Course program

AOCMF Course—Principles in Craniomaxillofacial Fracture Management

30.3.–1.4.2010, Brno, Czech Republic
Mission

Our mission is to continuously set standards in postgraduate medical education and to foster the sharing of medically guided expertise in a worldwide network of healthcare professionals to improve patient care in trauma or disorders of the musculoskeletal system.

The AO Principles of fracture management

1. Fracture reduction and fixation to restore anatomical relationships.
2. Fracture fixation providing absolute or relative stability, as required by the “personality” of the fracture, the patient, and the injury.
3. Preservation of the blood supply to soft tissues and bone by gentle reduction techniques and careful handling.
4. Early and safe mobilization and rehabilitation of the injured part and the patient as a whole.
Welcome

Dear Colleagues

Welcome to the AOCMF Course of Principles in Craniomaxillofacial Fracture Management in Brno.

It is to become a tradition of the past 5 years circulating the course among Czech, Polish and Hungarian cities. This is the second time the AO course is held in the Czech Republic. The first one of this series was held in Prague in March 2005.

An outstanding international faculty will be supported by a selected group of local colleagues to share their experiences, principles of maxillofacial osteosynthesis and the AO philosophy.

The purpose of this course is to teach, to practice and to discuss methods of treatment of facial fractures in the state of the art. It will not only be during the lectures given in this course, where you will get a consistent but comprehensive idea of basic principles of fracture treatment in the face. There are also lectures for example, how to manage facial defects caused not only by trauma, but after tumour resection or osteotomies to correct facial deformities.

Practical sessions are intended to understand the principles of the AO. The faculty members are at your disposal to answer your questions and to assist you in any way to achieve this aim. Therefore we would like to ask you, if you could bring some of your own cases for discussion. No matter if you like to discuss how to treat certain types of fractures or for seeking the cause of failure or complication in this case.

We hope that the expectations of the all participants will be met and that every one of you will return home enriched with new knowledge and skills to ultimately help our patients.

Passing out this CMF principles course brings you close to joining the AO CMF family; you can register at the AO web, get access to many online sources and take benefit from all member services.

We wish you a successful meeting and see you in Brno.

Prof. Dr. Dr. Arnulf Baumann
Department for Cranio-Maxillofacial and Oral Surgery
Medical University of Vienna
Währinger Gürtel 18–20
A-1090 Vienna
Austria

Dr. Daniel Hrusak, Ph.D.
Department of Stomatology
Div. of Maxillofacial Surgery
University Hospital and Medical Faculty Pilsen
Alej Svobody 80
304 60 Pilsen
Czech Republic
The AOCMF Principles Course will teach the theoretical basis and practical principles of the operative treatment of craniomaxillofacial fractures and their complications, considering state-of-the-art craniomaxillofacial osteosynthesis in traumatology and reconstructive surgery.

The program of this course includes all possibilities for rigid internal fixation in traumatology of the mandible and the midface, ablative tumor surgery including reconstruction and orthognatic surgery. It will also include a review of the biomechanics of the mandible and midface as well as histology of fracture healing. Beside formal lectures there will be small group discussion with case presentations, workshop sessions will also be conducted. The course aim is to teach various reliable techniques of internal fixation, as well as the advantages associated with each approach.

**Course objectives**

- Understand the biology of bone healing and how it is affected by fracture treatment
- Understand how the interaction of biomechanics and biology influences decision making in fracture management
- Know appropriate methods to diagnose fractures, know the indications for open or closed treatment of fractures and be familiar with surgical approaches to the facial skeleton
- Know the difference between load-sharing and load-bearing fixation and understand the concepts and techniques of adequate stability
- Know acceptable methods for treating fractures in all regions of the mandible (condyle, angle, body, symphysis), including simple, comminuted, and defect fractures
- Understand the treatment principles for fractures of the midfacial skeleton, including maxillary, zygomatic, naso-orbito-ethmoidal, orbital and frontal sinus
- Know the principles of mandibular and midface reconstruction and understand the diagnosis and management of complications to include nonunion, malunion, and infection

**Course description**

**Goal of the course**

The AOCMF Principles Course will teach the theoretical basis and practical principles of the operative treatment of craniomaxillofacial fractures and their complications, considering state-of-the-art craniomaxillofacial osteosynthesis in traumatology and reconstructive surgery.

**Target participants**

All those who deal with musculoskeletal head and neck disorders concerning trauma, reconstruction as well as congenital and acquired deformities of the craniofacial skeleton.

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Faculty

AO CMF Faculty

International chairman
Prof. Arnulf Baumann  (Vienna, Austria)  arnulf.baumann@meduniwien.ac.at

Invited CMF Faculty

International faculty
Prof. Muriel-Fabienne Brix  (France)  mbrix@chu-grenoble.fr
Prof. Dr. Med. Martin Roser  (Germany)  martin.roser@klinikum-konstanz.de
Prof. Juan Carlos de Vicente  (Spain)  jvicente@uniovi.es
Prof. Alexander Hemprich  (Germany)  hemprich@medizin.uni-leipzig.de
Prof. Joszef Pifko  (Hungary)  piffko@maxillo.u-szeged.hu

Local Faculty  (Czech Republic)
Dr. Daniel Hrusak, Ph.D.  (Pilsen)  hrusak@fnplzen.cz
Dr. Stefan Natek  (Usti n/L)  stefan.natek@mnul.cz
tcaslava@quick.cz, tcaslava@seznam.cz
Dr. Tomas Caslava  (Brno)
## Tuesday March 30, 2010

<table>
<thead>
<tr>
<th>TIME</th>
<th>AGENDA ITEM</th>
<th>FACULTY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General principles</strong></td>
<td>Moderator: de Vicente</td>
</tr>
<tr>
<td>08:00</td>
<td>Welcome address, introduction of the faculty, course objectives</td>
<td>Baumann, Hrusak</td>
</tr>
<tr>
<td>08:20</td>
<td>History and structure of the AO and AO CMF group</td>
<td>Baumann</td>
</tr>
<tr>
<td>08:40</td>
<td>Bone biology and bone healing in the CMF skeleton</td>
<td>Pifko</td>
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<tr>
<td>09:00</td>
<td>AO implants and instrumentation</td>
<td>Natek</td>
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<tr>
<td>09:20</td>
<td>Principles of dental occlusion and intermaxillary fixation, dentoalveolar trauma</td>
<td>Caslava</td>
</tr>
<tr>
<td>09:50</td>
<td>Primary management of the patient with facial trauma/polytrauma patient, managing the airway in facial trauma</td>
<td>Brix</td>
</tr>
<tr>
<td>10:20</td>
<td>Imaging in CMF</td>
<td>Hrusak</td>
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<tr>
<td></td>
<td><strong>COFFEE BREAK</strong></td>
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<tr>
<td></td>
<td><strong>Mandible fractures: session I</strong></td>
<td>Moderator: Natek</td>
</tr>
<tr>
<td>11:00</td>
<td>Biomechanics of the mandible, mandibular fracture patterns, classification. Diagnostic procedures</td>
<td>Hemprich</td>
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<tr>
<td>11:20</td>
<td>Facial soft tissue injuries</td>
<td>Brix</td>
</tr>
<tr>
<td>11:40</td>
<td>Surgical approaches to the mandible</td>
<td>de Vicente</td>
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<tr>
<td>12:00</td>
<td>Osteosynthesis techniques in the mandible</td>
<td>Hrusak</td>
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<tr>
<td>TIME</td>
<td>AGENDA ITEM</td>
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<tr>
<td>12:30</td>
<td><strong>Practical exercise 0</strong> (optional)</td>
<td>Hrusak</td>
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<tr>
<td></td>
<td>1. Fixation of the occlusion with Ernst ligatures/arch bar</td>
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<tr>
<td></td>
<td>2. IMF screw fixation</td>
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<tr>
<td>13:15</td>
<td>LUNCH</td>
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<tr>
<td>14:15</td>
<td>Treatment of symphyseal and parasymphyseal fractures</td>
<td>Caslava</td>
</tr>
<tr>
<td>14:45</td>
<td><strong>Practical exercise 1</strong></td>
<td>Hrusak</td>
</tr>
<tr>
<td></td>
<td>2.0 miniplate osteosynthesis of a midline mandibular fracture/lag screw</td>
<td></td>
</tr>
<tr>
<td>III.</td>
<td><strong>Mandible fractures: session II</strong></td>
<td>Moderator: Hrusak</td>
</tr>
<tr>
<td>15:55</td>
<td>Treatment of angular and lateral body fractures of the mandible</td>
<td>Hrusak</td>
</tr>
<tr>
<td>16:15</td>
<td>Open treatment of condylar and subcondylar fractures</td>
<td>Roser</td>
</tr>
<tr>
<td>16:35</td>
<td>Surgical endoscopy in the treatment of condylar fractures</td>
<td>Natek</td>
</tr>
<tr>
<td>16:55</td>
<td>COFFEE BREAK</td>
<td></td>
</tr>
<tr>
<td>17:10</td>
<td><strong>Practical exercise 2</strong></td>
<td>Caslava</td>
</tr>
<tr>
<td></td>
<td>Fixation of a transverse fracture of the mandibular angle with a 2.0 plate on the oblique ridge</td>
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<tr>
<td>18:10</td>
<td>END OF THE DAY</td>
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<tr>
<td>20:00</td>
<td>GALA DINNER</td>
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</tbody>
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### IV. Mandible fractures: session III

<table>
<thead>
<tr>
<th>Time</th>
<th>Agenda Item</th>
<th>Faculty</th>
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</thead>
<tbody>
<tr>
<td>08:00</td>
<td>Osteosynthesis in bone with reduced quality</td>
<td>Roser</td>
</tr>
<tr>
<td>08:30</td>
<td>Fracture treatment in the growing skeleton</td>
<td>Brix</td>
</tr>
<tr>
<td>09:00</td>
<td>Case presentation (participants cases) on mandible trauma</td>
<td>de Vicente</td>
</tr>
</tbody>
</table>
| 10:00 | **Practical exercise 3**  
Fixation of a comminuted fracture of the lateral body of the mandible with a 2.4 locking reconstruction plate | Natek                    |

<table>
<thead>
<tr>
<th>Time</th>
<th>Agenda Item</th>
<th>Faculty</th>
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<tbody>
<tr>
<td>11:00</td>
<td><strong>COFFEE BREAK</strong></td>
<td></td>
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</table>

### V. Midface fractures: session I

<table>
<thead>
<tr>
<th>Time</th>
<th>Agenda Item</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:15</td>
<td>Biomechanics of the midface, fracture patterns, classification, diagnosis and imaging</td>
<td>de Vicente</td>
</tr>
<tr>
<td>11:35</td>
<td>Surgical approaches to the midface</td>
<td>Baumann</td>
</tr>
<tr>
<td>12:05</td>
<td>Treatment of isolated central and centro-lateral (Le Fort type) fractures, buttress stabilization</td>
<td>Caslava</td>
</tr>
<tr>
<td>12:25</td>
<td>ZMC fractures</td>
<td>Natek</td>
</tr>
<tr>
<td>12:45</td>
<td>Treatment of naso-orbito-ethmoidal and orbital wall fractures</td>
<td>Hrusak</td>
</tr>
<tr>
<td>13:05</td>
<td><strong>LUNCH</strong></td>
<td></td>
</tr>
</tbody>
</table>
| 14:15 | **Practical exercise 4**  
Fixation of a zygomaticomaxillary fracture using a 1.3 adaption and a 1.5 L-plate and an orbital floor fracture with an orbital floor bone mesh plate | Hemprich                  |
| 15:45 | **END OF THE DAY**                                                          |                          |
Thursday April 1, 2010

<table>
<thead>
<tr>
<th>TIME</th>
<th>AGENDA ITEM</th>
<th>FACULTY</th>
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<tbody>
<tr>
<td>Vi.</td>
<td>Midface fractures: session II</td>
<td>Moderator: Pifko</td>
</tr>
<tr>
<td>08:00</td>
<td>Complex midfacial and panfacial fractures including bone transplantation in traumatology</td>
<td>Roser</td>
</tr>
<tr>
<td>08:30</td>
<td>Frontal sinus and anterior skull base fractures</td>
<td>Baumann</td>
</tr>
<tr>
<td>09:00</td>
<td><strong>Practical exercise 5</strong></td>
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<tr>
<td></td>
<td>Fixation of a complex fracture of the central and lateral midface with 1.3 and 1.5 adaption plates</td>
<td>de Vicente</td>
</tr>
<tr>
<td>10:15</td>
<td>COFFEE BREAK</td>
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<tr>
<td>10:30</td>
<td>Case discussion mid-face trauma</td>
<td>Hemprich</td>
</tr>
<tr>
<td>VII.</td>
<td>Reconstructive surgery</td>
<td>Moderator: Roser</td>
</tr>
<tr>
<td>11:45</td>
<td>Bridging of mandibular defects with reconstruction plates. Mandible reconstruction with bone grafts</td>
<td>Pifko</td>
</tr>
<tr>
<td>11:30</td>
<td>Mandible reconstruction with microvascular free flaps</td>
<td>de Vicente</td>
</tr>
<tr>
<td>11:50</td>
<td>Principle of midface reconstruction</td>
<td>Hemprich</td>
</tr>
<tr>
<td>12:10</td>
<td><strong>Practical exercise 6</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bridging of a segmental defect of the lateral body of the mandible with a 2.4 locking reconstruction plate</td>
<td>Pifko</td>
</tr>
<tr>
<td>13:10</td>
<td>LUNCH</td>
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</tr>
<tr>
<td>VIII.</td>
<td>Orthognatic and craniofacial surgery</td>
<td>Moderator: Baumann</td>
</tr>
<tr>
<td>14:10</td>
<td>Osteotomies and fixation techniques in orthognatic surgery</td>
<td>Pifko</td>
</tr>
<tr>
<td>14:40</td>
<td>Biodegradable and bioactive material – Resorbable/biodegradable osteosynthesis</td>
<td>Roser</td>
</tr>
<tr>
<td>15:00</td>
<td>Distraction osteogenesis: current applications in the facial skeleton</td>
<td>Hemprich</td>
</tr>
<tr>
<td>15:20</td>
<td>Discussion and conclusions</td>
<td>all faculty</td>
</tr>
<tr>
<td>15:40</td>
<td>END OF THE COURSE – AO CERTIFICATES</td>
<td></td>
</tr>
</tbody>
</table>
Course organization

Synthes, s.r.o.
Radlická 740/113d
158 00 Praha 5
Czech Republic

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fax  +420 296 326 330
mobile  +420 736 681 505
e-mail  horakova.jaroslava@synthes.com
internet  www.synthes.cz

Course information

Registration
Please register online:
http://courses.aocmf.org/eventdetails.aspx?id=19

Deadline for registration
March 15th, 2010

Confirmation
Your participation will be subject to availability of course seats and will be confirmed after receipt of payment.

Course fee
Euro  800.00
Course fee includes course bag with course materials, coffee breaks, lunches, course banquet.

Cancellation
No refund of course fees will be issued for cancellations within 14 days before event

Payment options and information
Payment is only possible via bank transfer. Participation is valid after receipt of the money.
A confirmation via e-mail will be sent.

Evaluation guidelines
All AOCMF courses apply the same evaluation process, either ARS (audience response system) or paper & pencil prepared questionnaires. This will help AOCMF to ensure that we continue to meet your training needs. In some regions, CME accreditation is dependent on the participant’s evaluation results.

Course certificate
Will be handed out at the end of the course after full attendance only.

Course language
English

Intellectual property
Course materials, presentations, and case studies are the intellectual property of the course faculty. All rights are reserved.

Recording, photographing, or copying of lectures, practical exercises, case discussions, or any course materials is absolutely forbidden.

The AO Foundation reserves the right to create photo images and video content during the course of this event and use this material in electronic and print format.

Security
Wearing of the badge is compulsory during lectures, workshops and group discussions.

No insurance
The course organization does not take out insurance to cover any individual against accidents, thefts, or other risks.

Portable telephones
Mobile phone use is not allowed in the lecture halls and in other rooms during educational activities. Please be considerate of others by turning your mobile off.

Information desk
Will be open daily during the course hours.

Course banquet
The official course banquet will take place on Tuesday, March 30, at 20:00.
The banquet place will be defined by organizers.

Dress code
Casual, except course banquet
**Course venue**

**Best Western Premier Hotel International Brno ******

- **address**: Husova 16, 659 21 Brno, Czech Republic
- **GPS**: 49°11'41.55"N, 16°36'17.24"E
- **phone**: +420 542 122 111
- **fax**: +420 542 210 843
- **e-mail**: sales@hotelinternational.cz

**Arrival by car**
Take Exit 194B (Brno centre) and follow signs “Best Western Premier Hotel International Brno” or “Centrum”. These signs will direct you to one of our two parking-sites or underground garages respectively. Hotel is located on the foot of the hill of the Spilberg castle and Cathedral of St. Peter and Paul. The other hotel entrance leads directly to the city centre, its pedestrian zone specifically.

- Highway from Prague – D1, E50, E65
- Highway from Vienna – E461
- Highway from Bratislava – D2, exit Brno centrum

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**Accommodation**

**Accommodation for participants**
A quota of hotel rooms has been blocked at Best Western Premier Hotel International.

Accommodation is not included in the course fee and has to be paid directly to the hotel.

Please book accommodation and airport transfer directly via the following online web link:
[www.hotelinternational.cz](http://www.hotelinternational.cz)

- **Single room for single use per room/night**: CZK 2 500.00
- **Double room for double use per room/night**: CZK 2 600.00

Prices include breakfast
Improving patient care worldwide

AOCMF membership

Participation in the AOCMF community guarantees life-long learning opportunities and continuous professional development

AOCMF Videos
Make use of our multimedia teaching and learning materials

Online access to scientific journals
Stay up to date on the latest practices and advancements in the field of craniomaxillofacial surgery

Online case discussions
Participate in the interactive exchange of professional opinions

AOCMF Journal
Cranio-maxillofacial Trauma and Reconstruction publishes primary and review articles covering all aspects of surgery of the head, face, and jaw

Available free of charge to all AOCMF members

AO Publications
Take advantage of special discounts and free offers for AOCMF members

AO Surgery Reference
See surgical procedures explained step by step

Precondition
The prerequisite for becoming a part of the AOCMF membership community is attendance at one certified AOCMF education event

Membership types
AOCMF e-Member (€30 / $35)
AOCMF Member (€50 / $65)
e-Member access plus printed copies of Full online access to all member benefits various AO publications

Logistics and support provided by an educational grant from Synthes.