

AO Skills Lab for Operating Room Personnel (ORP)—Overview

Introduction

Today's orthopedic surgeons have a broad spectrum of possibilities regarding fracture fixation. New implants are developed and made available constantly, all of them having at least two things in common: their application requires a sound understanding of the principles of fracture healing and fixation, and a meticulous surgical technique. Since ORP are strongly involved in all procedures of fracture fixation they need to join the surgeons in understanding these new implants and techniques.

With these points in mind and realizing that relying exclusively on 'traditional' surgical training (ie, lectures and surgery on patients) may be unsafe for patients and not ideal for the trainee, there was a need to develop new methods to teach the basics in bone healing, fixation techniques, and surgical skills to orthopedic surgeons-in-training and ORP-in-practice.

To satisfy that need, the AO Skills Lab for orthopedic surgeons was developed with the idea that through interactive hands-on practice, practical examples, and faculty-guided discussions, the participants can improve their knowledge and understanding about the basic concepts of bone fracture treatment. ORP can profit from this material, which will influence their proactive assistance during fracture surgery and support best perioperative patient treatment.

The AO Skills Lab consists of stations which introduce different questions and problems regarding the following four major basic orthopedic topics:

- Surgical skills improvement
- Mechanics of bone fracture
- Fracture healing
- Mechanics of bone fixation

Logistics

As participants advance in groups through every station they will be able to 'play' and interact with different models and devices that have been created specifically to facilitate understanding of the principle being examined and to get a practical grasp of each topic. Ten stations have been developed as a response to inquiries and problems presented by surgeons and trainees.

Generally, for [surgeons](#), participants spend ten minutes of practical and discussion time at each station and then two minutes changing stations. The whole activity (ten stations) is designed to be completed in about 120 minutes (2 hours). The optimal overall group size is 60 people (6 per station) but it can cater for up to 72. Bigger groups would be separated in two or more sessions, as participants need the one-on-one practical, hands-on experience and time to practice and discuss each exercise. Ideally, participants should be allowed to return by themselves to review those stations they found interesting or challenging after the workshop has concluded.

The AOT ORP program schedules 1 hour to go through the AO Skills Lab. 4 out of the 10 stations have been selected.

1. Station B—Soft tissue penetration during drilling
2. Station E—Techniques of reduction I
3. Station F—Techniques of reduction II
4. Station K—Damaged implant removal

Important: Since Station C—Heat generation during drilling will not be consulted, this due to time restrictions, it is advised to mention the increased heat production with blunt drill bits during station B.

The AOT Skills Lab booklet for ORP, matching the stations that you will use are adapted. Make sure that you distribute the correct one to your participants.

It is suggested that each group of 6 participants spends 15 minutes per station. If more than 24 participants are present larger groups should be formed. If more than 48 participants are present, the entire group needs to be split in two. One group does the AO Skills lab while the other one carries out a discussion group session.

It is possible that not all participants will be able to do the exercise/test at each station. If so, make sure that not always the same participants are performing.

Note: Consult the Faculty Support Package "AOT Skills Lab" for more information. All posters, videos and booklets are collected in this package and not in the ORP Faculty Support Package!