Objective Osteomyelitis of the hand is uncommon, but prompt diagnosis and treatment are important, because hand stiffness, contractures, and even amputation can result from missed diagnoses or delayed treatment. In recent years, treatment of these infections has become challenging owing to increased virulence of some organisms and drug resistance.

Methods We retrospectively identified 28 adult patients undergoing surgical debridement of bone infections of the upper extremity in which cultures were sent. The treatment involves a combination of: surgical debridement with tissue cultures, antibiotic treatment of 4 weeks' duration (intravenous and/or oral) first and guided by swabs results after and flaps to cover or to fill the defect. Patient were evaluated at one year with x-ray to exclude persistence of infection.

Results The most common bacteria implicated remains Staphylococcus aureus (MRSA) and Streptococcus species. The protocol adopted was able to eradicate the infection in all cases. The functional result depends on duration of the disease before surgery.

Conclusion Identifying the cause of the infection and initiating prompt and appropriate medical or surgical treatment can prevent substantial morbidity. We have introduced a protocol of treatment with optimal cure rate e good functional preservation.

3 stage approach: 1) 20 day outpatient preop antibiotic therapy (after culture) 2) debridment, new swabs, skin flap/adipofascial flap 3) postop antibiotic therapy for 30 days