



PRESCRIBING IN FAMILY PRACTICE

Color Index

IMPORTANT

NOTES

GOLD

EXTRA

OBJECTIVES

1. Discuss the strategies of good prescribing habits.
2. Explain self-medications, social prescribing and placebo prescribing.
3. Describe reasons for inappropriate prescribing.
4. Discuss prevention of adverse drug reaction in different patient groups
5. Identify factors related to poor compliance.

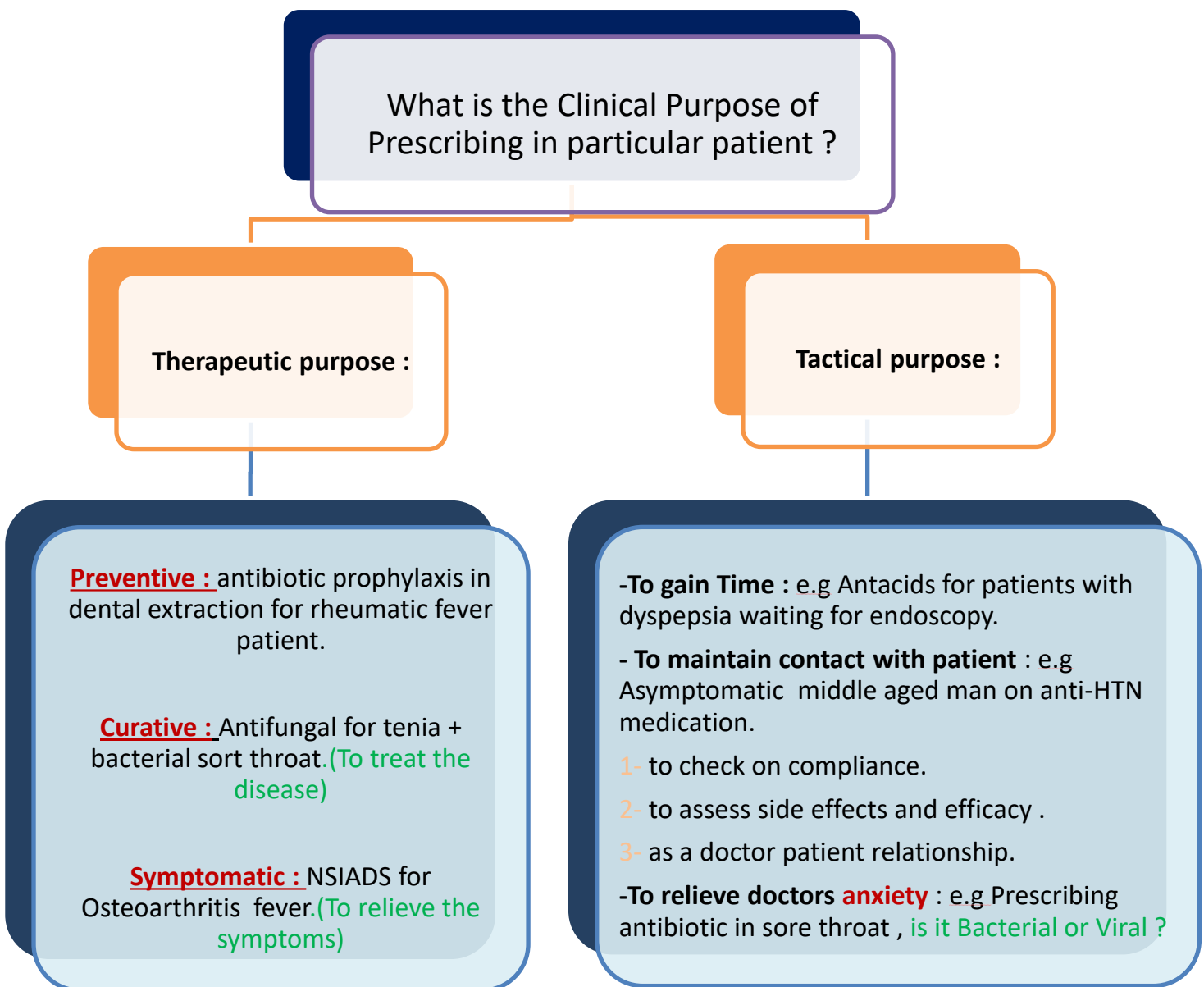
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Sources	Drs Slides and Notes

Is it always Necessary to Prescribe?

1-Diagnosis is still in doubt? (Is the sort throat viral or bacterial?)

2-Value of treatment is debatable (in doubt)?



How we can improve prescribing Habits

There is **No** such thing as

GOOD MEDICINE or BAD MEDICINE

“A good prescribing is the prescribing based on the best available evidence & current guidelines “(maybe **it’s good for that pt. but bad for another pt.**)

Who is a good prescriber?

- ❖ One, who ensures that diagnosis is correct.
- ❖ Makes a positive & correct decision that drug is needed.
- ❖ Chooses a drug appropriate to patients need.
- ❖ Who consults patient and ensures his/her informed consent?
- ❖ Who explains patient’s role and secures his/her co-operation?
- ❖ Who terminates treatment when no longer needed?

Why so irrational?

- Increased cost** of un-necessary prescription to the health care system.
- Harmful prescribing **fails to meet** acceptable standards.
- Chances of **poly-pharmacy** – effecting vulnerable groups like elderly.

Why Family Medicine/PHC and Rational Use of Drugs?

Barbara Star Field Study related to the practice of Family Medicine and health outcome indicators of a country.

- The studies showed relationship b/w more & better primary care & most health outcomes studied.
- Evidences shows a positive impact of primary care on prevention of illness & death.
- Primary care (in contrast to specialty care) is associated with a more equitable distribution of health in populations.

How to prescribe Rationally

This is the most important thing in this lecture for your

- Is a drug really required?
- Will it work?
- Will its harm?
- Is it the cost – effective choice?
- Have all alternatives been considered?
- Is the likely risk-benefit ratio acceptable?

Social reasons for inappropriate prescribing

- Any pressure of pharmaceutical advertising.
- Patient's demand.
- Habit, peer group recommendation & ignorance.
- To avoid confrontation.
- Because of medico legal worries.
- To play for time until true picture becomes clearer or natural recovery occurs.
- To hasten the conclusion of consultation. **To let the pt go**

Evidence – Based Prescribing

Skipped by the Doctor

Failure to do this may: -

- Cause patients to suffer unnecessary side effects of ineffective drugs.
- Deprive patients the chance to benefit from effective treatments.
- Waste valuable resources.

Advantages of Generic Prescribing

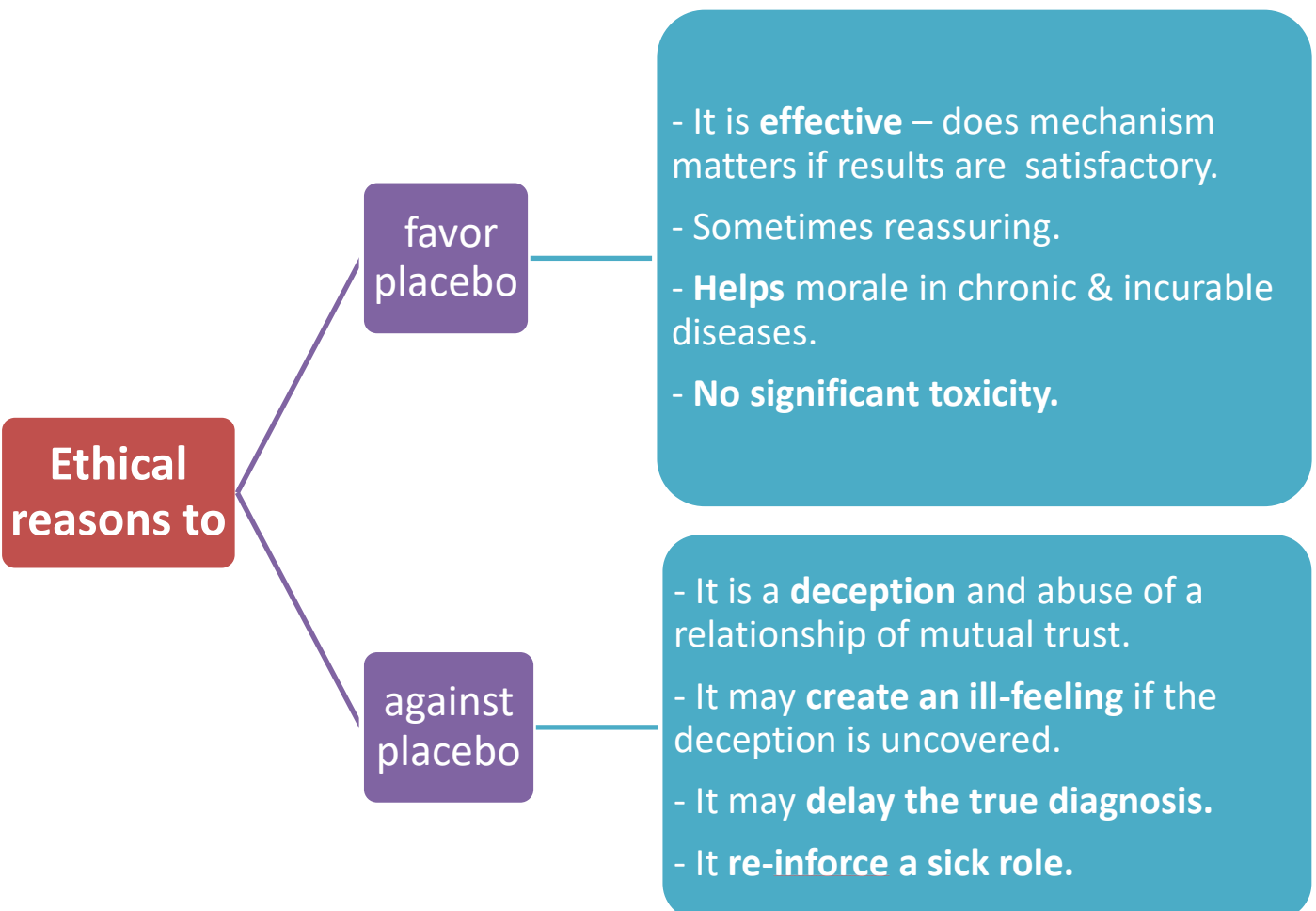
1. Reduced cost.
2. Professional convenience; everyone knows it.
3. Convenient to the patient.
4. Convenient to the pharmacist.

Reason for **not** Prescribing Generically

1. Drugs with a low therapeutic index e.g. Lithium, Carbamazepine, Phenytoin (small difference in plasma concentration can be significant)
2. Modified release formulations, difficult to standardize e.g. Diltiazem, Nifedipine
3. Formulations containing ≥ 2 drugs.

What is a Placebo medication?

A harmless pill, medicine, or procedure prescribed more for the psychological benefit to the patient than for any physiological effect.



Risks of self-medication

You will see it When the pt. goes to the pharmacy and ask for medication.

- Always risk of drug interaction with prescribed medicine.
- Increased risk of self-medication side effects.
- Taking wrong preparation & wrong formulations.
- Less chances to offer any **opportunistic health promotion advice**. (like if the pt. came for the sore throat and he is a smoker and obese don't only focus on the main Cause go lateral thinking; advice hem about the smoking, lifestyle and many other things).

Prevention of Adverse Drug Reactions

Skipped by the Doctor

- Never use a drug unless there is a good indication.
- Do not use a drug in pregnancy, unless the need for it is imperative.
- Ask if there is H/O allergy/idiosyncrasy.
- Consider possible drug interaction.
- Age and hepatic or renal impairment may require much smaller doses.
- Prescribe as few drugs as possible.
- Give clear instructions, especially in elderly.
- Be particularly alert for adverse reactions or unexpected events, when prescribing new drugs.
- Fill the required form in case of suspected adverse reaction.
- Warn the patient if serious adverse reactions are liable to occur.

Principles for antibiotic selection

Allow for several variables:

- H/o allergy / sensitivity
- State of renal and hepatic function
- Increasing resistance
- New information on side effects
- Age of patient & duration of therapy
- Dosage and route of administration
- Site, type and severity of infection
- Individual response
- If female, whether pregnant, breast feeding or on oral contraceptives
- Likely organism and antibacterial sensitivity?

Practice Formulary

An effective way to limit prescribing and costs of prescribing:

Essential features:

- Evidence of efficacy
- Evidence of safety
- Cost-effectiveness
- Local policy

Skipped by the Doctor

Special Problems in Prescribing

- Delayed drug effect.
- In elderly.
- In children.
- In hepatic impairment.
- In renal impairment.
- In pregnancy.
- In breast feeding.
- In palliative care.
- Drug inter-action.

Delayed Drug Effects

Some adverse reactions may become manifest months or years after treatment e.g. chloroquine retinopathy.

Prescribing for Elderly

Keep in mind:

- A. Limit range of drugs.
- B. Reduce dose.
- C. Review regularly.
- D. Simplify regimens.
- E. Explain clearly.
- F. Repeats and disposal.

Prescribing for Children

Keep in mind

- A. Special care needed in neonates
- B. Avoid injections if possible
- C. Actions of drugs and their pharmacokinetics may be different than adults
- D. Suitable formulations may not be available for children
- E. Drugs are not extensively tested in children

Prescribing in Hepatic Impairment

Keep in mind

- A. Impaired drug metabolism
- B. Hypoproteinemia
- C. Reduced clotting
- D. Hepatic encephalopathy
- E. Fluid overload
- F. Hepato-toxic drugs

Prescribing in Renal Impairment

Keep in mind

- A. Reduced renal excretion of a drug
- B. Increased sensitivity to some drugs even if elimination is not impaired
- C. Many side effects are tolerated poorly
- D. Some drugs become ineffective

Prescribing in Pregnancy

Care is needed in prescribing for women in childbearing age or men trying to father a child.

- A. **First trimester** – congenital malformations
- B. **Second and third trimester** – effect on the growth or the functional status of fetus, including toxic effect on fetal tissues.

- Shortly before term or during labor – possible adverse effect on labor or neonate, after delivery.

Prescribing in Breast-feeding

Avoid drugs (if possible) which:

- A. Cause inhibition of sucking reflex (e.g. phenobarbital).
- B. Suppress lactation (e.g. bromocriptine)
- C. Appear in a significant quantity in the milk (e.g. Fluvastatin).

If not sure, look up at the therapeutic guidelines from a reputable source (e.g. BNF).

Prescribing in Palliative Care

1. The importance of pain relief and other symptoms are more important than sticking to the usual drugs or dosages.
2. Oral medications are preferable, if possible.
3. As few drugs as possible should be prescribed.
4. Doctor – patient relationship is usually more effective than the drug.

Drug Interactions

A Family Physician is not expected to know all the possible drug interactions, but awareness of some important categories is imperative.

- Anti-convulsant, Oral contraceptives, and Warfarin

Factors Related to Poor Compliance

1. Purpose of medicine not clear to patient.
2. Perceived lack of efficacy of medicine.
3. Real or perceived adverse effects by the patient.
4. Lack of understanding between the doctor and the patient.
5. Instructions for administration not clear.
6. Unpleasant taste.
7. Complicated regimen – polypharmacy.
8. Physical difficulty in taking medicines.
9. Medicines too costly.

QUESTIONS

QUESTIONS (1)

A harmless pill, medicine, or procedure prescribed more for the psychological benefit to the patient than for any physiological effect is?

A-Placebo medication

B-Antacid

C-Antibiotic medication

QUESTIONS (2)

what is the important trimester in Pregnancy for not prescribing any medication?

A-First trimester

B-Third trimester

C-Second trimester

QUESTIONS (3)

What should keep in mind for elderly?

A-Explain clearly

B-Hypoproteinemia

C-Reduced clotting

QUESTIONS (4)

Drug Interactions the Family Physician is expected to know?

A-Warfarin

B-Chloroquine

C-Fluvastatin

ANSWERS

A, A, A, A