Paediatric Respiratory history and examination

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HISTORY TAKING

- Formally introduce yourself by name
- The history usually is learned from the parent, the older child, or the caretaker of a sick child.
- The parent is allowed to talk freely at first and to express concerns in his or her own words.

Paediatric Respiratory History

- Listen
- Clarification

Chief Complaint

- The major concern that prompted consultation
- A chronological description of the problem
- Clarification of its:
    - onset-age of onset
    - frequency
    - timing
    - duration
    - severity

- *Given in the informant's or patient's own words*, the chief complaint is a brief statement of the reason why the patient was brought to be seen.

History of Present Illness

- The details of the present illness are recorded in chronologic order.
- For the sick child, it is helpful to begin: "The child was well until "X" number of days before this visit.“
- This is followed by a daily documentation of events leading up to the present time, including signs, symptoms, and treatment, if any.
- If the child is taking medicine, the amount being taken, the name of the medicine, the frequency of administration, and how well and how long it has been or is being taken are needed.

History of Present Illness

- **If the past medical history is significant to the current illness, a brief summary is included.**

Sick Contacts

- Parents
- Siblings
- Household members
- What illness? URI etc
- Day Care Attendance

HISTORY FROM THE CHILD

- Even young children should be asked about their symptoms and their understanding of their problem.
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- Regardless of your own opinion, obtain the history objectively without any moral implications, starting with open-ended questions related to the initial complaint and then directing the questions

REVIEW OF SYSTEMS

- The review of systems serves as a checklist for pertinent information that might have been omitted.

PAST MEDICAL HISTORY

- Past illnesses: infections, other illnesses/chronic illnessesdiagnoses and course, hospitalizations, surgeries, accidents, ER visits, medications/allergies, last medical check-up

PRENATAL HISTORY

- Age of the mother
- Health of the mother during this pregnancy: any infections (GBS, GC/chlamydia, hepatitis etc
- Number of previous pregnancies and their results

- Radiographs or medications taken during the pregnancy

BIRTH/ Neonatal HISTORY

- The duration of pregnancy, the ease or difficulty of labor, and the duration of labor may be important, especially if there is a question of developmental delay.

- The type of delivery (spontaneous, forceps-assisted, or cesarean section)

- Birth weight, condition of the child at birth resuscitation, APGAR score if known, NICU stay

FEEDING HISTORY

- Breast- or bottle-fed - relevant until 1 year of age
- Type of formula used and the amount taken during a 24- hour period.
- Requirements for supplemental feeding, vomiting, regurgitation, colic, diarrhea, or other gastrointestinal or feeding problems should be noted.
- Ages at which solid foods were introduced and supplementation with vitamins etc.

If feeding difficulties are present, determine

- the onset of the problem,
- methods of feeding,
- reasons for changes,
- interval between feedings,
- amount taken at each feeding,
- vomiting,
- crying,
- weight changes.

DEVELOPMENTAL HISTORY

- Developmental history is included until age 3 years unless relevant for HPI or school performance
- Estimation of physical growth rate is important. These data are plotted on physical growth charts.
- Ages at which major developmental milestones were met aid in indicating deviations from normal.
- Age at which bowel and bladder control were achieved.

IMMUNIZATION HISTORY

- The types of immunizations received, with the number, dates, sites given, and reactions should be recorded as part of the history.

FAMILY HISTORY

- The family history provides evidence for considering familial diseases as well as infections or contagious illnesses.
- If problems with genetic implications exist, all known relatives should be inquired about.
- Family diseases, such as allergy; blood, heart, lung, or kidney disease; tuberculosis; diabetes; rheumatic fever etc.

SOCIAL HISTORY

- If it is pertinent to the current problems of the child
- Home
- Garden
- Animals
- Stairs
- Smoking
- Psychological diseases

Exp: Cough

- It is the most common symptom of airway lung disease
- It is an important physiological protective reflex that clears airways of secretions and inhaled or aspirated material.

- Characteristics:
- ✓ Moist or dry
- ✓ Paroxysmal- symptoms between interval
- ✓ Early morning- disturbs sleep
- ✓ Post tussive vomiting
- ✓ Associated with cyanosis

Examintion

Observation

Upper Airway

- **Face:**
  - Micrognathia, retrognathia, depressed nasal bridge
  - Palate, uvula and tonsils
  - Nasal polyps in CF, Allergic rhinitis
  - Mouth breathing

Chest Shape:

- Asymmetry
- Hyperinflation
- Pectus excavatum
- Pectus carinatum
- Harrison`s sulci
- Chest expansion
- Kyphoscoliosis

End of the bed examination

- Adequate oxygenation
- Respiratory rate
- Respiratory cycle
- Accessory muscle use
- recession

Respiratory Rate:

- Newborn 40-60
- 1 week to 3 months 30-50
- 3 months to 2 years 20-40
- 2 years to 10 years 14-24
- > 10 years 12-20

Work of breathing

- **Accessory muscle:**
  * Inspiration: sternomastoid, scalene
  * Expiration: rectus abdominus and other abdominal muscles, internal intercostals
- **Recession:**
  * Supraglottic- tracheal tug
  * Sternal
  * Intercostal

Cyanosis

- Cyanosis requires at least 4-6g/dl desaturated Hb in capillary, 3g/dl in arterial blood.

- ***Central cyanosis*** : ear lobes, tongue
- ***Peripheral cyanosis***: decreased blood flow.

Finger Clubbing- Schamroth`s sign

Causes of finger clubbing

- Suppurative lung disease
- Cyanotic CHD
- Liver disease
- Inflammatory bowel disease

Respiratory Cycle

- Prolonged inspiration- extra thoracic obstruction
- Prolonged expiration- intra thoracic obstruction
- Tachypnoea with normal cycle- parenchymal disease

Lung sound

- **Vesicular:**

  * Low frequency, non-musical, barely audible at est

- **Bronchial/ tracheal breath sounds:**

  ***** harsh sounds like those heard over the trachea consolidation.

- **Wheeze:**

  * high pitches, musical sound in expiration – intra-thoracic airway obstruction.

  * flow dependent.

- *Crackles (crepitations)*

  * high pitched short duration

  * movement of thin secretions, explosive opening of collapsed small airways

Palpation

- *Cervical and axillary lymph nodes*
- *Asymmetrical chest wall expansion*
- *Tactile fremitus-* reduced in pneumothorax , increased in consolidation.

- *Percussion*- dull: consolidation, stony dull: effusion, resonant: pneumothorax

Percussion

- Normal
- Dull
- Stony Dull

THANK YOU