

NECROTIZING SOFT TISSUE INFECTION (NSTI)

MEDCOM, with support from University Hospital, the US Army Institute of Surgical Research (USAISR), and Methodist Hospital, can facilitate rapid inter-facility transfers of Necrotizing Soft Tissue Infection (NSTI) similar to critical trauma transfers. NSTI can be a rapidly progressive, life-threatening infection, particularly in the immunocompromised population including diabetic patients. Early recognition and management of NSTI is essential to optimal patient outcomes and should be considered a surgical emergency.

MEDCOM will facilitate consult and transfer to one of the three participating facilities. NSTI is a clinical diagnosis based on patient risk factors and physical examination (fever, shock physiology, severe pain out of proportion, rapidly progressing erythema, hemorrhagic bullae, skin necrosis, and foul-smelling drainage).

Criteria for NSTI consultation are **ANY** of the following:

- 1) Radiologic evidence supporting diagnosis of necrotizing soft tissue infection.
 - 2) High degree of clinical suspicion for necrotizing soft tissue infection.
 - 3) LRINEC Score > 5 (see below). **(Delayed access to the necessary lab values for the LRINEC score should not delay contacting MEDCOM)**
- **A diagnosis of NSTI is a surgical emergency and REQUIRES emergent surgical debridement prior to transport whenever possible. Delaying debridement for many hours to facilitate transfer may be life threatening.**
 - Prior to transport:
 - 1) Obtain blood and wound cultures.
 - 2) Initiate broad spectrum antibiotic coverage.
 - 3) Initiate resuscitation for shock.
 - 4) Surgical debridement if possible.

Laboratory Risk Indicators for Necrotizing Soft Tissue Infections (LRINEC)

Lab	Values	LRINEC Score Pts
C-reactive Protein (mg/L)	< 15 (150 mg/L)	0
	≥ 15 (150 mg/L)	4
WBC (x10,000/μL)	< 15	0
	15-25	1
	> 25	2
Hemoglobin (g/dL)	> 13.5	0
	11-13.5	1
	< 11	2
Sodium (mEq/L)	≥ 135	0
	< 135	2
Creatinine (mg/dL)	≤ 1.6	0
	>1.6	2
Glucose (mg/dL)	≤ 180	0
	> 180	1

Risk Category	LRINEC Score Pts	Probability of NSTI %
Low	≤ 5	< 50%
Intermediate	6-7	50-75%
High	≥ 8	> 75%