Necrotizing infections (fasciitis, cellulitis, myositis, Fournier’s gangrene) and Clostridial Myonecrosis / Gas Gangrene are devastating infections with significant clinical overlap and a high mortality rate. The distinction and diagnosis can often only be made in the OR, and the initial management is the same: immediate antibiotics and operative debridement.

Antibiotic therapy has three components:
- Broad spectrum and anaerobic coverage (pip/tazo, fluoroquinolone + metronidazole, etc...)
- MRSA coverage (vancomycin, linezolid, etc...)
- Toxin production suppression (clindamycin)

For this patient his debridement revealed significant myonecrosis and diffuse subcutaneous emphysema, already evident on his admission CXR by the air in the soft tissues of the chest wall and neck. His cultures grew Clostridium Septicum. Clostridium Septicum is endogenous gut flora that is believed to hematogenously spread to soft tissue, oftentimes from an occult gut lesion or malignancy. Unlike Clostridium Perfringens it is not associated with traumatic seeding from the environment, and Clostridium Septicum infections do not need anaerobic conditions to propagate, likely contributing to its high mortality (~70-100%) compared to necrotizing soft tissue infections (~25%).

Although this disease process looks similar to necrotizing fasciitis, the microbiology and pathophysiology are different, and the process is more aptly termed Spontaneous Gas Gangrene / Clostridial Myonecrosis. This patient died about 24 hours after he first noticed a subjective symptom, and about 12 hours after first presenting to outside hospital ER.