

Readers Forum

Appreciating the felt need for a dialogue forum by the readership of the journal, Reader's Forum section has been started. Queries from readers are being sent to a panel of experts and then published in a question-answer format subject to availability of answer and editorial board review. Efforts will be made to group the questions specialty wise. The primary objective of this section is educative and questions of relevance to majority readership will be given priority.

–Editor-in-Chief

Q. 1 Severity of asthma from the point of view of long term treatment can be graded using the following criteria over a period of time: (i) Symptoms of airflow obstruction; (ii) Night time symptoms; (iii) Peak expiratory flow (including diurnal variation). Based on these the grades of mild intermittent, mild persistent, moderate persistent and severe persistent are made analogous to the steps of a staircase. In the context, certain classifications are needed: (a) The duration of time over which the symptoms are observed is not specified. (b) Whether the decision is made based on patient's recollection of symptoms at first presentation or physician's observation over that period needs to be addressed; (c) Patients presenting for the first time are often already on medication from another physician. In such cases, assessment of the severity of asthma can be fallacious.

R.W. Thergaonkar,
New Delhi.

Reply

The assessment of severity of asthma in a

child who has never been put on long term prophylaxis is usually based on the recall of frequency and severity of symptoms (day and night time) in recent past. Most consensus guidelines are silent on the length of period of recall; however the common practice is to assess the symptoms in the past 8-12 weeks. It must be added that knowing the trend of severity of disease in a patient since the onset of disease is important for an overall assessment. While recall in past 8-12 weeks is a good basis for assessing severity and to appropriately decide the drug therapy at the present moment, a recall of as long a period as possible may be more useful *e.g.*, a child with seasonal asthma may be graded at higher severity during the offending season while overall the disease on this case may not be as severe as perennial asthma. The situation gets more clouded if the patient is already on treatment when being evaluated by you. As there is a vast variation in treatment practices, nonavailability of symptom diary and inability to correctly recall symptoms in the absence of training of the parent, it is not uncommon to grade the severity prospectively keeping the child under follow-up. If such a patient is already on prophylactic therapy non response may not be necessarily due to more severe disease but could be due to incorrect dosage, wrong selection of device or poor inhalation technique.

Q. 2 It may so happen that a prolonged requirement of rescue medication (*e.g.*, nebulised β_2 agonist, systemic steroids) is felt necessary. In such cases, the point in time needs to be specified at which the physician decides that (s)he is dealing with a patient who is now suffering from a higher grade of

asthma rather than a prolonged acute exacerbation.

R.W. Thergaonkar,
New Delhi.

Reply

If acute exacerbation is not getting controlled it does not alter the grade of chronic asthma. It only means reviewing the drugs used for acute asthma. However, asthma being dynamic condition and patient can shift from a milder form to a more severe form at any time, an ongoing assessment over longer period of time is mandatory.

Q. 3. For nebulisation: (a) What is the maximum or optimum quality of nebulising solution? (b) Can we use distilled water instead of saline? (c) Can two different nebulising solutions be mixed?

Kamlesh R. Lala,
Gujarat.

Reply

Minimum quality in the nebulization chamber depends on the residual volume that remains unnebulised. An amount of 3 ml over the residual volume is the optimum volume. For example if residual volume is 1 ml, the drug should be dissolved in normal saline to make up a total of 4 ml. In most of the nebulization chambers available, residual volume is usually around 1 ml. Distilled water being hypotonic

is not advised as a diluent.

Drugs for nebulization are available as solutions or suspensions. Of the currently available formulations bronchodilators *e.g.* salbutamol/terbutaline and Ipratropim being solutions, can be mixed. However, steroids are available as suspensions and mixing these with bronchodilators is inappropriate.

Q.4 (a) In infancy, is salbutamol better than normal saline nebulization? (b) What is the lower age limit, where salbutamol can be used as bronchodilator?

Santanu Guria,
Orissa.

Reply

There is no age where normal saline can be used as a bronchodilator. Response to salbutamol in young wheezers may be variable however a trial may be worthwhile. In viral bronchiolitis adrenaline nebulization has been found to be better than salbutamol in some studies.

Experts contributing to above replies are: Dr. G.R. Sethi, Professor, Department of Pediatrics, Maulana Azad Medical College, New Delhi 110 002 and Dr. Varinder Singh, Associate Professor, Kalawati Saran Children's Hospital, Lady Hardinge Medical College, New Delhi 110 001.