RATIONAL USE OF DRUGS

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TOPICS

• What is rational use of medicines?
• Examples of irrational use of medicines
• The adverse effects of irrational use of medicines
• The committees responsible for the rational use of medicines
• What is a microbe?
• What is antibiotics?
• What do antibiotics do?
• What an antibiotics is and is not?
• Antimicrobial resistance
• Do you know these facts?
• What should we do?
What is rational use of medicines?

- Individualized to the disease and the persons;
  - Appropriate medicine,
  - Proper duration,
  - Correct dose,
  - Least cost

Should be easily accessed.
Examples of irrational use of medicines

• The use of medicine inattentively
  (The route of administration, duration of use and dose of the drug..)
• Unnecessary and prolonged use of medicines
• The use of multiple medicines without any indications
• The intake of drugs with beverages instead of water
• The use of expired drugs
• Using personalized medicines without therecommendations of the physician
Examples of irrational use of medicines

- Unnecessary use of parenteral form of the drugs (injections)
- Unnecessary and inappropriate use of vitamins
- Unreasonable use of herbs and food supplements
- Ignorance of drug-drug and drug-food interactions
- Unnecessary use of antibiotics
Results of irrational use of medicines

- Decreased patient’s compliance to the therapy
- Adverse results arising from drug interactions
- Emergence of resistance to therapy
- Recurrence or protracted course of the diseases
- Increased incidence of side effects
- Increased cost of the therapy
The individuals responsible for the correct use of medicines

- Physicians
- Pharmacists
- Nurses
- Other members of health care providers
- **Patients and their relatives**
  - The manufacturer
  - Regulating authority
  - Other (Press, Academis etc.)
What is a microbe?

• Microbes are disease causing microorganisms not visible to the naked eye.
• Bacteria, viruses, parasites and fungi are microbes causing diseases in human.
• For the treatment of each of these agents the treatment strategy differs. Antibiotics are only indicated in the treatment of bacterial infections.
What are the benefits of antibiotics?

The use of antibiotics is required for;

• The treatment of infections,
• To increase the quality and longevity of life,
• To prevent complications,
• To prevent the infection from being chronic,
• To decrease the severity and duration of the infections.
Antibiotics

• Antibiotics are used to treat bacterial infections not viral infections.
• Antibiotics DO NOT decrease fever but do so by treating fever producing infections.
Antibiotics

- Common cold and flu are most of the time due to viral infections, therefore antibiotics are not needed.
- They DO NOT help you get rid off the flu.
Antibiotics

• Antibiotics DO NOT relieve pain, alleviate cough or runny nose
• They DO NOT prevent transmission of the common cold from person to person.
Antibiotics are not intended to treat every disease!
Let antibiotics do their own job!
Resistance to antibiotics

• Resistance to antibiotics may occur if they are used without indications.
• This phenomenon can be described as the continual proliferation of the bacteria and persistence of the infection despite the use of correct antibiotics.
Resistance to Antibiotics

- When a resistance emerges to a certain antibiotics, it can be no longer used to treat that infection.
- This situation poses risk to not only effected person but also to the other vulnerable persons in the community.
ACT TODAY BEFORE IT IS TOO LATE TOMORROW!
DO NOT STEAL THE FUTURE OF OUR CHILDREN BY USING ANTIBIOTICS IRRETIONALLY!
The facts you should know

• Turkey is one of the countries consuming large amounts of antibiotics and antibiotics are of the most commonly prescribed medicines; many of which are without real indications
DO NOT BE AN ANTIBIOTIC ADDICT!
Did you know?

- Insufficient or overt use of antibiotics as well as the use with frequent intervals may give rise to antibiotic resistance.
Did you know?

• The strains of bacteria developing resistance to antibiotics may spread in the community and cause severe life-threatening infections.
Did you know?

- New antibiotics are no more developed for a long time.
- Unnecessary use of antibiotic and development of antibiotics resistance may leave us without any other antibiotics to choose.
Did you know?

- Antibiotic resistance is a global problem and may cause life-threatening infections.
Did you know?

• Persons from countries with high incidence of antibiotic resistance may carry these organism to other countries during travel.
Did you know?

• It is impossible to do without antibiotics
  – Organ transplantation
  – Cancer chemotherapy
  – Treat new borns in NICU
  – Hip prothesis
Did you know?

- Antibiotics are also used to treat animal infections.
- Uncontrolled use of antibiotics in the animals and inappropriate disposal may cause antibiotic resistance and human infections.
Did you know?

- The infections that can be treated easily otherwise may be life-threatening if antibiotic resistance emerges.

- World Health Organization declares that antibiotic resistance is a global problem and a threat.
Antibiotic resistance is much more severe than perceived!
What should we do?

• Seeing only a part of the picture may not be enough to comment on whole picture like diseases.
Antibiotics are not a treat!
What should we do?

• Store drugs as instructed.
• If not changing composition may even be harmful to you.
What should we do?

• Do not use antibiotics for a period longer than needed.
• Do not store antibiotics for a ready to use purpose.
What should we do?

• Increase the awareness about proper use of antibiotics in the community.
Let's stop antibiotic resistance we can do it.
THANKS