

NORTH HIGHLAND GUIDELINES FOR THE CARE OF A PATIENT WITH A NEPHROSTOMY CATHETER AND CHANGING OF FOLEY NEPHROSTOMY

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Clinical guidelines are guidelines only. The interpretation and application of clinical guidelines will remain the responsibility of the individual clinician. If in doubt contact a senior colleague or expert. Caution is advised when using the guidelines after the review date.



NURSING PRACTICE GUIDELINES

GUIDELINES FOR THE CARE OF A PATIENT WITH A NEPHROSTOMY TUBE AND CHANGING OF FOLEY NEPHROSTOMY TUBE

		page
	CONTENTS	
Α.		
	INTRODUCTION AND INDICATIONS FOR RELIEF OF OBSTRUCTIVE UROPATHY BY	3
	NEPHROSTOMY INSERTION	
В.		
	IMMEDIATE POST NEPHROSTOMY INSERTION CARE ON WARD	4
C.		-
D	POTENTIAL PROBLEMS IN THE DAYS FOLLOWING INSERTION	5
D.		68.7
F		00.7
L .	TRAINING AND COMPETENCE	7
	CARE OF FOLEY CATHETER NEPHROSTOMY IN THE COMMUNITY	-
F.		8&
	DRESSING AND BAG CHANGE	9
G.		
	FORTNIGHTLY BALLOON CHECKS	10
Н.		
	DRESSING AND BAG CHANGES	11
Ι.		
	ELECTIVE CHANGE OF CATHETERS & EXCLUSION CRITERIA FOR CHANGES	12,13
		& 14
J.	PROBLEMS WITH ELECTIVE CHANGES AND OTHER POTENTIAL PROBLEMS	14,15
к		16 &
Ν.	TROUBLESHOOTING	17
L.		
	ESCALATION PLAN AND CONTACT NUMBERS	18,19
M.		19
	REFERENCES	

INTRODUCTION

What is a Nephrostomy Tube?

A nephrostomy tube is initially inserted into the pelvis of the kidney under x-ray control in order to bypass a blockage below. The tube comes out into the lower back. The blockage is usually caused by a stone or tumour within the ureter or bladder, or other pathology extrinsically compressing the ureter causing urine to back up in the kidney. Without this procedure kidney damage can occur.

The tubes are designed to stay in place for a number of months and can be temporary however if the obstruction has not resolved in this time, these tubes can be permanent, usually for palliative reasons or long term management when all else has failed.

Types of nephrostomy catheters

TEMPORARY NEPHROSTOMY

6 and 8FG locking pigtail catheters have a loop that is locked inside the kidney with a thread. This may be secured by:

- a) Winding it around the shaft of the catheter (often hidden by a clear plastic sheath)
- b) Turning a screw built in to the hub
- c) Lever type clamp

The pigtail catheter is secured at skin level with a Drain Guard dressing.

Occasionally Malecot catheters are used which have an expandable flange near the tip and require an obturator for insertion and removal (available from Angio theatre). When discharge planning, confirm with medical staff if the patient is to be discharged with the pigtail catheter or if it is to be changed to a Foley catheter prior to discharge. If discharged with the pigtail nephrostomy, ensure a plan is in place for the next change to be arranged.

LONGTERM

A Foley catheter is used, usually a 16FG secured in the kidney by a balloon containing 2-10mls of water, skin dressings to secure externally and attached to a drainage bag. Where appropriate, a nephrostomy stoma bag and flange can also be used.

Indications for Relief of Obstructive Uropathy by nephrostomy insertion

- A Evidence of obstruction on ultrasound (US), Intravenous Urogram (IVU), Computed Tomography (CT), Magnetic Resonance Imaging (MRI) or nuclear medicine scans
- B Urgent drainage will be considered for patients in cardiac failure, with pyrexia, hyperkalaemia or pain requiring high dose opiate.
- C Obstructive uraemia due to advanced malignancy can be a relatively comfortable way to die and a strategy for managing the terminal phase of malignancy should be considered before requesting drainage.
- D Long term obstruction may have resulted in renal atrophy with thinning of the cortex. These kidneys are less likely to contribute significantly to renal function after drainage and more likely to suffer ureteric stent occlusion.
- E Patients needing chemotherapy for malignancy and should have their renal function optimised as much as possible prior to starting treatment
- F Exclude bladder outflow pathology as cause of obstruction

IMMEDIATE POST NEPHROSTOMY INSERTION MEDICAL AND NURSING CARE ON WARD

Following return from theatre, the patient may need additional antibiotics if pyrexial. Confusion hypotension and rigors would indicate more aggressive investigation with blood cultures, treatment with fluid replacement, antibiotics and possibly inotrope support.

Pain:

Pain is not usually a major problem postoperatively but further analgesia may be necessary.

Drainage:

Several litres of urine can be produced by a kidney following relief of obstruction. Ensure that the drainage bag is secure and emptied frequently.

Haematuria:

Light blood staining is usual. Heavier and persistent blood loss (more blood than urine) is a cause for concern and serial haemoglobins may be needed to assess the quantity and seriousness of blood loss.

Hypotension:

Possible causes include Sepsis and/or Blood loss either into urine or around the kidney. Look for evidence of bleeding into the urine and around the kidney. Ultrasound or CT angiography may be required.

POTENTIAL PROBLEMS IN THE DAYS FOLLOWING INSERTION

Problems in the days following nephrostomy insertion may include:

A dry drainage bag, Urine production ceases – possible reasons (see page 13, 14 for solution):

- Catheter occluded by blood or debris Try flushing the catheter: Clean the
 hub with a Clinell wipe and inject 5 mls sterile saline gently and allow to drain freely.
 Repeat once but do not inject more than 10mls in total. If the nephrostomy fails to drain
 following flushing, this may be due to:
- B Displacement or kinking of the catheter Check the dressings to ensure the catheter is secure. Flushing/Irrigation of saline as above may result in saline bypassing the catheter if it is partially displaced. Flushing/Irrigation is difficult if compression has caused kinking of the catheter. Failure to drain from the catheter suggests displacement. Antegrade pyelogram is required to confirm.
- C Failure to drain may also be due to hypotension or other pre renal cause for decreased urine production.

Leakage of urine – possible reasons:

- A This may be due to catheter blockage or displacement. Flushing the catheter may be helpful. If the catheter is draining but bypassing is persistent, changing to a stoma bag may help to keep the patient dry. Antegrade pyelography may be required to confirm other causes such as catheter kinking (see section on Escalation Plan).
- B Sometimes leakage is due to a split catheter hub where the catheter is attached to the bag.Changing to a stoma bag or a change of catheter are required.
- C Ensure the sleeve covering the Copes loop thread is correctly located to prevent leakage from the thread side-hole (pigtail catheters).

DISCHARGE FROM HOSPITAL

- The inserting radiologist's report in the case notes and on SCI Store will specify the volume of water in the Foley catheter balloon in each kidney. The ward nurses <u>must</u> pass this information on to the patient and community care team.
- The patient or their carer must be trained how to look after the catheter before discharge from the ward. This should include hand-washing, and no touch technique for the weekly change of leg bag if appropriate.
- Enough supplies for one week must be sent home with the patient and must include a size 16 and size 12 catheters so that they are available for immediate use in the event of the foley nephrostomy falling out. Community teams only have patient specific supplies available which are ordered after discharge information is given.
- The discharge IDL must include nephrostomy insertion information and the need for ongoing care to inform the GP and community nursing team. The <u>Patient information leaflet</u> must be given to the patient and points of contact for help identified.
- The Community nurse team must be contacted and informed of the patient name, date of discharge and must include instructions for fortnightly checks for re-inflation of the Foley balloon fluid and the specified volume. They must also be notified of this Nephrostomy Care Document available on the Shared Clinical Guidelines via the intranet.
- The IDL and discharge letter should identify the need for ongoing care with respect to the nephrostomy.
- The nephrostomy history should follow the patient from insertion through hospital stay and to the patient's home to ensure catheter history is accessible; this should be documented on the patient's IDL and on the <u>nephrostomy information leaflet</u> given to take home with the patient.

DISCHARGE SUPPLIES ENOUGH FOR ONE WEEK:

(Choice will depend on dressings and product in use when discharged)

Tegaderm

or Nephrostomy bag and flange

- 1 X Drain Guard (Revolution Dressing on community formulary) for pigtail catheter
- 1 X Stabilization Device for catheter tubing (eg Clinifix)
- 1 x Chloraprep (2% chlorhexidine in 70% isopropyl alcohol wipe)

Size 16 and Size 12 Foley Catheter if discharged with Foley catheter

Spare individualised Drainage Bag i.e. short tube bag / long tube bag or / Manfred Sauer flexi tube bag/ 500ml bags / 750ml bags etc

• Individualised securing strap i.e. Leg Straps / Manfred Sauer retention device used with <u>Manfred Sauer product specific drainage bags for pigtail Nephrostomies</u>. • Discharge supplies should also be accompanied by a current nursing care plan, emergency contact details and supporting patient information leaflet.

Training and competence

<u>All health care professionals in the community undertaking procedures with patient's who have a</u> <u>nephrostomy tube and require changing of Foley nephrostomy tube</u> must have received / attended relevant recognised training and be assessed as competent in line with a competency framework.

CARE OF FOLEY CATHETER NEPHROSTOMY IN THE COMMUNITY

If there are any issues with the discharge of the patient, always contact <u>the discharge ward</u> in particular if there are problems related to the supply of equipment or lack of information about the patient on discharge.

Schedule of Care in the Community

- A home visit should be scheduled on the first day post discharge.
- Treat the nephrostomy site as a wound. See <u>Highland Wound Formulary</u>
- Drainage bags should be changed weekly or if using stoma bag and flange, these should be changed twice weekly.
- Dressings should be changed at least once weekly however should be changed as indicated by wound condition if soiled, wet, worn or, if there is evidence of infection, frequency should be increased.
- <u>Drain guards</u> used with pigtail Nephrostomies are recommended to be changed every seven days however, can be left intact for up to twelve days as long as the site is clean and dry. It may also require to be changed more frequently if the patients' skin condition is moist or there is excess exudate.
- Fortnightly deflation and re-inflation of the Foley balloon with the specified volume of water. (See page 10 for problems with balloon inflation)
- Skin care around site of entry

Prescribing/ Equipment Supplies

Each patient should be discharged with a size 16 and a size 12 Foley catheter as spares these should always be replaced if used so that they are readily available in the patient's home in the event of a

catheter falling out. Catheters should be stored in the original packing and never stored tied with rubber bands.

DRESSING AND BAG CHANGES

Dressings should be changed as indicated by the nephrostomy wound condition. Change the dressings at least daily if there is bleeding, offensive smell or discharge, or the dressings are soiled or wet. Continued discharge, leakage or bleeding is unusual and should prompt investigation for infection or other cause. Please also refer to <u>Highland Wound Formulary</u> for guidance on wound care. Dressings and stabilization devices are available on Formulary and PECOS.

Changing the dressing:

Remove the old dressings by peeling off and cutting carefully avoiding damage to the catheter. Peel the adhesive off the catheter and clean with alcohol wipe / Chloroprep to remove adhesive if necessary. A Drain Guard is the preferred securement for pigtail Nephrostomies as they have been found to reduce the risk of these catheters falling out.

Two types of dressings can be used:

Keyhole swabs.

Cut swabs are placed around the catheter and secured with Primafix. The Primafix should secure the catheter to the skin so that traction on the catheter does not cause displacement. A stabilization device eg Clinifix, should be used to secure the catheter tube.

Clear plastic film dressing:

365 or Tegaderm can be used instead of swabs/Primafix if the entry site is dry which is the preferred dressing for use in the community and is easier for the patient to keep dry during showering. A stabilization device (eg Clinifix) for extra security should also be used. **The emphasis is on securing the catheter to prevent traction causing displacement.**

Stoma or adhesive flange bags:

Patients with stoma or adhesive flange bags should have the bag and flange changed every 4 days to reduce colonisation. The flange aperture may need to be enlarged and the anti reflux inner bag split by inserting a gloved finger into the bag to accommodate a Foley catheter hub.

NEPHROSTOMY SITE INFECTION / DISCHARGE

Evidence of infection may manifest as purulent discharge, palpable swelling below the skin, local skin discoloration, friable granulation tissue or systemic illness as per Cutting and Harding criteria for identifying wound infection (1994). Swab the site, change the dressings daily and bags twice weekly and consider antibiotic therapy. It may be helpful to change the catheter during a course of antibiotics and medical advice should be sought to ensure treated appropriately.

Drainage Bag and securing of Nephrostomy

Patients with pigtail catheters will have a drainage bag attached to the catheter by a length of tubing using a Luer lock connection. Foley catheters will usually have a standard catheter leg bag attached, and as with urethral and Suprapubic catheters, different sizes of bags are available on formulary. The larger bags may be helpful to avoid the need for a night bag however should be emptied frequently to reduce the risk of dislodging the nephrostomy catheter due to the bag being too full and heavy.

The catheter tubing should be secured with a stabilisation device. Velcro straps supplied with the catheter drainage bags can be used for securing to the patients leg. Some patients prefer to tuck the nephrostomy bag into a pocket or underwear; however it should be emphasized it must be secure.

It is essential to avoid traction on the catheter and to reduce the risk of the tubing catching on e.g. furniture and the catheter pulling out.

- Manfred Sauer Nephrostomy drainage system is listed in the Community Formulary and available via prescription. Information about the product and how to fit it is available via this web link: <u>https://www.manfred-sauer.co.uk/nephrostomy.asp</u>
- Patients who are confused or less able to look after the catheter may be better suited to the catheter being inserted into a nephrostomy stoma bag to ensure it is secure. The flange aperture can be enlarged with scissors to accommodate a Foley catheter hub.
- It is recommended that Luer and Foley type drainage bags should be changed weekly and stoma bags should be changed every 4 days.

FORTNIGHTLY BALLOON CHECKS

The Foley balloon needs to be checked fortnightly to ensure the correct volume of fluid remains in the balloon and is replaced if reduced through diffusion to reduce the risk of the nephrostomy tube migrating or falling out.

Equipment:

Sterile water up to 10 ml (patient specific) 1 x Chloraprep (2% chlorhexidine in 70% isopropyl alcohol wipe) 2 x 10 ml sterile syringes Non-sterile gloves Dressing pack Apron

	PRINCIPLE	RATIONALE
1.	Explain the procedure to the patient and gain consent	To ensure the patient is fully informed and consenting to procedure
2.	Sit patient at edge of bed or chair or if not appropriate, lay patient on side or front	To ensure full access to nephrostomy site and patient is comfortable
3.	Apply gloves and empty contents from old bag or pouch in the toilet/sluice.	To prevent leaking and displacement of catheter if bag full.
4.	Wash hands. Apply gloves and prefill syringe with volume of water to required amount documented on discharge information.	To ensure the correct volume is available to be replaced in the Foley catheter balloon immediately.
5.	Clean balloon hub with Chloraprep	To minimise cross infection and to comply with infection control policy (National Infection prevention and control manual 4th April 2014 NHS HPS)
6.	Attach empty syringe to catheter, remove water ensuring catheter is not displaced and replace with prefilled syringe with specific volume of water to be replaced.	To ensure balloon remains in renal pelvis to prevent the Foley nephrostomy dislodging or falling out.
11.	Remove gloves and Apron and wash hands after completing procedure.	To minimize risk of infection and to comply with infection control policy (National Infection prevention and control manual 4th April 2014 NHS HPS).

Best practice

Always ensure the tube is draining before you leave the patient. If no drainage immediately, a return visit or phone call will be required later in the day to confirm. If no drainage after two hours arrange admission.

DRESSING OR NEPHROSTOMY BAG AND FLANGE CHANGES

Equipment:

Dressings or bag and flange as appropriate Non-sterile Gloves x 1, Sterile gloves x 1 Dressing pack Apron

	PRINCIPLE	RATIONALE
1.	Explain the procedure to the patient and	To ensure the patient is fully informed and
	gain consent	consenting to procedure
2.	Sit patient at edge of bed or chair or if	To ensure full access to nephrostomy site and
	not appropriate, lay patient on side or	patient is comfortable
	front	
3.	Apply gloves and empty contents from	To prevent leaking
	old bag or pouch in the toilet/sluice.	
4.	Remove gloves, wash hands and put on	To minimise cross infection and to comply with
	apron	infection control policy (National Infection prevention
		and control manual 4th April 2014 NHS HPS)
5.	Open sterile pack and prepare sterile field	To minimise cross infection and to comply with
	and equipment, wash hands and apply	infection control policy (National Infection prevention
	non-sterile gloves.	and control manual 4th April 2014 NHS HPS)
6.	Remove old dressing or bag and flange.	To prevent infection.
	Clean around the nephrostomy site and	To minimise cross infection and to comply with
	Foley balloon tube with chloraprep.	infection control policy (National Infection prevention
	Remove gloves.	and control manual 4th April 2014 NHS HPS)
7.	Wash hands and apply sterile gloves.	As above
8.	Apply appropriate dressings and drainage	To ensure the site is dressed according to wound
	bag or nephrostomy bag and flange.	condition (Highland Wound Formulary) and
		appropriate drainage appliance is used.
9.	Remove gloves and Apron and wash	To minimize risk of infection and to comply with
	hands after completing procedure.	infection control policy (National Infection prevention
		and control manual 4th April 2014 NHS HPS).
10.	Documentation on completion of	To ensure documented evidence of catheter
	procedure.	change and any problems during procedure

Best practice

Always ensure the tube is draining before you leave the patient. If no drainage immediately, a return visit or phone call will be required later in the day to confirm. If no drainage after two hours arrange admission.

Elective Change of Catheter

A Nephrostomy is a tube inserted percutaneously. The catheter passes through skin, subcutaneous fat, muscle and the renal cortex and the tip lies in the collecting system usually within the renal pelvis. Its function is to allow the drainage of urine if there is an obstruction to the normal urinary pathway. Foley Nephrostomy changes should take place every 12 weeks or as clinically indicated.

After balloon deflation the catheter is withdrawn under aseptic conditions and a fresh 16FG catheter inserted after lubricating with Lignocaine gel. Care is taken to advance to the same depth as the old catheter, using a gentle screwing action is usually successful, before inflating the balloon with the specified volume of water.

When planning nephrostomy change:

- Dr Todd is the interventional Radiologist based in Raigmore Hospital with a specialist interest in Urology. **Confirm that Dr Todd is on duty** on the planned day by telephoning X-ray reception (0800 032 9021). Once this is confirmed, plan to change the nephrostomy first thing in the morning so that in the event of a problem, the patient can be fitted into Dr Todd's existing workload that day. If he is not on duty the elective change may need to be rescheduled for a day when Dr Todd will be available if required.
- **Confirm the specified volume of water** to be replaced in the Foley retaining balloon.

Exclusion criteria for changing the Nephrostomy Tube:

- <u>Pyrexia contact GP for advice</u>
- First change after new insertion, this should be carried out with Dr Todd
- Non-availability of size 16 Foley catheter, plan change once catheter is available
- <u>Non-availability of hospital backup always confirm Dr Todd is on duty when planning</u> <u>nephrostomy changes so you have hospital back up if required</u>

EQUIPMENT

Sterile catheter pack Apron Non-sterile gloves Sterile gloves x 2 1 x Chloraprep (2% chlorhexidine in 70% isopropyl alcohol wipe) 5-10ml syringe for removal of water from balloon. 5-10ml syringe prepared with pre-checked volume of sterile water 6ml sterile anaesthetic lubricating jelly (e.g. Instillagel) approx 4mls of tube only for lubrication. Size 16 standard length Foley catheter plus size 12 incase of difficulty inserting size 16. Closed System Sterile Drainage bag.

Occlusive dressing or nephrostomy bag and flange if tract insertion site is leaking.

PROCEDURE

	Principle	Rationale	
1.	Explain the procedure to the patient and gain consent.	To ensure the patient is fully informed and consenting to procedure.	
2.	Lay patient on side or front	To ensure full access to nephrostomy site and patient is comfortable	
3.	Apply gloves, empty contents from old bag or pouch in the toilet/sluice, wash hands.	To prevent leakage.	
4.	Put on apron. Open sterile pack and prepare sterile field and equipment. Wash hands and apply non-sterile gloves.	To minimise risk of cross infection and to comply with the infection control policy. (National Infection prevention and control manual 4th April 2014 NHS HPS, DH, 2007)	
5.	Gently peel away old dressing or pouch using non alcohol adhesive remover if appropriate, supporting the skin with your other hand to prevent skin damage or pulling the tube.	To prevent skin damage/skin stripping. (Dougherty and Lister, 2008) To ensure adhesion To prevent dislodging the tube.	
6.	Clean around nephrostomy site and nephrostomy tube with Chloraprep, remove gloves and wash hands.	To minimise cross infection and to comply with infection control policy (National Infection prevention and control manual 4th April 2014 NHS HPS)	
7.	Apply sterile gloves, remove water from balloon, place fingers at skin level on catheter to be removed and hold catheter at same position after removal, measure against a swab and keep swab for guide to re-insertion depth.	This measurement ensures the new catheter is inserted to the same depth and position and is within the renal pelvis.	
9.	Remove gloves, use antiseptic hand wash and apply sterile gloves.	To minimise risk of cross infection and to comply with infection control policy (QIS HAI 2008).	
10.	Measure new catheter against pre- measured sterile swab from point 7 above to ensure new catheter is inserted to same depth.	To ensure catheter is inserted to same depth and therefore same position within the renal pelvis.	
11.	If trouble experienced inserting size 16, try a size 12 instead. See Troubleshooting for what to do next if size 12 is required.	To ensure nephrostomy tract is kept patent	
12.	Gently inflate the balloon with specified volume of water. DO NOT INFLATE WITH MORE THAN THE SPECIFIED VOLUME.	The renal pelvis will not accommodate a balloon of greater size, the volume is patient specific.	
11.	Once in place, observe for urine flow/drainage.	To ensure correct placement of catheter in Renal Pelvis.	
12.	Attach the sterile urine bag of choice for drainage of urine	To ensure drainage of urine into drainage system specific to patient.	
13.	Apply dressing and secure tube.	Reduce risk of migration/trauma. Reduce risk of infection.	

14.	Remove gloves and Apron and wash hands after completing procedure.	To minimize risk of infection and to comply with infection control policy (National Infection prevention and control manual 4th April 2014 NHS HPS).
15.	Documentation On completion of the procedure record information on catheter type, length and size Batch number Manufacturer Amount of water distilled into balloon Date and time of nephrostomy change Reason for catheter change Urinary flow post procedure Problems during procedure	To ensure documented evidence of catheter change, type of catheter and any problems during procedure.

Best practice

Always ensure the tube is draining before you leave the patient. If no drainage immediately, a return visit or phone call will be required later in the day to confirm. If no drainage after two hours arrange admission.

PROBLEMS WITH ELECTIVE CHANGES

- Bleeding Minor bleeding is expected especially if infected
- Unable to remove catheter arrange hospital exchange of catheter
- Unable to advance new catheter to correct depth try size 12 catheter. If unsuccessful arrange hospital reinsertion. If successful, arrange with hospital exchange of catheter and upsizing to size 16
- No urine drains immediately It may take a few hours after the change of catheter for the renal pelvis to fill with urine. If no drainage after 2 hours arrange admission
- Evidence of systemic sepsis eg pyrexia, rigors– arrange urgent admission for hospital review, For reinsertion or change of size of catheter contact Dr Todd or urologist on call in Raigmore Hospital.

If admission required see section Escalation plan and contact numbers page 17

OTHER POTENTIAL PROBLEMS AND TROUBLESHOOTING

1. Catheter fallen out:

After cleaning the skin with Chloraprep (2% chlorhexidine in 70% isopropyl alcohol wipe), follow procedure for Foley nephrostomy catheter insertion. If successful in re-inserting the catheter the balloon should be inflated cautiously with the specified volume of water.

If a 16FG catheter will not advance try a size 12. If unsuccessful, hospital attendance or admission is required for fluoroscopically guided re-insertion or repuncture – see escalation plan page 17. If successful, arrange for upsizing through Dr Todd, Radiology or Urologist on call.

If there is associated pain, deflate the balloon and arrange for admission – see Escalation plan.

2. Unable to re-inflate Foley catheter balloon:

After change of catheter or during the fortnightly balloon deflation and re-inflation procedure it may be difficult or painful to re-inflate the balloon to the correct volume.

The most likely explanation is that the catheter has moved position and the balloon now lies in the ureter, in a small calyx or in the track through the tissues. If the catheter is pushed too far into the track the tip can pass into the ureter or into the upper pole calyx or be kinked. The inflated balloon shuts off the drain holes in the tip from the urine filled renal pelvis. Deflation of the balloon and / or withdrawal of the catheter a fraction may produce urine and the balloon can then be reinflated.

If it remains difficult or painful to try to re-inflate the balloon, **stop. Do not re-inflate the balloon** but leave un-inflated and secure the catheter to the skin with dressings.

Contact Dr Todd to arrange an early contrast study, see escalation plan, section page 17.

As long as the patient is aseptic and the catheter is still draining this contrast study does not need to be done on an urgent basis however **ensure the catheter is secure**. If not draining, urgent admission will be required.

3. Catheter fails to drain urine:

There are three common reasons for a dry catheter bag:

A Catheter extrusion.

Traction on the bag, loss of water from the balloon or an inadequate dressing will allow the Foley catheter to extrude and lose position in the kidney. This can occur gradually over weeks or acutely if

the bag is pulled inadvertently. It may be possible to reinsert the catheter into the track but usually a trip to Radiology is necessary.

<u>B</u> Catheter pushed in too far. See section 2 above for instruction.

C Occlusion due to sediment, debris, concretion.

Aggregation of chalky material may be visible in the catheter lumen and there may be chalky debris in the urine. Flushing / irrigating with no more than 10 mls of sterile saline may help to clear the blockage.

Catheter problems should be dealt with promptly. If not resolved please arrange admission.

TROUBLESHOOTING

Problem		Cause	Action
1. Sore Skin.	a.	Urine leaking onto skin	Change dressings more frequently.
			Consider stoma flange and pouch.
			Use skin protective wipes, e.g wipes or barrier cream as per NHSH formulary.
	h		Use a seal around the nephrostomy tube.
	D.	Possible allergic reaction.	If red/sore skin is identical to the shape of the dressing consider change of dressing.
			If shape identical to shape of flange consider change of equipment, seek advice on alternatives available.

			Apply skin protective wipe, e.g liquid barrier cream.
2. Leakage of Urine from flange and bag system.	a.	Faulty pouch.	Check tap and seams of pouch for leakage point.
			Do not attempt to 'repair' flange as skin will become sore very quickly.
			Always change pouch immediately if leakage is evident.
	b.	Poor adhesion of flange.	Check for excessive hair and shave if required. This should not be carried out more than once weekly.
	a.	Kinked tube.	Check tube.
3. No drainage.	b.	Dislodged tube.	Follow advice in section on potential problems and troubleshooting. Contact medical staff urgently if still not draining.
	с.	Capped tube.	Remove cap.
	d.	Blocked tube.	Flush tube as per previous instructions
4. Pain.	a.	Dislodged/blocked tube.	Check tube for obvious signs of blockage.
			Contact medical staff.
	b.	Urine infection.	Take sample
			Contact medical staff.
5. Over granulation. (This presents as a nodular type appearance around the site of the tube. It may bleed and/or cause discomfort).	a.	The body's normal reaction to try and heal itself.	Refer to Highland Wound Care formula

6. Bleeding	a.	Infection.	Check tube, for all points
			a,b,c,d follow advice in
	b.	Trauma.	pages 14 & 15. If problems
			continue, contact medical
	с.	Kinked tube.	staff for advice.
			Obtain NEWS as baseline.
	d.	Blocked tube.	

ESCALATION PLAN AND CONTACT NUMBERS:

When planning elective Foley nephrostomy change confirm Dr Todd is available on the planned day and carry the change out in the morning so that in the event of difficulties requiring his input, he can fit it into his workload that day.

If Dr Todd is not available when you are planning the elective change, it may be necessary to arrange at a later date when he is available.

CONTACT NUMBERS :

Raigmore Hospital based:

Dr Alistair Todd

by telephone: 01463 704295 bleep 5047 email alistair.todd@nhs.net.

If on leave contact the interventional radiographers in Angio theatre on Raigmore ext 5649 who will be able to schedule reinsertion, advice on when Dr Todd is available or advice on who to contact.

If urgent admission is required in the absence of Dr Todd, contact the on-call Urology Consultant through Raigmore Hospital switchboard 01463-704000

<u>Urology Specialist Nurses:</u> For additional support and advice:

Raigmore Hospital: 01463 704000

Kathleen Mackenzie	bleep 2192	kathleen.mackenzie1@nhs.net
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