BEST Education Sessions, Spring 2016

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Who am I?

- Consultant in Barnsley since 2001
  - committed to the community
- Acute paediatrician, with a variety of responsibilities / interests, including education
  - part of a team
  - allergy, safeguarding, CF
- Keen on two-way communication with primary care; clinical supervisor for VTS trainees
  - conscious of differences in settings / resources

What do I / we hope to achieve?

- Enjoyable, interactive and useful sessions
- Increased and shared understanding of conditions, roles and interface
- Key practice points (both ways)
- Clarification and development

Paediatric Asthma

with
Zena Thomas
Respiratory CCN

Case 1 – Is this Asthma?

14 month old boy, born at 35/40.

Mum smokes, uncle has asthma

Bronchiolitis admission age 5/12

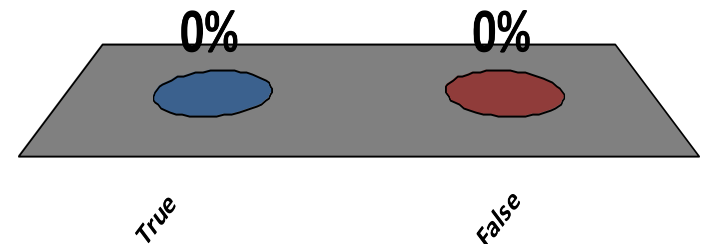
Always ‘wheezy’

Worse with colds

O/E no respiratory distress, chest clear

A. True

B. False



Case 2 – Is this Asthma?

6 year old boy, Previous eczema, now improved; has hayfever

Mum asthma and eczema as a child; aunt has hayfever

Chest OK when younger;

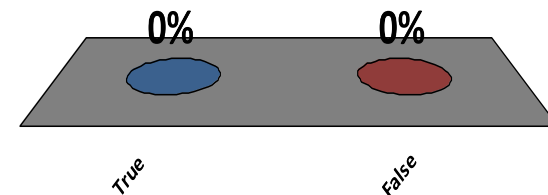
from age 3 tends to get SOB with colds

Blue inhaler helps;

now cough at night and SOBOE even when no URTI

A. True

B. False



Case 3 – Is this Asthma?

14 year old girl

Born at 32/40

Grandmother and uncle have asthma

No chest symptoms when younger

Doing well at school,

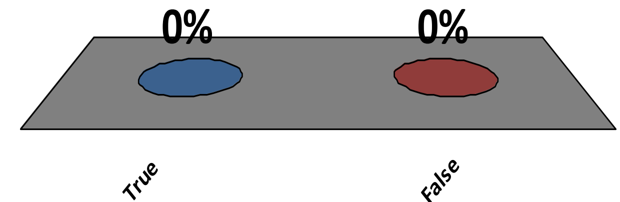
sporty and lots of social activities

SOBOE associated with dry cough

over past 12 months

A. True

B. False



Definition

- ‘Asthmas’
- BTS / SIGN (and worldwide)
  - Definition
  - Stepwise approach
  - Indications for referral to secondary care

‘Asthma responds to asthma treatment’

What else could it be?

- PBB (Persistent bacterial bronchitis)
- Reflux
- Post-viral cough
- Congenital malformation
- Vocal cord dysfunction
- Dysfunctional breathing

Treatment

- Not always easy for practical reasons
- Important to use appropriate drug in appropriate patients
- Guidelines exist
- Delivery device is probably the single most important issue

Asthma basics

- Stepwise approach – handout
- Inhaler technique – Zena
- Inhaler effectiveness – Zena
- Inhaler appropriateness – Zena

Stepwise management of asthma in children aged 5-12 years

Step 5: Continuous or frequent use of oral steroids

Step 4: Persistent poor control

Step 3: Add-on therapy

Step 2: Regular preventer therapy

Step 1: Mild intermittent asthma

Thorax 2003; 58 (Suppl I): i1-i92

‘Certainties’

- No oral bronchodilators
- Ibuprofen OK
- Asthma management plan
- Combination inhalers vs separate
- No doubling ICS
- No home nebulisers

- No ICS in viral induced wheeze
- ‘No’ antibiotics

‘Uncertainties’

- When to start prednisolone
- Prednisolone in younger children
- Which patients may benefit from montelukast
- Montelukast in viral induced wheeze
- LABAs in under 5s

Disordered perception of dyspneoa

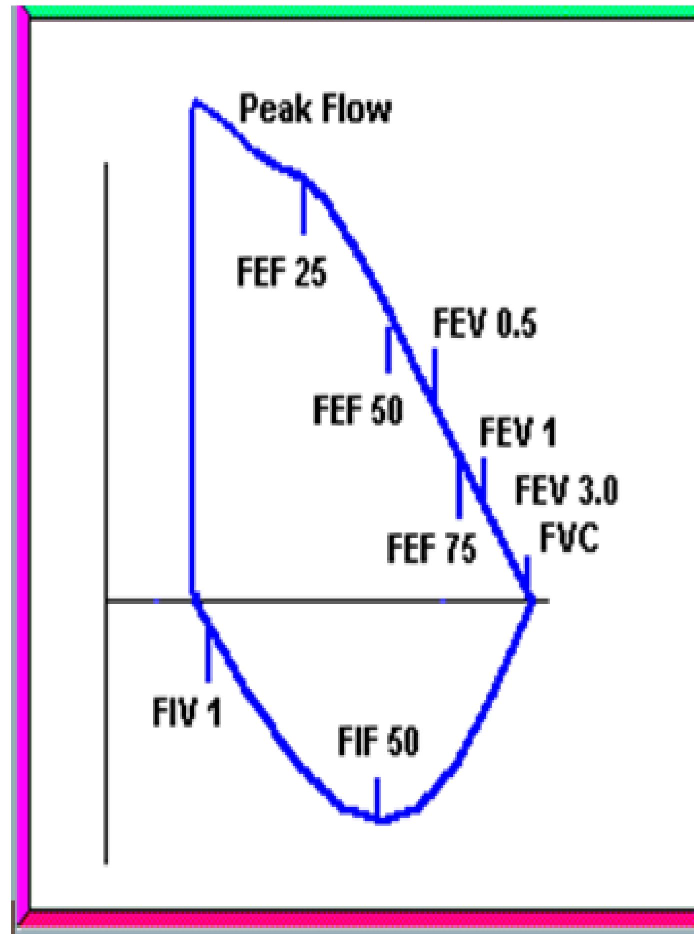
- Recognised phenomenon, not just in asthma
- ?Genetic variation in autonomic nervous system function
- Risk of self or others underestimating degree of respiratory obstruction
- Benefit for specific patients of objective measures such as peak flow meters

Peak Flow / Spirometry

- Objective measures to assist in diagnosis and monitoring
- Requires cooperation so not always easy in children
- Incentive spirometers and practice can obtain results in under 5s
- Peak flow (and FEV1) effort dependent; FEF 25-75 not effort dependent but more intra-individual variation

Forced Vital Capacity Maneuver

Airflow, L/sec



Lung volume

Interpretation of spirometry

- FEV1 (NB normal range 80-120% so trend for individual may be more important than absolute number)
- Reversibility of FEV1 (12%)
- Scalloping of the curve
- Reversibility of FEF25-75 (50%)
- FEV / FVC <80%

Miscellaneous

- Natural history
- HDM (BTS)
- Flying with asthma
- Asthma UK

Miscellaneous

- Seretide dose / inhaler issue
- % response to MLK
- ‘SMART’
- Salbutamol in school

Case

- 12 year old girl
- Attended Emergency Department with acute asthma
- Admitted, treated with oxygen, high dose salbutamol inhaler via spacer and prednisolone
- Asthma history reviewed

Background

- Infantile ezcema
- ‘Asthma’ since age 2
- Peanut allergy (bronchospasm, rash)
- ‘Becotide’ 200mcg bd via MDI (variable compliance), Salbutamol MDI prn, Junior Epipen
- Overweight
- Bright pupil, stressed and anxious

Asthma Control

- Symptoms daily (moderate exertion)
- Night time cough (occasionally wakes)
- Exacerbations with URTI, animal exposure, stress
- One salbutamol MDI lasts 3-4 weeks
- Four courses of prednisolone and amoxycillin in past year, two A&E attendances
- Told that this is what to expect with asthma

What are the issues?

- Diagnosis
- Overall control
- Devices
- Medication
- Environment
- Psychosocial factors

Management

- Changed to fluticasone accuhaler and salbutamol easibreathe
- On review, converted to seretide accuhaler, stabilised at 100mcg bd with addition of monteleukast 10mg nocte
- Asthma nurse involvement (home, school)

Management (continued…)

- Skin prick test peanut and house dust mite
- Confirmed peanut allergy, care plan updated, Adult Epipen and training
- Regular swimming

Two years later…

- Slimmer and happier
- Confident in allergy management
- Salbutamol use just with URTIs
- On Seretide but no longer monteleukast
- Regular exercise and busy social life!