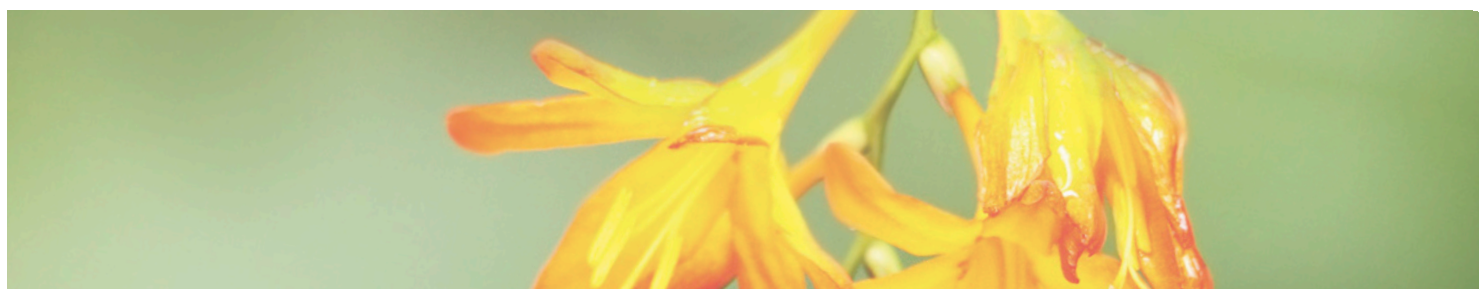
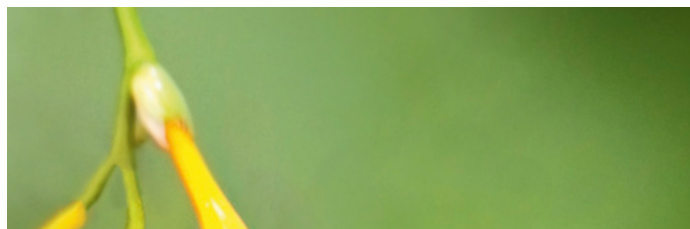


CODAN MicroSpikes

Protocol

Safe and easy preparation
of a COVID-19 vaccine



CODAN MicroSpikes

Safe and easy preparation of a COVID-19 vaccine with and without dilution

Preparation

For the preparation **with dilution** of the vaccine, please follow **steps 1 to 11**.

For the preparation **without dilution**, follow **step 1** and then proceed directly with **steps 6 to 11**.

1



Disinfection and unpacking

Disinfect the septum of the vaccine vial. Unpack the CODAN MicroSpike and check for any damage. Remove the protection cap of the spike tip.

Piercing the vial

Centrally insert the CODAN MicroSpike in a straight position into the septum of the vaccine vial.

2



Preparing the dilution

Take the mixing solution, disinfect the injection port according to the manufacturers instructions and withdraw the required amount of mixing solution with a syringe (e.g. 2 ml) according to the instructions.

3



Dilution

Remove the closure cap from the CODAN MicroSpike. Connect the syringe, filled with necessary amount of mixing solution and inject the fluid into the vial. Draw up 1 ml of air by lifting the syringe plunger. Push the plunger down again so that the complete solution is inserted back into the vial. The 0.2 µm air filter in the CODAN MicroSpike will equalise the pressure.

4



Mixing

Now dilute the vaccine and the mixing solution according to the instructions of the vaccine manufacturer SPC (Summary of Product Characteristics).

5



Ready for withdrawing the doses

Disconnect the syringe from the CODAN MicroSpike and dispose of it accordingly. The vial is now prepared for the withdrawal of the patient doses.



Disclaimer:

This poster is a recommendation of the manufacturer. The responsible persons are advised to check and adapt this recommendation to in-house guidelines where necessary. CODAN cannot be held responsible for mistakes during preparation or administration. The used products have to be disposed of correctly. Specially marked containers should be used if necessary. Local regulations must be observed. Accepted good hygiene measures and working practices should be followed at all times. This poster is a general example with basic steps. The entire specifications of the manufacturers for handling the different vaccines must be taken into account.



6



Withdrawing a dose I

Connect a patient-dedicated syringe horizontally to the CODAN MicroSpike adapter. Hold the vial upside down and withdraw a small quantity of vaccine into the syringe. Any air left in the syringe shall be inserted back into the vial. * Keep the vial upside down. Insert the air back into the vial until no more bubbles appear in the vaccine vial.

* This usually occurs only with the first dose of the vial.

7



Withdrawing a dose II

Withdraw vaccine into the syringe until air bubbles appear in the vial (the syringe now holds more medication than needed).

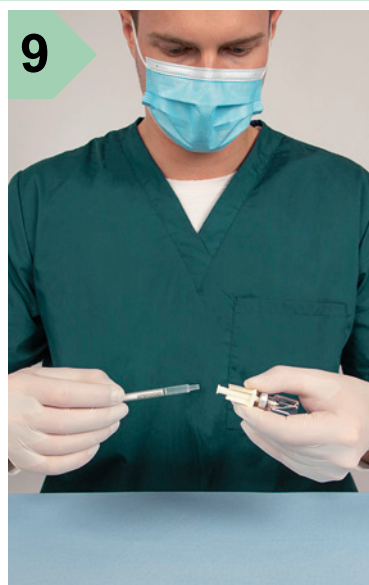
8



Dosing quantity

Turn the vaccine vial around and inject the excess vaccine back into the vial until the required quantity for a dose is reached.

9



Disconnecting

Now disconnect the syringe from the CODAN MicroSpike in horizontal position.

10



Preparing for vaccination

Put the vial aside and connect the syringe to the injection needle. Take a new syringe for the next patient dose and withdraw the necessary amount. Ensure that there is no air in the syringe (see step 6). Proceed until all required doses are prepared.

11



Injection

The syringe is now ready for injection to the patient.



CODAN Worldwide



CODAN is known internationally as a manufacturer and supplier of medical transfer systems. The CODAN Companies have more than 1500 employees around the world.

The name CODAN is synonymous with reliability, quality and precision based on the know-how and experience gained from more than 60 years of research and development. Company-owned production facilities and sales companies around the world are a guarantee for efficient production, a tight-knit sales network and a first-class service for customers in the healthcare sector.

CODAN Product range

- Infusion sets
- Transfusion sets
- Extension lines and manifold connectors
- Infusion and transfusion accessories
- Infusion filters and filter systems
- Neonatology/Paediatric products
- Withdrawal, preparation and administration systems
- CODAN CYTO®
- Chemoprotect® products
- Single use syringes
- Invasive blood pressure monitoring systems
- Infusion pumps
- Other CODAN Products

Compliance of the established quality management systems with the provisions of EN ISO 13485 and the Council Directive 93/42/EEC has been certified by the relevant, competent notified bodies:

TÜV SÜD Product Service GmbH

CODAN Medizinische Geräte GmbH
23738 Lensahn, Germany

CODAN pvb Critical Care GmbH
85661 Forstinning, Germany

CODAN US Corporation · Santa Ana, CA 92704, USA

CODAN ARGUS AG · 6340 Baar, Switzerland

Presafe Denmark A/S

CODAN Medical ApS · 4970 Rødby, Denmark

CODAN Companies

CODAN Medizinische Geräte GmbH · Deutschland

CODAN pvb Critical Care GmbH · Deutschland

CODAN pvb Medical GmbH · Deutschland

CODAN 11, S.A. · Portugal

CODAN US Corporation · California · USA

CODAN Inc. · California · USA

CODAN NORGE AS · Norge

CODAN TRIPLUS AB · Sverige

CODAN Limited · Great Britain

CODAN FRANCE Sarl · France

CODAN Medical AG · Schweiz

CODAN ARGUS AG · Schweiz

CODAN BV · Nederland

CODAN s.r.l. · Italia

CODAN Medical GmbH · Österreich

CODAN Medical ApS · Danmark

CODAN DEHA ApS · Danmark

CODAN MEDITECH s.r.o. · Česká republika

Manufacturer

CODAN Medizinische Geräte GmbH

Stig Husted-Andersen Straße 11 · 23738 Lensahn, Germany

Tel. +49 (0) 43 63 · 51 11 · Fax +49 (0) 43 63 · 51 12 14

codan@codan.de · www.codancompanies.com



The decisive connection