OSCE checklist for IV infusion set-up

An OSCE checklist for IV infusion set-up covers checking the prescription and allergies, checking the fluid and giving set, priming the line with aseptic technique, checking the cannula, connecting and setting the rate, and monitoring the patient and site.

OSCE checklist for IV infusion set-up: steps to practise

1. Check the prescription for the right patient, fluid, volume, rate, route and time, and check the allergy status. If anything is unclear, ask the prescriber before you start.
2. Check the fluid bag for the right fluid, expiry date, clarity and damage, and check the giving set is in date and intact. Do a second check with another registered professional if your policy requires it.
3. Wash your hands and prepare on a clean tray using aseptic non-touch technique, protecting key parts throughout.
4. Close the roller clamp, spike the bag without touching the spike, hang it and squeeze the drip chamber to fill it to about half.
5. Open the clamp slowly and prime the tubing until all air has gone, then close it.
6. Go to the patient, introduce yourself, confirm identity against the wristband and the prescription, explain and gain consent.
7. Wash your hands and put on gloves if your policy says. Check the cannula site for pain, redness, swelling or leaking, and check it is working as your policy says, such as a prescribed flush.
8. Clean the connector and let it dry, connect the line and open the clamp.
9. Set the rate on an infusion pump, or count drops using the drip rate formula if a gravity set is allowed.
10. Remove gloves, wash your hands, label the line with the date and time, and record the start on the fluid chart.
11. Check the patient, the site and the rate as your policy says. Stop the infusion and get help if the site becomes swollen or painful, or the patient becomes breathless, develops a rash or has a change in observations (using NEWS2 for adults).

What candidates commonly forget

- Not checking the patient's identity against the prescription
- Not checking allergies
- Air in the line
- Not checking the cannula site before connecting
- Wrong rate
- Not recording on the fluid chart or not monitoring for overload or a reaction

Local policy comes first

This is our own practice checklist. Your college, hospital or country may do some steps differently. Where local policy and this list disagree, follow local policy.

Practise the hands-on steps with a classmate or in a skills lab, because an AI patient cannot watch your technique. You can practise the talking part with an AI patient, and try one station free with no sign-up. Next, try A prescribed infusion on the medical ward. Back to the medical surgical nursing OSCE page: medical surgical nursing OSCE, or see the full OSCE checklist list.

Common questions

What is the OSCE checklist for IV infusion set-up?

Check the prescription and allergies, check the fluid and set, wash hands, prime the line aseptically, confirm identity, check the cannula, connect, set the rate, label and record, then monitor.

How do I calculate a drip rate?

Volume in millilitres multiplied by the drop factor of the set, divided by the time in minutes. Check the drop factor on the giving set packet, and use a pump where your policy says.

What do I check during the infusion?

The rate, the volume left, the cannula site, the patient's breathing and observations, and any pain, swelling or rash. Stop and get help if there is a problem.

Sources

- NICE CG174: intravenous fluid therapy in adults in hospital
- NICE CG139: infection prevention and control

Checked 2026-11-13. Fees and rules change, so confirm them with the regulator before you book.