

جامعة ساوة الاهلية
كلية التقنيات الصحية والطبية
قسم التخدير - اللجنة العلمية

ROUTE OF DRUG ADMINISTRATION



جامعة ساوة

كلية التقنيات الصحية والطبية

قسم تقنيات التخدير

المرحلة 2

رقم المحاضرة : الاولى عملي

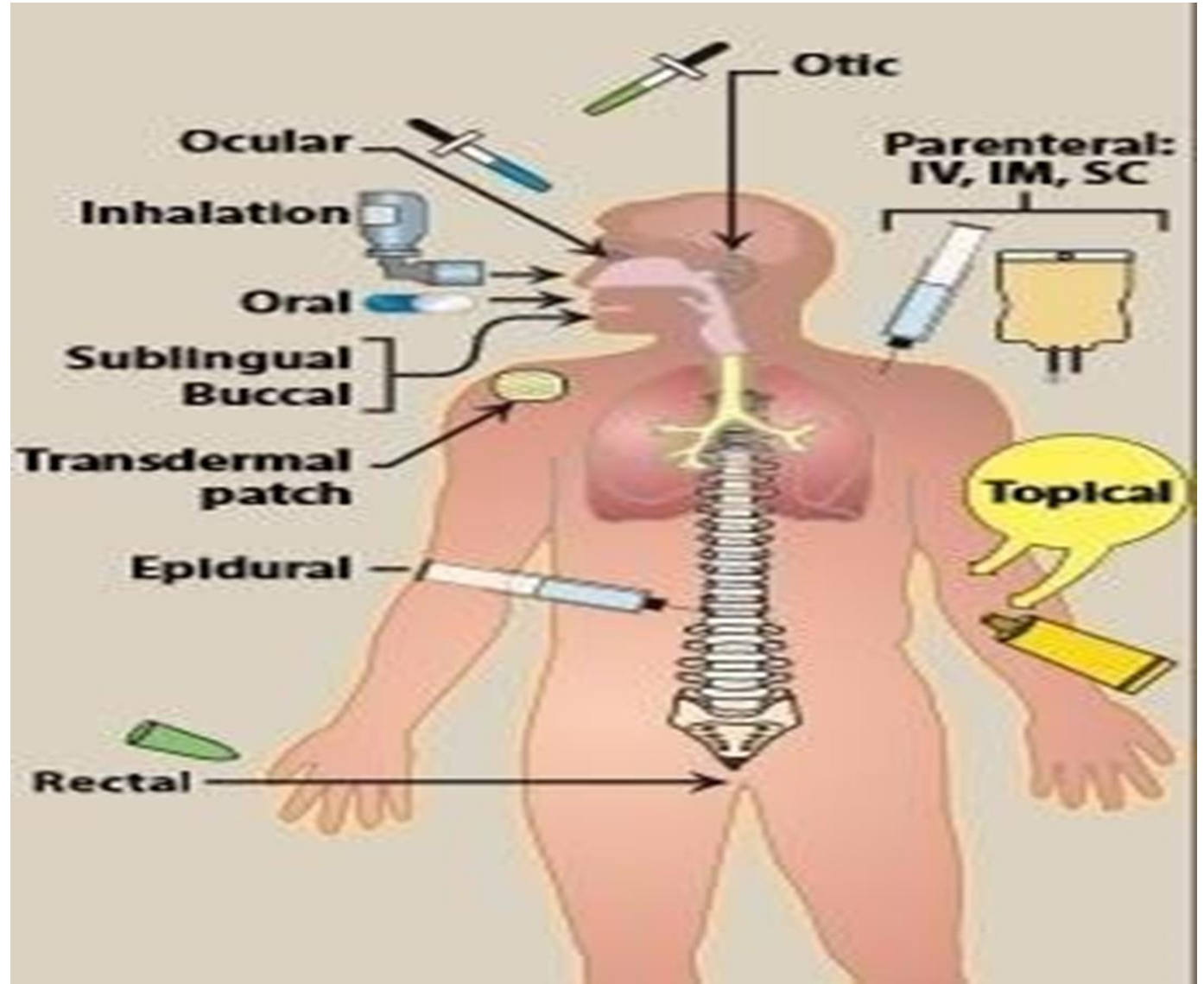
اسم المحاضر م.د اسعد موحان

ROUTE OF DRUG ADMINISTRATION



There are two major routes of drug administration

- A. Enteral
- B. Parenteral



Oral administration : the most common used —

- **Advantage**

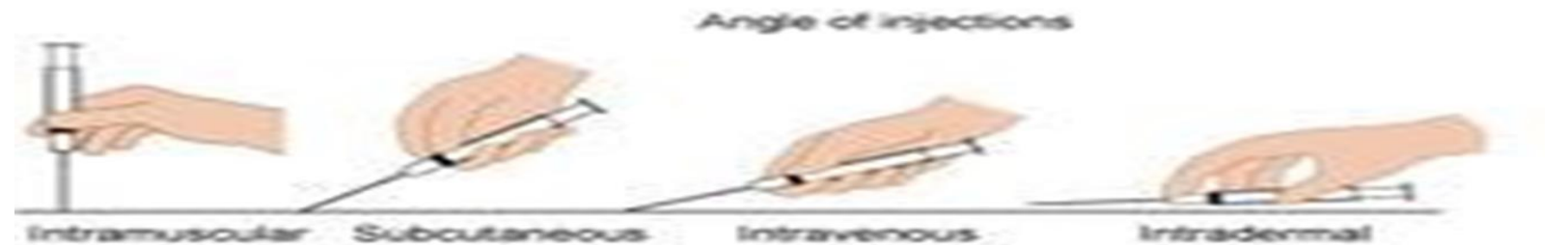
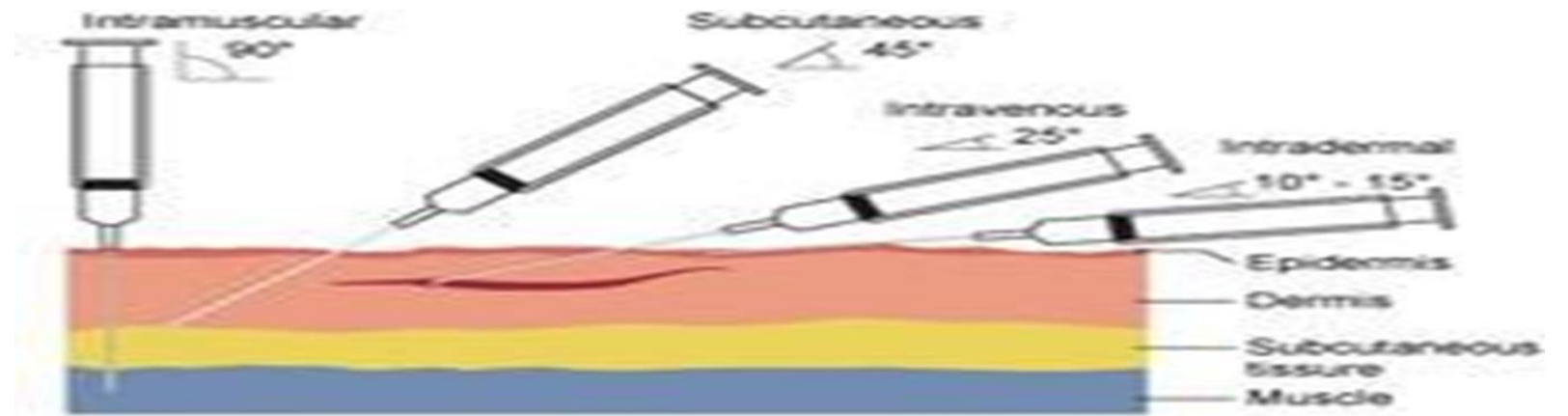
- ❖ Easily self-administered
- ❖ Limit the number of systemic infections
- ❖ Toxicity or over dose could be controlled by antidotes such as activated charcoal.

Oral route

- **Disadvantage**
 - ❖ The drug is exposed to harsh gastrointestinal environment that may limit its absorption
 - ❖ Most drug by oral route enter the portal circulation and encounter the liver before they are distributed into the general circulation, the liver are metabolized these drugs so it may be limit the efficacy of many drugs
 - ❖ Ingestion of drugs with food or with other drugs ,can lead to decrease drug absorption

B) Parenteral route

This route introduces drugs directly across the body barrier defenses into the systemic circulation or other vascular tissue



1. Intravenous (IV)

Most common for drugs that not absorbed by oral route ex. Neuromuscular blocker

- This route permits a rapid effect and a maximal degree of control
- IV injection may introduce bacteria through contamination at site of injection

2-Intramuscular (IM)

This route are slowest than IV

absorption of drugs in an aqueous solution is fast ex. tramadol, whereas that from suspension is slow

3. Subcutaneous (SE)

- This route like IM requires absorption and is somewhat slower than the IV route
- Minimizes the risks associated with intravascular injection ex. inject of epinephrine SE to decrease removal of local anesthesia such as lidocaine

C-Other

1. Inhalation

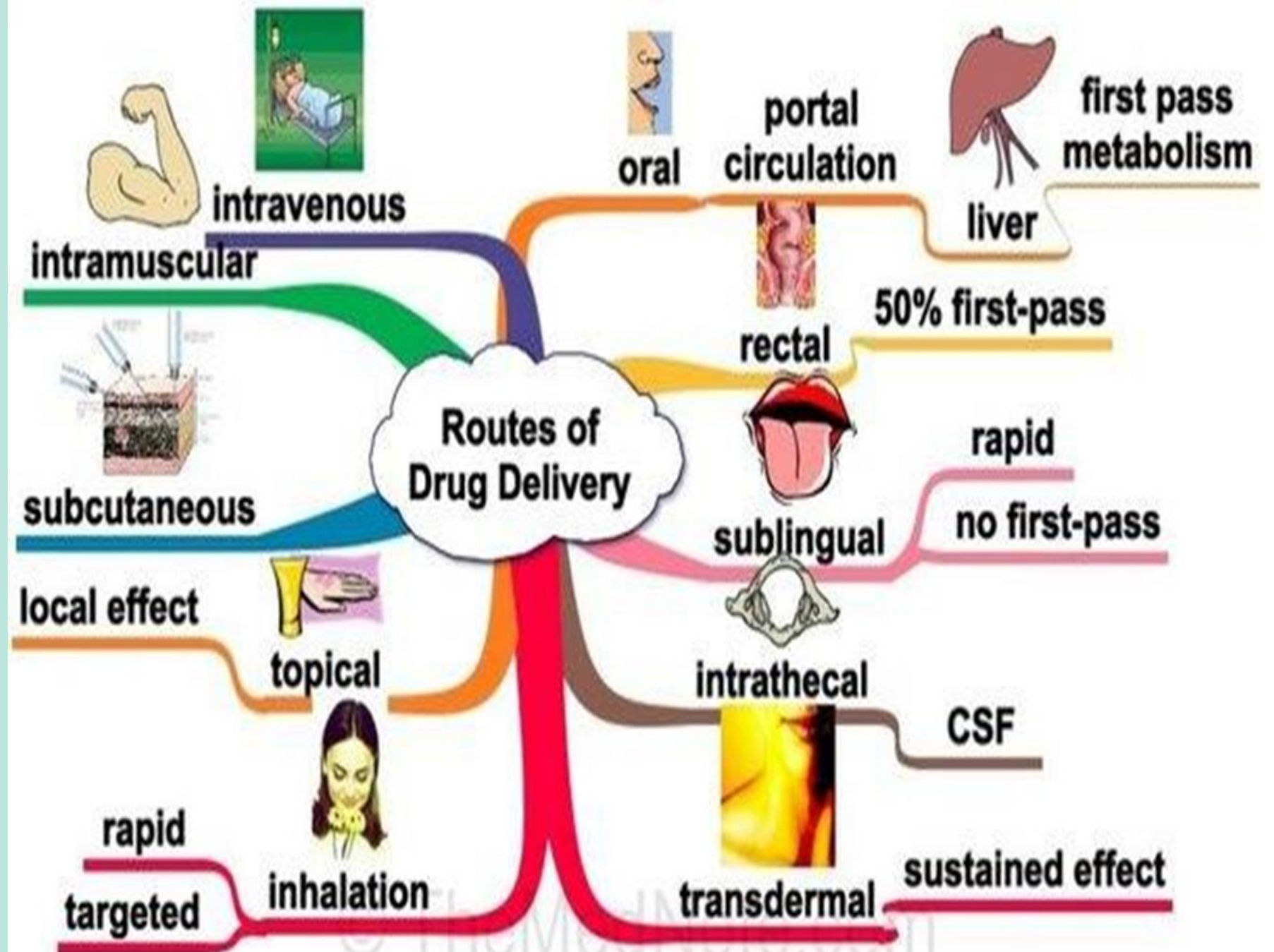
2. Intranasal

3 Intrathecal : this route delivered the drug directly into the cerebrospinal fluid ex. Amphotericin B used in treating cryptococcal meningitis

4 Topical

5- Transdermal used when need the long time of action ex. Nitroglycerin patch for angina .

6- Rectal advantage this route prevent destruction of drug by GI environment , also used for drugs induce vomiting when given orally



—
Thank you



SCAN TO GET THE LECTURE

