



Practice sting 2023-05

Practice sting stimulus VTGM remifentanyl

This Practical Incentive is particularly interesting for healthcare professionals who prepare medication for administration and carry out checks on the preparation.

When preparing medication for administration (VTGM), it is not only necessary to check whether the correct medicine has been prepared, but also whether the preparation has been carried out properly, as shown in the following notification.

Notification

For a patient undergoing bowel surgery, the anaesthesia nurse prepares syringes with propofol, remifentanyl and lidocaine for the syringe pumps. The employee has the preparation of the syringes checked by a colleague.

The anaesthesiologist notices that after administering the anaesthetics the blood pressure and heart rate are inexplicably high. The anaesthesiologist asks the anaesthesia nurse what the content is in the pumps. The employee tells propofol, remifentanyl and lidocaine and shows the anaesthesiologist the used vials. Both don't see anything striking. The anaesthesiologist decides to intensify the anaesthesia of the patient. The anaesthesiologist continues to have doubts about the patient's situation and checks the vials again. The anaesthesiologist sees that there is still powder in the remifentanyl vial.

Analysis

An increase in blood pressure and heart rate are triggers to the anaesthesiologist that something is not right and that action is probably required. The notification shows that something went wrong when preparing the syringe with remifentanyl. Not all remifentanyl powder is dissolved. The anaesthesia nurse did not shake enough and/or did not wait long enough. The employee also failed to check whether the powder was completely dissolved. The package leaflet and the SmPC of remifentanyl preparations state, among other things, "The reconstituted solution should be clear, colourless and free from visible particles".

Things also went wrong during the check on the preparation before administration. The employee who performed the inspection did not perform the inspection in accordance with the requirements described in the Dutch V&VN manual VTGM.

According to the Dutch V&VN manual VTGM, an authorized and competent person (if applicable) checks for:

- correct medication order for the correct patient
- correct medicine (based on empty ampoules or vials)
- correct concentration (based on empty ampoules or vials)
- shelf life of used medicine and solvent or diluent
- correct calculation
- correct solvent or diluent
- correct amount of solvent or diluent
- correct protocol followed (from healthcare organization)
- correct administration label
- correct expiration date and storage conditions of prepared solution
- presence of any discoloration, cloudiness or crystallization
- correct volume from correct ampoule or vial of medicine in a syringe
- correct volume from correct ampoule or vial of solvent or diluent in a syringe

Recommendations

For the healthcare professional who prepares medication for administration

- Prepare the medicine for administration in accordance with the Parenteralia Manual of the healthcare organisation. If such a manual is not available, prepare the medicinal product for administration according to the SmPC or the package leaflet. If in doubt, consult the pharmacist.
- When dissolving powder, check that everything is dissolved.
- Have yourself checked by an authorized and competent person on all aspects described in the box under the analysis section.

For the healthcare professional who checks the medication prepared for administration

Check for all aspects described in the box.