

Instructions for use for RayPilot® HypoCath® 1004

Introduction

Please read these instructions carefully before using the product. The instructions contain important information for correct handling of the RayPilot® HypoCath®.

Limitations

The RayPilot® HypoCath® is a Prescription Device (Rx only) and may only be inserted and removed by educated healthcare professionals.

RayPilot® HypoCath® is only intended for use with the RayPilot® System.

RayPilot® HypoCath® 1004 can be connected to the RayPilot® System 2020.

Manufacturer and identification

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Classification and compliance



The product complies with directive 93/42/EEC

IP57

The product is IP classed according to IEC 60601

Intended use

The RayPilot® System is intended for use as an adjunct in treatment planning and radiation therapy, to align and monitor the patient's position relative to the isocenter of a linear accelerator. The RayPilot® System provides accurate, precise, and continuous localization of a treatment isocenter by using RayPilot® HypoCath®, a transmitter located within one lumen of a urinary catheter, for prostate localization and tracking, and for automatic patient identification.

The device is limited for use to patients who both have prostate cancer and that would also be reasonably expected to require a urinary catheter for the duration of the radiation treatment, for example due to bladder outlet obstruction or patients who require a chronic indwelling Foley catheter.

Product description

The RayPilot® HypoCath® is a sterile single-use product. It is a three-lumen Foley catheter made of silicone with a transmitter inserted in one of the lumens. The RayPilot® HypoCath® has a drainage lumen, which also permits reproducibility of the bladder filling, and a balloon inflation channel. It has an integrated balloon towards the tip of the catheter and a funnel with an inflation valve at the bottom of the catheter.

The RayPilot® HypoCath® with its integrated transmitter is an essential part of the RayPilot® System. The transmitter in RayPilot® HypoCath® transmits a signal to the RayPilot® receiver. The position of the transmitter is determined and displayed in the user interface of the RayPilot® software. The RayPilot® HypoCath® is equipped with an electrical jack that connects to the RayPilot® Receiver. The jack contains an ID chip that provides a unique ID number to be assigned to one patient for every RayPilot HypoCath®. This jack must not be connected to anything else.

Product Specification

Balloon fill volumes are 10-40 ml and the shaft size is 16 French (Fr.), Charrière (Ch.), which is indicated on the funnel of each catheter. The length of the RayPilot® HypoCath® is approximately 42 cm. The RayPilot HypoCath® contains a radioopaque barium line that permits identification of the urethra when inserted in a patient.

RayPilot® HypoCath® has been sterilized by Ethylene Oxide (EtO). The expiry date can be found on the sterile pouch and on the outer box. Each RayPilot® HypoCath® is individually supplied in a sterile pouch.

Use

Catheter insertion

1. RayPilot® HypoCath® insertion should always be carried out in accordance with local and national best practice policies. Specific attention must be paid to hand hygiene, aseptic techniques for site preparation, equipment and supplies.
2. Open the RayPilot® HypoCath® package at the end of the connector without removing the whole RayPilot® HypoCath® from its sterile package.
3. Check the function of the RayPilot® transmitter with the transmitter tester. Note that the transmitter tester cannot be sterilized. Protection of the sterile RayPilot® HypoCath® must be taken in consideration prior to the insertion.
4. Prior to insertion, test the balloon inflation and use sterile water or solution of sterile water with glycerine 9:1 for inflation.
5. Lubricate the RayPilot® HypoCath® with a suitable water-soluble lubricant.
6. Pass the deflated catheter through the urethra and into the bladder.
7. Guide the catheter gently 5-8 cm beyond the point at which urine begins to flow. The rationale for inserting the RayPilot® HypoCath® further into the bladder ensures the balloon of the RayPilot® HypoCath® is beyond the neck of the bladder.
8. Connect a syringe containing sterile media to the Luer of the inflation lumen of the RayPilot® HypoCath®.
9. Use the syringe to fill the balloon.
10. Retract the catheter until you feel resistance of the balloon against the bladder wall. During treatment the RayPilot® HypoCath® shall be fixed according to clinical procedure at the urethra opening, for example on the patient leg.
11. For final adaptations of the transmitter position the filling of the balloon can be adjusted by inflating the balloon differently. This allows the user to position the transmitter more proximal to the bladder by inflating the balloon within the specified volumes.
12. Connect the funnel drainage lumen to a drainage bag and assure good drainage of the catheter.
13. The RayPilot® HypoCath® is now ready to use.
14. For further information about the use of the RayPilot® system, see the IFU for the RayPilot® system.

RayPilot® HypoCath® catheter maintenance throughout treatment

The health care provider shall check for signs and symptoms of infection regularly, at least every radiation therapy fraction.

Hand hygiene shall be performed immediately before and after any manipulation of the RayPilot® HypoCath®.

Retract RayPilot® HypoCath® to ensure the balloon against the bladder wall prior to each treatment.

Replacement of urine collection system shall be performed according to local and national best practice policies.

Health care provider must ensure patient is instructed on the relevant content for catheter care and maintenance according to this Instructions for use.

Check the RayPilot® HypoCath® at all treatment sessions to ensure that the balloon volume is maintained.

1. Completely drain/aspirate the sterile medium from the balloon while the RayPilot® HypoCath® is held in position in the bladder.
2. Replace the required volume with new sterile medium to the balloon lumen.
3. Remove the RayPilot® HypoCath® immediately at the completion of the patient's total treatment.

In case the treatment is longer than 30 days, the RayPilot® HypoCath® needs to be replaced.

The RayPilot® HypoCath® is MR Unsafe. Please note that MRI scans during use of the RayPilot® HypoCath® may introduce local artefacts.

Reproducibility of bladder filling during treatment

During treatment the bladder can be filled with specified amount of liquid in order to reproduce the bladder filling that was present at the time of the planning CT. This is performed by first emptying the bladder, and thereafter filling with sterile water. The flow rate should be 100 - 150 ml/min. The filling before the urge of emptying occurs, varies a lot between patients and depending on patient age. The filling should not exceed 300 ml.

Catheter removal

1. The balloon must be completely deflated before RayPilot® HypoCath® removal.
2. Do not cut the RayPilot® HypoCath® or inflation channel to deflate the balloon.
3. Deflate the balloon by inserting the Luer tip of an empty syringe into the valve and aspirating the solution completely.
4. Remove the RayPilot® HypoCath® following accepted medical techniques.
5. Discard the RayPilot® HypoCath® according to hospital policy.

The length of time of the RayPilot HypoCath patient indwelling should be limited by the treatment protocol and it should be removed as soon as the treatment with RayPilot system is finalized.

Environmental conditions

The environmental conditions are only relevant for use and storage since the HypoCath® function is tested before use.

Temperature

The device is considered safe at temperature, +10°C to +40°C.

Humidity

The device is considered safe at relative humidity level of 30% to 75%.

Pressure

The device is considered safe at an atmospheric pressure range of 70,00 kPa to 106,0 kPa.

Contraindications

The RayPilot® HypoCath® should not be used for patients with known allergy to silicone, or if the patient is oversensitive to gold.



Warnings

- Do not use the RayPilot® HypoCath® if sterile packaging is breached or damaged.
- The RayPilot® HypoCath® is single use only. Do not re-sterilize or reuse after removal.

Cautions

The RayPilot® HypoCath® is a Prescription device (Rx only) and must only be used by trained and experienced professionals.

A medical doctor must evaluate the suitability for the patient to be treated with radiation and the use of the RayPilot® System and RayPilot® HypoCath®.

The indwelling of the RayPilot® HypoCath® shall be as short as permitted by the radiation therapy treatment protocol in order to reduce the likelihood of infection.

The RayPilot® HypoCath® must be lubricated with a water-soluble lubricant prior to insertion using accepted medical techniques.

Caution should be taken when the RayPilot® HypoCath® is difficult to insert (e.g. patients with urethral stricture)

A Luer syringe must be used to inflate the balloon.

Do not overinflate the balloon.

If the catheter or transmitter is mechanically broken, make sure all material is removed.

















Do not clamp the catheter shaft, this may damage the inflation lumen.

The RayPilot® HypoCath® is MR Unsafe. Keep it outside the MRI scanner room.

Potential complications

The patient can get urinary tract infection.

Symbols on the package

	Intended for single-use
	Sterilized with ethylene oxide
	Manufacturing batch
	Expiry date (YYYYMM)
	Read the user instructions
	Manufacturer
	Date of manufacture
	Item number
	Do not use this product, if the packaging is damaged
	This product complies with the WEEE directive
	Keep away from moisture
	Protect against sunlight
	Applied part type CF
	The RayPilot® HypoCath® is MR Unsafe. Keep it outside the MRI scanner room.
	Prescription use only
	Unique device identifier