FAQ Primary Percutaneous Coronary Intervention

1: What is pPCI?

It is the insertion of a Stent into a coronary artery prior to any other treatment.

2: Why the change?

A national report, commissioned by the Department of Health, called NIAP (National Infarct Angioplasty Project), concluded that it is both feasible and cost-effective to offer angioplasty to 97% of the population of England.

3: What does the evidence say?

Clinical evidence shows that using angioplasty as the main treatment for heart attack patients will:

- Save around 240 more lives per year
- Reduce complications from the treatment of heart attack
- Reduce recurrence of heart attack
- Prevent around 260 strokes per year
- Decrease the length of stay in hospital from an average of 6 days to 3.5 days.
- Thrombolysis works in about 70% of patients and they still receive an angiogram or angioplasty sometime after. 97% of pPCI patients have a good resolution the first time.

4: What are the timelines for setting up pPCI services?

The NIAP report recommends that full pPCI services should be available to 97% of the population within three years (2011).

5: What does this mean to SECAmb?

Over the coming months a number of pPCI centres will be set-up within SECAmb.

- Kent: Have agreed to commission a full 24/7 service at the William Harvey Hospital in Ashford commencing in April 2010. This will result in on average of 1:2 patients a day going directly to the heart attack centre and not the local A&E. This was chosen as the most centrally located.
- Sussex: Are negotiating for a number of 24/7 sites and potentially 1 or 2 daytime services. The preferred sites are Worthing, Brighton, Eastbourne and Hastings. Not all of these will be 24/7.
- Surrey: Currently out to tender for 1 x 24/7 site and 1 x daytime service. Options under consideration re: Frimley or St Peters 24/7 and East Surrey daytime provision.
- Portsmouth Queen Alex will be commencing a 24/7 service from July and will capture the patients in the Chichester area.

6: Will pre-hospital thrombolysis (PHT) still be used?

It is unlikely that a full PHT service will be retained and Kent will stop using PHT from the middle of April as pPCI is the preferred treatment. The CCP’s will still carry the lysis for the rare occasion when it may be required. i.e. difficult extrication, bariatric patients.
7: I hear telemetry is being reintroduced?

SECAmb have agreed a strategy with the pPCI centres to develop a new system for the transmission of an ECG. This technology has been tried and tested and SECAmb are the first Trust to have this fully integrated system across the UK. All of the LP12’s in SECAmb will be fitted with a modem over the next couple of months.

8: How does it work?

The crew/single responder will acquire an ECG and select the destination hospital from the list to send the ECG. It transmits within 30-40 seconds and arrives at a computer that is not stand alone or in a separate cupboard but at a main CCU desk. The modem will be discreetly placed in one of the pockets on the new LP12’s and a carry case will be secured to the older units on top of the batteries.

The crew will contact the receiving unit to confirm that the patient is eligible for pPCI and the hospital will then activate the on-call team 24/7.

9: Do I have to test the telemetry daily?

It is recommended that, as part of the daily equipment checks, a TEST transmission is conducted. It takes less than a minute and the transmission goes to a server within SECAmb where an automated response to the LP12 will be sent confirming 100% success.

10: Why are we using telemetry?

This is to support the hospital with their decision making to call in the full cath lab team anytime of the day or night. Some of the hospital staff live 30-40 minutes away from the hospital. It can also be used to confirm with the crew a diagnosis should this be difficult in the field. i.e. LBBB or pericarditis.

11: How is the system being funded?

The modems are from some of the Capital allocation which is set aside each year for innovation, development and estate. The revenue is realised from cost savings from the decommissioning of TNK. The Trust spends over £160K per year on the storage, use and wastage of this drug.

12: What additional training is there?

Given that the acquisition of the ECG is a recognised skill of all clinicians and the majority of frontline staff recognises an S-T elevation on the ECG. A full training package would not have been able to be commissioned or activated in the time lines. The use of telemetry will support any crew who require confirmation of the patients’ ECG diagnosis anytime of the day.

13: Are we giving any other new treatment(s) in the pre-hospital setting?

It has been agreed by the SECAmb Medical Committee to give clopidogrel to this group of patients in the pre-hospital setting. This treatment supports the preparation of the patient for the intervention and assists in the breakdown of the clot.

14. Can trainee Technicians give clopidogrel?
As this was not part of their training course this falls out of their probationary scope of practice and therefore would not be able to deliver this.

15: Should I wait for a paramedic?

The EDC always try to get a paramedic to a confirmed chest pain call. If there is not one en-route the use of Entonox, aspirin, clopidogrel, GTN still provides very good treatment.

16: Why are we only giving 300mgs and not 600mgs?

The recommended pharmaceutical dosage regime is 300mgs. The hospital give 600mgs and therefore we start the initial treatment and this is topped up by the hospital, if the patients’ condition allows. The ECSW’s will not be able to deliver this treatment as it is outside their current scope of practice.

17: How many patients will this affect.

The prevalence of heart attacks in the UK is reducing year-on-year and this is due to the screening of patients over 50, the increased use of statins and aspirin and the reduction in smoking. The number of STEMI patients’ in SECAmb is approx 1400 per annum from over 500,000 emergency responses.

18: Who do I speak to locally?

A number of leads have been identified across the Trust to support roll-out of clopidogrel and are the local contacts for this initiative. The list is attached.

19: What if the patient arrests in the ambulance?

On the rare occasion where this occurs the quick response of the crew makes a lot of difference to the outcome of the patient. A slick pre-cordial thump and defibrillation is essential. If the patient responds to this the recommended treatment is still pPCI and therefore a decision to continue to the centre will be based on the crew’s decision. If the patient is taken to the local A&E on their recovery they will be transferred to the pPCI centre as a matter of urgency.

20: What happens to the self-presenters to the local non pPCI hospital?

These patients will be rapidly assessed in A&E and a Cat ‘A’ response will arrive in SECAmb for an immediate transfer to the pPCI centre.

21: I am on a RRV, should I transmit before the DMA arrives?

Certainly. All LP12’s will have the capability to transmit. The sooner we can get the direction of travel confirmed the quicker the patient can be moved.

22: What if the telemetry fails?

As with any equipment try again and ensure the modem device is connected to the LP12 and all leads are secure. If the unit is faulty the usual procedure should be followed for reporting defects.

23: What if we arrive to a heart attack before the S-T elevation develops?
Some patients present very early to SECAmb and if the patient has classic signs and symptoms of a heart attack, transmit the ECG and contact the pPCI centre for further advice. Should the S-T develop resend the ECG and liaise with the receiving unit.

24: Some patients have paced rhythms that may be confusing?

Again, if in doubt, transmit the ECG to your receiving pPCI centre and await their advice.

25: What if the patient refuses to go to the pPCI centre?

Some patients may, for a variety of reasons not want to bypass their local hospital. All we can do is advise that this is the best treatment for their presenting condition and they should consider going. If it is evident they refuse we would take them to their local hospital.

26: What do we tell the relatives that may not be travelling and do not know the way?

The best advice is to get them to telephone the receiving hospital for directions.

27: How much time do we have?

The recommendations from the NIAP report for definitive treatment is 150 minutes from the time of call to EDC. All areas within SECAmb can get to the proposed pPCI centre within 1 hour travel time which still leaves the cath lab 90 minutes to carry out the intervention.

28: Why are we not using the time of onset of chest pain?

This is because the time patients experience the initial onset is very difficult to measure and the NIAP report stated that a recognised start time was essential for monitoring purposes across the UK.

29: What if I have never been to the pPCI centre and unsure where to go?

With Kent, for example, the access is through A&E as this is clearly marked and coloured signage will direct the crew to the cath lab. If in doubt of the access to the cath lab, A&E would be the default where you would be met and directed accordingly.

30: What if I arrive before the team?

It will happen where a crew arrive at the designated site before the cath lab is opened. You will be met by a nurse who will direct you to a recovery bed where you will transfer the patient and hand over. We are not expected to wait with the patient until the team arrive.

31: Can I stay and watch the procedure?

Given the recommended turnaround of 15 minutes this would be difficult to build into the protocol. The best advice is to liaise with EDC on the day and they will advise accordingly.

32: How long do patients stay in hospital?

With this new treatment the length of stay is reduced from 6 to 3.5 days.

33: What are we doing with the stocks of TNK?
We are reducing the stock by placing the drug in the morphine cupboard and limiting the amount of spare packs in the system. The stock from Kent in April will be collected on the start date of the new initiative and taken over to Sussex and Surrey as they are still negotiating the commissioning of a full service for pPCI and therefore still require PHT.

34: How will we communicate with the pPCI centre?

All the vehicles have/will have a mobile phone and the protocol will be for the crew to liaise directly with the receiving unit following transmission of the ECG. This phone call will be recorded at the hospital site for governance purposes and the crew will then advise the EDC of their direction of travel.

35: Will we get feedback on the outcome of the procedure?

As you will be contacting the unit directly it is anticipated that, following the procedure, a call will be made to either the crew or EDC of the patients’ outcome. What will happen with the stock from Kent in April?

36: What if the pPCI centre is unavailable?

As this will be a rare occurrence the protocol for SECAmb will remain the same and advice will be given to the crew as and when an issue presents itself. It may require the crew to go to another pPCI centre or their local A&E for alternative treatment.

37: In Kent we have Operation Stack:

A Memorandum of Understanding has been agreed with Kent Police to escort any crew through Operation Stack, when required. The crew request an escort and the traffic police will meet the crew and liaise with them en-route to the WHH.

38: What if it is at the end of the shift and I get a STEMI who needs to go to the pPCI centre?

The patient requires this definitive treatment and should be transported to the centre. It will be very rare and unfortunate should this occur but the patients do not always present at the times most convenient.

39: Will we have a personal issue protocol of these changes?

A laminated pocket JRCALC sized protocol will be issued to each A&E crew member prior to the ‘live’ date.

40: Where do I go if I have further questions?

E-mail clive.butler@secamb.nhs.uk and these will be answered and added to the FAQ list.

Local Leads:
