

# Welcome To Journal Club

Presented By

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# Evaluation of Hospitalized Infant and Young Children with Bronchiolitis- a multi-centre study

Kabir ML, Haq N, Hoque M, Ahmed F, Amin R, Hossain A et al.

Mymensingh Med J 2003 Jul; 12(2): 128-133

**Indexing Words:** Bronchiolitis, Respiratory Syncytial Virus, Infant, Children.

# Bronchiolitis study: Introduction

- Bronchiolitis is the most significant respiratory illness of infants and young children. It is an acute inflammatory respiratory illness of children that occurs in the first 2 years of age and is characterized by coryzal symptoms followed by rapid onset of fever, wheeze, tachypnea, chest recession and crepitation, with radiologic evidence of hyperinflation.

# Bronchiolitis study: Objectives

- To see, are we treating RSV bronchiolitis as 'pneumonia'?
- Clinical characteristics of bronchiolitis
- Management of bronchiolitis

# Bronchiolitis study: Methodology

- Data collected from 4 hospitals of Dhaka and other 8 hospitals outside Dhaka
- Period December 2001 to March 2002
- A structured questionnaire used
- Questionnaire filled up by pediatricians
- Blood tested for RSV IgM and IgG antibody

# Bronchiolitis study: Methodology

- Total patients studied : 429
- Questionnaire filled up : 348  
*(all from Dhaka hospitals)*
- Blood drawn : 309  
*(195 from ICMH, 84 from  
outside Dhaka hospitals,  
30 controls)*

# Bronchiolitis study: Dhaka Hospitals

- Institute of Child and Mother Health  
(*ICMH*) : 221
- Dhaka Medical College Hospital  
(*DMCH*) : 54
- Dhaka Shishu Hospital (*DSH*) : 52
- Mitford Hospital (*SSMCMH*) : 21
- Total : 348

# Bronchiolitis:

## Hospitals visited outside Dhaka

• Mymensingh Medical College Hospital:	20
• Netrokona Upazilla Health Complex:	12
• Begomgonj Upazilla Health Complex:	01
• Lakshmipur Sadar Hospital:	04
• Raipur Upazilla Health Complex:	00
• Noakhali General Hospital:	14
• Jhenaidaha Sadar Hospital:	21
• Magura Sadar Hospital:	12
Total:	84



# Bronchiolitis study: Methodology

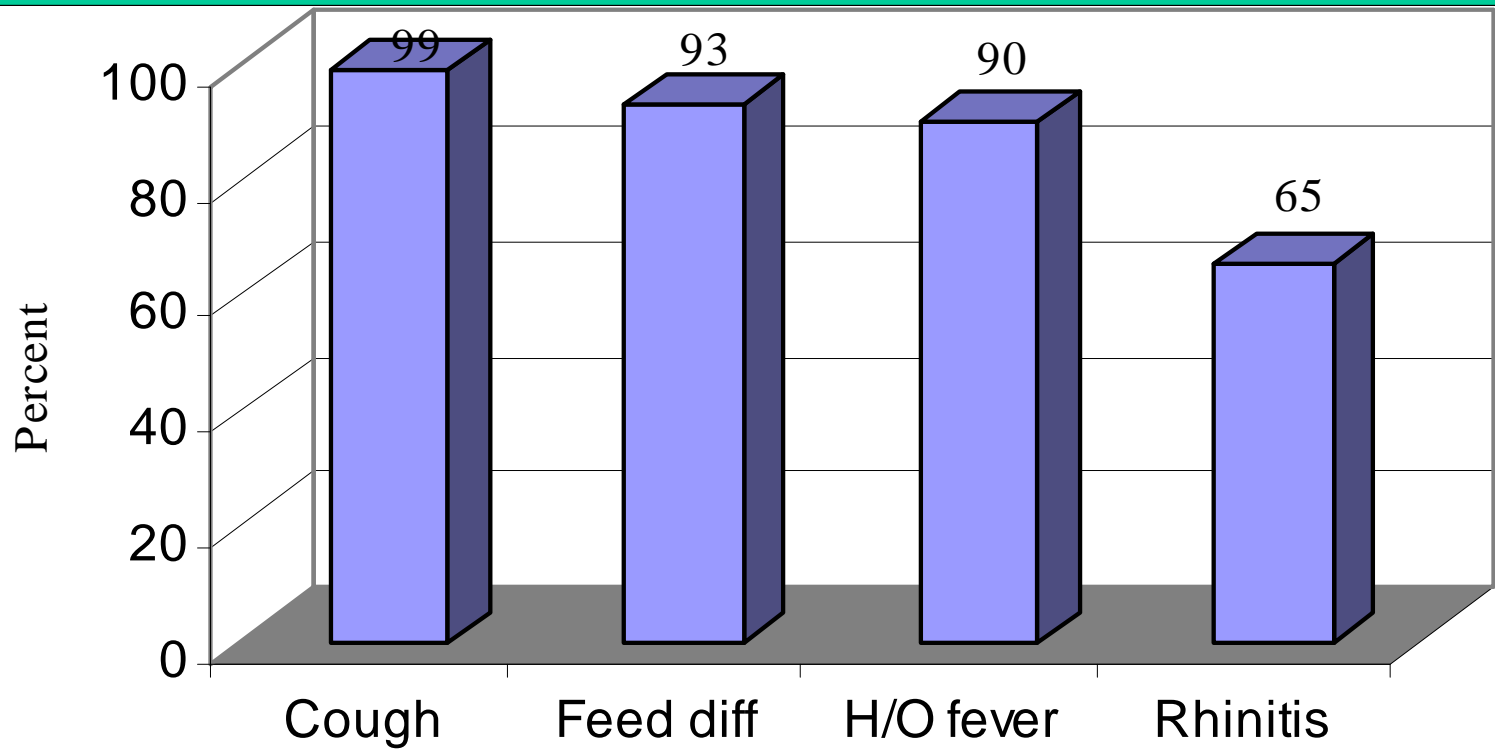
## *Selection criteria (Clinical bronchiolitis)*

- Hospitalized children
- Children of 1-24 months of age
- Previously healthy
- First attack of wheeze

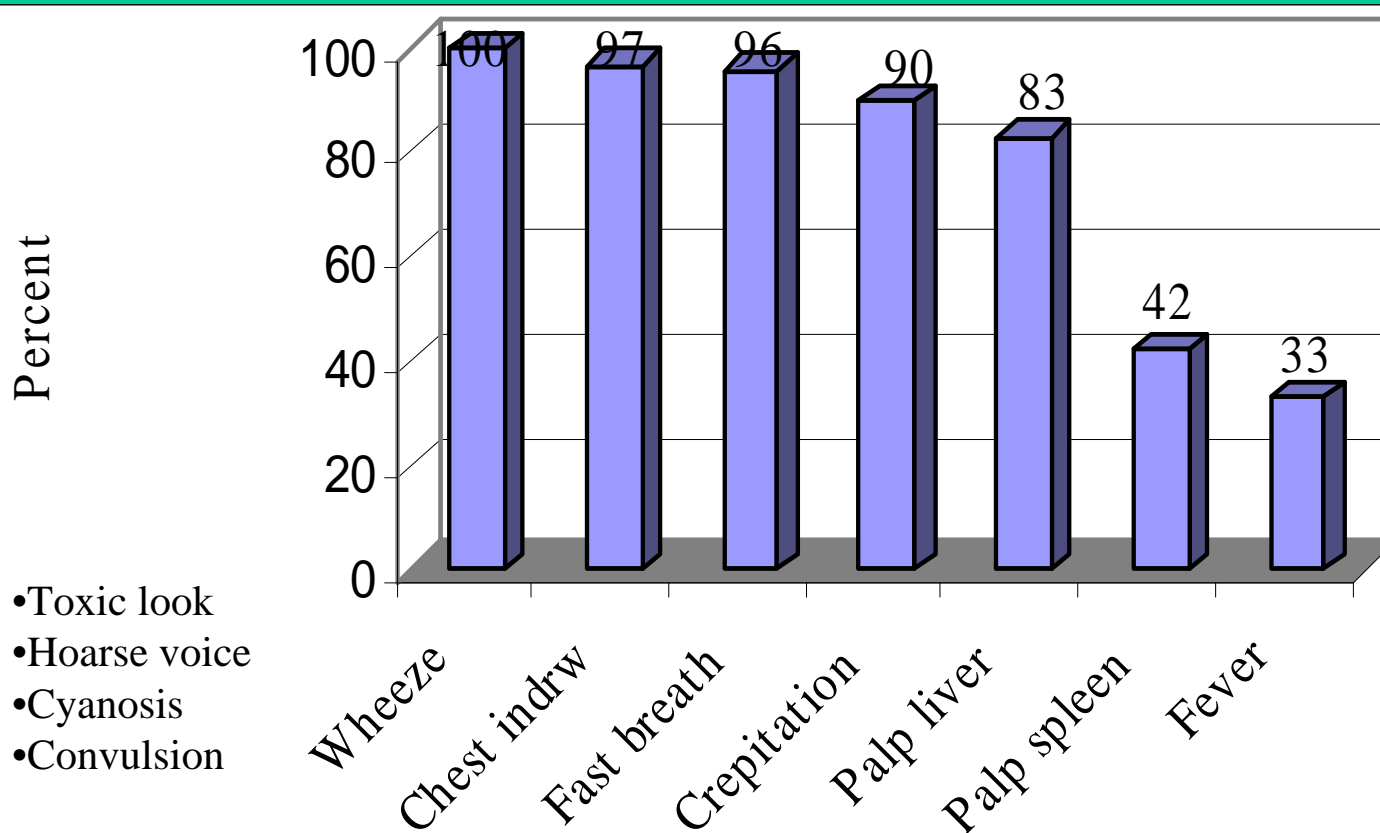
# Bronchiolitis study: Results- Patient characteristics (n=348)

- Age range 2 mo-19 mo, median 3 mo
- Within 6 months of age 83%
- Male 66%, Female 34%
- Poor economic status in 74% cases
- 4 or more family members in one room in 52% cases
- Smoking family in 52% cases

# Bronchiolitis study: Symptoms

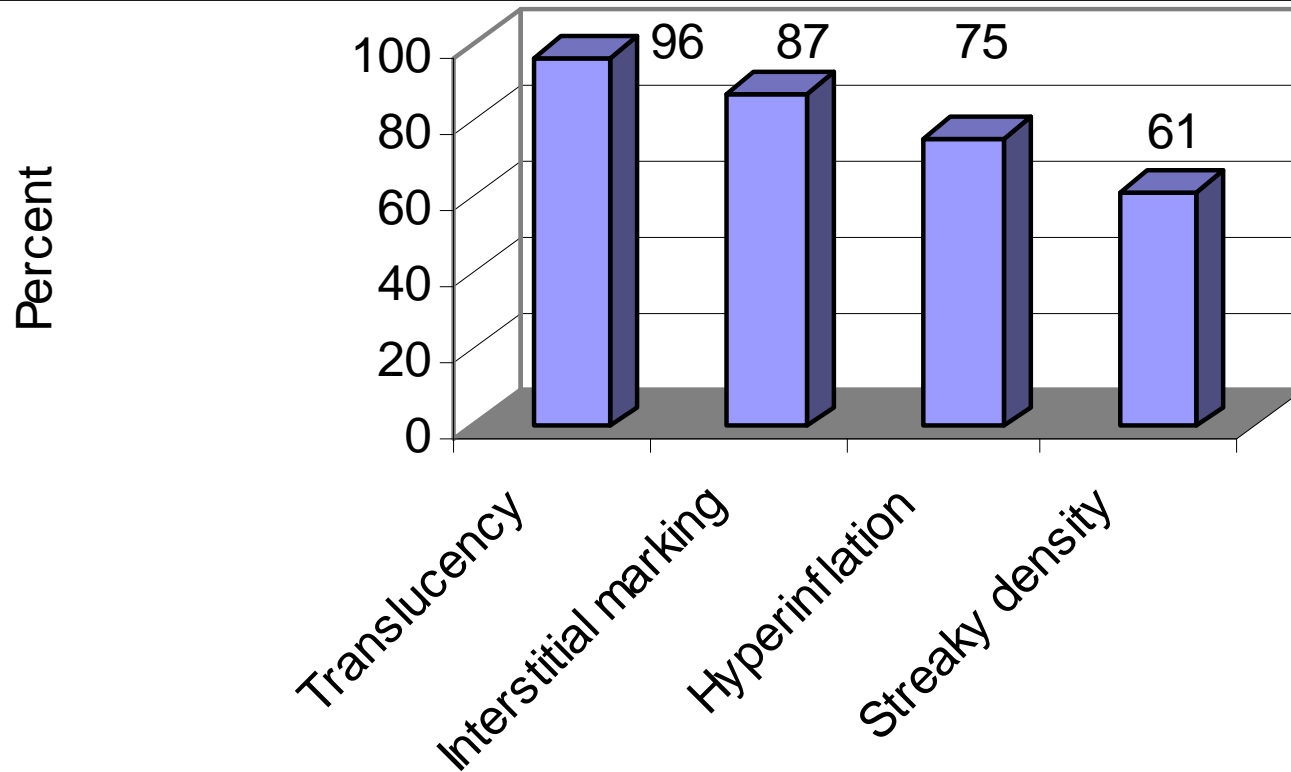


# Bronchiolitis study: Signs

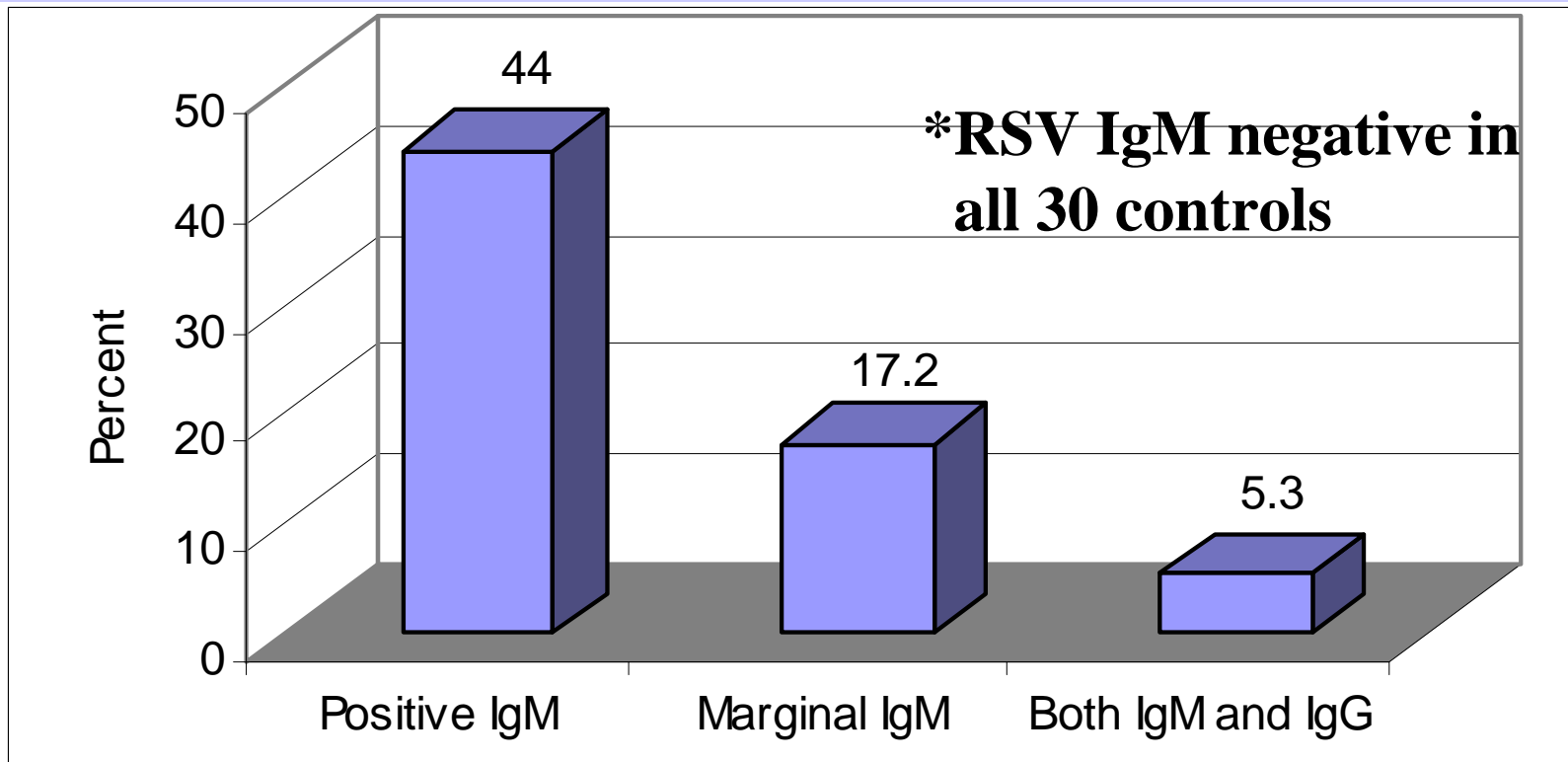


- Toxic look
- Hoarse voice
- Cyanosis
- Convulsion

# Bronchiolitis study: Radiology



# Bronchiolitis study: RSV IgM Results (n=279)

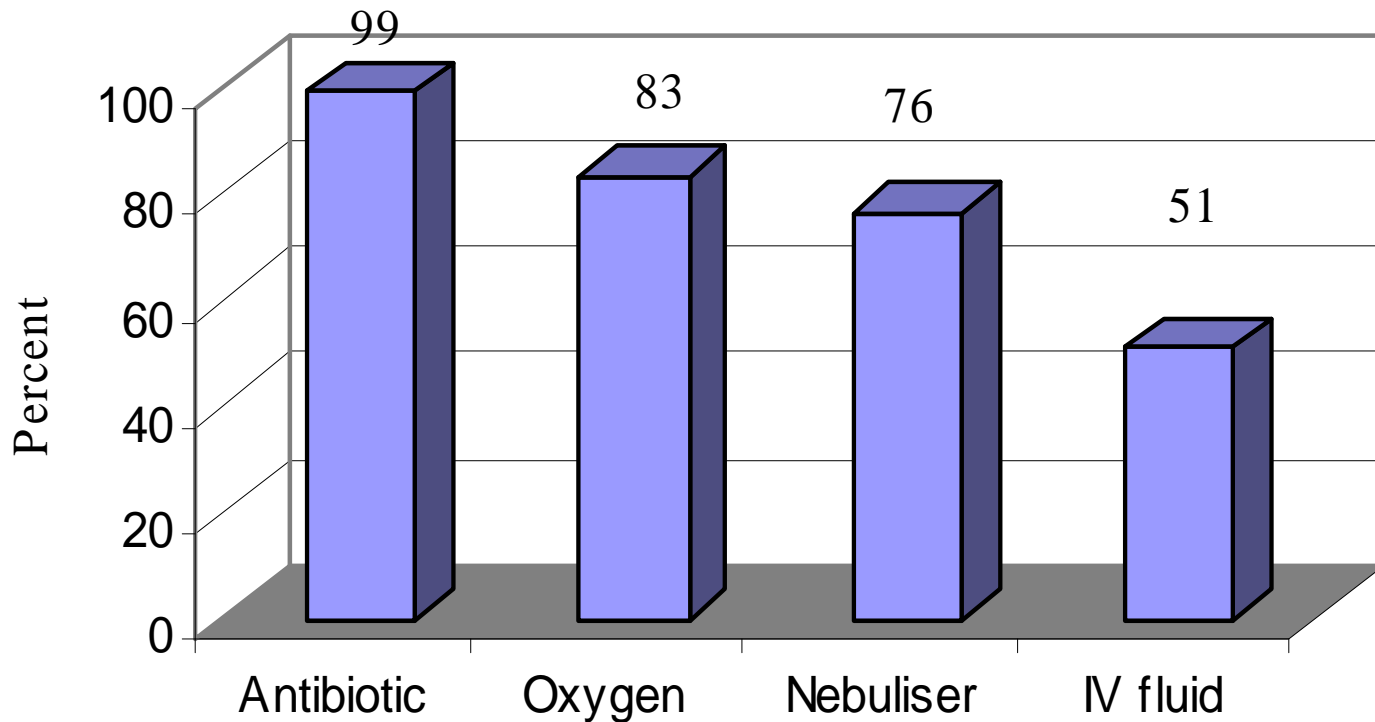


**Detection of antibody by ELISA.**

**Sensitivity : IgM 95%, IgG 99%**

**Specificity IgM 92% IgG 98%**

# Bronchiolitis study: Main treatment modalities



# Bronchiolitis study: Outcome

## Duration in hospital

- Median: 4 days
- Mean: 4.8 days
- Range: 1-22 days

Improved and discharged: 96%

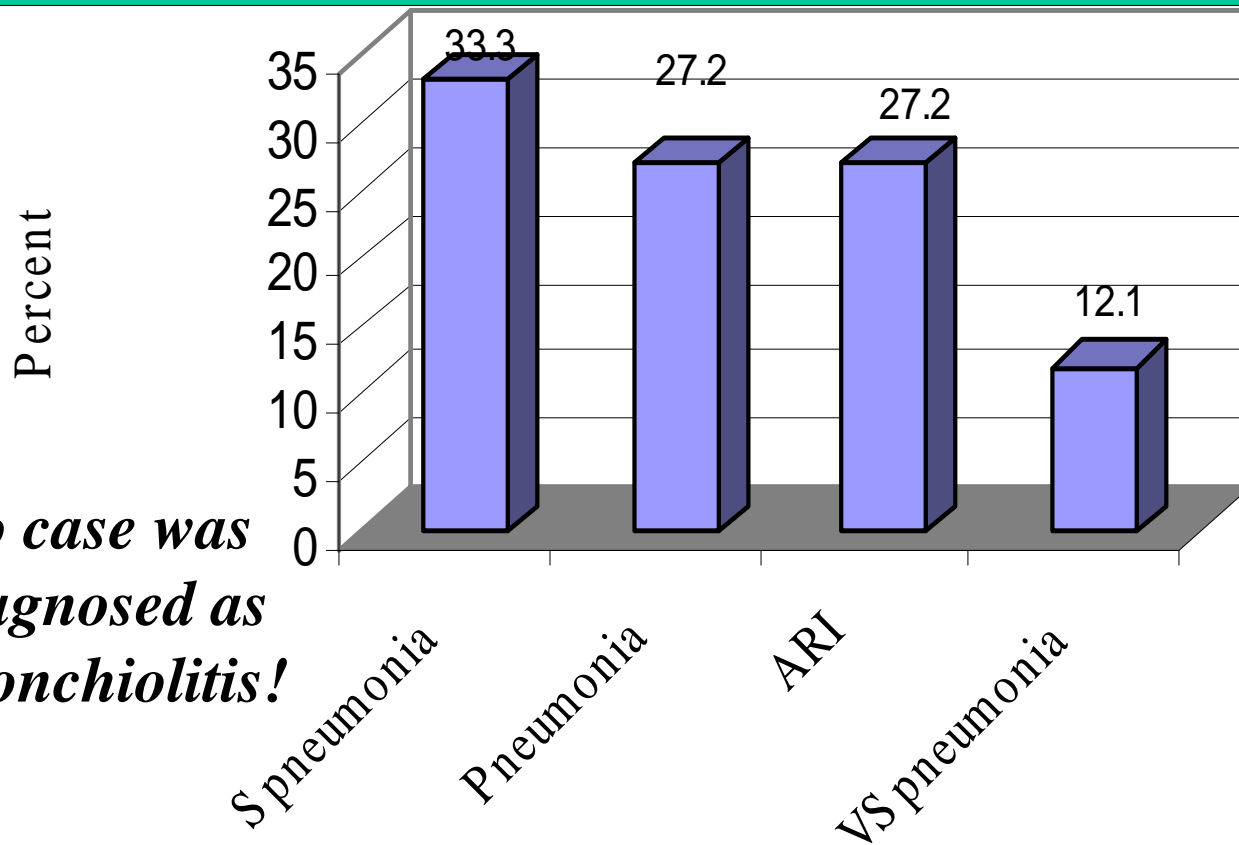
DORB and Absconded: 2%

Mortality: 2%



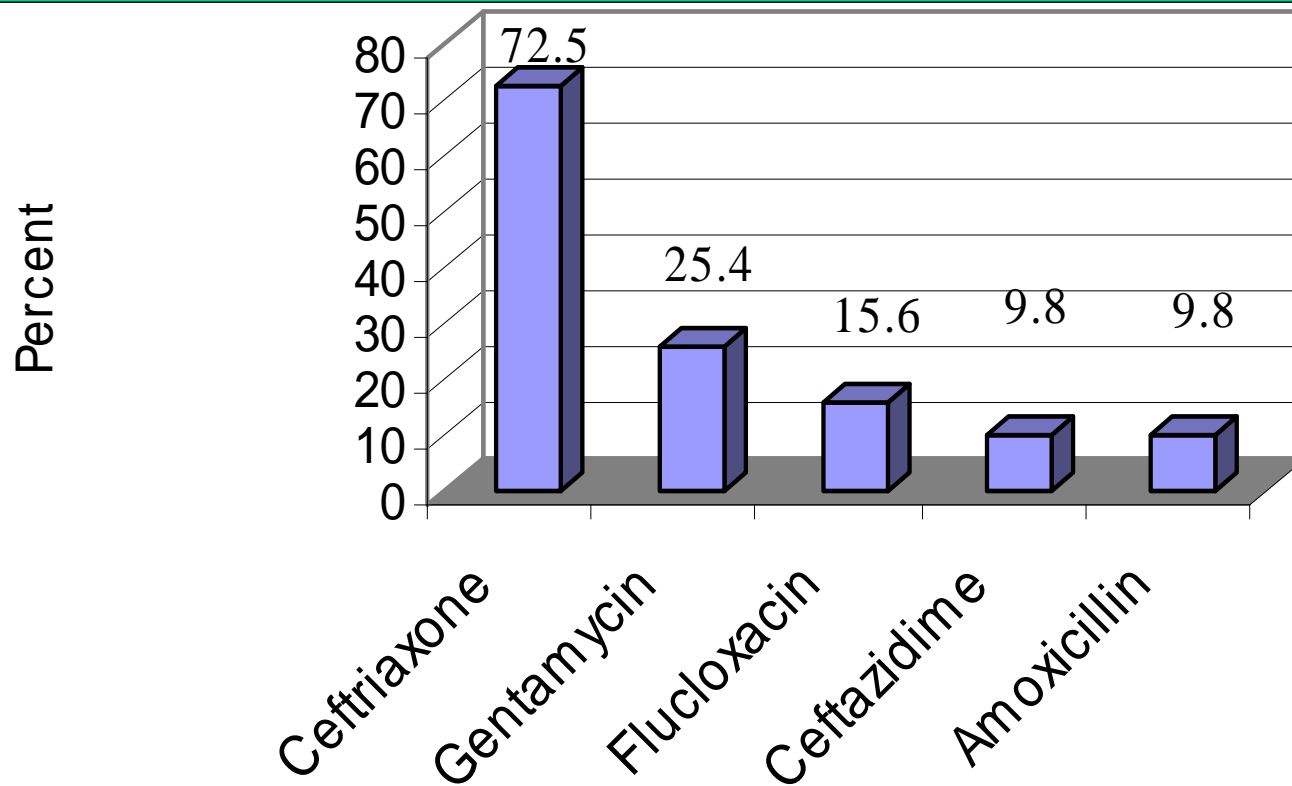
# How is Bronchiolitis recognized?

(N=81)

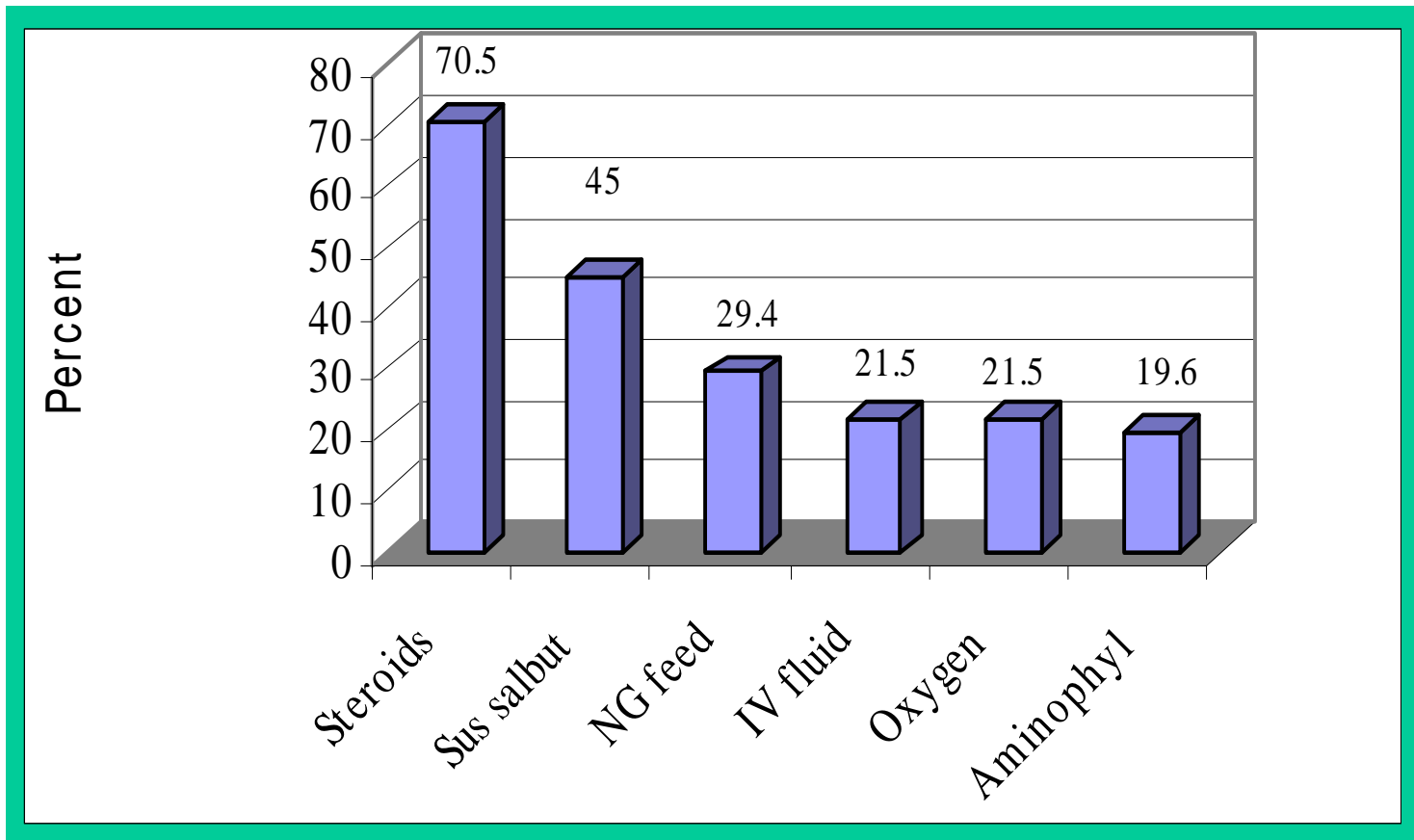


*No case was  
diagnosed as  
bronchiolitis!*

# Bronchiolitis: Use of Antibiotics



# Other modalities of management



# Bronchiolitis study: Overall experience

- The median age of bronchiolitis 3 months
- Bronchiolitis is not being recognized outside Dhaka
- Use of antibiotics is universal  
(Ampicillin in Dhaka, ceftriaxone outside Dhaka)
- Corticosteroids use is widespread outside Dhaka
- Use of salbutamol nebuliser is rampant in Dhaka
- Oxygen therapy is not practiced effectively
- Median duration in hospital is 4 days
- Mortality is low in Dhaka

- **Message:** Cases of Bronchiolitis are recognized as Pneumonia, specially outside Dhaka that leads to irrational use of costly antibiotics.

Thank You