

AL-Ayen University
College of Health and Medical Technology
Department of Anesthesia



Operating Room design

Lecture (1) theoretical
Basics of Anesthetic Equipment (1)
2nd Stage
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❖ Operating Room or Theatre Design:

❖ THE STRUCTURE OF OPERATION THEATRE :

- 1-The walls should be hard and easily washable material e.g MARBLE
- 2-Pipes and central Oxygen, Nitrous Oxide, suction should be fitted to the walls.
- 3-Adequate Air-conditioning should be provided.
- 4-In the absence of window adequate light should be provided.
- 5-Fire extinguisher should be adequate.

ANESTHESIA ROOM Preparation:

- 1-Attach an anesthetic breathing system with a proper size face mask
- 2-Confirm proper functioning of Mechanical Ventilators
- 3-Confirm availability and proper functioning of central suction (or wall mounted suction)
- 4-Confirm availability of
 - a-Intravenous solutions
 - b-Connecting tubes
 - c-Suction catheter

Theatre Air Conditioning:

Ideal conditions

Temperature 18 to 23 C

Humidity 50 to 60%

Air Changes 20 per hour

Note:

In the first hour it is common for healthy patient's temperature decrease 0.5-1.5 °C as anesthesia causes rapid decrease in core temperature. One study found that the most efficient method of maintaining normothermia included using warm wraps and a heating blanket. Addition, pre-warming for thirty minutes may prevent hypothermia.

STERILIZATION ROOM : **A sterilization** room should be built adjacent to the operation theatre with a functional glass window.

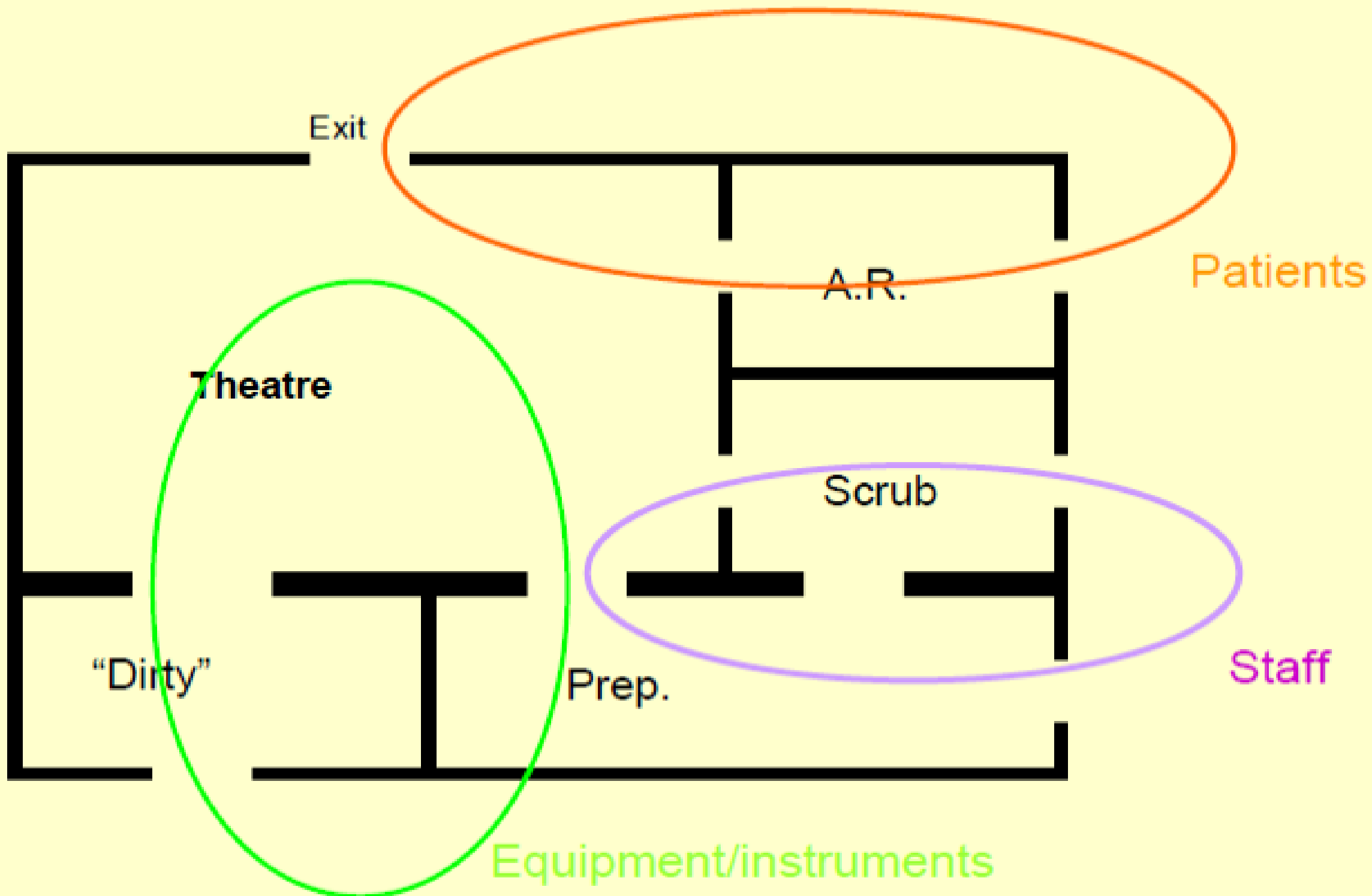
Through this window instruments and equipment can be passed freely between the operation room and ST room without repeatedly opening the main doors.

RECOVERY ROOM The main purpose of recovery room is to give post-operative care and nursing care to the patient

The resuscitation equipment must be available and facilities for oxygen and suction should also be there.

Essential articles such as I /v infusion, fluids, I/V stand, stethoscope, BP apparatus etc.

“Traffic Patterns”

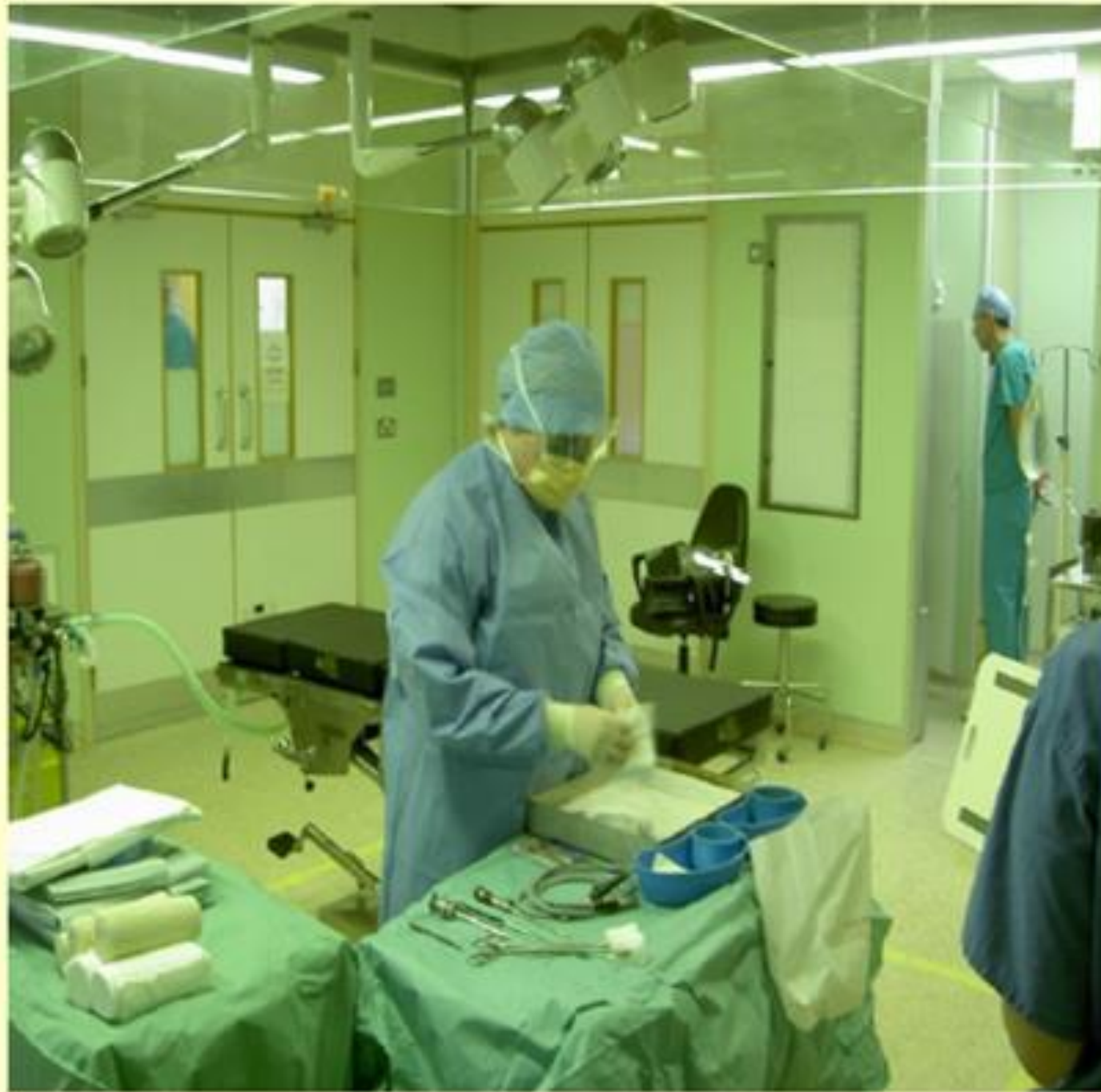


Scrub room



For hand
washing
(surgical scrub)
gowning &
gloving of
surgical team

The Operating Room (Theatre)



Focal point
of surgical
process

Anaesthetic Room



- Reception & preparation of patient
- Induction of anaesthesia

Rest/coffee room



- Does exactly what it says on the tin!
- A place to relax.
- Beware of careless conversations!
- Patient confidentiality still applies

Sterile Processing Room:

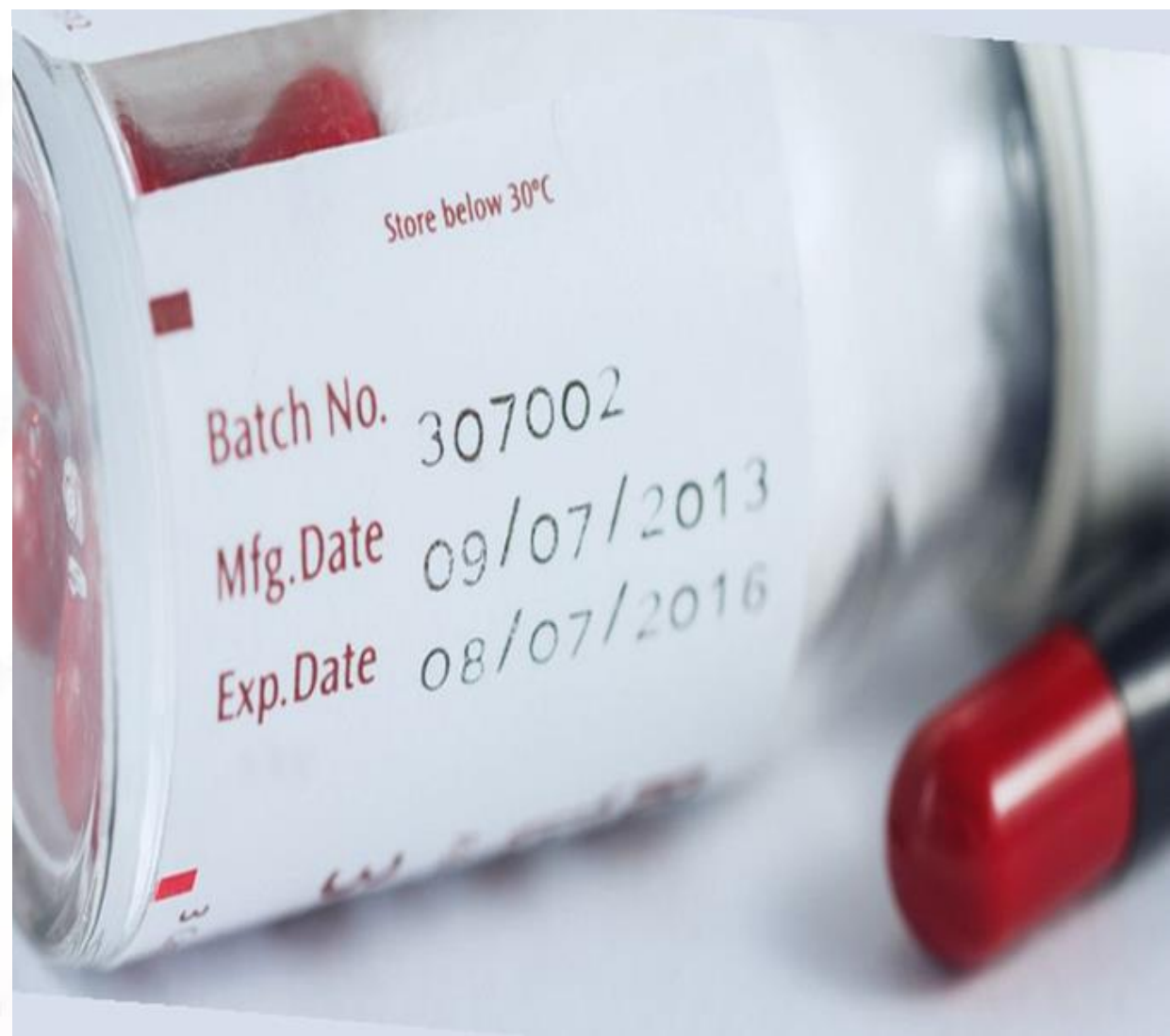
Recent surgical guidelines are favoring the use of sterile processing rooms over substerile rooms located within the surgery suite. These sterile processing rooms are designed to be separate from the operating suite, but may be shared between two or more operating rooms. Sterile processing rooms are designed to provide a one-way traffic pattern of contaminated materials, instruments for cleaning, and the sterilization of various instruments and equipment.

Note: Regarding drugs.

'Exp': means for use up to and until the last day of the specified month.

'Use by': means for use up to and until the last day of the specified month.

'Use before': means for use until the first day of the specified month .



Thanks for
listening