



Transporting Children With Respiratory Illness

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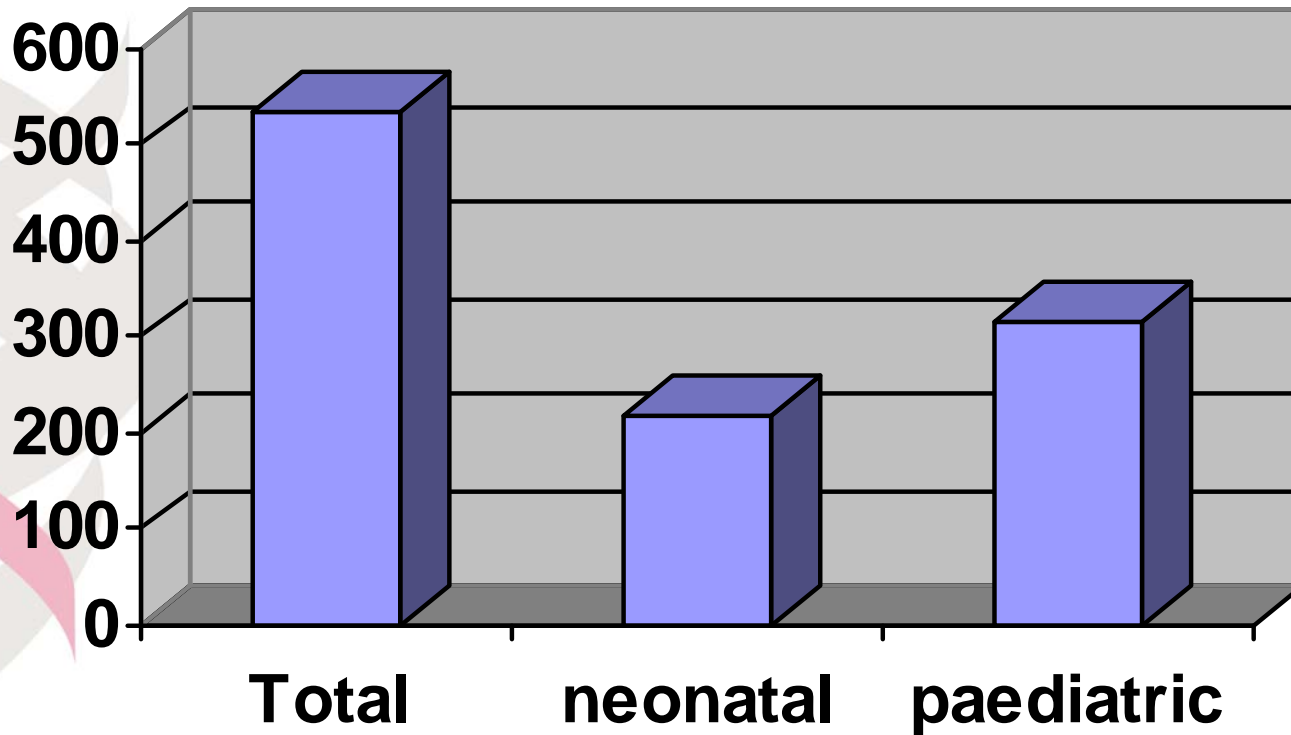




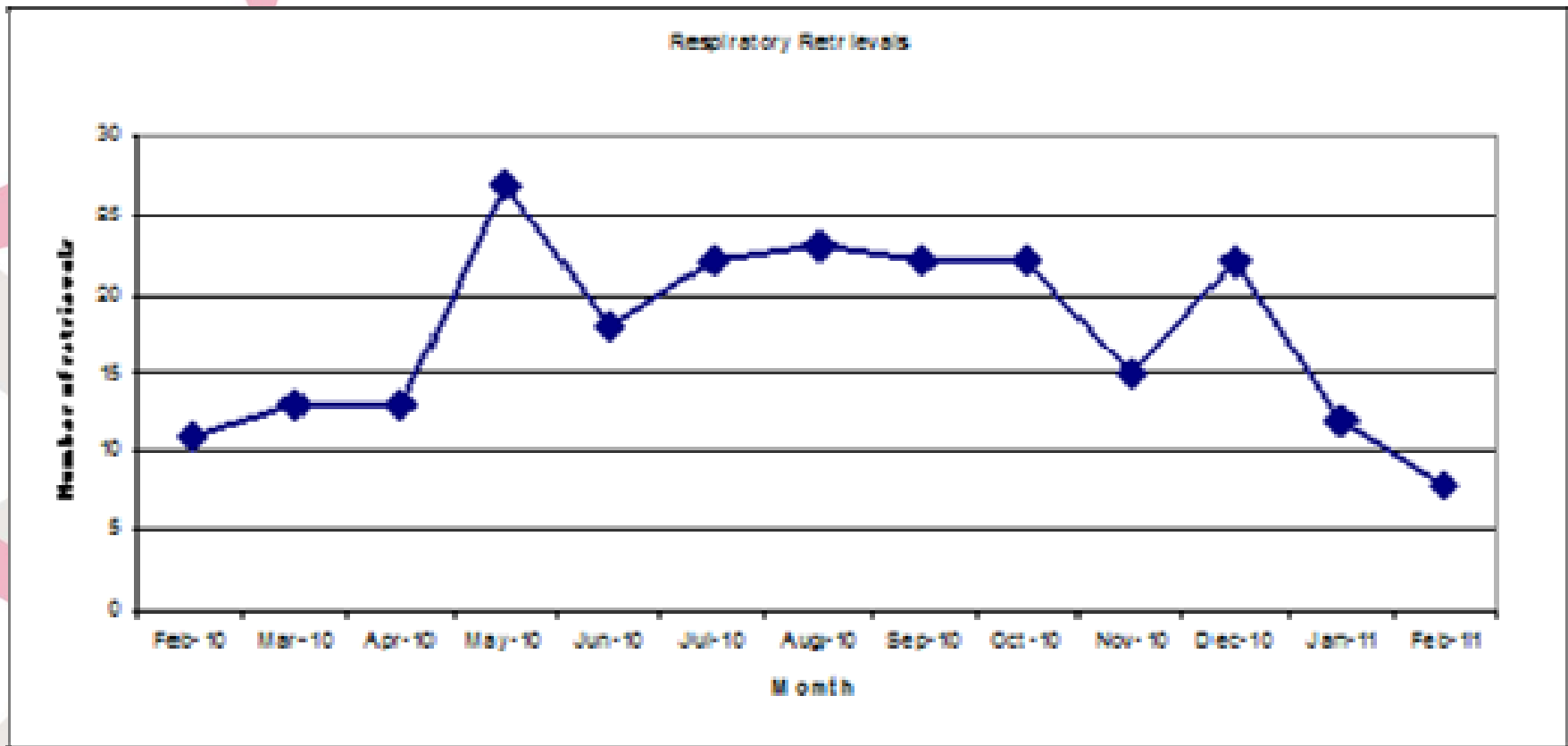
Introduction

- MedSTAR KIDS
- Location and catchment
- Assets
- Respiratory illness most frequent diagnosis
- Bronchiolitis 37% cases
- Challenges

General Overview

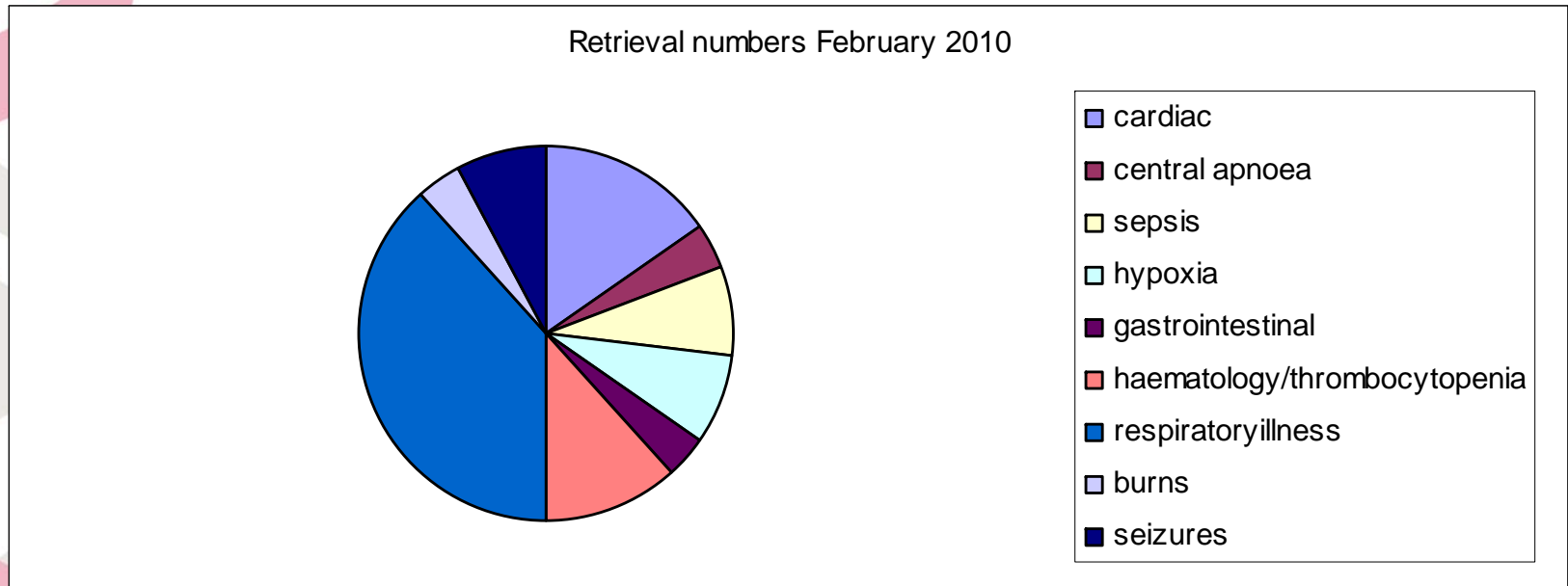


**Retrievals
Feb 2010 –
Jan 2011**



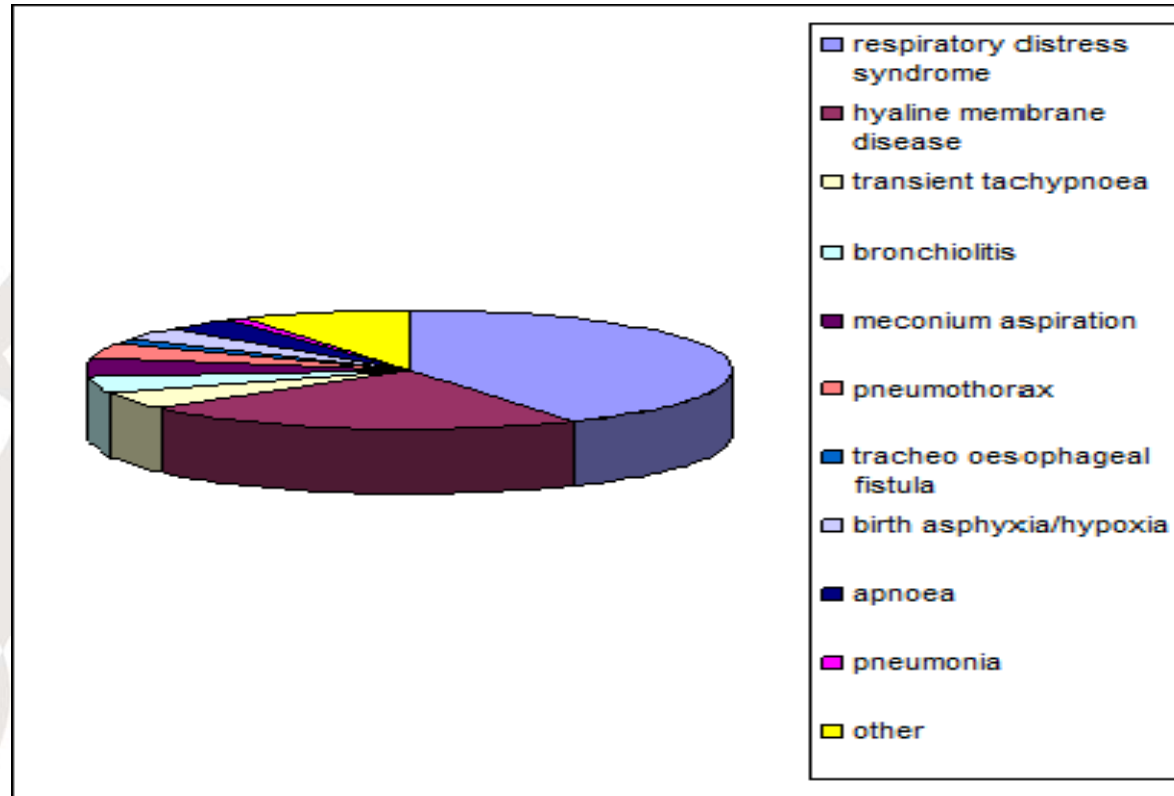
- Seasonal graph
- Combined peak in May
- Neonatal numbers consistent

Most frequent reason for transportation



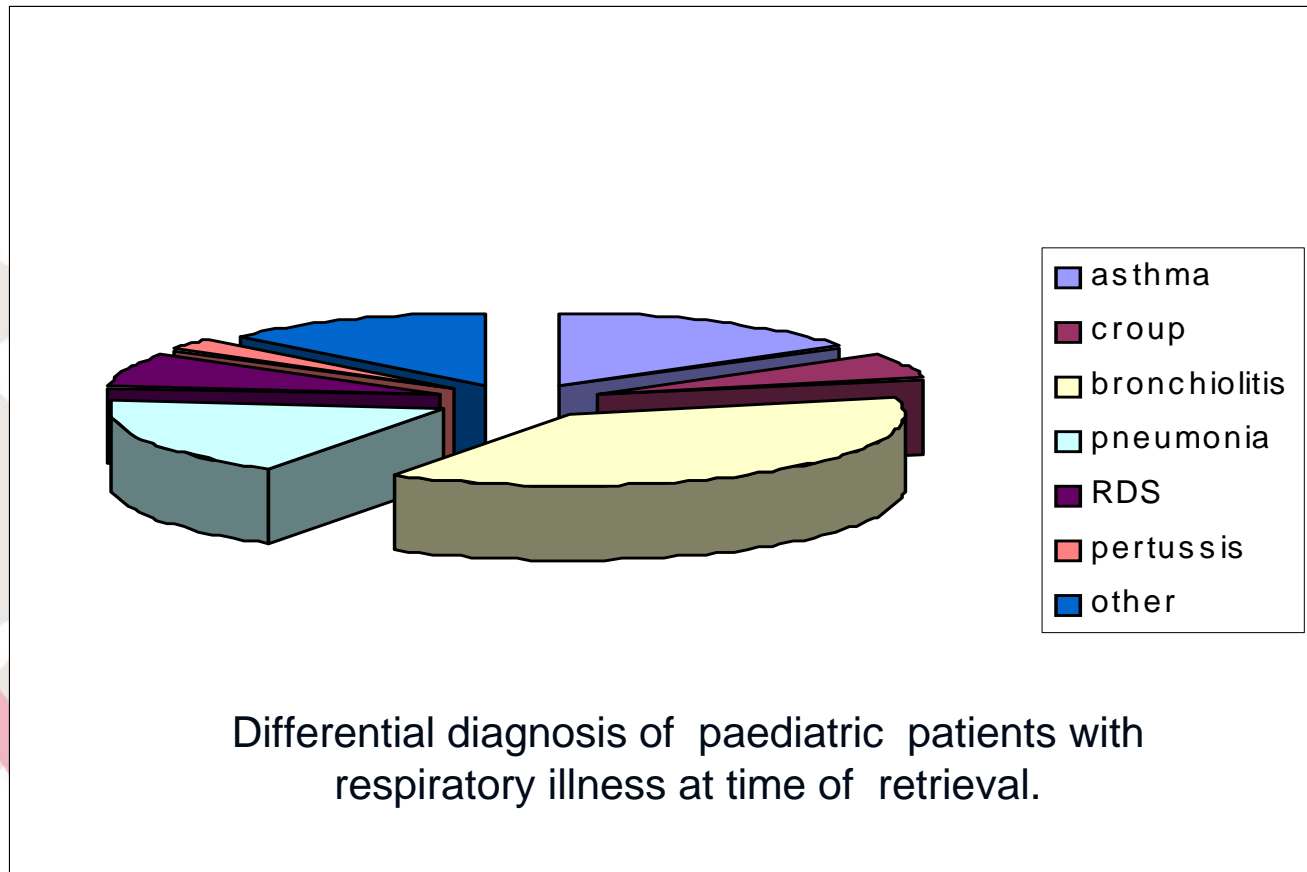
- Respiratory illness largest group
- 15% cardiac abnormalities
- 12% haematology
- 8% of retrievals were for hypoxia, seizures or sepsis
- 4% - burns, gastro-intestinal, central apnoea

Diagnosis of neonatal patients with respiratory illness at time of retrieval



- 47% of neonatal patients with respiratory illness
- Respiratory distress and hyaline membrane disease
- Surfactant deficiency
- Other diagnosis

Bronchiolitis – main diagnosis for paediatric patients



- 37% bronchiolitis
- 18% pneumonia
- 16% asthma
- 6% croup



Acute bronchiolitis

- Most severe respiratory illness in children <2yrs.
- Epidemic pattern.
- Symptoms.
- At risk patients
- Paediatric pathogen
- Elderly patients



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Causes of bronchiolitis.

- RSV in 85% of cases
- Adenovirus (11%)- more virulent course
- Other less common etiologic agents are;
 - mycoplasma
 - Enterovirus
 - Influenza virus
 - Rhino virus
 - Chlamydia pneumoniae
 - Human meta pneumovirus



Diagnosis

- Clinical diagnosis
- Definitive diagnosis
- Cohorting children



Pre-hospital Care

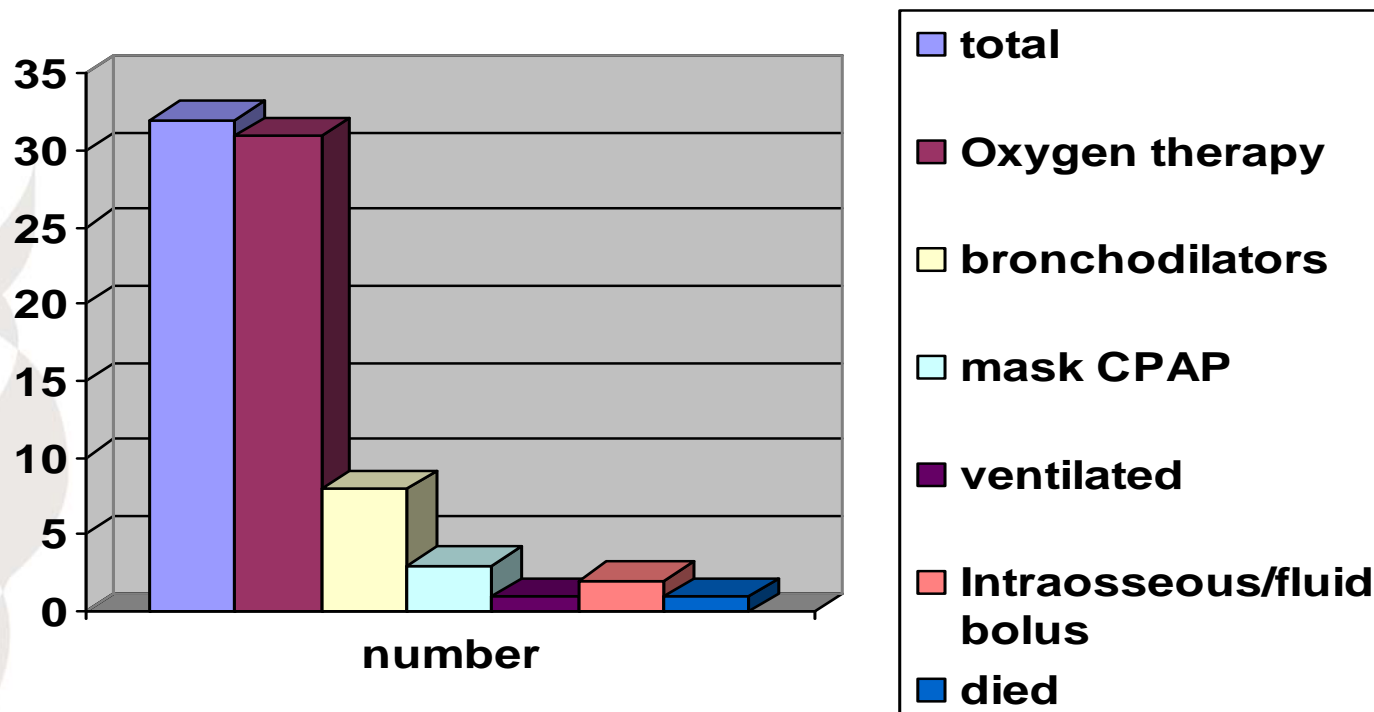
- Administration of O₂
- Positioning
- Pulse oximetry
- Cardio-respiratory monitoring
- Possible trial of bronchodilators



Treatment of bronchiolitis.

- Supportive care
- When
- Self limiting
- Low mortality rate <1%
- Recent systematic reviews have not provided convincing evidence for any routine clinical treatments.

Retrieval treatment interventions.



- Oxygen therapy

- 25% nebulised bronchodilators

- Respiratory support

- 1 death

Challenges associated with transportation



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Retrieval challenges

- Age of patient
- Infection control
- Temperature instability
- Tolerance
- Separation
- Transport platforms

Conclusion



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