



Deutsches Wirbelsäulenregister Benutzermanual



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^b
UNIVERSITÄT
BERN

Version 1.0 Oktober 2011

Das vorliegende Benutzermanual ist derzeit nur in englischer Sprache verfügbar,
eine deutsche Übersetzung folgt

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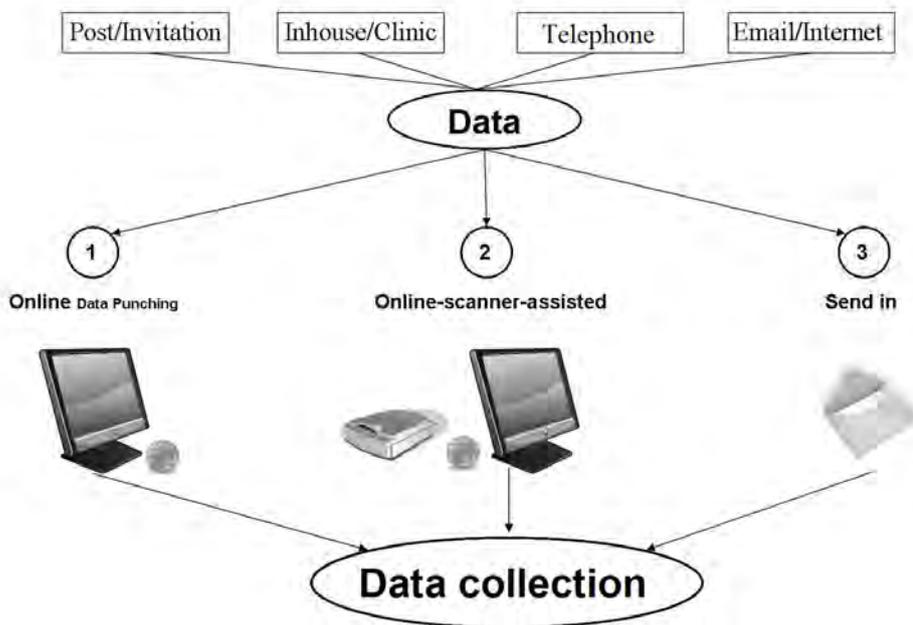
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Introduction

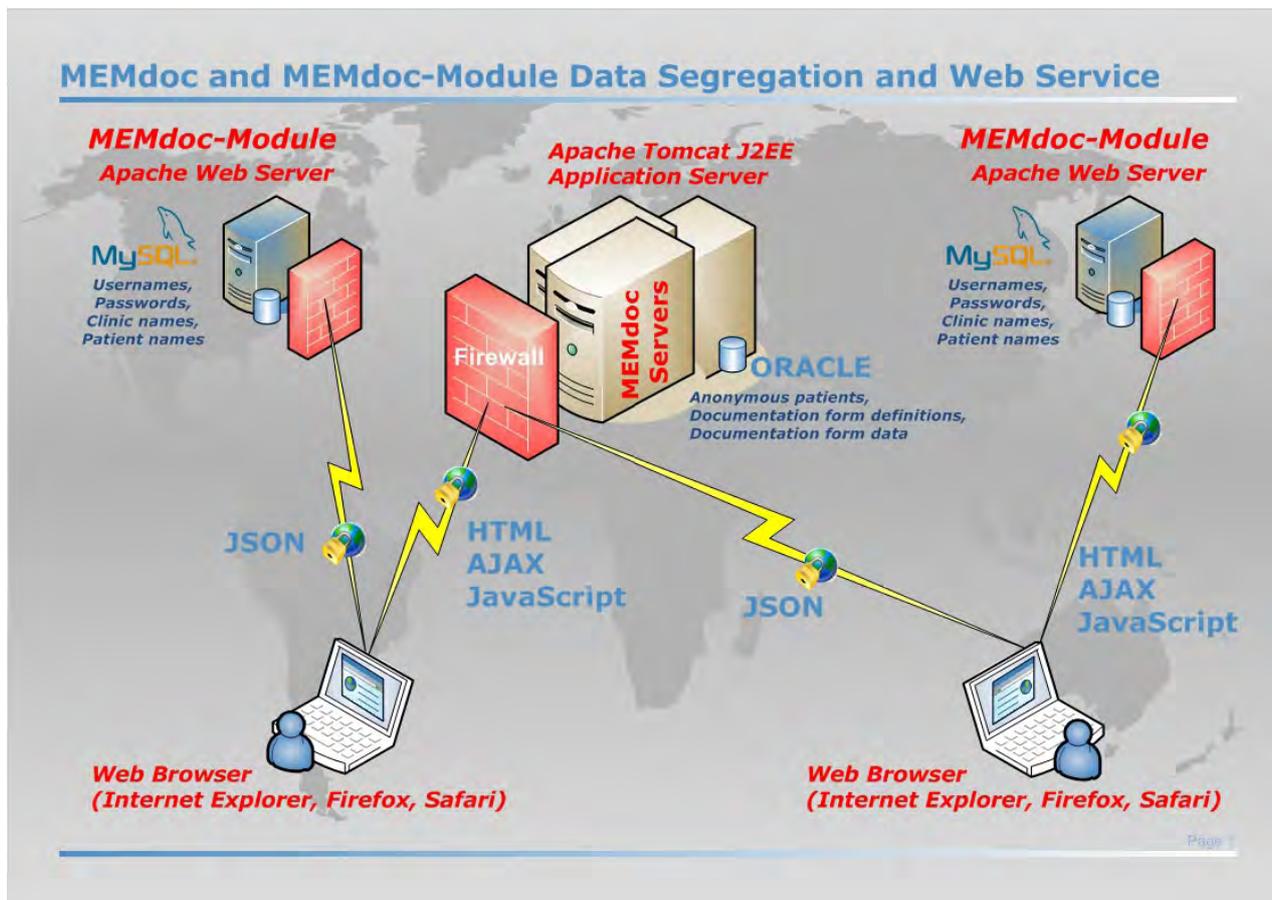
Data Entry

There are 4 possible ways forms and questionnaires can be transferred to the database (Fig. 1)

- 1) Online data entry via the web-interface (no software to be installed)
- 2) OMR (Optical Mark Reader) i.e. scanner-assisted entry of paper forms
- 3) Paper based data capture with mailing to the IEFM or other partner institutions for OMR scanner-assisted entry of paper forms
- 4) Hybrid method of online data entry and OMR scanner-assisted entry of paper forms (not pictured)



In the rectangles multiple methods of gathering patient and physician generated data are shown (per mail, in house, outpatient clinics, telephone and new electronic media). The goal to generate a comprehensive database is achieved by collecting data of the patient layer and the clinic/physician layer. Having created a consistent data set the options of analyses are almost unlimited. Outcome evaluation can now be done in particular.



Optional Hardware/ Scanner

By scanning the OMR forms by oneself we use the OMR 50E Scanner (datawin). The OMR 50E mark reader is an optical mark reader designed for manual feed. It reads marks, crosses, bars, dots and various other types of markings. It processes automatically printed documents (e. g. laser printouts) as well as blind color forms and qualitatively high-grade (dimensionally accurate) copies.

The read head can be folded back without the use of tools in order to carry out cleaning or maintenance operations. The compact structure of the device allows it to be positioned at a slant as an ergonomic desktop model.

For further technical data we refer to the Company link:

http://www.datawin.de/fileadmin/user_upload/datawin/prospects_eng/OMR50E_E.pdf

General Marks

Orange marks are not found on the papersheets or online, they are added in this manual for explanation.

http://www.datawin.de/fileadmin/user_upload/datawin/prospects_eng/OMR50E_E.pdf



: This sign marks very important things you should read and remember.

Manual Data entry

Paper forms

If you do not want to use the online interface for entering data you can use the paper version of the questionnaires.

All paper forms have to be filled out with a soft pencil and every required question (blue background) has to be marked or the data cannot be scanned.

A scanner for digitalization can be purchased or the questionnaires can be sent to the data center at the University of Bern where scanning will be performed for you.

DWG Surgery form

The image shows a screenshot of the DWG Surgery form with several callouts explaining different sections:

- 1. Choose the format:** Points to the 'Format' section with options: 1. Incomplete, 2. Complete.
- 2. Choose level of procedure:** Points to the 'Level of main pathology' section with options: 1. Upper cervical, 2. Cervicothoracic, 3. Cervico-thoraco-lumbar, 4. Thoraco-lumbo-sacral, 5. Lumbo-sacral.
- 3. Choose main-pathology (single answer):** Points to the 'Main pathology' section with options: 1. Degenerative disease, 2. Fracture/trauma, 3. Spondylolisthesis (non-bony), 4. Infection, 5. Repeat surgery, 6. Non-degen. deformity, 7. Pathological fracture, 8. Inflammation, 9. Other.
- 4. Further specification according to the stated main-pathology:** Points to the 'Specification of Main Pathology' section, which includes sub-sections like 'Type of degeneration', 'Type of deformity', 'Type of scoliosis', 'Predominant etiology', 'Type of (pathological) fracture/trauma', 'Infection', 'Tumor', and 'Repeat surg.'.
- 5. Determine the most affected level (one!):** Points to the 'Most severely affected' field in the 'Comments regarding main pathology' section.
- 6. Specify additional pathologies:** Points to the 'Additional pathology' field in the 'Comments regarding main pathology' section.
- 7. Choose risk factors:** Points to the 'Risk factors' section at the bottom, including BMI, Current smoker, and Presence of flags - low back.
- 8. specification of previous surgeries and previous treatments:** Points to the 'Number of previous spine surgeries', 'Previous surgeries at same level', and 'Previous treatment for main pathology (by specialist)' sections.
- 9. Define extend of lesion:** Points to the 'Extent of lesion (segments/vertebral bodies)' field in the 'Comments regarding main pathology' section.

Other callouts include: 'Choose the format', 'General remarks', 'Name, date of birth, MRN etc', and 'further specification are just required for the determined main-pathology'.

Introduction

Manual Data entry/ Paper Forms

Online Data and Entry Tools: Registration - Enter Data - Clinical Tools - User Tools

Current chapter: **Manual Data Entry**

10 Surgery date

11 Parameters of surgical procedure

12 Implant-specification

13 Determination and specification of surgical measures (deco., fusion, stab. rigid, etc)

14 Status of complications, Therapeutic goals, discharge date

Supplier, article name and number

Parameters of surgical procedure

Required further specifications are listed

Intraop complications, further measures

General remarks about form completion:

Carefully fill in the forms so that the scanner can pick-up all marks. You can write everywhere on the questionnaire OUTSIDE the check boxes.

Directions

- ➔ Use a #2 soft pencil for marking.
- ➔ Text answers must be entered with the web interface.
- ➔ All questions must be answered unless otherwise indicated.
- ➔ Completely fill in boxes to record answers.

Note the 2 types of questions and the mandatory/ optional level.

Question types

- A** only 1 answer allowed
- B** multiple answers allowed
- C** mandatory questions
- D** please specify



A single answer (bracket) just pick one answer

3 **Main pathology**

<input type="checkbox"/> degenerative disease	<input type="checkbox"/> fracture/trauma	<input type="checkbox"/> spondylolisthesis (non degen.)	<input type="checkbox"/> infection	<input type="checkbox"/> repeat surgery
<input type="checkbox"/> non degen. deformity	<input type="checkbox"/> pathological fracture	<input type="checkbox"/> inflammation	<input type="checkbox"/> tumor	<input type="checkbox"/> other: specify

B multiple choice (box) choose all the applicable answers

Only answer questions

Degen. disease	<input type="checkbox"/> disc herniat./protrusion	MC	<input type="checkbox"/> degen. spondylolisthesis
	<input type="checkbox"/> central stenosis		<input type="checkbox"/> other instability
	<input checked="" type="checkbox"/> lateral stenosis		<input type="checkbox"/> myelopathy
	<input type="checkbox"/> foraminal stenosis		<input type="checkbox"/> facet joint arthrosis
	<input type="checkbox"/> degen. disc disease		<input type="checkbox"/> other
	<input type="checkbox"/> degen. deformity		
			<i>Specify type of deformity below</i>

Specify grade of spondyl. →

C blue background those questions are mandatory and HAVE to be answered

D continuing points please specify the diagnosis etc.

Patient information:

The more data you enter, the easier is your patient administration (searches, etc.), but you may need informed patient consent.

As a minimum, the CONSTANT Medical Record Number (M.R.N.), patient gender and year of birth must be provided.

The CONSTANT M.R.N means that it remains the same during follow-ups or additional future surgeries. In case you don't want to indicate day and month of birth you may always use e.g. January 1st .

Last name		First name		Gender
Street		M.R.N.		
Patient Data				
Country code	Zip code	City		
Occupation	Birthdate (DD.MM.YYYY)		Telephone	

1 - Format (single choice)

1

Format <input type="checkbox"/> minimal <input checked="" type="checkbox"/> complete

Choose the format of your data, either minimal (all questions in normal print), or complete (all questions, in normal and bold print)

2 - Level of procedure (single choice)

2 **Level of procedure**

e.g. operation on C5-Th3

<input type="checkbox"/> upper cervical	<input type="checkbox"/> cervicothoracic	<input type="checkbox"/> thoracic	<input type="checkbox"/> thoraco-lumbo-sacral	<input type="checkbox"/> lumbo-sacral	<input type="checkbox"/> coccyx
<input type="checkbox"/> mid lower cervical	<input type="checkbox"/> cervico-thoraco-lumbar	<input type="checkbox"/> thoracolumbar	<input type="checkbox"/> lumbar	<input type="checkbox"/> sacral	

e.g. operation on L2/3 or L4/5

Choose level where intervention was performed, e.g. cervicothoracic for a procedure including C5 – Th3 or lumbar for procedures at L2/3 or L4/5 as single level or several levels in the range of L1-L5.

Admission date/ Pathology (single choice for day, month, year, respectively)

— **Admission / Pathology** — **Admission date**

Day 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Month 1 2 3 4 5 6 7 8 9 10 11 12

Year 11 12 13 14 15 16 17 18 19 20

Mark admission date

3 - Main Pathology (single choice)

3 **Main pathology**

<input type="checkbox"/> degenerative disease	<input type="checkbox"/> fracture/trauma	<input type="checkbox"/> spondylolisthesis (non degen.)	<input type="checkbox"/> infection	<input type="checkbox"/> repeat surgery
<input type="checkbox"/> non degen. deformity	<input type="checkbox"/> pathological fracture	<input type="checkbox"/> inflammation	<input type="checkbox"/> tumor	<input type="checkbox"/> other: specify

If several pathologies are present, indicate the most severe one for the surgery. Later on you have the opportunity to indicate additional spinal pathologies.

4 - Specification of Main Pathology

According to the indicated Main Pathology, you must further specify its character. In general, only ONE of the boxes 4.1 - 4.8 applies.

MC = Multiple Answers allowed

Specification of Main Pathology Only answer questions related to Main Pathology (Main Pathology "other" requires no specification.).

<p>4.1</p> <p>Degen. disease</p> <p>Type of degeneration</p> <ul style="list-style-type: none"> <input type="checkbox"/> disc herniat./protrusion <input type="checkbox"/> central stenosis <input type="checkbox"/> lateral stenosis <input type="checkbox"/> foraminal stenosis <input type="checkbox"/> degen. disc disease <input type="checkbox"/> degen. deformity <p>MC</p>	<p>4.4</p> <p>Spondylolisthesis</p> <p>Type of spondylolisthesis</p> <ul style="list-style-type: none"> <input type="checkbox"/> Type I (congenital, dysplastic) <input type="checkbox"/> Type II (isthmic) <input checked="" type="checkbox"/> Type III see type of degen. <input type="checkbox"/> Type IV (traumatic) <input type="checkbox"/> Type V (pathologic) <input type="checkbox"/> Type VI (postsurgical) <p>Extent of dysplasia</p> <ul style="list-style-type: none"> <input type="checkbox"/> high <input type="checkbox"/> low <input type="checkbox"/> unknown <p>Grade of spondylolisthesis</p> <ul style="list-style-type: none"> <input type="checkbox"/> Grade 0 <input type="checkbox"/> Grade I <input type="checkbox"/> Grade II <input type="checkbox"/> Grade III <input type="checkbox"/> Grade IV <input type="checkbox"/> Spondyloptosis (V)
<p>4.2</p> <p>Deformity</p> <p>Type of deformity</p> <ul style="list-style-type: none"> <input type="checkbox"/> scoliosis <input type="checkbox"/> kyphosis <p>Type of scoliosis</p> <ul style="list-style-type: none"> <input type="checkbox"/> single curve <input type="checkbox"/> double curve <p>Predominant etiology</p> <ul style="list-style-type: none"> <input type="checkbox"/> idiopathic <input type="checkbox"/> congenital <input type="checkbox"/> neuromuscular 	<p>4.5</p> <p>Inflammation</p> <p>Type of inflammation</p> <ul style="list-style-type: none"> <input type="checkbox"/> inflammatory arthritis (seropos) <input type="checkbox"/> seronegative arthritis <input type="checkbox"/> ankylosing spondylitis (M. Bechterew) <input type="checkbox"/> other
<p>4.3</p> <p>(Pathological) Fracture/Trauma</p> <p>Type of (pathological) fracture/trauma</p> <ul style="list-style-type: none"> <input type="checkbox"/> condylar (CD) <input type="checkbox"/> C0/1 dissociation <input type="checkbox"/> C1 fracture <input type="checkbox"/> C1/2 instability <input type="checkbox"/> C2 dens fracture <p>Dens fracture type</p> <ul style="list-style-type: none"> <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <p>Pathological fracture due to ...</p> <ul style="list-style-type: none"> <input type="checkbox"/> osteoporosis <input type="checkbox"/> tumor <input type="checkbox"/> other 	<p>4.6</p> <p>Infection</p> <p>Infection specification</p> <ul style="list-style-type: none"> <input type="checkbox"/> pyogenic <input type="checkbox"/> parasitic <input type="checkbox"/> tuberculous <input type="checkbox"/> fungal <input type="checkbox"/> other <p>Affected structure(s)</p> <ul style="list-style-type: none"> <input type="checkbox"/> spondylitis <input type="checkbox"/> discitis <input type="checkbox"/> epidural space <input type="checkbox"/> paravertebral infection <input type="checkbox"/> other
<p>4.7</p> <p>Tumor</p> <p>Type of tumor</p> <ul style="list-style-type: none"> <input type="checkbox"/> primary malignant <input type="checkbox"/> primary benign <input type="checkbox"/> secondary malignant <input type="checkbox"/> tumor like lesion <input type="checkbox"/> other <p>Specify type of tumor</p>	<p>4.8</p> <p>Repeat surg.</p> <p>Type or reason of repeat surgery</p> <ul style="list-style-type: none"> <input type="checkbox"/> hardware removal <input type="checkbox"/> non-union <input type="checkbox"/> instability <input type="checkbox"/> failure to reach therapeutic goals <input type="checkbox"/> neurocompression <input type="checkbox"/> postop. infection <input type="checkbox"/> superficial <input type="checkbox"/> postop. infect. deep <input type="checkbox"/> implant malposition <input type="checkbox"/> implant failure <input type="checkbox"/> sagittal imbalance <input type="checkbox"/> adjac. segment pathology <input type="checkbox"/> other <p>MC</p>

4.1

Main Pathology

Degenerative Disease: specify the type(s) of degeneration (MC multiples answers allowed). If you choose "degen. spondylolisthesis" or "degen. deformity", please specify in the corresponding area. If no answer applies, choose "other" and specify in writing.

4.1 Only answer questions.

Degen. disease

Type of degeneration

- disc herniat./protrusion
- central stenosis
- lateral stenosis
- foraminal stenosis
- degen. disc disease
- degen. deformity

MC

Specify grade of spondyl.

- degen. spondylolisthesis
- other instability
- myelopathy
- facet joint arthrosis
- other

Specify type of deformity below

e.g. lateral stenosis and degen. spondylolisthesis → specify grade of spondylolisthesis in 4.4

4.4

Spondylolisthesis

Type of spondylolisthesis

- Type I (congenital, dysplastic)
- Type II (isthmic)
- Type III see type of degen.
- Type IV (traumatic)
- Type V (pathologic)
- Type VI (postsurgical)

Grade of spondylolisthesis

- Grade 0
- Grade I
- Grade II
- Grade III
- Grade IV
- Spondyloptosis (V)

Introduction

Manual Data entry/ Paper Forms

Online Data and Entry Tools: Registration - Enter Data - Clinical Tools - User Tools

Current chapter: **Manual Data Entry**

4.2

Main Pathology

Deformity: specify type of deformity (single choice), indicate type of scoliosis if applicable, and always define predominant etiology.

If no answer applies, choose "other" and specify in writing.

Also specify the type of degenerative deformity if you chose "degen. deformity" in 4.1.

4.2 **Type of deformity** *Also specify type of degenerative deformity*

Deformity	<input type="checkbox"/> scoliosis	<input type="checkbox"/> combined
	<input type="checkbox"/> kyphosis	<input type="checkbox"/> other
	Type of scoliosis	
	<input type="checkbox"/> single curve	<input type="checkbox"/> double curve
	Predominant etiology	
	<input type="checkbox"/> idiopathic	<input type="checkbox"/> posttraumatic
<input type="checkbox"/> congenital	<input type="checkbox"/> M. Scheuermann	
<input type="checkbox"/> neuromuscular	<input type="checkbox"/> other	

4.3

Main Pathology

Fracture OR Pathological Fracture:

All specifications are single answer. Indicate type of (pathological) fracture, Dens fracture type (if applicable), AO fracture type (if applicable) and fracture age (if applicable).

Pathological fracture due to... must only be answered if main pathology is a pathological fracture.

Example: 4.3.1:

C2 dens fracture, Type III, fresh fracture

4.3.1

Additional fractures w/different treatments require separate forms

Type of (pathological) fracture/trauma

(Pathological) Fracture/Trauma	<input type="checkbox"/> condylar (C0)	<input type="checkbox"/> C2 other fracture
	<input type="checkbox"/> C0/1 dissociation	<input type="checkbox"/> soft tissue injury neck
	<input type="checkbox"/> C1 fracture	<input type="checkbox"/> fracture C3-L5/S1
	<input type="checkbox"/> C1/2 instability	<input type="checkbox"/> sacrum fracture
	<input checked="" type="checkbox"/> C2 dens fracture	<input type="checkbox"/> other
	Dens fracture type	
	<input type="checkbox"/> I	C3-L5/S1 AO fracture type
	<input type="checkbox"/> II	Type <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C
	<input checked="" type="checkbox"/> III	Group <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
	Pathological fracture due to ...	Subgroup <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
<input type="checkbox"/> osteoporosis	Fracture age	
<input type="checkbox"/> tumor	<input checked="" type="checkbox"/> fresh fracture	
<input type="checkbox"/> other	<input type="checkbox"/> old fracture	

In case of tumor, answer questions "Type of tumor" and "Localization" in section "TUMOR"

Example: 4.3.2:

Fracture located between C3-L5/S1, AO-fracture type A2, fresh fracture

4.3.2 Additional fractures w/different treatments require separate forms

Type of (pathological) fracture/trauma

<input type="checkbox"/> condylar (C0)	<input type="checkbox"/> C2 other fracture
<input type="checkbox"/> C0/1 dissociation	<input type="checkbox"/> soft tissue injury neck
<input type="checkbox"/> C1 fracture	<input checked="" type="checkbox"/> fracture C3-L5/S1
<input type="checkbox"/> C1/2 instability	<input type="checkbox"/> sacrum fracture
<input type="checkbox"/> C2 dens fracture	<input type="checkbox"/> other

Dens fracture type

<input type="checkbox"/> I
<input type="checkbox"/> II
<input type="checkbox"/> III

Pathological fracture due to ...

<input type="checkbox"/> osteoporosis
<input type="checkbox"/> tumor
<input type="checkbox"/> other

C3-L5/S1 AO fracture type

Type A B C

Group 1 2 3

Subgroup 1 2 3

Fracture age

<input checked="" type="checkbox"/> fresh fracture
<input type="checkbox"/> old fracture

In case of tumor, answer questions "Type of tumor" and "Localization" in section "TUMOR"

EXCEPTION: pathological fracture because of tumor

Example 4.3.3: pathological fracture of the sacrum due to tumor:

4.3.3 Additional fractures w/different treatments require separate forms

Type of (pathological) fracture/trauma

<input type="checkbox"/> condylar (C0)	<input type="checkbox"/> C2 other fracture
<input type="checkbox"/> C0/1 dissociation	<input type="checkbox"/> soft tissue injury neck
<input type="checkbox"/> C1 fracture	<input type="checkbox"/> fracture C3-L5/S1
<input type="checkbox"/> C1/2 instability	<input type="checkbox"/> sacrum fracture
<input type="checkbox"/> C2 dens fracture	<input type="checkbox"/> other

Dens fracture type

<input type="checkbox"/> I
<input type="checkbox"/> II
<input type="checkbox"/> III

Pathological fracture due to ...

<input type="checkbox"/> osteoporosis
<input checked="" type="checkbox"/> tumor
<input type="checkbox"/> other

C3-L5/S1 AO fracture type

Type A B C

Group 1 2 3

Subgroup 1 2 3

Fracture age

<input type="checkbox"/> fresh fracture
<input type="checkbox"/> old fracture

In case of tumor, answer questions "Type of tumor" and "Localization" in section "TUMOR"

4.7 Tumor

Type of tumor	Localization
<input type="checkbox"/> primary malignant	<input type="checkbox"/> extrasosseous soft tissues
<input type="checkbox"/> primary benign	<input type="checkbox"/> intraosseous (superficial)
<input checked="" type="checkbox"/> secondary malignant	<input type="checkbox"/> intraosseous (deep)
<input type="checkbox"/> tumor like lesion	<input type="checkbox"/> extrasosseous (extradural)
<input type="checkbox"/> other	<input type="checkbox"/> extrasosseous (intradural)
	<input type="checkbox"/> other

Specify type of tumor **MC** **Histology...etc.....**

If Main Pathology is a pathological fracture you have to indicate the cause (due to....). If you select tumor, you have to further specify type and localization in box 3.7! If no answer applies, choose "other" and specify in writing.

4.4

Main Pathology

Spondylolisthesis:

Indicate type and grade of spondylolisthesis (single choices).

If it is a Type I spondylolisthesis, please specify the extent of dysplasia.

Type III must be marked as a degeneration, see 3.1.

4.4

Spondylolisthesis	Type of spondylolisthesis	Grade of spondylolisthesis
	<input type="checkbox"/> Type I (congenital, dysplastic)	<input type="checkbox"/> Grade 0
	<input checked="" type="checkbox"/> Type II (isthmic)	<input type="checkbox"/> Grade I
	<input checked="" type="checkbox"/> Type III see type of degen.	<input checked="" type="checkbox"/> Grade II
	<input type="checkbox"/> Type IV (traumatic)	<input type="checkbox"/> Grade III
	<input type="checkbox"/> Type V (pathologic)	<input type="checkbox"/> Grade IV
	<input type="checkbox"/> Type VI (postsurgical)	<input type="checkbox"/> Spondyloptosis (V)

4.5

Main Pathology

Inflammation: single answer.

If no answer applies, choose "other" and specify in writing.

4.5

Inflammation	Type of inflammation
	<input type="checkbox"/> inflammatory arthritis (seropos)
	<input type="checkbox"/> seronegative arthritis
	<input type="checkbox"/> ankylosing spondylitis (M. Bechterew)
	<input type="checkbox"/> other please specify

4.6

Main Pathology

Infection: specify infection (single choice) and affected structure (s) (multiple choices). If no answer applies, choose "other" and specify in writing.

4.6

Infection	Infection specification	Affected structure(s)
	<input type="checkbox"/> pyogenic	<input type="checkbox"/> spondylitis
	<input type="checkbox"/> parasitic	<input type="checkbox"/> discitis MC
	<input type="checkbox"/> tuberculous	<input type="checkbox"/> epidural space
	<input type="checkbox"/> fungal	<input type="checkbox"/> paravertebral infection
	<input type="checkbox"/> other	<input type="checkbox"/> other

4.7

Main pathology Tumor: specify type of tumor (single choice), if possible enter histology or/ and TNM stage. For localization indicate all affected structures (multiple choice). If no answer applies, choose "other" and specify in writing.

4.7

Tumor	Type of tumor	Localization
	<input type="checkbox"/> primary malignant	<input type="checkbox"/> extrasosseous soft tissues
	<input type="checkbox"/> primary benign	<input checked="" type="checkbox"/> intraosseous (superficial)
	<input checked="" type="checkbox"/> secondary malignant MC	<input type="checkbox"/> intraosseous (deep)
	<input type="checkbox"/> tumor like lesion	<input checked="" type="checkbox"/> extrasosseous (extradural)
	<input type="checkbox"/> other	<input type="checkbox"/> extrasosseous (intradural)
	<input type="checkbox"/> other	
	Specify type of tumor ...e.g. Histology, TNM...	

4.8

Main pathology

Repeat surgery: select all applying types of reasons (multiple choice). If no answer applies, choose "other" and specify in writing.

4.8

Repeat surg. **Type or reason of repeat surgery**

<input type="checkbox"/> hardware removal	<input type="checkbox"/> neurocompression	<input type="checkbox"/> implant failure
<input type="checkbox"/> non-union	<input type="checkbox"/> postop. infection superficial	<input type="checkbox"/> sagittal imbalance
<input checked="" type="checkbox"/> instability MC	<input type="checkbox"/> postop. infect. deep	<input type="checkbox"/> adjac. segment pathology
<input type="checkbox"/> failure to reach therapeutic goals	<input type="checkbox"/> implant malposition	<input type="checkbox"/> other

5 - Most severely affected segment

5

Single choice!!!

Most severely affected segment vertebral body

SA = sacrum / CO = coccyx

C1 C2 C3 C4 C5 C6 C7 T1 T2 T3 T4 T5 T6 T7 T8 T9 T10 T11 T12 L1 L2 L3 L4 L5 S1 SA CO

Only one answer allowed!

Define, if the most severely affected area is a segment or one vertebral body. Then define the area. In segments, mark cranial vertebral body.

6 - Extent of lesion

6

Extent of lesion (segments/vertebral bodies)

C1 C2 C3 C4 C5 C6 C7 C8 C9 C10 C11 C12 C13

C14 C15 C16 C17 C18 C19 C20 C21 C22 C23 C24 C25

Only one answer allowed!

Determine the extent of the lesion beyond the most severely affected segment/vertebral body.

7 - Additional pathology

7

Additional pathology (Answer to question "Main pathology" is excluded.) **MC**

<input type="checkbox"/> none	<input checked="" type="checkbox"/> n. degen. deformity	<input type="checkbox"/> pathological fracture	<input type="checkbox"/> inflammation	<input type="checkbox"/> tumor	<input type="checkbox"/> other: specify
<input type="checkbox"/> degen. disease	<input type="checkbox"/> fracture/trauma	<input checked="" type="checkbox"/> spondylolisthesis (non-degen.)	<input type="checkbox"/> infection	<input type="checkbox"/> repeat surgery	

Multiple choice!

Here you can indicate all the additional spinal pathologies that are present besides the main pathology. The previously indicated main pathology is excluded as answer. If no answer applies, choose "other" and specify in writing.

8- Specification of previous surgeries and/or treatments

Indicate the number of previous spine surgeries and specify previous treatments for the Main pathology (multiple choice).

If number of previous spine surgery is 0, the following two questions (level, hospital) are excluded.

8.1

<p>Number of previous spine surgeries</p> <p><input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p> <p>Answer "0" excludes both "Previous surgery" questions ("at same level" and "at same hospital".)</p>	<p>Previous surgeries at same level</p> <p><input type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> partially</p> <p>Prev. surg. same hospital or surgeon</p> <p><input type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> partially</p>	<p>Previous treatment for main pathology (by specialist)</p> <p><input type="checkbox"/> none <input type="checkbox"/> 3-6 mon. conservative</p> <p><input type="checkbox"/> surgical <input type="checkbox"/> 6-12 mon. conservative</p> <p><input type="checkbox"/> < 3 mon. conservative <input type="checkbox"/> > 12 mon. conservative</p>
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If the patient had spine surgery before, this should be specified in level and hospital

8.2

<p>Number of previous spine surgeries</p> <p><input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6</p> <p>Answer "0" excludes both "Previous surgery" questions ("at same level" and "at same hospital".)</p>	<p>Previous surgeries at same level</p> <p><input type="checkbox"/> no <input checked="" type="checkbox"/> yes <input type="checkbox"/> partially</p> <p>Prev. surg. same hospital or surgeon</p> <p><input checked="" type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> partially</p>	<p>Previous treatment for main pathology (by specialist)</p> <p><input type="checkbox"/> none <input type="checkbox"/> 3-6 mon. conservative</p> <p><input checked="" type="checkbox"/> surgical <input type="checkbox"/> 6-12 mon. conservative</p> <p><input type="checkbox"/> < 3 mon. conservative <input type="checkbox"/> > 12 mon. conservative</p>
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9 - Risk factors

9

<p>Risk factors</p> <p>BMI</p> <p><input type="checkbox"/> < 20 <input type="checkbox"/> 31-35</p> <p><input type="checkbox"/> 20-25 <input type="checkbox"/> > 35</p> <p><input type="checkbox"/> 26-30 <input type="checkbox"/> unknown</p>	<p>Current smoker</p> <p><input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> unknown</p>	<p>Presence of flags</p> <p><input type="checkbox"/> none <input type="checkbox"/> orange <input type="checkbox"/> unable to assess</p> <p><input type="checkbox"/> red <input type="checkbox"/> blue</p> <p><input type="checkbox"/> yellow <input type="checkbox"/> black</p>	<p>Red: Biomedical Factors; serious spinal pathology</p> <p>Yellow: Psychosocial or behavioral factors</p> <p>Orange: Abnormal psychological processes indicating psychiatric disorders</p> <p>Blue: Socioeconomic/work factors</p> <p>Black: Occupational and societal factors</p>
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Determine the risk factors such as Body Mass Index (BMI), current smoking and presence of flags.

The Body Mass Index is calculated as: $BMI (kg/m^2) = Weight (kg) / Height(m)^2$.

The presence of flags should be assessed in patients with low back pain. It is a classification for the treatment of LBP patients also considering psychosocial risk factors. If unable to assess tick the respective field.

For further details see the Dictionary of Terms (DOT).

10 - Surgery date

10

<p>Surgery</p> <p>Day <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 11 <input type="checkbox"/> 12 <input type="checkbox"/> 13 <input type="checkbox"/> 14 <input type="checkbox"/> 15 <input type="checkbox"/> 16 <input type="checkbox"/> 17 <input type="checkbox"/> 18 <input type="checkbox"/> 19 <input type="checkbox"/> 20 <input type="checkbox"/> 21 <input type="checkbox"/> 22 <input type="checkbox"/> 23 <input type="checkbox"/> 24 <input type="checkbox"/> 25 <input type="checkbox"/> 26 <input type="checkbox"/> 27 <input type="checkbox"/> 28 <input type="checkbox"/> 29 <input type="checkbox"/> 30 <input type="checkbox"/> 31</p> <p>Month <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 11 <input type="checkbox"/> 12</p>	<p>Surgery date</p> <p>Year <input type="checkbox"/> 10 <input type="checkbox"/> 12 <input type="checkbox"/> 13 <input type="checkbox"/> 14 <input type="checkbox"/> 15 <input type="checkbox"/> 16 <input type="checkbox"/> 17 <input type="checkbox"/> 18 <input type="checkbox"/> 19 <input type="checkbox"/> 20</p>
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Enter surgery date

Introduction

Manual Data entry/ Paper Forms

Online Data and Entry Tools: Registration - Enter Data - Clinical Tools - User Tools

Current chapter: **Manual Data Entry**

11 - Parameters of surgery

11 **Therapeutic goals** **MC**

- axial pain relief
- peripheral pain relief
- functional improvement
- motor improvement
- sensory improvement
- bladder/sex function improv.
- spinal stabilization
- stop deformity progression
- prophylactic decompression
- cosmetic improvement
- diagnostic measures
- other

Anterior access

- no anterior access
- transoral
- anterolateral
- cervicothorac. anterolat.
- cervicothorac. w/sternotomy
- thoracotomy
- thoracoabdominal
- retroperitoneal
- transperitoneal
- trans-psoas (XLIF)
- other

Posterior access

- no posterior access
- midline
- paramedian
- posterolateral
- percutaneous
- para-coccygeal (AxiALIF)
- other

Components Description not needed if SEDICO implant tracking is used.

none Supplier: _____

with description

w/o description Article name: _____

For article numbers or multiple implants use form "Implant documentation" @ www.eurospine.org

Surgeon credentials

- specialized spine
- board certif. orthopaedic
- board certified neuro
- orthopaedic in training
- neuro in training
- other

Morbidity state

- unknown
- ASA1 (no disturbance)
- ASA2 (mild/moderate)
- ASA3 (severe)
- ASA4 (life threatening)
- ASA5 (moribund)

Technology **MC**

- conventional
- MISS/LISS
- loops
- endoscope
- CASS
- microscope
- neuromonitoring
- other

Operation time

- unknown
- < 1 hr.
- 1-2 hrs.
- 2-3 hrs.
- 3-4 hrs.
- 4-5 hrs.
- 5-6 hrs.
- 6-8 hrs.
- 8-10 hrs.
- > 10 hrs.

Blood loss

- unknown
- < 100 ml
- 100 - 500 ml
- 500 - 1000 ml
- 1000 - 2000 ml
- > 2000 ml

Blood transfusion **MC**

- none
- infection
- thrombembolism
- ossification
- other
- >=2 units
- <2 units
- cell saver
- unknown

ATTENTION - the indicated *Goal(s) of Surgery* will be revisited on the followup form. The information entered on the surgery form should therefore be available at the time and place of followup.

Surgeon credentials – specialized spine surgeons can be orthopaedic or neuro surgeons with a fellowship training in spine surgery or an exclusive spinal surgery activity. *Anterior access and posterior access* are mandatory single choice questions. If no anterior or posterior access was used mark “no anterior/posterior access” *Morbidity state, Blood loss and Operation time* may only be derived from the anaesthesiologist’s protocol and therefore the answer options “unknown” are also offered (better “unknown” than a false guess). MISS/LISS – minimal invasive/less invasive spine surgery. CASS – computer assisted spine surgery. *Therapeutic goals, Technology, Prophylaxis and Blood transfusion* are multiple choice. *Therapeutic goals, anterior and posterior access* are mandatory. If no answer applies, choose “other” and specify in writing.

12 - Implant specification

12 **Components** Description not needed if SEDICO implant tracking is used.

none Supplier: **Implant supplier**

with description

w/o description Article name: **Implant name**

For article numbers or multiple implants use form "Implant documentation" @ www.eurospine.org

If SEDICO Implant tracking is used the implant-informations/specification will be automatically matched after scanning

Whenever you put “hardware” into the patient, please mark “Components – yes” and specify at least supplier name and article number. Don’t indicate every single pedicle

screw but rather system names. If you are lacking space, make use of the other writing sections on the form (e.g. Surgical notes).

13 - Specification of surgical measures

13 Multiple choice!!

Surgical Measures Note: "anterior" / "posterior" refers to location of MEASURES in the spine, NOT to access!

13.1 Decompression <input type="checkbox"/> none <input type="checkbox"/> anterior } specify ... <input type="checkbox"/> posterior } <small>Location in spine, choose at least one!</small>	<input type="checkbox"/> discectomy partial/total <input type="checkbox"/> vertebrectomy partial <input type="checkbox"/> vertebrectomy full <input type="checkbox"/> osteotomy	<input type="checkbox"/> laminotomy <input type="checkbox"/> hemi-laminectomy <input type="checkbox"/> laminectomy <input type="checkbox"/> facet joint resec. partial	<input type="checkbox"/> facet joint resection full <input type="checkbox"/> sequestrectomy <input type="checkbox"/> flavectomy <input type="checkbox"/> flavotomy	<input type="checkbox"/> foraminotomy <input type="checkbox"/> laminoplasty <input type="checkbox"/> uncoforaminotomy <input type="checkbox"/> other
13.2 Fusion promoting measu. <input type="checkbox"/> none <input type="checkbox"/> anterior } specify ... <input type="checkbox"/> posterior } <small>Location in spine, choose at least one!</small>	<input type="checkbox"/> interbody fusion (ALIF) <input type="checkbox"/> interbody fusion (PLIF) <input type="checkbox"/> interbody fusion (TLIF) <input type="checkbox"/> interbody fusion (XLIF)	<input type="checkbox"/> other interbody fusion <input type="checkbox"/> posterolat. fusion <input type="checkbox"/> posterior fusion <input type="checkbox"/> other	Fusion materia <input type="checkbox"/> none <input type="checkbox"/> autol. bone harvested <input type="checkbox"/> autol. bone locally procured <input type="checkbox"/> allog. bone	<input type="checkbox"/> bone subst. <input type="checkbox"/> cement <input type="checkbox"/> BMP or similar <input type="checkbox"/> other
13.3 Stabilization rigid <input type="checkbox"/> none <input type="checkbox"/> anterior } specify ... <input type="checkbox"/> posterior } <small>Location in spine, choose at least one!</small>	<input type="checkbox"/> interbody stabil. with cage <input type="checkbox"/> interbody stabil. with auto-/allograft <input type="checkbox"/> vertebral body replacement by cage <input type="checkbox"/> plates <input type="checkbox"/> pedicle screws with rod	<input type="checkbox"/> facet screws <input type="checkbox"/> transarticular screw C1-C2 <input type="checkbox"/> laminar hooks with rod <input type="checkbox"/> pedicle hooks with rod <input type="checkbox"/> lateral mass screw with rod	<input type="checkbox"/> odontoid screws <input type="checkbox"/> laminar screws <input type="checkbox"/> other	
13.4 Stabil. motion preserving <input type="checkbox"/> none <input type="checkbox"/> anterior } specify ... <input type="checkbox"/> posterior } <small>Location in spine, choose at least one!</small>	<input type="checkbox"/> disc replacement <input type="checkbox"/> dynamic stabilizat. <input type="checkbox"/> interspin. spacer <input type="checkbox"/> other	13.5 Percutan. measures <input type="checkbox"/> none <input type="checkbox"/> post. } specify ... <small>Choose one!</small>	<input type="checkbox"/> facet block <input type="checkbox"/> root block <input type="checkbox"/> discography <input type="checkbox"/> vertebroplasty	13.6 Other surgical measures <input type="checkbox"/> no <input type="checkbox"/> yes <small>Specify yes:</small>
13.7 Extent of surgery - indicate as: (from cranial to caudal) <input type="checkbox"/> segments from C0 C1 C2 C3 C4 C5 C6 C7 C8 C9 C10 C11 C12 L1 L2 L3 L4 L5 S1 SA C0 <input type="checkbox"/> vertebral bodies to C0 C1 C2 C3 C4 C5 C6 C7 C8 C9 C10 C11 C12 L1 L2 L3 L4 L5 S1 SA C0				

NOTE: the location "anterior" and "posterior" refers to location of surgical measures in the spine, NOT to the access. Combined locations anterior and posterior can be indicated (multiple choice). All questions are mandatory.

13.1 Decompression

13.1

Decompression MC <input type="checkbox"/> none <input checked="" type="checkbox"/> anterior } specify ... <input type="checkbox"/> posterior } <small>Location in spine, choose at least one!</small>	<input checked="" type="checkbox"/> discectomy partial/total <input checked="" type="checkbox"/> vertebrectomy partial <input type="checkbox"/> vertebrectomy full <input type="checkbox"/> osteotomy	<input type="checkbox"/> laminotomy <input type="checkbox"/> hemi-laminectomy <input type="checkbox"/> laminectomy <input type="checkbox"/> facet joint resec. partial	<input type="checkbox"/> facet joint resection full <input type="checkbox"/> sequestrectomy <input type="checkbox"/> flavectomy <input type="checkbox"/> flavotomy	<input type="checkbox"/> foraminotomy <input type="checkbox"/> laminoplasty <input type="checkbox"/> uncoforaminotomy <input type="checkbox"/> other
Decompression <input type="checkbox"/> none <input type="checkbox"/> anterior } specify ... <input type="checkbox"/> posterior } <small>Location in spine, choose at least one!</small>	<input type="checkbox"/> discectomy partial/total <input type="checkbox"/> vertebrectomy partial <input type="checkbox"/> vertebrectomy full <input type="checkbox"/> osteotomy	<input type="checkbox"/> laminotomy <input checked="" type="checkbox"/> hemi-laminectomy <input type="checkbox"/> laminectomy <input type="checkbox"/> facet joint resec. partial	<input checked="" type="checkbox"/> facet joint resection full <input type="checkbox"/> sequestrectomy <input checked="" type="checkbox"/> flavectomy <input type="checkbox"/> flavotomy	<input type="checkbox"/> foraminotomy <input type="checkbox"/> laminoplasty <input type="checkbox"/> uncoforaminotomy <input type="checkbox"/> other

Specify if a decompression was performed. If not, check "none".
 Multiple choice – please define all decompressive measures.
 If no answer applies, choose "other" and specify in writing.

13.2 Fusion

13.2

Fusion promoting measu.	MC	Fusion material
<input type="checkbox"/> none <input checked="" type="checkbox"/> anterior } <i>specify ...</i> <input type="checkbox"/> posterior } <small>Location in spine, choose at least one!</small>	<input type="checkbox"/> interbody fusion (ALIF) <input type="checkbox"/> interbody fusion (PLIF) <input type="checkbox"/> interbody fusion (TLIF) <input type="checkbox"/> interbody fusion (XLIF)	<input type="checkbox"/> none <input checked="" type="checkbox"/> autol. bone harvested <input type="checkbox"/> autol. bone locally procured <input type="checkbox"/> allog. bone <input type="checkbox"/> other interbody fusion <input type="checkbox"/> posterolat. fusion <input type="checkbox"/> posterior fusion <input type="checkbox"/> other <input type="checkbox"/> bone subst. <input type="checkbox"/> cement <input type="checkbox"/> BMP or similar <input type="checkbox"/> other

Here, a specification of location of intended fusion in the spine AND the respective approach can be precisely indicated. Specify fusion material if used. If no fusion is intended, check "none". In that case, the question fusion material is excluded.

If no answer applies, choose "other" and specify in writing.

13.3 Stabilization rigid

13.3

Stabilization rigid	MC	Stabil. motion preserving
<input type="checkbox"/> none <input type="checkbox"/> anterior } <i>specify ...</i> <input checked="" type="checkbox"/> posterior } <small>Location in spine, choose at least one!</small>	<input checked="" type="checkbox"/> interbody stabil. with cage <input type="checkbox"/> interbody stabil. with auto-/allograft <input type="checkbox"/> vertebral body replacement by cage <input type="checkbox"/> plates <input type="checkbox"/> pedicle screws with rod	<input type="checkbox"/> disc replacement <input type="checkbox"/> dynamic stabilizat. <input type="checkbox"/> interspin. spacer <input type="checkbox"/> other <input type="checkbox"/> facet screws <input type="checkbox"/> transarticular screw C1-C2 <input checked="" type="checkbox"/> laminar hooks with rod <input type="checkbox"/> pedicle hooks with rod <input type="checkbox"/> lateral mass screw with rod <input type="checkbox"/> odontoid screws <input type="checkbox"/> laminar screws <input type="checkbox"/> other

Again, a specification of location of rigid stabilization in the spine AND the respective approach can be precisely indicated for the cages. If solely screws were used that have no specific product name, just indicate supplier and e.g. "facet screws" in the implant section. Indicate all measures for rigid stabilization (multiple choice).

If no answer applies, choose "other" and specify in writing.

11.4 Stabilization motion preserving

13.4

Stabil. motion preserving	MC
<input type="checkbox"/> none <input type="checkbox"/> anterior } <i>specify ...</i> <input type="checkbox"/> posterior } <small>Location in spine, choose at least one!</small>	<input type="checkbox"/> disc replacement <input type="checkbox"/> dynamic stabilizat. <input type="checkbox"/> interspin. spacer <input type="checkbox"/> other

Specify if a motion preserving stabilization was performed, otherwise check "none". If no answer applies, choose "other" and specify in writing.

13.5 Percutaneous measures

13.5

Percutan. measures	MC
<input type="checkbox"/> none <input checked="" type="checkbox"/> post. } <i>specify ...</i> <small>Choose one!</small>	<input type="checkbox"/> facet block <input checked="" type="checkbox"/> root block <input type="checkbox"/> discography <input type="checkbox"/> vertebroplasty <input checked="" type="checkbox"/> kyphoplasty <input type="checkbox"/> epidural injections <input type="checkbox"/> other

Currently, only posterior percutaneous measures can be recorded. Therefore, choose "post." Or "none" (single choice). Several posterior specifications are possible (multiple choice). If no answer applies, choose "other" and specify in writing.

13.6 Other surgical measures

13.6
Other surgical measures
 no yes
 Specify yes: _____ ←

Specification of other surgical measures if performed. Specify one or several in writing.

14 - Intraoperative complications

14 MC

Intraop surgical complications <input type="checkbox"/> none <input checked="" type="checkbox"/> nerve root damage <input type="checkbox"/> spinal cord damage <input type="checkbox"/> dura lesion <input type="checkbox"/> vascular injury <input type="checkbox"/> fx vertebral structures <input type="checkbox"/> other <input type="checkbox"/> not documented	Surgical measures during index surgery <input checked="" type="checkbox"/> none <input type="checkbox"/> suture/glue <input type="checkbox"/> other	Intraop general complications <input checked="" type="checkbox"/> none <input type="checkbox"/> anaesthesiological <input type="checkbox"/> cardiovascular <input type="checkbox"/> pulmonary <input type="checkbox"/> thrombembolism <input type="checkbox"/> death <input type="checkbox"/> other <input type="checkbox"/> not documented
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Choose the complications which happened. In case there were none, choose "none". If no answer applies, choose "other" and specify in writing. All the questions are multiple choice.

15 - Hospital stay

15

Hospital stay

Postop surgic compl. before discharge <input type="checkbox"/> none <input type="checkbox"/> epidural hematoma <input type="checkbox"/> other hematoma <input type="checkbox"/> radiculopathy <input type="checkbox"/> CSF leak / pseudomeningocele <input type="checkbox"/> motor dysfunction <input type="checkbox"/> sensory dysfunction <input type="checkbox"/> bowel / bladder dysfunction <input type="checkbox"/> wound infection superficial <input type="checkbox"/> wound infection deep <input type="checkbox"/> implant malposition <input type="checkbox"/> implant failure <input type="checkbox"/> wrong level <input type="checkbox"/> other <input type="checkbox"/> not documented	Postop general compl. before discharge <input type="checkbox"/> none <input type="checkbox"/> cardiovascular <input type="checkbox"/> pulmonary <input type="checkbox"/> cerebral <input type="checkbox"/> kidney / urinary <input type="checkbox"/> liver / GI <input type="checkbox"/> thrombembolism <input type="checkbox"/> death <input type="checkbox"/> other <input type="checkbox"/> not documented
Hospital stay <input type="checkbox"/> uneventful <input type="checkbox"/> extended stay <input type="checkbox"/> ICU > 2 days	Re-intervention after index surgery <input type="checkbox"/> none <input type="checkbox"/> hematoma evacuation <input type="checkbox"/> suture / glue <input type="checkbox"/> hardware removal <input type="checkbox"/> hardware <input type="checkbox"/> re-implantation <input type="checkbox"/> abscess drainage <input type="checkbox"/> (further) decompression <input type="checkbox"/> other <input type="checkbox"/> not documented
Status of surg. complications <input type="checkbox"/> resolved <input type="checkbox"/> persisting <input type="checkbox"/> improved	Therapeutic goals upon discharge <input type="checkbox"/> achieved <input type="checkbox"/> not achieved <input type="checkbox"/> partially achieved
Hospital stay <input type="checkbox"/> none <input type="checkbox"/> ICU > 2 days	FU foreseen <input type="checkbox"/> no <input type="checkbox"/> yes

Discharge Day Month Year

Discharge date

"Postop surgic compl." and "Postop general compl." before discharge or re-interventions after surgery and before discharge can only be recorded at the day of patient discharge (all multiple choice). These three questions are mandatory!

The same applies for the optional question "Discharge date" and "Status of complications" at that point in time. If no answer applies, choose "other" and specify in writing.

Follow-up form

1 - Level of procedure

Enter level of procedure which should correspond with the one indicated on the index surgery form.

1 **Level of procedure**

e.g. operation on C5-Th3

<input type="checkbox"/> upper cervical	<input type="checkbox"/> cervicothoracic	<input type="checkbox"/> thoracic	<input type="checkbox"/> thoraco-lumbo-sacral	<input type="checkbox"/> lumbo-sacral	<input type="checkbox"/> coccyx
<input type="checkbox"/> mid lower cervical	<input type="checkbox"/> cervico-thoraco-lumbar	<input type="checkbox"/> thoracolumbar	<input type="checkbox"/> lumbar	<input type="checkbox"/> sacral	

e.g. operation on L2/3 or L4/5

2 - Follow-up

Follow-up

2 **Follow-up date**

Day: (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31)

Month: (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12)

Year: (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27)

Follow up interval

6 weeks

3 months

6 months

1 year

2 years

other (yrs.)

(Ex. 4 months=0.33 yrs. (4/12))

Work status

not at work since OP

started partially, same job

fully reintegrated

resumed work, but quit again

resumed work, different job

has been dismissed

retired since OP

retired before OP

housewife

child/student

other

Only comment on those goals/measures which were indicated for the "Goal of surgery" question on the "SURGERY" form.

Therapeutic goals/measures achieved	Therap. goals/measures partially achieved	Therapeutic goals/measures not achieved
<input type="checkbox"/> none	<input type="checkbox"/> none	<input type="checkbox"/> none
<input type="checkbox"/> axial pain relief	<input type="checkbox"/> axial pain relief	<input type="checkbox"/> axial pain relief
<input type="checkbox"/> peripheral pain relief	<input type="checkbox"/> peripheral pain relief	<input type="checkbox"/> peripheral pain relief
<input type="checkbox"/> functional improvement	<input type="checkbox"/> functional improvement	<input type="checkbox"/> functional improvement
<input type="checkbox"/> motor improvement	<input type="checkbox"/> motor improvement	<input type="checkbox"/> motor improvement
<input type="checkbox"/> sensory improvement	<input type="checkbox"/> sensory improvement	<input type="checkbox"/> sensory improvement
<input type="checkbox"/> bladder/sex function improv.	<input type="checkbox"/> bladder/sex function improv.	<input type="checkbox"/> bladder/sex function improv.
<input type="checkbox"/> spinal stabilization	<input type="checkbox"/> spinal stabilization	<input type="checkbox"/> spinal stabilization
<input type="checkbox"/> stop deformity progression	<input type="checkbox"/> stop deformity progression	<input type="checkbox"/> stop deformity progression
<input type="checkbox"/> prophylactic decompression	<input type="checkbox"/> prophylactic decompression	<input type="checkbox"/> prophylactic decompression
<input type="checkbox"/> cosmetic improvement	<input type="checkbox"/> cosmetic improvement	<input type="checkbox"/> cosmetic improvement
<input type="checkbox"/> diagnostic measures	<input type="checkbox"/> diagnostic measures	<input type="checkbox"/> diagnostic measures
<input type="checkbox"/> other	<input type="checkbox"/> other	<input type="checkbox"/> other

Medication for spinal surgery/pathology

none

NSAID, Paracetamol (WHO I)

weak opiates (WHO II)

strong opiates (WHO III)

steroids

antidepressives

vitamin B complex

antibiotics

other

Overall outcome (examiner)

not applicable

excellent

good

fair

poor

Rehabilitation

none

home-based

outpatient rehab / physio

inpatient rehab / physio

other

Decision

no further follow-up

further follow-up

revision foreseen

other primary intervention foreseen

Comments regarding follow-up

Follow-up date

Day: (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31)

Month: (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12)

Year: (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27)

Enter the follow-up date.

Determine the follow-up interval approximatively for the online statistics (grouping of follow-ups). Choose the closest interval possible. Based on surgery and followup date we can calculate the exact followup intervals for more precise analyses.

Follow up interval

<input type="checkbox"/> 6 weeks	<input type="checkbox"/> 1 year
<input type="checkbox"/> 3 months	<input type="checkbox"/> 2 years
<input type="checkbox"/> 6 months	<input type="checkbox"/> other (yrs.)

(Ex. 4 months=0.33 yrs. (4/12))

If you check "other", calculate the interval as a fraction or multiple of a year.

Work status Single choice

<input type="checkbox"/> not at work since OP	<input type="checkbox"/> resumed work, different job	<input type="checkbox"/> housewife
<input type="checkbox"/> started partially, same job	<input type="checkbox"/> has been dismissed	<input type="checkbox"/> child/student
<input type="checkbox"/> fully reintegrated	<input type="checkbox"/> retired since OP	<input type="checkbox"/> other
<input type="checkbox"/> resumed work, but quit again	<input type="checkbox"/> retired before OP	

Indicate work status. If no answer applies, choose "other" and specify in writing.

3 - follow-up status and goal

Determine fully, partially and not achieved goals of surgery as indicated on the surgery form.

Therapeutic goals/measures achieved

<input type="checkbox"/> none	MC
<input type="checkbox"/> axial pain relief	
<input checked="" type="checkbox"/> peripheral pain relief	
<input type="checkbox"/> functional improvement	
<input type="checkbox"/> motor improvement	
<input type="checkbox"/> sensory improvement	
<input checked="" type="checkbox"/> bladder/sex function improv.	
<input type="checkbox"/> spinal stabilization	
<input type="checkbox"/> stop deformity progression	
<input type="checkbox"/> prophylactic decompression	
<input type="checkbox"/> cosmetic improvement	
<input type="checkbox"/> diagnostic measures	
<input type="checkbox"/> other	

CAVE: make sure you choose the same goals that were indicated on the respective surgery form.

Therap. goals/measures partially achieved

- none
- axial pain relief
- peripheral pain relief
- functional improvement
- motor improvement
- sensory improvement
- bladder/sex function improv.
- spinal stabilization
- stop deformity progression
- prophylactic decompression
- cosmetic improvement
- diagnositic measures
- other

MC

If no answer applies, choose "other" and specify in writing.

Therapeutic goals/measures not achieved

- none
- axial pain relief
- peripheral pain relief
- functional improvement
- motor improvement
- sensory improvement
- bladder/sex function improv.
- spinal stabilization
- stop deformity progression
- prophylactic decompression
- cosmetic improvement
- diagnositic measures
- other

MC

Indicate the medications that the patient is currently taking for his spine surgery. Multiple answers are possible. If no answer applies, choose "other" and specify in writing.

Medication for spinal surgery/pathology

- none
- NSAID, Paracetamol (WHO I)
- weak opiates (WHO II)
- strong opiates (WHO III)
- steroids
- antidepressives
- vitamin B complex
- antibiotics
- other

MC

Only indicate currently actively performed rehabilitation. Only at first followup you may also indicate rehab programs that are already terminated. If no answer applies, choose "other" and specify in writing.

Rehabilitation

none **MC** outpatient rehab / physio other .. specify
 home-based inpatient rehab / physio

Judge the overall outcome from the point of view of the examiner, NOT the patient.

Overall outcome (examiner)

not applicable good poor
 excellent fair

Indicate decision for further follow-ups, revision or new primary procedures (e.g. new problem at adjacent or distant levels).

Decision

no further follow-up revision foreseen
 further follow-up other primary intervention foreseen

4 - Complications

4 Complications

Complications
 no (Answer "no" excludes all remaining questions.)
 yes

Time
 early, Op-day - 28 days postop
 sub-acute, 2 - 6 months
 late, > 6 months

5 Type

<input type="checkbox"/> sensory dysfunction <input type="checkbox"/> motor dysfunction <input type="checkbox"/> bowel / bladder dysfunction <input type="checkbox"/> non-union <input type="checkbox"/> implant failure <input type="checkbox"/> instability <input type="checkbox"/> CSF leak / pseudomeningocele <input type="checkbox"/> wound infection superficial	<input type="checkbox"/> wound infection deep <input type="checkbox"/> spondylitis <input type="checkbox"/> discitis <input type="checkbox"/> wrong level <input type="checkbox"/> implant malposition <input type="checkbox"/> recurrence of symptoms <input type="checkbox"/> graft complication <input type="checkbox"/> sequelae anaesthesia	<input type="checkbox"/> adjac. segment pathology <input type="checkbox"/> recurrent tumor <input type="checkbox"/> decompensation of spine <input type="checkbox"/> cardiovascular <input type="checkbox"/> gastrointestinal <input type="checkbox"/> fx vertebral structures <input type="checkbox"/> thrombembolism <input type="checkbox"/> other
---	---	--

MC

Therapeutic consequences
 none
 non-operative inpatient
 non-operative outpatient
 reintervention
 other

Individual consequences
 none
 increased pain
 prolonged impairment
 reduced social activities
 permanent impairment
 other

MC

Examiner **Examiner's name**

Comments regarding complications

Determine whether the patient has/had complications or not. If “yes” go to point 5 for further specifications, otherwise all remaining questions are excluded.

4.1 Complications
 no (Answer "no" excludes all remaining questions.)
 yes

4.2 Complications
 no (Answer "no" excludes all remaining questions.)
 yes

→ go to 5 for further specification

5 - Specification of complications

Determine time of occurrence of complications and specify type of complications. Multiple answers are possible. Specify time of occurrence in months if greater than months.

Time
 early, Op-day - 28 days postop
 sub-acute, 2 - 6 months
 late, > 6 months

Select the type of complication(s). Multiple answers are possible. If no answer applies, choose “other” and specify in writing.

Type

<input checked="" type="checkbox"/> sensory dysfunction	<input type="checkbox"/> wound infection deep	<input checked="" type="checkbox"/> adjac. segment pathology
<input checked="" type="checkbox"/> motor dysfunction	<input type="checkbox"/> spondylitis	<input type="checkbox"/> recurrent tumor
<input type="checkbox"/> bowel / bladder dysfunction	<input type="checkbox"/> discitis	<input type="checkbox"/> decompensation of spine
<input type="checkbox"/> non-union	<input type="checkbox"/> wrong level	<input type="checkbox"/> cardiovascular
<input type="checkbox"/> implant failure	<input type="checkbox"/> implant malposition	<input type="checkbox"/> gastrointestinal
<input type="checkbox"/> instability	<input type="checkbox"/> recurrence of symptoms	<input type="checkbox"/> fx vertebral structures
<input type="checkbox"/> CSF leak / pseudomeningocele	<input type="checkbox"/> graft complication	<input type="checkbox"/> thrombembolism
<input type="checkbox"/> wound infection superficial	<input type="checkbox"/> sequelae anaesthesia	<input type="checkbox"/> other

MC

Indicate therapeutic consequences of complications. If no answer applies, choose “other” and specify in writing.

Therapeutic consequences
 none
 non-operative inpatient
 non-operative outpatient
 reintervention
 other

List the individual consequences for the patient. If no answer applies, choose "other" and specify in writing.

Individual consequences

none

increased pain **MC**

prolonged impairment

reduced social activities

permanent impairment

other

2 Main Pathology (single choice)

2 Main pathology Answer "same as stage I surgery" excludes questions "Specification of Main Pathology" and "Previous treatment for main pathology"

<input checked="" type="checkbox"/> same as stage I surgery	<input type="checkbox"/> deformity	<input type="checkbox"/> pathological fracture	<input type="checkbox"/> inflammation	<input type="checkbox"/> tumor
<input type="checkbox"/> degenerative disease	<input type="checkbox"/> fracture / trauma	<input type="checkbox"/> spondylolisthesis	<input type="checkbox"/> infection	<input type="checkbox"/> failed surgery
				<input type="checkbox"/> other

If the Main pathology conforms with the Main pathology of the first surgery (primary form) choose same as stage I surgery:

In this case the questions "Specification of Main pathology" and "Previous treatment for main pathology" are excluded.

2 Main pathology Answer "same as stage I surgery" excludes questions "Specification of Main Pathology" and "Previous treatment for main pathology"

<input type="checkbox"/> same as stage I surgery	<input type="checkbox"/> deformity	<input type="checkbox"/> pathological fracture	<input type="checkbox"/> inflammation	<input type="checkbox"/> tumor
<input type="checkbox"/> degenerative disease	<input checked="" type="checkbox"/> fracture / trauma	<input type="checkbox"/> spondylolisthesis	<input type="checkbox"/> infection	<input type="checkbox"/> failed surgery
				<input type="checkbox"/> other

Otherwise define the Main pathology for the "second" step of the surgery. If several pathologies are present, indicate the most severe one for this surgery.

All other questions correspond with the surgery form.

Online data and entry tools

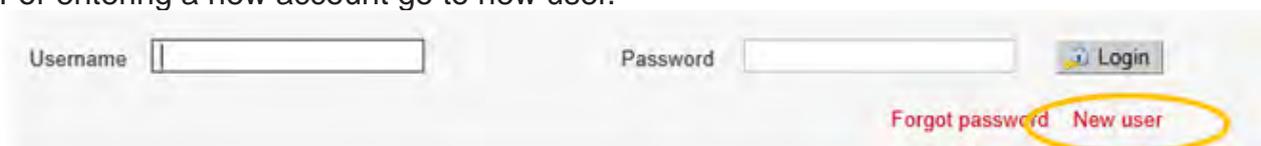
Registration

If already registered, log in with your username/password and proceed to Chapter “Enter Data”

User-ID and Password

If you want to become a new user of the DWG Registry you need to register in the module.

For entering a new account go to new user.



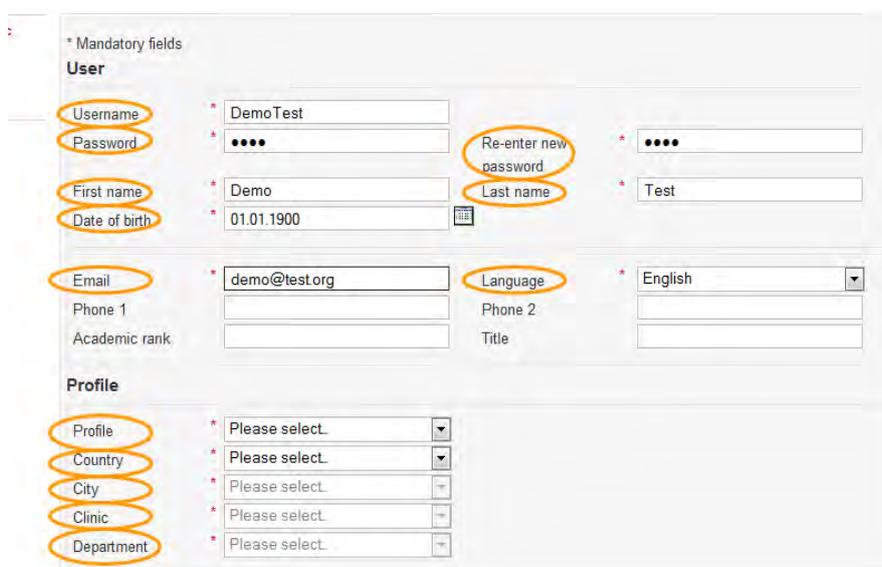
Username Password

[Forgot password](#) [New user](#)

You can choose your User I.D. and you password!

Fill out all fields marked with a star.

Please make sure that your email is correct for contact data.



* Mandatory fields

User

*
 *
 * Re-enter new password
 *
 * Last name
 *
 *
 *
 Phone 1 Phone 2
 Academic rank Title

Profile

*
 *
 *
 *
 *

Determine your profile

With entering a new user profile your account profile needs to be determined. If you are the first person registering for one clinic you need to be the clinical administrator.

If you register for a clinic which is already registered in the spine tango you have to choose this clinic at the profile menu. If your clinic does not exist in the module yet, you have to enter all the required data and add the clinic.

In details that means you have to enter the whole clinic profile with all of the required information on country, city, clinic and department as following:

country:

City:

If the given possibilities do not apply, select:

→ Add

and enter your town

Country: Switzerland
 City: Please select.
 Clinic: Brig, Kreuzlingen, Sion, Riehen, Basel, Bettlach, Fribourg, Bern, Niederteufen, Sion, Lausanne, Davos-Platz, Illanz, Zürich, Zollikerberg, Liestal, Solothurn, Jegenstorf
 Department: [empty]
 Validation: [Image with text Z / 1 D S 3]
 Security image: [Image]
 Add

Clinic:

If the given possibilities do not apply, select:

→ Add

Profile: * docteur
 Country: * Switzerland
 City: * St.Gallen
 Clinic: * TestClinic
 Department: * Please select.
 Validation: [Image]
 Add

If you add a new City / Clinic, fill out all mandatory fields (marked with a star) and select:

→ Add

Profile

Clinic name: * TestClinic
 Street: [empty]
 Street number: [empty]
 Contact person: [empty]
 Fax: [empty]
 City: * Test Town
 Zip code: [empty]
 Phone: [empty]
 URL: [empty]
 Department name: * spine surgery
 Contact person: [empty]
 Phone: [empty]
 Fax: [empty]
 Add Back

Introduction

Manual Data entry/ Paper Forms

Online Data and Entry Tools: Registration - Enter Data - Clinical Tools - User Tools

Current chapter: **Registration**

Department:

If the given possibilities do not apply, select:

→ Add

and specify

Profile

Profile *

Country *

City *

Clinic *

Department * (Please select, spine surgery, Spine Surgery)

Validation

Security image *

If you add a new Department, fill out the marked fields and select:

→ Add

Profile

Department name * Contact person

Phone Fax

Next validate with the security Image:

Validation

Security image *

Example:

The image shows two examples of a security image verification process. Each example consists of a security image (a colorful, noisy background with text) and a corresponding input field. The first example shows a security image with the text 'YMAFLNO' and an input field containing 'YMAFLNO'. The second example shows a security image with the text 'SKA8BGY' and an input field containing 'SKA8BGY'. Both examples have a 'Reset' button next to the input field. The text 'Security image' is circled in orange in both examples.

At the end, please read the “Statement of Permission and Confidentiality” carefully and tick the field to go on. Then select:
→ Save

The image shows a registration form with a checkbox that has been checked. The text next to the checkbox is 'I have read the Statement of Permission and Confidentiality and agree to abide by the rules set forth.' Below the checkbox are two buttons: 'Save' and 'Reset'. The 'Save' button is circled in orange.

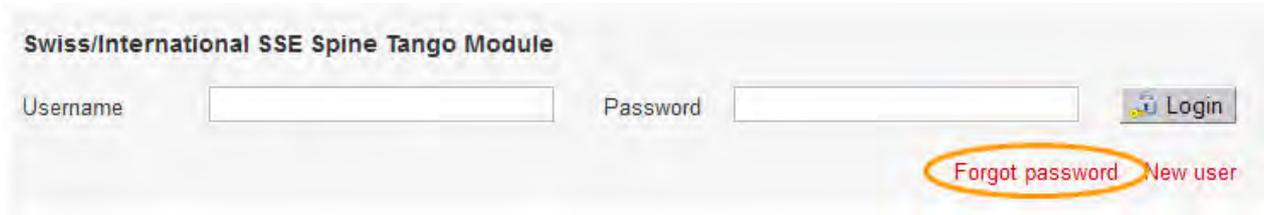
If everything was entered correctly the following window opens:



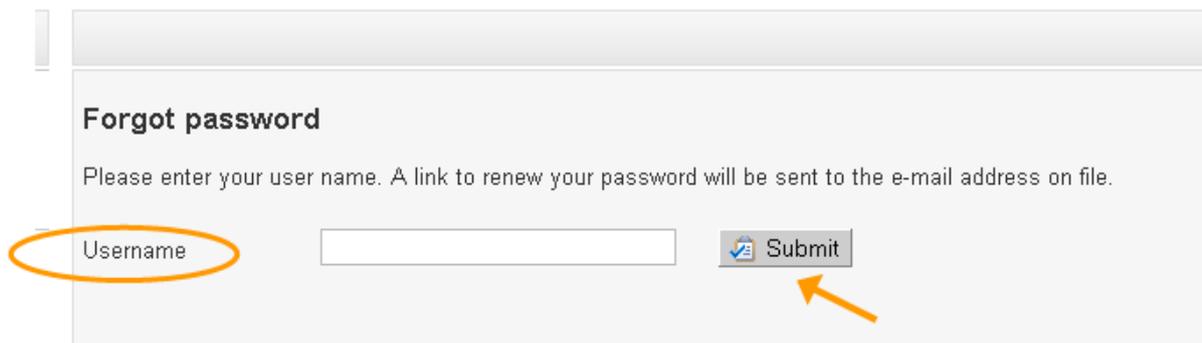
You will receive a confirmation mail of your registration.
That's why it is very important to enter a correct email address!
For now you cannot enter data. You need to wait for activation from the module administrator.
If your account is activated you will receive another confirmation email.
Then you can login with your self chosen User ID and password and start entering.

Forgotten password

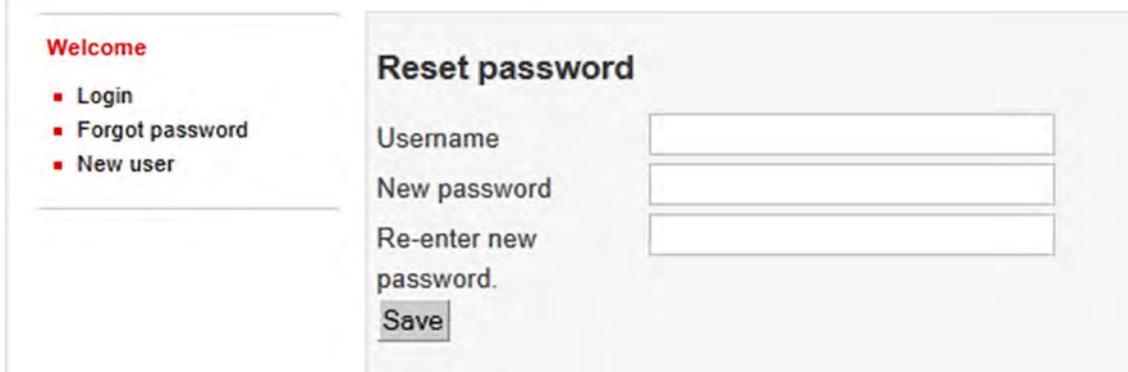
In case you forgot your password, select:
 → Forgot password
 at the login page



Now enter your Username and select:
 → Submit



An e-mail with a link will be sent to the address you entered in your registration. Click on the link and the following window will open:



Enter your username and the new password in the required fields and save.

Enter Data

Document a patient record

Enter data for a new patient - create a new mask.

Enter data for an existing patient - search the patient and create a new e-form.

Create a new Patient

Select:

→ Enter Data

→ New Patient

Enter data

- New patient
- Search patient

Clinical tools

Admin tools

User tools

Logout

Please fill out at least the mandatory fields marked with a star (*):

Department; MRN - Medical Record Number; Date of birth; Gender

New patient

<p>M.R.N. * <input style="width: 150px;" type="text" value="111"/></p> <p>SSN/SIN <input style="width: 150px;" type="text"/></p>	<p>Date of birth * <input style="width: 150px;" type="text" value="01.01.1960"/></p> <p>Gender * <input checked="" type="radio"/> Male <input type="radio"/> Female</p>
<p>First name <input style="width: 150px;" type="text"/></p> <p>Family name at birth <input style="width: 150px;" type="text"/></p> <p>City of birth <input style="width: 150px;" type="text"/></p>	<p>Last name <input style="width: 150px;" type="text"/></p> <p>Country of birth <input style="width: 150px;" type="text" value="Switzerland"/></p>
<p>Phone <input style="width: 150px;" type="text"/></p> <p>Street name <input style="width: 150px;" type="text"/></p> <p>City <input style="width: 150px;" type="text"/></p> <p>Country <input style="width: 150px;" type="text"/></p>	<p>E-mail <input style="width: 150px;" type="text"/></p> <p>Street number <input style="width: 150px;" type="text"/></p> <p>Zip code <input style="width: 150px;" type="text"/></p>
<p>Language <input style="width: 150px;" type="text" value="English"/></p>	
<p> Save Reset</p>	

Click on:

→ Save

to store the information and proceed to the form list:



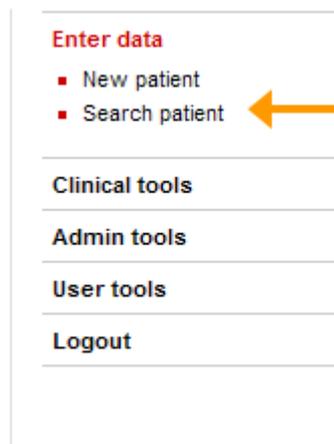
The screenshot shows a patient record for M.R.N.: 111, 01.01.1960, Male. Below the patient information is a section titled "Form list". It includes a "Sort by" dropdown menu currently set to "Please select...". To the right of the dropdown are two buttons: "E-Form" and "OMR Form". Below these elements, a message states "No forms available for patient".

Search a Patient

Select:

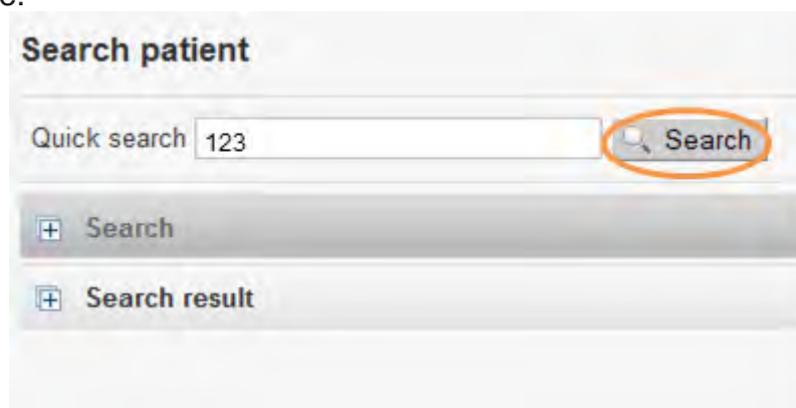
→ Enter data

→ Search patient



The screenshot shows a vertical navigation menu with several sections: "Enter data", "Clinical tools", "Admin tools", "User tools", and "Logout". Under the "Enter data" section, there are two items: "New patient" and "Search patient". A yellow arrow points to the "Search patient" item.

The easiest way to search is the quick search by simply clicking the search button or entering one clue.



The screenshot shows a "Search patient" interface. It features a "Quick search" input field containing the number "123". To the right of the input field is a "Search" button with a magnifying glass icon, which is circled in orange. Below the input field are two expandable sections: "+ Search" and "+ Search result".

You can also limit your search with MRN or date of birth, or you can search with every shown criterion

You can also show all patients with a special form or with a special form state. The search results show all the patients which match your search criteria. If there is only one patient, the details will appear automatically.

M.R.N.	date of birth	gender	first name	last name	Modify
112233	12.12.1950	m	Demo	Demo	1 3
1188	01.08.1964	m	Test	Test	2

Legend.

1: to open the form list click:



2: if you click this, you open the demographic data of a patient and can add more information or change them



3: you can only delete a patient file when there are no e-forms existing



Formlist

The Form List shows all the existing forms for this patient. There are 3 possible states (Status) for the e-forms:

- incomplete: not all the subforms are filled out and saved



- to submit: all the subforms are filled out and saved and the e-form can be submitted.



- submitted: you can only view the data and not edit them anymore.



There is no possibility to change the data or add data to a submitted e-form (except by contacting the data center).

Patienten suchen zurück zur Suchfunktion ?

James Blond, Patientennummer: 007, 07.07.1977, Männlich

Formularliste

Sortieren nach: Bitte wählen... E-Formular OMR-Formular

	DWG Register	mittlere/untere HWS	01.01.2011				
	Operation	Deformität (nicht-degenerativ)					
	DWG Register	zervikothorakal					
	Operation zweizeitig	degenerative Erkrankung					

The legend to the various symbols of the form list looks as followed:

- Edit
- Print
- Upload Image
- Delete



Upload Image:

With this function you can upload a x-ray image. Just choose the location, the date and browse it on your computer. Select:

→ Upload image



To view your image, delete it or add a new one, now select:

→

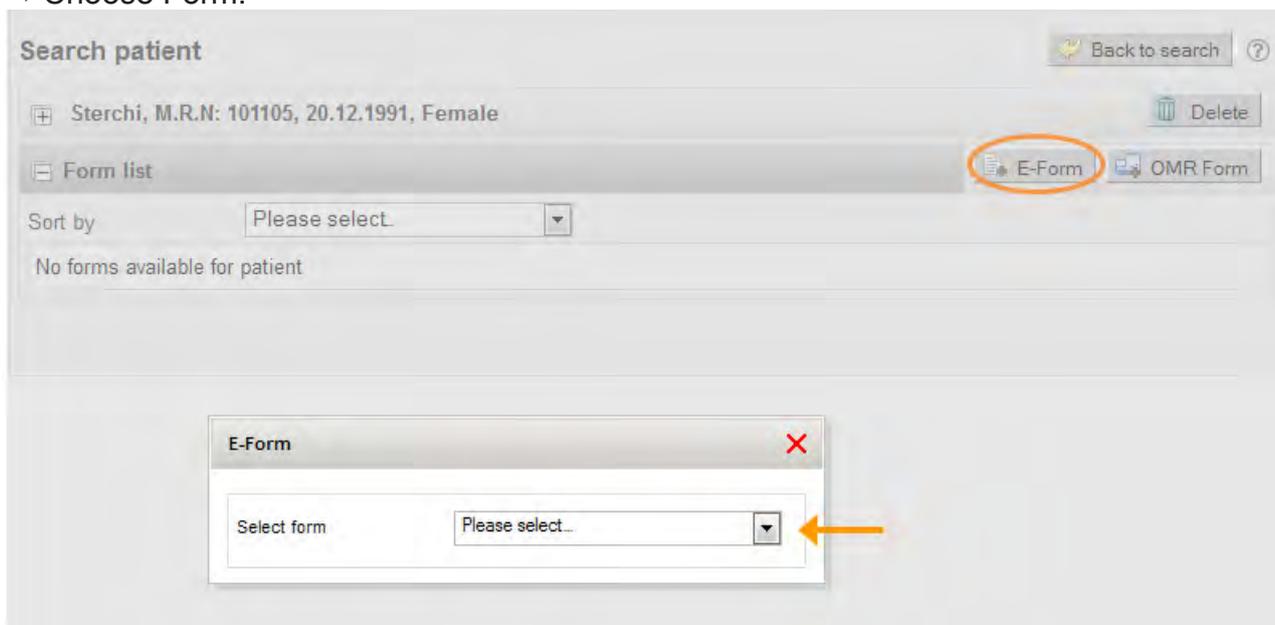
Create questionnaire

New e-Form

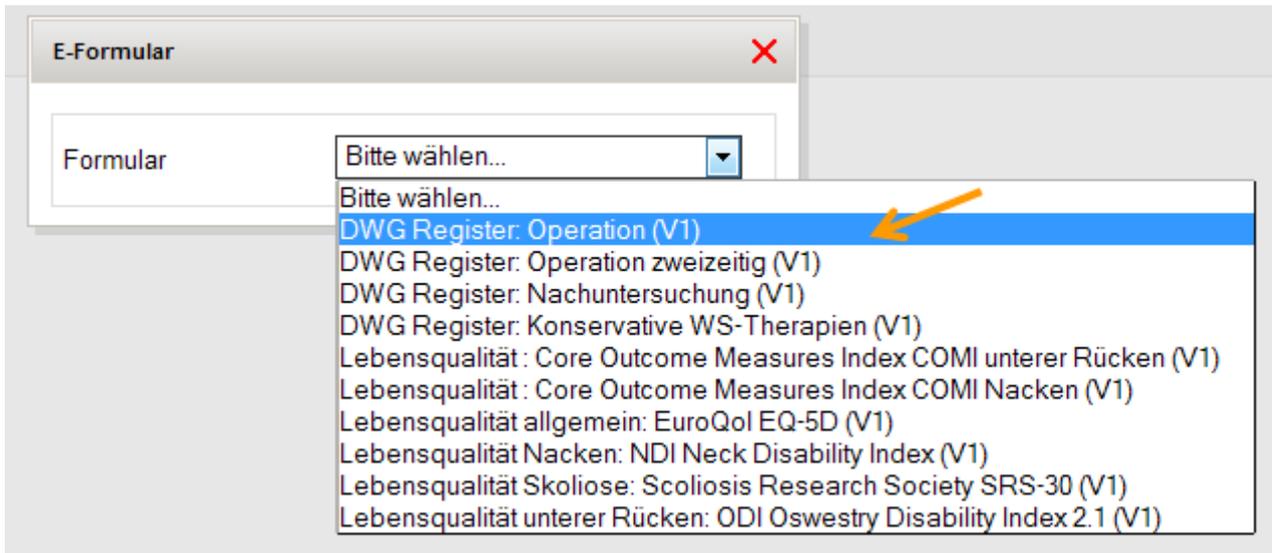
To enter data, create a new e-form:

→ + E-Form

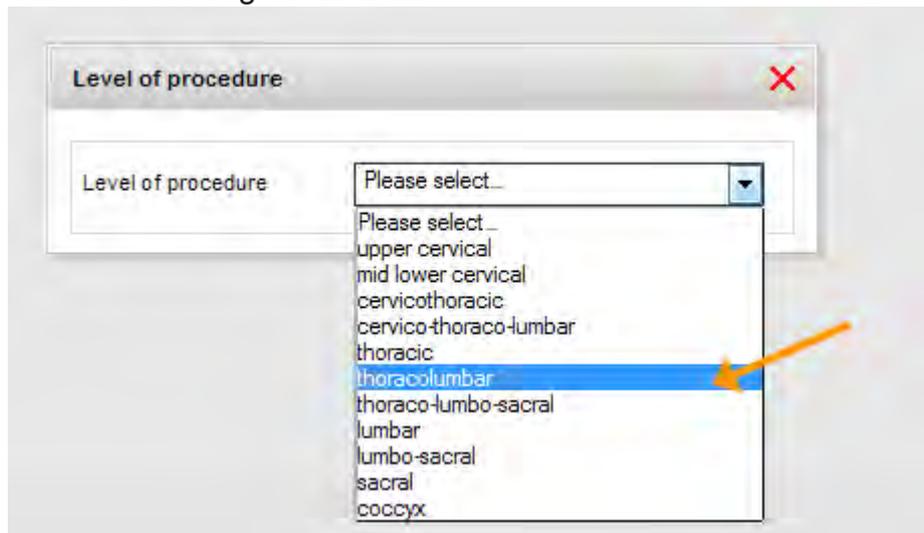
→ Choose Form:



→ DWG Register: Operation



Location:
 → select operated/ treated segments/ area



Enter the data at all the shown subforms and save each single one !!!
 If you choose “minimal” in the first question, only the minimum of needed questions will appear. In “complete”, you will have to answer all questions.
 → Save

DWG Register Operation Inkomplett

Deutsche Wirbelsäulengesellschaft: Wirbelsäulenregister

- Aufnahme / Pathologie
- Operation
- Operative Massnahmen
- Hospitalisation

ALLGEMEIN

1. Format ←

- minimal
- komplett

2. Eintrittsdatum ←

Only when all requested questions are answered the data will be saved and then there will be filled, green circle which means: completed and saved.

- Admission / Pathologie
- Surgery
- Surgical measures
- Discharge

When all subforms except Additional are saved and show a green and filled circle, you can/should submit the case/e-form. Select:

→ Submit

DWG Register Operation Komplett

Deutsche Wirbelsäulengesellschaft: Wirbelsäulenregister

- Aufnahme / Pathologie
- Operation
- Operative Massnahmen
- Hospitalisation

Implant tracking / Component

For implant tracking or manual implant description, question 14 (Implant Characteristics) at the bottom of the Subform Surgery needs to be answered with “yes”. Then, select:

→ Save

IMPLANT CHARACTERISTICS

14. Components ?

yes ←

no

Save Cancel

An extra subform Components is triggered that way and will appear:

- Admission / Pathology
- Surgery**
- Components
- Surgical measures
- Discharge

To identify the implants you can either scan the implant-codes with SEDICO/ GHX, search the electronic supplier catalogues or enter the implant information manually. First, select:

→ Add implant

This window will appear:

Implant management ✖

Implant search

Supplier * Edit Implant Notebook

Catalog language *

Article number

Article description Search

Manually add implant

Scan Implant

Search results

Implant tracking with Sedico

SEDICO/ GHX: The implant barcodes can be scanned directly after surgery.

To match with the right patient, four criteria have to be consistent:

- Medical Record Number (MRN)

Introduction

Manual Data entry/ Paper Forms

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- Surgery date has to match the scan date
- Location chosen during scanning and location indicated for the e-form (e.g. "lumbo-sacral")
- Clinic: your scanner is linked to your clinic account with a code during installation. This code does not have to be entered again for implant tracking.

If these four criteria match, AND the scanner is operated in ordering/tracking or solely tracking mode, the implants will be inserted into the "Components" subform automatically.

Manual implant data input

You can use your personal Implant Notebook and choose the right implants

For example:

There are 5 hits.		Show <input type="text" value="5"/> results per page	<< < 1 > >>
Supplier	Article number	Description	Lot number
Centerpulse	000.20.005	TOURNEVIS PERFORE P/VIS BIORESORBABLE = REF 110.20.005	<input type="text"/> +
Synthes	02.300.001	Claw Connector, for Rods Ø 6.0 mm, Stainless Steel	<input type="text"/> +
Synthes	02.306.010	Pelvic Rod, left, Stainless Steel	<input type="text"/> +

To create your own Implant Notebook:

Click on Edit Implant Notebook:

You can insert your own Components by searching implants and add them. Choose minimum the supplier and the catalogue language and then click:

→ Search

Beyond “Search results” you find all implants that match your search results. To add them to the notebook, select:

→

There are 2850 hits. Show results per page << < 1 > >>

Article number ▲	Description	
02.300.000	L-Connector for Rods Ø 6.0 mm, Stainless Steel	
02.300.001	Claw Connector, for Rods Ø 6.0 mm, Stainless Steel	
02.300.002	T-Connector for Rods Ø 6.0 mm, Stainless Steel	
02.300.003	T-Connector for Rods Ø 6.0/8.0 mm, Stainless Steel	

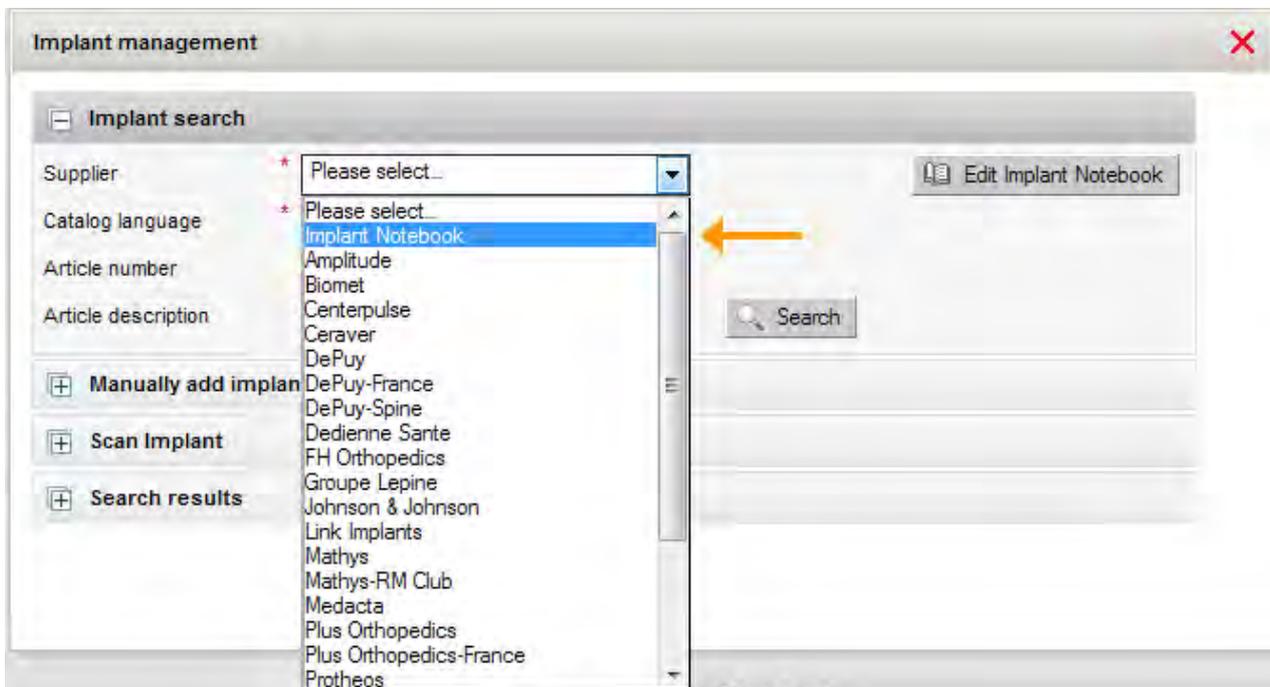
You can as well add components manually. Insert the supplier, the article number and the description and click on:

→ Add to notebook

The next time you open your Implant Notebook all the inserted Components are shown.

Edit Implant Notebook				
				Close Implant Notebook
There are 2 hits.		Show 5 results per page	<< < 1 > >>	
Supplier	Article number	Description		
Synthes	02.300.001	Claw Connector, for Rods Ø 6.0 mm, Stainless Steel		
TEST	123456789	test implant		

Then you can easily link them to your patient by searching the Implant Notebook and selecting the respective Implants



You can insert the beginning of an article number to fasten your search OR you can just select:

→ Search

and the whole notebook will appear. To choose an implant, click:

→

If desired, the Lot-number can be manually added for each component before adding it.

Introduction

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Implant management ✖

Implant search

Supplier * Edit Implant Notebook

Article number

Article description 123456789
185911007

Search

Manually add implant

Scan Implant

Search results

There are 2 hits Show 5 results per page

Supplier	Article number	Description	Lot number
TEST	123456789	test implant	<input type="text" value="12346"/>
DePuy-Spine	185911007	Cervikale Bandscheibenprothese DISCOVER Klein x 7mm	<input type="text"/>

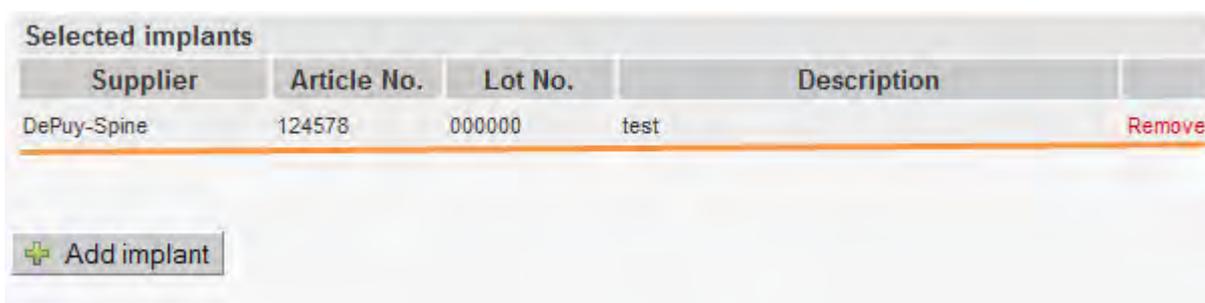
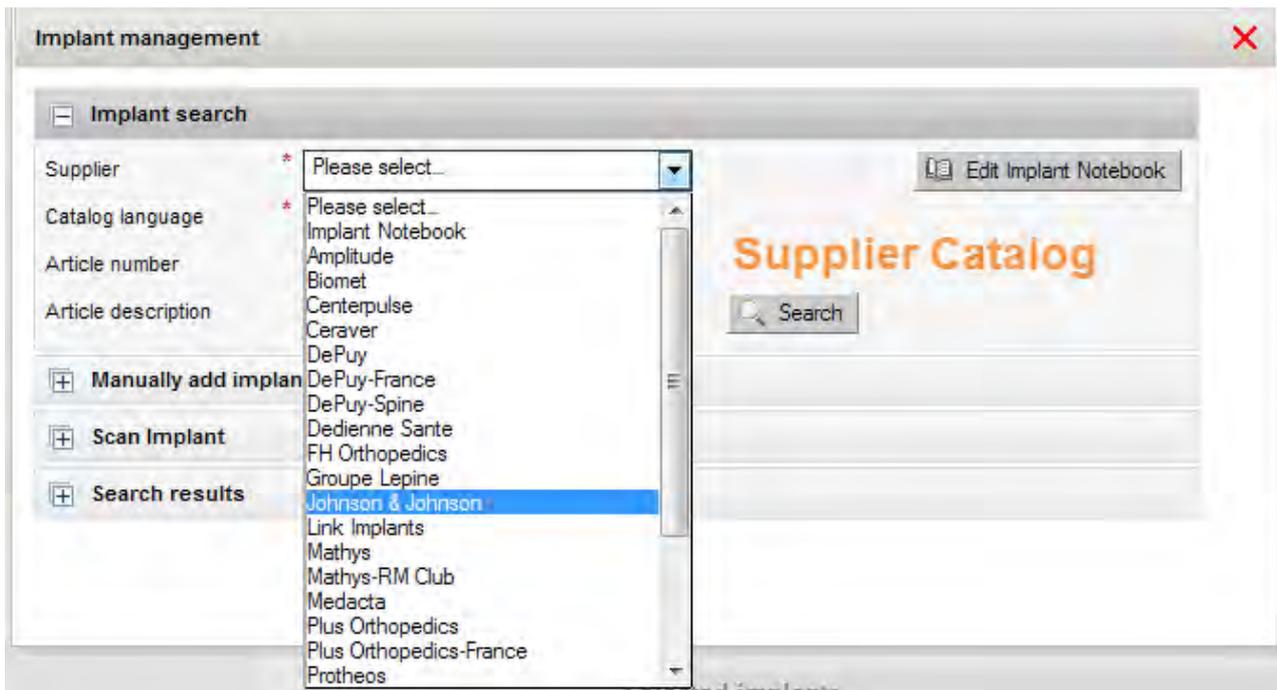
After you have chosen all Implants, close the window and your list of selected implants will appear. To delete an implant, select:
→ Remove

- Admission / Pathology
- Surgery
- Components*
- Surgical measures
- Discharge

Selected implants

Supplier	Article No.	Lot No.	Description	
DePuy-Spine	185911007	-	Cervikale Bandscheibenprothese DISCOVER Klein x 7mm	Remove
TEST	123456789	12345	test implant	Remove

You can also search the Supplier Catalogues for other Components or enter Supplier; Article No. Article description and Lot Nr manually, without using the notebook.



Submission

When all subforms except Additional are saved and all the circles appear green and filled, the e-form can be submitted. Select:

→ Submit

Introduction

Manual Data entry/ Paper Forms

Online Data and Entry Tools: Registration - Enter Data - Clinical Tools - User Tools

Current chapter: Registration



After submission you cannot change or delete your data anymore without personally contacting the data center.

Clinical Tools

Download data

Here you download your clinical data, called form data.

Click on:

→ Download data

Enter data
Clinical tools
<ul style="list-style-type: none"> ▪ Download data ← ▪ Online statistics ▪ Form definition
Admin tools
User tools
Logout

Now choose a form from which you want to extract/analyze the date, in our example DWG: Surgery 2006

Daten herunterladen

Formular	Bitte wählen... ▼
Fälle	Bitte wählen...
Formularoptionen	<ul style="list-style-type: none"> <li style="background-color: #e6f2ff;">DWG Register: Operation (V1) ← DWG Register: Operation zweizeitig (V1) DWG Register: Nachuntersuchung (V1) DWG Register: Konservative WS-Therapien (V1) Lebensqualität : Core Outcome Measures Index COMI unterer Rücken (V1) Lebensqualität : Core Outcome Measures Index COMI Nacken (V1) Lebensqualität allgemein: EuroQol EQ-5D (V1) Lebensqualität Nacken: NDI Neck Disability Index (V1) Lebensqualität Skoliose: Scoliosis Research Society SRS-30 (V1) Lebensqualität unterer Rücken: ODI Oswestry Disability Index 2.1 (V1)

Daten herunterlad

You can select filter criteria for your download now.

You have five options to choose your cases:

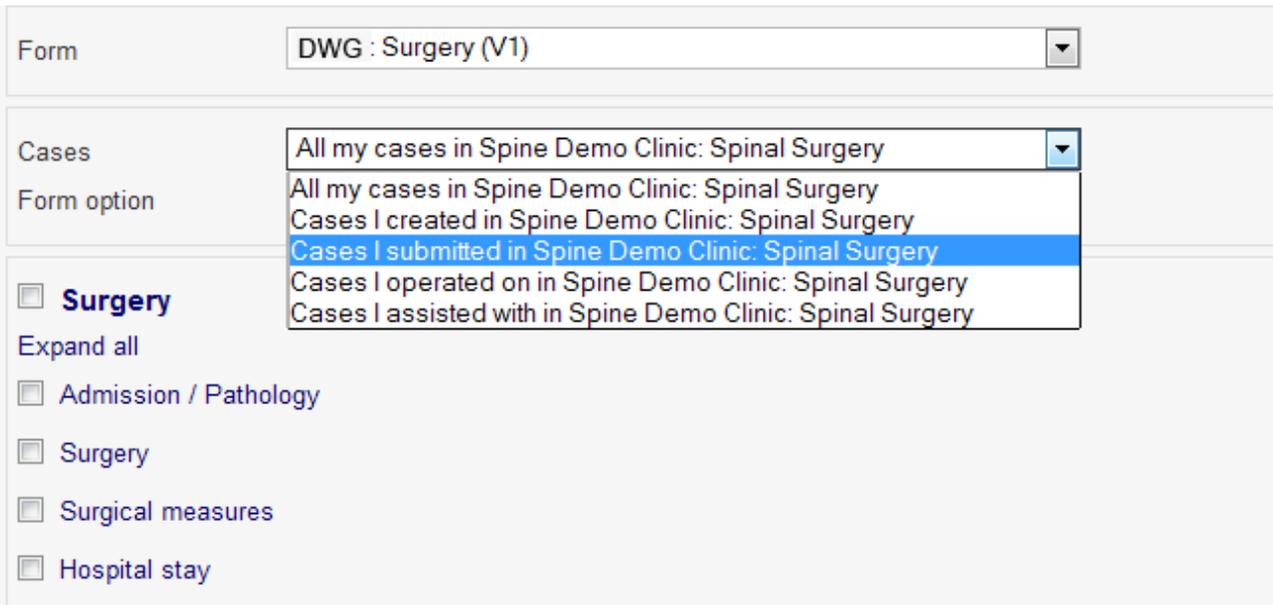
1. All your own cases
2. All the cases (you) created in your clinic
3. All the cases (you) submitted in your clinic
4. All the cases (you) operated in your clinic
5. All the cases (you) assisted in your clinic
6. All cases

Introduction

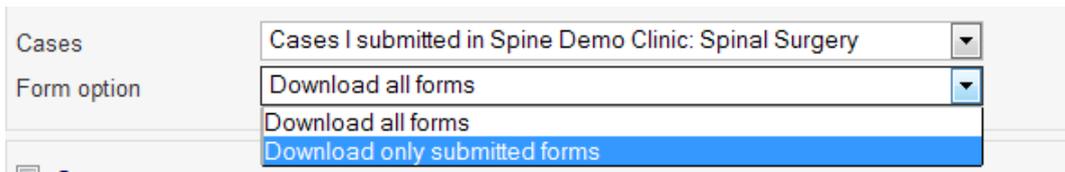
Manual Data entry/ Paper Forms

Online Data and Entry Tools: Registration - Enter Data - Clinical Tools - User Tools

Current chapter: Clinical Tools

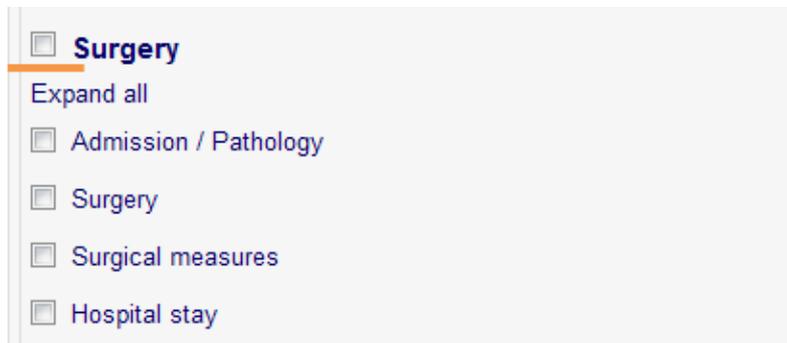


Further, you can choose if you want all forms or only the submitted forms.



In the end you can define the various questions from whom you want to download the data. If you wish to get the whole form, select:

→ Surgery



If you want only few data, reduce the outcome to the questions you like and click on:

→ Select

E.g if you are only interested in Main pathology, Additional pathology, Decompression and Fusion

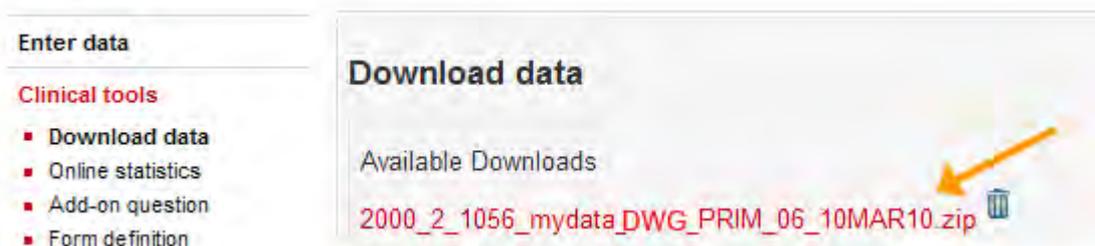
<input type="checkbox"/> Admission / Pathology	
<input type="checkbox"/> Format	<input type="checkbox"/> Admission date
<input checked="" type="checkbox"/> Main pathology 	<input type="checkbox"/> Specify other main pathology
<input type="checkbox"/> Type of degeneration	<input type="checkbox"/> Specify other degenerative disease
<input type="checkbox"/> Type of deformity	<input type="checkbox"/> Specify other type of deformity
<input type="checkbox"/> Type of scoliosis	<input type="checkbox"/> Predominant etiology
<input type="checkbox"/> Specify other predominant etiology	<input type="checkbox"/> Type of (pathological) fracture/trauma
<input type="checkbox"/> Specify other type of fracture/trauma	<input type="checkbox"/> Dens fracture type
<input type="checkbox"/> C3-L5/S1 AO fracture type	<input type="checkbox"/> C3-L5/S1 AO fracture group
<input type="checkbox"/> C3-L5/S1 AO fracture subgroup	<input type="checkbox"/> Pathological fracture due to
<input type="checkbox"/> Specify other reason	<input type="checkbox"/> Fracture age
<input type="checkbox"/> Type of spondylolisthesis	<input type="checkbox"/> Grade of spondylolisthesis
<input type="checkbox"/> Type of inflammation	<input type="checkbox"/> Specify other type of inflammation
<input type="checkbox"/> Infection specification	<input type="checkbox"/> Specify other type of infection
<input type="checkbox"/> Affected structure(s)	<input type="checkbox"/> Specify other type of affected structure
<input type="checkbox"/> Type of tumor	<input type="checkbox"/> Specify type of tumor
<input type="checkbox"/> Localization	<input type="checkbox"/> Specify other localization
<input type="checkbox"/> Type of repeat surgery	<input type="checkbox"/> Specify other type of repeat surgery
<input type="checkbox"/> Comments regarding main pathology	<input type="checkbox"/> Most severely affected segment/vertebral body
<input type="checkbox"/> Most severely affected	<input type="checkbox"/> Extent of lesion (segments/vertebral bodies)
<input checked="" type="checkbox"/> Additional pathology 	<input type="checkbox"/> Specify other additional pathology
<input type="checkbox"/> Number of previous spine surgeries	<input type="checkbox"/> Previous surgery/ies at same level
<input type="checkbox"/> Previous surgery/ies at same hospital	<input type="checkbox"/> Previous treatments for main pathology (max. 2)
<input type="checkbox"/> BMI	<input type="checkbox"/> Current smoker
<input type="checkbox"/> Presence of flags - low back pain	

<input type="checkbox"/> Surgical measures	<input type="checkbox"/> Specify decompression
<input checked="" type="checkbox"/> Decompression	<input checked="" type="checkbox"/> Fusion promoting measures
<input type="checkbox"/> Specify other decompression	<input type="checkbox"/> Specify other fusion
<input type="checkbox"/> Specify fusion	<input type="checkbox"/> Specify other fusion material
<input type="checkbox"/> Fusion material	<input type="checkbox"/> Specify stabilization rigid
<input type="checkbox"/> Stabilization rigid	<input type="checkbox"/> Stabilization motion preserving
<input type="checkbox"/> Specify other stabilization rigid	<input type="checkbox"/> Specify other stabilization motion preserving
<input type="checkbox"/> Specify stabilization motion preserving	<input type="checkbox"/> Specify percutaneous measures
<input type="checkbox"/> Percutaneous measures	<input type="checkbox"/> Specify other percutaneous measures
<input type="checkbox"/> Specify other percutaneous measures	<input type="checkbox"/> Other surgical measures
<input type="checkbox"/> Specify other surgical measures	<input type="checkbox"/> Extent of surgery - indicate as
<input type="checkbox"/> from	<input type="checkbox"/> to
<input type="checkbox"/> Intraop. surgical complications	<input type="checkbox"/> Specify other intraop surgical complications
<input type="checkbox"/> Surgical measures during index surgery	<input type="checkbox"/> Specify other surgical measure
<input type="checkbox"/> Intraop general complications	<input type="checkbox"/> Specify other intraop general complications
<input type="checkbox"/> Hospital stay	

The following window will open:



Return to your clinical Download Data Tool and refresh the page after some minutes or come back later.



A Zip folder is generated which needs to be saved on your computer to unzip.

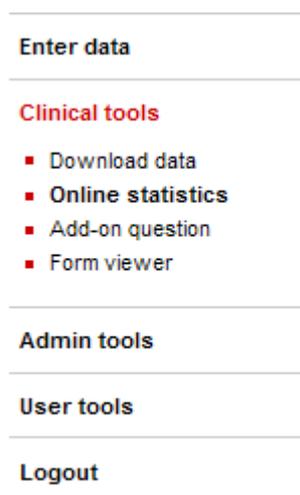
Online statistics

Spine Tango gives you the possibility to create some descriptive online statistics with your data and also to compare your data against the anonymized data pool (benchmarking).

You activate this tool via:

→ Clinical Tools

→ Online statistics



Please choose the form you want to query.

Online-Statistiken

Formular	Bitte wählen...
Auswahl	Bitte wählen...
VS	DWG Register: Operation (V1)
	DWG Register: Operation zweizeitig (V1)
	DWG Register: Nachuntersuchung (V1)
	DWG Register: Konservative WS-Therapien (V1)
	Lebensqualität: Core Outcome Measures Index COMI unterer Rücken (V1)
	Lebensqualität: Core Outcome Measures Index COMI Nacken (V1)
+ Demografie (opti	Lebensqualität allgemein: EuroQol EQ-5D (V1)
+ Einschlussabfrag	Lebensqualität Nacken: NDI Neck Disability Index (V1)
	Lebensqualität Skoliose: Scoliosis Research Society SRS-30 (V1)
+ Ausgabe	Lebensqualität unterer Rücken: ODI Oswestry Disability Index 2.1 (V1)

Selection of patient samples

You have different possibilities to view and compare patient samples:
Select a sample first:

Spine Demo
Logged into: Spine Demo Clinic: Spinal Surgery

Enter data

Clinical tools

- Download data
- **Online statistics**
- Add-on question
- Form viewer

Admin tools

User tools

Logout

Online statistics

Form: DWG: Surgery (V1)

Sample: Please select.

VS: Please select.

+ Demographics (o

+ Inclusion query (c

+ Output

0 Questions

Surgery

Admission / Pathology

Surgery

Surgical measures

You have the same possibilities as in "Download data". Now decide the cases you want for a comparison.

In “Demographics” you can create subsamples of patients by applying certain filter criteria like age or gender. It’s optional, you may also ignore it.

Inclusion query

A second possibility to filter the data is the “Inclusion query”:
This is a tool to combine answer-possibilities to generate a well defined patient group.

First choose the subform which the criteria includes you want to determine.
Choose the question and corresponding question you want to analyse.
e.g. Patients with fracture/ trauma as main pathology

For choosing more than one inclusion criteria you can combine several criteria.
 If you want to have more than one answer possibility of one question.
 e.g. you want to have the patients with fracture/trauma OR pathological fracture:

You

can also choose criteria from different subforms and questions:
 e.g. patients with fracture / trauma only cervicothoracic:
 choose:

If you want to delete an inclusion, click on the recycle bin.

Output parameter

Beyond output please choose all options you wish to analyze. Scroll down and select no more than 3-5 outputs at once to reduce calculation times.

Output 1 Question

Surgery

Admission / Pathology

- Format
- Main pathology
- Type of degeneration
- Type of deformity
- Type of scoliosis
- Specify other predominant etiology
- Specify other type of fracture/trauma
- C3-L5/S1 AO fracture type
- C3-L5/S1 AO fracture subgroup
- Specify other reason
- Type of spondylolisthesis
- Type of inflammation
- Infection specification
- Affected structure(s)
- Type of tumor
- Localization
- Type of repeat surgery
- Comments regarding main pathology
- Most severely affected
- Additional pathology
- Number of previous spine surgeries
- Previous surgery/ies at same hospital
- BMI
- Presence of flags - low back pain
- Admission date
- Specify other main pathology
- Specify other degenerative disease
- Specify other type of deformity
- Predominant etiology
- Type of (pathological) fracture/trauma
- Dens fracture type
- C3-L5/S1 AO fracture group
- Pathological fracture due to
- Fracture age
- Grade of spondylolisthesis
- Specify other type of inflammation
- Specify other type of infection
- Specify other type of affected structure
- Specify type of tumor
- Specify other localization
- Specify other type of repeat surgery
- Most severely affected segment/vertebral body
- Extent of lesion (segments/vertebral bodies)
- Specify other additional pathology
- Previous surgery/ies at same level
- Previous treatments for main pathology (max. 2)
- Current smoker

You can choose options from all subforms.

Statistical analysis of Surgery forms

As explained, first you have to select a sample and thereafter you may want to apply filter criteria for this sample.

For example:

We want to look at the distribution of type of degeneration, decompression and fusion in our group of patients with degenerative disease in the complete data pool.

We also want to know about the surgical complications.

Introduction

Manual Data entry/ Paper Forms

Online Data and Entry Tools: Registration - Enter Data - Clinical Tools - User Tools

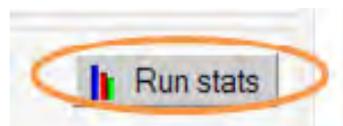
Current chapter: Clinical Tools

- Viewing all cases in the pool
- No filtering with respect to gender, age, or surgery date, but applying Main Pathology : degenerative disease as filter criterion.

Scroll down and select no more than 3-5 outputs, but select at least one question!

Surgical measures	
<input checked="" type="checkbox"/> Decompression	<input type="checkbox"/> Specify decompression
<input type="checkbox"/> Specify other decompression	<input checked="" type="checkbox"/> Fusion promoting measures
<input type="checkbox"/> Specify fusion	<input type="checkbox"/> Specify other fusion
<input type="checkbox"/> Fusion material	<input type="checkbox"/> Specify other fusion material
<input type="checkbox"/> Stabilization rigid	<input type="checkbox"/> Specify stabilization rigid
<input type="checkbox"/> Specify other stabilization rigid	<input type="checkbox"/> Stabilization motion preserving
<input type="checkbox"/> Specify stabilization motion preserving	<input type="checkbox"/> Specify other stabilization motion preserving
<input type="checkbox"/> Percutaneous measures	<input type="checkbox"/> Specify percutaneous measures
<input type="checkbox"/> Specify other percutaneous measures	<input type="checkbox"/> Other surgical measures
<input type="checkbox"/> Specify other surgical measures	<input type="checkbox"/> Extent of surgery - indicate as
<input type="checkbox"/> from	<input type="checkbox"/> to
<input type="checkbox"/> Intraop. surgical complications	<input type="checkbox"/> Specify other intraop surgical complications
<input type="checkbox"/> Surgical measures during index surgery	<input type="checkbox"/> Specify other surgical measure
<input type="checkbox"/> Intraop general complications	<input type="checkbox"/> Specify other intraop general complications
Hospital stay	
<input checked="" type="checkbox"/> Postop surgical complications before discharge	<input type="checkbox"/> Specify postop surgical complications before discharge
<input type="checkbox"/> Postop general complications before discharge	<input type="checkbox"/> Specify postop general complications before discharge
<input type="checkbox"/> Re-intervention after index surgery	<input type="checkbox"/> Specify re-intervention
<input type="checkbox"/> Hospital stay	<input type="checkbox"/> Status of surgical complications
<input type="checkbox"/> Therapeutic goals upon discharge	<input type="checkbox"/> FU foreseen
<input type="checkbox"/> Discharge Date	

Now, click on:
→ Run Stats



Depending on the size of the patient sample chosen and the number of parameters selected it might take up to half a minute until a SAS output window will open, which shows your statistics as tables and graphs. The graphs are pictures and can be used in e.g. Power Point presentations with a right mouse click. The tables must be marked with the left mouse button, copied, and then inserted into the slides. The graphs of the parameters are always shown in percent. The frequencies are listed in the tables.

The statistics **always** show the Gender and Age distribution of your group:

Introduction

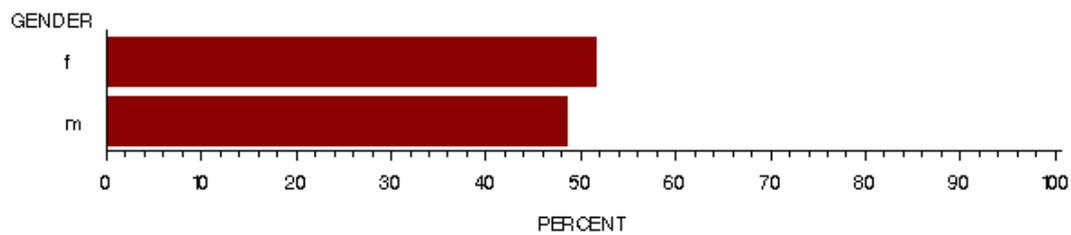
Manual Data entry/ Paper Forms

Online Data and Entry Tools: Registration - Enter Data - Clinical Tools - User Tools

Current chapter: Clinical Tools

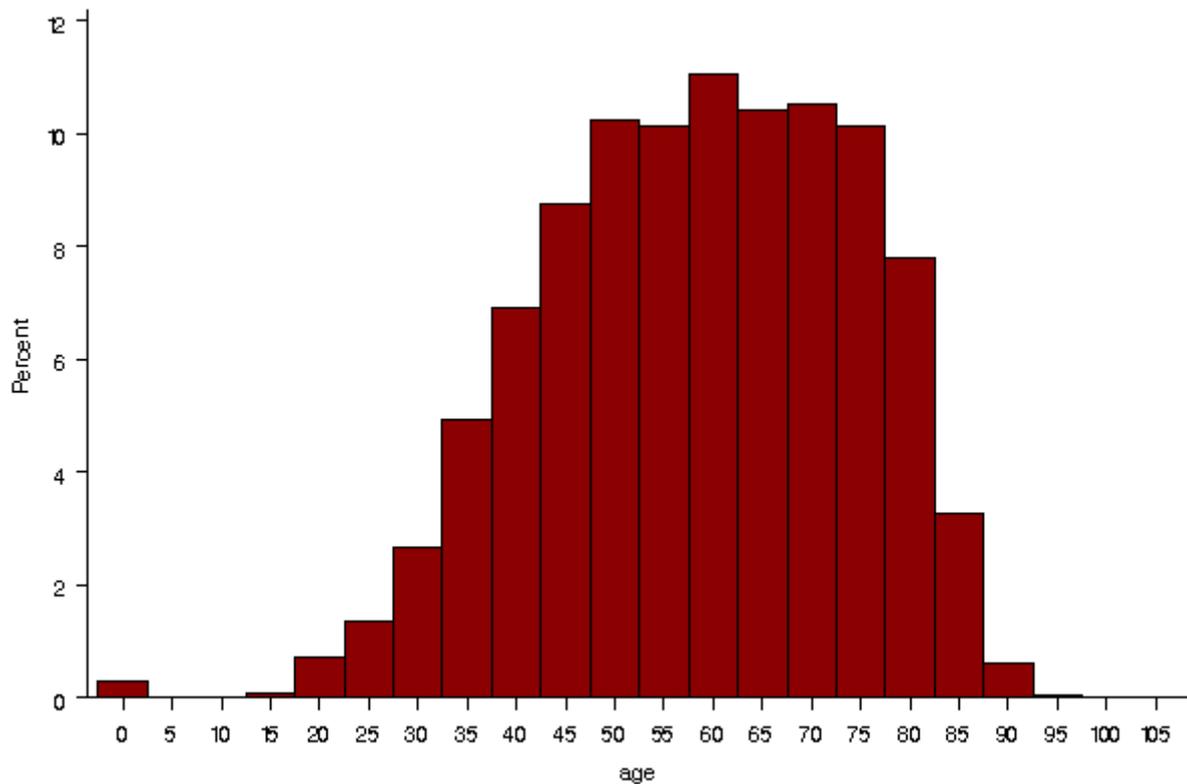
Gender Distribution

<i>GENDER</i>	<i>Frequency Count</i>	<i>Percent of Total Frequency</i>
f	3488	51.52
m	3281	48.48
	6727	100.0



Age Distribution

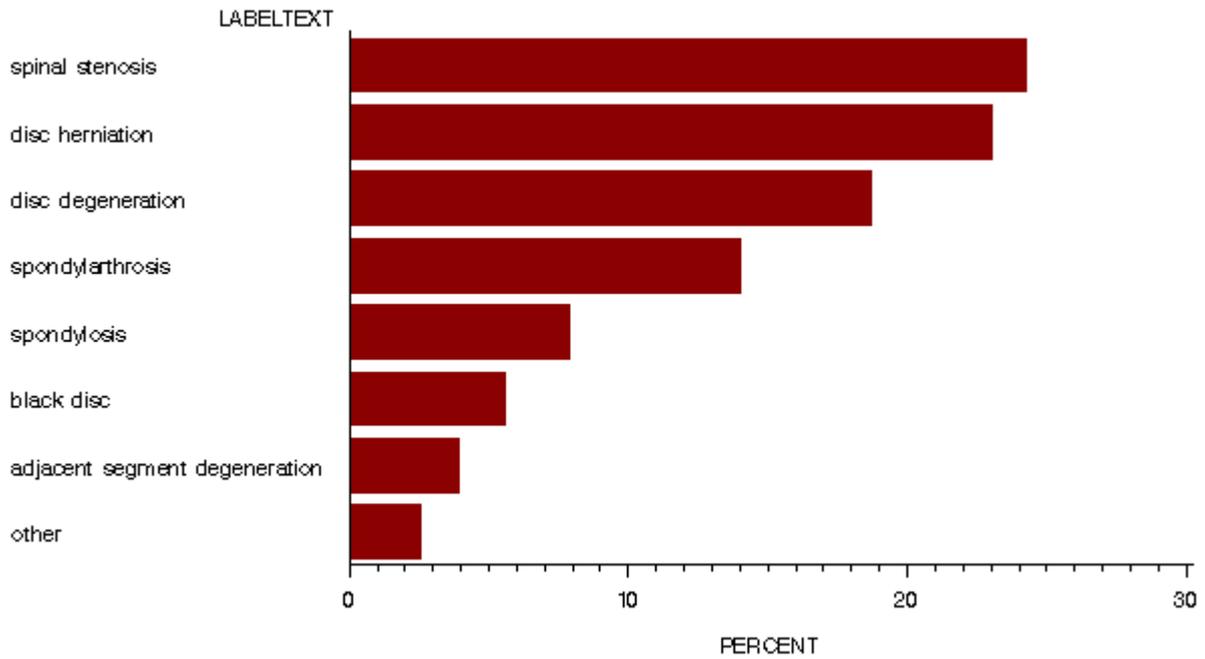
<i>Analysis Variable : age</i>					
<i>N</i>	<i>Minimum</i>	<i>Median</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std Dev</i>
6727	0.00	59.00	107.00	58.39	15.85



According to your selection of outcomes, in this example:
 → Distribution of type of degeneration

Distribution of Type of degeneration

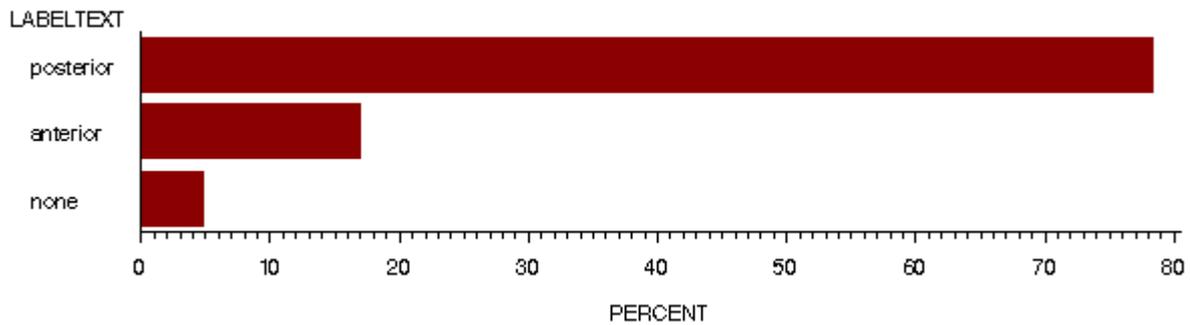
<i>LABELTEXT</i>	<i>Frequency Count</i>	<i>Percent of Total Frequency</i>
spinal stenosis	3339	24.26
disc herniation	3166	23.01
disc degeneration	2575	18.71
spondylarthrosis	1931	14.03
spondylosis	1088	7.91
black disc	769	5.59
adjacent segment degeneration	542	3.94
other	351	2.55
	13761	100.0



→ Distribution of decompression

Distribution of Decompression

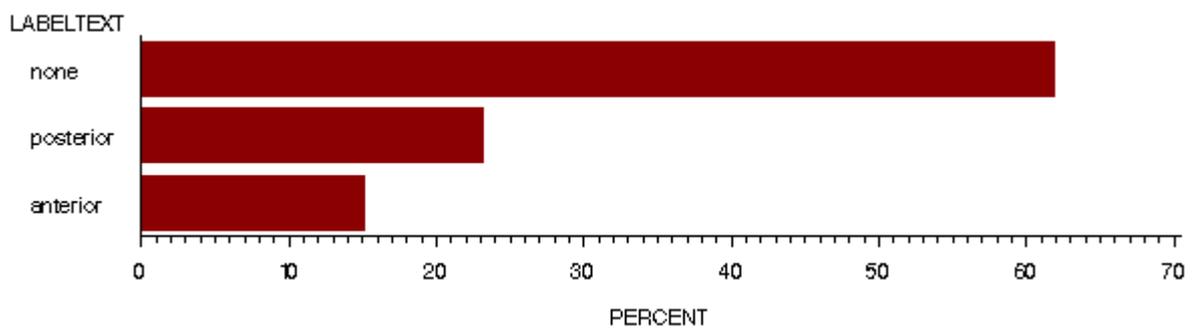
LABELTEXT	Frequency Count	Percent of Total Frequency
posterior	5443	78.32
anterior	1179	16.98
none	328	4.72
	6950	100.0



→ Distribution of fusion

Distribution of Fusion

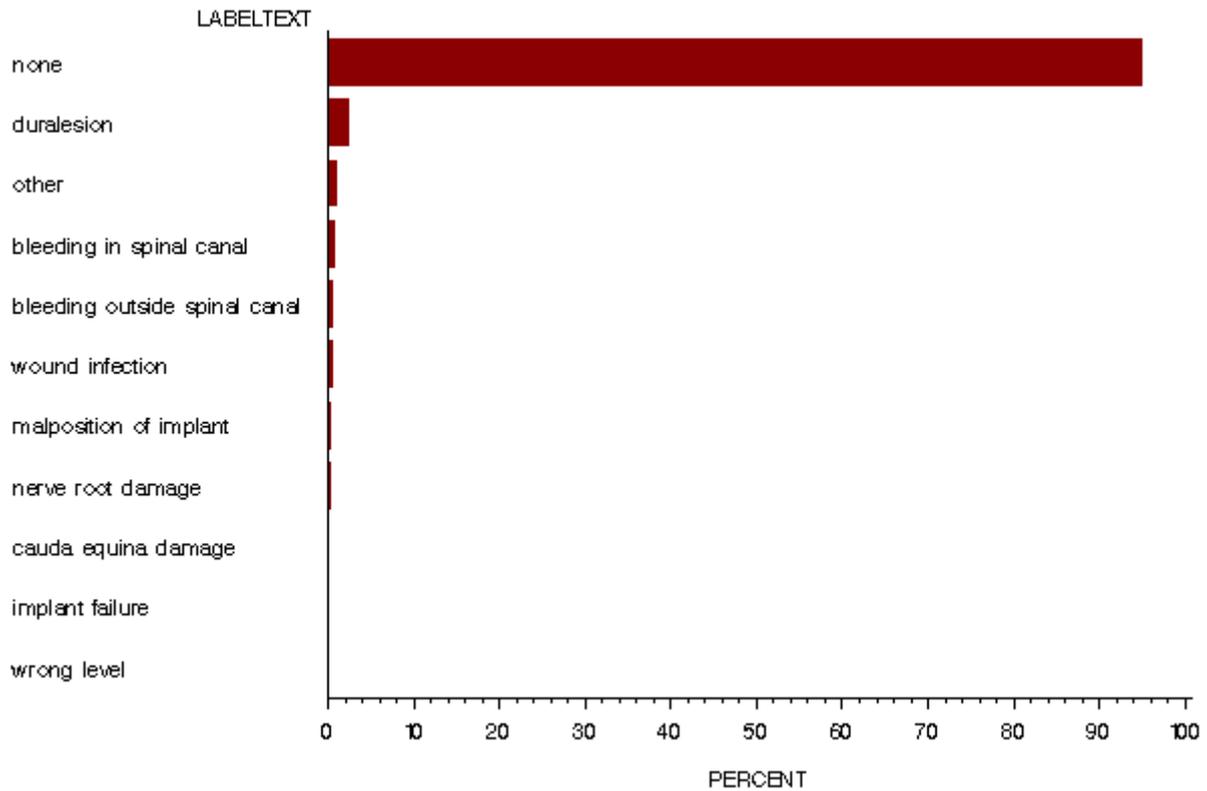
<i>LABELTEXT</i>	<i>Frequency Count</i>	<i>Percent of Total Frequency</i>
none	4358	61.78
posterior	1630	23.11
anterior	1066	15.11
	7054	100.0



→ and distribution of surgical complications is displayed as output.

Distribution of Surgical complications

<i>LABELTEXT</i>	<i>Frequency Count</i>	<i>Percent of Total Frequency</i>
none	6291	94.83
duralesion	156	2.35
other	59	0.89
bleeding in spinal canal	40	0.60
bleeding outside spinal canal	26	0.39
wound infection	24	0.36
malposition of implant	16	0.24
nerve root damage	15	0.23
cauda equina damage	3	0.05
implant failure	2	0.03
wrong level	2	0.03
	6634	100.0



Statistical analysis from the followup forms

In the same manner statistical analysis from the followup forms can be performed, Except for that you need to choose the Followup form in selection of forms!

The selection of the patient sample as well as the inclusion criteria can be chosen like shown before.

The output parameter can be chosen from the followup form.

The chosen parameters from the followup form are shown according to the FU Intervall.

Comparative statistical analysis (benchmarking)

In this online statistical function you can also perform a comparative statistical analysis e.g compare your data with the data of the complete pool. Apply the same procedure as for the statistical analysis before.

When selecting a sample e.g. click on: "My data" for comparison VS: "All cases".

Online statistics ?

Form: DWG : Surgery (V1) ←

Sample: All my cases in Spine Demo Clinic: Spinal Surgery ↓ ← 202 Cases VS 8681 Cases

VS: All cases in the pool ↓ ←

Then again you can select the required output criteria.
In this example we chose: Main pathology:

Demographics (optional)

Inclusion query (optional)

Output 1 Question

Surgery

Admission / Pathology

<input type="checkbox"/> Format	<input type="checkbox"/> Admission date
<input checked="" type="checkbox"/> Main pathology ←	<input type="checkbox"/> Specify other main pathology
<input type="checkbox"/> Type of degeneration	<input type="checkbox"/> Specify other degenerative disease
<input type="checkbox"/> Type of deformity	<input type="checkbox"/> Specify other type of deformity
<input type="checkbox"/> Type of scoliosis	<input type="checkbox"/> Predominant etiology
<input type="checkbox"/> Specify other predominant etiology	<input type="checkbox"/> Type of (pathological) fracture/trauma

and Morbidity state:

Surgery

<input type="checkbox"/> Level of main pathology	<input type="checkbox"/> Surgery date
<input type="checkbox"/> Surgeon	<input type="checkbox"/> Assistant
<input type="checkbox"/> Therapeutic goals	<input type="checkbox"/> Specify other surgery goal
<input type="checkbox"/> Components	<input type="checkbox"/> Anterior access
<input type="checkbox"/> Specify other anterior access	<input type="checkbox"/> Posterior access
<input type="checkbox"/> Specify other posterior access	<input type="checkbox"/> Surgeon credentials
<input type="checkbox"/> Specify other surgeon credentials	<input type="checkbox"/> Prophylaxis
<input type="checkbox"/> Specify other prophylaxis	<input checked="" type="checkbox"/> Morbidity state ←
<input type="checkbox"/> Technology	<input type="checkbox"/> Specify other technology
<input type="checkbox"/> Blood loss	<input type="checkbox"/> Operation time
<input type="checkbox"/> Blood transfusion	

Now select:

→ Run stats



In this comparison your data is shown in red, the pool data in grey:

→ distribution of gender

Again, the demographic data (age and gender) are automatically shown for the groups.

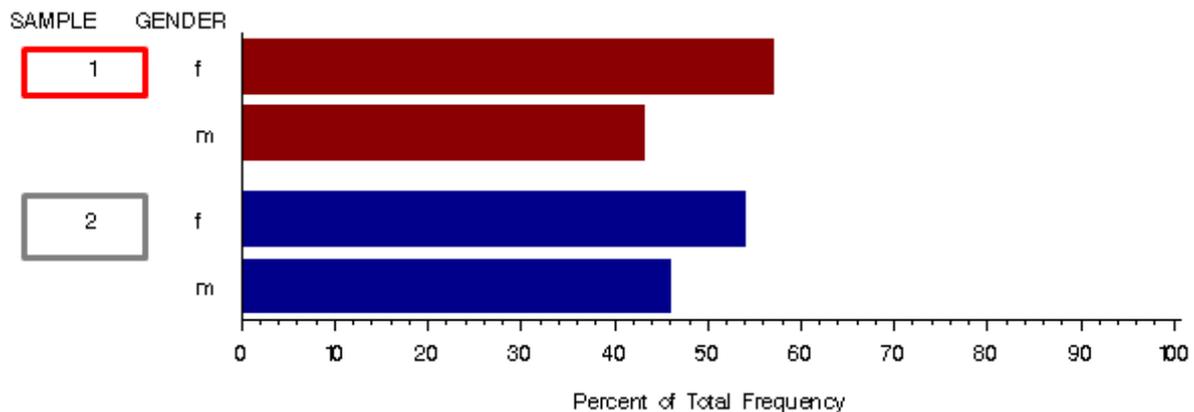
SAMPLE	GENDER	Frequency Count	Percent of Total Frequency
1	f	114	56.72
1	m	87	43.28
2	f	4690	54.03
2	m	3990	45.97

Number of Subjects in the Stratum	Chi-Square	DF for Chi-Square	P-value for Chi-Square	Fisher's Exact Test P-value (2-Tail)
8881	0.56897	1	0.45027	0.47446

The second table shows results from the Chi-Square and Fisher's Exact test. The test proves if the distribution of gender in the two samples is random ($p\text{-value} > 0.05$) or if there is a significant difference between the samples ($p\text{-value} < 0.05$). The usual rule of thumb for deciding whether the chi-squared approximation is good enough is that the chi-squared test is not suitable when the expected values in any of the cells of a contingency table are below 5, or below 10 when there is only one degree of freedom (this rule is now known to be overly conservative). In such small samples the results of Fisher's Exact Test should be used.

For further information, visit:

<http://math.hws.edu/javamath/ryan/ChiSquare.html>



SAMPLE ■ 1= mydata ■ 2= pool

→ distribution of age

Age Distribution

Analysis Variable : age							
SAMPLE	N Obs	N	Minimum	Median	Maximum	Mean	Std Dev
1	201	201	10.00	61.00	90.00	58.67	18.36
2	8680	8680	0.00	59.00	107.00	57.80	17.17

Age Distribution - Testing for Significance

Analysis Variable	Two-sample Wilcoxon Statistic	P-value, Wilcoxon Test (Two-sided)	Kruskal-Wallis Statistic	Degrees of Freedom, Kruskal-Wallis Test	P-value, Kruskal-Wallis Test
age	935336	0.23472	1.41204	1	0.23472

The Wilcoxon Test is a non-parametric test for assessing whether two independent samples of observations have equally large values. The Kruskal-Wallis Test is a non-parametric method for testing equality of population medians among groups.

The two tests are quite similar and therefore they have similar p-values. If the p-values are >0.05 the distribution is natural, else there is a significant difference.

For further information, visit:

http://en.wikipedia.org/wiki/Mann-Whitney_U

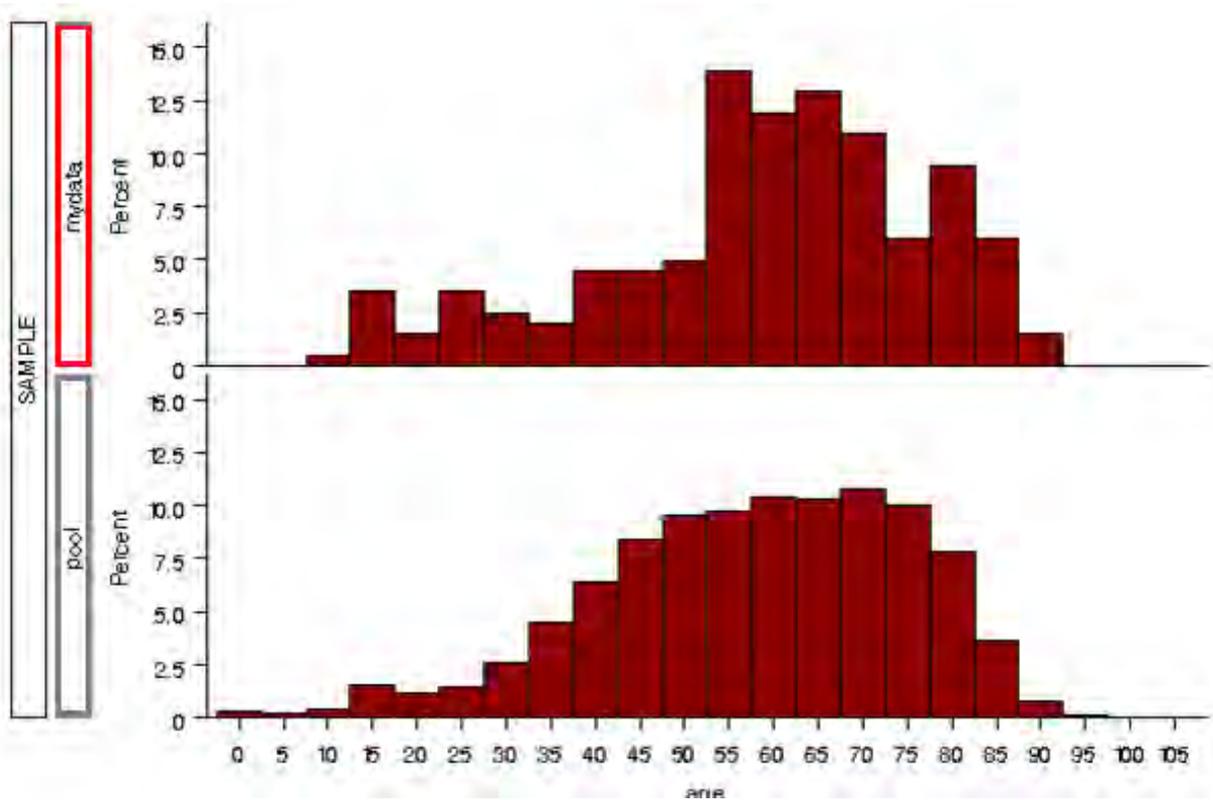
http://en.wikipedia.org/wiki/Kruskal%E2%80%93Wallis_one-way_analysis_of_variance

Introduction

Manual Data entry/ Paper Forms

Online Data and Entry Tools: Registration - Enter Data - Clinical Tools - User Tools

Current chapter: Clinical Tools



→ distribution of Main Pathology

Distribution of Main pathology

SAMPLE	LABELTEXT	Frequency Count	Percent of Total Frequency
1	degenerative disease	108	52.74
1	failed surgery	29	14.43
1	deformity	20	9.95
1	pathological fracture	20	9.95
1	spondylolisthesis	16	7.96
1	fracture/trauma	9	4.48
1	other	1	0.50
2	degenerative disease	6622	76.28
2	failed surgery	451	5.20
2	spondylolisthesis	447	5.15
2	deformity	363	4.18
2	pathological fracture	308	3.55
2	fracture/trauma	199	2.29
2	tumor	127	1.46
2	other	85	0.98
2	infection	49	0.56
2	inflammation	28	0.33

Introduction

Manual Data entry/ Paper Forms

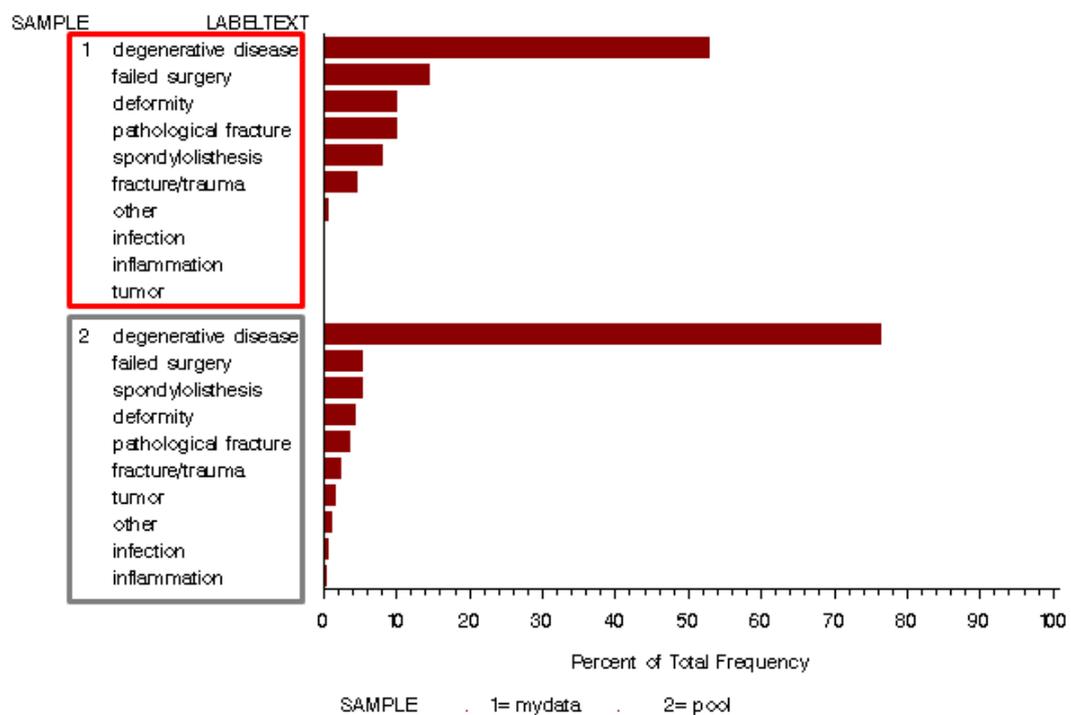
Online Data and Entry Tools: Registration - Enter Data - Clinical Tools - User Tools

Current chapter: **Clinical Tools**

Distribution of Main pathology - Testing for Significance

Number of Subjects in the Stratum	Chi-Square	DF for Chi-Square	P-value for Chi-Square
8881	94.5208	9	2.0082E-16

The Chi-square Test here shows a p-value of $2.01 \cdot 10^{-16}$, which is far below 0.05 and, hence, significant. The low p-value means that the distribution is not explainable only by chance. In the example the distributions of main pathology are significantly different in the two samples.



→ distribution of Morbidity State

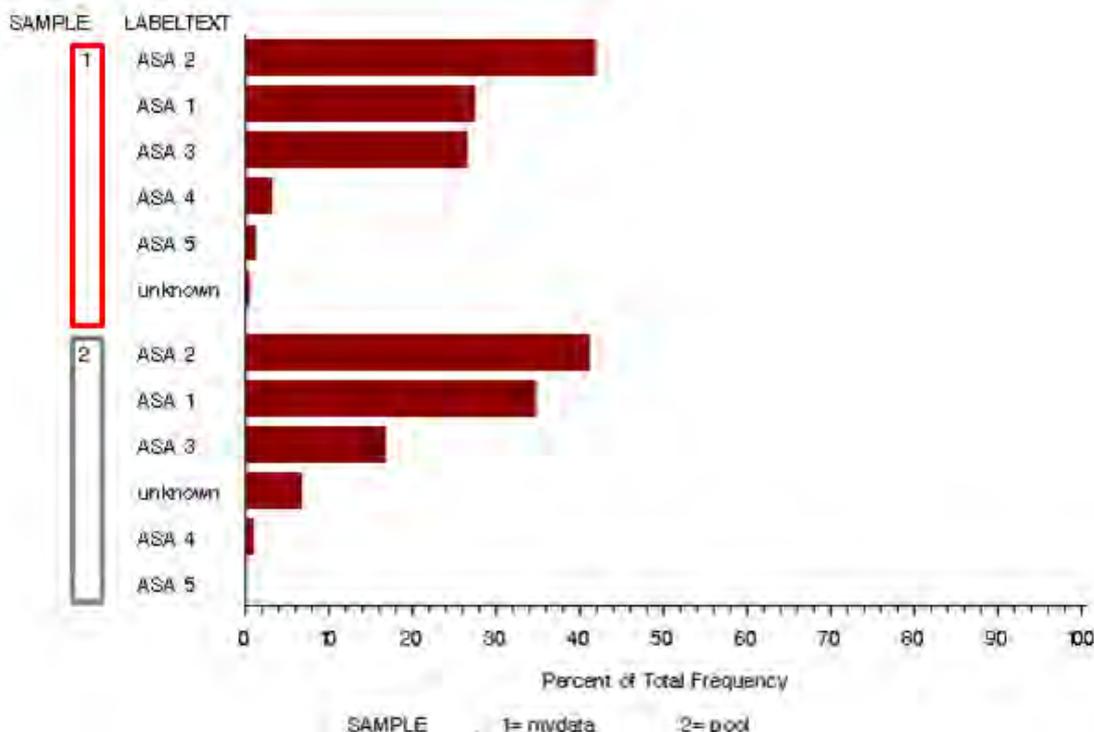
Distribution of Morbidity state

SAMPLE	LABELTEXT	Frequency Count	Percent of Total Frequency
1	ASA 2	84	41.78
1	ASA 1	55	27.36
1	ASA 3	53	28.37
1	ASA 4	6	2.99
1	ASA 5	2	1.00
1	unknown	1	0.50
2	ASA 2	3516	41.04
2	ASA 1	2970	34.66
2	ASA 3	1436	16.76
2	unknown	571	6.66
2	ASA 4	74	0.88
2	ASA 5	1	0.01

Distribution of Morbidity state - Testing for Significance

Number of Subjects in the Stratum	Chi-Square	DF for Chi-Square	P-value for Chi-Square
8769	90.3870	5	5.5722E-18

Here we get the same “Testing for Significance” as in “Main Pathology”. The result is similar too, the P-value is very small. The unnaturally accumulation is in option “ASA 2”.

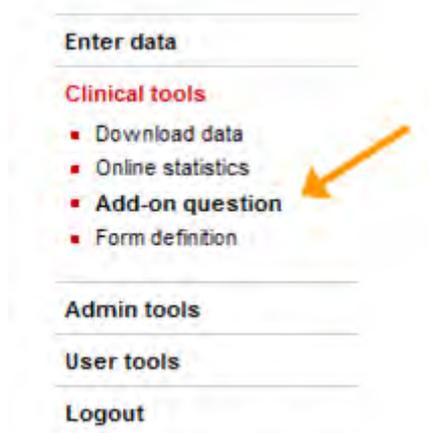


Add-on questions

This function is only available for clinical administrators.

In this section you can create your own subform for customized online data entry in addition to an existing form. That means that the questions/ the additional subform is related to one form (eg. The surgery form or the followup form). The generated additional subform is available for all registered members of your department.

Click on Add-on question



Select the form to which you want to attach your additional questions:

Wählen Sie ein Formular aus ?

Formular

- Bitte wählen...
- DWG Register: Operation (V1)
- DWG Register: Operation zweizeitig (V1)
- DWG Register: Nachuntersuchung (V1)** (highlighted with an orange arrow)
- DWG Register: Konservative WS-Therapien (V1)
- Lebensqualität: Core Outcome Measures Index COMI unterer Rücken (V1)
- Lebensqualität: Core Outcome Measures Index COMI Nacken (V1)
- Lebensqualität allgemein: EuroQoL EQ-5D (V1)
- Lebensqualität Nacken: NDI Neck Disability Index (V1)
- Lebensqualität Skoliose: Scoliosis Research Society SRS-30 (V1)
- Lebensqualität unterer Rücken: ODI Oswestry Disability Index 2.1 (V1)

e.g.

→SSE NASS Surgery and select:

→ Next

If you have not created a subform yet, create a new one
→ OK

If there is already an existing subform for additional questions you have different possibilities:

- a: Create a new subform
- b: Add new question(s) to an existing subform
- c: Change an activated subform (only one subform can be active at a given time)

a. New subform

Enter a Subform title and a Version number and select:
→ Next

→ *Question-Generator - step1*

There are three different question types you can choose:

- 1.: text question: user enters a text answer.
- 2.: single choice question: user selects one of several possible answers.
- 3.: multiple choice question: user may mark one or more of several possible answers.

The screenshot shows a sidebar with 'Enter data' containing 'Clinical tools' (Download data, Online statistics, Add-on question, Form definition), 'Admin tools', 'User tools', and 'Logout'. The main area is titled 'Select a question type :'. It has three radio button options: 'Text question' (selected), 'Single choice question', and 'Multiple choice question'. Below these are buttons for 'Next', 'Finish', 'Cancel', and 'Preview subform'. An orange arrow points to the 'Next' button.

Choose the question type you want to create and select:

→ Next

1.: Text Question

This close-up shows the 'Select a question type :'. The 'Text question' radio button is circled in orange. Below it are 'Single choice question' and 'Multiple choice question'. At the bottom, the 'Next' button is highlighted with an orange arrow.

→ Question-Generator – step 2

Enter your question text and optionally a default answer

The screenshot shows two input fields. The first is labeled 'Enter the question text' and is circled in orange. The second is labeled 'Enter the default answer (optional):' and contains the text 'No default answer defined'. Below the fields are 'Next' and 'Back' buttons. An orange arrow points to the 'Next' button.

To go on, select:

→ Next
 By selecting
 → Back

you can always go a step back.



Control your entered question and select:
 → Add to subform

Then you repeat the “Question-Generator –step 1” to add further questions
 Do this by selecting a question type and select:
 → Next

2.: Single choice question

Select the number of the possible answers for your question. The number should be between 1 and 30.

Select: → Next

→ Question-Generator – step 3

Enter your question and answers and select:
→ Next

Control your entered question and the answers and select:
→ Add to subform

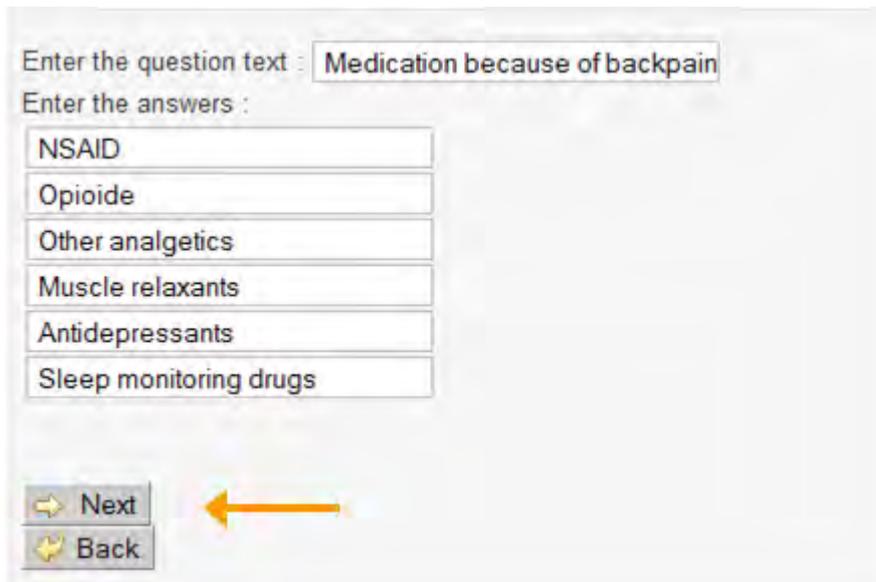
Then you end up again at the Question-Generator –step 1

3.: Multiple choice question

Select the numbers of possible answers for your question. The number should be between 1 and 30.



Enter your question and answer-possibilities and select:
→ Next



Control the entered question and answer-possibilities and select:
→ Add to subform

The question type is : multiple
 The question text is : Medication because of backpain
 The possible answers are :
 NSAID
 Opioide
 Other analgetics
 Muscle relaxants
 Antidepressants
 Sleep monitoring drugs



Then you end up again at the Question-Generator –step 1 with the following options:

Enter data

Clinical tools

- Download data
- Online statistics
- **Add-on question**
- Form definition

Admin tools

User tools

Logout

Select a question type :

Text question

Single choice question

Multiple choice question



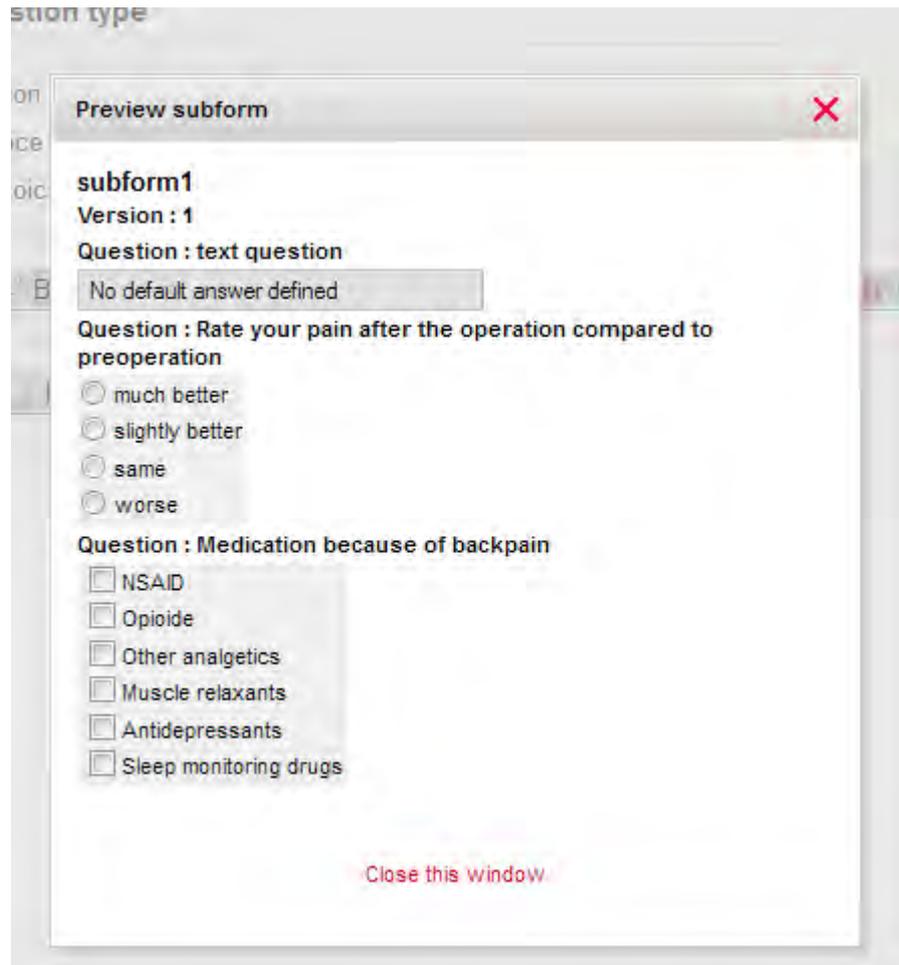




Add further questions by selecting the question type and select:
 → Next

View the Subform (list of questions), select:
 → Preview subform

The list with all your created questions will open in an additional window:



End adding questions and save the subform, select:

→ Finish

If you want your new subform to be active now, select:

→ Set this version active

The subform has been saved ?

Subform title :	subform1
Version	1
Date :	Tue Nov 09 12:11:37 CET
Activated :	false

←

To use your additional subform for entering data

Create an according e-Form for your patient. That means you have to choose the same study form for which you created the additional subform, in our example “DWG Surgery”

E-Formular ✖

Formular

Bitte wählen...

- Bitte wählen...
- DWG Register: Operation (V1) ←
- DWG Register: Operation zweizeitig (V1)
- DWG Register: Nachuntersuchung (V1)
- DWG Register: Konservative WS-Therapien (V1)
- Lebensqualität : Core Outcome Measures Index COMI unterer Rücken (V1)
- Lebensqualität : Core Outcome Measures Index COMI Nacken (V1)
- Lebensqualität allgemein: EuroQol EQ-5D (V1)
- Lebensqualität Nacken: NDI Neck Disability Index (V1)
- Lebensqualität Skoliose: Scoliosis Research Society SRS-30 (V1)
- Lebensqualität unterer Rücken: ODI Oswestry Disability Index 2.1 (V1)

In “Additional Subforms” you find your activated subform.
Here e.g. subform1

Click: → Add
and your subform will be activated and inserted as separate tab.

b: Add new question(s) to an existing subform

Select the version and date of the subform you want to add questions to.
You have to give this subform a new version number. Then select:
→ Next

You get back to Question-Generator-step 1. Add questions as shown above.

To save the added questions to the new version you have to click on:

→ Finish

Select a question type ?

Text question
 Single choice question
 Multiple choice question

Next Back Cancel

Finish Preview subform

To set the new subform active, click on:

→ Set this version active

The subform has been saved

Subform title :	subform1
Version	2.1
Date :	Tue Nov 09 15:33:58 CET
Activated :	false

Set this version active ←

Return to main menu

There is no possibility to delete questions or change questions in an existing subform. For this purpose you would need to create a new subform.

c: Change an activated subform

1 add-on subform(s) already created

C:

You see the currently activated subform. You can change this to another version, here e.g. Version 1, 9.11. To change, select:

→ Change

Change active subform ?

The current active add-on subform is :

Subform title :	Subform1
Version	1
Date :	09 Nov

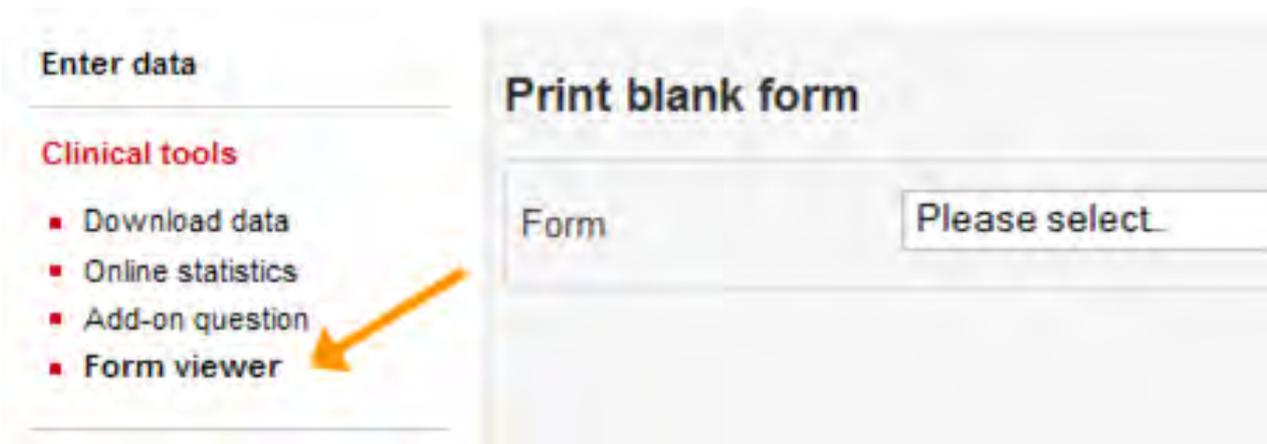
The new active add-on subform is :

subform1 - Version 2.1 - 09 November 2010 ←

Form viewer

In “Form viewer”, you find all the forms in a PDF-document. These documents can NOT be scanned, they do NOT replace the manual paper forms. They may help you to get an overview of all questions and possible answers. You can fill them in online and then save or print them out, to discuss, display etc.

→ choose “Form viewer”



With the pull-down menu, choose the form you want to read. In our example, we chose "DWG Surgery 2011".



An Adobe Acrobat Reader file will open in a new window.
If you want to save the document, select:

→ Save



If you want to print the document, select:

→ Print



All fields, that CAN be filled in, are highlighted blue:

- deformity
- pathological fracture
- inflammation
- tumor
- other

Questions, where only one answer is allowed (single choice questions), have circles to tick:

2. Main pathology

- degenerative disease
- fracture/trauma
- spondylolisthesis
- infection
- failed surgery

Questions, where several answers are allowed (multiple choice questions), have squares to tick:

4. Type of degeneration (1 - 8)

<input type="checkbox"/> black disc <input checked="" type="checkbox"/> disc herniation <input type="checkbox"/> spondylarthrosis <input type="checkbox"/> adjacent segment degeneration	<input type="checkbox"/> disc degeneration <input checked="" type="checkbox"/> spondylosis <input checked="" type="checkbox"/> spinal stenosis <input type="checkbox"/> other
---	--

After a multiple choice question, you see in brackets, how many answers are allowed:

4. Fusion (1 - 2)

<input type="checkbox"/> none <input type="checkbox"/> posterior	<input type="checkbox"/> anterior
---	-----------------------------------

If a question is optional, it is written behind the question itself. If there is nothing written, a question is always mandatory.

3. Specify other decompressor (optional)

In the PDF, some clues and instructions are missing. In case you need to know something, here is a list with all instructions you find on the form:

DWG Surgery 2006:

Admission / Pathology:

- Specification of main pathology: Only answer questions related to Main Pathology (Main Pathology "other" requires no specification.).
- Type of (pathological) fracture/trauma (11): Additional fractures w/different treatments require separate forms.
- Pathological fracture due to tumor (15): In case of tumor, answer questions "Type of tumor" and "Localization" in selection "TUMOR (25)"
- Additional Pathology (34): Answer to question "Main Pathology (2)" is excluded.
- Number of previous spine surgeries (36): Answer "0" excludes both "Previous surgery" questions ("at same level (37)" and "at same hospital (38)").

Surgical Measures:

- NOTE: "anterior" / "posterior" refers to location of MEASURES in the spine, NOT to access!
- Decompression (1), Fusion (4), Stabilization rigid (9), Stabil. motion preserving (12): Location in spine, choose at least one!
- Percutaneous measures (15), Other surgical measures (18): Choose one!

Discharge:

- Answer "none" in both "Surgical" and "General complications" excludes all remaining questions.

DWG Follow up 2006:

Follow-up:

- Only comments on those goals/measures which were indicated for the "Goal of surgery" question on the "SURGERY" form.

Complications:

- Complications (1): Answer "no" excludes all remaining questions.

DWG Staged 2006:

Admission:

- Main Pathology (2): Answer "same as stage I surgery" excludes questions "Specification of main pathology (4-31)" and "Previous treatment for main pathology (34)".
- Specification of main pathology: See SURGERY form.

Surgical Measures:

- See SURGERY form.

Discharge:

- See SURGERY form.

User Tools

Beneath user tools, you can modify your account and request activating supplementary profiles.

The screenshot shows a sidebar menu on the left with categories: Enter data, Clinical tools, Admin tools, User tools (highlighted in red), and Logout. Under 'User tools', there are two sub-items: 'Modify account' and 'Add profile'. An orange arrow points to 'Modify account'. To the right, the 'User tools' section lists available actions: 'modify your account' and 'request activating supplementary profiles'. Below this, a note states: 'The menu items are visible and active depending on the rights corresponding to your profile. In the tools themselves some operations may also be deactivated.'

Modify account

Here you can change all the important details of your profile, including the password. To change your password, select → Change password

The 'Modify account' form contains several input fields: Username (DemoTest), First name (Demo), Last name (Test), Email (demo@test.org), Date of birth (00.00.0000), Language (English), and Staff (Dept). There is an 'Edit' button next to the Staff field. At the bottom, there are 'Save' and 'Reset' buttons. The 'Change password' link in the 'User tools' sidebar is circled in red.

Enter your new password and select:
→ OK

The 'Change password' dialog box has two input fields for 'New password' and 'Re-enter new password', both filled with dots. At the bottom, there are 'OK' and 'Cancel' buttons. An orange arrow points to the 'OK' button.

To change for example your Email, just type in what you want to be changed and then select:

→ Save

Modify account

Change password

Username: memced

First name: CED

Last name: MEM

Email: [empty]

Date of birth: 00.00.0000

Language: English

Staff: Institute for Evaluative Research

Buttons: Save, Reset, Edit

You will have to type your password to confirm your changes. Then select:

→ OK

Modify account

Change password

Username: memced

First name: CED

Last name: MEM

Email: [empty]

Date of birth: 00.00.0000

Language: English

Staff: Institute for Evaluative Research

Buttons: Save, Reset, Edit

Password dialog box:

Password: [masked]

Buttons: OK, Cancel

You can add or change the details and further information of your profiles beneath “Staff”. In the pull-down menu you see all your departments from all your profiles. Choose the one you wish to change and select:

→ Edit

Change password

Username: Testuser
 First name: User
 Email: test@user.ch
 Language: English

Last name: Test
 Date of birth: 00.00.0000

Staff: Test1

Save Reset

Edit

Test2
 Test3
 Test4
 Test5
 Test6
 Test7
 Test8
 Test9
 Test10
 Test11
 Test12
 Test13
 Test14
 Test15
 Test16
 Test17
 Test18
 Test19
 Test20
 Test21

The pop-up opens and you may fill in or correct your data. Then select:
 → OK

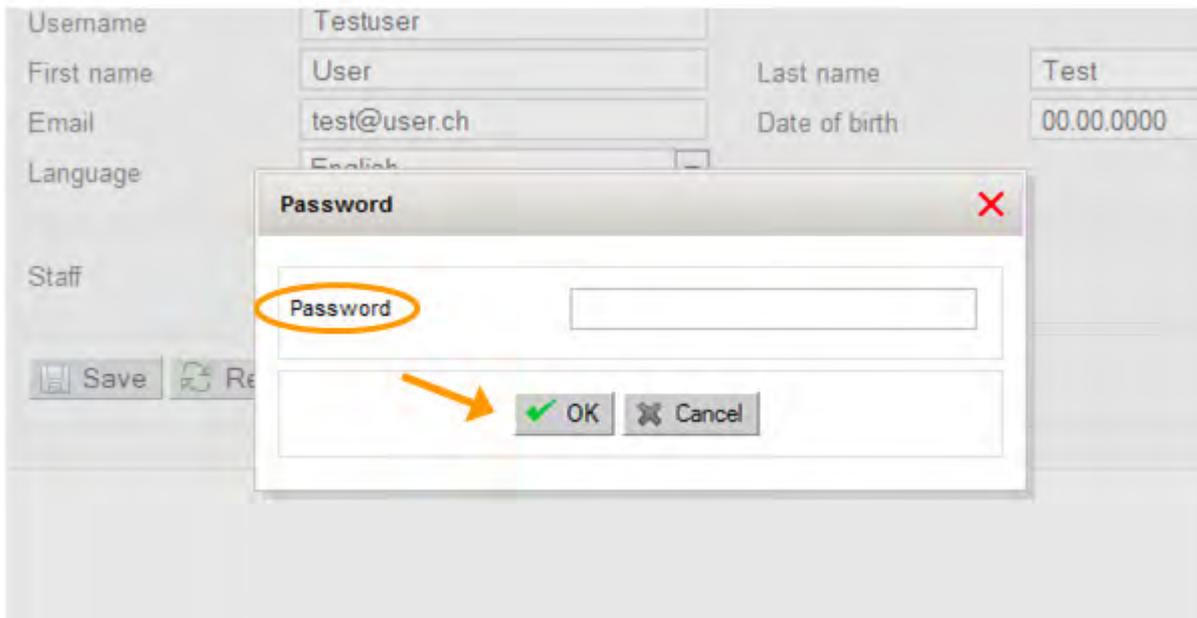
Username: Testuser
 First name: User
 Email: Test3
 Language: Test
 Staff: Test3

Save Reset

Phone1
 Phone2
 Academic rank
 Title

OK Cancel

To confirm your identity you will have to type your password. Then select:
 → OK



Add Profile

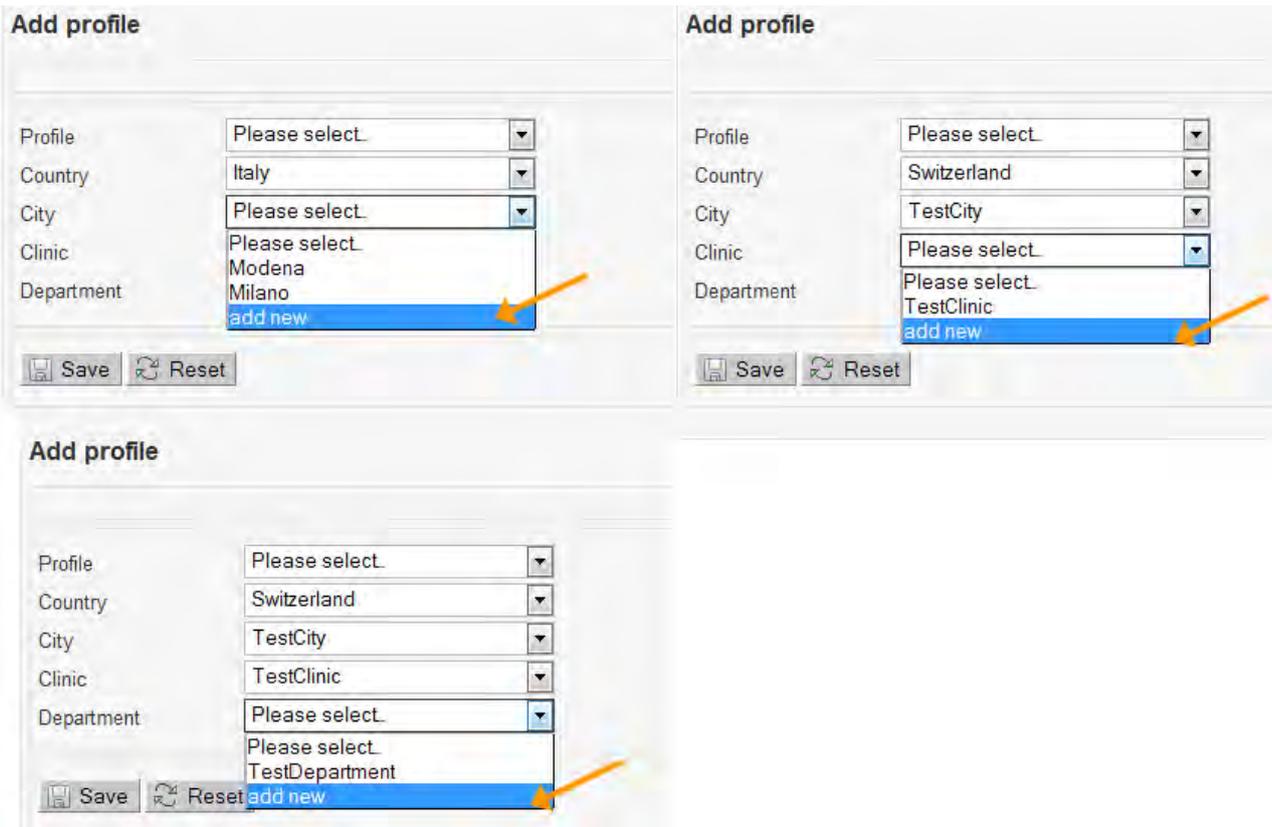
If you want to add a profile to your account, e.g. when you are clinical administrator but you are a surgeon as well, please fill out the marked fields and select:

→Save



If you want to add a City/ Clinic/ Department, select:

→Add



If you add a new city / clinic, fill out the marked fields (all the other fields are optional!) and select:
 → Save

Add profile

New clinic

Department

Department name Contact person

Phone Fax

Clinic

Clinic name Street

Street number State

Zip code Contact person

Phone Fax

URL

Profile:

Country:

City:

Clinic:

Department:

If you add a new department, fill out the marked fields and select:
→ Save

New department

Department

Department name Contact person

Phone Fax

Clinic

Clinic name Street

Street number State

Zip code Contact person

Phone Fax

URL

Profile:

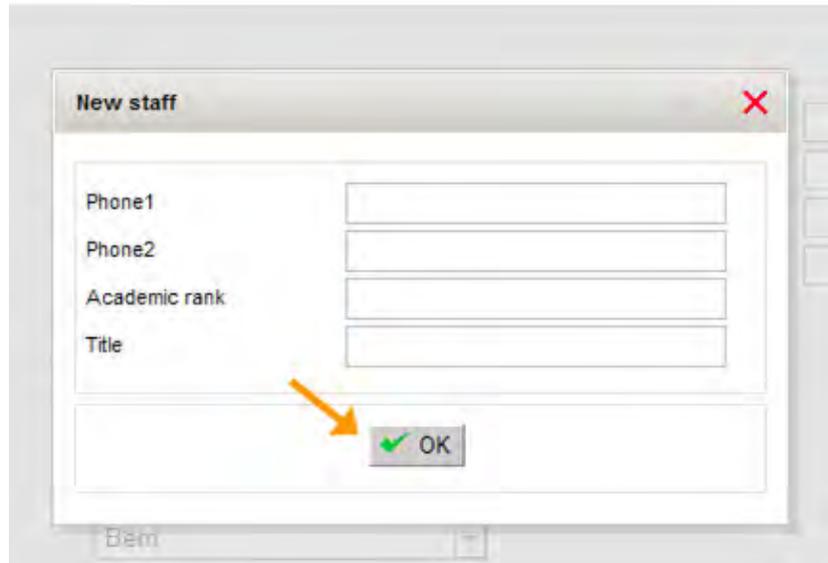
Country:

City:

Clinic:

Department:

Always when you added something, this window will appear:



The image shows a dialog box titled "New staff" with a red close button in the top right corner. Inside the dialog, there are four text input fields labeled "Phone1", "Phone2", "Academic rank", and "Title". Below these fields is a large empty rectangular area. At the bottom right of the dialog, there is a button with a green checkmark and the text "OK". An orange arrow points from the "OK" button towards the "Academic rank" field.

Filling out the fields is optional, you may also leave everything empty and select:
→ OK