

## HISTORY

- SOB
- Productive cough: White / Yellow-Green sputum
- Fevers: Infective v Non-infective
- PMH:
  - Known COPD
  - Previous NIV or ICU
  - Frequency of exacerbations or hospital admissions
  - Home nebulisers
  - Home O<sub>2</sub>

## EXAMINATION

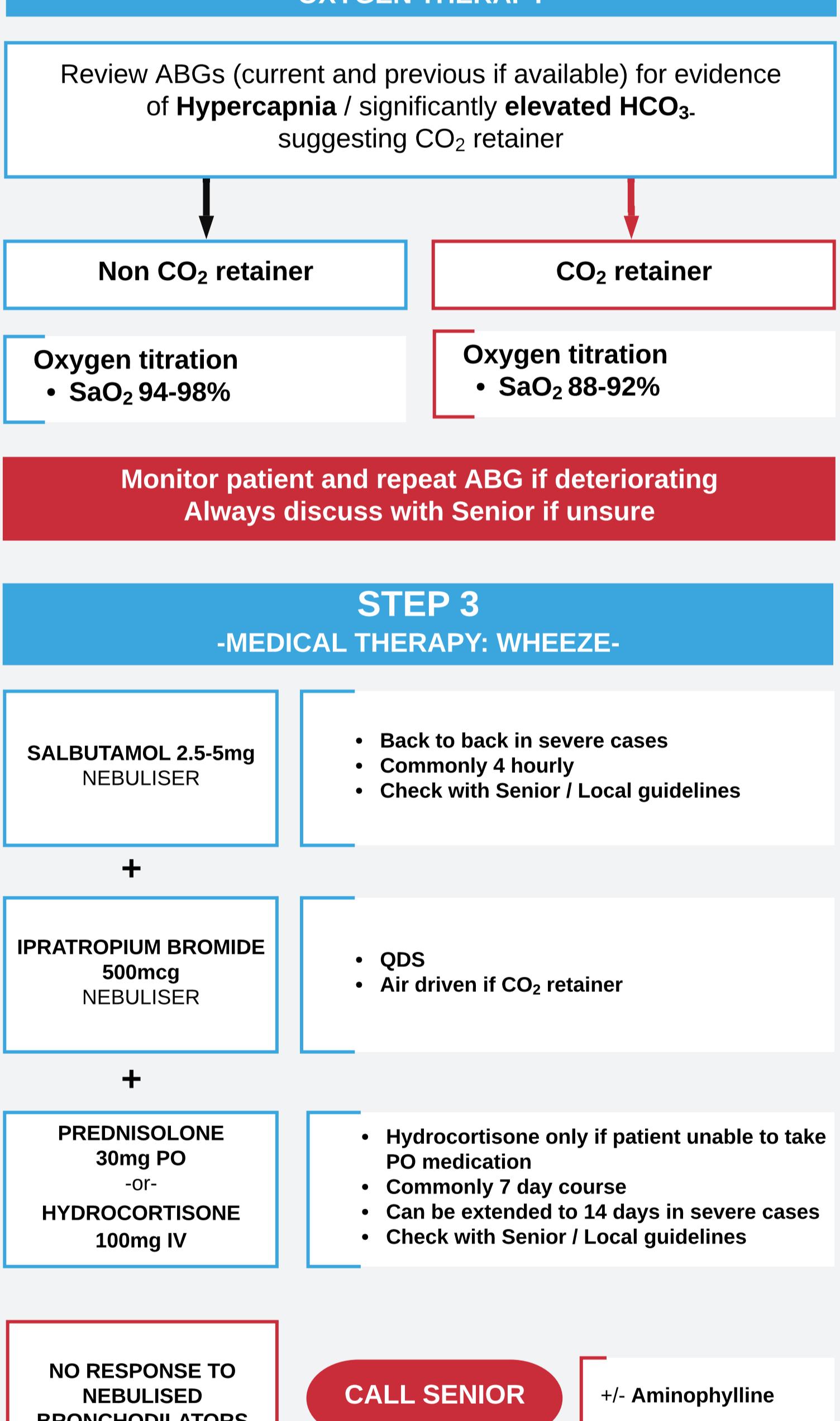
- Physical observation: WOB / Cyanosis / High RR / reduced SaO<sub>2</sub>
- Temperature: Infective v Non-infective
- Auscultation: Wheeze / Crackles / Decreased air entry
- Sputum: White / Yellow-Green

## INVESTIGATIONS

- Bloods: Raised CRP / WBC
- ABG: Hypoxia / Raised CO<sub>2</sub> / Raised HCO<sub>3</sub>
- CXR: Hyperinflation / Clear / Consolidation

## MANAGEMENT

### STEP 1 -ABG ASSESSMENT-



### STEP 2 -OXYGEN THERAPY-

Review ABGs (current and previous if available) for evidence of **Hypercapnia** / significantly **elevated HCO<sub>3</sub>** suggesting CO<sub>2</sub> retainer

Non CO<sub>2</sub> retainer

CO<sub>2</sub> retainer

Oxygen titration

- SaO<sub>2</sub> 94-98%

Oxygen titration

- SaO<sub>2</sub> 88-92%

Monitor patient and repeat ABG if deteriorating  
Always discuss with Senior if unsure

### STEP 3 -MEDICAL THERAPY: WHEEZE-

- |                              |   |   |
|------------------------------|---|---|
| SALBUTAMOL 2.5-5mg NEBULISER | +<br>IPRATROPIUM BROMIDE 500mcg NEBULISER | • Back to back in severe cases<br>• Commonly 4 hourly<br>• Check with Senior / Local guidelines |
|------------------------------|---|---|

- |   |   |   |
|---|---|---|
| PREDNISOLONE 30mg PO<br>-or-<br>HYDROCORTISONE 100mg IV | +<br>NO RESPONSE TO NEBULISED BRONCHODILATORS | • QDS<br>• Air driven if CO <sub>2</sub> retainer |
|---|---|---|

- |  |             |                   |
|--|-------------|-------------------|
| • Hydrocortisone only if patient unable to take PO medication<br>• Commonly 7 day course<br>• Can be extended to 14 days in severe cases<br>• Check with Senior / Local guidelines | CALL SENIOR | +/- Aminophylline |
|--|-------------|-------------------|

### STEP 4 -MEDICAL THERAPY: INFECTION-

INFECTION PRESENT

ANTIBIOTICS

ALWAYS FOLLOW LOCAL GUIDELINES

MICRO-sputum sample-

- |                      |                       |   |
|----------------------|-----------------------|---|
| SALINE 5ml NEBULISER | +<br>CARBOCISTEINE PO | • Commonly 4-6 hourly<br>• Check with Senior / Local guidelines |
|----------------------|-----------------------|---|

- |                     |   |   |
|---------------------|---|---|
| CHEST PHYSIOTHERAPY | +<br>Patients struggling to expectorate<br>Discuss with chest physiotherapist<br>Usually benefit from nebulisers prior to physiotherapy | • Initially 2.25 g daily in divided doses<br>• Reduced to 1.5 g as condition improves |
|---------------------|---|---|

## CONTACT SENIOR

- Acidosis: May require BiPAP
- Respiratory failure: Type 1 or 2
- Failure to respond to nebulised bronchodilators:
  - May require Aminophylline