Mid Essex Hospital Services NHS Trust

Operational Policy for Transfer of ST Elevation MI (STEMI) patients to Essex Cardiothoracic Centre (ECTC) for Primary Percutaneous Coronary Intervention	**Policy** Register No: 09122 Status: Public

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Contributes to Care Quality Commission	Outcome 4

Consulted With	**Post/Committee/Group**	**Date**
Emergency Medicine Consultant	Dr Ahmad Aziz	September 2017
Cardiology Consultants	Dr. G. Clesham	September 2017
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Author/Contact for Information	Angela Richardson/Fiona Robinson
Policy to be followed by (target staff)	All Medical Staff Clinical Nurse Specialists, Cardiology Sister in Charge, Emergency Department
Distribution Method	Intranet and website
Related Trust Policies (to be read in conjunction with)	

Document Review History

Version No	Authored/Reviewed by	Active Date
1.0	Angela Richardson/Fiona Robinson	20th January 2010
2.0	Angela Richardson/Fiona Robinson	October 2014
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1.0 Purpose

1.1 This document outlines the clinical and operational arrangements for transfer of patients to ECTC (Essex Cardiothoracic Centre) for an occluded coronary vessel in the event of a myocardial infarction that meets the inclusion criteria as set out by Essex Cardiac Network 2009.

1.2 All PPCI will be performed at the Essex Cardiothoracic Centre.

2.0 Definition of Primary Percutaneous Coronary Intervention

2.1 Primary Percutaneous Coronary Intervention (PPCI) is commonly known as coronary angioplasty and is a primary treatment and therapeutic procedure used to treat the stenotic (narrowed) coronary arteries of the heart found in coronary heart disease. PPCI is used to abort an acute myocardial infarction and in some specific cases may reduce mortality.The procedure involves passing a small catheter with a balloon on the end into the coronary artery, the balloon is then inflated within the coronary artery to crush the plaque against the wall of the artery, finally a stent is deployed into the artery which supports the vessel to allow blood flow to continue to flow in the Coronary vessels.

3.0 Aims of the Service

3.1 To provide a pan Essex service for patients requiring treatment for ST elevation MI to include Mid-Essex Hospital Services NHS Trust.

3.2 To provide a consistent and high quality service to our client group.

4.0 Indications

4.1 The target group of patients are those which meet the criteria below (See appendix 1)

- Symptoms compatible with an ST elevation myocardial infarction < 12 hours duration from maximum chest pain

- ECG changes meeting criteria

No contraindications excluded from the criteria (Patients with ECG evidence of a STEMI not fulfilling the inclusion criteria should be discussed with the ECTC on-call Cardiology Registrar)

5.0 Inclusion Criteria

- < 12 hours duration from maximum chest pain

- ECG criteria of ST segment elevation > 1mm in contiguous limb leads or > 2mm in contiguous chest leads

- LBBB if the clinical picture is AMI

- 1mm ST depression with dominant R wave in V1-V3 suggesting a posterior myocardial infarction

- 1mm ST elevation in contiguous chest leads if clinical picture AMI
- Patients resuscitated from cardiac arrest at the scene with ECG criteria for STEMI are eligible

6.0 Exclusion criteria

- Acute haemorrhage
- Major trauma
- Resuscitated cardiac arrest at the scene – diagnosis uncertain
- Paced rhythm

(Patients with ECG evidence of a STEMI not fulfilling the inclusion criteria should be discussed with the ECTC on-call Cardiology Registrar)

7. Staffing and Training

7.1 All nursing and medical staff should familiarise themselves with the pathway for transfer of ST Elevation MI (STEMI) patients to Essex Cardiothoracic Centre and be able to access the referral form for Primary Angioplasty (PPCI) which is located on the Intranet.

7.2 Referral for PPCI can only be made by A/E Senior Doctor, Cardiology Consultant, Medical Registrar or Cardiac Nurse Practitioner.

8. Clinical Operational and Service Management Responsibilities

8.1 Clinical Accountability

Each clinician will practice within his/her Code of Professional Conduct and within Trust policies and procedures. More specifically, each clinician is professionally accountable for any care he/she provides within this operational policy and will act in the patient's best interests in decision to transfer to ECTC for PPCI

8.2 Operational responsibility

The Head of Nursing for Emergency Care together with Emergency Medicine Consultants will take overall responsibility for the provision of transfer of patients to ECTC for PPCI from the Emergency Department.
The Head of Nursing for Medicine together with Cardiology Consultants will take overall responsibility for in-patients who develop a STEMI whilst in hospital and require transfer to ECTC for PPCI.

8.3 Service Management responsibility

The Head of Nursing for Emergency Care responsible for the Emergency Department in partnership with Emergency Medicine Consultants will assume

responsibility for monitoring the quality, efficacy and effectiveness of the service along with Head of Nursing for Medicine and Cardiology Consultants

9.0 Medical Emergencies

9.1 In the event that a patient arrives via ambulance to the Emergency Department, and on arrival is diagnosed by an Emergency Medicine Consultant or Emergency Department SpR or Staff Grade as having an STEMI and meets the criteria for transfer, arrangements will be made for the patient to continue to ECTC for PPCI immediately.

9.2 Call to balloon times are critical for good outcomes and therefore delay should be avoided unless patients clinical status warrants admission. In the event that the patients condition deteriorates on route, the paramedics will make the decision to either carry on to ECTC or if necessary to re-route to the nearest DGH, the patient will be stabilised in the resuscitation room and seek further advice from ECTC. In the event of a cardio-respiratory arrest, advanced life support will be given as appropriate and the patient will remain at the DGH until stable to travel onwards to ECTC.

10. Patient Referral Process

10.1 Patient referrals will come from Emergency Medicine Consultants, Medical Consultants, Medical Registrar, Senior Emergency Department staff, Senior Staff Terling Ward, ITU and Cardiac Nurse Practitioners.

10.2 The relevant member of staff will contact Roding Ward, ECTC to advise of transfer and will make immediate arrangements with the ambulance service for patient to be transferred. A referral form together with original ECG will be faxed to ECTC once patient is on route.

11. Infection Control

11.1 At all times the department will adhere to MEHT Infection Control policy ensuring that both the environment and practitioners adhere and comply with infection prevention techniques at all times. Any cannulation performed will follow High Impact Intervention guidelines and documentation.

12. Breach Reporting

Failure to escalate transfer of patient to ECTC, or a delay in transfer of patient to ECTC should be reported using the Datix system, and every individual case should be investigated.

13. References

Nallamothu B.K., Bates E.R., American Journal of Cardiology, 2003.

Busk et al. The Danish multicentre randomized study of fibrinolytic therapy vs. primary angioplasty in acute myocardial infarction (the DANAMI-2 trial): outcome after 3 years follow-up. European Heart Journal. Vol 29, Number 10.pg 1259-1266

E Bonnefoy et al. Comparison of primary angioplasty and pre-hospital fibrinolysis in acute myocardial infarction (CAPTIM) trial: a 5-year follow-up Eur. Heart July 1, 2009; 30(13): 1598 – 1606

APPENDIX 1

PPCI Form 2 - DGH Heart Attack Referral Form for Primary Angioplasty (PPCI)

To be completed by the designated person, as per local protocol.

ACTIVATION OF ESSEX CARDIOTHORACIC CENTRE

PPCI Hotline 01268 394184
(referral for PPCI can only be made by an A/E Senior Doctor, Medical Registrar or Cardiac Nurse Specialist)

If the patient is eligible for transfer, please contact the above number and complete information on the other side of this form and then

FAX TO ESSEX CARDIOTHORACIC CENTRE: 01268 394179

Inclusion Criteria:	**√ as appropriate**
Symptoms compatible with a STEMI <12hrs duration from maximum chest pain.	
ECG criteria of:	
ST segment elevation >1mm in contiguous limb leads or >2mm in contiguous chest leads.	
LBBB if the clinical picture is AMI	
1mm ST depression with dominant R wave in V1-V3 suggesting a posterior myocardial infarction.	
1mm ST elevation in contiguous chest leads if the clinical picture is MI.	
Patients resuscitated from cardiac arrest at the scene with ECG criteria for STEMI are eligible.	

Exclusion Criteria:	**√ as appropriate**
Acute haemorrhage	
Major trauma	
Unconscious	
Resuscitated cardiac arrest at the scene – diagnosis uncertain	
Paced rhythm	

Patients with ECG evidence of a STEMI not fulfilling the inclusion criteria should be discussed with the ECTC on-call Cardiology Registrar
Telephone: 0845 155 3111 (Basildon University Hospital)
Ask for the on-call Cardiothoracic Centre Cardiology Registrar to be bleeped on 9010

DGH Heart Attack Referral Form
The Essex Cardiothoracic Centre
Basildon University Hospital
Nethermayne
Basildon
Essex

Demographics (or patient label):

Name:
Date of Birth:
Address:

NHS Number:
Telephone Number:

SS16 5NL

This form to be kept with and filed in patient notes for data collection purposes

Source of admission (name of DGH)		If in Patient - Ward/Unit	A/E Self Presenter or Ambulance admission

Current time:		Time of maximum symptom onset:	
A/E arrival time:		Time of ambulance call for transfer to ECTC: (not for BTUH patients)	
Patient GP		Time of arrival at ECTC: (to be completed by ECTC)	

ECG (please circle from list below):					
Anterior	Inferior	Lateral	Posterior	ST Elevation	ST Depression
LBBB	Other				

Current Status					
Pulse		02 Sats		Blood Pressure	

Medications Recommended:		
	Dose	Time Administered
Aspirin	300 mg	Hrs
Clopidogrel	600 mg	Hrs
If above not administered, please state reasons		

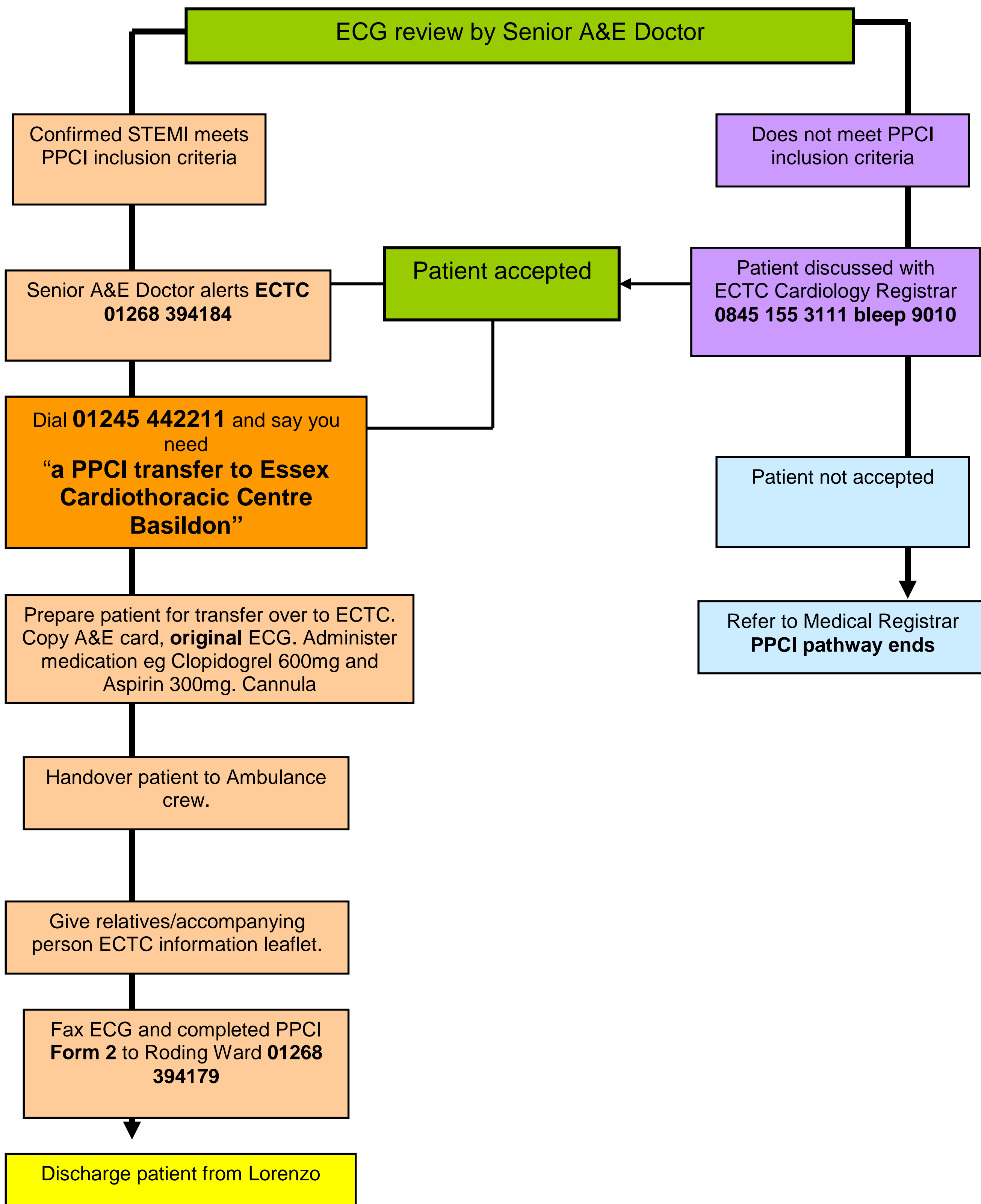
Allergies:

Other Significant Co-Morbidities:

Completed by (print name):	Name of person making referral:
Job Title:	Job Title:
Signature: Date and time:	Signature: Date and time:

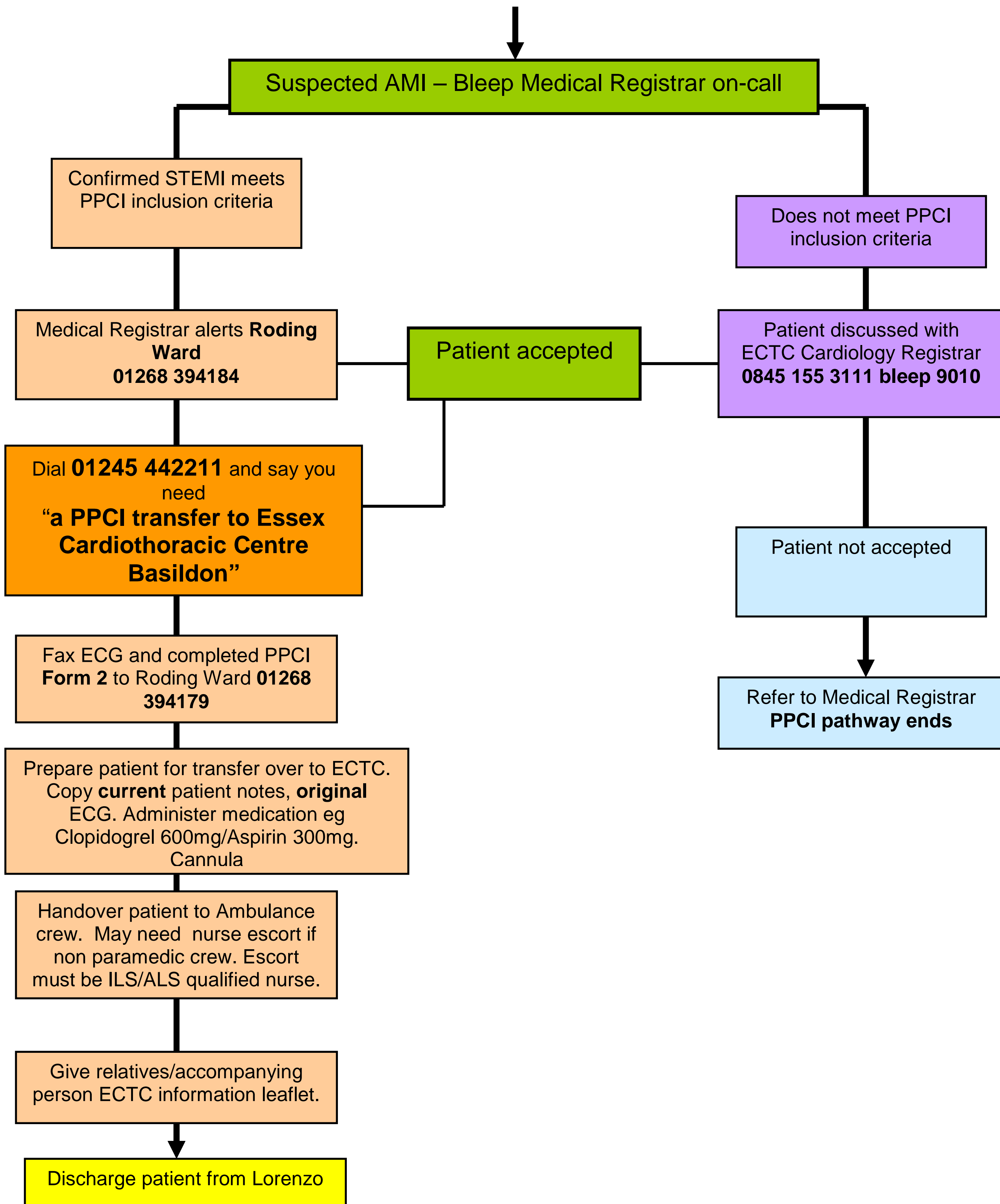
Appendix 2

Primary Angioplasty – MID ESSEX A&E Department self presenters or patient infarcts whilst in Department



APPENDIX 3

Primary Angioplasty – MID ESSEX Hospital patient infarcts whilst an In Patient



Suspected AMI – Bleep Medical Registrar on-call
Confirmed STEMI meets PPCI inclusion criteria
Does not meet PPCI inclusion criteria
Medical Registrar alerts **Roding Ward** **01268 394184**
Patient accepted
Patient discussed with ECTC Cardiology Registrar **0845 155 3111 bleep 9010**
Dial **01245 442211** and say you need **“a PPCI transfer to Essex Cardiothoracic Centre Basildon”**
Patient not accepted
Fax ECG and completed PPCI **Form 2** to Roding Ward **01268 394179**
Refer to Medical Registrar **PPCI pathway ends**
Prepare patient for transfer over to ECTC. Copy **current** patient notes, **original** ECG. Administer medication eg Clopidogrel 600mg/Aspirin 300mg. Cannula
Handover patient to Ambulance crew. May need nurse escort if non paramedic crew. Escort must be ILS/ALS qualified nurse.
Give relatives/accompanying person ECTC information leaflet.
Discharge patient from Lorenzo