

# ACS Case Presentation

# ACS case

- M/61
- non smoker
- HT, gallstone, right inguinal hernia with repair
- private CT coro in 2014: minor CAD
- called ambulance for chest pain since 8pm

# Pre-hospital ECG

ZOLL® X Series® Defibrillator 12-Lead Report  
 A 61 Male  
 Patient 0983 2019-02-26 21:11:13

ZD: 010010(1)

Acquired By:  
 Queen Mary Hospital

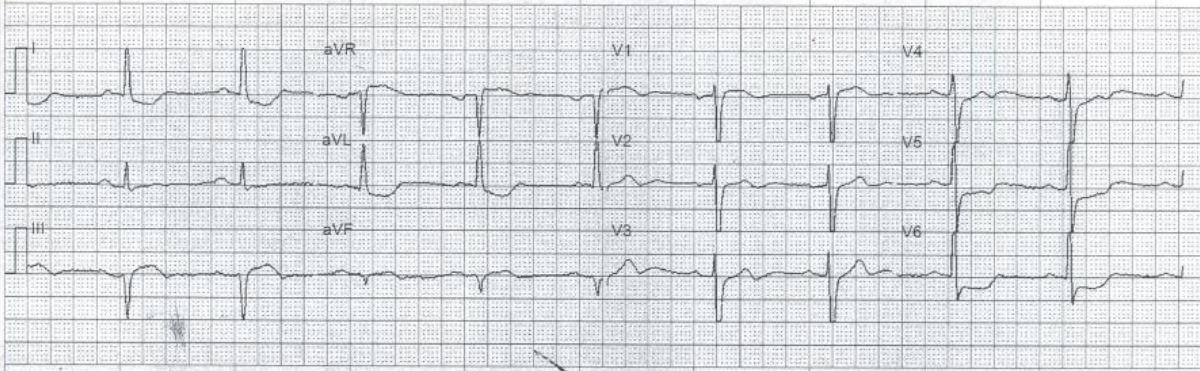
PATIENT NAME: . A  
 PATIENT ID: PATIENT 0983  
 PATIENT AGE: 61  
 PATIENT SEX: MALE  
 DEVICE ID: HK FSD 15  
 RECORDED: 2019-02-26 21:11:13

HR: 59 BPM  
 PR Interval: 203 ms  
 QRS Duration: 114 ms  
 QT/QTc: 422/420 ms  
 P-R-T Axis: 51 -12 102

Abnormal finding for 40+ male  
 Probable subendocardial injury [confounder adj. STE in aVR, ST dep in aVL/III/IV-V6]  
 Inferior infarct [abn Q,R/Q in aVF with inferior ischemic T], age undetermined  
 Sinus bradycardia  
 Strong evidence of LVH [STT abn in V1/V5, high QRS voltages]

0983  
 A333

2019-02-26 21:11:13



25 mm/s 10 mm/mV 0.52-40 Hz, ECG x1

Grid size is 0.2 s x 0.5 mV

|     | I     | II    | III | aVR  | aVL   | aVF  | V1   | V2    | V3    | V4    | V5    | V6    |
|-----|-------|-------|-----|------|-------|------|------|-------|-------|-------|-------|-------|
| STJ | -2.08 | -0.68 | 1.4 | 1.37 | -1.75 | 0.36 | 0.81 | -0.35 | -0.66 | -1.88 | -2.79 | -2.75 |

Validate rendering fidelity by referencing the 1 mV ECG calibration signals.

QMH DOB: 17/09/1957 (A&E)  
 M/61y

BP 137/67 P60  
 200mg Aspirin  
 SpO2 97

Aspirin 200mg given by ambulance man



# History

- retrosternal chest pain radiates to both shoulders and back
- associated with sweating
- also bilateral LL numbness

# Physical Examination

- BP 97/63, P 61
- RR 18/min., SpO2 97 (room air)
- temp. 36.6
- chest: heart sounds normal, no murmur detected, no basal creps



ID: I

Male Years

QMH DOB: 17/09/1957

(A&E)

M/61y

AE19019227(5)  
26/02/2019 21:27 EP1

HR : 59 bpm  
 P : 147 ms  
 PR : 232 ms  
 QRS : 111 ms  
 QT/QTc : 486/483 ms  
 P/QRS/T : 47/-19/13 °  
 RV5/SV1 : 1.733/1.443 mV

Diagnosis Information:  
 Sinus Bradycardia  
 First-degree Atrioventricular Block  
 Poor R Wave Progression(V3)  
 Flattened T Wave(V4,V6)  
 Low T Wave(V5)  
 Slight ST Depression(I,V4)  
 QT Interval Prolongation

Report Confirmed by:





QMH DOB: 17/09/1957

(A&E)

M/61y

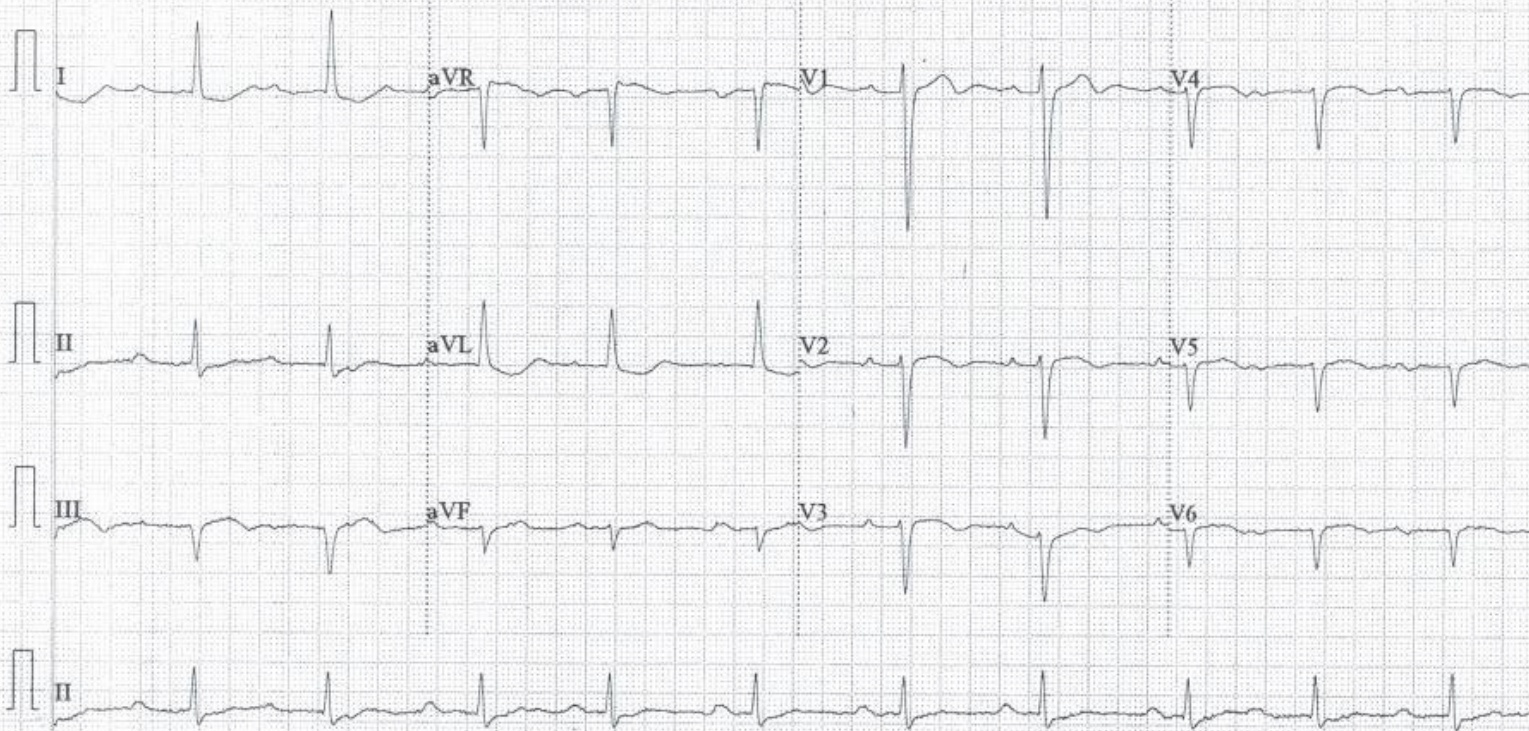
AE19019227(5)  
28/02/2019 21:27 EP1

HR : 63 bpm  
P : 172 ms  
PR : 243 ms  
QRS : 106 ms  
QT/QTc : 443/456 ms  
P/QRS/T : 90/-22/109 °  
RV5/SV1 : 0.047/2.295 mV

Diagnosis Information:  
Sinus Rhythm  
First-degree Atrioventricular Block  
Abnormal Q Wave(V6)  
Flattened T Wave(V5,V6)

R

Report Confirmed by:



# Progress

- AMI clinical pathway commenced
- CCU consulted
- CBP, L/RFTs, TnT, CK, PT/APTT, X match
- CXR
- Normal saline infusion

Group the case notes from 1 to 5.  
Group Nursing form, Observation chart, etc. in Group 4.

Please refer to <http://hmc.hk/hmc/hmcwebapps/dep/hiro> for details of full version. Prepared by HIRO OADR

Form No.: PRF01254 (Rev. 7.16)  
Last revision date: July 2016  
Last review date: July 2016  
Form owner: AED



Affix Patient M/61y  
Hospital  
AE19019227(5)  
Sex/A 26/02/2019 21:27 EP1

Resuscitation record, AED

Trauma  Nontrauma

Arrival Time: 2127 Incident Time: Allergies: Estimated BW: kg

**A. INCIDENT**

TA:  Driver  Passenger (front / back)  Seatbelt  Airbag deployment  Pedestrian  
 Burn  Scald  Electrical  Chemical  Smoke  Sport  Domestic  Assault  Industrial  
 Fall ( m)  Drowning (sea / fresh water)  Self-inflicted  Others

MECHANISM OF INJURY: *return to A&E care*

CHIEF COMPLAINT:

Recent Alcohol  Drugs:

**B. PRE-HOSPITAL MANAGEMENT**

Assisted ventilation  CPR  Pressure bandages  
 Oral airway  LMA  Combitube  
 C-spine immobilization  Defibrillation  Extremity splint  
 Neck collar No. of shocks: Time applied:  
 IV access  Spine board  
 IV fluids: #1 #2

Medications given:

ECG on arrival:  VF  VT  PEA  Bradycardia  Asystole  Agonal rhythm  SR  Others:

Trauma Team Called at hrs

| Department   | Name | Called at | Answered at | Arrived at |
|--|------|-----------|-------------|------------|
| <input type="radio"/> Surgery 1 <sup>st</sup> call |      |           |             |            |
| <input type="radio"/> Surgery 2 <sup>nd</sup> call |      |           |             |            |
| <input type="radio"/> O & T 1 <sup>st</sup> call   |      |           |             |            |
| <input type="radio"/> O & T 2 <sup>nd</sup> call   |      |           |             |            |
| <input type="radio"/> ICU                          |      |           |             |            |
| <input type="radio"/> Anaesthesiology              |      |           |             |            |
| <input checked="" type="radio"/> CCU               |      | 2125      | 2128        | 2138       |
| <input type="radio"/>                              |      |           |             |            |

**C. PRIMARY SURVEY**

| AIRWAY  | C-spine                          | BREATHING   | CIRCULATION  | Action / Comment  |
|---|----------------------------------|---|--|---|
| <input checked="" type="radio"/> Clear <input type="radio"/> Obstructed | <input type="radio"/> Stabilized | <input checked="" type="radio"/> Spontaneous <input type="radio"/> Laboured <input type="radio"/> Assisted<br><input type="radio"/> Apnoeic | Pulse <input checked="" type="radio"/> Present <input type="radio"/> Absent<br>Colour <input checked="" type="radio"/> Pink <input type="radio"/> Pale <input type="radio"/> Cyanosis<br>Skin Temp. <input checked="" type="radio"/> Warm <input type="radio"/> Cool<br>Bleeding Site: | <input type="radio"/> OPA / NPA <input type="radio"/> LMA <input type="radio"/> Combitube<br><input type="radio"/> Neck collar <input type="radio"/> Spine board <input type="radio"/> Head immobilizers<br><input type="radio"/> Suction <input type="radio"/> Others<br><input type="radio"/> O <sub>2</sub> Mask %<br><input type="radio"/> BVM<br><input type="radio"/> CPR |

NEURO  A  V  P  U

Resuscitation record, AED

**D. INVESTIGATIONS**

| BLOOD  | SENT AT | BLOOD TESTS |  | RADIOLOGICAL STUDIES |   |
|--|---------|-------------|--|----------------------|---|
|  |         | TEST        | TAKEN AT                                 | REGION               |   |
| <input checked="" type="radio"/> H <sup>+</sup> stix | 8.7     | mmol/l      | <input checked="" type="radio"/> X-match | Unit: 2204           | <input checked="" type="radio"/> Chest  |
| <input checked="" type="radio"/> Hb                  | 13.9    | g/dl        | <input checked="" type="radio"/> CBP     | R/LFT                | <input type="radio"/> Pelvis            |
| <input type="radio"/> Ketone                         |         | mmol/l      | <input checked="" type="radio"/> PT/APTT |                      | <input type="radio"/> C-spine (lateral) |
| <b>URINE</b>   |         |             |  |                      |   |
| <input type="radio"/> RBC                            |         |             | <input type="radio"/> ABG                |                      |   |
| <input type="radio"/> Pregnancy                      |         |             | <input type="radio"/> Toxicology         |                      |   |
|  |         |             | <input type="radio"/> RG                 | To CT Suite at       |   |
|  |         |             | 7.51 OKMB                                | Back to R Room at    |   |

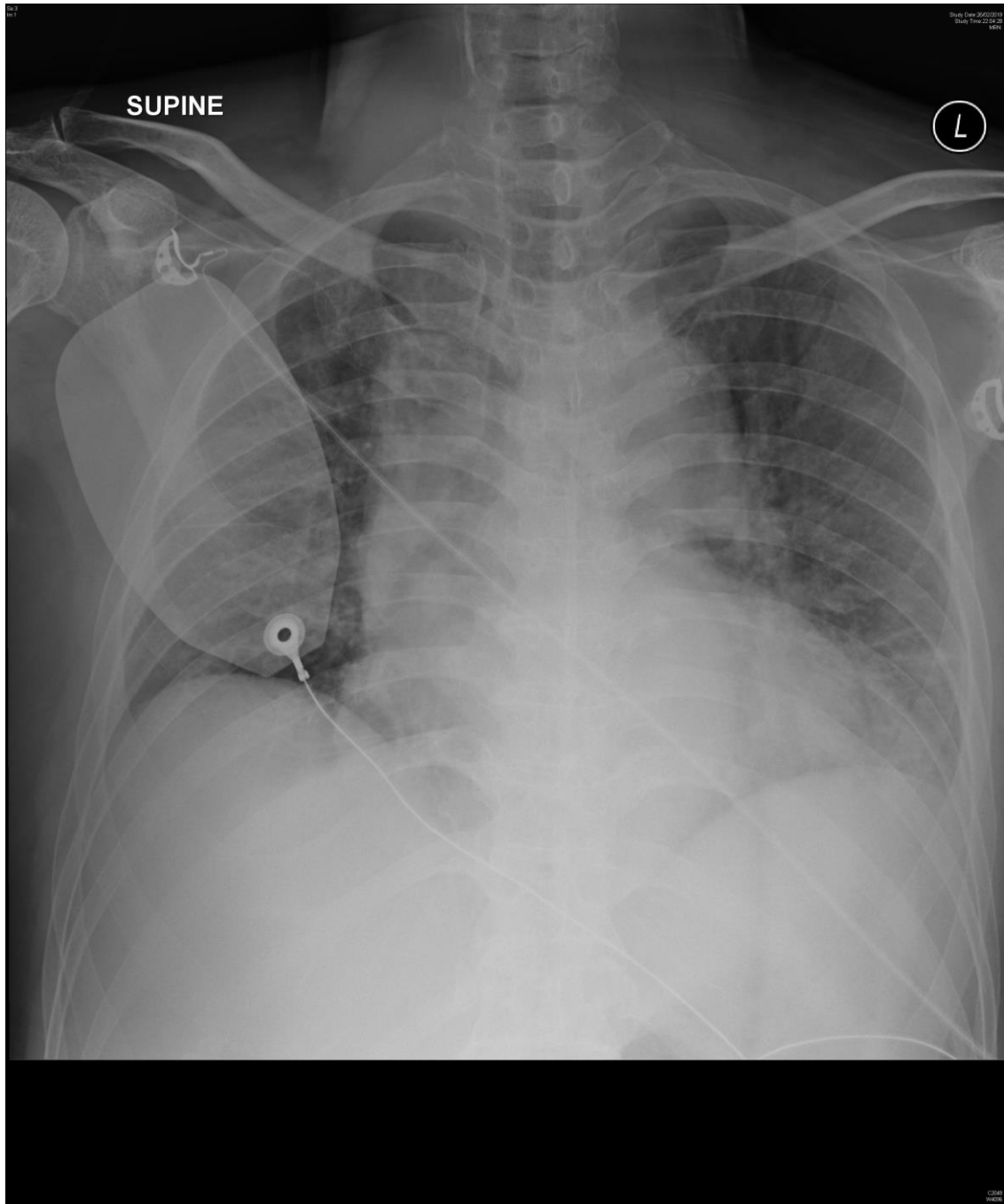
**E. INTERVENTIONS/PROCEDURES**

| TIME | INTERVENTION/PROCEDURE                                 | BY | REMARKS   |
|------|--|----|---|
|      | <input type="radio"/> ETT                              |    | Size: Depth marking: cm Cuff pressure: cmH <sub>2</sub> O                                   |
|      | <input type="radio"/> Tracheostomy                     |    | Size:   |
|      | <input type="radio"/> Needle / Surgical cricothyrotomy |    | Size:   |
|      | <input type="radio"/> CPAP                             |    | Pmax: cmH <sub>2</sub> O PEEP: cmH <sub>2</sub> O   |
|      | <input type="radio"/> BiPAP                            |    | Pmax: cmH <sub>2</sub> O PInsp: cmH <sub>2</sub> O PEEP: cmH <sub>2</sub> O Trigger: U/min  |
|      | <input type="radio"/> eCPR                             |    | Start at:   |
|      | <input type="radio"/> Needle decompression             |    |   |
|      | <input type="radio"/> Chest drain                      |    | Left - Size: Nature: Amt.: ml<br>Right - Size: Nature: Amt.: ml                             |
|      | <input type="radio"/> A-Line / Central line            |    | Site:   |
|      | <input type="radio"/> Pericardiocentesis               |    | Nature: Amt. aspirated: ml  |
|      | <input type="radio"/> DPL                              |    | Nature: Amt. In: ml Amt. Out: ml  |
|      | <input type="radio"/> Naso/Orogastric tube             |    | Size: Nature:   |
|      | <input type="radio"/> Gastric lavage                   |    | Amt. In: ml Amt. Out: ml  |
| 2128 | <input checked="" type="radio"/> Foley                 | fr | Size: 14 Nature: Amt.: ml   |
|      | <input type="radio"/> Suturing                         |    | No. of Stitches: LA given: ml   |
|      | <input type="radio"/> Pelvic binder                    |    | Applied at:   |
|      | <input type="radio"/> Limb splint                      |    | <input type="radio"/> Sam <input type="radio"/> Hare Traction <input type="radio"/> Others: |
|      | <b>Neurovascular Status</b>                            |    | Pre: Sensation Motion Pulse<br>Post: Sensation Motion Pulse                                 |

**CHECKLIST FOR TRANSFER**

|                                       |  |
|---------------------------------------|--|
| 1. ETT                                | <input type="radio"/> Patent <input type="radio"/> Secured   |
| 2. Portable ventilator                | <input type="radio"/> Setting & alarms checked <input type="radio"/> Correctly assembled <input type="radio"/> No gas leakage                                  |
| 3. Oxygen cylinder (Size FX)          | <input checked="" type="radio"/> > 10000 kPa gas volume <input checked="" type="radio"/> No leakage <input checked="" type="radio"/> Oxygen valve fully opened |
| 4. BVM & suction device               | <input checked="" type="radio"/> Function checked  |
| 5. Physiologic monitor                | <input checked="" type="radio"/> Battery & alarm checked   |
| 6. Defibrillator                      | <input checked="" type="radio"/> Battery & alarm checked   |
| 7. IV fluid & drug infusion           | <input checked="" type="radio"/> Running properly  |
| 8. All Catheters (IV, urinary, drain) | <input checked="" type="radio"/> In situ & secured   |

Do not write on the Binding Margin  
Prepared by HIRO OADR  
Form No.: PRF01254 (Rev. 7.16)  
Last revision date: July 2016  
Last review date: July 2016  
Form owner: AED



# Management

- Ticagrelor 180mg given
- persistently lowish BP
- Normal saline FR X3
- Dopamine infusion
- Foley insertion
- bedside echo.: EF 50%, RV akinesia, no pericardial effusion, no flap seen (no hard copy saved)
- imp.: RV inferior wall infarct, cardiogenic shock
- plan: PPCI

(A&E)

Affix Patient M61y

Hospital AE19019227(5)  
 Sex: 26/02/2019 21:27 EP1

### Resuscitation record, AED

#### F. OBSERVATION/VITAL SIGNS

| BP  | Pulse | RR | SpO <sub>2</sub> (%) | O <sub>2</sub> Used (%) | ETCO <sub>2</sub> (kPa) | CVP (cmH <sub>2</sub> O) | H'stix (mmol/l) | GCS               |
|-----|-------|----|----------------------|-------------------------|-------------------------|--------------------------|-----------------|-------------------|
| 260 | 260   | 18 | 97                   | KA                      |                         |                          | 8.7             | E 4<br>V 5<br>M 6 |
| 240 | 240   | 16 | 97                   | KA                      |                         |                          |                 | E 4<br>V 5<br>M 6 |
| 220 | 220   | 16 | 95                   | KA                      |                         |                          |                 | E 4<br>V 5<br>M 6 |
| 200 | 200   | 18 | 96                   | 22                      |                         |                          |                 | E 4<br>V 5<br>M 6 |
| 180 | 180   | 16 | 98                   | 22                      |                         |                          |                 | E 4<br>V 5<br>M 6 |
| 160 | 160   | 18 | 98                   | 22                      |                         |                          |                 | E 4<br>V 5<br>M 6 |
| 140 | 140   | 18 | 98                   | 22                      |                         |                          |                 | E 4<br>V 5<br>M 6 |
| 120 | 120   | 18 | 98                   | 22                      |                         |                          |                 | E 4<br>V 5<br>M 6 |
| 100 | 100   | 18 | 98                   | 22                      |                         |                          |                 | E 4<br>V 5<br>M 6 |
| 80  | 80    | 18 | 98                   | 22                      |                         |                          |                 | E 4<br>V 5<br>M 6 |
| 60  | 60    | 18 | 98                   | 22                      |                         |                          |                 | E 4<br>V 5<br>M 6 |
| 40  | 40    | 18 | 98                   | 22                      |                         |                          |                 | E 4<br>V 5<br>M 6 |
|     |       |    |                      |                         |                         |                          |                 | TOTAL             |

Resuscitation record, AED

### G. MEDICATIONS (If not given IV, please specify route: ETT / IOS / IC (Intracardiac) / SC / IM / Inhal.)

Drug Allergies & History:  NKDA  Yes

| 1.                    | Time/Dose      | Given By | Time/Dose | Given By | Time/Dose | Given By | Time/Dose | Given By |
|-----------------------|----------------|----------|-----------|----------|-----------|----------|-----------|----------|
| 1. Adrenaline         | /              | /        | /         | /        | /         | /        | /         | /        |
| 2. Dormicum           | /              | /        | /         | /        | /         | /        | /         | /        |
| 3. Etomidate          | /              | /        | /         | /        | /         | /        | /         | /        |
| 4. NaHCO <sub>3</sub> | /              | /        | /         | /        | /         | /        | /         | /        |
| 5. Rocuronium         | /              | /        | /         | /        | /         | /        | /         | /        |
| 6. Suxamethonium      | /              | /        | /         | /        | /         | /        | /         | /        |
| 7. Bilanda            | 200 mg / 100mg | Chiu     | /         | /        | /         | /        | /         | /        |
| 8.                    | /              | /        | /         | /        | /         | /        | /         | /        |
| 9.                    | /              | /        | /         | /        | /         | /        | /         | /        |
| 10.                   | /              | /        | /         | /        | /         | /        | /         | /        |
| 11.                   | /              | /        | /         | /        | /         | /        | /         | /        |

### H. IV FLUID (P = Peripheral, C = Central, IOS = Intraosseous)

| Line | Time | Nature | Amt. | Rate | Given By | Amt. given | Line | Site | P / C / IOS | Time | Nature | Amt. | Rate | Given By | Amt. given |
|------|------|--------|------|------|----------|------------|------|------|-------------|------|--------|------|------|----------|------------|
| 1    | 135  | HB     |      |      |          |            |      |      |             |      |        |      |      |          |            |
| 2    | 144  | NS     | 500  | FR   | Chiu     | 500        |      |      |             |      |        |      |      |          |            |
| 3    | 140  | NS     | 500  | FR   | Chiu     |            |      |      |             |      |        |      |      |          |            |

### I. IV DRUG INFUSION

| 1. | Drug     | Concn              | Vol | Rate | Start | End | Site  | Given by |
|----|----------|--------------------|-----|------|-------|-----|-------|----------|
| 1. | Dopamine | 400 mg in 40 ml D5 |     |      | 22:20 |     | A/B/C | Chiu     |
| 2. |          | ( mg in ml D5)     |     |      |       |     | A/B/C |          |

### J. DISPOSAL

Wristband:  Yes  No Record with Patient's Label:  Yes  No X-ray Films to Ward:  Yes  No

TO:  CT Scan  OT  ICU  CCU  Ward Unit: Transfer Informed:  Yes

Relative/Friend Present:  Yes  No Admission Informed to Relative/Friend:  Yes  No

Property:  Yes  No Kept by:  Patient  Relative  Ward  PC

Leave AED at 2:23 hrs Escorted by:  Escort Box  Manual Resuscitator  Portable Ventilator

Physiologic Monitor  Pulse Oximeter  ETCO<sub>2</sub>  Defibrillator with pads  Infusion / Syringe Pump  Drugs

For Trauma Case Only  T\* before leaving A&E \_\_\_\_\_ °C  T\* before leaving CT Suite \_\_\_\_\_ °C

Certified dead at \_\_\_\_\_ hrs  Dead  DAA

Name of Doctor: *Tu Toi Chiu* Signature: \_\_\_\_\_ Name of Nurse: \_\_\_\_\_ Signature: \_\_\_\_\_

Do not write on the Binding Margin  
 Prepared by HIRO CMH  
 Form No.: PRF02104 (Rev. 7/16)  
 Last revision date: July 2016  
 Last review date: July 2016  
 Form owner: AED

2



QMH DOB: 17/09/1957 (A&E)

M/61y

### Acute myocardial infarction clinical pathway

AE19019227(5)  
26/02/2019 21:27 EP1

UnCx - LOS: 5 days

Specialist in-charge: \_\_\_\_\_ Case Manager: \_\_\_\_\_

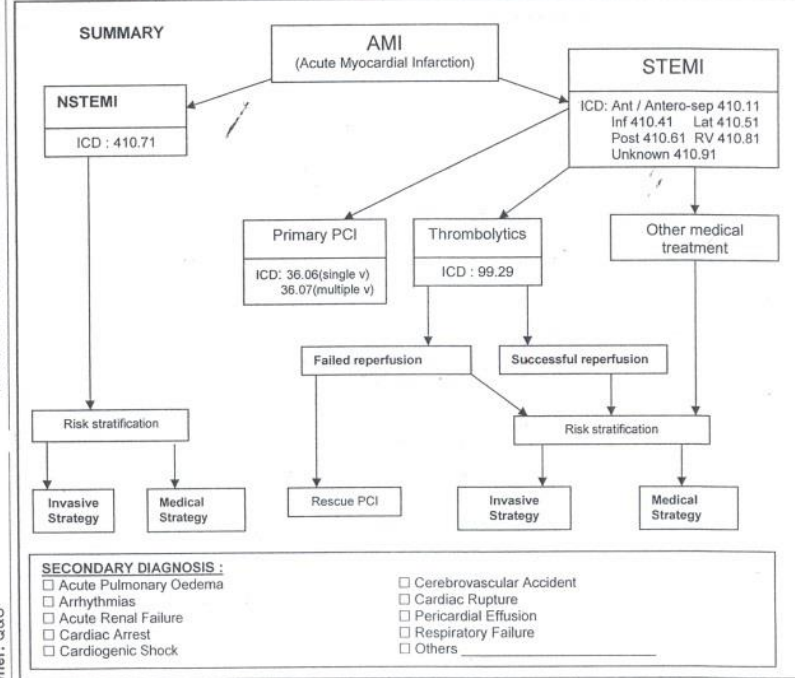
Date of Admission: 26/2/19 Date of Discharge: \_\_\_\_\_

Drug / Food Allergy:  Not known  No  Yes

Principal Diagnosis: \_\_\_\_\_ MI (\*STEMI / NSTEMI)

Other Diagnosis: \_\_\_\_\_

Risk factors: \*DM / HT / Hyperlipidaemia / Smoker / Obesity / Sex / Age / Family History



- SECONDARY DIAGNOSIS:**
- Acute Pulmonary Oedema
  - Arrhythmias
  - Acute Renal Failure
  - Cardiac Arrest
  - Cardiogenic Shock
  - Cerebrovascular Accident
  - Cardiac Rupture
  - Pericardial Effusion
  - Respiratory Failure
  - Others \_\_\_\_\_

| Seen by OTHER TEAMS: | PT | OT | Dietitian | MSW | DATE | NAME | STAFF NO | SIGN |
|----------------------|----|----|-----------|-----|------|------|----------|------|
|                      |    |    |           |     |      |      |          |      |

Note: This clinical pathway is only a guideline for standard of practice. Independent clinical assessment and management for individual patient is required.

Please tick the appropriate box \* Delete as appropriate

First Implemented (21/2/2007).  
9th version August 2018

Acute myocardial infarction clinical pathway

Group the case notes from 1 to 5. Group Special Procedures, Anaesthetic, etc. in Group 2.

Please refer to <http://hmc.hk/home/webpages/Quality/HRQ> for details of full version. Prepared by HIRO QMH

Last revision date: 15 August 2018  
Last review date: August 2018  
Form owner: Q&S



QMH DOB: 17/09/1957 (A&E)

M/61y

Day 0 (1st hour) : / /  
 Location: **A&E / CCU / General Ward**  
 Goal: **Early reperfusion, pain relief**  
**Maintain stable haemodynamics**

SUSPECTED AMI

- Done by \_\_\_\_\_
- Oxygen supplement if SaO<sub>2</sub> less than 90% or pO<sub>2</sub> less than 60mmHg
  - S.L. GTN
  - Assess chest pain (site / severity / radiation / duration)
  - IV Access x 2
  - ECG

Confirmed AMI

NSTEMI

STEMI

- Done by \_\_\_\_\_
- Refer to Risus Record
- Inform**
- Cardiac M.O.
  - CCU ward
  - CBP
  - RFT / LFT
  - X-MATCH
  - TnT
  - CKMB
  - PT / APTT
  - CXR
- Rx**
- P.O. Aspirin 280-360mg
  - TNG (Tablet / spray) (BP >100mmHg)
  - ± IV Morphine (2-4mg) (BP >100mmHg)
  - ± IV Maxolon (5-10mg)
  - Clopidogrel 600mg P.O. / Prasugrel 60mg P.O. / Ticagrelor 180mg P.O. stat
  - For patients receiving thrombolysis: Clopidogrel 300mg P.O. (75mg P.O. if age ≥ 75) < Ticagrelor/prasugrel NOT recommended in acute phase >
  - ± IV Nitrates for pain relief
- Monitoring**
- Continuous ECG monitoring & record arrhythmias
  - Vital signs
  - Assess chest pain severity (0-10 scale) at 21/2/19 10:00; at \_\_\_\_\_ / 10
  - Emotional support to patient & family
- Diet**
- \*NBM / Soft diet
- Activity**
- Complete bed rest
- @ Loading dose of 320mg chewed if no prior aspirin use, followed by a lower dose daily thereafter

STEMI

- Thrombolysis
  - Consent
  - IV TNK-tPA over 10sec.  
30mg (<60kg); 35mg (60-69kg); 40mg (70-79kg); 45mg (80-89kg); 50mg (≥90kg) - (if age ≥ 75, consider half dose TNK-tPA)
  - tPA  
15mg iv bolus then 0.75mg/kg over 30 mins (up to 50mg) then 0.5mg/kg over 60 mins (up to 35mg)  
Follow by \*LMWH / IV Heparin (i.e. stat IV 30mg LMWH then S.C. 1mg/kg Q12h x 1wk or shorter if PCI done) - (if age ≥ 75, S.C. 0.75mg/kg with no loading)
  - Admit CCU
- 'E' CORO + PCI
  - Confirm with cardiac M.O.
  - Inform Cath Lab/CCU
- Admit CCU
  - Medical therapy only

| A&E / CCU / General Ward Dr I/C | Staff No. | Sign               | Nurse I/C | Staff No. | Sign |
|---------------------------------|-----------|--------------------|-----------|-----------|------|
| <i>Joe Tat Chiu</i>             | 21407     | <i>[Signature]</i> |           |           |      |

Please tick the appropriate box  Special Importance  Delete as appropriate

Form no.: FFF-001/2 (rev. 6.10)  
Last revision date: 15 August 2018  
Last review date: August 2018  
Form owner: Q&S

Acute myocardial infarction clinical pathway

Time dependent therapy for STEMI

AE19019227(5)  
26/02/2019 21:27 EPT

Confirmed STEMI

- > >30min ischaemic pain
- > ST elevation  $\geq 1$ mm in  $\geq 2$  contiguous limb leads, or
- > ST elevation  $\geq 2$ mm in  $\geq 2$  contiguous precordial leads or new LBBB

If pain extend >12h  
→ consider PCI

If <12 hrs

\*Contact cardiac M.O. Extn. 1380

\*\* PCI preferable if  
Cardiogenic shock  
Acute pulmonary edema  
Systemic hypotension (cool, clammy)

▼ Cath. Lab. available

No

Yes

Check list for Thrombolysis (please check all boxes)

- No Absolute contra-indications:
- No any prior intracranial hemorrhage
  - No known structural cerebral vascular lesion (e.g. AVM)
  - No known malignant intracranial neoplasm (primary or metastatic)
  - No ischaemic stroke within 3 months EXCEPT acute ischaemic stroke within 3 hours
  - No suspected aortic dissection
  - No active bleeding or bleeding diathesis (excluding menses)
  - No significant closed head trauma or facial trauma within 3 months
- No Relative contraindications:
- No history of chronic, severe, poorly controlled hypertension
  - No severe uncontrolled hypertension on presentation (SBP >180 mm Hg or DBP >110 mm Hg)
  - No history of prior ischaemic stroke >3 months, dementia, or known intracranial pathology not covered in contraindications
  - No traumatic or prolonged (>10min) CPR or major surgery (<3 weeks)
  - No recent (within 2 to 4 weeks) internal bleeding
  - No non-compressible vascular punctures
  - No pregnancy
  - No active peptic ulcer

CORO ± PCI

- No Relative contra-indications:
- No history of anaphylaxis with contrast
  - No acute internal bleeding

Thrombolysis Administration Risk factors for Intracranial Hemorrhage (ICH):

- Age  $\geq 75$ ys
- BW Female  $\geq 85$ kg; Male  $\geq 95$ kg
- Female age  $\geq 65$
- SBP  $\geq 180$ mmHg
- prior stroke
- TNK use
- Bleeding
- Excessive anticoagulation (INR  $\geq 4$  or PTT  $\geq 241$ )

To be completed in A&E / CCU / General Ward :

- Time of Chest pain onset: 07pm
- Time of registration / T11: 11:27
- Time of A&E triage: 11:27
- Time of ECG done: 11:28
- Time of STEMI diagnosis: 11:29
- Time of notify cardiologist: \_\_\_\_\_
- Time of cardiologist assessment: \_\_\_\_\_
- Thrombolytic used:  TNK  tPA
- Time of Thrombolysis: \_\_\_\_\_
- Diagnosis to needle time: \_\_\_\_\_
- Door to needle time: \_\_\_\_\_

To be completed by Cath. Lab. / CCU :

- Time of cath lab activation: \_\_\_\_\_
- Time arrive to Cath. Lab. \_\_\_\_\_
- Time of P.O. Clopidogrel / Prasugrel / Ticagrelor \_\_\_\_\_
- Time of skin puncture \_\_\_\_\_
- Time of Wire crossing: \_\_\_\_\_
- Diagnosis to wire time: \_\_\_\_\_
- D-BT (Door to Wire Time): \_\_\_\_\_
- Reasons for delay: \_\_\_\_\_

A&E / CCU / General Ward  
Dr: Tu Jid Liu

Cath. Lab. Nurse

Please tick the appropriate box  
♥ 24h Primary PCI starting 7/11/2010

Delete as appropriate  
\*\* urgent call CCU MO on call

9<sup>th</sup> version August 2018



# Progress

- to CCU
- pending PPCI
- Bedside echo. done by on-call cardiologist:
- flap at ascending aorta
- moderate AR
- no pericardial effusion
- urgent CT thorax
- CTSU on call alerted

# Bedside echo.



Se:6  
Im:69

[A]

Study Date:26/02/2019  
Study Time:23:37:33  
MRN:



**Procedure:** Thorax+con., Thorax plain

**Clinical Information (from referring clinician):**

Acute chest pain since 8pm, low BP, ECG inferior/ RV lead STE, bedside echo ? dissection flap and AR. CXR: widened mediastinum, t/o dissection

**Diagnosis (from referring clinician):**

acute chest pain and inf/ RV infarct

**Report:**

Evidence of type A aortic dissection is noted. It is seen extending from the aortic root to the aortic arch. The dissection extends inferiorly to the descending thoracic aorta down to the infrarenal region.

The dissection extends to the right subclavian artery, the proximal part of the right CCA, and the proximal left subclavian artery.

The dissection is seen extending inferiorly to the infrarenal region. The dissection also involves the origin of coeliac trunk.

The dissection also extends to the left renal artery. Patchy hypoenhancing areas is noted at the left kidney. Most compatible with renal infarcts.

The right renal artery, SMA, and L CCA are spared.

C  
T

Se:6  
Im:76

[A]

Study Date:26/02/2019  
Study Time:23:37:33  
MRN:



Se:6  
Im:116

[A]

Study Date:26/02/2019  
Study Time:23:37:33  
MRN:



Se:6  
Im:205

[A]

Study Date:26/02/2019  
Study Time:23:37:33  
MRN:



[R]

[L]

OMNI.

[P]

C40  
W400

# blood test

| Patient Hospital: Queen Mary Hospital |          |          |          |          |           |                     |
|---------------------------------------|----------|----------|----------|----------|-----------|---------------------|
| Collect Date :                        | 27/07/18 | 27/07/18 | 27/07/18 | 26/02/19 | 26/02/19  |                     |
| Collect Time :                        | 09:56    | 10:14    | 10:16    | 21:42    | 21:42     |                     |
| Request No. :                         | C7270886 | C7272655 | C7272175 | C2271078 | C2271079  |                     |
| Remark :                              | htaa     | htaa     | htaa     | NSTEMI   | NSTEMI    | Ref. Interval Units |
| Na                                    |          | 145      | 144      |          | 136 - 148 | mmol/L              |
| K                                     |          | 3.5 L    | 3.3 L    |          | 3.6 - 5.0 | mmol/L              |
| Chloride                              |          | 102      | 102      |          | 100 - 109 | mmol/L              |
| Urea                                  |          | 5.3      | 6.0      |          | 3.0 - 8.8 | mmol/L              |
| Creatinine                            |          | 87       | 109      |          | 67 - 109  | umol/L              |
| Estimated GFR                         |          | 83 L     | 63 L     |          | >90       | unit                |
| F Glucose                             |          | 5.2      |          |          | See below | mmol/L              |
| Total Protein                         |          |          | 71       |          | 68 - 84   | g/L                 |
| Albumin                               |          |          | 43       |          | 39 - 50   | g/L                 |
| Globulin                              |          |          | 28       |          | 24 - 37   | g/L                 |
| Total Bill                            |          |          | 16       |          | 4 - 23    | umol/L              |
| ALP                                   |          |          | 63       |          | 42 - 110  | U/L                 |
| ALT                                   |          |          | 26       |          | 8 - 58    | U/L                 |
| AST                                   |          |          | 30       |          | 15 - 38   | U/L                 |
| CK                                    |          |          | 220      |          | 65 - 355  | U/L                 |
| Troponin T                            |          |          |          | 19       | See Below | ng/L                |
| Ur Creatinine                         | 22721    |          |          |          |           | umol/L              |
| Ur Protein                            | 0.16     |          |          |          |           | g/L                 |
| Ur Prot/Ur Crea                       | 7        |          |          |          | < 10      | mg/mmol Cr          |
| Ur Prot/Ur Crea                       | 0.06     |          |          |          | < 0.09    | mg/mg Cr            |

GENERAL BIOCHEMISTRY

# Progress

- CTSU take over
- emergency Bentall Operation
- post-op fever, controlled with antibiotics
- post echo.: no significant AR, trace pericardial effusion
- discharged D15 after admission



# Conclusions

- Pre-hospital ECG could facilitate diagnosis of ACS
- AMI pathway could standardize the procedure and shorten management time
- Aortic dissection is still a diagnostic challenge in AED