

Unit-6

Compounding in Hospitals

* Definition →

- Compounding was process of combining, mixing or ingredients or modifying or medication was patients or need of physician or Pharmacist or physician or use of with it

* Objectives →

- was exact dose provide or market if available or
- multiple doses or minimize or
- Bulk compounding →
 - on all or drug or bulk form if compounded or
 - Bulk compounding or

• ുഠ േ൬ ൈ നഠ medication
are ൈ ു൬ prescribed നഠ ു൬

* Need of Bulk Compounding →

- ുഠ Patient commonly prescribed formulation നഠ ൈ ു൬ നഠ
- Patients നഠ limited dosage strength നഠ require ൈ നഠ
- ുഠ Patients normal drugs shortage നഠ facing നഠ നഠ

* Planning for Bulk Compounding →

etc.....

1) Manufacturing requirements →

- ുഠ compounding നഠ ു൬ നഠ area clean ൈനഠ നഠ
- Microorganism ൈ free ൈനഠ നഠ
- clean നഠനഠ easy ൈനഠ നഠ
- 2) Raw Material →
 - Good quality നഠ sufficient materials ൈനഠ നഠ

3) Manufacturing Capacity →

- If hospital is present equipment, hospital economy and requirement are depend on it
- 4) Equipments →
 - Equipment need is according available in the hospital
- 5) Staff →
 - Need is according hospital staff available in the hospital

* Control System →

- compounding process control.
- Quality control -
 - Quality control of raw materials.
 - Q.C of Instruments used.
 - Q.C of finished products.
- Budgetary control.
- etc.....

(complete)

* I.V. Admixture Services -

* Definition →

- २ or more sterile product or combination of I.V. fluid if added together & administration of them
- २ sterile or hydrogen free solution

* Advantages →

- start action quick & safe
- safe, effective and high quality

or patient care provide
or &

* Disadvantages →

- start time and skill or need &
- trained pharmacist or need &

* Preparation of I.V. Admixture →

- Physicians or original

- order sheet receiving \rightarrow use use -
pressure sensitive label prepared
form with \rightarrow
- following information include \rightarrow
with \rightarrow
- \rightarrow Physician \rightarrow Name.
- \rightarrow Patient \rightarrow name
- \rightarrow drug \rightarrow Name with quantity.
- \rightarrow compounding \rightarrow of date.
- \rightarrow Expiry date.
- \rightarrow Pharmacist \rightarrow name \rightarrow admixtura
prepared \rightarrow use \rightarrow \rightarrow

- Admixtura laminar flow \rightarrow
under \rightarrow prepared \rightarrow
-uller- and sterile needles,
syrings \rightarrow use \rightarrow \rightarrow
-uller- \rightarrow
- Admixtura solution \rightarrow use
 \rightarrow use \rightarrow use \rightarrow
- \rightarrow carefully checked \rightarrow use
 \rightarrow \rightarrow

* Incompatibilities of I.V
Admixtura \rightarrow

• Incompatibility reaction is a reaction between two or more drugs or after mixing long time not patient or safe

* Characteristics →

- colour change.
- Precipitations.
- Hazy appearance.
- etc.....

* Types →

1) Physical Incompatibility →

• 2 types of Incompatibility two or more products are mixed & visible changes show

eg- • change in colour.

• formation of ppt.

etc.....

2) Chemical Incompatibility →

• 2 types of incompatibility

not mixed or drug

chemical dehydration pathways

if mixed &

- like -
- Oxidation
 - Reduction
 - Hydrolysis
 - decomposition
- etc.....

3) Therapeutic Incompatibility →

- or drug administered say with or give unwanted effect show or give at start therapeutic incompatibility or end of
- like -
- toxic effect
 - Antagonism effect
- etc.....

* Causes of I.V. Admixture Incompatibilities →

- Two drugs (drug-drug incompatibility)
- Drugs and unsuitable diluents.

* Preventing I.V. Admixture

- Incompatibilities →
- Compatibility or always check or not call for)
 - Use in-line filters.
 - Drugs or proper mixing or I.V. fluid or added or not

చిల్డ్రన్

- freshly prepared solution అంట్ use

అంట్ చిల్డ్రన్

etc.....

*** Role of Pharmacist →**

→ Pharmacist అంట్ colour codings

అంట్ use అంట్ చిల్డ్రన్ incompatibility

అంట్ prevent అంట్ ఆర్ డిజిజ్

→ staff అంట్ proper guidance provide

అంట్ చిల్డ్రన్ ఇంటర్ ఇంcompatibility

అంట్ ఏదీ

→ supervision provide అంట్

చిల్డ్రన్

etc.....

*** Total Parental**

Nutrition →

*** Definition →**

• TPN, intravenous administration
-ation ఏదీ & nutrition అంట్

• outside of the vit .

- Nutrition లికె - Protein, fat, vitamins, minerals, electrolyte

• Not patients orally nutrition करे
के लिए TPN देते हैं।

* Types of TPN →

1) Central Parenteral Nutrition →

• Set method में अलग fluids
के central vein में अलग
delivered करते हैं।

2) Peripheral Parenteral Nutrition →

• Set method में अलग fluids के
neck में अलग अलग
vein में अलग delivered करते हैं।

करते हैं।

* Composition of TPN →

• TPN एक mixture होते हैं
all essential nutritional compo-
nents are

including - Proteins, fat,
calories, vitamins and minerals
etc...

• Major three macronutrients-

* Proteins →

• 200 ml के bottles 8-9%
amino acids contain करते हैं।

* Calorias →

• one gram dextrose or 3.4 calorias obtained or 11.1 kJ

* fats.

* Indications of TPN →

- specific conditions where we use TPN or requirement of TPN →
 - Prolonged diarrhoea.
 - Gut bleeding.
 - Intestinal Ischemia.
 - Abnormal surgery.

etc.....

* Complications of TPN →

- Blood clots.
- Liver disease
- Gallbladder problems.
- etc.....

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ON YOUTUBE**

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THANK YOU.

By Dr Firoz khan

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