Dept. Of Pharmacy
YBN University, Ranchi Jharkhand

Targeted drug Delivery System
NDDS

Ideal features

Advantage of drug targeting.

-> It should be stable, safe, compatible with body fluid and biodegradable.

-> Deliver the drug only to the target site.
-> control the drug only to the target site.
-> control the drug release at a predetermined rate.
-> The rate of drug release not effecting the Pharmacological effect
-> minimum leakage of the drug during transportation to the target site
-> using an inert, biodegradable, or easily eliminated carrier.
-> The preparation process of the drug delivery system should be simple, easy and cost-less

causes of using the targeted drug delivery systems.

-> Low drug Stability
-> Poor drug absorption
-> The short half-life of the drug.
-> The large volume of distribution of the drug.
-> Low drug specificity.
-> Narrow therapeutic index of the drug.

Advantages of drug targeting.

-> The protocol of drug administration becomes simpler.
-> The Toxicity of the drug is used by targetting specific site.

3. The desired drug response can be reached by a small dose.
4. Avoid the first Pass effect
5. Improvement in the drug absorption from the target site.
6- Drug targeting resulted in no-Peak and valley plasma concentration.

*Disadvantages of drug targeting.

→ Rapid drug elimination from the body result high dose frequency.

→ The carrier of the targeted drug delivery system may result in the immune response.

→ The drug delivery System is not localized at the human tissue for sufficient time.

→ The diffusion and redistribution of released drugs.

→ The Manufacturing, Storage and Administration of the targeted drug delivery System require high expertise in the field.

→ Toxicity may be raised from drug deposition at the target site.

→ The Stability of the Product will be difficult to be attained.

carriers applied for drug targeting.

* Drug targeting can be attained by using carrier systems.
* The carrier are systems which required for transplantation of entrapped drug to target sites.
* The carriers entrap the drug moiety and deliver it into the target site without releasing it in the non target site.