

## CAVERJECT INJECTION THERAPY FOR IMPOTENCE

Caverject contains the medication Alprostadil, a naturally occurring prostaglandin. Alprostadil injection into the penis induces erection by relaxation of smooth muscle within the cavernosal arteries resulting in dilation of the arteries and increased blood flow to the penis.

Although initially frightening, self injection therapy is easy to learn. Erection is usually attained 5-20 minutes after the injection and should last for approximately 30-60 minutes. The erection normally will subside following orgasm but this may vary in some individuals. It is important to ensure the penis becomes flaccid again within four hours as prolonged erections can lead to damage of the penile tissue (see priapism).

### Steps:

#### **a. Mixing the medication**

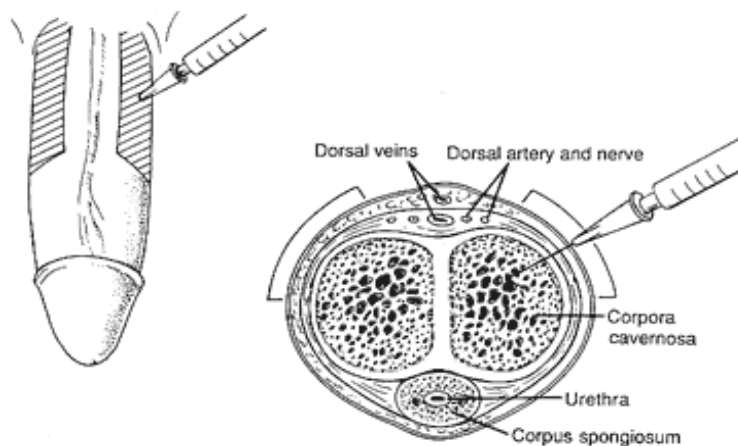
Caverject presents as a glass vial containing a white powder which is the Alprostadil – this will either be provided in a strength of 10mcg or 20mcg. It is accompanied by a syringe filled with a bacteriostatic solution for mixing the product, one needle for drawing up the medication and a smaller gauge needle for administration, also an alcohol wipe to maintain sterility. Caverject powder should be stored at or below 25 degrees Celsius and does not require refrigeration. Once reconstituted the solution should be used immediately. All drugs intended for injection should be inspected visually for particulate matter and discolouration prior to administration.

- Find a nice flat surface to work from and lay down a clean hand towel or tea towel onto the surface and lay out all of your equipment. Wash and dry your hands before using Caverject. If your partner is assisting you, have them wash their hands also.
- Break the white seal on the top of the syringe and remove the grey bung. Holding the syringe carefully in your hand without tipping, remove the foil cap from the top of the large needle and connect to the syringe by twisting clockwise.

- Keep the cover on this needle if you wish to put this down. Flip the plastic cap off of the vial and use one of the alcohol wipes to clean the rubber bung located on top of the vial.
- Holding the syringe like a dart, remove the cap on the needle with your free hand by gripping the cover – push the needle into the rubber bung on the vial using a hard surface to keep the vial stable and depress the plunger to squirt all of the solution into the vial.
- Remove the syringe and recap the needle.
- Shake the vial until all the powder has mixed completely.
- Re-wipe the top of the vial using the same alcohol wipe and re-insert the needle into the vial. Tip the vial upside down ensuring that your needle tip is underneath the level of the liquid and draw the entire contents out into the syringe.
- Ensure the gap in the rubber stopper is facing you so that you can check that you have got all the fluid out.
- Remove all air from the syringe carefully by using the tap method – this has been demonstrated. Keep slowly depressing the plunger until you get a small drop of fluid come out the top of the needle tip – this ensures you have removed all the air.
- Dispose of any medication which you will not be using for this injection by depressing the plunger (you can put this in your household rubbish bin) until the dose required matches the markings on the side of the syringe. IE: 2.5mcg or .25ml =  $\frac{1}{4}$  on the syringe.
- Holding the syringe like a dart again remove the large needle by twisting counter-clockwise and connect the smaller gauge needle using the same process as before (this is the one used for the injection).

## **b. Injection Technique**

- Ensure that both your hands and penis are clean and dry.
- The injection can be performed whilst sitting on a chair or the side of the bed (wherever you feel the most comfortable).
- Withdraw the correct dosage and change needles.
- Clean the injection site with the alcohol prep swab and allow this to evaporate.
- Hold the syringe like a dart, between your index finger and thumb, and remove the needle cap. Keep the needle clean – do not touch it or allow it to touch any other surface prior to drawing up the medication or injecting it into the penis itself.
- Stretch the penis out across the thigh, with the foreskin retracted in uncircumcised men.
- Hold the syringe at a right angle to the skin – see diagram below, and fully insert the needle in one quick motion, at an angle of either 11am or 1pm on a clock face, avoiding any obvious veins that you can see on the surface skin.



- Inject smoothly and slowly into the corpora cavernosa
- Subsequent injections should be alternated between the two cavernosa, allowing at least 24 hours between each dose and no more than three injections in one week
- Once your medication has been administered withdraw the needle and apply pressure directly onto the injection site for 30sec – 1 min.
- If there is any bleeding from the site apply direct pressure for 1 to 5 minutes (this will help to limit any bruising that may occur) before beginning the next phase.
- The entire length of the penis should be squeezed firmly to distribute the medication, followed by the same procedure on the other side.
- The penis should then be pinched transversely in several places to distribute the medication to both ends of the corpus cavernosum.
- Carefully dispose of all needles into a sharps container or a rigid plastic container such as a janola bottle.
- If you have purchased a Daniels container from the chemist you will be able to return this once it is full for them to dispose of. However if you have used a janola bottle you will need to contact your local hospital's diabetic unit to discuss disposal of this with them. Under no circumstances can used needles go into your household rubbish.

#### **c. Dose Titration**

- Dosage titration is commenced at 2.5mcg, if there is a partial response by one hour a further 2.5mcg can be given to provide a total dose of 5mcg.
- When you have reached a dose which provides a good result; i.e. a satisfactory erection, then no further increase in dose is required.

- If there is only a partial response, continue to increase the dose following the dosage schedule listed below.
- It is important to allow at least 24 hours between doses, with a maximum of three injections per week – regardless of the result of the injection.
- Once the correct dose has been established, avoid increasing the dose without consulting medical advice as this risks priapism (prolonged erection) which may result in the need for hospitalisation.

Caverject can be re-ordered by contacting your GP once you have reached the dose which gives you a reliable erection suitable for intercourse. If you have any queries feel free to contact me via email [megan.newth@wakefield.co.nz](mailto:megan.newth@wakefield.co.nz)

DOSE	DATE	TIME	EFFECT	DURATION
2.5 mcg = . 25ml				
5.0 mcg = . 5ml				
10.0 mcg = 1ml				
15.0 mcg = . 75ml				
20.0 mcg = 1ml				

**Important guidelines:**

- Maximum dose is one injection per 24 hours and no more than three injections in one week.
- Contact the clinic if your erection lasts more than one hour as some dose adjustment may be necessary.
- Obtain a letter from your GP or from Urology Care Wellington when travelling overseas with this medication.

- Do not store Caverject in checked luggage during air travel. Temperature of this medication should remain below 25 degrees celcius.
- Dose re-adjustments may be necessary if the quality of your erection is affected.
- Notify your GP when you commence treatment with Caverject as some medications may be affected by Caverject or can affect how well they work and therefore may need dose adjustments.
- Caverject is designed as a single use device and should only be used to administer one dose and then be discarded appropriately

### **WARNINGS AND PRECAUTIONS**

#### **PRIAPISM**

This is an erection which persists beyond 6 hours. If your erection is still evident at three hours, specific steps must be taken to reverse it. Prolonged erection can lead to permanently damaged tissues within the penis.

#### **Steps to take to deal with Priapism:**

1. Empty your bladder.
2. Take a brisk walk or climb some stairs – followed by a warm bath or shower. Do not masturbate as this encourages blood to the penis.
3. If the erection persists, make contact with your urologist or just present to the emergency department at your closest Public Hospital for further management.
4. The risk of priapism is significantly reduced by sticking to the initial dosage schedule and not increasing dosage without notifying your provider.
5. It is very important to seek medical treatment as soon as possible if the above initial measures do not reverse the erection.
6. Hospital treatment involves an injection of an antidote and drainage of blood from the penile tissues.

## BRUISING

This can be minimised by a good technique and avoiding any obvious skin veins. Apply pressure for 30 seconds to a minute to the injection site after withdrawal of the needle. If you are taking aspirin or any anticoagulants you need to allow an increased period of time to apply direct pressure.

## PAIN

Painful penile injections are rarely associated with the needle but are more commonly associated with the drug prostaglandin found in Caverject.

## FIBROSIS

Penile fibrosis can occur after prolonged use or incorrect use of the therapy, you can help to avoid this by ensuring that your injection technique is good and you are injecting into the intracavernosal space rather than subcutaneous. From time to time your GP should inspect the injection sites to detect any abnormal thickening of the skin or the tissue of the penis.

Penile angulations, fibrotic nodules and Peyronies disease

All may occur following long-term use of intracavernosal administration of Caverject. These signs will need to be monitored by regular examination of the penis.

## Bleeding

Because a small amount of bleeding may occur from the injection site patients need to be aware of protective measures to guard against the spread of sexually transmitted diseases – including HIV and other blood borne diseases.

## Anticoagulants

Patients on anticoagulants need to apply extra pressure to the injection site as they will have an increased propensity for bleeding.

## Pregnancy

If your partner is pregnant the use of this drug may be contraindicated. See obstetrician for advice.

### **SIDE EFFECTS**

Mild to moderate penile pain on injection

Penile fibrosis including angulation

Fibrotic nodule development

Peyronies disease

Haematoma

Prolonged erection – if an erection lasts for longer than four hours then seek urgent medical advice at Urology Care Wellington or Wellington Hospital

### **QUESTIONS OR QUERIES**

These can be answered by contacting the Pfizer support line on 0800 675 229 or by contacting us here at the clinic on 04) 381 8120 or alternatively by sending me an email directly.