

Optimal Use Of Antibiotics In Open Fracture

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Early initiation of antibiotics (in the emergency department) has proven to decrease the rate of infections after open fractures. Antibiotics generally preferred are 1st or 2nd generation cephalosporin or co-amoxiclav. As the Gustilo grade and level of contamination increases, addition of gentamicin and metronidazole is recommended. After an initial intravenous regime of 48 hours, switching over to oral regime has been followed worldwide. The duration of antibiotics in open fractures, have been controversial. The BAPRAS guidelines state that Antibiotics can be continued till soft tissue closure is obtained or for a maximum of 72 hours whichever is earlier. For Gustilo Grades I and II, duration of antibiotics recommended is 24-48 hours. Gentamicin and Vancomycin/Teicoplanin are administered at induction during definitive skeletal stabilization. Vancomycin infusion should be started at least 90 minutes prior to surgery. Clindamycin(600 mg iv) is preferred in patients with pencillin allergy in place of cephalosporin/coamoxiclav. Cultures obtained prior to debridement have not been found useful. Evidence does not support prolonged duration of antibiotic treatment. Also antibiotic treatment should not be considered as a substitute for thorough debridement and removal of all necrotic material.