

The Modules: Shoulder

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This module was released as an addition to the existing Socrates program in late 2009. We'd like to thank all the surgeons who have had input, in particular Drs Matt Provencher, (San Diego, USA) and Jerome Goldberg, (Sydney, Australia), who have put up with dozens of emails, questions, and have provided much of the initial content for us to work with. We welcome feedback from users.

This module deals with most shoulder procedures, both open and arthroscopic. If you find something missing let us know.

The non arthroplasty procedures in this module are primarily performed arthroscopically, but those that aren't can be recorded as open procedures by simply selecting the *approach used* on the top section of the **Surgery screen**.

Don't be daunted by what you may consider as too much data to collect when you first look through the various screens. You can select from a lot of options, from the very brief to the very detailed.

It's hard to find a balance and provide a system that gives everyone what they want. Some of you will want to record detailed information about all of your procedures if your focus is collecting data for publication. Others of you will throw your arms up in horror at this level of detail, and will just want to use the program to track what you've done by diagnosis and procedure name, (and maybe any complications and a patient score to make sure that the patient was happy).

Also, since Socrates will be with you for your entire practice, what you use it for now will change over time: you may decide to follow different surgeries and patients in varying levels of detail.

Regulatory and reimbursement changes are ever-present, and it may become mandatory to follow some of the new procedures and implants in a different level of detail over time. Socrates will let you adapt your needs to cover all the possible scenarios. It's like a one-size-fits-all program, even if you do get a bit lighter or heavier over the years. There is quite a bit of *customisation* possible also, and we regularly add new fields and scores as they become necessary due to changes in technology and technique.

You can set up "Favourites" for some of the screens so that almost all the fields that you might routinely check for some procedures would be populated with one tick for those surgeries. Some procedures such as trauma and chondral lesions aren't set up for these features, they are not as common and there's not a lot that's routine about them. For those that are, you would then just change the details in the cases that are different from the Favourite, add anything non-standard (such as the tear or lesion sizes), and Save. This takes less than a minute. Some surgeons have as many as 15 operations saved, one click, 30 seconds making any changes, and you have a huge amount of data captured, and an op report can be generated.

Take a bit of time to look around and decide what screen you are going to use for what procedures.

An Example

Let us show you an example of the various levels of detail that you could collect for a rotator cuff procedure.

You can go really "Lite" and just record the Diagnosis and Procedure Name, with or without a Patient Score. This minimal approach still enables you to track what you did, and what happened. You can also use the diagnosis or procedure codes lists.

The image displays two screenshots of the Socrates software interface. The left screenshot shows a form with two main sections: 'Procedure name' containing 'Rotator Cuff Repair' and 'Final Diagnosis/Diagnoses' containing 'Rotator cuff - Full thickness tear'. The right screenshot shows the 'Patient Information' tab selected, with 'Diagnosis Codes' set to '56789: Rotator cuff tear' and 'Procedure Codes' set to '38900: Rotator cuff surgery'.

-- OR --

Enter more data using the Rotator Cuff tab, but choose the "Lite" option. This just treats the cuff as one tendon, although you have the option of selecting which tendons were involved.

This "lite" screen could be populated with one tick from the Favourite, selected here as "Lite Cuff Repair" (set up previously). Just add any changes made for this specific surgery, and you have your operation entered.

-- OR --

Go the whole hog, and use the full version of the cuff screen, which allows you to record the same level of detail for all four tendons. You can also use the Favourites here; for example, you could set up a Favourite for a partial tear of the supra and infra tendon, with all the details you normally do.

Hopefully by the time you've got this far, you've realised that you have many options over the level of data you choose to enter, and it won't have to take you as long to enter the data as it did to do the operation....

The procedures covered in this module are on the tabs below.

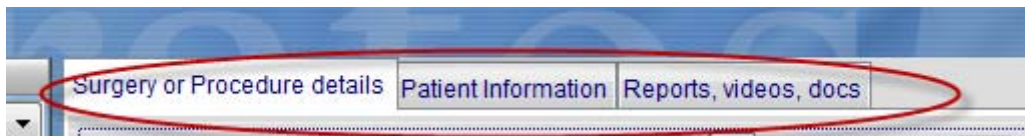
But we will start from the beginning, with some information about some of screens you need to know about before you get to the surgery details.

HISTORY SCREEN

The first section of this screen records **General Details**: Surgeon, Hospital, Assistants, Referring Dr and Insurance companies. Any **studies** the patient may be enrolled in are entered in the next window (these are created in the Set-Up screen).

Note: Any notes that may have been entered on the other screens are also displayed on the front screen.

On the right of this screen are 3 tabs.



Surgery or procedure details

The first captures the date of the surgery or beginning of the treatment to be added. We usually refer to a surgery but Socrates can be used for any procedure, or non-operative treatment as well. It just needs a date to be entered as a baseline so follow ups can be calculated, i.e. 3 month, 1 year, 5 year follow up.

The diagnosis and procedure name can be entered in one of two ways – using a clinically descriptive term and/or the codes that you might use – CPT, ICD etc.

Why are there two? Codes used for billing might not be descriptive enough for research, nor are they always what's done since they often don't keep up with technology. Plus you might want to use your own descriptive terms for the different surgeries you do. You can add, remove or import your own lists of these at any time. So you have the option of choosing which you want to use, or both. You will need to import your own codes lists, there are too many in the world for us to import them all, and often surgeons only use a small number of the codes in their own practice. It's easy to import them in one list, or just add them in as you go - see the chapter on Set Up.

Patient information

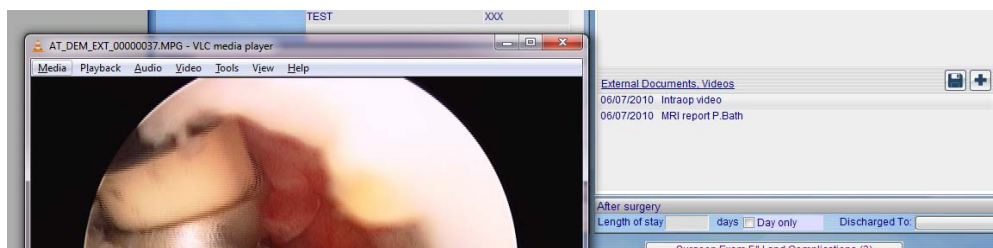
The next captures some information about the history of the patient's weight and height, BMI (calculated by the program) some details of their injury, workers comp, insurance status, litigation pending, how it occurred, the duration of symptoms, and length of stay.

Surgery or Procedure details		Patient Information		Reports, videos, docs	
Pre-Op Height and Weight:	Weight	90.00	in Kgs		
	Height	156.00	in Cms		
	BMI	37.00	Obesity	Medium Obesity	
Date of injury or joint problems		01/02/2006		Date of examination 01/05/2006	
Dominant side		Same as injury/affected side			
Injury to exam time		13	weeks	Injury to surgery time 1 weeks	
Workers Compensation		Yes		Covered by Insurance	
Is litigation pending due to this injury?					
Opposite site		Normal			
Other joint problems					
Onset of symptoms		Sudden			
Cause of injury		Work accident			
Duration of symptoms		1-3 months		Years:	
After surgery					
Length of stay		days <input checked="" type="checkbox"/> Day only		Discharged To: Home	

Reports, Videos and Documents

Patient Information		Reports, videos, docs	
Surgery Reports, Documents			
06/07/2010 Shoulder exam 2/3/09			
<div style="border: 1px solid gray; padding: 5px; text-align: center;"> Reports generated from here Documents and videos attached here </div>			
External Documents, Videos			
06/07/2010 Intraop video			
06/07/2010 MRI report P.Bath			

Videos and any type of **electronic document** (PDF, Word, Excel, etc.) can be imported and stored with the surgery record for viewing. Simply click on the **Add icon** to attach a document or video relevant to this surgery. See the chapter on X-rays and videos for more information.



Reports, such as **Surgery Reports** and **Examination Reports** can be generated from the fields you entered into the program. They are generated and stored in Socrates, exported as word or pdf documents or printed from this window. They work like a word processing document with a macro set up. As long as the data is entered into Socrates you can generate a report from it. Here's an example of a Rotator Cuff Repair operation report.

Fairlyland Orthopaedics
112 Santas Way
South Pole

phone: +50 453 7689
fax: +50 453 7689

Name: Sam WILLIS DOB: 04/07/1977 Age: 43
Surgeon: Trevor Toogood Assistant: Mary Hopkins
Anaesthetist: Mark Sleephead Anaesthetic: General
Hospital: Earlyout Hospital
Diagnosis: Partial Rotator Cuff Tear
Type: Primary
Surgery performed: Rotator Cuff Repair, Sub acromial decompression
Preoperative score: Constant (out of 100): 58

Intra-operative findings
Range of Motion: Forward flexion: 170 Abduction: 170
ER at 0: 75 ER at 90: 80 IR at 90: 80 Sulcus: 0
Anterior translation: 0 Posterior translation: 0

Rotator Cuff Pathology:
Tear present: Yes
Tendons Involved: Supraspinatus
Supraspinatus:
Tendon quality: Thin/very poor quality
Calcification: Single deposit
Tear size - AP 1 ML 2
Distance from greater tuberosity: 1cm
Infra spinatus:
Tendon quality: Delaminated
Calcification: Liquid
Extent of tear: Partial

Extent of tear: Full
Tear pattern: Crescent
Medial retraction [cms] 1.5
Medial to glenoid: 1cm

At the bottom of the history screen are two rows of tabs. The bottom are all the scores/surveys that have been selected to display – more about this later.


Length of stay days ☒ Day only Discharged To:

Custom Fields (1)	Patient History, F/U (1)	Non-operative Therapy	Exam, F/Up, Complications (1)	Radiology F/U	SOMOS F/U			
ASES	Constant (2)	WORC	SANE/SSV/Pain	EQ-5D	UCLA	Shoulder Activity	Pat Satis+VAS	Custom

The top row has the following.

Custom fields

Custom Fields (1)

 You can create your own Custom Fields and Evaluations (bottom row with the scores) to capture recurring Events. These can be new exclusive lists, multi boxes, numeric values, or dates. See the chapter on Set-Up and Customisation for details on how to add these fields. Once you have added them your new list will show up in these tabs just like the all the fields in the program. Below is an example of some custom fields set up to capture details that are not on the regular screens. It's only limited by your imagination.

This is how they show up on the data entry screens just like the normal fields.

This is how they look on the set up screen when you add them

Patient History and Follow-Up Screen

Patient History, F/U (1)

Patient History, F/U (1) You probably won't want to collect these data from everyone but if you treat high-level sports patients, or if returning to work is an important aspect of a surgery outcome, it can be useful data. The dreaded insurance companies sometime want to know this data, so it's there if you need it.

This screen tracks the patient's work, functional and sport history over the period of their follow-up until they are discharged from follow-up *for this surgery*. Questions relating to the patient's work, sporting and general

function are recorded **pre-operatively** and **at subsequent visits**. Some of the questions are only relevant post-operatively: return-to-work and sports questions, for example. The **Main Sport window** can be added, modified or deleted through the **Adaptable Fields** option on the **Set-Up Screen**. This form is scannable for both pre- and post-op follow-up. The pre-op version includes the questions from the first screen, about the history of the injury, workers' comp, duration of symptoms, etc.

This is a scannable form, both the pre- and post-op versions and these can also be filled in by the patient online just like all the web based scores.

The screenshot shows two side-by-side form sections. The left section, titled 'Work and function status', contains dropdown menus for 'Usual type of work' (set to 'Light manual'), 'Usual level of work' (set to 'Full time'), and 'Curr functional status' (set to 'Everything I want'). It also includes checkboxes for 'Is the type of work the same as before your injury or joint problem' (checked 'Yes') and 'Able to return to a job which places less demand on your joint' (checked '< 1week'). A text field shows 'How long after surgery were you able to return to work' as '5 weeks'. The right section, titled 'Sport status', has a dropdown for 'Sport activity level' (set to 'Well trained, frequent sports') and a dropdown for 'Same level of sport activity as before your injury or joint problem' (set to 'Lower'). It includes a text field for 'How long after surgery were you able to return to sport' (set to '15 weeks') and a dropdown for 'Have you been able to return to a lower impact sport' (set to 'No'). A text field shows 'Main other reason why you don't play sport at the same level as before' as 'You are fearful of reinjuring your joint'. At the bottom, a 'Main sport' dropdown is set to 'Basketball'. A red arrow points to this dropdown. A message box at the bottom left states: 'Sports can be added to the master list on the Set Up screen.'

Surgeon Examination and Follow-Up Screen

A single button with the text 'Exam, F/Up, Complications (1)' in a blue box.

This screen has 3 sections.

A horizontal tabbed interface with three tabs: 'History & Comorbidities', 'Examination and symptoms', and 'Complications & outcome'. The 'Examination and symptoms' tab is currently selected and highlighted in red.

Previous Surgery Details

Previous Surgery details field allows you to record if there have been previous surgeries, the number and what they were. If you want more detail, record these in the Notes.

The screenshot shows the 'Examination and symptoms' tab selected. The 'Previous surgical treatment' section has a dropdown for 'Previous surgeries' (set to 'Yes'), a text field for '# of previous surgeries' (set to '2'), and a text field for 'Locations/type' (set to 'Biceps Tenotomy, Primary Stabilisation'). The 'Comorbidities' section has a checkbox for 'Significant Comorbidities' (checked), a checkbox for 'Deteriorated/changed since last review' (unchecked), and a text field for 'Comorbidities' (set to 'Immunosuppressed Crohns Disease'). Below this is the 'Charlson Comorbidity Index' section with a text field for 'Charlson Comorbidities' and a 'Total score' field. At the bottom is the 'History Notes' section with a text field containing 'On prednisone for Crohns disease'.

Comorbidities

It's up to you about how much detail you want to collect here but it's obviously a good idea to at least record if the patient had significant comorbidities. It's becoming more important for you to record this sort of information, patients can now go on-line and score themselves using a number of patient-related outcome scores and compare themselves to others. But we all know that all patients are not the same, if you collect some data to demonstrate this it helps to explain results that may differ between patients, and between surgeons. The list can be added to at any time, and more than one can be added to the record, and over time this may change. There is a check box to record this also.

Charlson Comorbidity Index

This is a validated list of comorbidities which when selected and totalled will give a score which can be used to classify patients according to risk, and subsequent cost to care for.

Examination and Symptoms

The first tab of the **Surgeon Exam and Follow-Up Screen**, the **Examinations and Symptoms tab**, records a detailed physical examination of the shoulder, with **sub-tabs** that record:

- symptoms and range of motion
- laxity and instability
- strength, scapular and other findings
- biceps tests
- rotator cuff tests.

Limited details about pain are also recorded here. Pain data will also be captured in more detail on the patient's subjective assessments.

A number of diagnostic tests are included; just choose the ones you want to record. You can generate a **report** based on the data that has been entered in the program. The reports are recorded by date and a follow-up delay, assignments that are based on the surgery date. Therefore, ROM and symptoms can be tracked over time.

NOTE: You can also capture ROM and clinical assessment on the Surgeon part of the ASES form, which can be then scanned into the program.

Examples of the **Examination** screens are shown below.

Examinations and symptoms | **Complications and outcome status** | **Notes**

Symptoms & ROM | Laxity/Instability | Strength, Scapular Findings & Other | Biceps | Rotator Cuff

Major Symptoms

Pain: Yes (Deep, Top of shoulder)

Instability: Yes (ADL)

Stiffness: Yes (Limits sports)

Weakness: Yes (Limits ADL's)

Other Symptoms: Clicking, Catching

Duration of Symptoms: 1-3 months

If Traumatic Shoulder Dislocation - Date: 01/12/2008 (53 weeks since dislocation)

Number of Instability Events: 2

Range of Motion

	Index		Opposite	
	Active	Passive	Active	Passive
Forward Flexion	100	170		
Abduction	170	170		
External Rotation at 0°	75	75		
External Rotation at 90°	170	170		
Internal Rotation at 90°	80	80		
Internal Rotation	T5	T5		

Examinations and symptoms | **Complications and outcome status** | **Notes**

Symptoms & ROM | Laxity/Instability | **Strength** | Scapular Findings & Other | Biceps | Rotator Cuff

Strength

	Index	Opposite
Forward Elevation	5	5
Abduction	5	5
External Rotation	5	5
Internal Rotation	5	5
Pain with Testing	Negative	Negative
Strength Of Abduction (Enter data in lbs)	5.00 Kgs	9.00 Kgs (50 % of Opposite)
Strength In Flexion (Enter data in lbs)	2.00 Kgs	4.00 Kgs (63 % of Opposite)
Strength In External Rotation (Enter data in lbs)	6.80 Kgs	9.07 Kgs (75 % of Opposite)

Scapular Findings & Other

	Index	Opposite
Scapular Dyskenesia	Negative	
Static Winging (at rest)	Negative	
Dynamic Winging (active)	Negative	
During Wall Push Up/Resisted	Negative	
Type of Scapular Winging		
Other		
C Spine Spinous Process	Negative	
Spurlings Sign	Negative	
Elbow Problems	No	
AC Joint Tenderness	Negative	
Cross Body Adduction	Negative	

Biceps

	Index	Opposite
Normal		
Speeds Test	Negative	Negative
Yergason's Test	Positive	Negative
Active Compression Test (O'Brien)	Positive	Negative
Popeye Deformity	Negative	Negative
Biceps Muscle/Lower Tendon Tenderness	Positive	Negative
Biceps Groove Tenderness	Negative	Negative
Subluxable Biceps	Positive	Negative

Rotator Cuff

Click on the normal tick and all the tests will be recorded as Negative.

	Index	Opposite
Normal		
Neers	Positive	Negative
Hawkins	Negative	Negative
Painful Arc	Negative	Negative
Greater Tuberosity	Positive	Negative
Lesser Tuberosity	Negative	Negative
Coracoid Tenderness	Positive	Negative

Rotator Cuff

	Index	Opposite
Crepitus Glenohumeral	Positive	Negative
Pain with 'Bad Cop' Sign	Positive	Negative
Pain with X-Body Adduction	Negative	Negative
Abnormal Lift Off Test (subscap)	Negative	Negative
Abnormal Belly Press Test	Negative	Negative
Abnormal Increased Passive ER/Lag Sign	Negative	Negative
Decreased Internal Rotation Strength at Side	Negative	Negative

Complications and Outcome Status

The third tab of the **History screen** allows you to record details about any complications, from the very basic, to a lot more detail. You may need to collect more extensive detail if you are involved in a study, or following a new procedure or implant where complications are a key endpoint. In most cases, surgeons find it sufficient to just record a "Yes" in the Complications drop-down menu, click on the **modify icon**, and then double-click into the Complications window to record what it was. You can also collect details of failures, reoperations or revisions here.

Radiology Follow-Up Screen

Records radiological findings for X-ray and MRI.

Scores and Evaluations

The scores and evaluations for this module are displayed along the bottom of the **History** screen.

Socrates includes more scores than will fit on the screen, so you need to select which you ones you want displayed on this **History** screen. Click on the **Tools** icon to bring you to the **Set-Up** screen, and tick those you want to appear. Scores included in this module include:

- Constant
- American Shoulder and Elbow Score (ASES)
- SANE/SSV (1-100 how normal does your shoulder feel?)
- VAS pain (1-100 how bad is your pain?)
- Rowe
- Simple shoulder test
- WORC
- WOSI
- WOOS
- Oxford
- Oxford instability

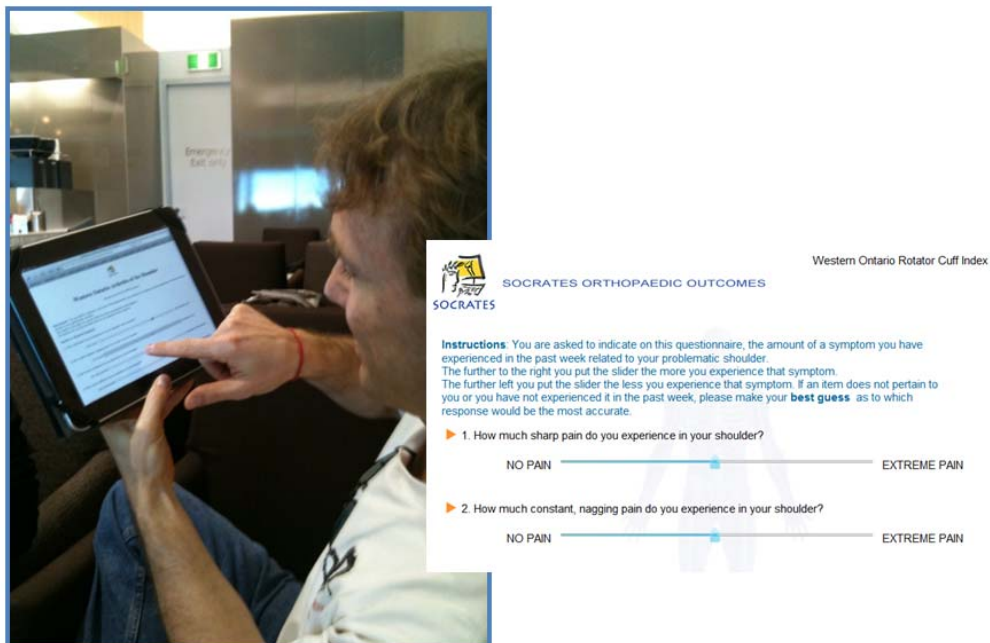
- DASH and Quick DASH
- Kerlan Jobe
- UCLA
- L'Insalata
- MISS (Melbourne instability score)
- Marx activity score
- PENN
- SPADI
- Shoulder Instability score

...and Quality-of-Life and Patient Satisfaction scores:

- Veterans Rand 12 and 36
- Patient Satisfaction Questionnaire
- EQ5D (Euroqol quality of life)
- GROC- global rating of change

Web based data entry

The majority of these can be entered via the web directly by patients via email, or online in the clinic (English only).



In addition the majority of scores can be scanned in using one of the Scannable forms. By scanning the forms, the responses are populated directly into Socrates. Note that scannable forms don't work on the Mac.

A section of the ASES and WOOS scan forms are shown below. You'll find that it is generally faster and more accurate to use the scan forms, especially for scores with VAS 0-100 scales which have to be measured with a ruler if entering manually.

Physician Assessment: Signs
0 = none; 1 = mild; 2 = moderate; 3 = severe

Portion of the ASES Score

	Affected Side				Opposite Side			
Supraspinatus / greater tuberosity tenderness	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
Acromioclavicular joint tenderness	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
Biceps tendon tenderness (or rupture)	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
Other tenderness (detail in notes)	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

The further to the left you put your "X", the less you experience that symptom, the further to the right you put your "X", the more you experience that symptom. Please do not place your "X" outside the line.

Portion of the WOOS Score

Section A: Physical Symptoms

- How much pain do you experience in your shoulder with movement?
NO PAIN _____ EXTREME PAIN
- How much constant, nagging pain do you experience in your shoulder?
NO PAIN _____ EXTREME PAIN
- How much weakness do you experience in your shoulder?

Created: 12/05/2010 13:58 - Admin Modified: 07/05/2010 10:03 - Admin

Patient name: ARKWRIGHT Trevor Injury: 01/02/2006 Module: Shoulder
Patient ID: 479830 Exam: 01/05/2006 Side: Right Bilateral
Latest record: 12/05/2010 4y Surgery: 01/02/2006 Protocol: _____

ASES Shoulder Assessment Form

Score Patient Surgeon - Range Surgeon - Signs Surgeon - Strength Surgeon - Instability Notes

Sample score screen

Patient Self-Evaluation: Subjective Pain Description
How bad is your pain today: 0 = No Pain 10 = Worst pain

Patient Self-Evaluation: Activity of Daily Living Questionnaire
Circle the number in the box that indicates your ability to do the following activities:
0 = unable to do; 1 = very difficult to do; 2 = somewhat difficult; 3 = not difficult

	Affected Side	Opposite
Put on a coat	1	3
Sleep on your painful or affected side	1	3
Wash back or do up bra in back	1	3
Manage toileting	1	3
Comb hair	0	3
Reach a high shelf	1	3
Lift 10 lb above the shoulder	0	3

	Affected Side	Opposite
Throw a ball overhand	0	3
Do usual work (detail in notes)	1	3
Do usual sport (detail in notes)	1	3

Total Score (opposite side) 30 /30
Total Score (affected side) 7 /30
Shoulder score index (affected side) 62 /100

Score results can be displayed by clicking on the **results icon** (next to the trash bin) and then a **graph** can be viewed, printed or exported for the individual result.

Created: 07/05/2010 10:03 - Admin Modified: 07/05/2010 10:03 - Admin

Patient name: ARKWRIGHT Trevor Injury: 01/02/2006 Module: Shoulder
Patient ID: 479830 Exam: 01/05/2006 Side: Right Bilateral
Latest record: 07/05/2010 4y Surgery: 01/02/2006 Protocol: _____

ASES Shoulder Assessment Form

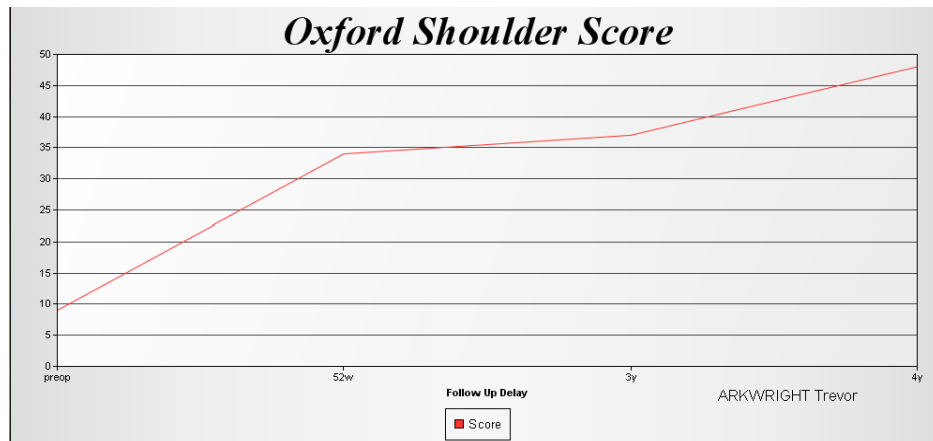
Click to see Score Results.

Score Patient Surgeon - Range Surgeon - Signs Surgeon - Strength Surgeon - Instability Notes

Patient Self-Evaluation: Subjective Pain Description

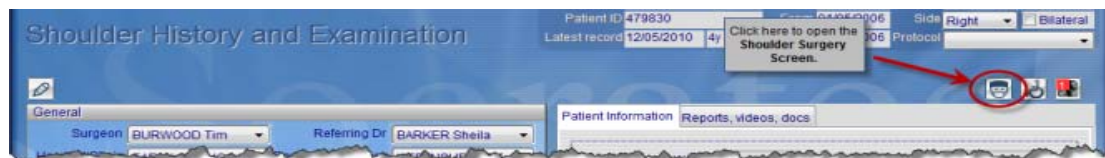
Graph

Follow-Up	Date	Reviewer	Oxford Shoulder Score
preop			9
52w			34
3y	20/11/2009		37
4y	06/07/2010		48



SHOULDER SURGERY SCREEN

From the **Shoulder History Screen**, click on the **Surgery icon** to start entering data about the surgery itself.



Common Details

The top section of the **Shoulder Surgery Screen** records details of the approach, anaesthetic details, portals used, position, surgery and traction time, and type of surgery (primary, revision).

Created: Modified: Patient name: ARKWRIGHT Trevor Injury: 01/02/2006 Module: Shoulder
 Patient ID: 479830 Exam: 01/05/2006 Side: Right Bilateral
 Latest record: 12/05/2010 4y Surgery: 01/02/2006 Protocol:
 Common details
 Date: 01/02/2006 Age: 46 Operator: Surgeon Approach: Open If Open: Anaesthetic: General ASA: Rating: Navigation:
 Position: Duration: min Type: Revision own Cause of revision: Block type: Interscalene Portals: Bilateral Arthroplasty:
 At Site:
 ** EUA & Capsule ** ** Labrum, Bone & Biceps Tendon ** ** Articular Cartilage ** ** Rotator Cuff ** SA Space/AC joint/Clavicle/Fracture Arthroplasty Other treatment, adjuncts
 EUA Intraop EUA Postop Capsule/Synovium - Treatment

The surgery screen in this module has six Surgery tabs, (and two more for Custom Fields and Notes), and accommodates as much (or as little) detail as you want to collect. There are *no mandatory fields* other than the Date of Surgery and Type (Primary, Revision, or Re-operation).

There are also several screens which have the same data fields on them for commonly occurring procedures, biceps tenodesis for example. If these are entered on one screen they will also be populated to the other places they appear. So, if you are searching for all biceps tenodesis you will find it regardless of which screen you entered it into.

The **surgical tabs** include details on the following procedures

Time Type Revision own revision type Interscalene Bilateral Arthroplasty
 ** EUA & Capsule ** ** Labrum, Bone & Biceps Tendon ** ** Articular Cartilage ** ** Rotator Cuff ** SA Space/AC joint/Clavicle/Fracture Arthroplasty Other treatment, adjuncts
 EUA Intraop EUA Postop Capsule/Synovium - Treatment

NOTE: Three of the tabs have "Lite" options, for those of you who don't want to collect a great amount of detail. These are Rotator Cuff, Arthroplasty and Articular Cartilage.

EUA and Capsule Tab

As below. The EUA can be recorded before and after the surgery and will be recorded as Intraop and Post op.

These data will also be automatically cross populated into the surgeon examination screen at the same time. Thus the intra-op and post-op ROM details will be stored in the examination screen with the preop and any post op measurements.

Labrum – Pathology and Treatment Tab

Note that this tab has two sub-tabs: a **Pathology screen**, and a **Treatment screen** (since it wouldn't all fit on one tab).

Treatment

** EUA & Capsule ** Labrum, Bone & Biceps Tendon Articular Cartilage ** Rotator Cuff ** SA Space/AC joint/Clavicle/Fracture ** Arthroplasty ** Custom Fields Notes

Pathology Treatment

Labrum
☐ Repair

Suture Configuration

Anchor Type

Other Procedures Other

Bone

Glenoid

Humeral Head

Repair Type HAGL repair

Other Procedures

Biceps Tendon
☐ Repair

Method

Tenodesis Location

Tenodesis Method

Technique

Anchor Screw

Implants

Number of Sutures	4	Number of Anchors	3
Number of Trans Os Sutures	4	Number of Screws	5

Brands & Sizes

SUTURE 2	4-0
SUTURE 2	5-0
SUTURE 2	6-0

Labral Anchor Position

Posterior Anterior

Capsular Plication Anchor Position

Posterior Anterior

Capsular Plication Sutures Position

Posterior Anterior

Click once for K=Knot, click once again for N=Knotless, click once again to reset.

Clock Face Zones

There are several places on the surgery screen where a clock face is used to specify location of pathology or anchors. The zones are always clockwise, and only the correct view for *the side being operated on* will be displayed. Thus, 11 o'clock on the *right* is the same as 1 o'clock on the *left*, but the data is stored by its anatomic position: anterior, posterior 1, 2 etc. (regardless of the side, or whether it was at 11 o'clock or 1 o'clock).

To record the anchor type, click *once* for **Knot**, *twice* for **No Knot**

RIGHT SHOULDER

Labral Anchor Position

Posterior Anterior

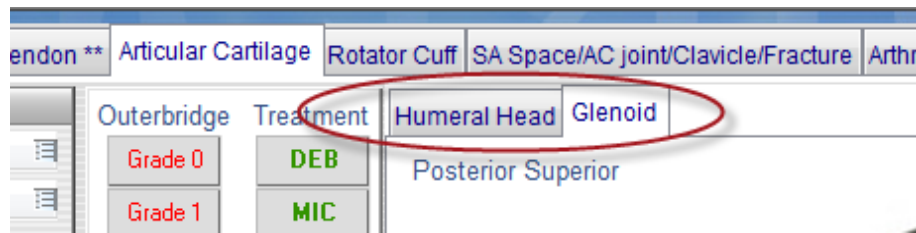
Capsular Plication Anchor Position

Posterior Anterior

Click once for K=Knot, click once again for N=No Knot, click once again to reset.

Articular Cartilage Tab

You'll see that the right side of the screen is split into **Glenoid mapping** of Pathology and Treatment, and **Humeral mapping**.



You've also got the option here of choosing the Lite version, if you don't want to select the Outerbridge grades and treatments, and the degree of damage in each quadrant. You can go straight to the summary, and just select the grade of OA and the treatment for the glenoid and humerus overall.

Sub acromial Space/Distal Clavicle/AC Joint/Fracture Tab

This screen record details of pathology and treatment to the sub acromial space, distal clavicle, and AC joint. Fracture details and treatment for the clavicle and humerus are also included.

Rotator Cuff

There are two options for data entry for the cuff: using the “Lite” screen, which just treats the cuff pathology and treatment as one tendon, or entering pathology and treatment data for each of the four tendons. You got a look at this concept at the beginning of this chapter.

Lite Screen

If you select the “Lite” box from the **Rotator Cuff screen**, the pathology and treatment are filled out for the cuff *overall*. The individual tendons affected and treated can be selected, but no pathology or treatment can be entered for the *individual* tendons. This option will appeal to surgeons who are interested in capturing less detail. The “Lite” screen also acts as a summary screen – it will tally up the worst options from the individual tendon screen (if they are used), and display the summary

Full Screen

If the “Lite” box is *not* checked, data can be entered for each affected tendon. In the example below, the Supraspinatus and Infrapinatus tendons have been checked, and the “Lite” box is *not selected*. Therefore, a tab will appear for **each tendon selected** to enable data to be entered for the full pathology, and the complete treatment.

Details in the column on the far right are the same for both the full and the “Lite” screen.

Common details

Date: 01/02/2006 Age: 45 Operator: Surgeon Approach: Arthroscopy If Open: Anaesthetic: General ASA Rating: Navigation: Position: Duration: 40 min Type: Revision own Cause of revision: Block type: Interscalene Portals: Anterior + 1 Bilateral: Arthroplasty: ** EUA & Capsule ** ** Labrum, Bone & Biceps Tendon ** Articular Cartilage: ** Rotator Cuff ** ** SA Space/AC joint/Clavicle/Fracture ** ** Arthroplasty ** Custom Fields: Note:

Pathology **Lite**

Cuff Status: Tear

Tendons Involved Supraspinatus + 1

Supra Intra Summary(Lite)

Tendon Quality: Delaminated

Tendonopathy:

Calcification: Diffuse infiltration

Tear Extent: Partial

Tear Pattern:

Total Tear Size AP (cm): 1.5 ML: 1

Medial Retraction(cm): 1.5

Distance from Greater Tuberosity: 1cm Medial To Glenoid: 1cm

Partial Tear Location:

Length (mm) Articular: 4 Bursal: 5

Ellman: Articular side: 1A - articular sided fr... Bursal side: 1B bursal sided fraye...

Treatment

Tendons Treated Supraspinatus

Supra Intra Summary(Lite)

Repair Method: Single row, Trans Tendon

Repair Quality: Fair

Repair Tension: Minimal

of Anchors: Single Row: 2 Knot: Trans Tendon: 3

Medial Row: Lateral Row:

of Sutures: Margin Convergence: Transosseous:

Total: 5 Anchor Type: PLA

Anchor & Sutures Brands & Sizes

SUTURE 1: 4-0

SUTURE 1: 3-0

Other repair types and adjuncts to repair

Other subacromial procedures: Acromioplasty

Cuff Debridement: Undersurface/articular

Biceps procedures: Tenotomy

Glenohumeral procedures: Slap repair

Distal Clavical Resection: <0.5

Muscle Transfer:

Bone Trough: None

Rotator Cuff Patch: Dermal patch

Biologic Augmentation: BMPS

Additional Procedure: ☒

Procedure name: Fracture open reduction external fixation

Final Diagnosis/ Diagnoses: Labral Tear SLAP

Arthroplasty

Like the **Rotator Cuff** screen, the **Arthroplasty** screen has both a full and a "Lite" screen. On the full version there are three screens available, one for **General Surgical Details**, one for **Implant Details**, and one for **Revision Details**.

General Surgical Details

Surgical Details Implant Details Revision Details

Pathology & Intra Operative Findings **Lite**

Pathology: Osteoarthritis

Cause of Osteoarthritis: Cuff Tear Arthropathy

Post fracture injury cause:

Bone Stock Humerus: Poor

Bone Stock Glenoid: Poor

Glenoid Morphology: A2

Synovitis: Yes

Rotator cuff tear: Yes

Tendons torn: Supraspinatus + 1

Rotator cuff quality: Fair

Residual Tendons: Yes

Procedure Details

Procedure: Total Shoulder Arthro.

Additional Approach: Clavicular Osteotomy

Additional Procedure: Tendon Transfer + 1

Tendon Transfer Detail: Latissimus Dorsi

Rotator Cuff Repair Detail: Supraspinatus + 1

Quality Of Repair: Adequate

Drains Used:

Final Status

Retroversion: 10

Stability: Stable

Head Height in relation to Greater Tuberosity: 0

External Rotation: Flexion

Bone Graft Details

Location: Glenoid

Glenoid: Humerus

Region Grafted: Anterior

Graft: Contained

Details: Allograft

Allograft Details: Morsellised

Sterilisation: Irradiated

Procedure: Structural Graft

Screws Used: Yes

Type: Resorbable

Surgery Keywords:

Implant Details

The next tab records the details of implants used, including sizes.

Surgical Details **Implant Details** Revision Details

Humerus <input type="checkbox"/> Lite Brand: GOOD AS NEW Stem: 4 Body: LARGE Liner: 40 Component Type: Stemmed Fixation: Cement Coating: Macrostructured	Glenoid Brand: GOOD AS NEW Glenoid Size: 12 Glenosphere Liner Fixation: Cementless Coating: HA Glenoid Type: Cement Keel	Cement Brand: FMW Method: Pressurised Type: Antibiotic
Humeral Head Brand: GOOD AS NEW Size: 18 Eccentricity: 5 Type: Eccentric	Bearing Surface/Additional Implants Articulating Surface: Metal/PE Additional Implants/Fixation Biologic Implants	

Revision Details

Additional details can be recorded for revisions.

Surgical Details Implant Details **Revision Details**

Previous Surgery Details <input type="checkbox"/> Lite Type of Previous Arthroplasty: Heml Arthroplasty Number of Previous Arthroplasty Procedures: 1 Time Since: < one year 3 years Stage: Not Staged	Previous Implants Retrieved Humerus: Cement Coating Status: Loose Glenoid: Cement Pegged Coating Status Articulating Surface: Metal/PE Liner/Insert: Slight Wear Position of Wear: Anterior Components: All If Partial	Other Details Glenoid Notching: None Method of Removal from Humerus: Simple Disengagement... Metallosis: Mild Osteolysis: Mild Bone Loss Central: Moderate Peripheral: Mild Combined: Mild
Details of Failure Date of Failure: 04/05/2005 Type: Clinical Failure Cause: Loosening Loosening Cause: Poly Wear Anterior Infection Detail Fracture Detail Stiffness Cause		

Lite Screen

If you just want to record just the basic details for an arthroplasty procedure go to the "Lite" screen.

Implant Details **Lite Details**

Arthroplasty Light ☒ Lite

Pathology
 Pathology: Post Fracture/Injury
 Post Fracture/Injury cause: 3 part#
 Rotator Cuff Quality: Good

Treatment
 Rotator Cuff Repair: Yes
 Biceps: Tenotomy

Type of Implant
☒ Cemented
 Humeral Head: Standard TSR
☒ Cemented
 Glenoid: Glenosphere

Surgery Keywords
 Technically challenging op

Post-Op and Rehab Screen

This is a window common to all modules, and is accessed by clicking on the **Rehab icon** at the top right of the **Shoulder History** screen.

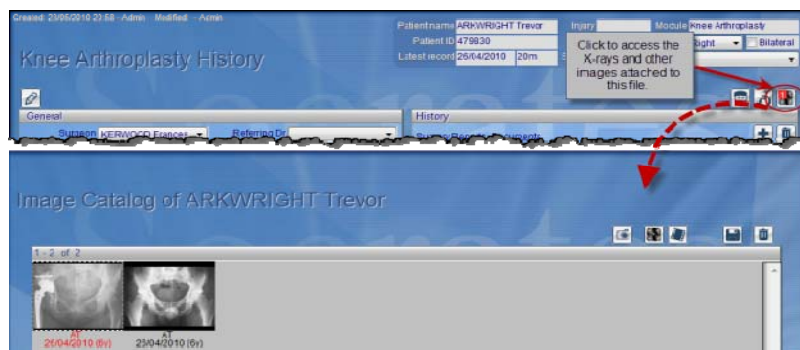
Follow-Up Protocols

Don't lose your patients (unless you want to!). You can choose a **Follow-Up Protocol** so the program knows when the patients are due back for their next follow-up and can remind you. These are essential for the web scores as this is how the program knows what scores to send out at what time points. The different protocols in the drop-down menu are created by you in the **Set-Up screen** (**tools icon**).

IMAGES (XRAYs, VIDEOS.)

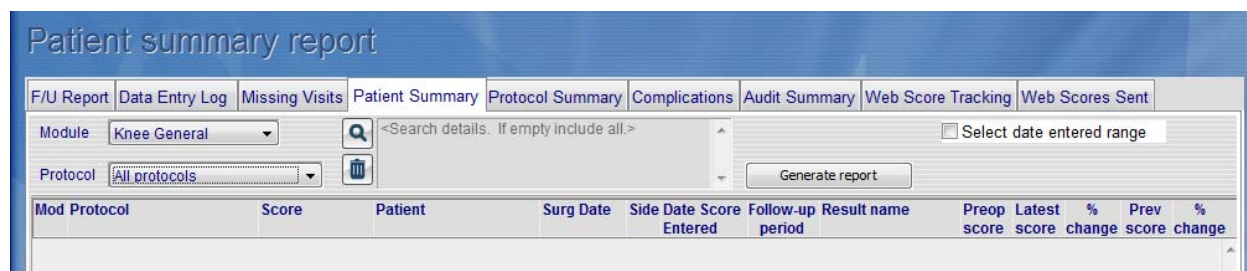


Images can be stored, searched for, printed, and exported from the **Hip and Knee Arthroplasty Surgery screens**, by clicking on the **X-ray icon** on the right of the screens. See the chapter on **Images** for more details, including how to give the images **Keywords** for easy searching and selection at a later date.



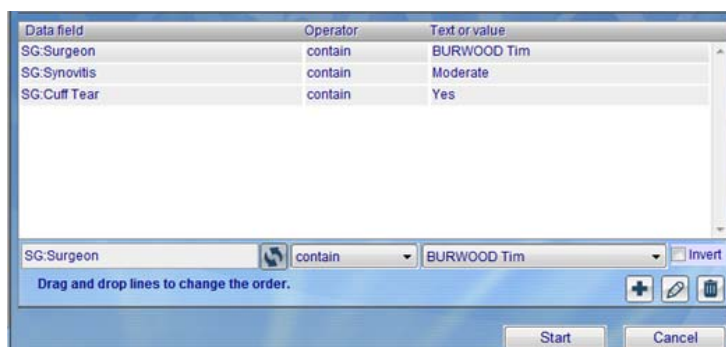
REPORTS

There are several reports built into the program which make it easy to track your patients progress, when they are due back, who has missed their time points, which have deteriorated since their last visit, and how the group are doing overall. Most of these require a protocol so the data can be grouped so it's really a good idea to spend some time setting these up.



SEARCH

A specialised search function in Socrates' **Surgery screens** allows you to search for any field or combination of fields in the program. The example below shows the window that sets up a search for all surgeries with Dr Burwood with moderate synovitis and rotator cuff tear. See the chapter on Searching for details on setting up your own Searches.



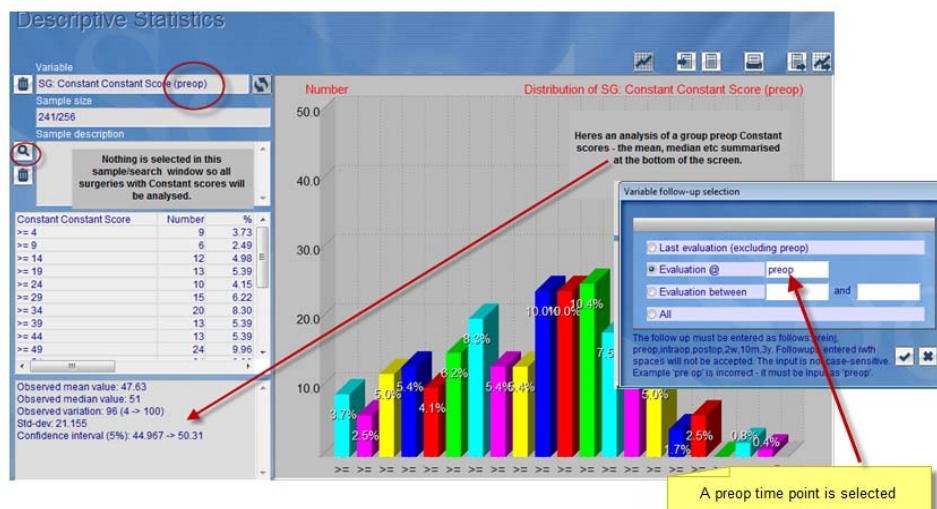
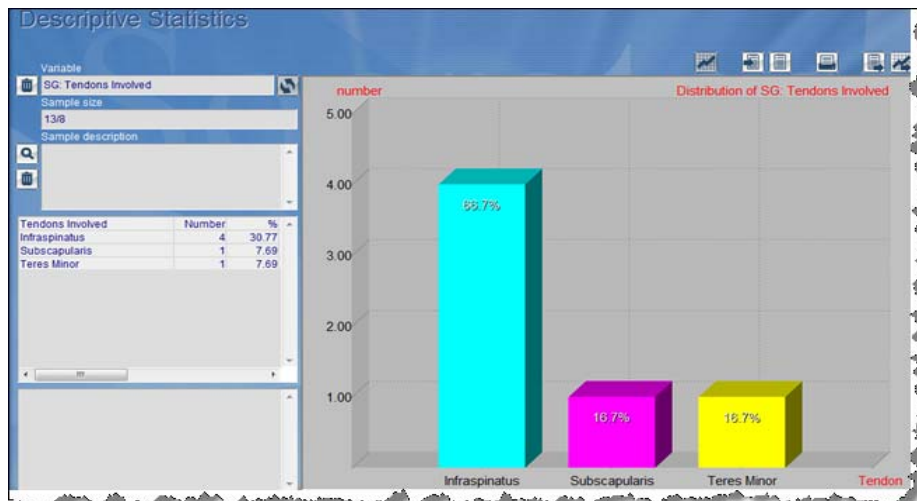
There's no limit to the numbers of parameters you can add to your search.

Data field	Operator	Text or value
SG:Cuff Status	is or equal	Tear
SG:Position	is or equal	Beach chair
SG:Tendons Involved	contain	Supraspinatus
SG:Tendons Involved	contain	Infraspinatus
SG:Cuff Debridement	contain	Bursal

SG:Tendons Involved	contain	Supraspinatus	<input type="checkbox"/> Invert
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STATISTICS

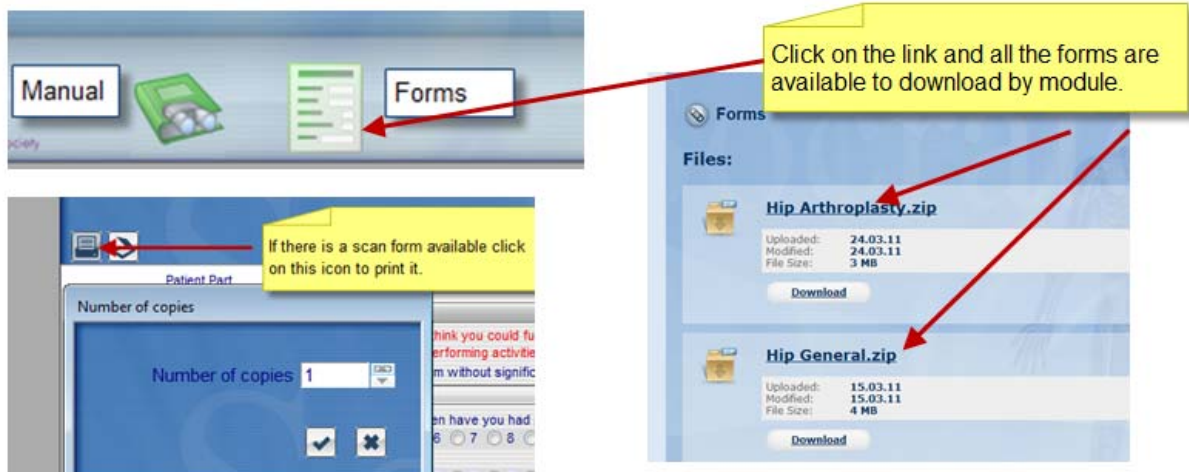
Socrates provides you with basic Descriptive Statistics functions to enable you to calculate and demonstrate your own basic statistics without the help of a statistician. However, if you do find you want to do more sophisticated statistical analysis, all of the fields in Socrates can be exported to Excel for transfer to a dedicated stats package. See the chapter on Statistics and Export for more information.



By the time you have read this you will have an understanding of the features of the shoulder module. If you are the person setting up your database you will now need to go to the Set Up chapter and start getting your database ready for your own use.

FORMS

All the screens in Socrates have forms to match. There are also scannable forms inside the all the forms folders in their individual modules folders but these can be printed out from each screen where you see a print icon. There are also scannable forms for the surgical details. On the home page there is also a link to the Socrates web site which will access the up-to-date forms.



List of forms

LEGEND
Y: these forms are available in the format of the column heading.
ALG missing: Y indicates that an algorithm is built in to the score so that if some questions are missing, a score is still possible. See chapter on scores for individual scores information.
Scan forms: forms available as a scannable PDF to capture data via a Scanner
Type: QS = patient questionnaire; SU = surgeon form; SC = Score
Patient/Surg: P indicates the patient completes the form; S is a surgeon completed form; C is combined

SHOULDER	WEB SCORE	SCAN FORM	Patient/ Surgeon
Adolescent Health Assessment (Parent)	Y		P
Adolescent Health Assessment (Self)	Y		P
AQOL4D * coming soon	Y	Y	P
AQOL6D * coming soon	Y	Y	P
AQOL6D Adolescent * coming soon	Y	Y	P
ASES Rating Scale - Patient	Y	Y	C
ASES Rating Scale - Surgeon		Y	S
Complications		Y	S
Constant Score	Y	Y	C
DASH - Disabilities of the Arm, Shoulder and Hand Score	Y	Y	P
DASH Quick	Y	Y	P
Euroqol EQ5D-3L		Y	P
Euroqol EQ5D-5L		Y	P
Flex 36 Shoulder rating		Y	P
GROC Global Rating of Change	Y	Y	P
L'insalata	Y	Y	P
MISS - Melbourne Shoulder Score	Y	Y	P
Oxford Instability Score	Y	Y	P

SHOULDER	WEB SCORE	SCAN FORM	Patient/ Surgeon
Oxford Shoulder Score	Y	Y	P
Patient History Work & Sport PreOp		Y	P
Patient Satisfaction, Normal, and Pain VAS Postop	Y	Y	P
Patient Satisfaction, Normal, and Pain VAS Preop	Y	Y	P
Patient Work & Sport PostOp	Y	Y	P
Pediatric Health Assessment (Parent)	Y		P
PENN Shoulder Score	Y	Y	P
ROWE Shoulder Score	Y		S
Sane (Normal) Pain Visual Analogue Score	Y	Y	P
Shoulder Activity Level (Current)	Y	Y	P
Shoulder Activity Level (Preinjury)	Y	Y	P
Shoulder Instability Rating		Y	S
Simple Shoulder Test (SST)	Y	Y	P
WOOS - Western Ontario Arthritis of the Shoulder Index	Y	Y	P
WORC - Western Ontario Rotator Cuff Index	Y	Y	P
WOSI - Western Ontario Shoulder Instability Index	Y	Y	P

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