

Logbook for final-year interns listing the compulsory and elective elements for the field Orthopaedics and Traumatology

– Recommendation –

Based on the checklist of learning targets published in December 2010 by the teaching taskforce of the German Association for Orthopaedics and Traumatology (DGOU)

Why a logbook?

The purpose of a logbook is to provide the student and the instructor with an individual account of the progress and outcome of the learning process. This logbook contains all the targets from the central checklist, which was designed to ensure excellence in practical training and provide optimum preparation for the second part of the state examination (*Staatsexamen*). By the end of the final-year internship, students are expected to have achieved the level of knowledge or degree of familiarity specified for each of the procedures listed. Students of medicine were actively involved in the drawing up of the learning targets so their feasibility is guaranteed. All comments, suggestions for improvement or requests for change are welcome and should be sent by email to **logbuch.ortho.unfall@googlemail.com**.

The logbook is designed to be carried in the medical coat pocket for daily use in the clinical setting.

With best wishes for a highly successful final-year internship - the DGOU teaching taskforce.

How to use the logbook

The procedures, or targets, listed in this book can be divided into two types: those relevant to the compulsory rotations and those relevant to Orthopaedics and Traumatology as an elective rotation only.

- Students who have not elected to take Orthopaedics and Traumatology as one of their rotations only need to have met the targets listed in the first section of each page by the end of the final-year internship,
- Students who have Orthopaedics and Traumatology as an elective rotation need to have covered the entire content of this logbook by the end of the final-year internship.

The empty fields “ ” next to each procedure are to be filled in with the letters D, S or R which, for logical reasons, can only be entered in that order.

D means that a procedure has been **DEMONSTRATED**

S means that a procedure has been performed under **SUPERVISION**

R means that a procedure is **ROUTINE** (the student can perform the procedure/apply the knowledge obtained without assistance)

All practical procedures must first be demonstrated. The student is then in a position to perform the procedure under supervision, with assistance, and finally to perform it without help. The letter in square brackets indicates the level of experience the student is expected to have by the end of the final-year internship. There are five empty fields after each procedure, and the letter entered into the final field should ideally correspond to the target level of experience. All letters may be entered more than once.

Example: blood withdrawal from a peripheral vein [R]

D	S	S	R	R
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1. Emergency

Content of the required subject

Algorithm-oriented **emergency assessment**
(**A**irway, **B**reathing, **C**irculation, **D**isability, **E**xposure)

[R] _ _ _ _ _

Grading patients according to the **Glasgow Coma Scale**
(GCS)

[R] _ _ _ _ _

Simple techniques of **basic respiratory support** (oxygen mask, patient positioning, keeping airways clear, ...)

[S] _ _ _ _ _

Simple **basic monitoring** (pulse, RR, capillary pulse, pulse oximeter, ECG monitor)

[R] _ _ _ _ _

Basic cardiopulmonary resuscitation **CPR**, (e.g. on a doll:
Basic life support (BLS))

[R] _ _ _ _ _

Emergency positioning

(recovery position, shock position, cardiac position)

[R] _ _ _ _ _

Writing a detailed **case report** of emergency treatment

[S] _ _ _ _ _

Chest drainage (indications for & technique)

[D] _ _ _ _ _

Content specific to the

Traumatology/Orthopaedics elective

Diagnostic algorithm for the **care of the seriously injured**,
incl. computer-assisted and imaging-based diagnostic
techniques

[S] _ _ _ _ _

2. Musculoskeletal examination techniques

Content of the required subject

Neutral Zero Method (e.g. F/E 150°-0°-5°)

[R] _ _ _ _ _

Complete **pulse status**

[R] _ _ _ _ _

Preliminary **neurological examination**

[R] _ _ _ _ _

Dermatomes (including those on the trunk)

[R] _ _ _ _ _

Preliminary **testing of large joint function**

[R] _ _ _ _ _

Preliminary **testing of spinal function**

[R] _ _ _ _ _

Recognising **angular deformities**

[D] _ _ _ _ _

Content specific to the Traumatology/Orthopaedics elective

Main **functional musculoskeletal examination techniques**

[R] _ _ _ _ _

Functional testing of peripheral nerves
(test / documentation)

[R] _ _ _ _ _

In-depth **testing of large joint function**
(e.g. meniscus tests, knee ligament tests)

[R] _ _ _ _ _

Functional testing of hand & foot

[S] _ _ _ _ _

In-depth **testing of spinal function** [R] including a basic understanding of **manual examination techniques** [S]

[R] _ _ _ _ _ & [S] _ _ _ _ _

Angular deformities & other abnormalities (detailed description, diagnosis and treatment concepts)

[S] _ _ _ _ _

3. Discharge summary / Consultation request / Strategy planning

Content of the required subject

Taking a **medical history**

[R] _ _ _ _ _

Basic principles of the **classification of fractures & soft tissue injuries** and appropriate treatment options

[S] _ _ _ _ _

Presenting a case (on rounds/ during consultations)

[R] _ _ _ _ _

Documenting a course of treatment & the results of daily routine activities

[R] _ _ _ _ _

Writing a **discharge summary**

[S] _ _ _ _ _

Documentation of **workplace accidents for insurance purposes**

[S] _ _ _ _ _

Planning a **rehabilitation strategy**

[D] _ _ _ _ _

Content specific to the Traumatology/Orthopaedics elective

Examination of patients with **chronic rheumatic diseases** of the locomotor system

[S] _ _ _ _ _

Examination of patients with **acute inflammatory diseases** of the musculoskeletal system

[S] _ _ _ _ _

Basic principles of the specialised diagnosis of **tumours** of the musculoskeletal system

[S] _ _ _ _ _

Treatment strategies for **tumours** of the musculoskeletal system [D] including **palliative care** [D]

[D] _ _ _ _ _

Content specific to the
Traumatology/Orthopaedics elective

(Continuation of 3. Discharge summary / Consultation request / Strategy planning)

osteosynthesis

[S] _ _ _ _ _

Treatment strategies for musculoskeletal **injuries**

[S] _ _ _ _ _

Basic principles of treatments involving **physical therapy**, including the use of CPM (*continuous passive movement*) devices

[S] _ _ _ _ _

Planning **rehabilitation strategies**

[S] _ _ _ _ _

Planning

the correction of angular deformities

[S] _ _ _ _ _

joint replacements

[S] _ _ _ _ _

4. Imaging-based and computer-aided diagnostics

Content of the required subject

Indicating different imaging methods

(e.g. x-ray, scintigraphy, CT, MRT, DEXA measurement)

[S] _ _ _ _ _

Systematic description of x-rays

[R] _ _ _ _ _

Basic **analysis and interpretation of lab results** (e.g. blood count, electrolytes, PT, PTT, CRP, blood gases)

[R] _ _ _ _ _

Simple **sonography** on a test person

[S] _ _ _ _ _

Content specific to the Traumatology/Orthopaedics elective

Analysing standard x-rays (e.g. pelvic view)

[R] _ _ _ _ _

Describing **specialist x-ray images**

(e.g. Rippstein I and II, Lauenstein projection)

[S] _ _ _ _ _

Measurements (e.g. Cobb angle, angle of slip in slipped capital femoral epiphysis, acetabular angle)

[S] _ _ _ _ _

Systematic analysis of imaging methods such as MRT, MR arthrography, CT, bone scintigraphy, leukocyte scintigraphy, DEXA measurement

[D] _ _ _ _ _

Simple musculoskeletal **sonography** on a test person (e.g. knee, Achilles tendon, newborn hip)

[S] _ _ _ _ _

Advanced analysis and interpretation of lab results (rheumatic serology, osteology, tumour markers, endocrinology)

[D] _ _ _ _ _

5. Pain management

Content of the required subject

Pain assessment each time the patient is seen

[R] _ _ _ _ _

Determining pain intensity using the

Visual Analogue Scale (VAS)

[R] _ _ _ _ _

Pharmaceutical substances and dosages of the **WHO pain ladder**, including individual and systematic prescription

[S] _ _ _ _ _

Principles of **acute perioperative pain management**

[S] _ _ _ _ _

Content specific to the Traumatology/Orthopaedics elective

Multimodal management of **perioperative pain medication**

[S] _ _ _ _ _

Infiltration techniques (intra-articular, epidural, periradicular)

[D] _ _ _ _ _

Management of chronic pain, including allocation to underlying pathology

[D] _ _ _ _ _

6. Patient briefing

Content of the required subject

Greeting the patient, opening the discussion

[R] _ _ _ _ _

Assessing how much the patient already knows

[S] _ _ _ _ _

Assessing the patient's state of mind, correcting the patient's ideas about the planned treatment

[S] _ _ _ _ _

Briefing the patient on his/her **prognosis** and possible **complications** of the condition

[S] _ _ _ _ _

Recognising constellations in which family members or the **judge of a court of guardianship** (*Vormundschaftsrichter*) need to be involved

[S] _ _ _ _ _

Using, during the briefing and for the **documentation** of the briefing, a level of **language** appropriate to the situation and the patient

[S] _ _ _ _ _

Content specific to the Traumatology/Orthopaedics elective

Appropriate **structuring** of informations conveyed in a patient briefing

[R] _ _ _ _ _

Briefing the patient on possible **complications** and on the treatment of

- ✓ standard operations
- ✓ rheumatic spectrum disorders
- ✓ osteoporosis
- ✓ sports orthopaedic conditions
- ✓ musculoskeletal tumours
- ✓ paediatric orthopaedic conditions

[D] _ _ _ _ _

Managing complications, dealing with alleged medical malpractice, talking to family members, delivering bad news

[D] _ _ _ _ _

7. Treatment of injuries

Content of the required subject

Simple **surgical dressing**

[S] _____

Local anaesthesia & nerve blocks

[S] _____ & [D] _____

Administering **tetanus prophylaxis**

[S] _____

Principles of haemostasis

(compression, ligation, diathermy)

[S] _____

Content specific to the

Traumatology/Orthopaedics elective

Realigning fractures and dislocations

[S] _____

8. Wound management

Content of the required subject

Sterile **dressing changes**

[R] _____

Assessing the condition of wounds and soft tissue

[S] _____

Drawing up **wound treatment plans** for acute and chronic wounds

[D] _____

Removing sutures & drains

[R] _____

Content specific to the

Traumatology/Orthopaedics elective

Treating contaminated wounds, burns and chronic septic conditions of the musculoskeletal system (e.g. using vacuum dressing systems)

[S] _____

9. Supports / plaster casts / synthetic casts (note: Cast is “Gips”: you can differ white cast, hard cast, soft cast.../braces

Content of the required subject

Fitting **casts** (plaster or synthetic) to immobilise the forearm (distal radius fracture) or lower leg

[D] _ _ _ _ _

Checking casts

[R] _ _ _ _ _

Immobilisation using ready-to-use bandages & braces

[S] _ _ _ _ _

Recognising indications for [R] & prescribing [S] thromboembolic prophylaxis

[R] _ _ _ _ _ & [S] _ _ _ _ _

Content specific to the Traumatology/Orthopaedics elective

Fitting **casts** (plaster) to immobilise the forearm (distal radius fracture) or lower leg

[S] _ _ _ _ _

Immobilisation using ready-to-use bandages (e.g. Gilchrist bandages, abduction wedges, Velcro splints)

[S] _ _ _ _ _

Recognising indications for & prescribing [S] & checking [D] braces and other orthopaedic devices

[S] _ _ _ _ _ & [D] _ _ _ _ _

Methods for applying **special casts** (e.g. hip spica casts, Ponseti casts, Fettweis casts) [D]

[D] _ _ _ _ _

10. Urinary catheters

Content of the required subject

Techniques of urinary catheterisation

[R] _ _ _ _ _

Including

- **disinfecting** mucous membranes

[R] _ _ _ _ _

- inserting a catheter under **sterile conditions**

[R] _ _ _ _ _

- **recognising problems** during/after the placing of a UC (e.g. nosocomial infection, false passage, bladder spasms)

[S] _ _ _ _ _

11. Blood transfusion

Content of the required subject

Setting up a blood transfusion (theory, technique, materials, procedure)

[R] _ _ _ _ _

including **bedside testing**

[D] _ _ _ _ _

Indications and contraindications for blood transfusion

[R] _ _ _ _ _

Emergency treatment of transfusion reactions

[D] _ _ _ _ _

12. Disinfection and sterility in the operating theatre

Content of the required subject

Hygienic and surgical **skin disinfection**

[R] _ _ _ _ _

Surgical skin disinfection **in the patient**

[R] _ _ _ _ _

Correct procedure for **putting on sterile clothing**

[R] _ _ _ _ _

Safety and **conduct** in the operating theatre

[R] _ _ _ _ _

Implementing **codes of hygiene**

[R] _ _ _ _ _

Content specific to the Traumatology/Orthopaedics elective

Special draping techniques

(e.g. for arthroscopy, hip replacements, knee replacements and spinal operations)

[D] _ _ _ _ _

13. Principles and methods of patient positioning during operations

Content of the required subject

Supine

[R] _ _ _ _ _

Prone

[D] _ _ _ _ _

Lateral

[D] _ _ _ _ _

Securing the patient and padding

[S] _ _ _ _ _

Applying a surgical **tourniquet** / maintaining a **bloodless operative field**

[S] _ _ _ _ _

Content specific to the Traumatology/Orthopaedics elective

Prone

[S] _ _ _ _ _

Lateral

[S] _ _ _ _ _

Beach chair position

[S] _ _ _ _ _

Securing the patient and padding

[R] _ _ _ _ _

Positioning on the **fracture table**

[S] _ _ _ _ _

Positioning for large joint – e.g. knee - **arthroscopy**

[S] _ _ _ _ _

Positioning for **lower leg and foot operations**

[S] _ _ _ _ _

Positioning for **spinal operations** (e.g. Wilson frame)

[S] _ _ _ _ _

14. Interventions / Operations

Content of the required subject

Draping the operative field in standard interventions

[R] _ _ _ _ _

Assisting in exposing the surgical field (sharp/blunt retractors) and in standard orthopaedic/trauma surgical interventions

[R] _ _ _ _ _

Diathermy

[R] _ _ _ _ _

Knot-tying techniques for intraoperative ligation

[S] _ _ _ _ _

Content specific to the Traumatology/Orthopaedics elective

Joint aspiration

[S] _ _ _ _ _

Drainage techniques (e.g. chest drainage)

[D] _ _ _ _ _

Preparing and **planning** specialist interventions [S]

[S] _ _ _ _ _

Assisting in specialist interventions such as

Osteosynthesis

[S] _ _ _ _ _

Arthroscopy

[S] _ _ _ _ _

Joint replacement

[S] _ _ _ _ _

Musculoskeletal tumours and spinal operations

[S] _ _ _ _ _

15. Surgical wound closure and post-operative wound care

Content of the required subject

Simple **suture techniques** (knots, subcutaneous sutures, Donati or Allgöwer sutures, intracutaneous suture)

[R] _ _ _ _ _

Principles of **wound drainage**

[S] _ _ _ _ _

Performing and documenting **postoperative wound care**, including **changing dressings** and **removing sutures**

[R] _ _ _ _ _

Content specific to the Traumatology/Orthopaedics elective

Special **bandaging techniques** (e.g. compression bandages, hip spica)

[S] _ _ _ _ _

Notes

DEMONSTRATED (and explained) – SUPERVISED (with assistance) – ROUTINE (without help)
based on the checklist of learning targets compiled by the DGOU teaching taskforce

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