



Handling of Instruments in the Operating Theatre

Christine Young
Hatta Hospital

Objectives



- Describe the rules in handling surgical instruments in OT
- Outline procedures before and during handling sterile surgical instruments
- Demonstrate the correct and proper way of holding the instruments

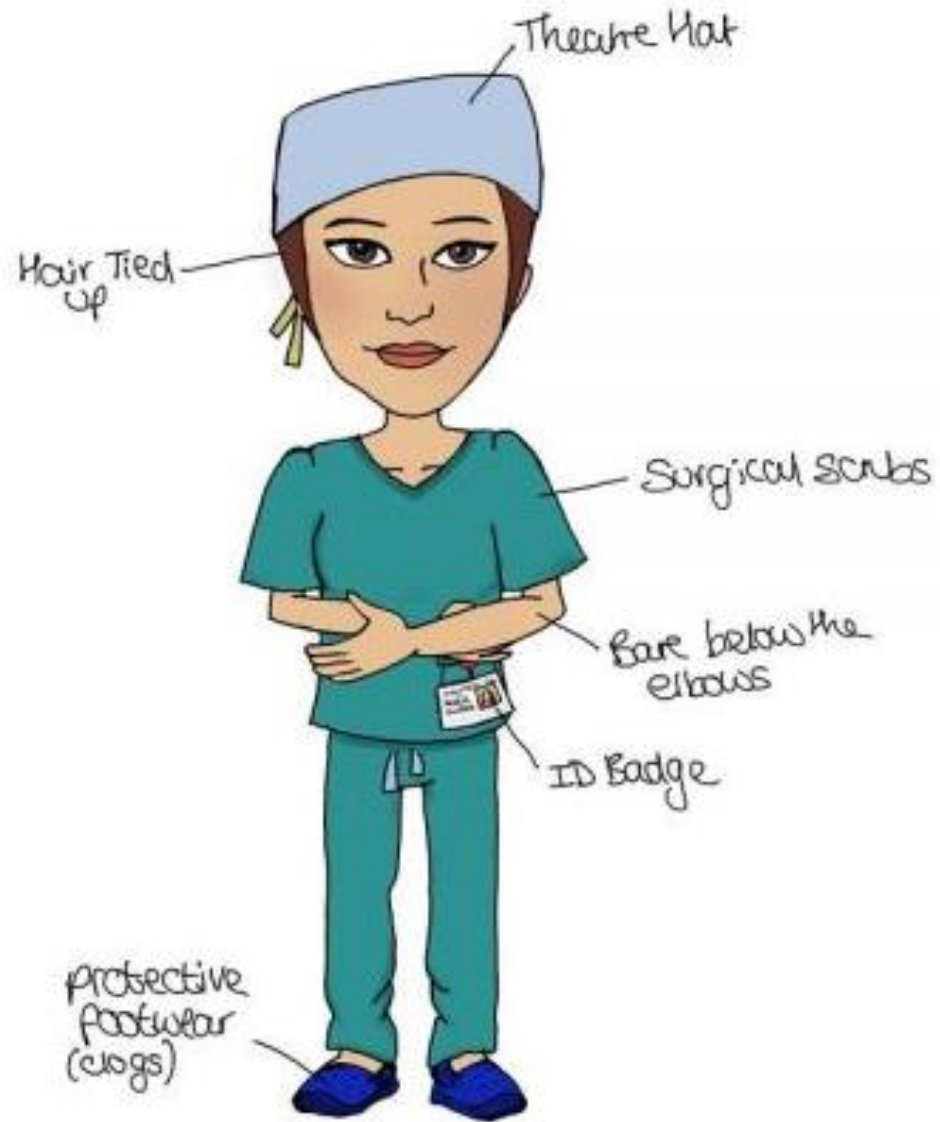
A close-up photograph of surgical instruments, including a scalpel and a pair of forceps, resting on a bright yellow surface. The instruments are metallic and show some signs of use. The lighting is soft, creating gentle shadows.

Poor surgical
instrument handling
practices have
been found to
increase SSIs¹⁰

A collection of surgical instruments, including several pairs of forceps and scissors, are arranged on a blue, textured cloth. The instruments are metallic and reflective. The text "Rules in Handling of Surgical Instruments in the OT" is overlaid in a large, orange, sans-serif font on the left side of the image.

Rules in Handling of Surgical Instruments in the OT

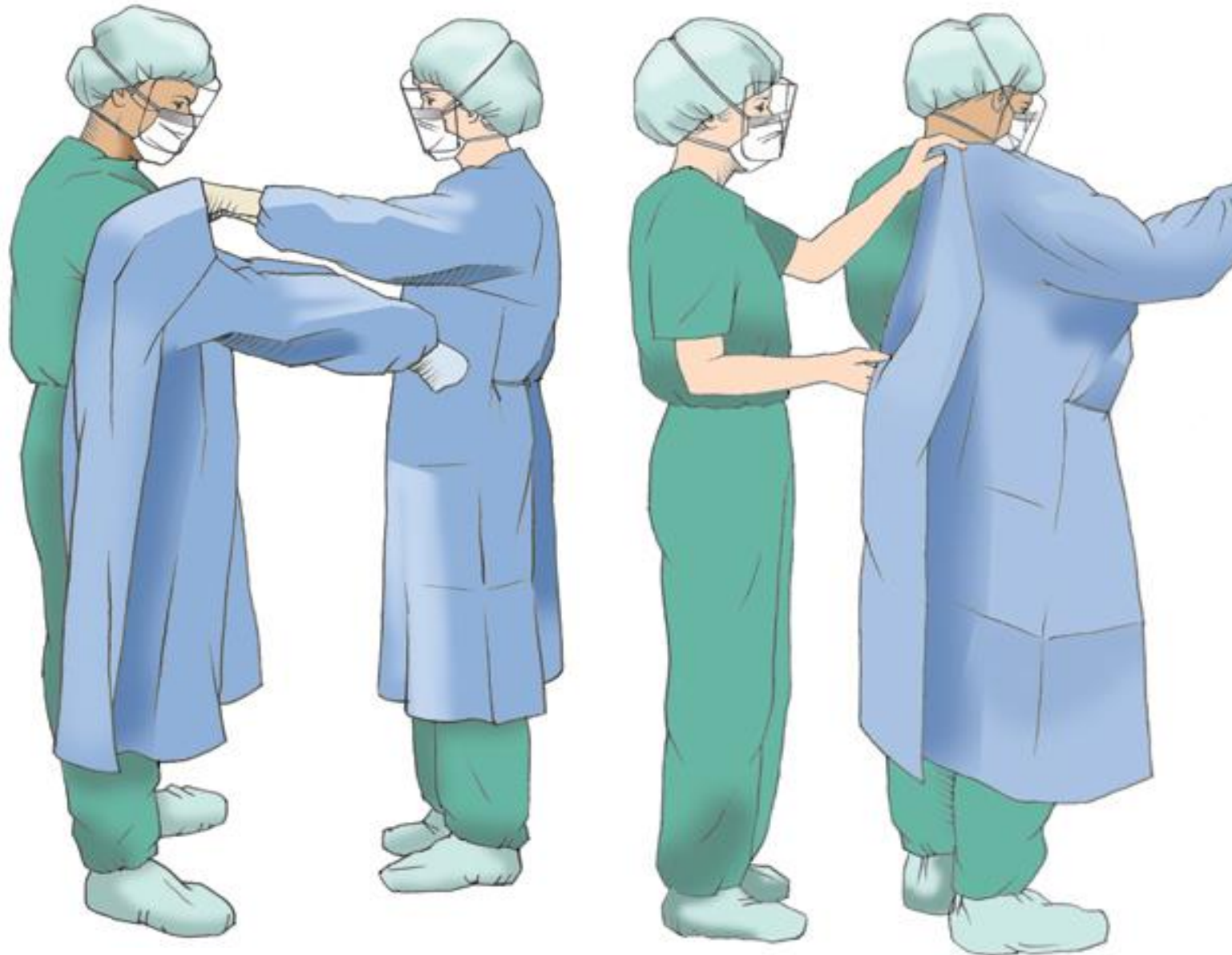
Rule #1: Do Proper Scrubbing and Gowning | ✨



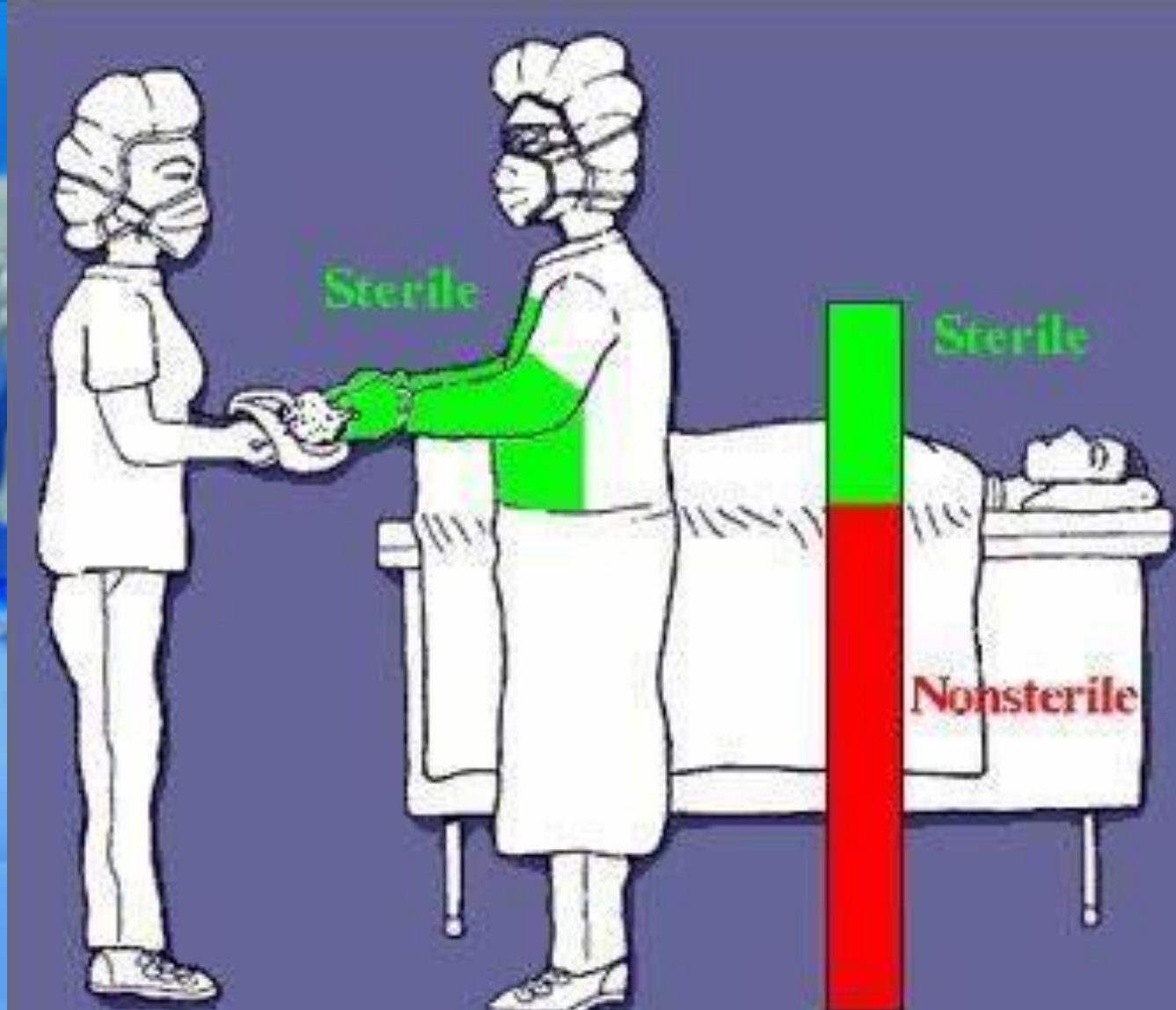
Rule #1: Do Proper Scrubbing and Gowning | ✨



Rule #1: Do Proper Scrubbing and Gowning | ✨



Rule #2: Always maintain sterility! | ✨



Rule #2: Always maintain sterility! | ✨

Surgical Safety Checklist



World Health
Organization

Patient Safety
A World Alliance for Safer Health Care

Before induction of anaesthesia

(with at least nurse and anaesthetist)

Has the patient confirmed his/her identity, site, procedure, and consent?

☐ Yes

Is the site marked?

☐ Yes

☐ Not applicable

Is the anaesthesia machine and medication check complete?

☐ Yes

Is the pulse oximeter on the patient and functioning?

☐ Yes

Does the patient have a:

Known allergy?

☐ No

☐ Yes

Difficult airway or aspiration risk?

☐ No

☐ Yes, and equipment/assistance available

Risk of >500ml blood loss (7ml/kg in children)?

☐ No

☐ Yes, and two IVs/central access and fluids planned

Before skin incision

(with nurse, anaesthetist and surgeon)

☐ Confirm all team members have introduced themselves by name and role.

☐ Confirm the patient's name, procedure, and where the incision will be made.

Has antibiotic prophylaxis been given within the last 60 minutes?

☐ Yes

☐ Not applicable

Anticipated Critical Events

To Surgeon:

☐ What are the critical or non-routine steps?

☐ How long will the case take?

☐ What is the anticipated blood loss?

To Anaesthetist:

☐ Are there any patient-specific concerns?

To Nursing Team:

☐ Has sterility (including indicator results) been confirmed?

☐ Are there equipment issues or any concerns?

Is essential imaging displayed?

☐ Yes

☐ Not applicable

Before patient leaves operating room

(with nurse, anaesthetist and surgeon)

Nurse Verbally Confirms:

☐ The name of the procedure

☐ Completion of instrument, sponge and needle counts

☐ Specimen labelling (read specimen labels aloud, including patient name)

☐ Whether there are any equipment problems to be addressed

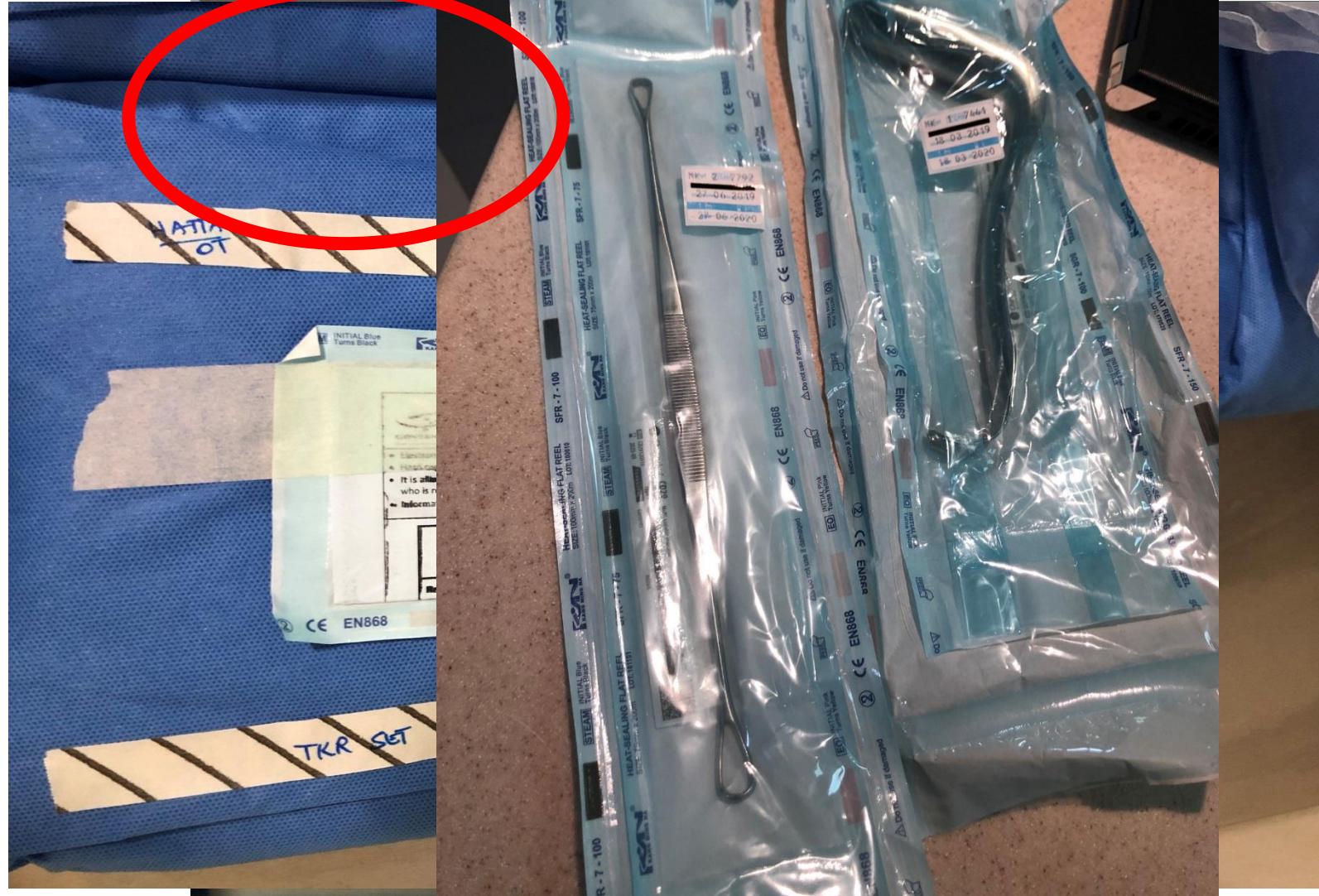
To Surgeon, Anaesthetist and Nurse:

☐ What are the key concerns for recovery and management of this patient?

One of the scrub nurse's responsibility is to confirm the sterility.

Rule #3: Check the sterility of the Instruments and Instrument Sets before use

- Check expiry dates (Time-Related) and integrity of the plastic locks
- Check the chemical indicators or autoclave tapes
- Check the integrity of the blue sterile wrappers
- Check peel packs for any holes



Rule #5: Don't use your hands or fingers in retracting.



- Use retractors
- **Use:** Allows wider space to work



Rule #6: Hold the instruments properly



Rule #6: Hold the instruments properly



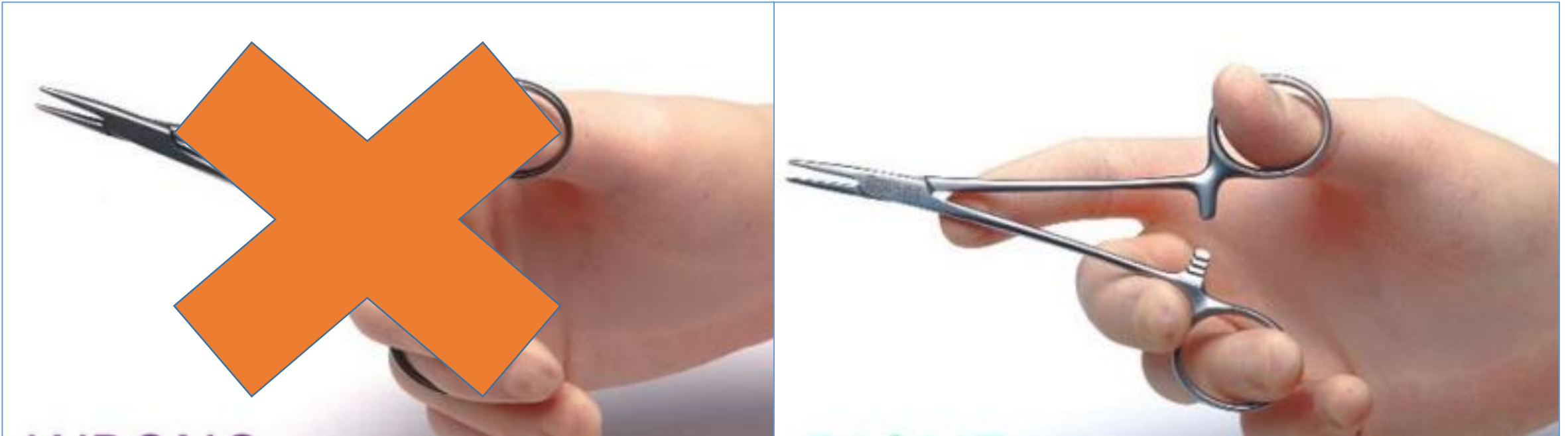
Hold gently between index finger and thumb, like holding a pen.

Rule #6: Hold the instruments properly



- Insert the thumb and ring finger into the rings of the scissors so that the distal phalanges are within the rings. Use the index finger to steady the scissors by placing it over the joint.
- Cut with the tips of the scissors for accuracy

Rule #6: Hold the instruments properly



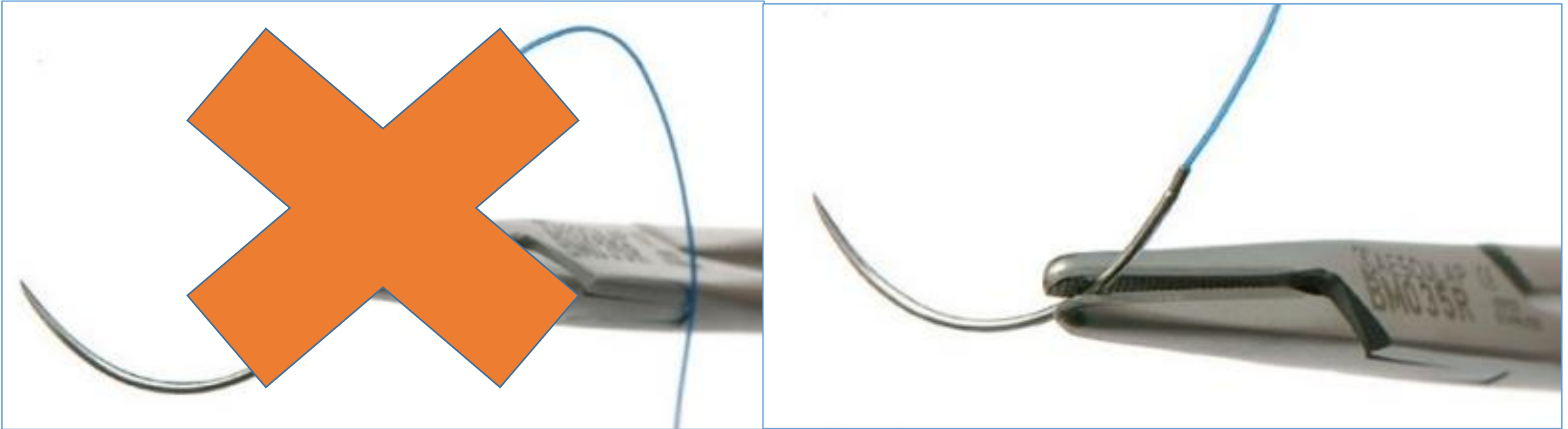
1. Hold in a similar manner to scissors.
2. Place on vessels using the tips of the jaws.
3. Use the ratchet lock to secure the position.

Rule #6: Hold the instruments properly



1. Grasp the needle holders in a similar manner to scissors.
2. Hold the needle in the tip of the jaws about two-thirds of the way along its circumference, never at its very delicate point and never too near the swaged eye.
3. Use the ratchet lock to secure the position.

Rule #6: Hold the instruments properly



Surgical needles present a specially designed body that allows a perfect hold when grasped by the needle holder at 2/3 of the needle length as shown in the pictures.

References



- Oxford, Basic instruments handlings,
<http://mrcophth.com/ophthalmicinstruments/suturetypes/basicsurgicaltechniques.html>
- Don Sadler, Instrument Care and Handling, OR TODAY,
<https://ortoday.com/instrument-care-and-handling/>
- B Braun, Surgical Instruments Best Practice,
<https://www.bbraun.com/en/products-and-therapies/wound-closure/knotting-expert-club/surgical-instruments-best-practices.html#>

Thank you !!!