

Emergency Department Pathway

ACUTE PULMONARY OEDEMA

Patient Name / Addressograph Address..... Date of birth.....

This integrated care pathway is for patients with acute pulmonary oedema suitable for treatment with CPAP

Note: If considering CPAP, inform SENIOR CLINICIAN now

Inclusion Criteria

- Patient with acute pulmonary oedema
- ABG showing acidosis pH<7.35
- Pulmonary oedema on CXR
- Emergency Department Consultant (or MG out of hours) informed and has reviewed patient

Absolute Contraindications

- Cardio / Resp arrest
- Acute exacerbation of COPD or Asthma
- Recent upper GI or cranio- facial surgery
- Facial / airway burns
- Vomiting / aspiration risk

Relative Contraindications

- Excess bronchial secretions
- Confused and unco-operative
- GCS < 8
- Hypotension SBP < 90mmHg
- SOB secondary to infective process / pneumonia

Time/date of arrival in Emergency Department: _____

Name of assessing clinician: _____

MG/consultant involved in patient's care: _____

Patient Name / Addressograph

Address.....

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ONGOING MEDICAL MANAGEMENT

Resuscitate patient / ABCs / IV access / Bloods

1. High flow Oxygen
2. ABGs
3. Avoid OPIOIDS – these will depress respiratory drive
4. GTN infusion if systolic BP >100 mmHg,
50mg GTN in 50mls NSaline, 5ml bolus then run at 5mls/hr, adjust according to BP.
If BP maintained increase infusion every 10-15 mins, if SBP drops <100mmHg stop then reduce infusion rate.
5. Portable CXR
6. ECG
7. Decide ceiling of treatment
8. Repeat ABGs after 30 mins on CPAP
9. Consider need for inotropes
10. Refer to inpatient team: Team: _____ Time referred: _____

SETTING UP CPAP

Attach full monitoring

1. Baseline observations
2. Obtain verbal consent
3. Select appropriate mask size for patient
4. Change over oxygen flow meter to VYGON CPAP oxygen flow meter
5. Connect tubing from flow meter to mask
6. Turn flow up to 20
7. Attach mask to patient via close fitting straps with minimal leak around face
8. Check pressure via pressure monitor, adjust flow accordingly, to achieve 5 cmH₂O pressure
9. Increase pressure at 2-3 minute intervals to a maximum of 10 cmH₂O, according to clinical response and tolerance of patient.

INITIAL INVESTIGATION RESULTS

Investigation	Time	Result
CXR		Alternative diagnosis excluded? Yes <input type="checkbox"/> No <input type="checkbox"/>
ECG		
Bloods (do not delay starting CPAP for these)		Hb..... WCC..... PLT..... Na..... K..... Ur..... Cr.....

MANAGEMENT PLAN

If no contraindications, discuss and agree the management plan with ED Consultant (or ED middle grade out of hours), placing patient into 1 of 3 groups:

First you must decide:

- Is patient appropriate for CPAP?
- Is the patient suitable for escalation of therapy and ICU?
- What is the patient's resuscitation status?

1. Patient is suitable for CPAP and can escalate to intubation / ICU if needed

Consultant signature: _____

2. Patient is suitable for CPAP but not for escalation of treatment

Maximal level of therapy : _____

Reason for limiting treatment: _____

Consultant signature: _____

3. Patient for maximal medical therapy only, not for CPAP

Maximal level of therapy : _____

Reason for limiting treatment: _____

Consultant signature: _____

PROFORMA FOR PATIENTS ON CPAP

– To be completed for **ALL** patients

Patient Name: D.O.B.: RM2: <i>Patient label:</i>	Indication for CPAP Discussed with ED Consultant: Yes/No Name of Consultant:
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Decision if CPAP fails <i>(Circle as appropriate & document in notes)</i>	Involve I.C.U.	Supportive Care	Doctors name, Grade & Signature:
D.N.R. decision? <i>(Circle as appropriate & document in notes)</i>	For Resuscitation	D.N.R. Form Completed Yes / No	Doctors name, Grade & Signature:

Arterial Blood Gases	Base line ABGs	30 mins post CPAP set up	1 hour post CPAP set up	Date:	Date:	Date:	Date:	Date:
	Date:	Date:	Date:	Time:	Time:	Time:	Time:	Time:
	Time:	Time:	Time:					
pH								
P02								
pC02								
Base Excess								
Bicarbonate								
FiO2								
PEEP								
Signature of Doctor:								

- **ABG's should be checked 30 minutes after initiating CPAP,**
- **Check ABGs 30 mins after any changes in PEEP or FiO2**
- **Repeat ABG's after 1 hour, in patients who are not improving clinically**

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METHOD FOR THE USE OF CPAP IN ACUTE PULMONARY OEDEMA

