

Fever

- Fever is an elevation of body temperature above the body's normal thermoregulatory set point.
- An elevated body temperature is not a medical disorder in itself, rather it is a symptom of underlying pathology.
- Fever can accompany a serious or a minor medical condition.
- It can also be induced by medications.

- Treatment should be directed at eliminating the underlying cause ,as well as at alleviating the discomfort of fever.
- Non-prescription analgesics/ antipyretics resolve fever by lowering the elevated hypothalamic set point primarily through inhibition of prostaglandin synthesis and release at the thermoregulatory center.

- The duration of treatment with these agents should not exceed 3 days .Persistent fever or an increase in body temperature during treatment requires medical referral
- Counseling of patients and caregivers should include proper instruction on taking body temperatures at various body sites.

- **Patient Education for fever**
- .The objective of self- treatment is to relieve the discomfort of fever by returning the body temperature to the normal level.
- Measurement of body Temperature :
- For adult , use the oral or axillary method .
- For children use the rectal method.

- Non-drug measures:
- When the body temperature exceeds 104F(40C) , sponge the body with (not cold) water. Wait 1-hour after a dose of an antipyretic before sponging the body.
- Do not use isopropyl or ethyl alcohol in body sponging. Alcohol poisoning can result from cutaneous absorption or inhalation of topically applied alcohol solutions.

- For all degrees of fever ,wear light clothing ,remove blankets and maintain room temperature at 78 F(25C).
- Unless advised otherwise , drink or give sufficient fluids to replenish body fluid losses.For children ,increase fluids by at least 1 ounce per hour. Soft drink. Fruit juice. Or water are acceptable.

- Drug Induced Fever:
- Some drugs elevate body temperature by altering normal thermoregulatory mechanisms. Large doses of phenothiazines or anticholinergic agents decrease sweating and thus reduce heat dissipation.
- Thyroid hormones may increase the metabolic rate and thus ,increase heat generation.

- Fever may be a direct result of pharmacologic effect of a drug e.g. the release of endotoxin from bacteria following the initiation of antibiotic therapy (e.g. penicillin for syphilis).
- Fever may also result from the release of endogenous pyrogens associated with cellular injury or death following cancer chemotherapy.

- Drug fever is distinguished by :
- -fever occurring during or shortly after treatment with a drug previously reported to cause fever or other allergic symptoms.
- -fever accompanied by allergy.
- -temperature elevation despite patient improvement.
- -one study of drug induced fever identified skin rash, urticaria

- The management of drug –induced fever involves discontinuing the suspected drug whenever possible .If the fever is drug induced the patient’s temperature will generally decrease within 24 to 48 hours after dru withdrawn.
- -After patient safety ,each medication may be restarted ,one at a time ,while monitoring for fever recurrence.

- If a drug can not be discontinued, systemic corticosteroids may be given to suppress fever and to minimize other allergic symptoms.
- Dosage reduction of phenothiazine , anticholinergic agents , and thyroid hormone may decrease temperature and should be considered if these drugs are suspected of causing fever , particularly in elderly patients.

- Patient Assessment of fever:
- The pharmacist must first determine whether a patient has fever. Inaccurate methods of temperature measurement must be ruled out .If fever is present, a quick assessment of severity is important.
- -Asking patients or caregivers question will help to recommend appropriate treatment .

- Question to be asked :
- 1- How high is your fever? How long has the fever been with you ?
- 2-How did you measure the temperature?
- 3-What activities preceded this fever?
- 4-What other symptoms do you have ?
- 5-What medication or other treatment have you used to treat fever

- 7- Consider previous treatment attempts to avoid duplicating therapy or recommending ineffective treatment.