Clinical Procedure for the Management of Fournier's Gangrene

For use in:	Wards and A&E
By:	All Medical staff
For:	Junior Doctors / Specialist Nurses / Physician Associates
Division responsible for document:	Surgical Division
Key words:	Fournier's gangrene
Name of document author:	Melissa Gabriel
Job title of document author:	IST Urology Trainee
Name of document author's Line Manager:	Neil Burgess
Job title of author's Line Manager:	Consultant Urologist
Supported by:	Mr Mark Rochester Urology Service Director/Consultant
Assessed and approved by the:	Clinical Guidelines Assessment Panel (CGAP) If approved by committee or Governance Lead Chair's Action; tick here ☑
Date of approval:	27/07/2020
Ratified by or reported as approved to (if applicable)**:**	Clinical Safety and Effectiveness Sub-Board
To be reviewed before: This document remains current after this date but will be under review	05/02/2023
To be reviewed by:	Neil Burgess
Reference and / or Trust Docs ID No:	16928
Version No:	1.1
Compliance links: *(is there any NICE related to guidance)*	N/A
If Yes - does the strategy/policy deviate from the recommendations of NICE? If so why?	No

Version and Document Control:

Version Number	Date of Update	Change Description	Author
1.1	27/07/2020	Additional wording on monitoring compliance	Melissa Gabriel

This is a Controlled Document

Printed copies of this document may not be up to date. Please check the hospital intranet for the latest version and destroy all previous versions.

Objective

To ensure eligible staff safely undertake management of Fournier' gangrene.

Rationale

This document was written to enable staff to follow the correct procedure for Fournier's gangrene according to current agreed evidence based clinical practice in the urology department.

Fournier's gangrene is a rapidly progressive necrotising fasciitis of the perineum and genitals.

Incidence

- All ages are affected although it is slightly more common > 50 years.
- Male : Female = 10 : 1.

Risk factors

These include malnutrition, diabetes, chronic alcohol abuse, HIV/AIDS, malignant disease, liver cirrhosis, chronic renal failure, obesity, drug abuse.

Aetiology

Fournier's gangrene is classically polymicrobial implicating anaerobic and aerobic synergy. The microbial invasion of the subcutaneous tissues commonly occurs either through external trauma or direct spread from a perforated viscus such as the rectum or anus, or genitourinary organ. Bacteria then track subcutaneously producing endo- and exotoxins, progressing to an inflammatory response that spreads to the fascia, with resultant obliterative endarteritis, thrombosis of the cutaneous and subcutaneous vessels, and tissue necrosis.

Clinical Procedure for the Management of Fournier's Gangrene

Presentation

This condition is a true surgical emergency and requires rapid assessment and aggressive medical and surgical treatment. The scrotal / perineal skin and subcutaneous tissues will be swollen, and this swelling can be rapidly progressive. There may be areas of skin necrosis (which appear black) and this is often only apparent on the posterior surface of the scrotum. In addition, there may be palpable crepitus (because of gas produced by bacteria in the soft tissues of the scrotum).

Examination

Perform a digital rectal examination, complete inspection of the perineum and all of the scrotal skin.

Investigation

- Standard observations.
- ECG. CXR.
- Urine dipstick analysis. MSU for C&S.
- Bloods - U+E's, LFT's FBC, CRP.
- Clotting screen and Cross match 2 units of blood.
- Blood cultures.
- Arterial blood gas.
- Urethral catheter.
- CT scan Abdomen / Pelvis with contrast to determine disease extent / potential aetiology.

Management

- Regular observations / Haemodynamic support.
- Liaison with critical care outreach team.
- Monitor and stabilise blood sugars (if diabetic).
- Intravenous fluids and broad-spectrum antibiotics (discuss with Microbiology).
- Consider an anti-fungal agent if patient diabetic or immunocompromised.
- Keep patient nil by mouth and book onto emergency theatre list.
- Liaison with plastic surgery and general surgery (as a colostomy may be required).

<u>Radical surgical debridement by surgeons experienced with this serious condition</u>.

Follow up

The patient may require regular return visits to the operating theatre for further wound examination, debridement as necessary and wound dressing. If the patient survives

then skin grafts may be required if it is considered the wound cannot heal fully by secondary intention.

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.

Summary of development and consultation process undertaken before registration and dissemination

The authors listed above drafted this document on behalf of the urology department who have agreed the final content.

This version has been endorsed by the Clinical Guidelines Assessment Panel.

References

No references were applicable.