Check Cyto-Ad Z®
Suspend the fluid bag or bottle on the infusion stand. Unpack the CODAN Cyto-Ad Z® and check for potential damage. Check the Female Luer-Lock connections and tighten if necessary.

Priming the set
Close the roller clamp on the CODAN Cyto-Ad Z®. If bags are being used, close the venting cap of the pricking device but leave it open if bottles are used. Connect the pricking device to the infusion container. Incline the drip chamber at an angle of 180° and slowly open the roller clamp. Fill the drip chamber, then hang in the normal position, filling the remainder of the set. The FlowStop in the protection cap allows the air to escape and the system can easily be completely primed. Close the roller clamp again.

Connecting the Connect Z®
Have a prepared Connect Z® ready for use and check for identity, integrity and closed slide clamp. If the infusion is already running, connect the Connect Z® to one of the connections of the Cyto-Ad Z®. Close the upper pinch clamp of the Cyto-Ad Z® and open the slide clamp of the Connect Z®. Only the cytostatic unit is administered, the main line remains closed in order to prevent a return of cytostatics. The administration rate is set as usual via the roller clamp of the Cyto-Ad Z® (see Fig. 4).

If required (or where necessary) the Cyto-Ad Z® can be extended with a 3-way stopcock and/or an I.V. filter extension. Also, as all CODAN Products designed for this purpose are made of PVC tubing with the plasticiser TOTM, it allows administration of specific cytotoxics.

Do not disconnect the Connect Z® during and after the infusion in order to maintain the closed system.

Administration
When the medication dose is completed, open the upper pinch clamp of the Cyto-Ad Z® and rinse the system with about 100 ml basic solution (if not stated otherwise).

If further cytostatic units are to be administered, repeat the process as described in Fig. 3. The system is then rinsed with about 100 ml of basic solution (if not stated otherwise). Close the roller clamp, remove the Cyto-Ad Z® from the catheter and dispose of the entire device.
The design aim is compliant with health and industrial safety directives.

**Preparation:**
Remove the Connect Z®, Chemoprotect® Spike (CODAN Spike), Male Luer-Lock single use syringe, vial with medication and infusion bags from the packaging and position them ready for use.

1. **Priming the Connect Z®**
   Push the pricking device of the Connect Z® into the corresponding connection of the infusion bag. Prime under gravity conditions. The filter in the FlowStop protection cap allows the air to escape and fluid is retained.

2. **Closing the slide clamp**
   Close the tube with the slide clamp a finger's breadth below the closure-pricking device.

3. **Filling the syringe**
   Disconnect the protection plug and keep it safe. Connect the Male Luer-Lock syringe to the needle-free adapter of the Connect Z® and transfer the required amount of fluid into the syringe in order to dissolve the dry substance. The mechanism of the needle-free adapter opens when the syringe is connected. The system is closed again when the syringe is disconnected from the adapter.

   The design aim is compliant with health and industrial safety directives.

**Preparation:**
Remove the Connect Z®, Chemoprotect® Spike (CODAN Spike), Male Luer-Lock single use syringe, vial with medication and infusion bags from the packaging and position them ready for use.

4. **Pricking the vial**
   Push the Chemoprotect® Spike through the septum of the vial. The pressure compensation is made via the 0,2 µm air-venting filter.

5. **Dissolving the dry substance**
   Connect the syringe to the Chemoprotect® Spike and inject into the vial, placed in a vertical position. Leave the syringe on the Chemoprotect® Spike. The excess pressure in the vial is reduced by the 0,2 µm air filter in the Chemoprotect® Spike. Toxic aerosols are reliably retained. Now carefully dissolve the dry substance in the substance by circular motion (do not shake!).

6. **Disconnecting the syringe**
   Separate the syringe from the Chemoprotect® Spike in a horizontal position. Close the protection cap of the Chemoprotect® Spike.

7. **Transferring medication into the bag**
   Connect the syringe to the needle-free adapter of the Connect Z® in a horizontal position. Next, inject the entire amount of fluid as shown in the illustration. The 2-3 ml of air remain in the syringe. After this, draw approximately 20% of the injected quantity into the syringe again in order to achieve a better mixing. Then inject the fluid back into the bag. Finally, the air in the syringe is expelled into the system in order to remove the cytostatics from the needle-free adapter.

8. **Preparation complete**
   The connection adapter of the Connect Z® is firmly closed with the protection plug. The tubing of the Connect Z® system is now completely filled with neutral solution. The medication in the bag is safely locked by the closed slide clamp. Label the cytostatic unit and pack ready for transport.

9. **Connect Z® Clip**
   The Connect Z® Clip adds safety as it secures the connection between spike and certain solution bags.
Safe preparation of cytotoxic drugs

1. **Priming**
   - Push the pricking device of the Connect Z® into the corresponding connection of the infusion bag.
   - Prime under gravity conditions. The filter in the FlowStop protection cap allows the air to escape and fluid is retained.

2. **Closing the slide clamp**
   - Close the tube with the slide clamp a finger's breadth below the closure-pricking device.

3. **Filling the syringe**
   - Disconnect the protection plug and keep it safe. Connect the Male Luer-Lock syringe to the needle-free adapter of the Connect Z® and transfer the required amount of fluid into the syringe in order to dissolve the dry substance.
   - The mechanism of the needle-free adapter opens when the syringe is connected. The system is closed again when the syringe is disconnected from the adapter.

4. **Pricking the vial**
   - Push the Chemoprotect® Spike through the septum of the vial. The pressure compensation is made via the 0.2 µm air-venting filter.

5. **Filling the syringe**
   - Disconnect the protection plug and keep it safe. Connect the Male Luer-Lock single use syringe, vial with medication and infusion bags from the packaging and position them ready for use.

6. **Dissolving the dry substance**
   - Connect the syringe to the Chemoprotect® Spike and inject into the vial, placed in a vertical position. Leave the syringe on the Chemoprotect® Spike.
   - The excess pressure in the vial is reduced by the 0.2 µm air filter in the Chemoprotect® Spike. Toxic aerosols are reliably retained.
   - Now carefully dissolve the dry substance in the substance by circular motion (do not shake!).

7. **Disconnecting the syringe**
   - Separate the syringe from the Chemoprotect® Spike in a horizontal position. Close the protection cap of the Chemoprotect® Spike.

8. **Filling the syringe**
   - Invert the vial with dissolved medication and fill with approximately 20% of the required amount of fluid. Check for air in the syringe. Provided there is none, fill up to the exact amount required. If there is some air, it must be expelled by carefully pushing back the plunger until no more bubbles rise up in the medication ampoule. Afterwards, continue to fill to the required amount of fluid. The pressure compensation is made via the 0.2 µm venting filter (rising air bubbles). Before disconnecting the syringe, draw about 2-3 ml of air into the syringe.

9. **Transferring medication into the bag**
   - Connect the syringe to the needle-free adapter of the Connect Z® in a horizontal position. Next, inject the entire amount of fluid as shown in the illustration. The 2-3 ml of air remain in the syringe. After this, draw approximately 20% of the injected quantity into the syringe again in order to achieve a better mixing.
   - Then inject the fluid back into the bag. Finally, the air in the syringe is expelled into the system in order to remove the cytostatics from the needle-free adapter.

10. **Preparation complete**
    - The connection adapter of the Connect Z® is firmly closed with the protection plug. The tubing of the Connect Z® system is now completely filled with neutral solution. The medication in the bag is safely locked by the closed slide clamp. Label the cytostatic unit and pack ready for transport.

11. **Connect Z® Clip**
    - The Connect Z® Clip adds safety as it secures the connection between spike and certain solution bags.
Check Cyto-Ad Z®
Suspend the fluid bag or bottle on the infusion stand. Unpack the CODAN Cyto-Ad Z® and check for potential damage. Check the Female Luer-Lock connections and tighten if necessary.

Priming the set
Close the roller clamp on the CODAN Cyto-Ad Z®. If bags are being used, close the venting cap of the pricking device but leave it open if bottles are used. Connect the pricking device to the infusion container. Incline the drip chamber at an angle of 180° and slowly open the roller clamp. Fill the drip chamber, then hang in the normal position, filling the remainder of the set. The FlowStop in the protection cap allows the air to escape and the system can easily be completely primed. Close the roller clamp again.

Connecting the Connect Z®
Have a prepared Connect Z® ready for use and check for identity, intactness and closed slide clamp. If the infusion is already running, connect the Connect Z® to one of the connections of the Cyto-Ad Z®. Close the upper pinch clamp of the Cyto-Ad Z® and open the slide clamp of the Connect Z®. Only the cytostatic unit is administered, the main line remains closed in order to prevent a return of cytostatics. The administration rate is set as usual via the roller clamp of the Cyto-Ad Z® (see Fig. 4).

Administration
When the medication dose is completed, open the upper pinch clamp of the Cyto-Ad Z® and rinse the system with about 100 ml basic solution (if not stated otherwise). If further cytostatic units are to be administered, repeat the process as described in Fig. 3. The system is then rinsed with about 100 ml of basic solution (if not stated otherwise). Close the roller clamp, remove the Cyto-Ad Z® from the catheter and dispose of the entire device.

Do not disconnect the Connect Z® during and after the infusion in order to maintain the closed system.