beats per minute
Pregnancy (up to 2 weeks after delivery)
Prolonged CPR within the last two weeks
Active peptic ulceration (in the last 6 months)
Bleeding Diathesis
Acute pancreatitis
Oesophageal varices
Current oral anticoagulant therapy (INR > 1.3)or patient on Novel Oral Anticoagulant Therapy: Rivaroxaban/ Dabigatran/ Apixaban

PATIENTS SUITABLE FOR THROMBOLYSIS

STEP 1	Estimated Patient Weight in kg	_____ kg
STEP 2	Calculate dose of Tenectaplase from table below in units	_____ units
STEP 3	Administer unfractionated Heparin 5000U as an IV bolus and flush line with 0.9% NaCl This provides immediate antithrombotic protection	_____ Time Given
STEP 4	Administer Tenectaplase as an IV bolus and flush line with 0.9% NaCl If possible use a separate line, if unavailable ensure the line is flushed before administration.	_____ Time Given
STEP 5	Calculate and administer dose of LMWH (**Enoxaparin**) for SC injection. Dose = 1mg/kg/SC (IF > 75 YEARS OF AGE GIVE 0.75mg/kg/SC: MAX DOSE 75mg) (This provides additional 12hour anti thrombotic protection) (Can be administered anytime within an hour of administration of step 3)	_____mg _____ Time given

TENECTAPLASE DOSE CALCULATOR

Patients' body weight category kg. (Stone/ Pounds)	Tenecteplase (U)	Corresponding volume of reconstituted Tenecteplase solution (ml)
< 60 (< 9st 6lb)	6,000	6
≥60 to < 70 (9st 6lb to 10st 12 lb)	7,000	7
≥70 to < 80 (11st to 12st 6 lb)	8,000	8
≥80 to < 90 (12st 8lb to 14st)	9,000	9
≥90 (> 14st)	10,000	10