**Mandatory preparation of your AOSpine educational event to be used during the chairperson training**

**AOSpine Course** Click here to enter text.

Month X–8, Year City, Country

Introduction—what is the program template is it to be used

**PART 1: MANDATORY**

The purpose of this program template is to help participants of the chairpersons training prepare a draft program of their AOSpine educational event using the AOSpine Curriculum competencies and key learning outcomes and ensuring consistency of contents and educational methods.

We have made suggestions for ‘Aims of the course’, ‘Target audience’, ‘Course objectives’ and ‘Course description’ but these are to be understood only as guidelines/examples. Please adjust these according to your participants’ needs and purpose of your course.

Please follow these steps to prepare your draft program (this draft will be used during the chairperson training in Zürich):

**Step 1A: Identify the target audience**

**Step 1B: Select the pathology(ies) to be covered**

**Step 1C: Select the competencies to be covered for the pathology(ies) (focus on the audience needs)**

**Step 1D: Select the key learning outcomes that should be covered for each competency (thus providing guidance to faculty for each activity)**

**PART 2: OPTIONAL**

If you have time, you can start to define specific learning outcomes for each session. This is not mandatory for the chairperson training event.

We recommend communicating these outcomes to the participants by printing them in the course program. Clearly defined learning outcomes are essential for both faculty and participants. They describe what learners should be able to do at the end of the instruction, and provide clear guidance for teaching.

Well-run small group discussion sessions with good facilitation are very effective for participants to learn wise judgment and skilled decision making.

We do hope that this approach will facilitate your program planning. Thank you for helping AOSpine to continuously strive for improvement and excellence.

**Important logistical information**

* Please maintain at least one (1) hour between each practical exercise for logistical considerations, such as changing seating arrangements.
* Please remember to include time for coffee breaks and lunches

PART 1: MANDATORY

Aim of the course

Add a few lines expressing how you expect participants to benefit from this event

**Example:**

The AOSpine Course—Advances in the Management of Spinal Trauma will elevate current concepts and principles to an advanced level and address controversial topics. From the occipitocervical junction to the sacrum, this course shows an integrated approach to understanding spinal trauma and its state-of-the-art treatment.

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Target participants

Step 1A: Identify the target audience

Add the prerequisites for participating on this course, (if any).

Specify what level of activity participants should have in their hospital/clinic/practice.

**Example:**

This course is targeted at surgeons with 3 to 10 years of experience in spine surgery, who are aiming to further improve their knowledge and/or specialization in the management of spinal trauma and specific techniques.

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Curriculum implementation

Step 1B: Select the pathology(ies) to be covered

Step 1C: Select the competencies to be covered for the pathology(ies) (focus on the audience needs)

Step 1D: Select the key learning outcomes that should be covered for each competency (thus providing guidance to faculty for each activity)

🡪Repeat steps 1B to 1D until you have covered all the needed pathologies and competencies.

Pathology 1: Spinal trauma

Competency 1. **Resuscitate the patient according to ATLS® guidelines**

**Key learning outcomes**

Maintain the patient’s oxygenation level

Administer IV fluids to the patient

Maintain normotension in the patient

Identify all other injuries

Prioritize the patient’s injuries

Competency 2. **Immobilize the spine in a patient with a suspected spinal injury beginning at the scene of injury and during the assessment process**

**Key learning outcomes**

Identify potentially unstable spinal injuries

Recognize that the unconscious patient may have a spinal cord injury

Recognize that any movement of the patient can result in neurological injury

Perform spinal immobilization

Maintain immobilization during imaging procedures and until stability is proven

Competency 3. **Examine the patient**

**Key learning outcomes**

Assess the patient’s motor score

Assess the patient’s ASIA/Frankel score

Perform a complete neurological assessment

Assess the patient for secondary injury

Identify spinal cord shock

Consider the prognostic importance of sacral sparing

Serially re-examine the patient for evolving injury

Competency 4. **Order appropriate imaging**

**Key learning outcomes**

Order x-rays, CT, MRI, and other imaging modalities based on indications, limitations, timing, and availability

Recognize the radiographic features of spinal instability

Recognize spinal cord edema and hematoma

Competency 5. **Classify the injury according to fracture morphology, instability, and neurological status**

**Key learning outcomes**

Identify the history and, where possible, the mechanism of injury

Describe the injury based on an image-based morphological classification

Recognize spinal instability

Assess the neurological status and identify neural compression/compromise

Assess the patient using the injury severity score

Competency 6. **Apply evidence-based decision making to the management of the patient**

**Key learning outcomes**

Choose the best operative and nonoperative treatment option for each patient

Select the treatment based on the available evidence

Consider the prognosis for neurological deficit

Recognize limitations of surgery skills and hospital resources

Refer the patient to another center when appropriate to improve care

Competency 7. **Reduce/decompress/stabilize appropriately**

**Key learning outcomes**

Consider and apply strategies to minimize soft-tissue disruption

Perform reduction techniques

Perform decompression techniques

Perform stabilization techniques

Decide the optimal timing for the intervention

Recognize regional/junctional differences

Recognize spinal osteoporosis, if present

Seek to preserve function at uninjured levels

Competency 8. **Collaborate in the rehabilitation plan for the patient**

**Key learning outcomes**

Prevent and manage the consequences of neurological deficits

Recognize the importance of preserving proximal cervical levels in the quadriplegic patient

Implement a plan aimed at early mobilization

Collaborate with rehabilitation physicians

Recognize and address psychosocial issues

Recognize and address work and family issues

Competency 9**. Identify and manage postinjury and postoperative complications**

**Key learning outcomes**

Consider the potential risks of operative and nonoperative treatment

Recognize complications as early as possible

Treat complications promptly

Correct deformity

Seek to preserve motion and spinal alignment

Pathology 2: Degeneration

**1. Analyze the patient history and physical examination findings**

Assess the patient’s pain

Assess the patient’s disability and quality of life

Assess the patient’s psychosocial situation and its relevance

Assess relevant comorbidities

Recognize abnormal findings in the history, including ‘red flags’

Perform a comprehensive clinical examination

Exclude non-spine pathologies

**2. Use appropriate diagnostic tools**

Order appropriate imaging studies based on the history and physical examination findings

Use additional diagnostic tools if indicated

Critically evaluate the use of invasive tests

Recognize the limitations of each diagnostic tool

Correlate the diagnostic test results with the clinical findings

**3. Use evidence-based decision making when recommending operative and nonoperative interventions**

Critically review the benefits and risks of each operative and nonoperative intervention

Select operative and nonoperative interventions based on the best available evidence and on the natural history

Consider the patient’s treatment preferences and expectations

Consider the psychosocial, cultural, and ethical implications of the recommended treatment

**4. Use appropriate nonoperative treatments**

Initiate appropriate medical and physical treatment, based on available evidence

Know when to refer—recognize your own limitations

Recognize the importance of a multidisciplinary approach

**5. Select and perform appropriate surgical procedures for specific indications**

Select the most appropriate surgical procedure for each patient based on the best available evidence

Recognize the optimal timing for each surgical procedure

Select the most appropriate surgical approach

Ensure an adequate technique is completed for each procedure

Apply sound biological and biomechanical principles to each procedure

Consider spinal alignment and spinopelvic parameters

**6. Prevent/manage operative and postoperative complications**

Use measures to avoid preventable complications

Recognize and manage intraoperative complications

Identify early postoperative complications and treat promptly

Identify and treat late-presenting postoperative complications

**7. Use outcome measures to assess the effectiveness of each intervention**

Use validated assessment tools before and after intervention

Enroll patients in a database and maintain follow up

Measure and report outcomes as a quality assurance activity

Continuously assess your clinical judgment and performance

Pathology 3: Tumor

**1. Recognize the possibility of spinal tumor in a patient presenting with common symptoms of spinal pathology**

Recognize that symptoms may be nonspecific but check for localizing signs

Recognize that a neurological emergency presentation may be the first sign of a spinal tumor

Identify patients who are at risk for spinal tumor

Investigate spinal symptoms in cancer patients as early as possible

**2. Establish a diagnosis based on histological verification and plan appropriate treatment**

Order and interpret blood tests and imaging studies to confirm spinal tumor

Order or perform a biopsy to obtain a tissue diagnosis

Recognize that histological findings determine the treatment plan

Perform local and systemic staging

Collaborate with medical and radiation oncologists

**3. Optimize the physical condition of the patient before treatment**

Identify and address medical comorbidities, nutritional status, hematological status, coagulation profile, and prior treatment

**4. Recognize the presence or possibility of spinal instability**

Identify spinal instability from symptoms and imaging

Anticipate instability following treatment

Address instability as part of the treatment plan

**5. Recommend treatment based on consideration of benefit vs risk**

Weigh the benefits, risks, and availability of each treatment option

Consider the impact of each treatment on the timing of others

Recognize the goals of treatment for primary and metastatic tumors

**6. Perform specific surgical interventions**

Perform appropriate preoperative planning and interventions

Anticipate potential intraoperative complications

Involve other surgical specialists as required

Plan and implement a reconstruction and stabilization technique based on the chosen resection method

**7. Anticipate and manage postoperative complications**

Recognize increased risk of wound problems with prior surgery or radiation and with patients in poor physical condition

Recognize increased risk of complications during resection and reconstruction

Address postoperative complications early

Recognize recurrent disease

Pathology 4: Deformity

**1. Analyze the history and physical examination of the patient presenting with spinal deformity**

Describe the classification systems for scoliosis, kyphosis, spondylolisthesis, and craniocervical deformities

Identify conditions and patient factors that are likely to cause progressive deformity

Recognize the physical features of an underlying condition

Examine for signs of spinal imbalance

Perform a full neurological examination

**2. Order and interpret appropriate imaging to assess spinal balance, flexibility, and spinal cord anomalies**

Measure and interpret structural anomalies, degree of deformity, spinal imbalance, flexibility, and instability

Recognize any underlying and associated pathology

**3. Assess the patient • Consider the natural history of the underlying condition**

Consider possible medical and functional disabilities that may arise if deformity is not treated

Address patient/parent concerns about cosmesis, progression, treatment expectations, and future problems

**4. Use evidence-based decision making when recommending operative and nonoperative interventions**

Review the published literature and critically analyze the benefits and risks of any recommended intervention

Discuss treatment expectations with the patient

Explain the risks and benefits of the recommended treatment

Recognize your own limitations and refer to colleagues/other specialists when appropriate

**5. Safely perform appropriate surgical procedures**

Perform preoperative assessment to determine timing and goals of surgery

Perform the appropriate technique for correction of the specific deformity and/or decompression of the spinal cord, with involvement of other specialists as appropriate

**6. Manage intraoperative and postoperative complications**

Monitor spinal cord function intraoperatively, if feasible

Identify infection, loss of correction, loss of fixation, failure of fusion, and neurological injury early and treat promptly

**7. Use outcome measures to assess the effectiveness of interventions**

Use validated spinal assessment tools before and after all interventions

Enroll patients in a database and maintain long-term follow up

Measure and report outcomes as a quality assurance activity

Pathology 5: Infection

**1. Analyze the history and physical examination with a high index of suspicion for primary and postoperative spinal infection**

Recognize that symptoms of infection may be nonspecific, which may delay diagnosis

Identify patients at high risk for spinal infection

**2. Order and interpret appropriate diagnostic tests to confirm infection and identify the causative organism**

Order and interpret hematological, microbiological, and imaging tests to confirm spinal infection

Isolate and identify the causative organism by aspiration or biopsy, if possible

Identify concurrent disease if present

**3. Prescribe appropriate evidence-based medical therapy and preoperative prophylaxis**

Prescribe appropriate antimicrobial therapy according to the sensitivities of the isolated organism and/or evidence-based guidelines

**4. Assess the indications for surgical intervention and perform appropriate surgical** **procedures**

Consider surgical intervention for neurological compression, spinal instability, and debridement

**5. Manage postinfective complications**

Investigate deformity and neurological deficit and treat promptly

**6. Manage postoperative infection**

Identify wound problems early and treat promptly

Investigate loss of fixation or failure of fusion for possible infection and treat promptly

**7. Maintain follow-up until resolution of the infection**

Emphasize and review patient compliance with frequency and duration of treatment

Perform regular clinical and hematological review until resolution of the infection

Pathology 6: Metabolic, Inflammatory, Genetic

**Metabolic disorders**

**1. Recognize the possibility of spinal osteoporosis when evaluating any patient**

Elicit any history of previous low-energy peripheral fractures

Identify osteopenia and insufficiency fractures

Identify factors affecting bone density

Consider quantifying bone mass before recommending surgical interventions

**2. Order appropriate tests to determine bone mass and to investigate and treat conditions causing osteoporosis**

Describe the differences between various methods of quantifying bone mass

Recognize the common medical causes of osteoporosis and osteomalacia and order appropriate biochemical tests

Refer to medical colleagues for management of osteoporosis

**3. Recognize the presence of comorbidities that may influence bone metabolism**

Recognize medical conditions that affect bone metabolism

Recognize that some therapeutic drugs may affect bone mass

Use a multidisciplinary approach to optimize treatment of medical comorbidities

**4. Apply appropriate techniques when instrumenting the osteoporotic spine or managing acute osteoporotic fractures**

Perform intraoperative augmentation when necessary for secure instrumentation

Consider the role of vertebral body augmentation for acute osteoporotic fractures

**5. Recognize the possibility of instrumentation failure in the osteoporotic spine and plan appropriate medical and surgical strategies to compensate**

Perform long instrumentation and additional sacropelvic fixation when indicated

Inform the patient of the additional morbidity associated with long fixations

Consider adjunctive medical and biologic therapy for fracture healing and fusion

**Inflammatory disorders**

**1. Recognize the symptoms and signs of inflammatory disorders**

Analyze history for insidious (gradually evolving) symptoms

Examine and assess patients for spondyloarthropathy and neurological dysfunction

Evaluate for evidence of systemic disease

**2. Diagnose structural pathology and underlying systemic disease**

Order appropriate imaging based on symptoms and clinical findings

Perform laboratory tests as appropriate to identify systemic disorders

Interpret radiology and laboratory test results

**3. Plan appropriate medical and surgical treatment**

Involve a multidisciplinary team for systemic disease

Assess the need for and timing of surgery based on the best available evidence

Recognize the nonoperative treatments available and the evidence for each one

**4. Perform surgical treatment**

Describe the advantages and disadvantages of anterior and posterior approaches

Perform appropriate neural decompression and stabilization procedures

Employ techniques for correction of deformity

**5. Recognize the need for follow-up • Anticipate and address early and late complications**

Perform continual patient follow-up to identify disease sequelae

**Genetic disorders**

**1. Recognize genetic disorders that cause spinal problems and treat appropriately**

List the genetic disorders that may affect the spine

Identify the radiological features of individual genetic disorders

Participate in interdisciplinary management of the patient

Perform appropriate corrective, decompressive, and stabilization procedures

Course description

Add what participants can expect to learn in the course

Add course focus

Add the way the course will be taught (eg lectures with workshops, etc)

**Example:**

Challenges in the management of spinal trauma have produced some of the major breakthroughs in spine care, especially with regard to implant design. While some problem areas have been successfully addressed, new areas of care concern continue to emerge. This course will address different topics in spinal trauma, such as the management of polytraumatized patients, the emerging role of minimally invasive spine surgery, the treatment of patients with impaired bone structure, and the management of spinal injuries affecting the elderly. New perspectives on spinal cord injury treatment and outcomes measures offer new learning insights for even the experienced surgeon. This educational event, taught in a modular format, offers you a challenging learning experience with interactive sessions facilitated by faculty teaching in their field of expertise. The course will comprise of evidence-based lectures, practical exercises, panel discussions, and debates and will provide ample time for discussion between faculty and participants.

Click here to enter text.

PART 2: OPTIONAL

Chairperson

Proposed faculty

As per approval letter there is space for the agreed number of national faculty

National faculty

1 Surname Name, City, Country

2 Surname Name, City, Country

3 Surname Name, City, Country

4 Surname Name, City, Country

Course session overview

Please note the number of sessions below is just a guide. Please feel free to adjust the number according to your participant’s needs and the educational purpose of the event.

1 Title of session 1

Topics of session 1

2 Title of session 2

Topics of session 2

3 Title of session 3

Topics of session 3

4 Title of session 4

Topics of session 4

5 Title of session 5

Topics of session 5

6 Title of session 6

Topics of session 6

7 Title of session 7

Topics of session 7

8 Title of session 8

Topics of session 8

Day, Date 2011

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| **Session 1 title / name of moderator** | | | | |
| At the end of this session participants will be able to:   * …learning outcome… * …learning outcome… * …learning outcome… | | | | |
| **Start time (hh:mm)**  **End time (hh:mm** | **Duration** | **Educational method**  **Examples:**   * lecture * case presentation * case discussion * group discussion * practical exercise | **Topic** | **Faculty** |
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**Important information: Please remember to allocate time for coffee breaks and lunch**

Day, Date 2011

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| **Session 2 title / name of moderator** | | | | |
| At the end of this session participants will be able to:   * …learning outcome… * …learning outcome… * …learning outcome… | | | | |
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| **Session 3 title / name of moderator** | | | | |
| At the end of this session participants will be able to:   * …learning outcome… * …learning outcome… * …learning outcome… | | | | |
| **Start time (hh:mm)**  **End time (hh:mm** | **Duration** | **Educational method**  **Examples:**   * lecture * case presentation * case discussion * group discussion * practical exercise | **Topic** | **Faculty** |
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| **Session 4 title / name of moderator** | | | | |
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| **Session 5 title / name of moderator** | | | | |
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| **Session 6 title / name of moderator** | | | | |
| At the end of this session participants will be able to:   * …learning outcome… * …learning outcome… * …learning outcome… | | | | |
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