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Dr H.P. Geisselhart is a General and Orthopedic Surgeon who has practiced in a large German hospital until 2011 and has won experience in rural Rwandan hospitals since 1984. Currently he is part of the Senior Staff in a clinic in Abuja, Nigeria.

**Osteomyelitis in open tibia post trauma – treatment options in time of wide spread antibiotics resistance –**

Open tibia injury resulting in severe osteomyelitis can be prevented by earliest possible cleansing, debridement, coverage of the bone, immobilization of the leg and primary short-term cephalosporin therapy.

In case of a clear osteomyelitis, the bacterial load needs to be reduced from a high burden infection to a low-grade contamination. This can be achieved through a programmed surgical procedure in five steps without long-term antibiotic treatment:

First the dead tissue needs to be removed. Second healing can be improved through continuous moist environment. Successively the bone should be covered with a regional flap or by granulation tissue in both cases combined with skin grafting.

The final two stages are focused on stimulating callus; through decortications and bone grafting via an unaffected approach (e.g. posterolateral to the dorsal tibia through the interosseous membrane) combined with increased weight bearing either in a Sarmiento cast or with an external fixator.

Different clinical examples from Rwanda and Nigeria are shown.