

SECTION 11: CLINICAL TIPS

ASTHMA

What factors can cause an attack?

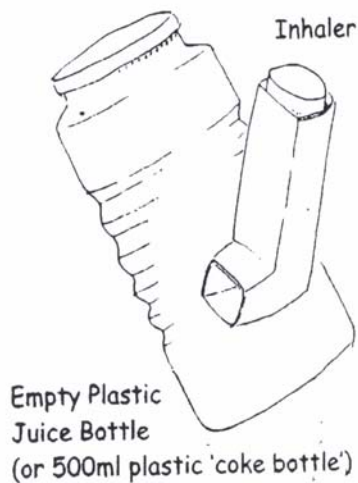
- Inhalation of cigarette smoke
- Dusts in the air which come from cat fur mites in house dust, problems from flowering plants
- Smoke from indoor fires
- Foods and soft drinks containing preservatives or colouring agents

Watch the child's diet and try to find which things have been taken to trigger an attack

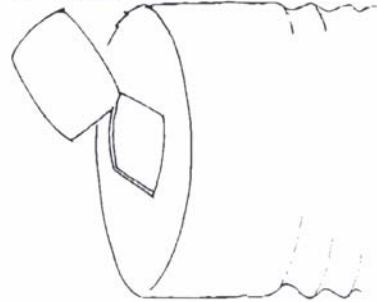
What is a spacer?

Inhaled drugs work best with a metered dose inhaler but small children have difficulty breathing to coordinate with the dose. A spacer reduces the risk of side effects and one puff into the spacer can then be inhaled by five breaths. The spacer should be washed once a week and left to dry.

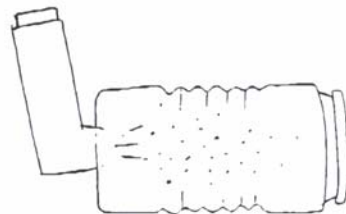
The illustration shows a 500ml plastic juice bottle, which has been adapted to take the nebuliser.



1. Cut a hole big enough to admit the inhaler's port into the bottom of the bottle.



2. Shake the inhaler & insert the port into the hole. Squeeze 2 puffs into the bottle.



3. Take several breaths through the other end of the bottle, inhaling the medicine deeply into the chest.



JShaw, 2000

SECTION 11: CLINICAL TIPS

ASTHMA

Do I have the skills to use all of these?

Can I

- Explain the disease to the patient or carer and instruct them on continued management and prevention of attacks
- Understand (and review periodically) the chapter on asthma – chronic asthma, mild asthma moderate to severe asthma, acute severe emergency bronchospasm
- Show a patient how to use an inhaler and spacer
- Make a cheap spacer out of a plastic bottle
- Use a spacer and mask
- Use a PEFr meter
- Give oxygen using a mask

NOW HERE ARE TWO PATIENTS

Mr A Nurse I've "wheeze, wheeze" got asthma "wheeze" again

Nurse Take two puffs from your inhaler and tell me all about it

Mr A My puffer is empty

Nurse Okay, here's a refill now tell me what has happened in the last two weeks. Good you've written it down as I suggested. Night attacks and having to use your inhaler four times a day. Visiting a neighbour's house with lots of animals. Well Mr A what are we going to do about it – let's hear your suggestions and now I suggest also

Now fill in the rest of the scenario.

MRS B AND CHILD AGE 5

Mrs B "Little Siphon is coughing and having a fever and making such wheezing noises. In fact we've all been sick with coughs and colds in the last two weeks".

Nurse Is this the first time he has wheezed so much?

Mrs B No, you will see in the notes it first started when he was, was it 2 or 3?

Now complete your management and check your reply with the guidelines

Did you think of the inflammation/edema and bronchospasm elements in the cause of asthma? Did you elicit how recurrent the problem is, what are related trigger factors and what the response to treatment has been?

Grade the type of asthma

- 80% are mild with very few attacks months apart and they respond to the bronchodilators (Salbutamol).
- 15% are moderate – every few weeks and inhaled bronchodilators has to be used intermittently while inhaled budesonide is used more regularly.
- 5% are severe with daily wheezing and the child waking with a tight chest or coughing.

These need referral and will need oral steroids.

SECTION 11: CLINICAL TIPS

ASTHMA

Correct use of drugs

- 1 Beta 2 agonist (Salbutamol) for mild asthma. When not more than one episode cough/wheeze per week, no night coughing or wheezing, and not recent admission to hospital and PEFR more than 80% predicted. Salbutamol child – 100 – 200 micrograms (1 - 2 puffs) 4 - 6 hourly adult - 200 micrograms (2 puffs) not continually.
- 2 Inhaled corticosteroid therapy – beclomethasone when
 - More than one attack per week
 - Severe attacks
 - Frequent night time cough / wheeze
 - Have to use salbutamol more than twice a day
 - PEFR less than 60% predicted

Beclomethasone children 100 micrograms day. Adults maximum 400 micrograms preferably 200 microgram per day. Can start with higher dose till controlled, then reduce to minimum.

- 3 Other drugs ipratropium bromide inhaler and theophylline are initiated by doctors and are used more for adults and smokers.
- 4 Severe acute emergency bronchospasm with asthma and chronic obstructive bronchitis needs oxygen and nebulized salbutamol and oral prednisone or hydrocortisone sodium succinate intravenously. Do not sedate. Refer to hospital.

Education of carers

Carers can reduce exposure to trigger factors only if these are explained to them. The carer must know about the recurrent nature of asthma and must understand the use of the two common drugs and the way to deliver them by inhalation.

The signs of worsening or severe asthma must be explained.

Referral

- 1 How many cases have been referred in the last 3 months?
- 2 Were they all entered in a referral register and noted in the chronic disease register?
- 3 Were the cases referred because:
 - There was failure to control frequency and severity of attacks
 - The diagnosis was not clear
 - Oral prednisone was being used too frequently and for too long
 - Life-threatening attack
 - Pregnancy with moderate asthma
 - Patient arrived in severe attack late in afternoon and not sure if would improve

Follow-up

There should be regular follow-up to assess improvement – including measuring child's or adult's PEFR. If asthma is under control for more than 3 months reduce the dose of steroids to the lowest possible.

SECTION 11: CLINICAL TIPS

Job aid for giving Vitamin A with routine immunizations

WHY Lack of vitamin A reduces the ability to fight infections and causes blindness

WHAT At each immunization contact with mothers and children, check and complete the following:

Possible immunization contact	Age Group/Timing	Amount of Vitamin A	
		If using 100,000 IU capsules	If using 200,000 IU capsules
BCG contact (up to 8 weeks postpartum)	For mothers up to 8 weeks postpartum if breastfeeding (up to 6 weeks postpartum if not breastfeeding)	2 capsules	1 capsule
Any immunization contact from about 6 months	Infants 6 - 11 months	Drops 1 capsule	½ drops in a capsule
	Children 12 months or older	Drops in 2 capsules	Drops in 1 capsule
Measles vaccination contacts	Infants 9 - 11 months	Drops in 1 capsule	½ drops in a capsule
	Children 12 months or older	Drops in 2 capsules	Drops in 1 capsule
Booster doses, special campaigns, delayed primary immunization doses, immunization strategies for high-risk areas or groups	Infants 6 - 11 months	Drops in 1 capsule (every 4 - 6 months until 59 months of age)	Drops in 1 capsule (every 4 - 6 months until 59 months of age)
	Children 12 months or older	Drops in 2 capsules (every 4 - 6 months until 59 months of age)	Drops in 1 capsule (every 4 - 6 months until 59 months of age)

Do not give the child vitamin A if he/she has taken drops in the past 30 days.

HOW

1. Check the dose in the capsules, the child's age (for mothers, the date of delivery), and when the last dose of vitamin A was received.
2. Cut the narrow end of each capsule with scissors or a nail cutter and squeeze the drops into the child's mouth. Ask mothers to swallow the capsule in your presence. Do **not** ask a child to swallow the capsule. Do **not** give the capsule to the mother to take away.
3. To give less than 1 capsule to a child, count the number of drops in a sample capsule when a new batch of capsules is first opened. Give one-half or one-quarter the number of drops from capsules in that batch.
4. Record the date of the dose of the child's card and the mother's dose on the mother's card.
5. On the tally sheet/register, place a mark for each mother dosed and another mark for each child dosed. Make a monthly/quarterly/annual chart of vitamin A coverage the same way as immunization coverage is charted. Report coverage of mothers' doses, first dose for infants and second dose for infants routinely with immunization coverage.
6. Advise the mother when to return for the next doses of vitamin A and encourage completion of the immunization schedule, in addition to vitamin A protocols.



Fact Sheet

DRUG MANAGEMENT

What is meant by "Rational" prescribing and drug medicine use?

- The sick person (dient) receives the correct drug/m medication.
- The prescribed drug is appropriately indicated for client's current clinical condition or need.
- The drug is appropriate in terms of efficacy, safety and suitability to the dient (eg no contraindications)
- The dosage and course of treatment are correct in that they meet individual's requirements for cure or relieve of symptoms or correction of physiological abnormality.
- The cost of drug is the lowest for the person and the community.
- The drug is correctly dispensed and client has received information about both his/her illness and the drug.
- The drug is packed and issued in a way that promotes adherence and continuity.

What can the PHC nurse do to promote rational use of drugs?

You can promote rational prescribing and use of drugs by routinely observing the following steps

- Start with diagnosing the sick person's health problem ie define or name the clinical problem that requires therapeutic drug intervention.
- Use the relevant sections of Standard Treatment Guidelines/EDL at every step.
- Define the therapeutic management objective related to the diagnosis ie decide if the objective is to cure infection, prevent complications, prevent dehydration or correct it, relieve symptoms such as pain etc.
- Select which treatment (drug or non-drug) is required to achieve the desired objective for each individual sick person.
- If a decision is made in favour of drug treatment, determine which is the best drug based on efficacy, safety, suitability to individual and cost. Be guided by the Standard Treatment Guidelines/EDL.
- Identify the dose, route of administration and duration. Be guided by the condition of patient.
- Give accurate and adequate information to the dient and his family about his health condition and the drugs
- Give dient a follow-up appointment and information on what to expect. These enable you to monitor both therapeutic and any adverse effects of the treatment.
- Dispense the drugs in safe hygienic manner.
- Make sure the client or guardian understands clearly about the dosage, course of therapy and how/when to take the drugs.
- Encourage adherence to instructions and completion of the course.

SECTION 11: CLINICAL TIPS

DRUG MANAGEMENT

What to avoid when prescribing or dispensing drugs

Use of drugs where no drug or non drug treatment is indicated. For example, some prescribers may continue to use antibiotics to treat diarrhoea in situations where only ORS is indicated.

- Use of wrong drugs for example, use of a tetracycline – a broad spectrum antibiotic rather than a narrow spectrum penicillin – as prophylaxis if rheumatic fever.
- Use of ineffective drugs and drugs with doubtful efficacy eg excessive and unnecessary use of multivitamin preparations and tonics.
- Use of unsafe drugs eg continue retention and use of banned drugs or long expired preparations.
- Under-use of available effective drugs/treatment preparations eg ORS prescribed in only a few children with diarrhoea dehydration.
- Incorrect use of drug eg
 - giving 1 or 2 days supply of antibiotics instead of full course
 - over using injections to please clients/community
- Over-prescribing – giving too many medicines at once or always prescribing a drug for everyone who turns up
- Over-prescribing implies to sick people that need drugs for every ailment. This makes people to inappropriately rely on drugs.

Challenge

- Use the fact sheet information to review and strengthen your own practices on prescribing drugs.
- Use the fact sheet to assist other clinical staff observe correct practices when giving/dispensing medicines
- Share the progress with supervisor.