

Date: 25/05/2021

## FREEDOM OF INFORMATION REQUEST FOI/015689 - Audit necrotising fasciitis patients

As there is no information available specifying the length of time taken to transfer necrotising fasciitis patients from the Emergency Department to theatre, we would like to request the following information instead please: -

- 1) A copy of the most recent available audit showing the length of time that Russells Hall Hospital took to transfer necrotising fasciitis patients from admission to theatre; and
- 2) A copy of the audit carried out closest to 3 June 2017 showing the length of time that Russells Hall Hospital took to transfer necrotising fasciitis patients from admission to theatre.

Please see below the audit that was undertaken this year relating to necrotising fasciitis.

This is the only audit that we have been able to identify as being undertaken within the Trust. This is a relatively rare condition therefore the numbers are low and to get sufficient numbers to audit, 4 years worth of patients were reviewed, as per previous correspondence the audit does not specify where admission is from.

### **AUDIT OF NECROTISING FASCIITIS IN RUSSELLS HALL HOSPITAL**

Necrotising Fasciitis is a rare serious bacterial infection of the soft tissues. It can affect any part of the body. It frequently leads to sepsis and systemic involvement, and is invariably fatal, if not treated.

This infection is an emergency, and needs prompt recognition and immediate medical and surgical treatment, in order to have a favourable outcome. It is vital that clinicians are aware of the risk factors and clinical signs, so that treatment could be instituted without delay.

Therefore the **Aims** of this audit are:

1. To elucidate the patient demographics of Necrotising Fasciitis.
2. To do an appraisal of the treatment done for this condition in the trust.
3. To look for areas where quality of management, of this condition, could be improved.

#### **Inclusion Criteria:**

A retrospective study, that includes all patients coded as having been treated in Russells Hall Hospital, with 'Necrotising Fasciitis' between March 2017 and March 2021.

#### **Exclusion Criteria:**

Paediatric patients were not included.

Those who were diagnosed specifically as having localised sepsis, like Fournier's gangrene, wound infections, cellulitis etc, were not included.

#### **Process:**

The audit department in Russells Hall Hospital, with the help of the informatics department, were able to identify the codes under which patients who had necrotising fasciitis were classified.

The patient details were then passed on to the records department, who made the notes of the patients available for this study.

**Nature of Notes:**

The notes were written documents, that included the clinical and operative notes of the patients treated as having had Necrotising Fasciitis during the period.

As Necrotising Fasciitis manifests in different parts of the body, patients were managed by different specialties:

Trauma and Orthopaedics/Plastic Surgery  
 General Surgery  
 Vascular Surgery  
 Internal Medicine

All data that was collected, was entered into a prepared proforma

Laboratory data was collected from the intranet computer system , in the hospital.

**Patient Demographics:**

**Yearly Incidence:** - From March 2017 to March 2021 there were 23 patients

Out of the 23 patients there were 6 deaths and 13 patients had associated co-morbidities

**Timing of Surgery from admission:**

Within 6 hours	12
Between 6 and 24 hours	5
Later than 24 hours	3
No surgery	3

Criteria	Target (%)	Result (%)
All patients were seen and treated adequately by the Plastic Surgery Department.	100%	100%

**Correlation of prognosis to LRINEC score:**

Our study does not show a high correlation between the LRINEC score(Wong et al) and subsequent mortality

**Correlation to the development of septic shock in patients with Necrotising Fasciitis:**

Other authors (1,2) consider septic shock as an indicator of very poor prognosis, and this is borne out in the X patients who had severe shock and had altered consciousness . These patients died within 48 hours.

**Correlation between the site of infection and the type of Necrotising Fasciitis:**

While Type 1 infections tended to occur around the abdomen and perineal areas, Type 2 (Beta Hemolytic Group A Streptococcal infections) were seen in the limbs exclusively.

**Presence of co-morbidities:**

Out of the six patients, who expired after admission and treatment for Necrotising Fasciitis, some of them had co-morbidites . Interestingly, though Diabetes is the commonest co-morbidity in other studies and in our audit, there was no mortality in this group of patients.

**Conclusion:**

Our audit , which spans a period of 4 years, was able to identify 23 patients with a diagnosis of Necrotising Fasciitis. This is a small cohort, compared to the overall number of admissions in our busy Multi Specialty Hospital. It reveals the relative rarity of this serious condition.

The patient demographics and the Types of Necrotising Fasciitis compare well with the studies done by other authors.

Our treatment of these patients has been in line with accepted standards internationally.

Most patients were operated early and had appropriate antibiotics. The mortality rate was 26%, which is on par with other studies, which had a mortality rate ranging from 17 -40%.

Most patients, who underwent debridement and reconstruction, had multiple specialty input.

**References:****1 .Massive necrotizing fasciitis: a life threatening entity**

Ramon Vilallonga<sup>1,5,6,\*</sup>, Alejandro Mazarro<sup>2</sup>, María Rita Rodríguez-Luna<sup>3,†</sup>,  
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2. Current concepts in the management of necrotizing fasciitis **Evangelos P. Misiakos\***, **George Bagias**, **Paul Patapis**, **Dimitrios Sotiropoulos**, **Prodromos Kanavidis** and **Anastasios Machairas** <sup>3rd</sup> Department of Surgery, Attikon University Hospital, University of Athens School of Medicine, Athens, Greece

3. **Necrotizing fasciitis: eight-year experience and literature review** **Jinn-Ming Wanga,\***, **Hwee-Kheng Limb** <sup>a</sup> Division of Urology, Department of Surgery, Mackay Memorial Hospital, Taitung, Taiwan, ROC <sup>b</sup> Division of Infectious Diseases, Department of Medicine, Mackay Memorial Hospital, Taitung, Taiwan, ROC