Clinical Procedure for the Management of Ureteric Stent Problems

Document Control:

For Use In:	Norfolk and Norwich University Hospitals (NNUH), James Paget University Hospital (JPUH) and The Queen Elizabeth Hospital King's Lynn (QEHKL)		
	All clinical areas		
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V1.1	27/07/2020	Melissa Gabriel	Monitoring compliance wording added.
V2	18/06/2024	Hany Hussein	BAUS ureteric stent leaflet link added. Reformatting as per new trust template requirements.

Previous Titles for this Document:

Previous Title/Amalgamated Titles	Date Revised
None	Not applicable

Note which Trust, where applicable.

Distribution Control

Printed copies of this document should be considered out of date. The most up to date version is available from the Trust Intranet.

Consultation

The following were consulted during the development of this document:

- Miss Charlotte Dunford, Consultant Urologist (NNUH)
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Monitoring and Review of Procedural Document

The document owner is responsible for monitoring and reviewing the effectiveness of this Procedural Document. This review is continuous however as a minimum will be achieved at the point this procedural document requires a review e.g. changes in legislation, findings from incidents or document expiry.

Relationship of this document to other procedural documents

This document is a clinical guideline applicable to Norfolk and Norwich University Hospitals (NNUH), James Paget University Hospital (JPUH) and The Queen Elizabeth Hospital King's Lynn (QEHKL); please refer to local Trust's procedural documents for further guidance.

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1. Introduction

1.1. Rationale

Ureteric stents are commonly used in urological practice to alleviate obstruction, facilitate urine drainage, and aid in the healing process following various urological procedures. While ureteric stents are generally well-tolerated, they can be associated with complications and problems that require prompt evaluation and management. The clinical procedure for the management of ureteric stent problems aims to address these issues efficiently and effectively, optimizing patient comfort and outcomes.

1.2. Objective

This guidance has been created to provide healthcare providers with a systematic approach to identifying, assessment and management of ureteric stent related problems in accordance with current evidence based clinical practice. Standardised care practices have been developed to enhance patient safety, quality of life and ultimately improvement in overall outcomes.

1.3. Scope

This guidance applies to all adult patients over 18 years of age presented with ureteric stent related problems like dysuria, frequency and haematuria.

1.4. Glossary

The following terms and abbreviations have been used within this document:

Term	Definition
KUB	Kidney, ureter and bladder
FBC	Full blood count
U&Es	Urea & electrolytes
SIRS	Systemic inflammatory response syndrome
MSU	Mid-stream urine
MDT	Multi-disciplinary meeting

2. Responsibilities

All medical staff and allied healthcare professionals involved in the care of patients with Ureteric stent problems should be familiar with the relevant recommendations contained in this guidance. Staff must always ensure they have proper training and competency for effective diagnosis and management of ureteric stent related problems which is vital for patient safety and to prevent complications.

3. Policy Principles

3.1. Assessment

3.1.1. History

80% of patients with an indwelling ureteric stent will experience stent related symptoms. This is especially so with younger patients and those who have had them inserted for renal tract stone disease.

Patients with long term stents because of benign or malignant ureteric obstruction have less morbidity from their stents.

Urinary frequency, dysuria, haematuria (especially following activity) and loin pain exacerbated when voiding (due to reflux of urine up and alongside stent) are all symptoms associated with indwelling ureteric stents. These symptoms can mimic and be caused by a urinary tract infection.

There may be additional symptoms of urinary tract infection / pyelonephritis:

- Fever.
- Nausea, vomiting and dehydration.
- Loin pain and tenderness and / or generalised abdominal pain.

3.1.2. Examination

- Vital signs
- Abdominal examination.

3.2. Investigations

- Urinalysis
    - Leucocytes and red blood cells are common findings in patients with an indwelling ureteric stent. This could be due to infection or trauma to the bladder by the stent. The presence of nitrites suggests urinary tract infection.
    - Urinalysis - All patients require an MSU for C&S.
- Bloods
    - U+E's, FBC, CRP.
    - Blood cultures if the patient is pyrexial >38°C, has signs of systemic inflammatory response syndrome (SIRS) or sepsis.
- Imaging
    - X-Ray KUB to confirm satisfactory stent position if there are signs of sepsis or persistent loin pain.
    - USS Renal tract or CT KUB will also be required to exclude stent obstruction causing hydronephrosis and loin pain.

3.3. Management

- Analgesia:
    - Non-steroidal anti-inflammatory per rectum e.g. Diclofenac 50-100mg.
    - Supplemented, if necessary, with regular IV Paracetamol 1g, an oral opiate (Oramorph) or parenteral opiate if vomiting.
- Anti-emetic.
    - IV Fluids if unable to maintain sufficient oral intake.

- Anticholinergics.
    - To reduce bladder spasm and overactive bladder symptoms, caused by bladder irritation from the distal ureteric stent coil like Solifenacin 5-10mg (contraindicated in patients with urinary retention, Constipation, uncontrolled narrow-angle glaucoma, and in patients who have demonstrated hypersensitivity to the drug substance or other components of the product).

Prescribe an empirical oral antibiotic like Nitrofurantoin 50mg QDS (until C&S results on MSU are available) and if necessary intravenous antibiotics according to local Trust guidelines.

3.4. Follow Up

If patient is awaiting ureteroscopic stone surgery and presents as an emergency with ureteric stent related symptoms, please inform a stone team consultant who will need to review the date for planned surgery through the stone MDT.

https://www.baus.org.uk/_userfiles/pages/files/Patients/Leaflets/Stent%20advice.pdf

4. Monitoring Compliance

To ensure that this document is compliant with the above standards any adverse outcomes will be entered onto Datix and reviewed by the Departmental Governance Team who will ensure that these are investigated and are discussed at relevant governance meetings to review the results and make recommendations for further action.

5. Appendices

There are no appendices for this document.

6. Equality Impact Assessment (EIA)

Type of function or policy	Existing

Division	Surgical	**Department**	Urology
Name of person completing form	Hany Hussein	**Date**	18/06/2024

Equality Area	Potential Negative Impact	Impact Positive Impact	Which groups are affected	Full Impact Assessment Required YES/NO
Race	None	None	NA	No
Pregnancy & Maternity	None	None	NA	No
Disability	None	None	NA	No
Religion and beliefs	None	None	NA	No
Sex	None	None	NA	No
Gender reassignment	None	None	NA	No
Sexual Orientation	None	None	NA	No
Age	None	None	NA	No
Marriage & Civil Partnership	None	None	NA	No
EDS2 – How does this change impact the Equality and Diversity Strategic plan (contact HR or see EDS2 plan)?		No		

- **A full assessment will only be required if: The impact is potentially discriminatory under the general equality duty**
- **Any groups of patients/staff/visitors or communities could be potentially disadvantaged by the policy or function/service**
- **The policy or function/service is assessed to be of high significance**

IF IN DOUBT A FULL IMPACT ASSESSMENT FORM IS REQUIRED

The review of the existing policy re-affirms the rights of all groups and clarifies the individual, managerial and organisational responsibilities in line with statutory and best practice guidance.