

# AO Basic Principles - Forearm Fracture Practical

## LEARNING OBJECTIVES

### Section 1: Planning exercise

At the end of this section the participant should have:

1. Reviewed your plans and communicated them with your colleague
2. Decided on the surgical approach or approaches you wish to take
3. Explored the principles of selecting different modes of fracture fixation for different fracture patterns

### Section 2: Practical exercise

At the end of the exercise, the participant should be able to:

1. Apply the use of an LCP with a lag screw to achieve absolute stability in a simple radial fracture
2. Understand how to apply an LCP 3.5 to achieve relative stability in a multifragmentary ulnar fracture (bridging technique)
3. Perform a technique of indirect reduction for the involved ulna fracture

## PROCEDURE

### Section 1

1. Ask the participants to go into pairs and discuss their personal plans with each other.
2. Participants should discuss which approach(es) and why two.
3. Participants should include the 4 key elements: Equipment, Steps, Pitfalls, Diagram(template)
4. Each pair should select one of the plans and explain the rationale of fracture fixation modes to the instructor
5. Discuss configuration of screws in locking plate (near/near, far/far)

### Section 2

1. Review equipment / instrumentation
2. Recap the the different holes in the LCP and the direction of the compression holes
3. Prebend radius plate
4. Apply 1st screw at obtuse angle end in 'central' mode - discuss idea hole to start

5. Apply 2nd screw at acute angle end in 'offset' mode - discuss idea hole to use
6. Apply lag screw - through the plate or 90 degree to it
7. Apply supplemental screws for stability
8. Discuss why contouring ulnar plate not necessary - principal of periosteal preservation
9. Apply plate and secure one side (partially inserted locking head screws or kwire)
10. Apply second screw
11. Tighten both with torque limiter
12. Apply further screws in planned configuration (near/near-far/far configuration)
13. Test stability of fixation to bone model