

Title	Acute Left Ventricular Failure	Version	10.1
Target Audience	FY doctors & student nurses	Run time	10 -15 mins
Authors	N Feely, U Naidoo, P Wilder, M Loughrey	Last review	4/7/18
Faculty comments	Normal faculty requirements	Necessity	n/a

Brief Summary

The main focus of this scenario is recognition of acute left ventricular failure with timely investigation and treatment. The FY doctor should be able to diagnose and manage this condition appropriately.

Educational Rationale

Heart failure is one of the commonest medical emergencies on acute medical take. Heart failure should be a differential in all elderly patients presenting with breathlessness in addition to other causes. FY trainees should be able to work within, and lead, a team to safely assess and treat patients in a timely manner to ensure the best possible outcome.

Learning Objectives: Nurse

- ABCDE assessment of a deteriorating patient
- Appropriate escalation and SBAR handover

Learning Objectives: Doctor

- A-E assessment and management of a deteriorating patient
- Early recognition of left ventricular failure, appropriate investigations and use of local treatment protocols
- Appropriate call for help to escalate the management and concise transfer of information

No	CURRICULUM MAPPING	This scenario
1	Acts professionally	✓
2	Delivers patient-centred care and maintains trust	✓
3	Behaves in accordance with ethical and legal requirements	✓
4	Keeps practice up to date through learning and teaching	✓
5	Demonstrates engagement in career planning	
6	Communicates clearly in a variety of settings	✓
7	Works effectively as a team member	✓
8	Demonstrates leadership skills	✓
9	Recognises, assesses and initiates management of the acutely ill patient	✓
10	Recognises, assesses and manages patients with long term conditions	✓
11	Obtains history, performs clinical examination, formulates differential diagnosis and management plan	✓
12	Request relevant investigations and acts upon results	✓
13	Prescribes safely	✓
14	Performs procedures safely	✓
15	Is trained and manages cardiac and respiratory arrest	
16	Demonstrates understanding of the principles of health promotion and illness prevention	✓
17	Manages palliative and end of life care	
18	Recognises and works within limits of personal competence	✓
19	Makes patient safety a priority in clinical practice	✓
20	Contributes to quality improvement	

Candidate Briefing: Nurse

Setting	Emergency department
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You are a nurse working in the Emergency Department. You are looking after Mary Emory, a 72 year old patient who has presented with acute shortness of breath and chest discomfort, on a background of IHD and COPD.

The admission notes, drug chart and observation chart are available.

Please take a set of observations and proceed.

Candidate Briefing: Doctor

Setting	Emergency department
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You are an ED doctor working in A&E Majors.

Please wait until you are called by the nurses who are undertaking a patient assessment in resus, and then act as you would do in real life, including receiving SBAR handover from them.

Technical set-up

Setting	Emergency department		
Simulator	High fidelity manikin		
Gender	Female	Age	72

Initial monitor parameters

RR	O2 sats	Pulse (HR)	BP	ECG rhythm
24	92% on air	125	110/50	Sinus tachycardia
Cap Refill Time	Blood glucose	Temp.		
4 sec	5.9	36.9		

Initial patient set-up

Airway	Obstruction	Airway adjunct
	No	None

Breathing	Chest sounds	O2 supply
	Bibasal wheeze and crackles	air

Circulation	Heart sounds	Cannula	BP cuff	Peripheries / pulses
	Sinus tachycardia	In place	Attached	Cool

Disability	Eyelids	Pupils	AVPU/GCS
	Open	Equal and reactive	A / 13

Exposure	Posture	Moulage	Bowel sounds
	Sitting at 45 degrees	None	normal

Specific equipment / prop requirements

- Oxygen and selection of masks inc non-rebreathe masks
- Monitoring equipment (ECG and sats probe)
- Syringes, flushes, iv fluids and giving sets
- Simulated drugs
- Blood bottles and request forms
- Observation chart, medical notes, drug chart
- BNF
- Mobile phone for guideline app

Facilitator Briefing

Telephone Advice

If the candidate is struggling with the diagnosis/management, give some clues:

- Ask for brief history of admission
- Ask for current state and examination findings
- Ask for cardiovascular status - pulse volume, capillary refill time, whether hands warm/cold, any signs of sepsis?
- Ask about fluid balance for last 24 - 48 hours
- Ask for ECG findings* - if AF correctly diagnosed, recommend rate control with digoxin iv
- Ask for ABG result*
- Ask for CXR result* - ask for the candidates opinion on findings

* if any investigations have not been performed, ask the candidate to call you back once they are available

CONDUCT

- You will be sitting in the control room for the duration_
- Answer all calls as “switchboard” in the first instance to allow for realistic delay. Call back after 1 - 2 minutes
- The Medical Registrar should sound busy and state they are tied up with another patient
- They should be helpful but press the candidate hard about what assessment has been performed e.g. nature of pain, findings of physical examination
- If the candidate is not armed with the information, tell them to get the required info and call you back

How to run with candidates from only one discipline

An additional member of faculty can play the role of the nurse in this scenario if needed.

Sim Nurse briefing:

You are looking after Mary Emory, a 72 year old patient who has presented with acute shortness of breath and chest discomfort, on a background of IHD and COPD. You ask the FY doctor to assess him in the Emergency Department. An observation chart is available with the first set of obs recorded.

CONDUCT

Throughout the scenario you should act as a “competent robot” i.e. you should perform all tasks requested to the best of your ability, but should not initiate any treatment on your own. If you are not being effectively instructed by the candidate, you may be prompted via your ear piece by the lead facilitator as to what your next action should be.

If you strongly disagree with management then you are free to question them, stating your reasons.

If asked to give drugs, you should request that they are prescribed on the drug chart. If they are unsure of the dosage please refer them to the BNF or Hospital Guidelines App or via Intranet.

Patient Briefing

Setting Emergency department

Name Mary Emory

Age 72

Gender Female

What has happened to you?

- Your chest has become uncomfortable for the past hour.
- Your chest feels tight and it is really difficult to breathe.
- You can only say 2 to 3 words at a time.
- You took your GTN spray and your usual inhalers but they haven't helped.
- If prompted by the faculty you will deteriorate and may arrest.

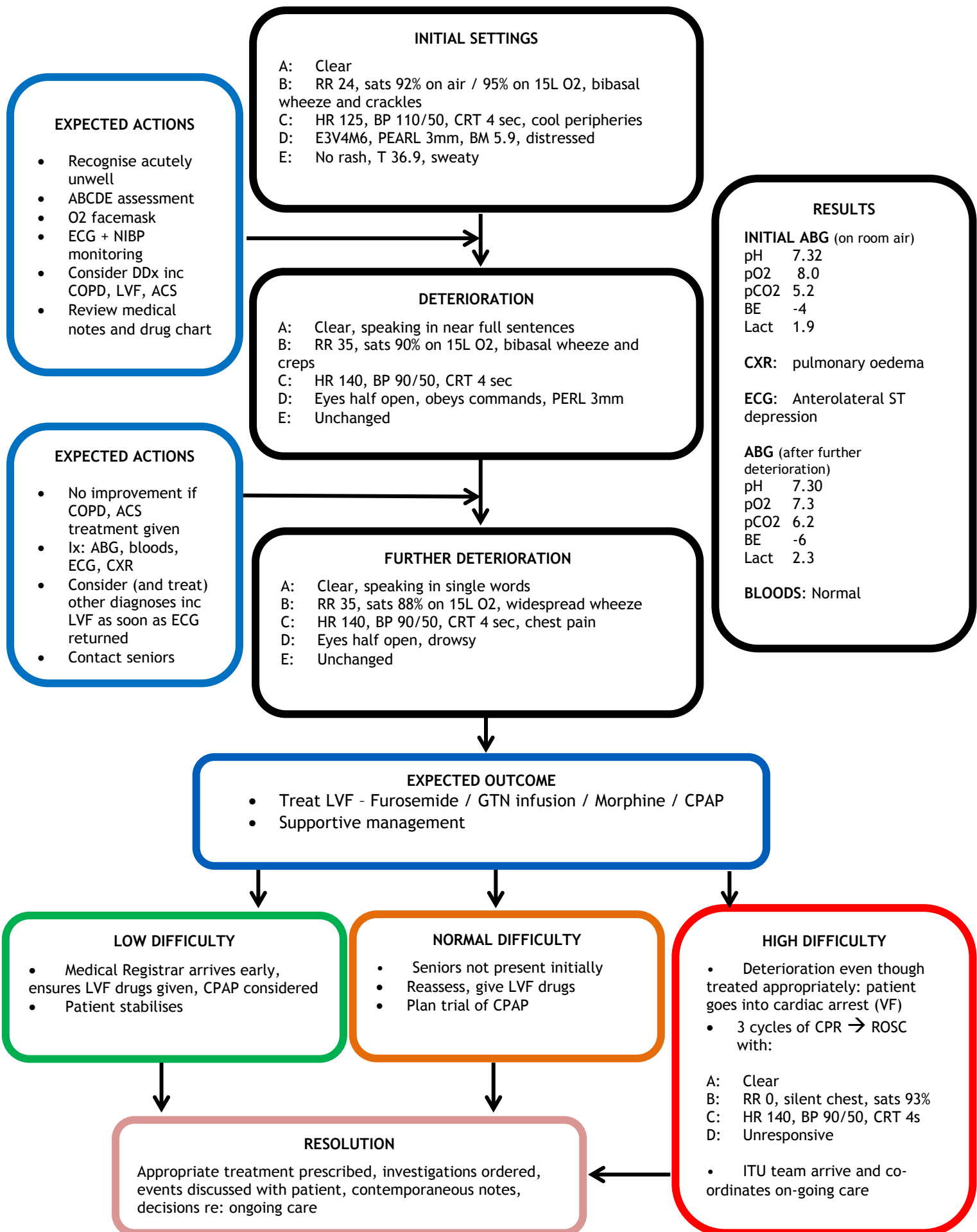
How you should role-play

You are initially breathless but able to speak in short sentences. You have a tight sensation in your chest. You will quickly deteriorate and only be able to speak in single words. If correct treatment is not given you will deteriorate further and become drowsy.

Your background

- You are a retired shopkeeper.
- History of angina (for which you take a GTN spray)
- Heart attack 8 years ago
- COPD (smoked since the age of 15)
- Exercise tolerance of about 100 yards (on a good day) limited by shortness of breath.

Scenario flowchart



References

- European Society of Cardiology guidelines for the diagnosis and treatment of acute and chronic heart failure 2012. European Heart Journal 33: 1787-1847 available at: <https://www.escardio.org/Guidelines/Clinical-Practice-Guidelines/Acute-and-Chronic-Heart-Failure>
- NICE CG108. Chronic heart failure in adults: management. August 2010. Found at: <https://www.nice.org.uk/Guidance/CG108>
- NICE CG187. Acute heart failure: diagnosis and management. October 2014. Found at: <https://www.nice.org.uk/guidance/cg187>

Clinical props

RADIOMETER ABL800 FLEX

Identifications

Patient ID 789987
 Patient Last Name EMORY
 Patient First Name Mary
 Sex Female
 Date of birth
 FO₂(I) %
 T 36.9 C
 Sample type Arterial
 Operator TEMP FPH 1

Blood Gas Values

↓ pH 7.320 [7.350 - 7.450]
 pCO₂ 5.80 kPa [4.70 - 6.00]
 ↓ pO₂ 8.0 kPa [11.1 - 14.4]
 Hct_C 0.42 %

Oximetry Values

ctHb 11.9 g/L
 ↓ FO₂Hb 92.0 % [94.0 - 98.0]
 sO₂ 92.0 %
 FCOHb 0.6 % [0.5 - 1.5]
 FHHb 4.0 % [0.0 - 5.0]
 FMetHb 0.0 % [0.0 - 1.5]

Calculated Values

cBase(Ecf)_C -4.0 mmol/L
 cHCO₃⁻(P)_C 18.0 mmol/L

Electrolyte Values

cNa⁺ 143 mmol/L [136 - 146]
 cK⁺ 3.7 mmol/L [3.4 - 4.5]
 cCl⁻ 103 mmol/L [98 - 106]
 cCa²⁺ 1.17 mmol/L [2.2 - 2.45]
 Anion Gap_C mmol/L

Metabolite Values

cGlu 4.5 mmol/L [3.9 - 5.8]
 ↑ cLac 1.9 mmol/L [0.5 - 1.6]
 cCrea 88 μmol/L [44 - 97]

Notes

↑ Value(s) above reference range
 ↓ Value(s) below reference range
 c Calculated value(s)

RADIOMETER ABL800 FLEX

Identifications

Patient ID 789987
 Patient Last Name EMORY
 Patient First Name Mary
 Sex Female
 Date of birth
 FO₂(I)
 T 36.9 C
 Sample type Arterial
 Operator TEMP FPH 1

Blood Gas Values

↓ pH 7.300 [7.350 - 7.450]
 ↑ pCO₂ 6.20 kPa [4.70 - 6.00]
 ↓ pO₂ 7.3 kPa [11.1 - 14.4]
 Hct_C 0.40 %

Oximetry Values

ctHb 12.0 g/L
 ↓ FO₂Hb 91.0 % [94.0 - 98.0]
 sO₂ 91.0 %
 FCOHb 0.7 % [0.5 - 1.5]
 FHHb 4.1 % [0.0 - 5.0]
 FMethHb 0.1 % [0.0 - 1.5]

Calculated Values

cBase(Ecf)_C -6.0 mmol/L
 cHCO₃⁻(P)_C 20.0 mmol/L

Electrolyte Values

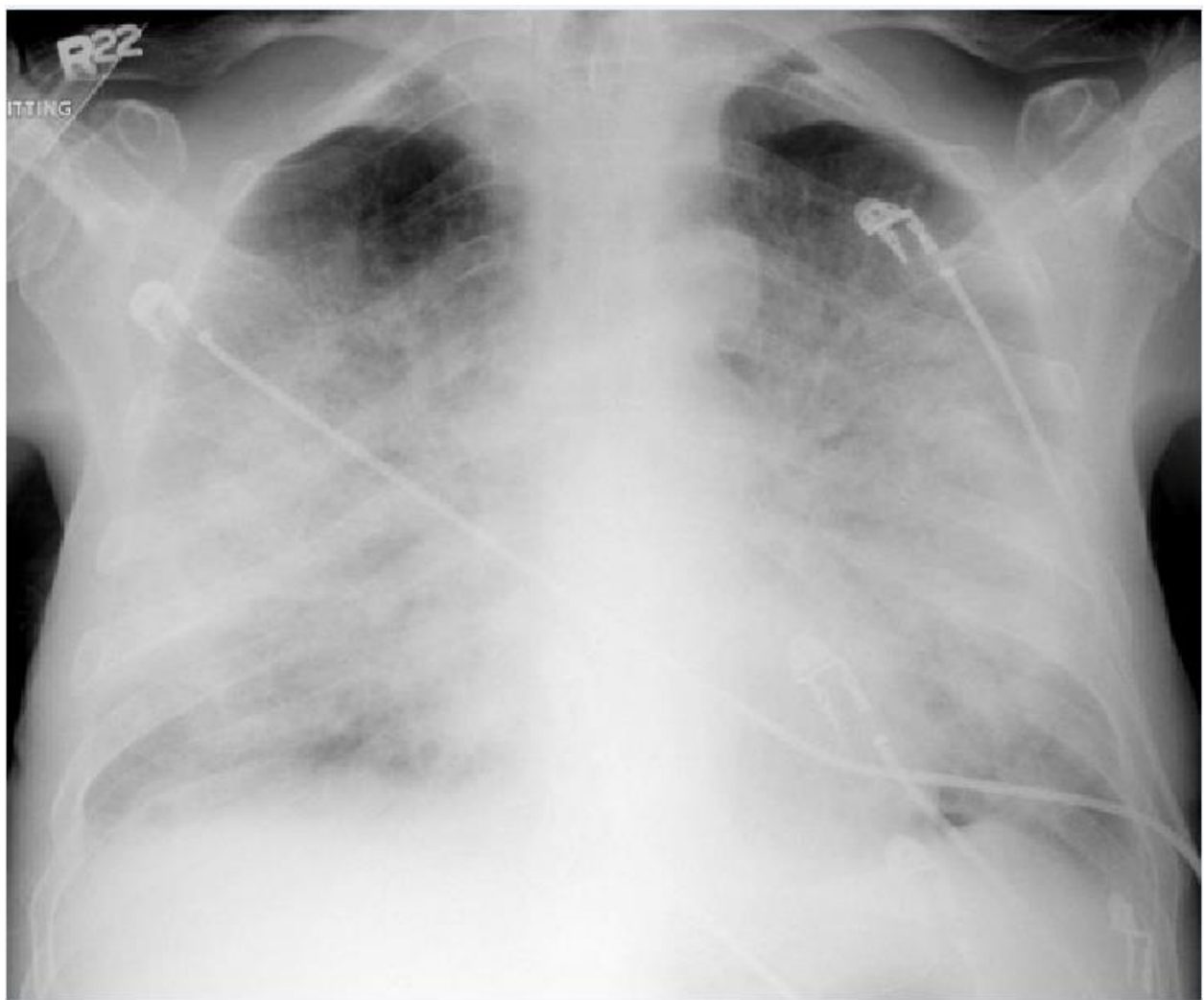
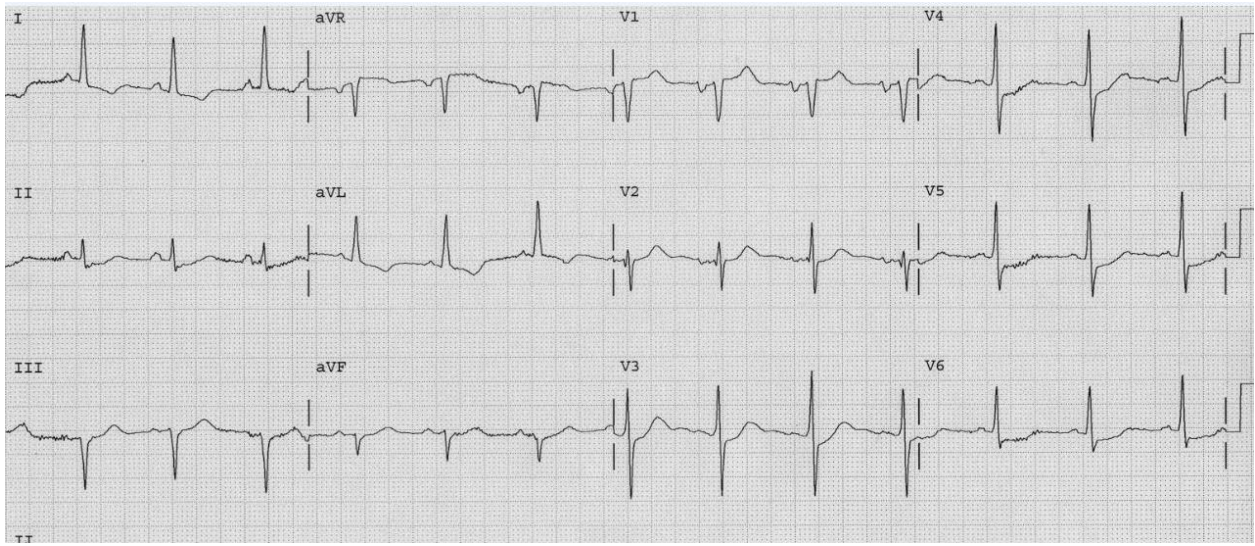
cNa⁺ 142 mmol/L [136 - 146]
 cK⁺ 4.2 mmol/L [3.4 - 4.5]
 cCl⁻ 106 mmol/L [98 - 106]
 cCa²⁺ 1.20 mmol/L [2.2 - 2.45]
 Anion Gap_C mmol/L

Metabolite Values

cGlu 4.2 mmol/L [3.9 - 5.8]
 ↑ cLac 2.3 mmol/L [0.5 - 1.6]
 cCrea 89 μmol/L [44 - 97]

Notes

↑ Value(s) above reference range
 ↓ Value(s) below reference range
 c Calculated value(s)



NEWS - OBSERVATION CHART



Frimley Health
NHS Foundation Trust


Surname: Emory First name: Mary
Hospital number: 12345 D.O.B: 1.1.1947 Date of admission: Today

	DATE	TIME		DATE	TIME
A+B Respirations Breaths/min	≥25	24	3	≥25	
	21-24		2	21-24	
	18-20			18-20	
	15-17			15-17	
	12-14			12-14	
	9-11		1	9-11	
	≤8		3	≤8	
A+B SpO2 Scale 1 Oxygen saturation (%)	≥96		1	≥96	
	94-95			94-95	
	92-93	92	2	92-93	
	≤91		3	≤91	
SpO2 Scale 2' Oxygen saturation (%) Use Scale 2 if target range is 88-92%, eg in hypercapnic respiratory failure <small>† ONLY use Scale 2 under the direction of a qualified clinician</small>	≥97 on O ₂		3	≥97 on O ₂	
	95-96 on O ₂		2	95-96 on O ₂	
	93-94 on O ₂		1	93-94 on O ₂	
	≥93 on air			≥93 on air	
	88-92			88-92	
	86-87		1	86-87	
	84-85		2	84-85	
	≤83%		3	≤83%	
Air or oxygen?	A=Air	A		A=Air	
	O ₂ L/min		2	O ₂ L/min	
Device				Device	
C Blood pressure mmHg Score uses systolic BP only	≥220			≥220	
	201-219			201-219	
	181-200			181-200	
	161-180			161-180	
	141-160			141-160	
	121-140			121-140	
	111-120	110		111-120	
	101-110	↑	1	101-110	
	91-100		2	91-100	
	81-90			81-90	
	71-80			71-80	
61-70			61-70		
51-60		3	51-60		
≤50	↓		≤50		
C Pulse Beats/min	≥131	125	3	≥131	
	121-130		2	121-130	
	111-120			111-120	
	101-110		1	101-110	
	91-100			91-100	
	81-90			81-90	
	71-80			71-80	
	61-70			61-70	
	51-60			51-60	
	41-50		1	41-50	
	31-40		3	31-40	
≤30			≤30		
D Consciousness Score for NEWS onset of confusion (no score if chronic)	Alert	A		Alert	
	Confusion			Confusion	
	V		3	V	
	P			P	
U			U		
E Temperature °C	≥39.1°		2	≥39.1°	
	38.1-39.0°		1	38.1-39.0°	
	37.1-38.0°	36.7		37.1-38.0°	
	36.1-37.0°			36.1-37.0°	
	35.1-36.0°		1	35.1-36.0°	
≤35.0°		3	≤35.0°		
NEWS TOTAL		6		TOTAL	
Monitoring frequency				Monitoring	
Pain score				Pain score	
Initials				Initials	

National Early Warning Score 2 (NEWS2) © Royal College of Physicians 2017

Version: 201807_004

Product Code:

Hospital Number: 789987			
NHS Number:			
Title: Sex: <i>F</i> DoB: Age: <i>Yrs 70</i> Surname: <i>EMORY</i> First name: <i>MARY</i> Address: Postcode: Tel (H): Tel (M): Employer / Educ. Est: Religion: Language:		NOK: Address: Relationship: Tel (H): Tel (M): NOK: Address: Relationship: Tel (H): Tel (M):	
Source of Referral: Date of Arrival: Time of Arrival: <i>NOW</i> Mode of arrival: No of Attendances in past year: Previous Attendance Number:		GP: Address: Tel No: Fax No:	
To be seen in:			
Speciality Expected: Specialty:	Time referred to speciality: Time seen:	Duty/On-Call Emergency Department Consultant:	
Presenting Complaint:			
Triage Nurse: Presenting Complaint: History of Presenting Complaint: <i>SOB</i> On Assessment: Previous Medical History: Social History:		Time of Triage Triage (ESI) Pain Score Allergies Tetanus Status Triage Treatment Triage Notes	
Temperature	Blood Pressure	Nurse Concern	
Pulse	SP O ₂ (Air)	GCS	E VM = /15
Respiratory rate	Pupils (Left)	Pupils (Right)	
Peak Flow (Pre/Past)	Blood sugar	Weight	
MET SCORE =			



Name	Signature	Initials	Position	Speciality	Date	Time

*Have you considered the use of a Chaperone when seeing this patient,
Please refer to the Trust and Emergency Department Chaperone Policy.*

Chaperone Used? Y / N

Name: _____

Presenting Complaint:

Sob

HISTORY: (Please continue on continuation sheets if necessary)

70yrs

Chestpain 30mins

Feels burnt

non radiating

No cough

Age >65	
3 Coronary Artery Disease (CAD) Risk Factors: Family history, raised cholesterol, diabetes mellitus, hypertension, active smoker	
Known CAD stenosis >50%	
Aspirin use in past 7 days	
Recent (<24 hours) severe angina	
Raised cardiac markers (CK)	
ST deviation >0.5mm	
TIMI Risk Score	
Age >60	
BP >140/90	
Clinical features: Unilat weak (2 pts) Speech only (1 pt)	
Duration: >60 mins (2 pt) 10-59 mins (1 pt) <10 mins (0 pt)	
Diabetic	
ABCD2 Score (max 7)	

Women of Childbearing age? LMP: Pregnant? Y / N



Past Medical History

Angina
COPD

- Diabetes
- AF
- Hx Dementia
- Hypertension
- IHD/Angina
- COPD
- Arthritis
- Epilepsy
- Asthma
- Pacemaker

(Please tick relevant conditions if present)

Drugs

Is the patient on anti-cancer medication? YES/NO If yes, what?
Please contact Lead Chemo Nurse on bleep 277

GTN
Ramipril
Salbutamol
Spinva

Allergies

Drug	Reaction	Date



Systematic Enquiry:

No fever
No diarrhoea

Family History

mother breast Ca

Social History

Alcohol:units/week Smoking: 20 per day since 15yrs old

Occupation: Retired: Yes / No

Lives in: House / Flat / Bungalow / WCF / Residential Home / Nursing Home/ Barracks

Surrey / Hampshire / Berkshire/ Other/ Not known

Usually able to go out: Yes / No Lives alone: Yes / No Stairs: Yes / No

Mobility: Independent Services: MOW Carer/s: None
 Stick Bathing services Spouse
 Frame District Nurse Other family
 Wheelchair Day Centre Friend/ Neighbour
 Day Hospital OD BD TDS QDS

Drives: Yes / No

Has memory deficit been present for 6 months or more? Yes No

AMT (N/A)

Age Recognition of two persons Time (to nearest hour) Date of Birth
 Address for recall WW2 Year Present monarch
 Location Count backwards 20 - 1

Score/10

If Score 7 or below commence dementia CQUIN Yes No



Hosp No.: 789987

EXAMINATION

Jaundiced Anaemic Cyanosed Clubbed Lymphadenopathy

Temp 36.9°C

Cap Blood Glucose.....

General Impression:

Cardiovascular

HR 75 reg / irreg

BP sitting 105/50

BP lying.....

BP Standing (Remember >2 mins for Postural BPs)

HS.....

Murmur? Y N

Carotid Bruit? Y N

JVP

Oedema

Respiratory

RR 30

Sats on Air 85

Sats on% O₂

Current PEFR.....

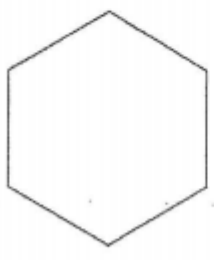
Best PEFR

Predicted PEFR

Percussion / Auscultation



Abdominal



Ascites? Y / N
PR
PV



Neurological

GCS: E V M /15

Pupils:

Cranial Nerves: (Not Assessed - tick here:)

Abnormalities:

Peripheral Nerves: (Not Assessed - tick here:)

		Power			Reflexes		Tone	
		Right	Left		Right	Left	Right	Left
Shoulders	abd (c5,6)							
	add (c5,6,7)							
Elbow	flex (c5,6)			Biceps (c5,6)				
	ext (c7,8)			Triceps (c7,8)				
Wrists	flex (c6,7,8)			Supinator (c6)				
	ext (c7,8)							
Hips	flex (l1,2,3)							
	ext (l5,s1,2)							
	abd (l4,5,s1)							
	add (l2,3,4)							
Knees	flex (l4,5,s1,2)			Knee (l2-4)				
	ext (l2,3,4)							
Ankles	flex (l4,5,s1,2)			Ankle (s1,2)				
	ext (s1,2)			Plantar (l5-s2)				

Cerebellar Signs:

Nystagmus Gait

Finger/Nose Dysdiadochokinesis

Heel/shin Dysarthria

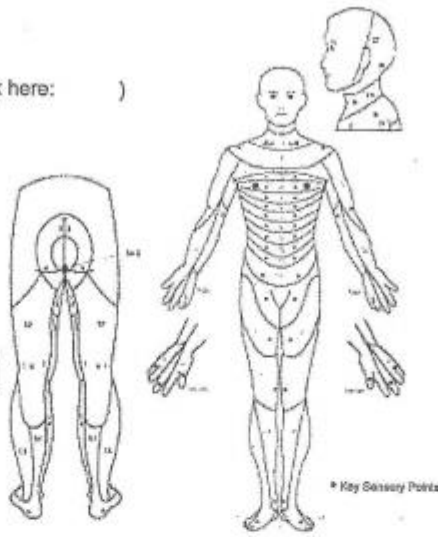
Romberg's test



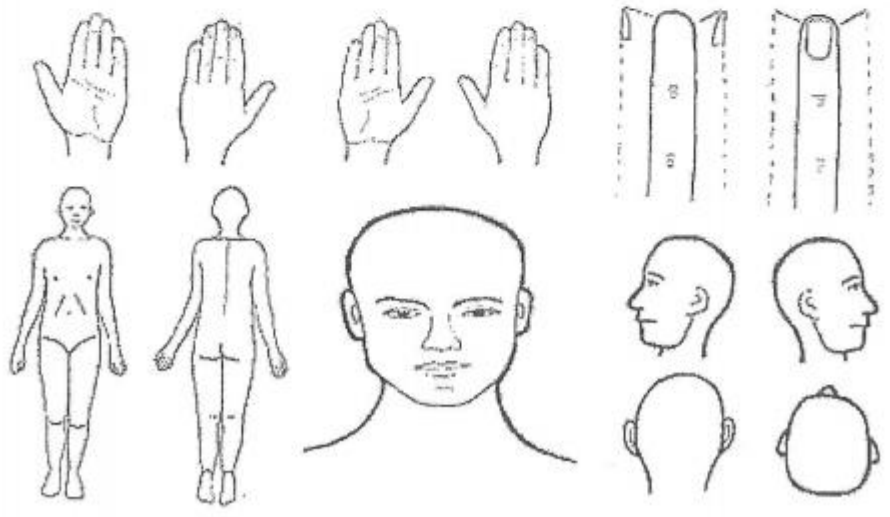
Hosp No.: 789987

Sensation
(Not Assessed - tick here:)

Anal sensation? Y N



Other examination findings / comments:





Initial Impressions / Differential Diagnosis:

Investigations:

Radiology: CXR AXR CT Head Other.....

Results:

Bloods: FBC Coag / INR ESR
 U&Es LFTs Bone CRP
 Other

Results:

Hb	MCV	Na	Bill	AST	Chol
WCC	B12	K	Alk P	GGT	HDL
Neut	Folate	Ur	ALT	Amylase	TG
Plt	PT	Creat	Alb	CK	LDL
ESR	APTT	Glucose	PO4	Trop (1)	TSH
	INR	CRP	Cor Ca	Trop (2)	FT4

Others:

ECG Urine β HCG ABG Other

Results:

Hosp No.: 789987



Management Plan:

Discharge? Y/N Refer? Speciality Admit CDU? (consider VTE prophylaxis) Decision time

VTE Risk? Please assess on separate risk assessment sheet	
Have you started VTE prophylaxis?	Y N
If not - reasons:	
MRSA Status:	
Met Calls	Y N
C. Diff status:	
For CPR?	Y N
Orange sticker?	Y N

Senior Review: Name: Designation:

Time Date Signature

Frimley Park Hospital

First Name(s): <u>Mary</u>	Ward	Date chart started	Chart number
Surname: <u>Emery</u>			of
Hospital Number: <u>789987</u>	Consultant	Doctor bleep number	Date of admission
NHS Number: _____			
Date of Birth: _____			

Date weighed	Weight (kg)	Height (M)	Surface area (M ²)	Ideal Body Weight (IBW)	Body Mass Index (BMI)	Diet

Allergies (write 'none known' and sign if none known). This section must be completed before medication is given.

Drug/substance	Details of reaction

This patient also has the following additional charts (complete and tick relevant box (es))

IV heparin infusion chart	<input type="checkbox"/>	Chemotherapy chart	<input type="checkbox"/>	Medicines reconciliation	<input type="checkbox"/>
PCA	<input type="checkbox"/>	Epidural	<input type="checkbox"/>		<input type="checkbox"/>

Reminder: Prescriptions must be rewritten not amended
Unclear prescriptions will be challenged

Communication for doctors. Messages must be actioned within 24 hours.

Date	Sign and Bleep No.	Actioned sign and date

Smoking		Alcohol	
Is the patient a smoker	Yes / No	Audit C score	
Is NRT currently in use	Yes / No	Full Audit score (if undertaken)	
		Withdrawal medication required	

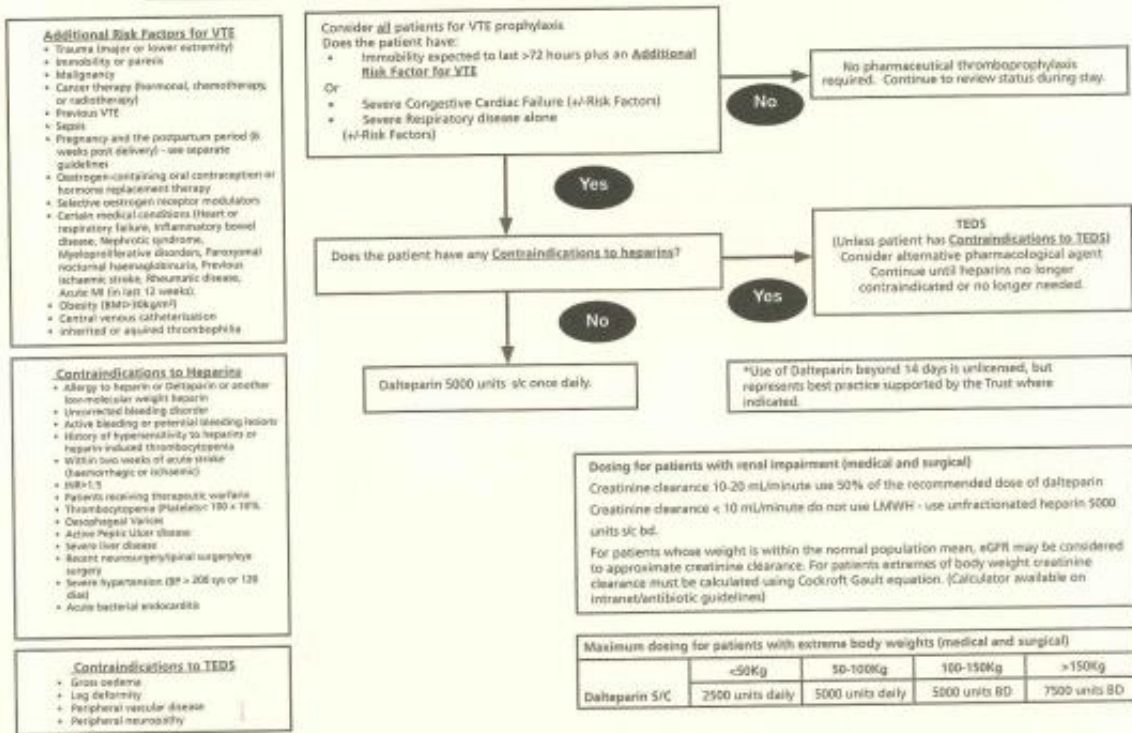
Is patient self medicating: Yes / No
Level 1 / 2 / 3

Date chart rewritten ___ / ___ / ___

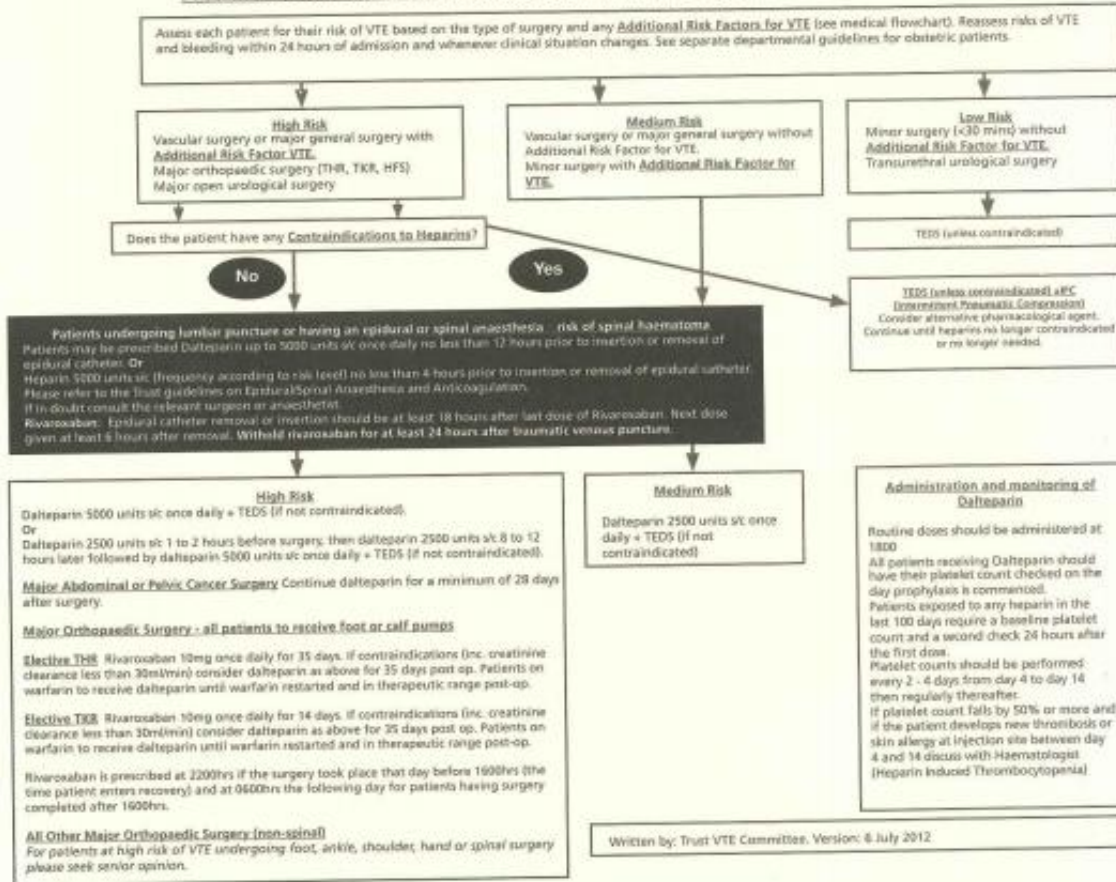
TTO written ___ / ___ / ___

Needs: Large print PMR card

Prevention of Venous Thromboembolism in Acutely ill Adult Medical Patients (non-obstetric)



Prevention of Venous Thromboembolism in Adult Surgical Patients



RISK ASSESSMENT RECORD SHEET FOR VENOUS THROMBOEMBOLISM (VTE)

- Please use in conjunction with Trust guidelines overleaf
- Please see separate Trust guidelines for obstetric patients

Thrombosis Risk	Patient Related	Procedure Related	Initial Assessment / /	Assessment at 24 hours / /	Assessment at / /	Assessment at / /	
High	Previous VTE						
	Immobility expected to last >72 hours						
	Malignancy						
	Acute or chronic lung disease						
	Acute or chronic inflammatory disease						
	Chronic heart failure						
	Lower limb paralysis (excluding acute stroke)						
	Acute infectious disease, e.g. pneumonia						
	BMI >30kg/m ²						
	Inherited or acquired thrombophilia						
	Pregnancy or less than 6 weeks post partum						
		Hip or Knee replacement					
		Hip fracture					
		Other major orthopaedic surgery					
	Surgical procedure lasting >30mins with additional VTE risk factor(s)						
Medium	Oestrogen containing oral contraception or HRT						
	Selective oestrogen receptor modulators						
	Age > 60						
	Dehydration						
	Varicose veins with phlebitis						
		Minor surgical procedure with additional VTE risk factor(s)					
	Surgical procedure lasting >30mins with no additional VTE risk factors						
	Plaster cast immobilisation of lower limb						
Low	None of above	None of above					
Bleeding Risk/Contraindications	Patient Related	Procedure Related					
	Haemophilia or other known bleeding disorder						
	Thrombocytopenia (Platelets < 100 x 10 ⁹ /L)						
	Within two weeks of acute stroke (haemorrhagic or ischaemic)						
	Severe hypertension (BP > 200 systolic or 120 diastolic)						
	Severe liver disease						
	Oesophageal Varices						
	Active Peptic Ulcer disease						
	Active bleeding or potential bleeding lesions						
	Major bleeding risk, existing anticoagulant therapy						
	Severe renal disease						
		Neurosurgery, spinal surgery or eye surgery					
		Other procedure with high bleeding risk					
		Lumbar puncture/spinal/epidural in previous 4 hours or anticipated in next 12 hours					
Risk assessment performed by							
Signature							
Copy of Patient Information Leaflet given to patient			Yes	No			

FOR DRUGS NOT ADMINISTERED ENTER THE APPROPRIATE CODE IN THE ADMINISTRATION BOX AND SIGN

1 NIL BY MOUTH
2 REFUSED
3 UNABLE (NEEDS)

REGULAR PRESCRIPTIONS

						MONTH/YEAR	DATE
						Q TIMES	
OXYGEN				Circle target saturation Adjust flow rate to maintain specified oxygen saturation		Target oxygen saturation 88 to 92% 94 to 98%	
PRESCRIBERS SIGNATURE _____				DATE _____		Other: _____	
Home Oxygen Indicated: YES / NO				Referral to Respiratory Nurse for HODP Date: _____		Nurse to initial against time to confirm oxygen is being administered and meeting specified target. Flow rate is to be documented to the left of the column, i.e.	
				2L Sign _____		Device _____	
PHARMACOLOGICAL VTE PROPHYLAXIS/TREATMENT INCLUDING NOACs				DOSE _____		ROUTE _____	
PRESCRIBERS SIGNATURE _____ GMC No. _____				START _____		REVIEW _____ STOP _____	
INDICATION AND SPECIAL INSTRUCTIONS _____				Please tick appropriate status <input type="checkbox"/> NEW <input type="checkbox"/> PRE AD <input type="checkbox"/> CHANGE			
PHARMACY POD H POD W				TO CONTINUE ON <input type="checkbox"/> YES DISCHARGE <input type="checkbox"/> NO			
MECHANICAL VTE PROPHYLAXIS				DOSE _____		ROUTE _____	
PRESCRIBERS SIGNATURE _____ GMC No. _____				START _____		REVIEW _____ STOP _____	
INDICATION AND SPECIAL INSTRUCTIONS _____				Please tick appropriate status <input type="checkbox"/> NEW <input type="checkbox"/> PRE AD <input type="checkbox"/> CHANGE			
PHARMACY POD H POD W				TO CONTINUE ON <input type="checkbox"/> YES DISCHARGE <input type="checkbox"/> NO			
WARFARIN AND OTHER COUMARIN ANTICOAGULANTS				DOSE _____		TIME _____	
PRESCRIBERS SIGNATURE _____ GMC No. _____				DATE STARTED _____		DOSE (mg) _____	
INDICATION		DURATION		TARGET INR		PLEASE TICK APPROPRIATE STATUS <input type="checkbox"/> NEW <input type="checkbox"/> PREADMISSION	
PHARMACY POD H POD W		BOOK PROVIDED ON: BY: _____		DATE COUNSELLED: BY: _____		TO CONTINUE ON <input type="checkbox"/> YES DISCHARGE <input type="checkbox"/> NO	
DRUG (Approved Name) _____				DOSE _____		ROUTE _____	
PRESCRIBERS SIGNATURE _____ GMC No. _____				START _____		REVIEW _____ STOP _____	
INDICATION AND SPECIAL INSTRUCTIONS _____				Please tick appropriate status <input type="checkbox"/> NEW <input type="checkbox"/> PRE AD <input type="checkbox"/> CHANGE			
PHARMACY POD H POD W				TO CONTINUE ON <input type="checkbox"/> YES DISCHARGE <input type="checkbox"/> NO			
DRUG (Approved Name) _____				DOSE _____		ROUTE _____	
PRESCRIBERS SIGNATURE _____ GMC No. _____				START _____		REVIEW _____ STOP _____	
INDICATION AND SPECIAL INSTRUCTIONS _____				Please tick appropriate status <input type="checkbox"/> NEW <input type="checkbox"/> PRE AD <input type="checkbox"/> CHANGE			
PHARMACY POD H POD W				TO CONTINUE ON <input type="checkbox"/> YES DISCHARGE <input type="checkbox"/> NO			
DRUG (Approved Name) _____				DOSE _____		ROUTE _____	
PRESCRIBERS SIGNATURE _____ GMC No. _____				START _____		REVIEW _____ STOP _____	
INDICATION AND SPECIAL INSTRUCTIONS _____				Please tick appropriate status <input type="checkbox"/> NEW <input type="checkbox"/> PRE AD <input type="checkbox"/> CHANGE			
PHARMACY POD H POD W				TO CONTINUE ON <input type="checkbox"/> YES DISCHARGE <input type="checkbox"/> NO			
DRUG (Approved Name) _____				DOSE _____		ROUTE _____	
PRESCRIBERS SIGNATURE _____ GMC No. _____				START _____		REVIEW _____ STOP _____	
INDICATION AND SPECIAL INSTRUCTIONS _____				Please tick appropriate status <input type="checkbox"/> NEW <input type="checkbox"/> PRE AD <input type="checkbox"/> CHANGE			
PHARMACY POD H POD W				TO CONTINUE ON <input type="checkbox"/> YES DISCHARGE <input type="checkbox"/> NO			

WHEN REQUIRED MEDICATION

OXYGEN

CIRCLE TARGET OXYGEN SATURATION
 88-92% 94-98% Other

OXYGEN		Date																	
CIRCLE TARGET OXYGEN SATURATION 88-92% 94-98% Other		Time Started																	
		Flow rate																	
DEVICE	MAX FLOW RATE (Liters/min)	Device																	
PREScriBER SIGNATURE	GMC No.	DATE	Given by																
DRUG (Approved name)		Date																	
DOSE	ROUTE	FREQUENCY	Time																
PREScriBER SIGNATURE	GMC No.	DATE	Date																
INDICATION AND SPECIAL INSTRUCTIONS		<input type="checkbox"/> NEW <input type="checkbox"/> PRE AD	Route																
PHARMACY POD H POD W		TO CONTINUE ON DISCHARGE <input type="checkbox"/> YES <input type="checkbox"/> NO	Given by																
DRUG (Approved name)		Date																	
DOSE	ROUTE	FREQUENCY	Time																
PREScriBER SIGNATURE	GMC No.	DATE	Date																
INDICATION AND SPECIAL INSTRUCTIONS		<input type="checkbox"/> NEW <input type="checkbox"/> PRE AD	Route																
PHARMACY POD H POD W		TO CONTINUE ON DISCHARGE <input type="checkbox"/> YES <input type="checkbox"/> NO	Given by																
DRUG (Approved name)		Date																	
DOSE	ROUTE	FREQUENCY	Time																
PREScriBER SIGNATURE	GMC No.	DATE	Date																
INDICATION AND SPECIAL INSTRUCTIONS		<input type="checkbox"/> NEW <input type="checkbox"/> PRE AD	Route																
PHARMACY POD H POD W		TO CONTINUE ON DISCHARGE <input type="checkbox"/> YES <input type="checkbox"/> NO	Given by																
DRUG (Approved name)		Date																	
DOSE	ROUTE	FREQUENCY	Time																
PREScriBER SIGNATURE	GMC No.	DATE	Date																
INDICATION AND SPECIAL INSTRUCTIONS		<input type="checkbox"/> NEW <input type="checkbox"/> PRE AD	Route																
PHARMACY POD H POD W		TO CONTINUE ON DISCHARGE <input type="checkbox"/> YES <input type="checkbox"/> NO	Given by																
DRUG (Approved name)		Date																	
DOSE	ROUTE	FREQUENCY	Time																
PREScriBER SIGNATURE	GMC No.	DATE	Date																
INDICATION AND SPECIAL INSTRUCTIONS		<input type="checkbox"/> NEW <input type="checkbox"/> PRE AD	Route																
PHARMACY POD H POD W		TO CONTINUE ON DISCHARGE <input type="checkbox"/> YES <input type="checkbox"/> NO	Given by																
DRUG (Approved name)		Date																	
DOSE	ROUTE	FREQUENCY	Time																
PREScriBER SIGNATURE	GMC No.	DATE	Date																
INDICATION AND SPECIAL INSTRUCTIONS		<input type="checkbox"/> NEW <input type="checkbox"/> PRE AD	Route																
PHARMACY POD H POD W		TO CONTINUE ON DISCHARGE <input type="checkbox"/> YES <input type="checkbox"/> NO	Given by																

WHEN REQUIRED MEDICATION

DRUG (Approved name)			Date																	
DOSE	ROUTE	FREQUENCY	Time																	
PRESCRIBER'S SIGNATURE		GMC No.	DATE	Dose																
INDICATION AND SPECIAL INSTRUCTIONS		<input type="checkbox"/> NEW <input type="checkbox"/> PRE AD		Route																
PHARMACY		TO CONTINUE ON DISCHARGE		<input type="checkbox"/> YES <input type="checkbox"/> NO	Given by															
POD H POD W																				
DRUG (Approved name)			Date																	
DOSE	ROUTE	FREQUENCY	Time																	
PRESCRIBER'S SIGNATURE		GMC No.	DATE	Dose																
INDICATION AND SPECIAL INSTRUCTIONS		<input type="checkbox"/> NEW <input type="checkbox"/> PRE AD		Route																
PHARMACY		TO CONTINUE ON DISCHARGE		<input type="checkbox"/> YES <input type="checkbox"/> NO	Given by															
POD H POD W																				
DRUG (Approved name)			Date																	
DOSE	ROUTE	FREQUENCY	Time																	
PRESCRIBER'S SIGNATURE		GMC No.	DATE	Dose																
INDICATION AND SPECIAL INSTRUCTIONS		<input type="checkbox"/> NEW <input type="checkbox"/> PRE AD		Route																
PHARMACY		TO CONTINUE ON DISCHARGE		<input type="checkbox"/> YES <input type="checkbox"/> NO	Given by															
POD H POD W																				
DRUG (Approved name)			Date																	
DOSE	ROUTE	FREQUENCY	Time																	
PRESCRIBER'S SIGNATURE		GMC No.	DATE	Dose																
INDICATION AND SPECIAL INSTRUCTIONS		<input type="checkbox"/> NEW <input type="checkbox"/> PRE AD		Route																
PHARMACY		TO CONTINUE ON DISCHARGE		<input type="checkbox"/> YES <input type="checkbox"/> NO	Given by															
POD H POD W																				
DRUG (Approved name)			Date																	
DOSE	ROUTE	FREQUENCY	Time																	
PRESCRIBER'S SIGNATURE		GMC No.	DATE	Dose																
INDICATION AND SPECIAL INSTRUCTIONS		<input type="checkbox"/> NEW <input type="checkbox"/> PRE AD		Route																
PHARMACY		TO CONTINUE ON DISCHARGE		<input type="checkbox"/> YES <input type="checkbox"/> NO	Given by															
POD H POD W																				
DRUG (Approved name)			Date																	
DOSE	ROUTE	FREQUENCY	Time																	
PRESCRIBER'S SIGNATURE		GMC No.	DATE	Dose																
INDICATION AND SPECIAL INSTRUCTIONS		<input type="checkbox"/> NEW <input type="checkbox"/> PRE AD		Route																
PHARMACY		TO CONTINUE ON DISCHARGE		<input type="checkbox"/> YES <input type="checkbox"/> NO	Given by															
POD H POD W																				
DRUG (Approved name)			Date																	
DOSE	ROUTE	FREQUENCY	Time																	
PRESCRIBER'S SIGNATURE		GMC No.	DATE	Dose																
INDICATION AND SPECIAL INSTRUCTIONS		<input type="checkbox"/> NEW <input type="checkbox"/> PRE AD		Route																
PHARMACY		TO CONTINUE ON DISCHARGE		<input type="checkbox"/> YES <input type="checkbox"/> NO	Given by															
POD H POD W																				

Reminder: Prescribe on regular prescription and state "see variable prescription"

MONTH/YEAR →
DATE

Insulins - variable dosing

DRUG (Approved name)		ROUTE	SIG →	TIME	Units	Sig	Units	Sig
		S/C						
PRESCRIBERS SIGNATURE		GMC No.	START	STOP	Breakfast			
DEVICE		Please tick appropriate status			Lunch			
		<input type="checkbox"/> NEW <input type="checkbox"/> PRE AD			Dinner			
PHARMACY		TO CONTINUE ON DISCHARGE			Night			
POD H POD W		<input type="checkbox"/> YES <input type="checkbox"/> NO						
DRUG (Approved name)		ROUTE	SIG →	TIME	Units	Sig	Units	Sig
		S/C						
PRESCRIBERS SIGNATURE		GMC No.	START	STOP	Breakfast			
DEVICE		Please tick appropriate status			Lunch			
		<input type="checkbox"/> NEW <input type="checkbox"/> PRE AD			Dinner			
PHARMACY		TO CONTINUE ON DISCHARGE			Night			
POD H POD W		<input type="checkbox"/> YES <input type="checkbox"/> NO						
DRUG (Approved name)		ROUTE	SIG →	TIME	Units	Sig	Units	Sig
		S/C						
PRESCRIBERS SIGNATURE		GMC No.	START	STOP	Breakfast			
DEVICE		Please tick appropriate status			Lunch			
		<input type="checkbox"/> NEW <input type="checkbox"/> PRE AD			Dinner			
PHARMACY		TO CONTINUE ON DISCHARGE			Night			
POD H POD W		<input type="checkbox"/> YES <input type="checkbox"/> NO						

WHEN REQUIRED INSULINS

DRUG (Approved name)		Date							
DOSE (UNITS)	ROUTE	FREQUENCY	Time						
	S/C								
PRESCRIBERS SIGNATURE		GMC No.	DATE	DOSE (in Units)					
INDICATION AND SPECIAL INSTRUCTIONS				Route					
PHARMACY				Given by					
DRUG (Approved name)		Date							
DOSE (UNITS)	ROUTE	FREQUENCY	Time						
	S/C								
PRESCRIBERS SIGNATURE		GMC No.	DATE	DOSE (in Units)					
INDICATION AND SPECIAL INSTRUCTIONS				Route					
PHARMACY				Given by					
DRUG (Approved name)		Date							
DOSE (UNITS)	ROUTE	FREQUENCY	Time						
	S/C								
PRESCRIBERS SIGNATURE		GMC No.	DATE	DOSE (in Units)					
INDICATION AND SPECIAL INSTRUCTIONS				Route					
PHARMACY				Given by					

MRSA Status

New	Previous Admission

C. Diff Status

New	Previous Admission

ONCE DAILY GENTAMICIN PRESCRIPTION
 Use gentamicin calculator or intranet to calculate dose.
 Level must be taken 6 to 14 hours after the first dose has been given.

Specify Dosing Regime	5mg/kg	3mg/kg	Other						
Indication: _____									
Date to be given	Time to be given	Dose (mg)	Prescribers signature GMC No.	Date of sig.	Start time of infusion	Given by: (sign)	Date and Time blood level taken	sign:	Gentamicin Levels mg/l

General Guidance

- All antimicrobial prescriptions MUST follow the Trust's Antimicrobial Policies or MUST have been agreed by Microbiology. See full up to date policy on intranet.
- **INDICATION, STOP AND REVIEW DATES MUST BE RECORDED ON THE CHART.**
- CURB 65 score MUST be recorded for all community acquired pneumonia.
- Check previous relevant microbiology results before prescribing antibiotics and check new microbiology results daily. If a patient is not responding to treatment seek advice from a consultant microbiologist.
- Doses need to be adjusted to suit patient's age, size and renal function. To calculate creatinine clearance use calculator on intranet and see dose adjustments for antibiotics.
- All IV regimes MUST be reviewed at 48 hours and switched to oral if appropriate.

IV SWITCH GUIDELINES

If YES to all, consider change to ORAL	If YES to any, remain on IV
Patient able to swallow and tolerate oral fluids?	Oral route compromised?
Temperature settling and < 38°C for at least 48hrs?	Continuing serious sepsis?
Heart rate <100bpm for last 12hrs? (no unexplained tachycardia)	Febrile with neutropenia?
WCC between 4-12x10 ⁹ /L?	Specific indication / deep seated infection. (Meningitis, endocarditis, encephalitis, osteomyelitis, neutropenia, cystic fibrosis, septicaemia, haematology/ immunocompromised pts, continuing sepsis, other severe infections as discussed with microbiology.) Seek microbiology advice if unsure.
Oral formulation available?	
Others markers: BP stable Respiratory rate <20 breaths/min CRP returning to normal and less than 100 (adult)	
Absence of mental confusion (when representing symptoms of infection)	No oral formulation available (seek microbiology advice on alternative)

