

HANDLING BIOLOGIC DRUGS

WHAT IS A BIOLOGIC DRUG?

A biologic drug is derived from living organisms. They include therapeutic proteins, monoclonal antibodies, blood components, DNA and RNA-based drugs, vaccines, stem cells.

WHY IS IT IMPORTANT TO HANDLE BIOLOGIC DRUGS PROPERLY?

Most biologics are complex and sensitive mixtures. These need careful handling to avoid damaging the product which has consequences on their activity and safety.

KEY POINTS WHEN HANDLING BIOLOGIC DRUGS

TRANSPORT

DO:

- ✓ Transport the drug at the same temperature indicated in the product datasheet
- ✓ Pack your drug carefully in order to minimise shaking during transport

DO NOT:

- ✗ Drop on the floor
- ✗ Expose to light or temperatures outside range on product datasheet
- ✗ Transport through pneumatic tube system

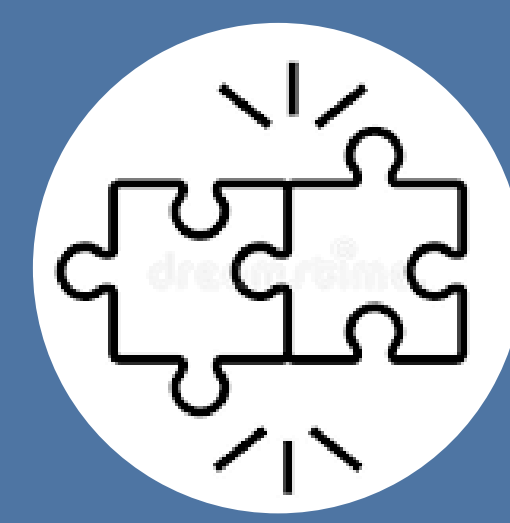
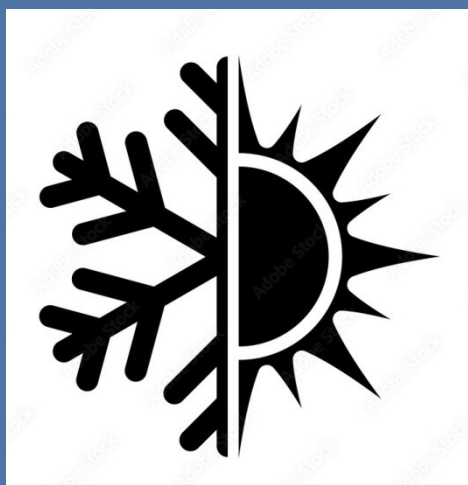
STORAGE

DO:

- ✓ Store the drugs in the refrigerator
- ✓ Check on a regular basis the range of temperature of your refrigerator
- ✓ Store the drugs in the original packaging

DO NOT:

- ✗ Freeze the drug
- ✗ Store near the freezing wall of the refrigerator
- ✗ Store in humid refrigerators



PREPARATION

DO:

- ✓ Use aseptic technique
- ✓ Follow the instructions provided by the manufacturer – it will vary from drug to drug
- ✓ Check compatibility with the solutions and medical devices used for compounding (e.g. syringes, plastic bags, Closed System Drug- Transfer Devices)
- ✓ Check for occurrence of turbidity (particulates) in the solution

DO NOT:

- ✗ Flick the syringe
- ✗ Drop the preparation on the floor
- ✗ Shake the preparation- avoid foam and bubbles
- ✗ Mix different drugs in one bag or use the same syringe

ADMINISTRATION

DO:

- ✓ Follow the instructions provided by the manufacturer – it will vary from drug to drug
- ✓ Check compatibility with medical devices used for administration
- ✓ Check for occurrence of turbidity (particulates) in the solution
- ✓ Chilled medicines need to be warmed to room-temperature
- ✓ Check for possible reactions or allergies to the drug for each patient

DO NOT:

- ✗ Administer two drugs at the same time without checking the y-site compatibility
- ✗ Use the drug after dropping the drug on the floor
- ✗ Shake the drug- avoid foam and bubbles

When you are unsure, always ask the pharmacist in your facility or read the technical datasheet →

Get information on the biologic at the European Medicines Agency (EMA), <https://www.ema.europa.eu/>