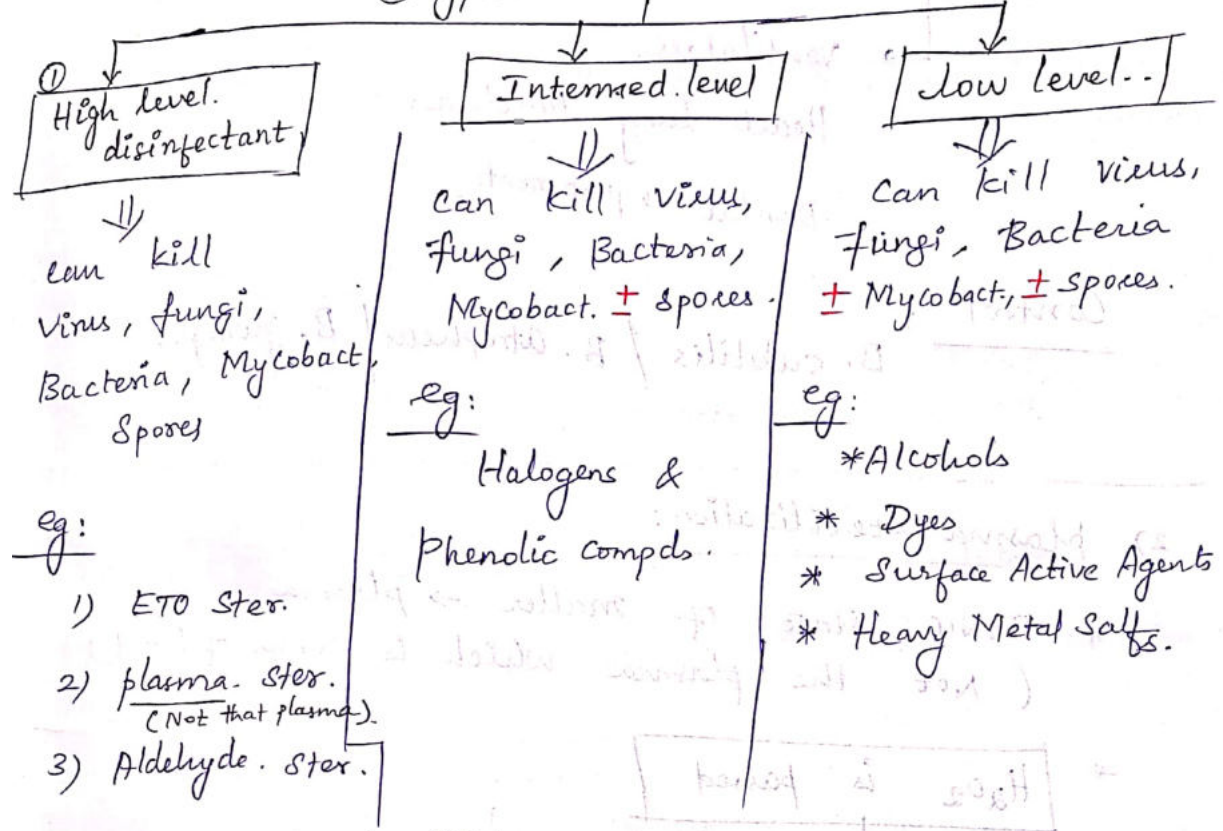


③ types.

FDA classificⁿ.

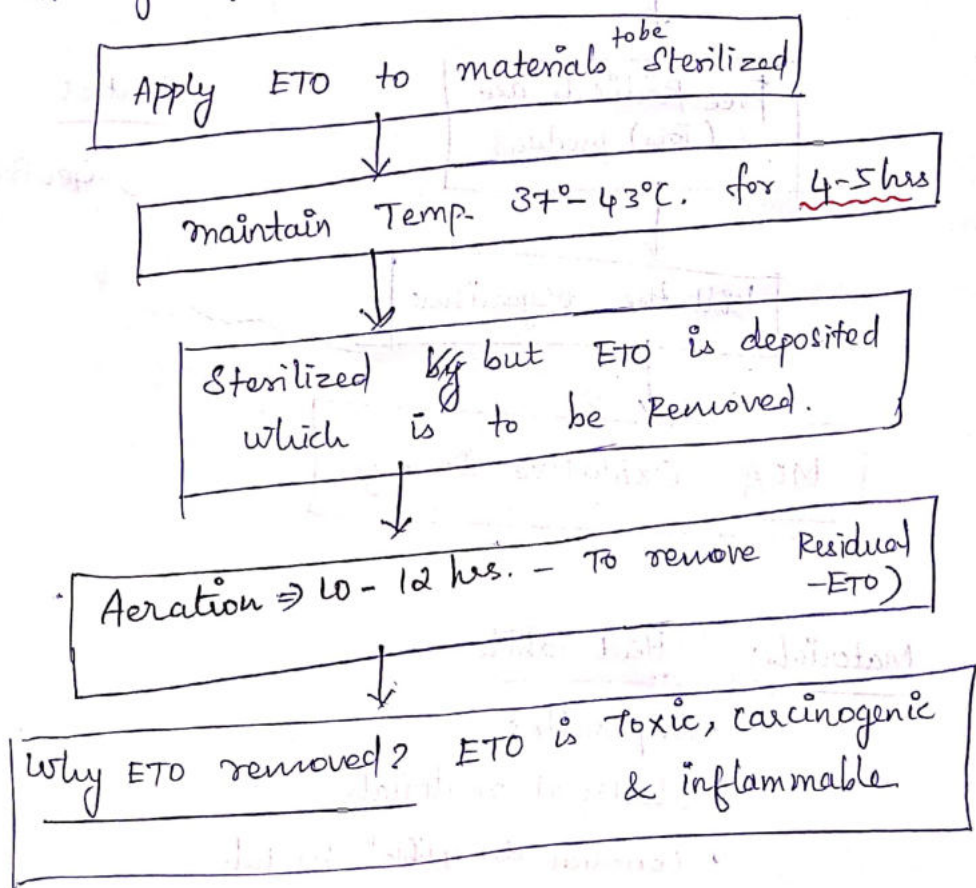


⑦ High level Disinf:

1) ETO - Ethylene Oxide (GAS).

MOA: Alkylatⁿ of Nu. a & proteins.

* also an eg. of "Gaseous" sterilizⁿ.



materials sterilized.
labile & Disposable
Ventilators.
Heart lung Machines.
Dental equipments.

Control : *B. subtilis* / *B. atrophaeus* / *B. globigii*.

2) plasma sterilization:

* IONIC state of matter $\rightarrow$ plasma
(Not the plasma which is comp. of blood).

* H_2O_2 is passed

↓
Apply E.M. field.
(Electromag.)

↓
Free Radicals are
(ions) produced

↓
kill the organisms

↓
MOA: Oxidative Damage.

Temp: $37^\circ - 43^\circ C$

for 1hr.

(Same as ETO
except Time)

Control:

Geo Bacillus

stearothermophil

Materials: Heat labile:

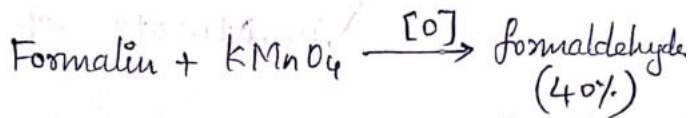
- Disposables.
- Electrical materials
- "Corrosion susceptible" metals.

MOA: Alkylatⁿ of

www.FirstRanker.com

www.FirstRanker.com

eg: (i) formaldehyde
(gas) 40%



Materials : O.T sterilizatiⁿ

(ii) Glutaraldehyde. $\longrightarrow$ To sterilize ENDOSCOPE.
2% (Cidex)

(iii) ortho- pthal aldehyde $\longrightarrow$ " Endoscope.

~~But~~ ortho- pthalaldehyde is better than cidex

bcz of 2 reasons

(i) Better storage.

(ii) Better Antimycobacterial.

II) Intermed level Disinf:

1) Halogens: MOA: Oxidative damage
(Cl_2 & I_2).

(i) Cl_2 : * irritant to skin so used as Surface Disinf.

* 2 forms $\left\{ \begin{array}{l} \text{free } \text{Cl}_2 \text{ (Hypochlorous a - active form)} \\ \text{Na. Hypochlorite 1\%} \end{array} \right.$

$\downarrow$ Hospital.
universal lab. disinfectant

(ii) I_2

$\hookrightarrow$ skin disinfectant but "UNSTABLE"

Unstable I_2 $\xrightarrow{+\text{alcohol}}$ TINCTURE I_2
(Stable I_2)

Unstab. I_2 $\xrightarrow{+\text{poridone}}$ PORIDONE I_2
(Betadine)

MOA: $\left\{ \begin{array}{l} \text{Cell memb. damage} \\ \text{Denaturation of proteins.} \end{array} \right.$

(i) Lysol:

* surface disinfectant.

(ii) Cresol:

* disinf. "SHARPs"

(iii) Modified Phenolic Compds:

i) chloroxylenol $\Rightarrow$ Active comp. of Dettol
ii) chlorhexidine $\Rightarrow$ one of " " SALVON.
(chlorhex + cetrinide).
cation

III) Low level Disinf:

i) Alcohols: MOA: $\left\{ \begin{array}{l} \text{Cell memb. damage.} \\ \text{Denaturation of protein} \end{array} \right.$

* ethyl alcohol (70%) $\rightarrow$ Sanitizers.

* Isopropyl alcohol (70%) $\rightarrow$ Sanitizers, clinical thermometer

2) Heavy Metal salt:

MOA: $\left\{ \begin{array}{l} \text{cell memb. damage} \\ \text{Inactivation } [\ominus] \text{ of proteins.} \end{array} \right.$

eg: i) silver sulfadiazine $\rightarrow$ Burns

ii) silver Nitrate $\rightarrow$ ophthalmia neonatorum.
(Neisseria gonorrhoea in Newborns)

② type

(i) Aniline (Basic) dyes

* Gentian violet & Methyl violet

(ii) Acridine (acidic) dyes

* acridine & acroflavin.

4) Surface Acting Agents :

MoA:

By ↓ surface T.

Cell memb. damage

(i) Cationic :

Quaternary ammonium Compds.

eg: Benzal ^{konium} ~~potassium~~ chloride, ^{cetrimide} ~~benzalkonium~~ chloride

(Comp. of Salvon).

growth factor for Pseudomonas

(ii) Anionic :

Soaps & Detergents

(i) Rided Walker Tester:* Efficacy of New disinf

(Compared)

phenol disinf.

How?

To kill S. Typhi
in a sp. time* Disadv: Absence of org. matter.(ii) Chick Martin Test:Similar to (i) but org. matter (faeces)
are added.why? To calculate eff in the presence of org. matter(iii) Kelsey's Sykes Test* To test the CAPACITY of disinf when
used, REPEATEDLYTo retain its
efficacy(iv) Maurer's Inuse Test:

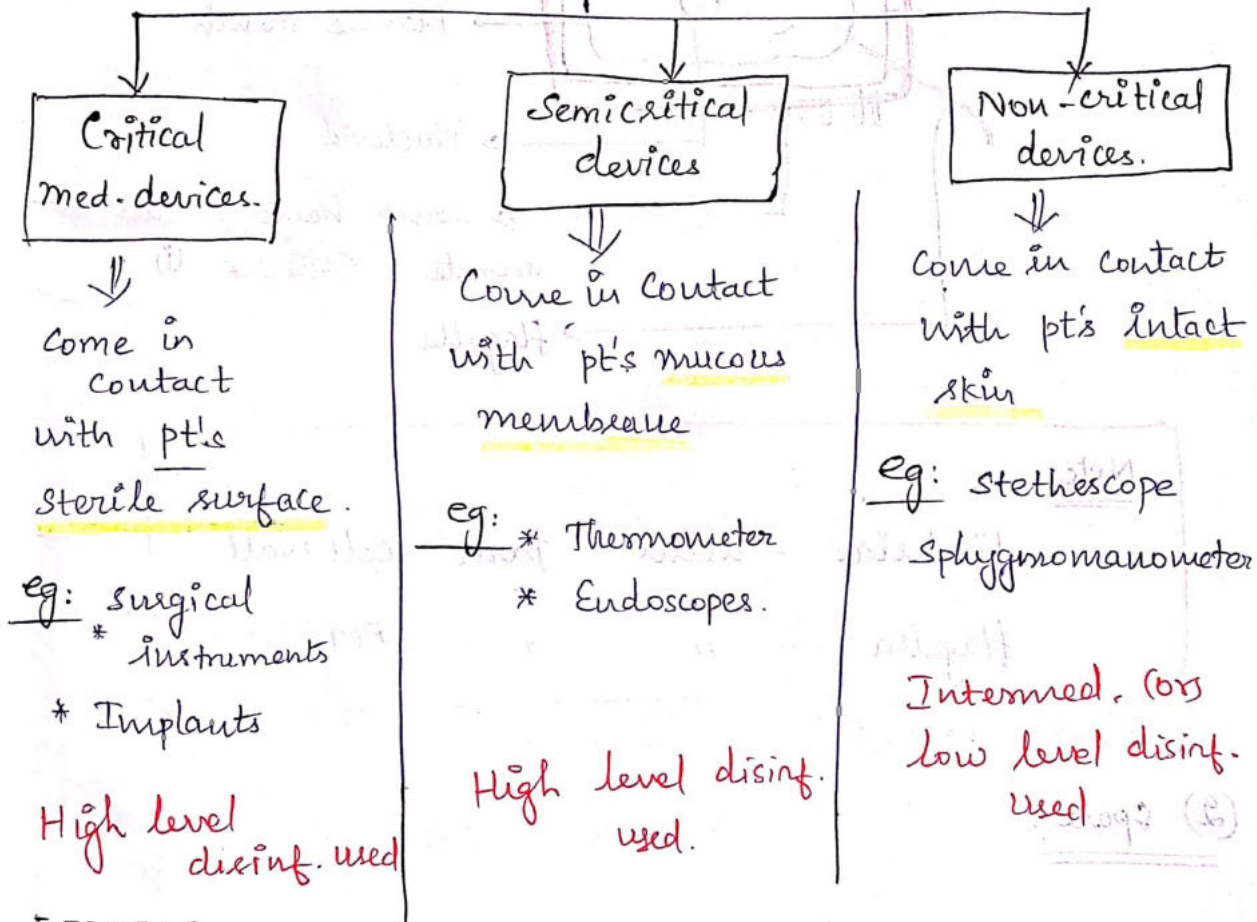
* To test the purity of Disinfectant

ie) contamination of disinfectant* m/c contamination } → "Pseudomonas"
agentwhy? Pseudomonas: most of the disinfectantshave "cetrimide" as surface acting agent

Selective medium for Pseudomonas is Ceftriaxone Agar.

SPAULDING'S CLASSIFICATION OF MEDICAL DEVICES.

pt - patient.



Why He classified Med. devices?

To know the level of disinf. to be used.