Student …….

mentor……

…….

Manvers Ward

Information Pack

Updated March 2014
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Introduction

Manvers Ward is a 31 bed Medical ward specialising in cardiology, it also has an integrated coronary care unit.
It comprises 10 monitored beds and 21 step down beds with the option of telemetry.
Patients are admitted via A&E, AMU, CDU, Angiography suit, other wards within the hospital and from other hospitals. Occasionally patients are admitted straight from home or outpatient clinics.

Admission criteria

Patients are admitted to Manvers Ward for various reasons but most common are:

- Patients with a confirmed or suspected myocardial infarction NSTEMI.
- Patients with unstable angina.
- Patients with cardiovascular emergencies e.g post cardiac arrest.
- Patients suffering with rhythm disturbances.
- Patients with cardiac disease.
- Patients with respiratory problems due to LVF that requires CPAP.
- Patients with heart failure requiring treatment.
- Patients requiring NIV then no available beds on Ashover ward or HDU.
- Patients repatriated form NGH post PCI for STEMI
- Patients who have had STEMI but have presented to hospital too late for transfer for urgent PCI.

Ward Philosophy

The philosophy of care on the ward is;

‘ The aim on Manvers Ward is to provide a high standard of care in a relaxed, friendly and caring environment, supporting staff, patients and their families.
The care is delivered by a multi-disciplinary team, sharing information and encouraging a good rapport with the patients and carers.
The team work together to improve the standard of care by continually updating their skills and knowledge using the training and learning facilities provided within the trust.’

Policies and Procedures

These can be found either in the sister’s office or on the intranet.
The ward also has books relevant to Manvers ward. These may be loaned out for a short period.

Medical Team

There are three medical consultants based on the ward together with their teams (HO, SHO and registrar).
The consultants are Dr Cooke, Dr Sheridan, Dr Smith and Dr Sandler, all sharing the workload equally.

Nursing Team

The care given by the nurses is delivered using an individualised holistic approach, within the framework of bay allocation. Each nurse is allocated a number of patients to care for with the support of the health care assistants. Individual care is delivered using nursing based on the activities of living. It is a strong nursing team working effectively over the 24hr period.

Professionals liaising with Manvers ward.

- Physiotherapists.
- Occupational therapists.
- Speech and Language therapists.
- Social workers.
- District nurse liaison.
- Community bed manager.
- Cardiac rehab team.
- Infection control team.
- Palliative care team.
- Stroke nurse.
- Respiratory nurse.
- Tissue viability nurses.
- Dietician.
- Diabetic nurse specialist.
- Mental health nurse.
- Discharge coordinator.
- Heart failure nurse specialist.

Off Duty

The ward operates a self request system where staff can request the shifts they would like. The ward manager will allocate the shifts with the staffs request in mind however not all requests will be given as the ward does have to be staffed safely. Four red requests will be granted each month.
All staff are expected to work their share of days, nights and weekends.

Absence

If you are unable to attend, you must inform the ward of your absence.

Shift Times

On Manvers Ward we currently work a shift system based on 3 shifts in 24hrs. Some members of staff work long days and nights, Some work traditional shifts.

Mornings	7.00am to 2.30pm
Afternoons	1.30pm to 9.15pm
Nights	8.45pm to 7.30am
Long Days	7.00am to 7.30pm
Long Nights	7.00pm to 7.30am

The mornings shift breaks are allocated on the white board behind the nurse's station. Please try to take your break on time as this has an impact on the people with later breaks.
During the afternoon and on nights, breaks are organised less formally and should be taken at times agreed with the nurse in charge.

Telephone Numbers

Hospital Switch Board	01246 277271
Manvers Ward Direct	01246 512434
Manvers Ward Ext.	2434 or 2436 or 6215
Medical Emergency	2222
Fire	2000

To contact a member of staff within the hospital using the bleep system, dial 85 and follow the instructions. You will be prompted to enter the three digit bleep number and the extension you are calling from. If you are unable to find the number for a department or member of staff within the hospital dial 0 and say the name of person or department. This will then dial the number for you.
At night if non emergency medical assistance or advice is required, bleep the night matrons on 803 and discuss with them using the SBAR guidelines.

Visiting Times

Visiting time on Manvers ward is 10:00-20:00. This rule may be relaxed at the discretion of the nursing staff, where relatives are unable to visit during these hours and, or when the patient is distressed or very ill.

Meal times

On Manvers Ward we follow a protected meal time policy. This is so that patients can enjoy their meals in peace without any interruptions. During this time we discourage visitors unless they are assisting patient with their meals or in circumstances where open visiting applies.
Meal times are from 12:00 to 13:00 and 15:00 to 18:00.

Medication

The trust's " Code of Practice for the safe and Secure Handling of Medicines" file is available for reference in the ward office. Self-medication is encouraged, with the patients being educated about their medicines and administration regimes.

All bedside lockers hold the individuals oral and topical medications and these are supplied on admission and used for TTO's on discharge.

A list of all the pre-pack drugs supplied on the ward is held in the drug treatment room. Staff nurses are expected to have knowledge of the uses, contraindications and side effects of every drug they use.

The British National Formulary, (BNF), is available on the ward for drug information and the pharmacy has produced a list of regularly used medicines on Manvers ward. Medications are administered at 0800 hours, 1300 hours, 1800 hours and 2200hours. In the hospital the JAC'S system is used to prescribe and administer medications. A user name and password is required for this. Your username and password should be kept confidential at all times and you should never use anyone else's.

All patients are encouraged to bring in their own medications however there is a supply in the medications room on the ward and an onsite pharmacy which is available for medications and advice.

Abbreviations used on Manvers Ward

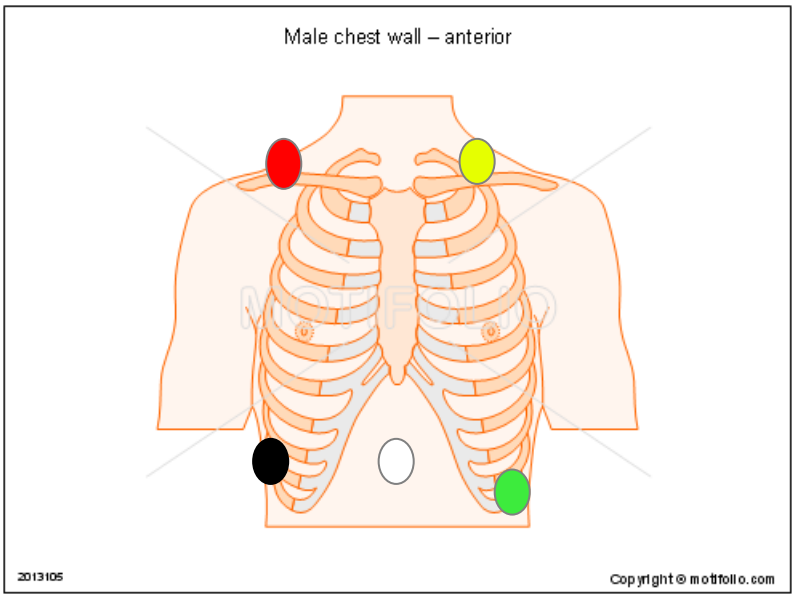
ACS	Acute Coronary Syndrome
AF	Atrial fibrillation
ARF	Acute renal failure
ATSP	Asked to see patient
AUSS	Abdominal ultra sound scan
AXR	Abdominal x-ray
AYB	Dr Butt
BD	Twice daily
BP	Blood pressure
Ca	Carcinoma
CABG	Coronary artery bypass graft
CBD	Continuous bladder drainage
CCF	Congestive cardiac failure
CCU	Coronary care unit
CD	Controlled drugs
CJC	Dr Cooke
COPD	Chronic obstructive pulmonary disease
COSHH	Care of substances hazardous to health
CRF	Chronic renal failure
CSU	Catheter stream urine
CT	Computerised axial tomography
CVA	Cerebral vascular accident
CXR	Cheat x-ray
DAS	Dr Sandler
DCCV	Direct current cardioversion
D&V	Diarrhoea & vomiting
DKA	Diabetic ketoacidosis
DNAR	Do not attempt resuscitation
DOB	Date of birth
DVT	Deep vein thrombosis
DW	Daily weight
ECG	Electrocardiogram
ENT	Ear, nose and throat
ETT	Exercise tolerance test
FBC	Full blood count or fluid balance chart
FBG	Fasting blood glucose

Hb	Haemoglobin
HCA	Health care assistant
HF	Heart failure
HONK	High osmolarity non ketoacidosis
HT	Hypertension
IDDM	Insulin dependent diabetic
IHD	Ischaemic heart disease
IM	Intramuscular
INR	International normalisation ratio
ISC	Intermittent self catheterization
IV	Intravenous
IVAB	Intravenous antibiotics
IVI	Intravenous infusion
Kn	Known
LBBB	Left bundle branch block
LFT	Liver function test
LTCBD	Long term catheter
LVF	Left ventricular failure
MC&S	Microscopy, culture and sensitivity
MDT	Multi disciplinary team
MI	Myocardial infarction
MRI	Magnetic resonance imaging
MRSA	Methicillin resistant staphylococcal aureus
MSU	Midstream urine
N2222	Not for resuscitation
NAD	No abnormalities detected
NBM	Nil by mouth
Nebs	Nebulisers
NG	Naso-gastric
NGH	Northern General Hospital
NH	Nursing home
NIDDM	Non insulin dependent diabetic
NPU	Not passed urine
NSAID	Non steroidal anti inflammatory drug
NSTEMI	Non ST elevation myocardial infarction
O2	Oxygen
OA	On admission
OBS	Observations
OD	Once daily or Overdose
OE	On examination

OT	Occupational therapist
PCI	Primary coronary intervention
PE	Pulmonary embolism
PFT	Pulmonary function test
PPM	Permanent pacemaker
PR	Per rectum
PRN	As required
PT	Physiotherapist
QDS	Four times daily
RA	Rheumatoid arthritis
RBBB	Right bundle branch block
RBC	Red blood cells
RBG	Random blood glucose
RH	Residential home
ROMI	Rule out MI
Rpt	Repeat
SALT	Speech and language therapist
SATS	Oxygen saturations
SB	Seen by
SC	Subcutaneous
SOB	Short of breath
SPCBD	Supra pubic continual bladder drainage
STEMI	ST elevation myocardial infarction
SVT	Supra ventricular tachycardia
SW	Social worker
TCI	To come in
TDS	Three times daily
TED'S	Anti embolic stockings
TIA	Transient ischemic attack
TLC	Tender loving care
TOE	Trans oesophageal echo
TPW	Temporary pacing wire
TTO	To take out (medications)
TWOC	Trial without catheter
U&E	Urea and electrolytes
USS	Ultra sound scan
UTI	Urinary tract infection
VF	Ventricular fibrillation
VT	Ventricular tachycardia

WCC	White cell count
W&D	Washing and dressing
^	Raised
#	Fracture

Cardiac monitoring



Equipment required:

- Cardiac monitor (Fixed or telemetry)
- Monitoring electrodes (3 or 5 depending on the number of monitoring leads)

✓ Explain to the patient the reason for cardiac monitoring.

✓ Ensure patient is aware of restricted mobility due to cardiac monitoring (if fixed).

✓ Apply electrodes as shown in diagram above.

✓ Ensure patient is admitted onto the monitor i.e name, sex, paced or non paced. Bed number.

✓ Document in the kardex.

✓ Remove on discharge or before on Dr's advice.

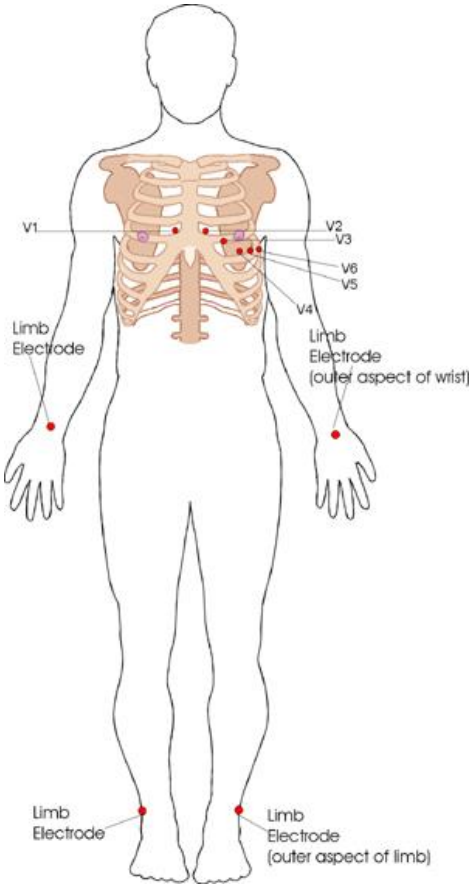
✓ Telemetry unite should be signed in and out of the locked cabinet in the pacing room.

Investigations and procedures

Here are some of the investigations and procedures you may encounter during your placement. Initial and date each procedure you have observed or participated in.

Procedure	*Observed*	*Participated*	*Initial and Date*
Attaching ECG stickers			
Taking a 12-lead ECG			
Attaching cardiac monitoring leads			
DIGAMI infusion			
Isoket infusion			
CPAP			
NIV			
Taking ABG			
Testing defibrillator			
Using defibrillator			
Temporary pacing wire insertion			
Using a pacing wire box			
Cardioversion			
TOE			
Central line insertion			

ECGs



Taking an ECG

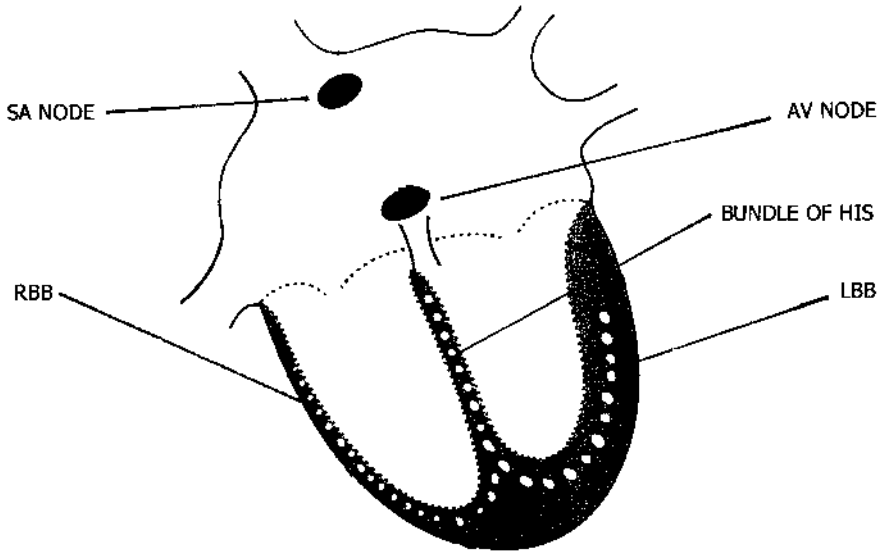
Explain to the patient the reason for the ECG.

- ✓ Ask their permission to perform the ECG.
- ✓ Apply the electrodes as shown in the diagram.
- ✓ Ensure the patients name, date of birth and hospital number are on the ECG
- ✓ Ask the patient to remain still while performing the ECG.
- ✓ Print and review comparing it to previous ECG.
- ✓ If patient admitted with MI they will require a discharge ECG to take home.

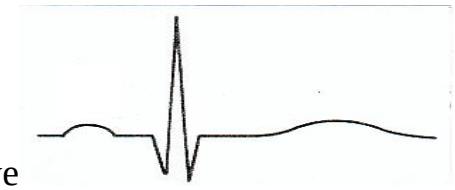
On Manvers ward most patients will have an electrocardiogram (ECG) recorded at least once daily to monitor for changes in heart rhythm. An ECG will also be recorded when a patient complains of cardiac pain.

What is an ECG?

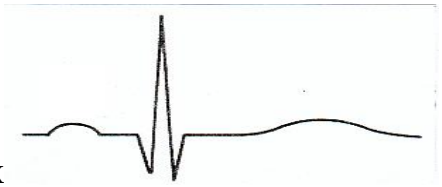
An ECG records the electrical activity within the heart, which controls its mechanical function.



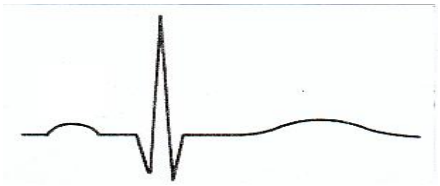
The electrical impulse initiating the cardiac cycle originates in the Sinoatrial (SA) node. Depolarisation (response of cells to electrical stimulus) spreads through the atrium causing atrial contraction, which can be seen on the ECG as the P wave.


P wave

The impulse spreads down to the Atrioventricular node, after a short delay, to allow complete atrial contraction. The impulse then passes down the Bundle of His to the left and right bundle branches (LBB/RBB) within the ventricular muscle (myocardium), which results in depolarisation of the myocardial cells, and in turn ventricular contraction. This activity is seen as the QRS complex of the ECG.

QRS complex 

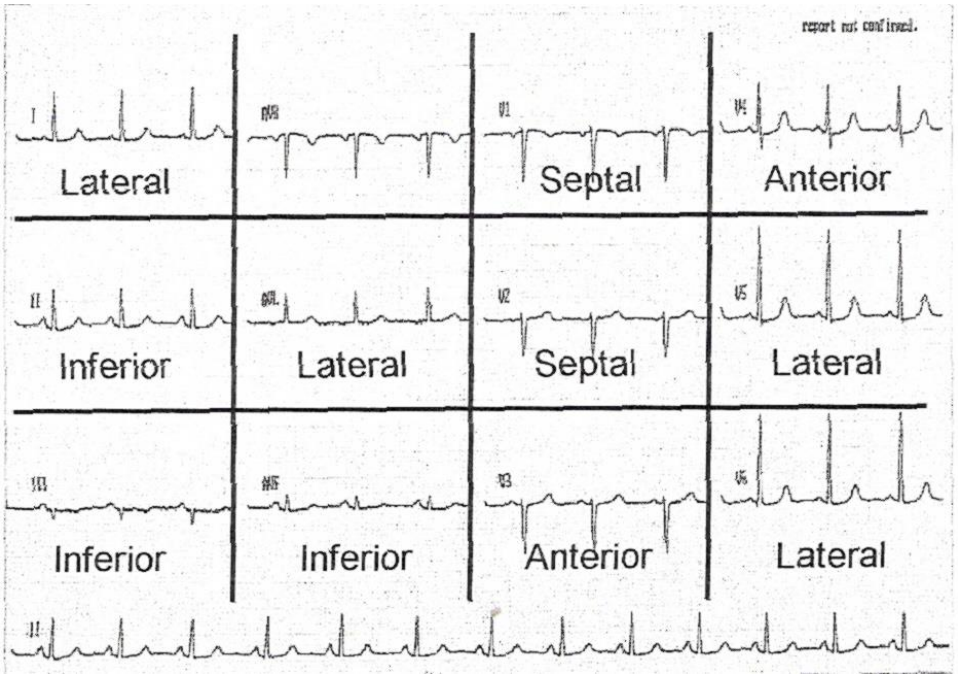
The T wave of the ECG represents the repolarisation of the ventricular myocardium in preparation for the beginning of the cardiac cycle.

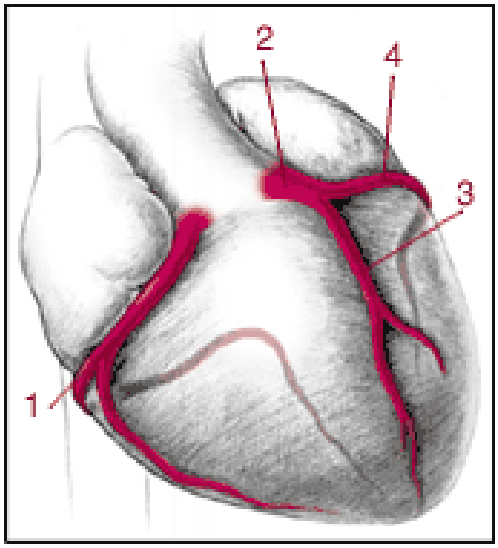
 T wave

In a healthy heart this process will take slightly less than a second and will occur around 60-100 times a minute.

Identifying Areas of Infarction

Wall affected	*Leads*	*Artery involved*	*Reciprocal changes*
Inferior	II, III, aVF	Right coronary artery	aVL
Lateral	I, aVL, V5, V6	Circumflex artery, branch of left anterior descending (LAD) artery	V1, V2
Anterior	V2 to V4	Left coronary artery, LAD artery	II, III, aVF
Posterior	V1, V2	Right coronary artery, circumflex artery	R wave greater than S wave, depressed ST segments, elevated T wave
Anterolateral	I, aVL, V4 to V6	LAD artery, circumflex artery	II, III, aVF
Anteroseptal	V1 to V3	LAD artery	None





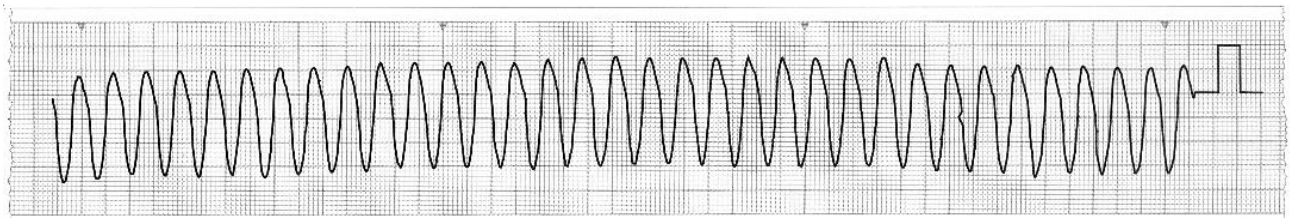
CORONARY ARTERY SYSTEM

Cardiac Arrest Rhythms

Try to familiarise yourself with the four cardiac arrest rhythms.

Ventricular Tachycardia (Pulseless)

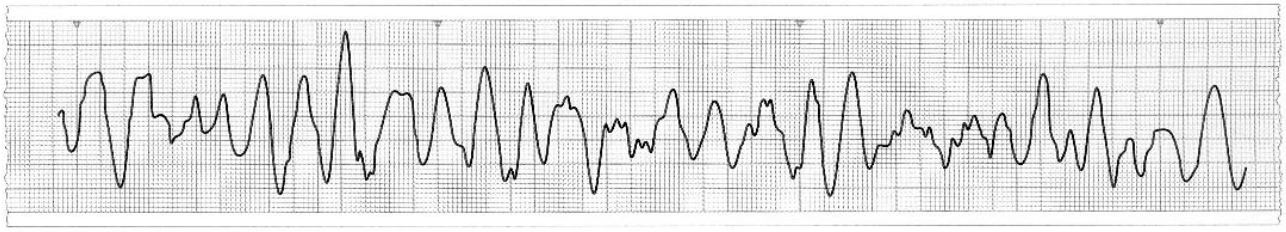
Ventricular Tachycardia is a serious presentation and requires immediate recognition and treatment. The arrhythmia originates in the ventricles and may be life threatening. Defibrillation is the necessary treatment.



Ventricular Tachycardia
3 or more successive ventricular beats
Ventricular rate above 120 beats per minute
Broad QRS complexes

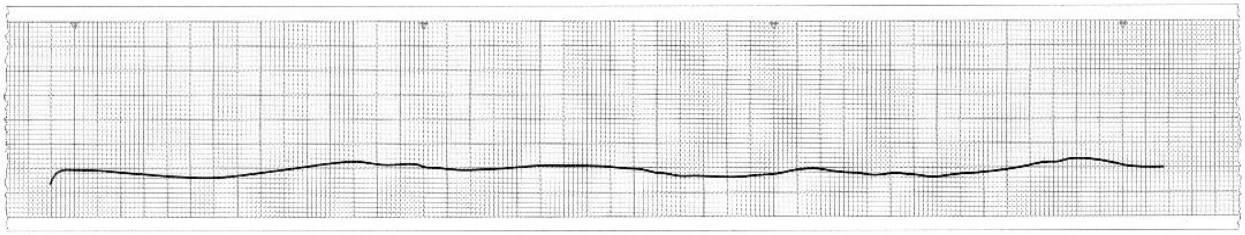
Ventricular Fibrillation

Ventricular Fibrillation presents as an irregular, chaotic rhythm, lacking pattern with no identifiable P waves or QRS complexes. This arrhythmia is NOT compatible with a cardiac output and is a cardiac arrest; the cardiac arrest team must be called immediately as rapid defibrillation is essential in the successful treatment of this arrhythmia.
VF can be course and easily identified but can be fine and harder to recognise.



Ventricular Fibrillation
Gain settings and leads should be checked quickly whilst cardiac arrest is being confirmed; to ensure no equipment failure is to blame.
Bizarre, Irregular complexes
Varying amplitudes

Asystole



Asystole

This represents a complete absence of electrical activity within the heart. It is characterised by a fine, undulating line (unlikely to be completely flat) on the ECG monitor. Again, check the equipment and leads.

This rhythm will not respond to defibrillation and a reversible cause must be found quickly whilst basic life support and resuscitation is initiated.

Implies the absence of ventricular activity.
No QRS complexes are present.
Patient is in a state of full cardiac arrest.
In asystole - always check patient, check leads, check monitoring mode (? Paddles), increase the monitoring gain to rule out fine VF

Pulseless electrical activity (PEA)

This phenomenon occurs when the ECG displays a rhythm that would normally be associated with a cardiac output (with the exception of VT) when the patient is in confirmed cardiac arrest. Any rhythm could be displayed.

Formally Electromechanical dissociation
Absence of cardiac output
Rhythm compatible with cardiac output

Common admissions

ANGINA

Angina is pain or discomfort caused by myocardial ischemia. People often describe angina pain as a chest pain, tightness or a feeling of indigestion.
The pain often radiates to the throat, arms or back.
Angina can be stable or unstable.
Stable- Pain provoked by exercise which settles upon resting.
Unstable- this is pain that often increases in frequency with progressively less exertion. It can be recurrently occurring pain without exercise. It can be unpredictable and is often prolonged pain.
Treatment for angina-

- GTN provides immediate relief or preventative before exertion.
- Beta Blockers, Calcium channel blockers, long acting nitrates and potassium channel activators can all prevent attacks.

Treatment of unstable angina-

- Immediate low molecular weight heparin to prevent thrombus formation, Beta Blockers. IV nitrates are often used for persistent pain.

NSTEMI- NON ST ELEVATION MYOCARDIAL INFARCTION.

Acute myocardial infarction typically presents with chest pain. People often describe this pain as heaviness, tightness or indigestion type pain in the chest or upper abdomen. It is usually sustained pain.
Myocardial infarction (heart attack) occurs when a coronary artery becomes occluded by a blood clot. This causes damage to the heart muscle.
In a NSTEMI the blood clot partially occludes the artery therefore only part of the heart muscle supplied by that artery is damaged.
NSTEMI is diagnosed by a blood test called a Troponin test, History and ECG- may have ischemic changes.

Initial treatment for a NSTEMI is-

- 02 If SPO2 v 96%.
- IV access.
- Morphine.
- Buccal/SL nitrate unless BP v100.
- Clopidogrel 300mg stat.
- Asprin 300mg stat.
- Fondaparinux 2.5mg sc unless contraindicated.

STEMI- ST ELEVATION MYOCARDIAL INFARCTION.

In a STEMI there is often a history of sustained acute chest pain which is accompanied by acute ST segment elevation on a 12 lead ECG. (Advanced life support, 2011)
The coronary artery is completely occluded by a blood clot and therefore virtually all the heart muscle supplied by that coronary artery begins to die.
Initial treatment is-

- 02 if SP02 is <96%.
- Iv access.
- Morphine.
- Asprin 300mg stat.
- Clopidogrel 300mg stat.

If ECG criteria for PCI are present and patient presents less than 12 hours after maximal pain.

- 1mm or more ST elevation in two contiguous limb leads
- 2mm or more ST elevation in two contiguous chest leads

Contact NGH
999 Ambulance
If anticipated delays in transfer >2 hours consider thrombolysis.

Chesterfield Royal Hospital
NHS Foundation Trust

Primary PCI for STEMI (PPCI) Care Pathway 2010

Chest pain

↓

12 lead ECG

↓

STEMI?

Yes ↓

ST elevation in 2 contiguous leads
(>1mm limb leads or 2mm chest leads) or new LBBB or true posterior MI
(Tall R waves in V1-3 with ST depression)

↓

*Onset >12h
*Unable to co-operate
*Extremely frail
*Unconscious
*Ventilated
*Recent dense stroke

Yes to any of those →

No to all of those ↓

Red Phone PPCI NGH: 0114 226 9504

Hang on the phone at least 12 rings: if no-one in Cath Lab, it automatically switches to CCU. A nurse will answer. This is not an advice line – it is to ask if you can send a patient for PPCI.
State name of patient and location.
Confirm destination: Cath Lab NGH (in hours) or CCU NGH (out of hours after 6pm)

↓

Patient accepted?

No →

(if Cath Lab busy)

Yes ↓

Phone _____

Answer the questions and [illegible] Priority 1 Ambulance for Transport for Primary PCI from your location to NGH for STEMI (Cath Lab or CCU)

↓

While waiting

*Give patient 300mg aspirin (unless patient has this for >3d). Prasugrel will be given in Sheffield on arrival.
*Consider analgesia (eg Diamorphine 5mg, maxalon 10mg i.v.)
*Write a brief transfer letter. Include time of onset of CP, drugs given and regularly taken, recent events, medical history
*Send the notes and X-rays – NGH will return them!
*Explain to patient and relatives that they are going to have a coronary angiogram, probably an angioplasty and then come back to your CCU tomorrow
*The ambulance crew will give the relatives a leaflet with details of where the patient is going, how to get there, park etc.
*The Cath Lab staff at NGH will warn your CCU that the patient is likely to be 'repatriated' tomorrow
*The 'ordinary' NGH phone numbers are: Cath Lab 0114 226 6153; CCU 0114 2714226

No ↓

Normal, old MI, old LBBB, high take-off, pericarditis, ST depression, T inversion, paced, etc

↓

Appropriate local chest pain pathway

Consider thrombolysis

Heart failure

Heart failure is caused by the heart failing to pump enough blood around the body at the right pressure.
It usually occurs due to the heart muscle becoming too weak or stiff to work properly.
In heart failure the heart requires support usually in the form of medication.
Heart failure can occur very suddenly or it can become progressively worse over time.
Some causes of Heart failure are:

- Heart attack.
- ^BP putting strain on the heart.
- Diseased or damaged heart valves.
- Cardiomyopathys.
- Congenital conditions.
- Heart rhythm disturbances.
- Alcohol.

Symptoms of heart failure can include shortness of breath, tiredness and swelling, usually in the feet, legs and abdomen.

Treatment for heart failure is usually in the form of medications. Treatment can only aim to improve the symptoms of heart failure as there is no known cure.

- Diuretics- help the kidney excrete excess water.
- Ace inhibitors- Relax the arteries thus reducing how hard the heart has to work to pump blood or Angiotensin Receptor Blockers- Widen the blood vessels and lower BP.
- Beta Blockers- Help prevent the heart from beating too quick or too hard.
- Aldosterone Antiagonist- Work like diuretics but reduce the loss of potassium and may help reduce muscle scaring.

CPAP- In acute Heart failure the pressure generated by CPAP helps to move fluid from the lungs and back into the vascular system.

Troponin test

A biochemical marker of cardiac muscle damage.
A raised Troponin level indicates myocardial damage.

Indications- Episode of significant chest pain that may be cardiac in origin. The onset of symptoms should be more than six hours prior to test.

Results-

- <14- No myocardial damage.
- 14-99 Borderline result.
- >99 Myocardial damage.

Echocardiogram (ECHO)

This uses sound waves that echo off of the heart structure giving an image of the heart.
It looks at the structure of the heart and shows how well it is functioning, including blood flow through the heart and the valves in the heart.
It is often used to assess the hearts function in people with heart failure or who have had a heart attack.
Sometimes a better look at the heart is required and a Transoesophageal echocardiogram (TOE) may be performed. This is where a camera is passed down the oesophagus which lies behind the heart.

Exercise tolerance test (ETT)

This is a test to assess if a person has coronary heart disease.
The patient will have ECG's recorded while on a treadmill. During exercise the demand on the heart is greater and the heart requires a greater flow of blood.
This test shows if the heart is getting enough blood from the coronary arteries during exercise.

Angiogram (ANGIO)

This is a test to determine the extent of narrowing of the coronary arteries. It will help decide what treatment will be required.

A flexible tube is inserted into either the groin or wrist and will be directed through the blood vessel to the heart using and X-ray. Contrast (a dye) will then be pumped through the flexible tube into the heart to detect narrowing or blockages. If this is the case the patient may be referred to Sheffield for stenting of the arteries.

Nursing responsibility

Start booklet

- ✓ Refer to pre Angiogram checklist for instructions regarding preparation and complete prior to transfer for Angio.
- ✓ Consent form is required.
- ✓ Ensure warfarin is discontinued 72 hours prior to procedures.
- ✓ If the patient is taking metformin this must be omitted 24 hours prior to procedure.
- ✓ Stop diuretics, NSAID'S, Ace inhibitors on the day.
- ✓ Ensure INR is taken prior to procedure.
- ✓ Record general observations including pedal pulses prior to procedure and document.
- ✓ Ensure patient has had a FBC, U&E and clotting.
- ✓ Check patient is cannulated.
- ✓ Administer where prescribed pre operative fluids.
- ✓ On return to the ward monitor general observations, pedal pulses and foot temperature as per sheath size guidelines.
- ✓ Refer to Angio bed rest guidelines regarding frequency of observations, time remaining flat and mobilising.
- ✓ Monitor Angio site. Encourage patient to apply pressure to site on laughing/coughing.
- ✓ Provide patient with an after your angiogram booklet.
- ✓ NBM 4* before procedure. Sip clear fluids up to procedure.

Permanent Pace Maker (PPM)

PPM are often required for heart block, bradycardic patients and Patients with tachybrady syndrome to aid rate control.
They work by taking over the hearts natural pace maker (SA node).
It sends an electrical impulse to make the heart beat when required.
It is placed just under the collar bone and is done under local anesthetic.
They are checked the following day to ensure they are working correctly and if the patient is well they can go home. Sutures to the site will have to be removed seven days post insertion.

Nurses responsibility

Start booklet

- ✓ Check patient has received and understood the pre operative information given.
- ✓ Encourage patient to verbalise any concerns.
- ✓ Ensure recent ECG and general observations have been recorded.
- ✓ Check FBC, U&E, clotting if on warfarin. Warfarin should have been stopped 72 hours prior to PPM insertion.
- ✓ Administer oral antibiotics.
- ✓ Check patient is cannulated.
- ✓ Check consent form is signed.
- ✓ Follow the pre operative guidelines and complete the multi disciplinary documentation.
- ✓ Following the procedure check BP according to protocol.
- ✓ If pulse is less than pacing rate check carotid pulse not peripheral.
- ✓ Monitor PPM site for bleeding, Haematoma or brusing on arrival.
  - o Every 15 minutes for 1 hour.
  - o Every hour for 2 hours
  - o Every 4 hours thereafter.
- ✓ Administer post PPM antibiotics.
- ✓ Ensure patient has appropriate pain relief prescribed.
- ✓ If INR ^ will need vitamin K
- ✓ Ensure asprin is stopped 96* prior and warfarin 72* prior.
- ✓ Provide paper underwear and gowns.
- ✓ NBM 2 HOURS BEFORE sip clear fluids up to procedure.

Temporary pacing wire (TPW)

TPW is required to provide electrical stimulation to a heart that is compromised by disturbance in the conduction system.

It is used in an emergency when a patient becomes compromised due to disturbance in the conduction system and the option to wait for a PPM is not available as the patients life is at risk.

Nurses responsibility

- ✓ Ensure patient and next of kin are aware of the need for the procedure .
- ✓ Ensure notes and relevant X-rays are available.
- ✓ Inform radiographer of impending procedure.
- ✓ Position patient comfortably on pacing trolley.
- ✓ Observe cardiac monitor.
- ✓ Provide the patient with comfort and reassurance throughout the procedure.
- ✓ Ensure external pacer and arrest trolley are to hand.
- ✓ Ensure pacing box and wire are securely fixed.
- ✓ Ensure check X-ray are performed to confirm position.
- ✓ Ensure pacing threshold is checked and set according to instructions from the Doctor carrying out the procedure.
- ✓ Check pacing site, threshold and underlying rhythm daily.
- ✓ Observe cardiac monitor for evidence of loss of capture and efficiency of pacing wire.
- ✓ Ensure patient is aware of the likelyhood of needing a PPM.
- ✓ 4 Hourly observations must be checked and recorded.

Common drugs used on Manvers ward.

Drugs for abnormal heart rhythms
Amiodarone, Flecainide, Digoxin
Helps to control heart rhythm/rate.
Different types work in different ways but they all generally work by slowing the heart rate to return it to a normal rhythm.

Anticoagulants
Warfarin, Heparin
Prevent the formation of fibrin and prevent harmful blood clots. Prevents stroke. Often used in people with AF or artificial valves to reduce the risk of blood clot formation.

Beta Blockers
Bisoprolol, Atenolol, Metoprolol,

Prevent the heart from beating too quickly and too forcefully by slowing it down.
This increase the amount of blood pumped with each beat and therefore the heart does not have to work so hard.
They also help to reduce the frequency of angina attacks, Control BP, help treat abnormal heart rhythms, reduce the risk of more MI's and treat heart failure.

Calcium channel blockers.
Diltiazem, Verapamil, Amlodipine, Nifedipine.
These reduce the amount of calcium entering the muscle cells of the arteries causing them to relax and widen therefore the heart doesn't have to work so hard.
Helps reduce angina attacks and abnormal heart rhythms. Also used in hypertension.

Anti platelets
Asprin, Clopidogrel, Ticagrelor, Dipyridamole, Prasugrel
Make the blood less stick and reduce the risk of clot formation. They also reduce the risk of MI's

Cholesterol lowering medications
Atorvastatin, Simvastatin, Ezetimibe
Reduce the levels of cholesterol in the blood therefore lowers the risk of coronary heart disease.

Nitrates.
GTN, ISMN
Relaxes the muscles in the wall of the arteries and veins making them wider. This improves the amount of oxygen rich blood that gets to the heart. Helps reduce angina. Also used in HF.

Potassium channel blockers
Nicorandil
Relaxes the wall of the coronary arteries, improving blood flow to the heart. Helps prevent angina.

ACE Inhibitors.
Ramipril, lisinopril Enalapril
Reduces the activity of the angiotensin converting enzyme. This enzyme has a narrowing effect on blood vessels which in turn increases BP. ACE inhibitors work by relaxing and widening blood vessels which increases blood flow to the heart.
Used in HF, post MI and low BP.

Andiotensin 11 antagonists
Candesartan, Losartan, Valsartan
Prevent the action of the hormone angiotensin and therefore relaxes blood vessels and blood flows with more ease.
Often used if cannot tolerate ACE.

Diuretics
Furosemide, Bendroflumethazide, bumetanide, metalazone, Spironalactone.
Increase kidney output, Remove excess water from the body which in turn reduces the workload of the heart.
(BHF, 2011)

PLEASE REMEMBER TO CHECK….

- Height and Weight is recorded on MUST and COW
- Chlorhexidine Wash is prescribed 
- MUST, Waterlow, Medicines, Falls Assessment completed
- Observations Chart is signed on the back & rationale given…Can we reduce the number of times???
- MRSA screen completed & signed…Date washes commenced
- Infection Control Issues…D & V, etc. is completed & signed
- Indemnity is signed
- Care Plans completed and correlate to the patients' needs
- Discontinue care plan if not needed, i.e. Removing Cannula.

- VIP Score Cannula…Remove ASAP
- Catheter…Remove ASAP
- Fluid Balance…Input/ Output…Total up each time recorded
- Essential Care Chart is fully completed & signed

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