Taichung Armed Forces General Hospital
Percutaneous Nephrostomy Information

This information sheet shall be kept by patient (or patient's family)

經皮穿腎造口引流術說明書

The information provides details about the benefits, risks, and alternative options for the medical procedure you are about to undergo. It can serve as supplementary information for your discussion with your physician. It is important to us that you fully understand what is described in this file, so please read it carefully. If you still have questions after your doctor has explained the examination to you, please discuss your questions sufficiently with your doctor before you sign the form. Your doctor will be happy to answer your questions. Let's work together for your health.

Introduction to percutaneous nephrostomy

Percutaneous nephrostomy is a procedure in which a catheter is inserted through the skin into the urine collecting system of kidneys such as the renal pelvis or calyces under the guidance of fluoroscopy, ultrasound, or CT to provide external drainage as a treatment. The following conditions warrant consideration of this procedure:

- Hydronephrosis (water in the kidney) or pyonephrosis caused by blockage in the renal pelvis and ureter.
- Temporary diversion required for the treatment of urinary tract rupture or leakage.
- Pressure relief for renal or perirenal fluid collections, such as cysts, abscesses, or urinomas.
- Non-dilated obstructive uropathy.
- Creation of an access port for insertion of special devices in future procedures like stone extraction, biopsy, dilation of ureteral strictures, or stent placement.
- Creation of a port for treating complications of kidney transplantation, such as ureteral obstruction or leakage.
- Creation of a port for direct infusion of special medications, including solutions to dissolve stones, antibiotics, anticancer drugs, or antifungal drugs.

Precautions before examination

- You must be hospitalized to undergo the procedure.
- Your must fast for 6-8 hours before drainage.
- Please read the instructions carefully and complete the Percutaneous Nephrostomy Consent Form and the Contrast Agent Injection Consent Form.

Precautions during examination

- You will be in a prone position throughout the procedure. The needle will be inserted from the left or right side of the back depending on the location of the lesion.
- To confirm the correct placement of the catheter, a small amount of contrast will be injected into the tube for fluoroscopic imaging.
- There may be some discomfort or pain during the insertion of the tube. The doctor may administer pain relief medication if necessary to alleviate your pain or discomfort.
- The procedure duration will vary depending on the patient's condition, generally taking between 30 and 60 minutes.

Precautions after examination

- Always ensure the catheter remains patent and monitor the volume and color of the drainage output. If there are any abnormalities, please immediately ask a nurse of the ward to inform the responsible doctor for prompt treatment.
- The drainage bag should be secured to the same side of your upper body clothing, never to pants or the edge of the bed, to prevent the tube from being pulled out during clothing changes or repositioning.

Patients with any of the following conditions are not suitable for this procedure

- Abnormal coagulation function.
- Uncontrolled high blood pressure greater than 190/110.
- Congenital renal vascular abnormalities.

Benefits of the procedure (The following benefits may be gained through this procedure, but the doctor cannot guarantee that you will gain any of them; the decision between benefits and risks should be made by you.)

Percutaneous nephrostomy can provide an external drainage pathway for the renal collecting system in cases where normal urination is not possible. The success rate of the procedure depends on the underlying cause, but generally ranges from 95% to 100%.

Possible complications:

Percutaneous nephrostomy has a success rate of 95-98% for dilated ureters, but it is an invasive procedure that carries risks. Some patients may experience the following discomforts and complications during or after the procedure:

1. Major complications, accounting for approximately 4% of the literature:
   (a) Mass bleeding, requiring surgical intervention or embolization to stop: 1%.
   (b) Pneumothorax: 1%.
   (c) Death due to massive bleeding: <0.2%. (d) Peritonitis: Rare.
2. Minor complications, accounting for approximately 15% of the literature; usually not associated with sequelae.
   (a) Microscopic bleeding: Very common.
   (b) Gross bleeding (usually resolves within 24-48 hours): Rare.
   (c) Pain: Common.
   (d) Perirenal bleeding (rare): Retroperitoneal hemorrhage (with clinical symptoms, not by imaging): 13%.
   (e) Urinary leakage: <2%.
   (f) Catheter-related issues: Catheter blockage, improper placement, displacement, or breakage: 12%.
   (g) Complications due to bacterial infections: 1.4-21% of incidence. 45% of patients with residual ureteral stones developing infections after tube placement.
   (h) Catheter hardening due to prolonged indwelling, and the curling part at the end cannot be straightened and makes removal difficult.

Alternative options

Depending on the disease, there may be other procedures available, including open abdominal surgery; however, these may not always be feasible. If you have concerns about this procedure, please discuss other possible options and associated risks with your doctor.

Taichung Armed Forces General Hospital
Percutaneous Nephrostomy Consent Form

* Basic Information

Patient Name_____

Patient Date of Birth_____YYYY_____MM_____DD

Patient Medical Record No._____

Name of Attending Physician_____

I. Examination (procedure or treatment) planned (provide brief explanation if not familiar with the medical terms)

1. Disease name:
2. Name of examination (procedure or treatment) planned:

☐ PCN ☐ PCND ☐ Other

3. Reason for planned examination (procedure or treatment)

II. Physician statement

1. I have explained the examination (procedure or treatment) to the patient in ways as comprehensible as possible to provide the patient with the relevant information, particularly the following:

☐ Reason why the examination (procedure or treatment) must be performed, method and site of the examination (procedure or treatment), and risks of the examination (procedure or treatment).

☐ Examination (procedure or treatment) complications and possible management methods.

☐ I have clearly informed the patient of the potential allergic reactions to the contrast agent.

☐ Patients with any of the following conditions have an increased risk of allergy. Heart, lung, and vascular diseases (impaired cardiac function, hypertension, arteriosclerosis and emphysema). Cirrhosis, liver dysfunction. Kidney dysfunction, uremia. Asthma. Diabetes mellitus for five years or longer. History of allergies (including reactions caused by the injection of iodine-based contrast agents, and allergies to food, other medications, pollen, or other allergens). A senior age with poor physical condition (72 years or above). A young age (infants or small children of two years or younger).

☐ I have given the patient any other information available related to the treatment. 2. I have provided the patient with adequate time to ask the following questions about the examination (procedure, treatment) and I have answered the questions:

(1) ----------

(2) ----------

(3) ----------

Signature of attending physician: Date: YYYY MM DD

Time: hh mm

III. Patient statement

1. The doctor has explained to me and I have understood the information related to the necessity, steps, risks and success rate of the examination (procedure or treatment).
2. The doctor has explained to me and I have understood the possible prognosis of the examination (procedure or treatment) and risks if the examination is not performed.
3. I understand that during the examination (procedure or treatment), if an organ or tissue is removed for the purpose of the examination (procedure or treatment), it will be kept in the hospital for a period of time for tests and reporting, and will then be disposed of carefully according to the law.
4. understand that this examination (procedure or treatment) may be the best option now.

Based on the above statement, I hereby give my consent to this examination (procedure or treatment).

Statement by woman of childbearing potential: The doctor has clearly informed me of the risks this examination may pose to a pregnant woman and the fetus.

Signature:_____

Consenter Signature: Relationship to patient:

Address: Telephone:

Date: YYYY MM DD Time: hh mm

Witness: Signature:

Date: YYYY MM DD Time: hh mm

Notes:

I. If the consenter is not the patient, the relationship to the patient should be indicated in the "Relationship to patient" field.

II. The fields for the witness may be left blank if no witness is available.

III. If the patient is a minor, a legal representative should sign the consent form.

IV. Possible complications:

Percutaneous nephrostomy has a success rate of 95-98% for dilated ureters, but it is an invasive procedure that carries risks. Some patients may experience the following discomforts and complications during or after the procedure:

1. Major complications, accounting for approximately 4% of the literature: (a) Mass bleeding, requiring surgical intervention or embolization to stop: 1%. (b) Pneumothorax: 1%. (c) Death due to massive bleeding: <0.2%. (d) Peritonitis: Rare.
2. Minor complications, accounting for approximately 15% of the literature; usually not associated with sequelae (a) Microscopic bleeding: Very common. (b) Gross bleeding (usually resolves within 24-48 hours): Rare. (c) Pain: Common. (d) Perirenal bleeding (rare): Retroperitoneal hemorrhage (with clinical symptoms, not by imaging): 13%. (e) Urinary leakage: <2%. (f) Catheter-related issues: Catheter blockage, improper placement, displacement, or breakage: 12%. (g) Complications due to bacterial infections: 1.4-21% of incidence. 45% of patients with residual ureteral stones developing infections after tube placement. (h) Catheter hardening due to prolonged indwelling, and the curling part at the end cannot be straightened and makes removal difficult.

V. Alternative options:

Surgery, which may not be feasible. If you have concerns about this procedure, please discuss other possible options and associated risks with your doctor.

Radiology Department of Taichung Armed Forces General Hospital Contrast Agent Injection Consent Form

Examinations involving the intravenous injection of a contrast agent utilize the contrast's effect on the area to be examined to enhance and improve the visibility of the organs or lesions under examination to reach a diagnosis. Conventional ionic iodine-based contrast agent may cause allergic reactions in a small number of patients (the incidence of allergic reactions is 10%). Symptoms include nausea, vomiting, skin rashes, itching, and in a few severe cases, shock or even sudden death (the reported mortality rate is approximately 1 in 100,000, according to international statistics). However, if you have any of the following conditions, you have a significantly increased risk of allergy.

☐ 1. Heart, lung, and vascular diseases (impaired cardiac function, hypertension, arteriosclerosis and emphysema).

☐ 2. Cirrhosis, liver dysfunction.

☐ 3. Kidney dysfunction, uremia.

☐ 4. Asthma.

☐ 5. Diabetes mellitus for five years or longer.

☐ 6. History of allergies (including reactions caused by the injection of iodine-based contrast agents, and allergies to food, other medications, pollen, or other allergens).

☐ 7. A senior age with poor physical condition (72 years or above).

☐ 8. A young age (infants or small children of two years or younger).

☐ 9. Critical illness.

If you have any of the above conditions, please indicate a ˇ in the corresponding □

Signature of patient or family:_____

If the patient is a minor, a legal representative should sign the consent form.

※Please read these instructions before deciding to sign the examination consent form※

Date: YYYY MM DD Time: hh mm

Name:_____

ID No.:_____

Date of birth: ___YYYY___MM___DD

Radiology Department of Taichung Armed Forces General Hospital

Pre-Contrast Injection Risk Assessment Form

※ **Please read the following questions first and complete the known ones. The remaining questions will be completed by the doctor in the examination room.**

Have you ever had a history of allergies in the past? Allergy

☐ None

☐ Previous allergy to a contrast agent injected, and the type of allergy is:_

☐ Allergy to food, drug or others, and the type is:___

☐ Not known

Contraindication

☐ None

☐ Severe hyperthyroidism

☐ Severe de-compensated heart failure

☐ Severe hepato-renal dysfunction

☐ Oliguria or anuria

Assessment of high risk conditions

☐ None

☐ Asthma, allergy constitution

☐ Renal dysfunction

☐ Cardiovascular disease

☐ Pulmonary hypertension

☐ Cerebral disease

☐ Thyroid disease

☐ Pheochromocytoma

☐ On metformin for diabetes mellitus

Cre values in last three months:_____(mg/dL)___

Evaluation physician:_____ Date: YYYY MM hh mm