

Introduction to the Orthopaedic 452 course

Dr.Abdulaziz Alomar, MBBS, MSc, FRCSC

Goals

By end of his course, students will have demonstrated the ability to:

- Demonstrate essential knowledge required to diagnose, initially manage and to know when to immediately refer a patient with a condition that requires urgent specialist management.
- Demonstrate knowledge to specify the symptoms, signs and immediate complications; to outline the assessment and appropriate investigation and; to outline the immediate and long term management of patients with common and community related orthopedic conditions and musculoskeletal trauma.
- To take a relevant and a focused MSK history in the knowledge of the characteristics of the major conditions of: bone; joints; connective tissue; nerve tissue and; muscle tissue.
- To perform a focused physical examination of major joints (shoulder, hip, knee, foot and ankle, PN and spine)
- To order and to demonstrate an appropriate use and interpretation of appropriate investigations including: radiography, CT/MRI/bone scan, MSK U/S, serology, synovial fluid analysis, and EMG/NCS.
- The ability to perform a common non-surgical orthopaedic procedures like joint aspirations and ability to apply and remove a cast.

Orthopaedic Core Competencies

- **EMERGENCIES / RED FLAGS**
- **FRACTURES / TRAUMA**
- **PEDIATRIC ORTHOPAEDIC CONDITIONS**
- **NON-TRAUMATIC ORTHOPAEDIC CONDITIONS**
- **CLINICAL ASSESSMENT & DIAGNOSIS SKILLS**

EMERGENCIES / RED FLAGS

- **Open Fractures**
- **Fractures with nerve or vascular compromise**
- **Compartment Syndrome**
- **CaudaEquina Compression**
- **Bone, Joint and Soft Tissue Infection**
- **Multiple Trauma (Pelvic Fracture)**
- **Acute Joint Dislocations**

Fractures & trauma

- **Common Adult % pediatric Fractures**
 - Upper Limbs
 - Lower Limbs
 - Pelvic
- **PERIPHERAL NERVE INJURIES**
- **Acute Spine Injuries**
- **Soft tissue injuries**
- **Joint dislocation**

Pediatric orthopaedic

- **Common Hip Conditions**
- **Common Lower Extremities Condition**
 - Alignment / Rotational conditions
 - Gait Problems
 - Lower extremities deformities

NON-TRAUMATIC ORTHOPAEDIC CONDITIONS

- Spine
- Tumors
- Metabolic
- Joints condition

Spine

- **Degenerative/Mechanical neck/back pain**
- **Spinal cord or root entrapment (for example, herniated lumbar disc)**
- **Vertebral fracture of osteoporotic origin**
- **Spinal deformity (scoliosis)**
- **Destructive (infectious and tumor related) back pain (for example, tuberculosis, metastasis, certain cancers)**

Bone tumors

- **Metastatic bone disease**
- **Primary bone lesions**
 - Benign bone tumors
 - Malignant bone tumors

Metabolic bone disorders

- **Osteoporosis**
- **Osteomalacia and Rickets**

Joint conditions

- **Degenerative OA**
- **Shoulder Chronic Condition**

Clinical Assessment & diagnosis skills

- **History taking**
- **Physical Examination**
- **Investigation interpretation**
- **Communication and attitude skills**
- **Procedural Skill**
 - **Knee joint aspirations.**
 - **Apply and remove a cast**
 - **Joint/fracture reduction techniques**

Teaching and learning methods and places

- **Lecture (Large group):**
- **Case-based learning –CBL- (Small groups):**
 - Topics will be assigned in a head of time to the students with clear objectives.
- **“Hands-on” small groups sessions:**
 - Physical examination skills
 - Splinting and casting technique skills
 - Principles of fractures & joints dislocation reduction.
 - Joint aspirations.
- **Ambulatory care teaching**
 - History taking skills
 - Each student will have a chance of take, present, and discuss patient history with the attending staff tow times during the course.
- **Plaster room**
 - Each student will have chance to observe, apply and remove the cast/splint during the course for at least tow times.

Learning Resources

- Books
- Tutorials / Lectures
- CBL
- Handouts

Assessment

- Continues assessment (20%)
 - History taking at OPD
 - CBL
 - Hands-on skills sessions
- OSCE (40%)
 - History taking
 - Physical examination
 - Communication skills
- Written (40%)

DAYS	LECTURES 8:00 – 10:00 A.M.	CLINICAL / SKILLS TEACHING (10:00 – 12:00)			CLINICAL TEACHING / SMALL GROUPS DISCUSSION 1:00 – 3:00 P.M.		
DATE		I	II	III	I	II	III
SATURDAY 14/10/1433 (1/9/2012)	NO CLASSES – STUDENTS’ MEETING AS PER MEMO NO. 3/9/296212						
SUNDAY 15/10/1433 (2/9/2012)	INTRODUCTION TO 452 COURSE DR. AL OMAR	INTRODUCTION TO ORTHOPAEDICS DR. SAADEDDIN			ASSIGNMENTS DR. ALOMAR		
MONDAY 16/10/1433 (3/9/2012)	FRACTURE / TRAUMA PRINCIPLES OF FRACTURE DR. ALJASSIR	OPD PLASTER Room	SKILLS (1) Splinting and casting DR. ZAHEER	OR (1) Principles of surgical treatment in Orthopaedic DR. ALGARNI	KNEE Examination DR. ALAHAIDEB	BACK Examination DR. SAADEDDIN	SHOULDER Examination DR. ALOMAR
TUESDAY 17/10/1433 (4/9/2012)	FRACTURE / TRAUMA COMMON ADULT FRACTURES DR. BAKARMAN	OR (1) Principles of surgical treatment in Orthopaedic DR. ALGARNI	OPD PLASTER Room	SKILLS (1) Splinting and casting DR. ASIF	BACK Examination DR. BAKARMAN	SHOULDER Examination DR. ALAHAIDEB	KNEE Examination DR. ALJASSIR
WEDNESDAY 18/10/1433 (5/9/2012)	COMMON PEDIATRIC FRACTURES DR. BAKARMAN	SKILLS (1) Splinting and casting DR. NADEEM	OR (1) Principles of surgical treatment in Orthopaedic DR. ALGARNI	OPD PLASTER Room	SHOULDER Examination DR. BIN NASSER	KNEE Examination DR. ALOMAR	BACK Examination DR. ALSIDDIKY

DAYS	LECTURES 8:00 – 10:00 A.M.	CLINICAL / SKILLS TEACHING (10:00 – 12:00)			CLINICAL TEACHING / SMALL GROUPS DISCUSSION 1:00 – 3:00 P.M.		
DATE		I	II	III	I	II	III
SATURDAY 21/10/1433 (8/9/2012)	EMERGENCY / RED FLAGS Cauda equina syndrome Acute spinal injuries DR. K. ALSALEH	PLASTER Room OPD	SKILLS (2) Principles of Reduction DR. ZAHEER	ER Management of multiple injured Patient ER DOCTOR	HIP Examination DR. BIN NASSER	Peripheral nerves/ upper extremities Examination PROF. ALHARBY	FOOT / ANKLE Examination DR.K.ALSALEH
SUNDAY 22/10/1433 (9/9/2012)	EMERGENCIES / RED FLAGS Bone & joint infection DR. AWWAD	ER Management of multiple injured Pt ER DOCTOR	PLASTER Room OPD	SKILLS (2) Principles of Reduction DR. NADEEM	FOOT / ANKLE Examination DR. BAKARMAN	HIP Examination DR. AWWAD	Peripheral nerves/ upper extremities Examination DR. ALAHAIDEB
MONDAY 23/10/1433 (10/9/2012)	EMERGENCIES / RED FLAGS Compartment syndrome Acute joints dislocation DR. BIN NASSER	SKILLS (2) Principles of Reduction DR. ASIF	ER Management of multiple injured Pt ER DOCTOR	PLASTER Room OPD	Peripheral nerves/ upper extremities Examination DR. ALGARNI	FOOT / ANKLE Examination DR. SAADEDDIN	HIP Examination DR. AWWAD
TUESDAY 24/10/1433 (11/9/2012)	EMERGENCIES/ RED FLAGS • Open fracture • Fracture with NV compromise • Pelvic fracture DR. BIN NASSER	COMMON SPINE DISORDERS DR. K. ALSALEH			GROUP MEETING AND DISCUSSION	GROUP MEETING AND DISCUSSION	FRACTURE Clinic
WEDNESDAY 25/10/1433 (12/9/2012)	CHRONIC SHOULDER DISORDERS DR. ALAHAIDEB	OPD PLASTER Room	SKILLS (3) Knee aspiration DR. NADEEM	OR (2) Operative room tour	CBL (1) DR. AWWAD	CBL(2) DR. ALAHAIDEB	GROUP MEETING AND DISCUSSION

DAYS	LECTURES 8:00 – 10:00 A.M.	CLINICAL / SKILLS TEACHING (10:00 –12:00)			CLINICAL TEACHING / SMALL GROUPS DISCUSSION 1:00 – 3:00 P.M.		
DATE		I	II	III	I	II	III
SATURDAY 28/10/1433 (15/9/2012)	PAEDIATRIC (1) Common hip disorders DR. ALSIDDIKY	OR (2) Operative room visit	OPD PLASTER	SKILLS (3) Knee aspiration DR. ZAHEER	SMALL GROUPS MEETING	CBL (1) DR. K. ALSALEH	CBL(2) DR. ALOMAR
SUNDAY 29/10/1433 (16/9/2012)	PAEDIATRIC (2) Common lower limbs disorders PROF. ZAMZAM/ DR. ALSIDDIKY	SKILLS (3) Knee aspiration DR. ASIF	OR (2) Operative room tour	OPD PLASTER	CBL(2) PROF. ALHARBY	FRACTURE Clinic	CBL (1) DR. HAZEM
MONDAY 1/11/1433 (17/9/2012)	SPORT INJURIES DR. ALOMAR	PLASTER OPD	GROUP MEETING AND DISCUSSION	GROUP MEETING AND DISCUSSION	FRACTURE Clinic	GROUP MEETING AND DISCUSSION	GROUP MEETING AND DISCUSSION
TUESDAY 2/11/1433 (18/9/2012)	MSK TUMOURS DR. ALJASSIR	SMALL GROUPS MEETING	PLASTER OPD	SMALL GROUPS MEETING	CBL(3) DR. BAKARMAN	CBL(4) DR. HAZEM	CBL (5) DR. HAZEM
WEDNESDAY 3/11/1433 (19/9/2012)	INVESTIGATIONS IN ORTHOPAEDICS DR. ALSIDDIKY	DEGENERATIVE JOINT DISORDERS DR. HAZEM			CBL(4) DR. K. ALSALEH	CBL (5) DR. ALOMAR	CBL(3) DR. ALGARNI

