LectureNo. 4:Sustainable water useAndcontrol resourcesVmedical institutions

Meaning sustainable water use

Water demand: Healthcare facilities consume large volumes of water, which puts pressure on water resources.

Environmental impact: Efficient use of water reduces the ecological footprint and prevents pollution of water sources.

Main sources consumption waterVmedicine

1. Hygiene and sanitary facilities: Wash basins, showers, toilets.
2. Sterilization: Cleaning of instruments, laboratories.
3. Laboratories and diagnostic procedures: Use in reagents and cooling systems.
4. Laundries: Sterilization and washing of medical linen.
5. Cooling and heating: Air conditioning systems, heating of buildings.

Goals sustainable water useVmedicine

Reducing overall water consumption.

Minimizing environmental impact.

Improving water efficiency.

Technologies water conservation

Touch faucets: Automatic water shut-off reduces consumption.

Low Flow Faucets: Control the water flow.

Automatic Toilet Flushing Systems: Reduce Water Wastage.

Cleaning Andrepeated usage water

Water purification systems: Filtration and sterilization technologies.

Water recycling: Using waste water for technical purposes such as watering green areas.

Examples of countries using recycling: USA, Japan.

Reduction losses water

Regular controlAndrepair equipment:Prevention leaksAndleaks water.

Monitoring systems water supply:DetectionAndprevention accidents.

Smart systems management water resources

Monitoring systems: Using sensors to track water consumption in real time.

Water Management Software: Automatic Monitoring and Reporting to Improve Efficiency.

Control pollution water

Wastewater Filtration: Treatment prior to disposal to prevent contamination of water sources.

Safe Disposal of Medicines and Chemicals: Preventing Wastewater Pollution.

Examples successful projects sustainable water use

Cleveland Clinic (USA): Installation of water recycling systems that reduced consumption by 30%.

University of British Columbia Hospital (Canada): Efficient use of water recirculation in heating and cooling systems.

Economic benefit from water conservation

Reducing costs for water and electricity.

Opportunity to invest savings in new technologies and staff training.

Laws Andnormative acts

Basic international principles of sustainable water use.

National standards governing the use and disposal of water in healthcare facilities.

Role staffVwater conservation

Training employees in practical methods of water conservation.

Examples of effective behavior: turning off the water while washing hands, reporting leaks.

Planning Andstrategy sustainable water use

Water Use Audit: Identifying Key Sources of Consumption and Losses.

Developing a Water Conservation Plan: Implementing Technological and Behavioral Changes.

Regular monitoring and evaluation: Continuously track the plan's effectiveness.

Conclusion

Implementation of sustainable water use is a contribution to environmental protection and economic development.

Creating an environmentally responsible healthcare facility improves working conditions and patient trust.