

# The Use of Topical Wound Oxygen (TWO<sub>2</sub>) for the Treatment of an Ischemic, Dehisced Open Partial 4<sup>th</sup> Ray Amputation with elevated CRPH Levels and Kidney Disease

This is a case of a 77 yr/fo male with a hx of DM, CHF, CKD, HTN, PAD and PVD who underwent a Partial 4<sup>th</sup> Ray Amputation secondary to Osteomyelitis and wet Gangrene. A collaborative effort was established with Infectious Disease for chronic infection.



**ABIs:** Right and Left: Non-compressible (NIC)  
**TBIs:** Right and Left: Non-compressible (NIC)  
**Admission:** UT Grade IVD, WBC 17, Sed Rate 300  
**C-Reactive Protein (CRP):** 9.787; DVT prophylaxis

**CULTURES:** P. Aeruginosa, C. Braakii mod growth  
 Proximal Margin: Permanent Specimen Clean

**Treatment:** SP day 4 DJC, WBC 6.4, CRPH 4.2  
 Antibiotics: Cipro 500 mg qd / Amoxicillin 2.50 bid  
 (Renally dosed for 1 week: Stage III Kidney Disease)



**ME THODOLOGY:** The Open Wound still prohibited deep to bone (UT Grade IV D) sp 3 weeks with ongoing concerns of an elevated CRPH of 3.5 and ischemia. Infectious Disease extended both oral antibiotics to 4 weeks and monitored the patient closely.

**RESULTS:** The CRPH level dropped to VNL at approximately week 6 and wound conversion was attained to a UT Grade II A with full healing at week 9. Follow up X-rays and labs were unremarkable and the patient's kidney function was still operable.



**CONCLUSION:** With the assistance of Infectious Disease as well as TWO<sub>2</sub>, the author was able to successfully heal the wound despite multiple comorbidities including CKD and a poor vascular spectrum. This case study demonstrates the effectiveness of not only TWO<sub>2</sub>, but also a collaborative multi-service approach.

