

# Nursing Care of the Respiratory patients

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# Asthma

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- A condition characterized by **intermittent** airway obstruction in response to a variety of stimuli. “**inflammatory**”
- Asthma differ from **COPD** in that it is reversible process either spontaneously or with treatment.
- Allergy is the strongest **predisposing factor** for the development of asthma.

# Asthma

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## ■ Clinical Manifestations

1. The most three common symptoms are:

a- Cough                      b- Dyspnea                      c- Wheezing

2. Hypoxemia may occur along with

a- Cyanosis                      b- Diaphoresis                      c- Tachycardia                      d-

Widened pulse pressure

# Asthma

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- **Prevention:**

Allergic test to identify the **substances** cause the symptoms and **avoid** it as possible.

# Asthma

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## ■ Medical Management

### ■ Pharmacologic Therapy (long term)

1. **Corticosteroid** :most effective ant inflammatory medication (inhaled form)
2. **Long-acting beta<sub>2</sub> adrenergic agonist** mild to moderate bronchodilator (theophylline)
3. **Quick relive medications** (short acting beta<sub>2</sub> adrenergic agonists)
4. **Peak flow monitoring**

# O<sub>2</sub> Therapy

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## ■ Cautions

1. O<sub>2</sub> toxicity
2. Suppression of ventilation
3. Source of Cross infection
4. Fire Danger

<b>Device</b>	<b>O2 Fellow</b>	<b>FIO2</b>
Nasal Prong	1-6 lit/min	Up to %44
Simple Mask	5-8 lit/min	Up to %60
Mask+ Reserve bag (Rebreathing)	Less than 1/3 of bag should collapse in every breath	Up to %85
Mask+ Reserve bag (Non- Rebreathing)	Less than 1/3 of bag should collapse in every breath	Up to %100

# Chest Physiotherapy

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- **The Goal of chest physiotherapy is :**
  1. Remove bronchial secretion
  2. Improve Ventilation
  3. Increase efficiency of respiratory muscles
- **Postural Drainage**
- **Chest Percussion & vibration**
- **Breathing exercise & retraining**



# Nursing Assessment

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- ⑩ Nasal flaring
- ⑩ Cyanosis
- ⑩ Dyspnea
- ⑩ Decreased respiratory effort
- ⑩ Decreased LOC
- ⑩ Accessory muscle use
- ⑩ Decreased breath sounds
- Decreased oxygen saturation

# تشخیص های پرستاری

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❑ کلیرانس غیر مؤثر راه هوایی مربوط به برونکواسپاسم ، سرفه غیر مؤثر،

ترشحات چسبنده و خستگی

❑ اضطراب مربوط به سختی تنفس ، کمبود بالقوه یا بالفعل کنترل و ترس از

خفگی

❑ اداره غیر مؤثر رژیم درمانی مربوط به کمبود اطلاعات درباره آسم و درمان آن

❑ اختلال در تبادل گازی مربوط به کاهش تهویه آلوئولی

# تشخیص های پرستاری ...

- عدم تعادل تغذیه کمتر از نیازهای بدن مربوط به کاهش اشتها ، کاهش سطح انرژی ، کوتاهی تنفس ، نفخ معده و افسردگی
- اختلال در الگوی خواب مربوط به اضطراب ، تنگی نفس ، هیپوکسی ، هیپرکاپنه و کوتاهی تنفس
- خطر عفونت مربوط به کاهش عملکرد ریوی ، درمان با کورتیکواستروئیدها ، کلیرانس غیر مؤثر راه هوایی و کمبود دانش درباره معیارهای پیشگیری

# Nursing Strategies

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**Dx** : *Activity intolerance R/T ↓ O<sub>2</sub> SOB, pallor, sweating, anxiety, ↑ RR, ↑ HR, & ↑ B/P*

- *Avoid working with arms raised.*
- *stabilize shoulders → lean on elbows.*
- *pursed lip breathing with exhalation.*

# Nursing Strategies cont..

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- On going assessment of RR, B/P, HR, ABG's, O2 oximetry
- Modify activity levels (rest)
- Teach pursed lip breathing
- No sedatives

# Nursing Strategies cont...

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- **Dx** :- *Ineffective a/w clearance*
  - Teach/supervise effective cough  
best after bronchodilator Rx
  - Maintain hydration 3 - 4 l/day
  - Administer meds

# Nursing Strategies cont...

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- Schedule CPT
- No smoking
- Assess breath sounds
- Avoid excessive hot /cold fluids

# Nursing Strategies cont...

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- **Dx** : - *Ineffective breathing pattern*
  - Breathing retraining
  - Optimal positioning



# Nursing Strategies cont...

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**Dx** : - *Sleep pattern Disturbance*

- Promote exercise in day
- Avoid caffeine
- Promote relaxation
- Environment

# Nursing Strategies cont...

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**Dx** : - *Alteration in cerebral perfusion R/T hypoxemia*

- *Risk for injury*

- observe signs ↓ cerebral function

i.e.. Confusion, restlessness

- safety precautions

# Nursing Strategies cont...

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## **Dx** : - *Alteration in nutrition*

- Oral hygiene
- Small frequent meals, easily chewed
- ↑ Calories ( not CHO) ↑ CO<sub>2</sub> by product
- ↑ Protein
- Avoid “gassy” food → abd distention →  
↑SOB

# Nursing Strategies cont...

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**Dx** : - *Altered bowel function*

- ↑ Fluids
- ↑ Activity

# Nursing Strategies cont...

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**Dx** : - *Altered family processes*

*Body image disturbance*

- Encourage communication
- Educate family
- Redistribute tasks
- Support services

# Nursing Strategies cont...

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**Dx** :- *Potential for infection*

- Flu vaccine
- Clean equipment

**Dx** :- *Anxiety*

# Nursing Strategies

## cont...

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**Dx** :- *Altered health Maintenance R/T  
knowledge Deficit*

- Breathing, Coughing, Relaxation, Hydration
- Home Rx, O2, CPT
- Meds

# Nursing Strategies cont...

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- Energy conservation
- Prevent complications
- Diet
- Follow up
- Recognize problems ( SOB  $\uparrow$ ,  $\Delta$  sputum, wheeze )



# Outcomes

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- Clear breath sounds
- Effective cough
- RR 12 - 20
- PO<sub>2</sub> & PCO<sub>2</sub> within (N)
- less dyspnea & easy breathing
- ↓ anxiety
- Restful sleep
- Maintain nutrition & body weight

# Complications

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- ⑩ Respiratory acidosis may be a sign of respiratory failure, with dangerously low blood oxygen levels.
- Excessive respiratory acidosis may lead to confusion, lethargy, or poor organ function -- in extreme cases, low blood pressure and shock may result.

# Patient & Family Education

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- ⑩ Call your health care provider if you have symptoms of lung disease.
- Get to an emergency room if you suspect you have severe respiratory acidosis -- this is a **MEDICAL EMERGENCY.**

# Patient & Family Education

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- Not smoking -- or quitting if you smoke -- can prevent the development of many severe lung diseases that can lead to respiratory acidosis.
- Obese patients may prevent obesity hypoventilation syndrome by losing weight

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**Thank you for your attention**