



ETHICS

3rd. Stage

Lec. 1

Microsoft Office User

By Assistant Lecturer

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ETHECS

INTRODUCTION TO ETHICS IN PHARMACY

CODE OF ETHIC

ROLES OF PHARMACIST:

- Manufacturing
- Sorting
- Marketing
- Regulatory affairs
- Formulation
- Dispensing
- Medical team
- Academic
- Research
- Consultation

Definition of *ethics*:

-The way people behave based on their beliefs on what is right and what is wrong.

Ethics in pharmacy (pharmaco-ethics): Pharmacists have a professional commitment to the care of their patients. Pharmaco-ethics is thus central to the understanding of pharmacy practice as a profession. Ethical principles must be considered when the pharmacist must make a decision involving a clash of these principles.

A pharmacist's decisions are sometimes out of the pharmacist's hands, why?

-The pharmacist sometimes is perceived as an "extension" of the physician. The pharmacist's exercise can be severely circumscribed by the regulations of government.

The marketing methods of the pharmaceutical industry. Someone else, in short, has often already made the ethical choices a pharmacist might make about patient care, the role of pharmacist may thereby seem largely restricted to the activities of "filling and following orders."!!

Recently the role of pharmacists has changed from a product-orientation to a more patient orientation.

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CODE OF ETHECS:

This code, prepared and supported by pharmacists, is intended to state publicly the principles that form the fundamental basis of the roles and responsibilities of pharmacists.

Factors influencing code of ethics: 1)Time 2)Place 3)Program and time of pharmaceutical study (pharm D).

PRINCIPALS OF THE CODE OF ETHICS

1. Make the care of patient your first concern
2. Exercise your professional judgment in the interest of patients and publics.
3. Show respect for others.
4. Encourage patients to participate in decisions about their care.
5. Develop your professional knowledge and competence.
6. Be honest and trustworthy.
7. Take responsibility for your working practices

1- Make the care of patient your first concern:

- Promote health of individuals and community. Safeguard the well-being of patients particularly children and other vulnerable individuals. Obtain information required to assess an individual's needs. If necessary, refer patients to other health or social care professionals or organizations.

Ex. A 75-years-old woman with history of diabetes mellitus (DM) since 10 years using oral hypoglycemic agents, was sitting beside a heater, her leg was burned and she went to the pharmacist to take medicine for treating the burn, the pharmacist prescribed the following drugs:

- Burn cream q.i.d
- Amoxicillin cap. 500mg t.i.d.

Safe access of medicine and encourage their effective use.

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2-Exercise your professional judgment in the interest of patients and publics.

- Make best use of the resources available to you.
- Challenge the judgment of colleagues and other health care professionals (hcp) if you have reasons that their decisions may compromise the safety of others. Ex. An old woman with asthma comes to your pharmacy with a prescription containing salbutamol (Ventolin) inhaler, when educating her about the use of this inhaler, it was difficult for her to understand how to use it properly.
- Your judgment should not be impaired by personal or commercial interest.
- In an emergency, take appropriate action to provide care and reduce risks. Ex. A small girl has ingested the bottle of antipyrol syrup

3-Show respect for others

- You must recognize diversity and respect the cultural differences, values and beliefs of others. Avoid using drugs containing alcohol for Muslim patients.
- Respect the dignity and privacy of others.

Ex. a- Gynecological conditions or sexually transmitted diseases

b-Psychological diseases (depression), c- nocturnal enuresis (wetting).

- Do not allow your views about a person's lifestyle, gender, age, disability, to harm their treatment or care.
- If you have an objection to provide service to a particular person??
- Obtain consent (agreement) for the professional service, treatment or care you

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provide. Ex. a- A man with severe headache, tramadol is a strong analgesic but it may cause nausea and vomiting. b- This surgery will make you stay in bed for 3 months

- Use information obtained in the course of professional practice only for which it was given. Ex. You gave a shampoo for a school student with head lice, then tell other people about his name... etc.
- Maintain proper professional boundaries in the relationship with patients especially vulnerable patients.

4-Encourage patients to participate in decisions about their care.

- Explain the options available and help individuals to make an informed decision. (Ex. Both drugs are effective for cold, but the first causes drowsiness, the second does not).
- Ensure consumers understand both risks and benefits associated with the chosen options of medication management and care.
- Listen to patients (and carers) carefully.
- Make sure that the information you provide is understood and it is relevant and up to date.
- Respect a patient's right to refuse treatment, care or other professional services.
- Look for causes which prevent patients from obtaining treatment.

5- Develop your professional knowledge and competence.

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- The knowledge and skills should be up to date, evidenced based, relevant to your role and responsibilities. Ex. Working in hospitals-surgical ward, medicine, pediatric.
- Apply your knowledge and skills to your professional responsibilities.
- Respond constructively to the outcomes of assessments, evaluation, and reviews of your professional performance and undertake further training if necessary. Ex. Giving a drug to patients, no response or causes dangerous side effects.

6- Be honest and trustworthy.

- Support public trust when being honest.
- Do not abuse your professional position for personal gain.
- Do not accept gifts, hospitality, or referrals that may affect your judgment.
- Comply with legal requirements and best practice guidance. Ex. A patient with flu, no need to be given antibiotics.
- Honor agreements for provision of professional services.

7- Take responsibility for your working practices

- Communicate and work effectively with colleagues from your own and other professions to serve patients and publics.
- Ex. If you hesitate to give a certain drug you can ask others.
- Be satisfied that appropriate standards have been exists and adhered to.
- Ensure that your working conditions does not compromise patient safety.

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- Ex. Using anesthetic drugs for some patients may cause death.
- Ex. I asked the patient about penicillin allergy and he denied to have an allergy, but when the drug was given it was found that he is allergic to penicillin.





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3rd. Stage

Lec. 2

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COMMON ETHICAL CONSIDERATIONS IN PHARMACY PRACTICE

1. **Beneficence**
2. **Autonomy**
3. **Honesty and integrity**
4. **Informed consent**
5. **Confidentiality**
6. **Fidelity**
7. **Non maleficence**
8. **Loyalty**
9. **Justice**

1-Beneficence

(The Duty to Do Good)

Is all about doing good, particularly doing what will **benefit** others:

- A. The patient
- B. Anyone else affected by an ethical decision. This is seen in the first principle of the Code of Ethics, where ((care of the patient is the first concern)).

The principle of beneficence is that humanity requires more than just staying out of another's way; we may be obligated to step in and aid others.

Professional, like parents, "knows best." The child/ patient is **sometimes** excluded from the decision-making process because of lack of education and minimal understanding about the consequences of choices. It becomes clear that, because of significant disparities in power, information, and experience, the potential for paternalistic practice is embedded in all interactions between health care professionals and patients. Ex. An old woman with hypertension and refuse to take medicine HT may lead to stroke, Reno vascular disease,etc.

As an important participant in these relationships (pharmacists) can find themselves involved in paternalistic conflicts regarding **refusals** of patient requests for a particular medication or **disclosure** and **nondisclosure** of information.

Problems in beneficence:

1-Benefit the patient may harm himself, the society or other people (not the patient) Ex. Pharmacist's family.

2-Health in Conflict with Other Goods: Ex. A Patient Who Chooses to Reduce Antihypertensive Medication Mr. Ahmed a hypertensive man using atenolol His wife Mrs. Rawaa also hypertensive using torsemide. They decided (without the advice of the

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physician) to stop her medicine and share her husband's medicine (being less expensive) because they needed the money to fill the electricity bill since the weather is becoming warmer and they can't withstand

2- Autonomy:

Autonomy is about allowing individuals to have the right to make decisions for themselves. Again, this right is tempered if one person's decision was likely to have harmful effects on others. It also depends on the individual's ability to appreciate and understand the issues at stake. Ex. The use of androgen by body builders. Pharmacist autonomy: Pharmacists sometimes feel that they are pressured to do things they feel unsafe for patients.

Professional pharmacists do what is right, not what is convenient.

Ex.1 A pharmacist dispenses unlicensed drug because it is prescribed by physician (this is a treat to the professional work of a pharmacist).

Pharmacists are always in a conflict position weighing the patient's rights for information and the physician's ethics for non-disclosure.

Ex.2 will be the non-disclosure of the side effects of a drug by a physician, Ex. (prescribing a cancer chemotherapy) a physician may not want a patient to be informed of the side effects as this may lead to patient in compliance

3- Honesty and integrity

Honesty is telling the truth to others. Integrity is telling yourself the truth or doing the right thing in a reliable way even when it's not acknowledged by others, or convenient for you.

Eg.1 of integrity: you are the boss in the pharmacy, good boss makes a constant effort to appreciate a staff's contribution and to give them trust for a job well done.

Eg.2 Return money that you noticed someone dropped without expecting a reward.

4- Informed consent

Principle 3 of the Code of Ethics requires that respect is shown for others. This includes the legal and professional duty to obtain consent from patients for any **services** or **treatments** you provide for them or to use any **information** that you obtain from them.

Types of consent:

A- Informed consent Verbal consent & Written consent

B- Implied consent: is not given by the patient but inferred from his action or

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inaction (holding the arm in a health setting for a blood pressure cuff to be applied).

5- Confidentiality

Pharmacists have the duty of Confidentiality both ethically and legally:

Principle 3 of the Code of Ethics also contains a requirement to use patient information only for the purpose for which it was obtained.

This is in addition to the legal requirements of data protection. As technology has improved, a number of Legislative Acts of Parliament have been passed to control the use of data. It is unethical to discuss or disclose personal health-related information about your patient

1- with one of your friends

2- family members who is not a health care provider and who is not involved in the care of that patient.

Suppose you receive a phone call from someone who says that she is the pharmacist at a hospital and that there is an unconscious patient who appears to have taken a drug overdose. The patient has a medication record card from your pharmacy

- Will you tell the pharmacist what medication he is taking?

Before giving this information you must take 'all reasonable steps' to establish that the call is genuine. So you might obtain the number of the hospital from an independent source, and then phone to check that someone of the name you have been given is working there.

Data can be disclosed in certain circumstances:

- 1- A requests from other pharmacists and general practitioners in the interests of patient safety;
- 2- Police officers or investigators in support of serious criminal investigations;
- 3- Judges and coroners in the process of justice and inquests. In the event of a court ordering information disclosure a

pharmacist could be prosecuted for failing to disclose the requested information

6- Fidelity

Keeping the patients our priority (interest).

Principal: hcp (i.e., doctor, pharmacist, nurse) be faithful to their patients and provide services that are in the patient's best interest.

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Ex.1 A patient comes to your pharmacy asking for azithromycin for preventing COVID-19 inf. since the problem is being pandemic and it is a highly contagious disease.

A- Give advice that their azithromycin is not used for prevention.

B- Give the drug as the patient required it.

Ex. of infidelity

1- Recommending vitamins that patients don't need,

2- Failing to discuss with the doctor about an inappropriate prescription due to fear that the doctor will direct his/her patients elsewhere.

Pharmacist: "I'll prepare this formulation within 2 hours".

7- Justice

Treating people equitably and fairly regardless of who the recipient is (age, gender, race, color, religion, education, income).

Principle: requires that all **benefits** and **loads** be distributed equally.

Ex.1 While walking in the hospital, you saw your friend who comes to take his monthly medicine. You helped him to take it without waiting in the queue

-But not all patients have an equal need and it is not always possible to provide the same level of care to all patients at all times.

Eg.2 During COVID-19 surgeries in hospitals have been paused and only emergency cases and cancer patients are included in surgeries.

Consequently.

Triage: a system has to be established to provide care as fairly as possible by assignment of degrees of urgency.

8- Applications of triage

Mass casualties like:

- Emergency rooms
- Wars
- Disasters (natural or man-made)

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	1 Red Resuscitation (0min)	2 Orange Urgent (15min)	3 Yellow Less urgent (60min)	4 Green Not urgent (180min)
A	Obstructed airway Stridor	Threatened airway		
B	SpO ₂ < 80 RR > 35 or < 8	SpO ₂ : 80-89 RR: 31 - 35	SpO ₂ : 90-94 RR: 26 - 30	SpO ₂ ≥ 95 RR: 8 – 25
C	HR > 130 BP _{sys} < 80	HR: 121 – 130 HR < 40 BT _{sys} : 80 – 89	HR: 111 – 120 HR: 40 - 49	HR: 50 – 110
D	GCS ≤ 8	GCS: 9 – 13	GCS = 14	GCS = 15
E		Tp > 40 Tp < 32	Tp: 38.1 – 40.0 Tp: 32 – 34	Tp: 34.1 – 38.0

There is no justice in using very expensive drug that has a limited benefit to treat a patient with rare disease (cold agglutination disease)

Not life threatening Managed with simple preventive measures, Use the money that needed to be spent on drugs that treat life threatening, common diseases.

9- Non maleficence (Avoid Harm)

Prevention of harm and the removal of harmful conditions Non-maleficence **overlap** with beneficence but here it **prevents harm**.

Principle: requires of us that we not intentionally create harm or injury to the patient.

Ex. Refusal of a pharmacist to sell a medicine if the pharmacist thought it was being purchased for a wrong reason.

(Steroids for gaining weight, Metformin for obesity & Codein containing cough syrup for addicts).

Ex. A 65-year-old man was diagnosed to have a tumor in the neck and head and unable to tolerate oral feeding. The medical team decided that it is an incurable tumor, with artificial feeding he will live for 4-6 weeks, without this he will die within few weeks.

History taken: a previous stroke followed by a suicidal attempt because of inability to take care of himself

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The decision of his son was to withhold artificial feeding and he died within a week due to dehydration.

Non maleficence is blocked when your advice a mother to use bottle feeding instead of breast feeding because you want to sell a formula milk.

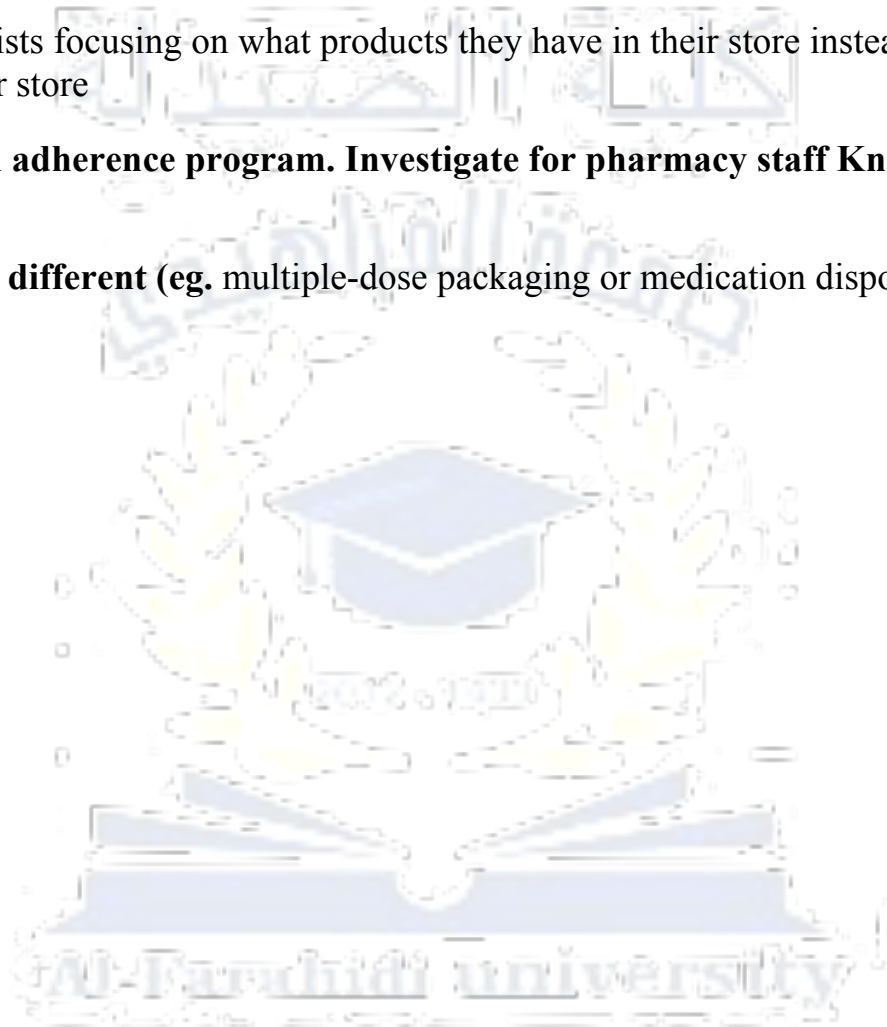
10- Loyalty

Keeping patient coming to your pharmacy.

Most pharmacists focusing on what products they have in their store instead of what they do in their store

Implement an adherence program. Investigate for pharmacy staff Know your market

Do something different (eg. multiple-dose packaging or medication disposal programs)





Lec. 3-4

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MISUSE AND ABUSE OF MEDICINE

PREVENTING AND TREATING ABUSE OF DRUGS

MISUSE AND ABUSE

Misuse: taking a medication in a manner or dose other than prescribed; taking someone else's prescription, even if for a legitimate (rational) medical complaint such as pain; insomnia.

Abuse: taking a medication to feel euphoria (i.e., to get high)

Controlled drugs: drugs that have the potential to be misused or abused

Licit and Illicit drugs:

Licit drugs: caffeine, and nicotine. It is legal to purchase and use these substances.

Illicit drugs: illegal because they might be dangerous to health and society as well as the national and even global economy. Examples of illicit drugs include: Heroin

Licit medication: Nicotine, Alcohol, Opioid painkillers (e.g., codein, OxyContin (oxycodone) and Vicodin (hydrocodon)); Central nervous system (CNS) depressants used for anxiety and sleep disorders (e.g., Valium and Ativan); Stimulants: Adderall (amphetamine) and Ritalin (methylphenidate) which are used for attention deficit hyperactivity disorder ADHD and narcolepsy

ABUSED DRUGS

Methamphetamine

Also called: Chalk, Crystal, Glass, Ice, & Meth

Meth: Meth at first causes euphoria, but then users feel overly. The excited, angry, or afraid. Meth using can quickly lead to addiction

ANABOLIC STEROIDS: Bodybuilders and athletes often use anabolic steroids to build muscles and improve athletic performance. Abuse of anabolic steroids has been linked with many health problems like: Acne, Breast growth, High blood pressure, Liver disease, including cancer, Kidney damage.

COCAINE

Cocaine: euphoria and excitement. Followed by feeling of anger, nervous, and

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afraid feeling tired and sad for days.

HEROIN: It's an opioid drug, a natural substance in the seedpod of the Asian poppy plant. miscarriages, and death from overdose

INHALANTS (paints, glues, hair sprays)

These are household substances, even inhaling once can disturb heart rhythms and lower oxygen levels. Regular abuse can result in serious harm to the brain, heart, kidneys, and liver.

Marijuana: Short term effect:

Altered senses, such as seeing brighter colors

Altered sense of time, such as minutes seeming like hours

Changes in mood

Long term effect:

- Problems with thinking, memory, and learning.
- Problems with child development during and after pregnancy, if a woman smokes marijuana while pregnant

Legalization of Marijuana

Marijuana is illegal in most parts of the world but, in 2018 it became legal in Canada.

Aim of Legalization

- 1- Reduce criminalization in its sale
- 2- Reduce availability to youth
- 3- Legalization will ensure the purity and concentration (be contaminated with fungus or mold, Crude Marijuana contains over 60 active cannabinoids)

Medical Marijuana

The U.S. Food and Drug Administration (FDA) has not approved the marijuana plant as a medicine. Marijuana is still illegal at the national level.

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- However, there have been scientific studies of cannabinoids, the chemicals in marijuana. The two main cannabinoids that are of medical interest are THC and CBD. These drugs treat
- nausea caused by chemotherapy
- increase appetite in patients who have severe weight loss from AIDS.
- severe childhood epilepsy. Scientists are doing more research with marijuana and its ingredients to treat many diseases and conditions.

OTHERS

- Methylene-dioxymethamphetamine (MDMA),
- Gamma-hydroxybutyrate (GHB),
- Ketamine, also known as K, Vitamin K, and Jet
- Lysergic Acid Diethylamide (LSD), also known as Acid, Blotter.
- They are even more dangerous if used with alcohol.

Route of Administration

- Snoring (Sniffing)
- Swallowing
- Injection
- Smoked
- Brewing it as a tea (marijuana)

Consequences of Drug Abuse:

- Social
- Health
- Tolerance, dependence, and Addiction
- Others: Unintentional overdoses, Switching to heroin (cheaper and easier to obtain than prescribed medications), Economic burden: due to healthcare costs, lost productivity, addiction treatment, and criminal justice involvement.

Social Problems

- ✚ Drugged driving,
- ✚ Violence, stress, and child abuse.
- ✚ Homelessness, crime, and missed work or problems with keeping a job

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HEALTH PROBLEMS

- Psychological,
- Physical (cardiovascular problems and fatal seizures)
- HIV/AIDS and hepatitis, from sharing needles or having unsafe sex
- Miscarriages, and death from overdose

Tolerance, Dependence and Addiction

Tolerance (Physical dependence): higher dose of the drug to achieve the same effect as when the person first used it.

Dependence: the body has adapted to the presence of the drug and stopping a drug leads to “withdrawal”: a group of physical and mental symptoms that can range from mild (if the drug is caffeine) to life-threatening (such as alcohol or opioids, including heroin and prescription pain relievers).

Addiction. addiction is an uncontrollable or overwhelming need to use a drug, and this compulsion is long-lasting and can return unexpectedly after a period of improvement. People who are addicted to a drug can have physical dependence, but they also compulsively seek a drug and continue to use it even when that drug causes significant problems in their lives.

Abuse in Iraq

- 1- Tobacco
- 2- Alcohol
- 3- Opiates (tramadol),
- 4- Cannabis (marijuana),
- 5- Amphetamine,
- 6- Cocaine and benzodiazepines

Tobacco:

A significant public health problem in Iraq particularly among males in Dohouk (83.7%) and Salahuddin (70.6%) Governorates.

Current smokers 53%

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Alcohol:

Among males, there is evidence of considerable lifetime alcohol use (16.7%), and the rate of current alcohol is reported as 6.7%.

Licit and Illicit Drugs

- Females: zero
- Males: lifetime rates of licit (4.3%) and illicit (0.7%) drug use were higher than in earlier reports

Cannabis is the most widely used illicit drug

RATES OF LICIT AND ILLICIT DRUG USE WERE HIGHER AMONG:

Young (18-34 years), • low education • Not working. • **Risks for abuse:** Abuse: sexual, physical, psychological. Social problems (peer influence (friends)) Family problems (divorce), neglect and lack of supervision, parental abuse. Individual: ADHD, depression, post-traumatic stress disorder(PTSD), genetics. Lack of knowledge about prescription drugs and their potential harm

SOURCES OF THE DRUGS • Anabolic steroids: sports clubs, particularly body and muscle building centers,

Other licit drugs (benzodiazepines, tramadol and benzhexol) from Iraqi pharmacies.

It was speculated (with little evidence) that illicit drugs, including Captagon and crystal were brought into Iraq by trafficking through the borders with Iran and Saudi Arabia.

PREVENTING AND TREATING ABUSE OF DRUGS

ROLE OF HEALTHCARE PROVIDERS:

It is believed that less than 30 per cent of primary care providers perform any screening for substance abuse and as many as 69 percent do not offer any type of counselling.

High % of abused drugs are delivered from pharmacies.

CAUSES OF REDUCED ROLE OF PHARMACISTS:

Have **low education** about sub. abuse in the undergraduate • **Role of pharmacists is divided in to:** 1- Preventive. 2- Treatment.

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PREVENTIVE ROLE:

- 1- Participating in public substance abuse education and prevention programs (e.g., in primary and secondary schools, colleges, and stressing the potential adverse health consequences of the misuse of **legal** drugs and the abuse of **illegal** drugs).
- 2- Opposing the sale of alcohol and tobacco products by pharmacists and in pharmacies
- 3- Participation in prescription drug monitoring programs, encouraging participation in appropriate prescription **disposal** programs, complying with **controlled-substance** reporting regulations.
- 4- Select proper **laboratory tests** to detect the suspected substances of abuse
- 5- Discouraging prescribing practices that enable drug abuse behavior (e.g., prescribing a larger quantity of pain medication than is clinically needed for treatment of short-term pain).
- 6- Collaborating with outpatient and ambulatory care providers to prevent substance abuse after discharge.
- 7- **Keep prescription drugs safe** in a locked medicine cabinet

TREATMENT OF DRUG DEPENDENCE

- Dependence is a disease which needs treatment.
- The treatment occurs by:
 - 1- Medication therapy: to help the patient to stop drug consumption, to remain in treatment and to prevent recurrence
 - 2- Behavioral (psychological) therapy: include cognitive behavioral therapies and counselling sessions this helps in the engagement of dependent individuals, modifying their attitudes and behaviors in the event of stressing circumstances, environments of consumption and compulsion
 - 3- follow up: a. Manage side effects of the drugs used. b. Dosing adjustment.

Treatment of abuse may lead to Withdrawal, Withdrawal can be dangerous and should be done under a doctor's care.

Opioid (heroin) withdrawal: (Opioid tapering): Buprenorphine (partial opioid agonist) with naloxone or methadone (opioid agonist) may be used to ease symptoms of withdrawal from opioid painkillers. More rapid the reduction, the worse the treatment retention.

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Role of pharmacist: pharmacist professionals help in the injection of medication, controls the needles and the amount of medication administered, besides exercising greater control of medication and better follow-up of patient treatment.

Toxicological analysis: helping in the diagnosis and monitoring of dependent patients' treatment.

Withdrawal from anti-anxiety medications and sedatives. This may develop until up to 3 weeks of stopping long acting benzodiazepine (nitrazepam, diazepam), but may occur within hours in case of short acting (temazepam).

- Withdrawal can be in steps 1/2 of daily dose every 5-7 days until reach 1/4 the original dose then decreases by 1/10 every fortnight until discontinuation.
- Some drugs like propranolol can be used for treating the withdrawal
- **Stimulant (cocaine) withdrawal.** There are no FDA-approved drugs used for treating stimulant withdrawal. Treatment typically focuses on tapering off the medication and relieving withdrawal symptoms - such as sleep problems, depression, suicidal attempts. Psychological support and reassurance. No drug treatment is approved.

E.G. ALCOHOL WITHDRAWAL

- Withdrawal typically presents about six to 12 hours • after ingestion of alcohol has stopped (correlating with • reducing blood alcohol levels).
- Delirium tremens (DTs) is the most severe form of ethanol withdrawal manifested by altered mental status (global confusion) and sympathetic overdrive (autonomic hyperactivity), which can progress to cardiovascular collapse. DTs is a medical emergency with a high mortality rate, making early recognition and treatment essential symptoms then tend to worsen, peaking at 48 to 72 hours

Benzodiazepines are the treatment of choice for alcohol withdrawal symptoms. The benzodiazepines bind to GABA receptors (mimicking the sedative effects of alcohol) and control psychomotor agitation associated with withdrawal. Gradual reduction of the benzodiazepine allows normal homeostasis of the brain's neurotransmitters to resume.

Disulfiram (Antabuse) tablets is an alternative treatment but, should only be used, where **Acamprosate** and **Naltrexone** are unsuitable

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Disulfiram Reaction

- Disulfiram is associated with potentially severe adverse events in individuals who continue to drink.
- **Action:** Disulfiram inhibits the breakdown of acetaldehyde, which precipitates a severe reaction including: decreased blood pressure, increased heart rate, chest pain, palpitations, dizziness, flushing, sweating, shortness of breath, and syncope.

- Role of **Pharmacist** in Smoking Cessation

Smoking is a bad habit with serious effects on health. like what? It is a common problem in developed and undeveloped countries.

- Two recent studies showed that 29–31% males and 3–4% females of Iraq population are active smokers.

The counselling: **Dispensing** over-the-counter (**OTC**) NRT (patches, gums, and lozenges) and other pharmaceutical smoking cessation aids. **Prescription medications** for nicotine dependence Bupropion (antidepressant), Varenicline ($\alpha 4\beta 2$ nicotinic acetylcholine, partial agonist).

The background of the slide features a repeating pattern of palm leaves in a light grey color. In the center, there is a faint, semi-transparent image of a modern building with a glass facade.

Lec.5

ETHICS

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Special Problem Areas

- Abortion.
- Sterilization.
- Contraception.
- Genetics, birth, and biological revolution

Abortion

- Abortion is defined as the expulsion of a fetus from the uterus before 24 weeks of gestation, the arbitrarily established time of viability.

Considerations of the embryo or fetus

1- Part of the pregnant woman's body: can do whatever she pleases with it, including removing it.

2- Independent human being: all of the principles (beneficence, justice...) would apply to actions taken toward it

- Reasons for inducing abortion:

1- **Medical problem of the fetus** (congenital abnormality). fetus might not be medically capable of surviving Ex. prenatally diagnosed with anencephaly (absence of all or major portions of the brain)

2- **Danger to the mother's health** (including mental health).

3- **Rape**

4- **Socioeconomic reasons** (illegal pregnancy, poverty, mother unable to cope with the child or another child).

5- **Government policy** (regulating population size (China), regulating groups within a population)

Most opponents of abortion agree that abortion for the sake of the mother's health can be morally acceptable if there is a real risk of serious damage to the mother

Abortion for **social reasons** is usually least acceptable to opponents.

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Ex.:

Ectopic pregnancy (abnormal pregnancy)

A mother using chemotherapy

A mother who underwent Caesarian section recently

- A married woman is using isotretinoin for acne, she understood that she should never be pregnant while using isotretinoin. She came into the pharmacy today, about a week early, for her refill, and told the pharmacist that in spite of using contraception, she is pregnant, she asked ***“How serious can this be?”***, ***“I don’t think I could continue this pregnancy”***.

Using isotretinoin during the 1st. trimester of pregnancy

external eye & ear malformations, cleft lips & palates, mental retardation & variety of heart defects, hydrocephalus.

- Malformations in the population is 3–5%, but it has been reported to increase to almost 30% in women exposed to isotretinoin during the first trimester of pregnancy.

Sterilization:

Tubal ligation (female sterilization) is a surgical procedure that **permanently** prevents pregnancy (fertilization).

Health care provider should consider:

- 1- Age of the woman: sterilization is not suitable for young women.
- 2- Woman may have limited access to sterilization or other contraceptive options.

Contraception (birth control, fertility control): A method or device used to prevent pregnancy.

Birth control has been used since ancient times, but effective and safe methods of birth control only became available in the 20th. century (hormonal)

Types:

Reversible (pills)

Irreversible (tubal ligation)

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Contraception:

- Reasons of contraception
 - 1- Socioeconomic.
 - 2- Control birth.
 - 3- Avoid illegal pregnancies:

Ethical issues:

Autonomy - Beneficence – Non- maleficence.

Conflict about the types of contraception

- **Irreversible contraception** will stop the natural function of female reproductive system.
- **Hormonal**: will not return to normal 12 months after stopping interventions are very grave, as sex hormones are of existential importance both to preserve human life and to preserve the human species.
- **IUD (Intra Uterine Device)** –*hormonal & non-hormonal*- will render the endometrium not ready for implantation
- (Some people believe that life begins at **conception** whereas others believe it begins at **implantation**. The ethical consideration develops for individuals who believe that life begins at conception).

Genetics, birth, and biological revolution:

- Ethical problems arise in the following genetic and birth technologies:
 - 1- Screening for genetic disease.
 - 2- In vitro fertilization (IVF)
 - 3- Gene therapy (genetic engineering)

Screening for genetic disease

- Recently there is an ability to determine the chances that a disease will be transmitted and to counsel parents about intervention alternatives.
- Prenatal sampling of amniotic fluid (**Amniocentesis**) or chorionic villi blood sampling

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that permit either chromosomal or biochemical determinations of whether a fetus already gestating is afflicted with a disease.

Ex. 1: Down's syndrome

Ex.2: Tay–Sach's disease

A fatal rare genetic disorder. It caused by absence of an enzyme that helps break down fatty substances (gangliosides), that results in toxic level in the brain and spinal cord. The most common type, known as infantile **Tay–Sach's disease**, becomes apparent around 3-6 months of age with the baby losing the ability to turn over, sit, or crawl.

Eg.3 Lesch-Nyhan syndrome

Eg.2 Tay–Sachs disease

is a fatal genetic disorder that results in the destruction of **nerve cells** in the brain and spinal cord. The most common type, known as infantile **Tay–Sachs disease**, becomes apparent around three to six months of age with the baby losing the ability to turn over, sit, or crawl.

Eg.3 Lesch-Nyhan syndrome (*hypoxanthine-guanine phosphoribosyl transferase (HPRT)*)

It is characterized by neurological and behavioral abnormalities and the overproduction of **uric acid**.

Uric acid is a waste product of normal chemical processes and is found in blood and urine. Excess uric acid can be released from the blood and build up under the skin and cause gouty arthritis

What are the differences between hereditary, and congenital?

Gene therapy (genetic engineering)

1- Missing a gene or an abnormal gene may lead to disease like: •

- ADA (Adenosine deaminase) deficiency causing: Severe immunodeficiency.

2- Switching off a gene causing diseases like: the blood disorder thalassemia as well as cystic fibrosis, sickle-cell disease, and some cancers.

Technologies used in genetic engineering

(transmit genetic material)

1- Use of viruses to pick up and transmit genetic material: Virus (harmless) may

2- transfer the genetic material incorrectly or to the wrong cells 2- The production

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3- of new drugs and biological products.

- **Reasons for regarding genetic engineering unnatural, immoral:**

- 1- **Development of New Issues:** new illnesses and disease could show up in the race, ones that we are not yet equipped to handle or treat.
- 2- **Reduce Diversity:** because of choosing the traits that we want people to have
- 3- **Playing God:** DNA of humans or animals being altered by man, and the feeling as though there are certain bounds that should not be crossed and genetic engineering crosses them.





Lec. 6

ETHICS

3rd. Stage

Microsoft Office User

By Assistant Lecturer

NIBRASS TAHER AL-ABDALI

ETHECS

Ethical Problems (Dilemmas)

Examples of pharmacist's ethical dilemma

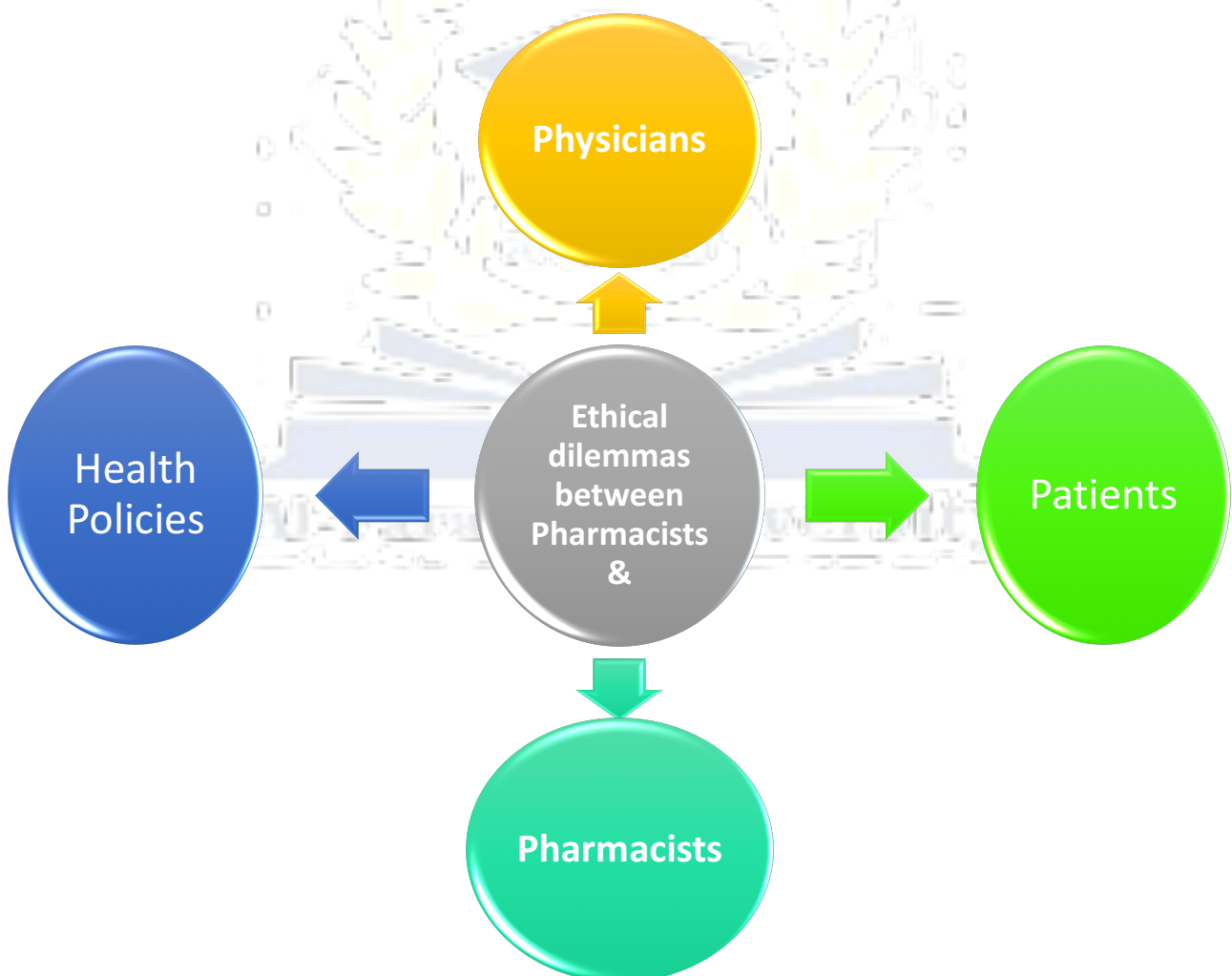
Patient refuses to take the drug, the pharmacist knows the Patient may suffer or die as a result. The Patient needs the drug but has no money to pay the pharmacist. The drug is for AIDs and the pharmacist knows that the Patient's wife is unaware of her husband's condition.

Causes of increased frequency of ethical dilemma?

- More regulations (rules),
- Financial pressure, and
- Increased competition.

The demand for health services is growing as a result of population ageing, more chronic illnesses, and increased healthcare consumerism.

Classification of ethical problems:



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1. Pharmacists & Physicians:

However, conflicts may arise when more than one health professional aims to act according to that value.

The degree of professional **autonomy** of an individual health professional depends on the extent to which other health professionals give that autonomy.

Causes of pharmacist - physician conflict.

- Disruptive behavior of a physician
- Pharmacist and physician have a different opinion about appropriate pharmacotherapy
- A troubled relationship with the physician
- Loyalty conflicts
- Physician's self-prescribing (restricted Pharmacist role)

Eg. Use of placebo therapy is difficult for both physician and pharmacists. Not telling the truth for patient's benefit. The pharmacist is expected to go along with this deception. (**beneficence-honesty**)

Causes of restriction of pharmacist autonomy:

1- Pharmacists are often the **last link** in a multidisciplinary care chain, e.g. in *end-of-life pharmaceutical care* issues.

Pharmacists in these situations described that their **expertise** was disregarded and that they were expected to dispense only.

These moral dilemmas demonstrate that pharmacists need **more training** to convince physicians of their expertise.

2- Patients may also consider physicians to have more authority than pharmacists.

3- Increased information about disease and its treatment and the provision of these information from electronic technology.

4- In developed countries: insurance companies force pharmacists to replace expensive branded drugs with cheaper generics.

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pharmacists do not object to dispensing cheaper medicines.

patients who strongly objected to generics

2- Pharmacists & Patients:

- Drug abuse or addiction
- Drug misuse
- Deviating treatment preference
- Claiming and/or aggressive behavior
- Medication understanding
- Patient's privacy
- Sharing relevant patient data with health professionals

Eg. Sami is a 60-year-old man with chest infection, the physician prescribe ampicillin cap qid, Sami is unwilling to take the medication 4 times a day, by reducing the dosing regimen to twice a day, the patient may be more compliant.

Can we give ampicillin twice daily?????

- Drug abuse

This patient is heavily addicted to an opiate and regularly asks for, and gets, a refill too early. "He always has excuses like 'I lost my medication during holidays'. However, he does experience pain and needs an analgesic. If he needs the opiate because he has really lost it, he should get it. But how long should I contribute to his opiate addiction."

- Drug misuse

The pharmacist is aware that a student has been collecting methylphenidate (for narcolepsy) only twice a year (coinciding with exams in January and June). The prescriber is the patient's father. "Should I cooperate, give priority to the patient's autonomy and dispense this medicine when I doubt whether the drug is actually indicated for a 'chronic' illness? Or do I need to address this presumed off-label use?"

3- Pharmacists & Health policies

- Financial confliction
- Risk of harm to children
- Risk to the unborn child
- End of life pharmaceutical care (palliative care)
- Dispensing without a prescription
- Quality defects.