Introduction and Tour

Thank you for becoming a user of **SOCRATES**, *Standardised Orthopaedic Clinical Research and Treatment Evaluation Software*. We hope you will find collecting data and monitoring your patients' outcomes a rewarding experience.

This program has been developed to collect information on *what* procedure you performed, *why* it was done, *how* it was done, and what the *outcome* was, both from patient's perspective and your own. The rewards of being able to search and retrieve your data easily, do basic statistical analysis without needing a statistician for a lot of what you need to analyse, and being able to contribute your data to larger data sets will be substantial.

Importantly, Socrates allows you to capture the details of your procedures, both surgical and non surgical *in as much, or as little, detail as you want.* You may be doing a multi-centre study on a particular procedure, and you'll find the software is powerful enough to enable statistical analysis of the myriad of details you will collect. But if you choose to simply keep track of your work by patient, diagnosis, and procedure (with or without patient scores), you will find Socrates can streamline your record-keeping, simplify any reporting/audit requirements you might have, and provide you with a rich cache of data should you decide to analyse them more deeply at a later date. The choice is yours.

Don't be daunted by what you may see as too much data to collect when you first look through the various screens. There are a lot of options which can be selected... 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 surgeons will want to record detailed information about all their procedures if their focus is on collecting data for publication. Others just want to use it to track what they've done by diagnosis and procedure name, maybe any complications and a patient score to make sure that the patient was happy. Typically since Socrates will be with you for your entire practice what you use it for will change over time, and you will decide to follow different surgeries and patients in different levels of detail. Regulatory and reimbursement changes are happening and it may become mandatory to follow some of the new procedures and implants in different levels 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 for life, 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.

Whichever degree of involvement you decide on, actually getting the process started can be daunting, especially if you haven't previously had a system for data collection in place. Time spent at the beginning deciding which forms and scoring systems you want to use, at which intervals you want to recall patients, and if any customisation is necessary, will save you time and frustration down the track. We recommend you work your way through the Tour that follows while the program is **open**, so as you start to become familiar with the features of Socrates, you can begin to make some of these decisions.

An electronic copy of the manual is on the client section of the Socrates web site www.socratesortho.com with a direct link from the program home screen. It is updated often, so when we do make changes we update the website copy.

For those of you in the US who have pointed out some spelling errors, we are based in Australia and use UK-English rather than US-English. So you'll see lots of words with S's where you would use Z's and a few other anomalies you might take a while to become accustomed to.

We have done our best to thoroughly test the program, but as with all software, it is likely that some problems have snuck by us – please let us know if you find something unexpected. Any feedback on how we could improve the manual or the program, or suggestions for something you would like us to consider adding to future versions, are welcome.

There's a specific chapter in this manual for each of the modules, after you've gone through the tour it would be a good idea to read through the chapter/s that relate to the modules/s you will be using.

In the meantime, let us introduce you to Socrates...

THE SOCRATES TOUR

> *NOTE: The demo file has data entered for a group of fictitious patients. As you work through the tour, you can enter a few new 'surgeries' and modify existing records for these 'patients'. You can access all of the screens to examine all the functions available to you. You can also delete a patient from the demo file and add a new fictitious one, but don't enter any real patient data into this demo file.*

The opening screen in Socrates contains log-in and password fields at the bottom right corner. The default User ID is Admin, and the Password is Admin. (For purposes of this tour, just enter these for now; you can change them later, after you have installed and registered the full program.)

Click on the forward arrow. This brings you to the **Socrates Home Screen.**
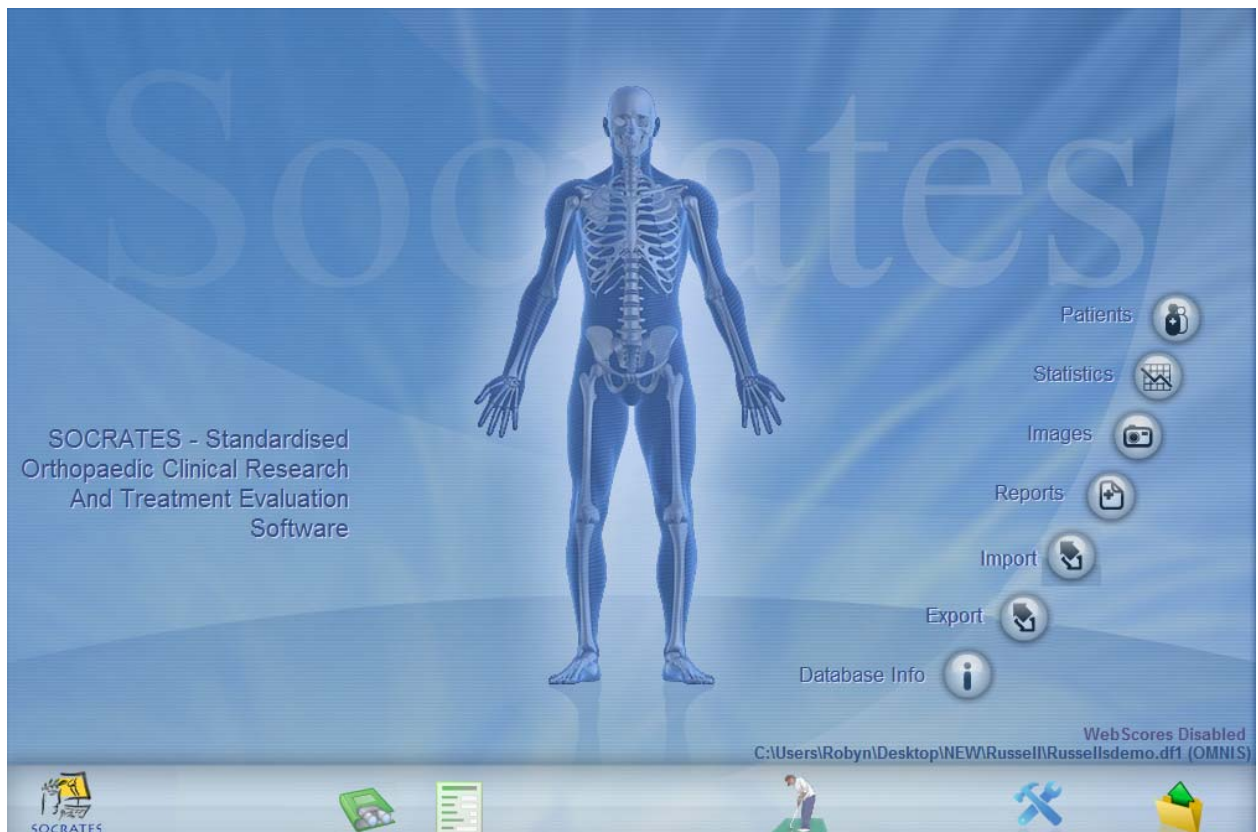
The software has nine modules. You can choose to display the one you want from the Set Up Screen.

- Hip General - open and arthroscopic procedures of the hip except Arthroplasty
- Hip Arthroplasty – primary and revision - total, resurfacing, hemi's
- Knee General - open and arthroscopic procedures of the knee except Arthroplasty
- Knee Arthroplasty - primary and revision - total, unis, patella femoral
- Shoulder - open and arthroscopic procedures of the shoulder including Arthroplasty
- Elbow and Hand *
- Foot and ankle - open and arthroscopic procedures and trauma
- Spine *
- General – can be adapted to trauma or other orthopaedic procedures which don't fit the above
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*the modules with an asterix (*) are still under development in that they may not yet have all the de
examination and surgery screens. These will be added in future updates. They do include most of the
used patient and surgeon scores, some general history details and full complications screens.

To access these modules, click on the **Patients** icon, and you will be in the **Patient Demographics Screen** for the first patient.

Before we proceed, let us offer some hints for finding your way around the screens and for entering data efficiently.

ICON HINTS

The **yellow folder icon** at the bottom right corner of the screen always takes you *back to the previous screen*.

The **blue house icon** takes you *back to the home page*.

The **tools icon** takes you *directly into the Set-Up Screen*. You will use this screen often since this is where you will add all your own details: information specific to your practice; new fields, implants you use, your hospitals, assistant names, follow-up protocols, etc.

The **two people icon** returns you from any screen back to the first screen for the current patient, another click takes you back to the first patient in the database.

The **golfer** exits you out of the program, you can also use the red X in the top right hand corner.
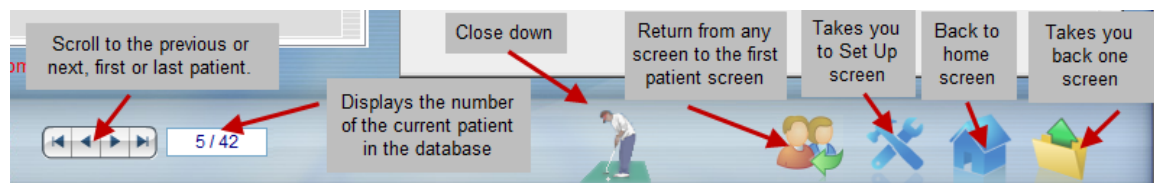
There are **tool tips** to *give you more information* on most of the fields that aren't self-explanatory. Hover the cursor over the field or icon, and the tool tip will appear.

The **blue cross icon** is used when you want to add something new, *a new patient, a new surgery or score, a new implant, Insurance company…* to an existing patient's record or to the main database.

The **pencil icon** at the top left corner of a screen is the Modify icon. It enables you to *make modifications* to any of the screens. Once anything on the screens is saved and you access it again you will need to click on this icon to be in data entry mode.

After you have clicked on the Add or Modify icon and made the addition or changes, choose either the green tick or red cross at the bottom of the screen. The **green tick** *saves any new data you have entered*; the **red cross** *will clear (or undo) anything you have entered* since you went into modify mode. You can also use the Enter key to save your new data in all screens except the Notes section. There, the Enter key will move the cursor to the next line, as in typical word processing.

THE SET-UP SCREEN

The **Set-Up Screen** is where you customise the database for your own use. Access this screen from the **Tools icon** – the hammer and wrench. You'll be in here a lot to start with.

Here's what's on it, you can see that's it's a lot and it is an important screen for you to become familiar with.
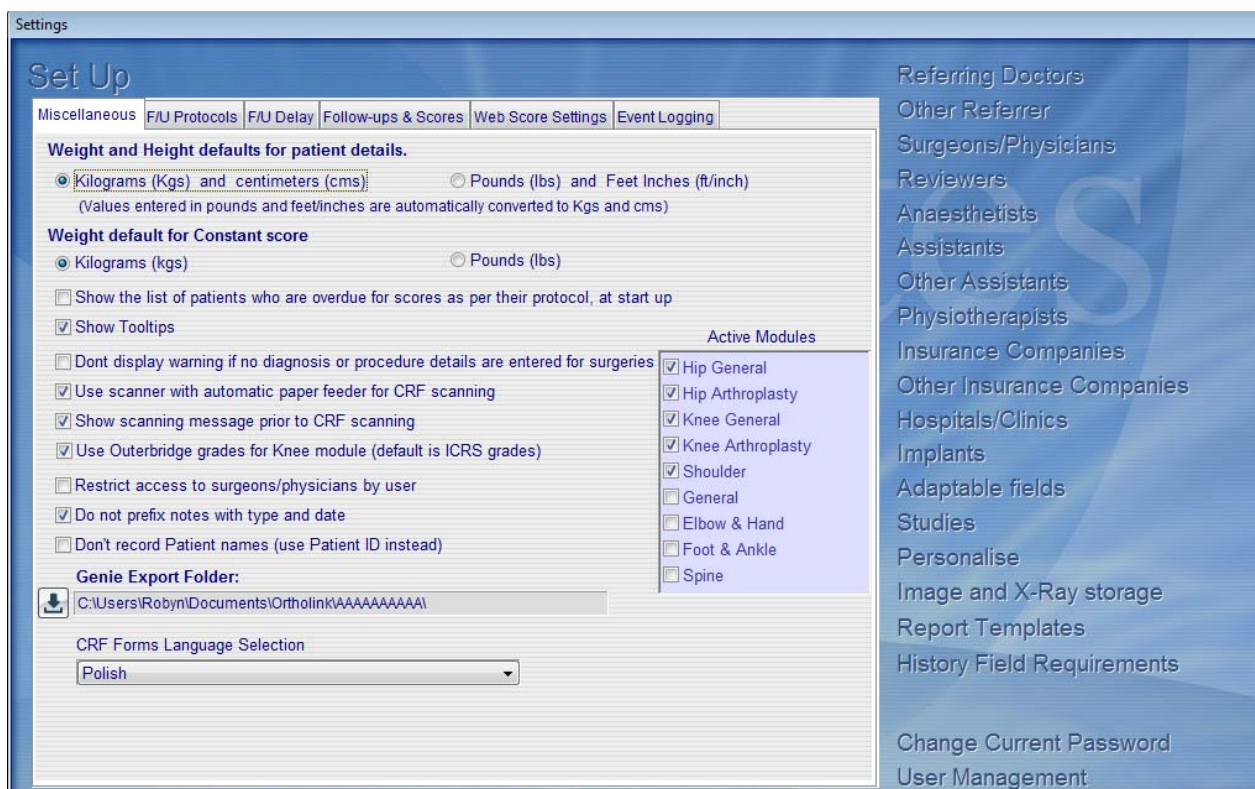
By clicking into the various tabs you will be able to do the following:

Miscellaneous Tab

- set up height and weight measurements for your own region (US or metric)
- disable "overdue for follow-up" reports, warning messages and tool tips
- define scanner options for the scannable surveys/scores

➜ set up the dual local and network mode so you can sync back between laptops and a network

➜ Limit user access to specific surgeons data (administrator)

Follow-Up Protocols Tab

➜ don't lose your patients (unless you want to) – you can specify follow-up protocols and define the delays for each one, for example ACL routine - preop, 6 weeks, 6 months, 2 years... These protocols become your default lists, allowing you to simply choose one each time you add a surgery.

➜ These are essential if you are using the web service for patients to enter their scores on line as this is how Socrates knows what scores to send out at what time points. Additionally, this can generate a report if patients are overdue for follow up and enables you to search for who is due back between selected dates.

Follow-Up Delay Tab

➜ specify the increments (weeks months years) that you want the follow-ups to display

Scores Tab

➜ select the scores that you want to see displayed in each module. There are too many in most modules to be able to be displayed on the screen all at once.

Web Score settings

➜ here's where you set up your details to enable the web based patient entry.

On the same screen, the **Active Modules checkbox list** allows you to:

➜ select the modules you want to view, and hide those you aren't using.

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Referring Doctors
Other Referrer
Surgeons
Reviewers
Anaesthetists
Assistants
Other Assistants
Physiotherapists
Insurance Companies
Other Insurance Companies
Hospitals Clinics
Implants
Adaptable fields
Studies
Personalise
Image and X-Ray storage
Report Templates
Change Current Password
User Management

And finally, these **options down the right side**

allow you to set up and customise your database with what's on the list.

The first eleven options (**Referring Doctors; Surgeons**; etc.) enable you to specify the details that will automatically populate the appropriate fields when you open your own new file.

The **Implants** option allows you to create lists of the products you use, including manufacturers and sizes. Later, you simply click on the elements you used in a specific surgery, and your lists will appear.

The **Adaptable Fields** option lets you add or modify the drop-down lists of all possible diagnoses, co-morbidities, input your own diagnosis and procedure codes, surgery names, complications, etc. When you add a new patient or a new surgery, you will then simply click on the appropriate choices. No typing necessary!

Studies allows you to create a list of studies you run or participate in; one click slots the patient into the appropriate study, and automatically places him or her onto the study or studies. The surgery can be active in more than one study.

Under **Personalise** you can create more specific categories that you are personally interested in following but are not in the main database. *Personalised Fields* allow you to capture events that occur only once, for example, the patient's blood group. *Personalised Evaluations* record data that may change over time, such as serum electrolyte levels.

Image and X-ray Storage lets you change the location of your images. Since these files can get very large, you may want to locate them on a server instead of on your own computer.

Report Templates is an option that will simplify exasperating paperwork -- surgery and follow-up reports can be created from fields you have entered into Socrates. These are usually best left until you have been using the program for a while.

Administrator Set-Up allows you to change your user name and password and add new users. Here someone set up as an administrator can choose what options a user might have, limit them to being only able to read and write to certain surgeons records, and limit access to the export functions.

For now, click on one or two of the categories on the right-hand side of the screen to see what sort of options you will be able to choose from, and what sort of customisation is available to you.

CUSTOMISATION

One of the great features of Socrates is the flexibility it gives the user to add fields that you might want that no one else does. There are several ways to do this.

Personalise

There will always be the need to add fields of your own, things that might be specific to a study, or your own patient population. They might be important enough that you will want to run statistics on them so the best way to do this is to add them as new fields on the program. There are two options in Socrates. You might want to add something that occurs only once, like the patient's blood group in the example below. We call this a custom field. Then there might be the need to add something that you want to follow over time, like a blood test, or a gait study. These we call **custom evaluations**, and they have a date attached just like a score so you can have pre op and post op assessments at different time points. These are created back in the **Set-Up Screen**. Below is an example of some **custom fields** that have been added by a user – these are things that occur only once. You can have text lists, or numeric titles where you create the title of the list and then just enter the number on the screen.

When you go into the history screen they appear on a tab called custom fields above the score as drop down boxes just like the other ones that are in Socrates.
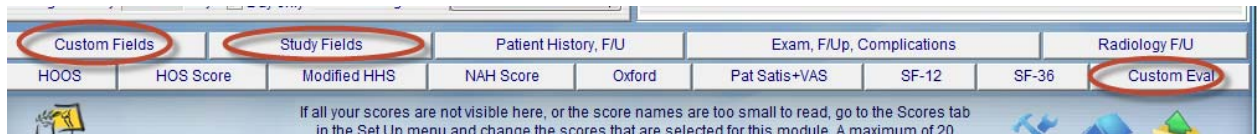
The **custom evaluations** are on the bottom of the history screen with the scores. It's the same process; you make up your list in the Set Up.
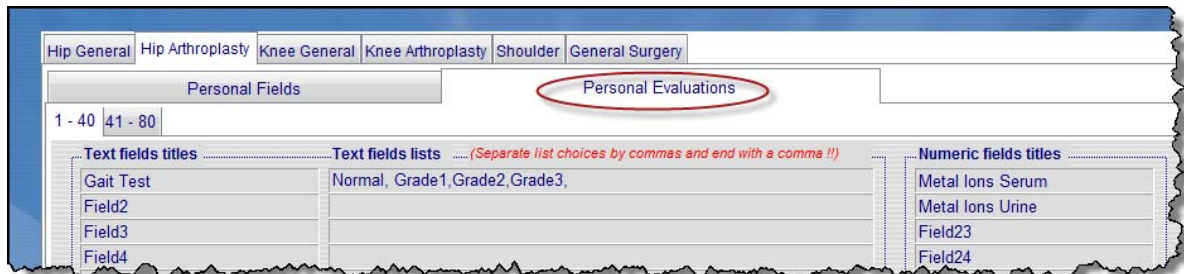
Here's what it looks like on the screen.
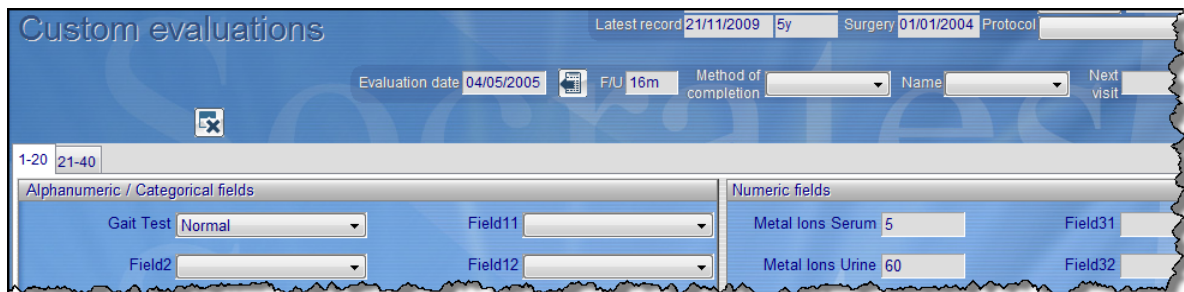
Adaptable Fields

These are areas in each of the various screens that contain drop-down lists that appear by simply clicking anywhere in the little window/s. If nothing happens you probably haven't clicked on the modify icon.
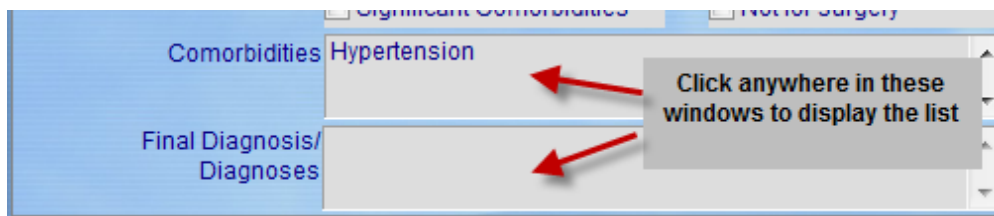
Examples of **Adaptable Fields** include fields labelled Diagnosis, Patient or surgery Keywords, Surgery/Procedure Name, Diagnosis and procedure codes, Complications, Sport, or Image Keywords.

Click anywhere in the relevant window to display the list of possible terms where you see these windows.
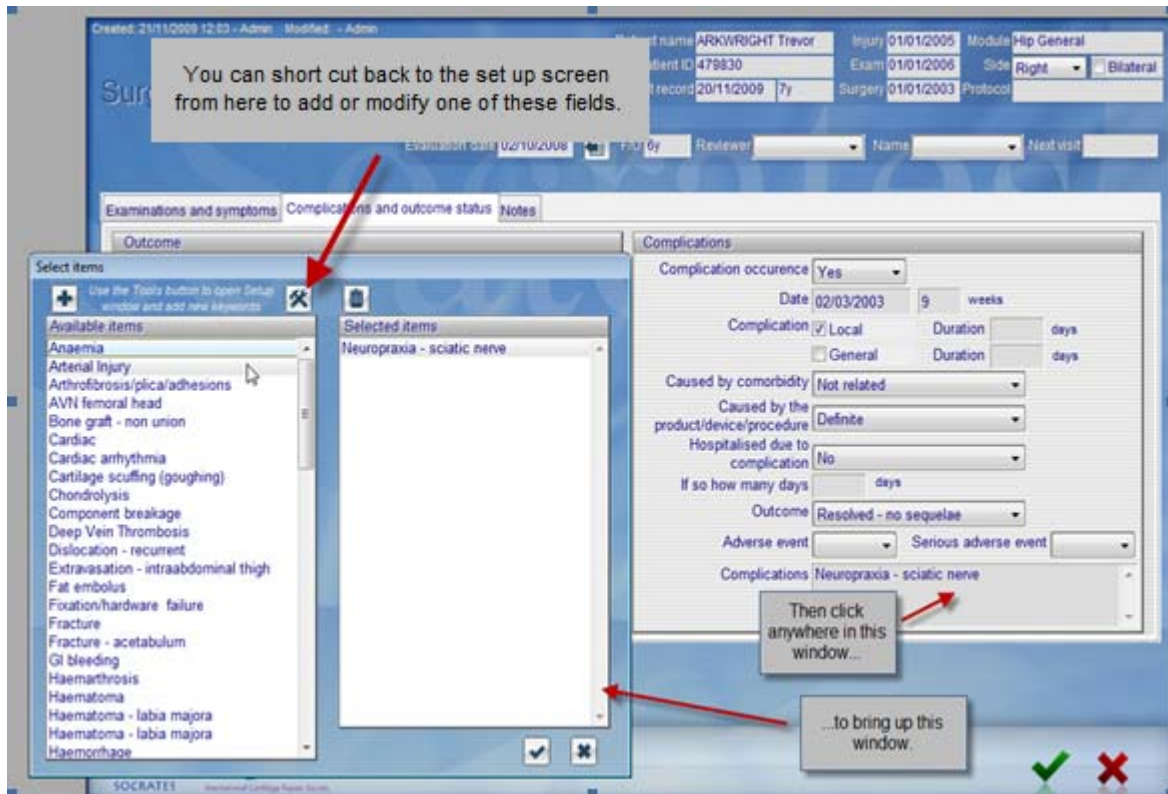
Select which of the drop-down options you want by either double-clicking on them, or by using the **Add icon (blue cross)**. The items you selected will be displayed in a window to the right. When you have all the options you want, either choose the **tick icon** and they will transfer over to the relevant field on the screen.

Note that the lists of items available for selection (those in the left-hand boxes) can be added, deleted, or modified from the original **Set-Up Screen** accessed by **Tools icon**, then **Adaptable Fields**.
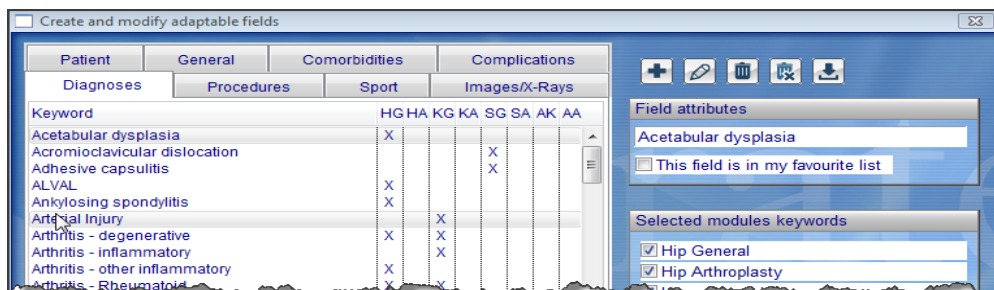
Keywords

There are 3 places to add keywords, these are for things that crop up that you might want to recall at a later date that aren't on the main database. There are patient key words - anything that relates to the patient overall, surgery keywords - things relating to the specific surgery, and image keywords to label your X-rays.
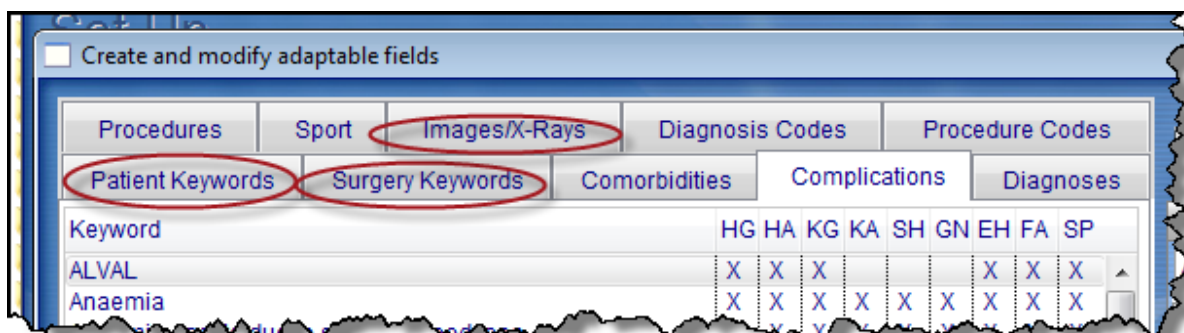
So the message is… if we haven't got it, and you want it included, you can

do it yourself using one of the options described above.

THE PATIENT DEMOGRAPHICS SCREEN

Now that you've had a wander through the Set-Up Screen, go back to the Home Page (the blue house icon, remember?) and click on **Patients**.

You're now in the **Patient Demographics** screen, and you can access all the surgery and treatment records for the demo patients. The first patient record to appear is Mr Arkwright (see bottom of screen: 1/xxxx – first patient in this demo version.) Highlight a surgery you want to explore from the list on the right side of the screen, (the first Knee General record, let's say) and double-click on it.

HISTORY AND EXAMINATION SCREEN

After you have chosen a surgery record, the History window appears. In this example, we see the Knee History and Examination screen, with areas for General information, Study information, History, and Notes on the left, and tabs for Patient information – height, weight, injury details etc. Then there are *Reports, Videos and other Documents* – this is where you create your own reports based on the templates you have set up, and attach any videos or other documents. If you aren't planning on using the detailed surgery screens or you only have the "lite" version you can enter the surgery or procedure date here also.

At the bottom of each History and Exam screen you can click on tabs to access:

- The scores that have been selected to be displayed (in tabs along the bottom)
- Non-operative Therapy screen- only for hip, knee and shoulder general modules and if selected on the Set Up screen.
- Patient History and Follow-Up (functional evaluations for work and sport)
- Surgeon's Physical Exam, History and comorbidities and Complications.
- Radiology Follow-Up (for those modules which have this)

> *NOTE: If data are entered for a score or an examination, the tab becomes*
>
> *magenta, and the number of scores or visits appears in brackets.*

Scores

They are all displayed along the bottom like this...

Click on a score or follow-up that you want to access, (the KOOS score on the Knee general module for example) and the Score screen will open.

Data Entry for scores

Scannable forms

Many of the scores can be scanned into the program using Socrates' own scannable forms, and **scores will be computed and populated automatically**. If a specific score is scannable within Socrates, you will see a **Scan icon** at the top left corner of the score screen. Here's a section of a scan form.

Scannable forms must be printed out from these screens using the **Print icon** next to the scan icon. There are also Word.doc copies of all the forms in the Forms Folder on the web site but *these cannot be used to scan the forms directly into the program*. You can print these Word.doc forms for patients to fill in manually, and then have someone enter the score responses in by hand as well. Most have the responses numbered so you can also enter them by the number 1,2,3 etc.

Web based patient data entry

It's possible for patients to enter their scores on line, either at home via Email or in the clinic using a computer, iPad or anything that will connect to the internet. The answers come back into your own copy of Socrates via our HIPAA compliant web server. This saves a lot of time, money and reduces data entry errors. This service is driven from the protocol. Select what scores you want at what time points for each protocol, allocate a protocol to the patients surgery record and Socrates takes over. You can set it up, then forget about it.
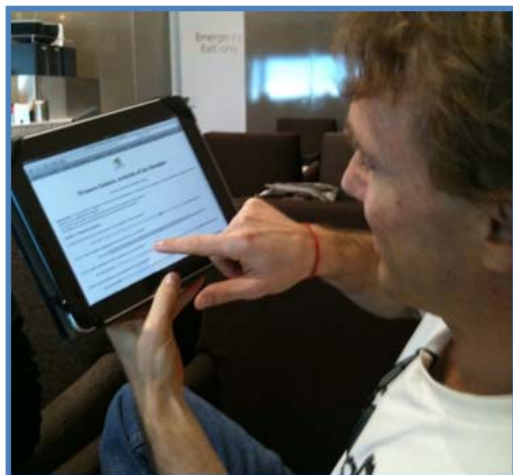
To see the results of a specific score, click on the **Results icon** (top left corner, next to the delete bin). After you have the results up, you can also see them as a **graph**.

And then click to see the data as a graph:
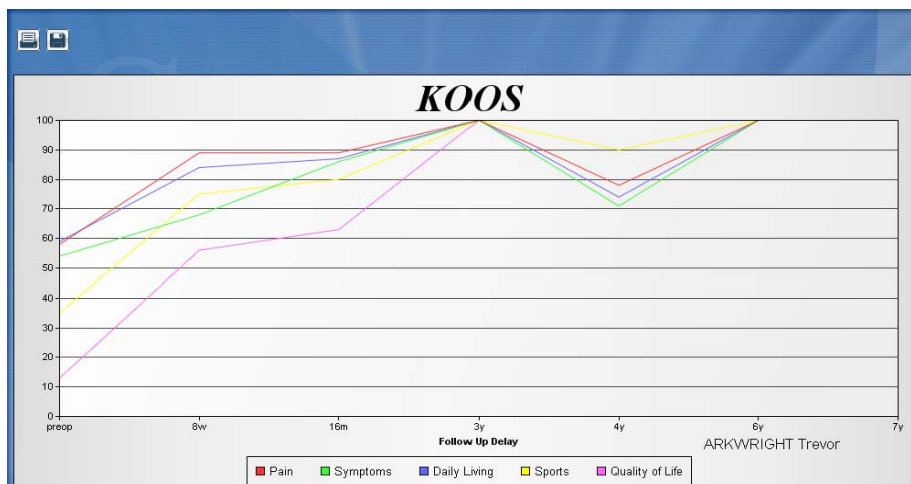
Now let's go to another part of the program.

Click on the **yellow folder icon** to go back up into the History screen.

Let's look at four tabs at the bottom (but above the row of scores). If you can't see them it might be one that hasn't been selected to be displayed on the Set Up screen.

The tabs are:

- Patient History and Follow-Up
- Non-operative Therapy
- Surgeon Exam, Follow-Up and Complications
- Radiology Follow-Up

The first one we'll explore is the **Patient History and Follow-Up** tab.

Patient History and Follow-Up

This screen captures data on the patient's work and sporting history over time. This data and the fields on the front screen – workers compensation, duration of symptoms etc are also available as a scannable form.

Now that we've looked at the Patient History tab, we'll need to go back up into the module's History screen again. Click on the **yellow folder icon**, and then click on the next tab, the one for **Non-operative Therapy**. If you can't see this it's probably not been selected – go to the Set Up screen > Scores to check what scores are visible.

Non-operative Therapy

The Hip and Knee modules include a Non-operative Therapy screen. This allows collection of data and follow-up of therapies such as steroids, analgesia, or intra-articular treatment such as hyaluronic acid.

Ok, now click on the **yellow folder icon** once again. The next tab is for the **Surgeon Exam, Follow-Up and Complications**. Click on that one.

Surgeon Examination, History, Follow-Up and Complications

The first tab from this screen records details of **History and Comorbidities**

The next is **Clinical Examination**: symptoms, ROM, diagnostic tests, etc. Some screens have more detail in them than others. The sports medicine modules include more details of the examination and history than the arthroplasty modules.

This is from the Shoulder module where a lot more details are collected.

The second tab on the Surgeon Exam, F/U and Complications screen records the **Outcome** of the surgery and details of any **Complications**. Once again don't be daunted by the number of data points. Most users will only select Yes and the name of the complication, along with the date and whether it was revised or reoperated on.

Ok, once again to the **yellow folder icon** so we can take a look at the last tab on the History screen: the **Radiology Follow-Up** tab.

Radiology Follow-Up

These screens record and track the outcome of radiographic parameters. Note that there are differing degrees of details between the modules. Some don't have one at all yet.

Ok, you know the drill: back up to the History screen by way of the **yellow folder icon**. Now we're going to have a look at how to access three more categories of information:

- Surgical procedure details
- Rehabilitation details
- Import and storage of images and reports, such as videos, X-rays and operation reports.

You'll find these areas at the top right corner of the History screen. We'll have a look at the first two items (surgery and rehab) now, and defer the images and reports until later in this tour.


Surgical Procedure Details

To view or enter details about a particular surgery, click on the *Surgery icon* (picture of the surgeon's face). The surgery screens vary, depending on the module you've chosen. Some have more detail than others; the general for example doesn't have any specific surgery fields. Detailed surgery screens for Spine and Elbow & Hand are still work in progress.

Favourites

When you are in edit mode on the history and surgery screen you might have noticed the "favourite" icons at the top of the screen. See below. These can be a great time saver and are well worth setting up, especially for the surgical details. It's designed to enable you to record what you might do routinely and be able to populate these chosen fields with one click.
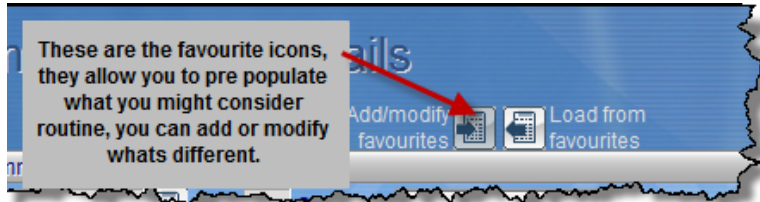
Examples might be your routine ACL, or cemented THR. Set them up as favourites, one click and you have all the usual stuff on the screen, change what might be different, add the sizes in and you have the surgery recorded. You can also do this when adding your lists of implants where different brands might have the same sizes, Femoral heads for example. Check out the chapter on Setup and Customisation for how to do this, **It's worth it!**

Surgery Screens – Hip and Knee Arthroplasty

The **Common Details** section of the arthroplasty screens captures general data such as the date and type of surgery, name of surgeon, anaesthesia details, etc.

The first tab, **Surgical Details** captures pathology and general details (such as approach) for both primary and revision procedures.

The **Revision Details tab** captures details of the cause of the revision, details of previous implants, and defect classifications.

The **Implant Details tab** records the implant, size, bearing surface, and bone grafting details. The implants and sizes you see from the drop-down menus are those that you have added in the **Set-Up Screen**.

Knee General

- You will find six tabs to record information from general knee procedures: There is a chapter on each module which goes into more detail. It cover procedures for Meniscus, Chondral, Ligament, Osteotomy, Patello femoral, Arthroscopy, and a "lite" screen.

As we saw with the **Scores tabs** changing to magenta if data are recorded within them, here there are **asterisks** on the tab if there are data recorded for that screen.

Mapping and drawing screens: These screens record the anatomic location of lesions and tears, using ICRS (chondral) and ISAKOS (meniscus) classifications. These maps or drawings can be printed or stored in the program for analysis.

More detailed instructions on **how to document lesions and tears** follow in the Data Entry chapter of the User Manual.

Hip General

If you head back up into the **Patient Demographics Screen** (using the *yellow folder icon*), and select one of the Hip General surgeries, we see the **Hip History and Exam Screen**; now click on the *Surgeon icon* again to bring us into the **Hip General Surgery Screen.**

The **first tab** covers details of pathology and treatment found in the **synovium, capsule, ligamentum teres, iliopsoas tendon, and bursae**. There is also provision to enter details of any post-total joint replacement arthroscopies. The field at the bottom right allows you to specify diagnosis, procedure, and any key words that may come in handy in a search later.

Explore the screen, clicking on drop-down lists and checkbox lists.

Details of surgeries on the **labrum, acetabulum, and femur** are recorded on the **third tab**. Click it, and have a look here, too.

The **second tab** allows you to map hip pathology and treatment **by zone**.

There's also a "lite" screen which records the most important pathology and treatment. It will also cross populate to the other screens if the same info is entered on those screens where more details can be collected.

Record any details you find after scoping a joint replacement in this section.

Shoulder

Head back to the **Patient Demographics Screen**, use the Two Heads icon at the bottom of the screen, then click on Trevor's shoulder surgery, and then click on the *Surgeon icon* top right corner to access the **Shoulder surgery screen.** Have a play around this screen's features.

There are several sections where there are "lite" options – here's an example of the Rotator Cuff lite screen, instead of recording the pathology and treatment in each tendon it has everything in one lite screen.

There is a "lite" option also for articular cartilage and arthroplasty.

ADDING A SURGERY

Once you have had a good tour through the Surgery Screens, let's have a go at adding a surgery. Head back to the **Patient Demographic Screen** (you guessed it: **Yellow folder icon**). You can either choose to add a surgery to Trevor Arkwright if you are in the Demo file , or add a new patient.

To **add a new surgery**, click on the **Add icon (blue cross)** on the right side of the screen.
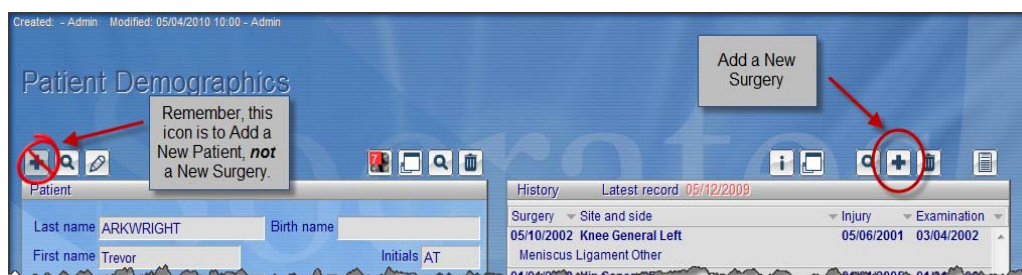
You can then select the module you want to add, choose the side (or choose bilateral), and then choose a follow-up protocol so you can track him (you can add protocols in the **Set-Up Screen**.)

After selecting the options you want for this surgery you will be in the relevant **History screen**. Start to enter some details for your new demo patient's surgery. You won't need to select the modify icon the first time, but a good rule is that if you can see it you will need to click in it to enable you to enter data.
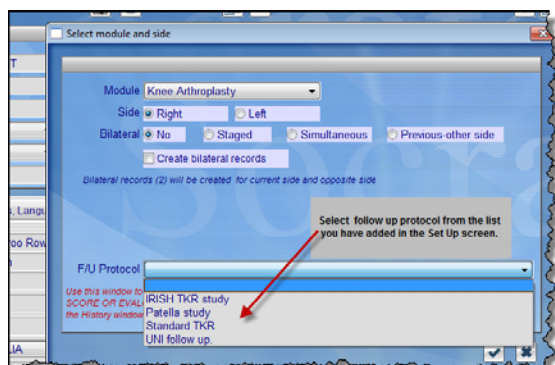

IMPORTING X-RAYS

Let's head back to one of the **History Screens**. The icon on the far right is the **Images icon**. If there are any images stored for a patient, the number of images is shown in red at the top right of the icon itself. Click to open the images catalogue. If you are Mac its likely that this function won't work, we are rewriting late in 2013.
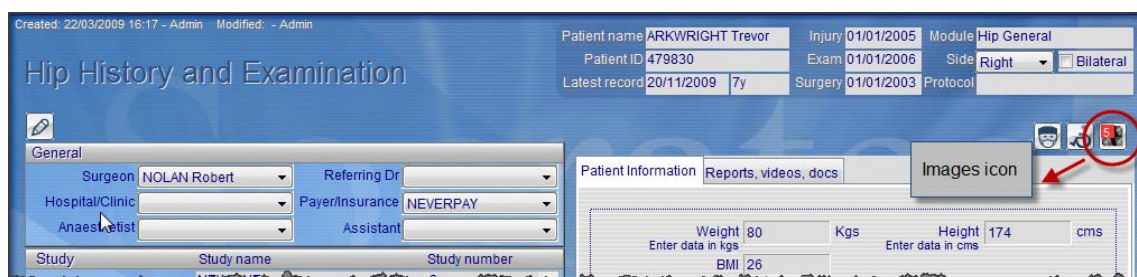
To import an image, click the **Import Image Window**, the **Camera icon** at the top of the new screen.
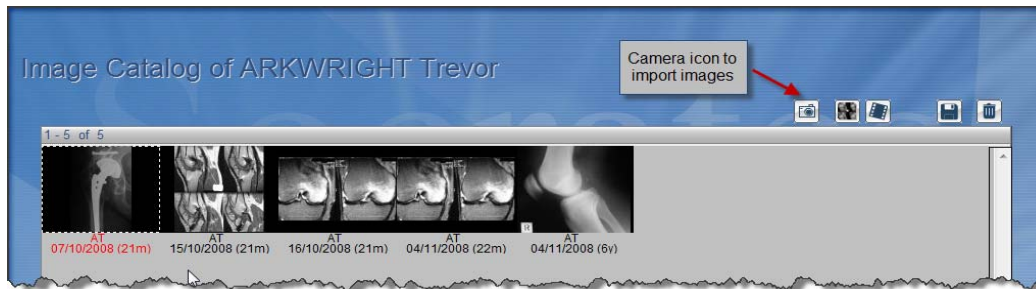
Locate the image you want to import and double-click. Once the images are in the file you can view them in full-screen mode, search for other images, add Keywords to individual images, and export images by selecting the function you want from the icons on the right hand top corner of the screen.

IMAGES FILING

There are three places you can find the images:

- in the Main Image Catalogue
- on the Patient Demographics Screen
- on the Surgery History Screen

The **Main Image Catalogue** can be accessed from the **Home Screen** under **Images**. It is a collection of all the images in the data file. From this repository, you can search for images, view them as a full-screen slide show, import them into an individual patient's surgery file, and export them to other applications. The images can be imported and exported in any format: TIFF, JPEG, DICOM, BMP.
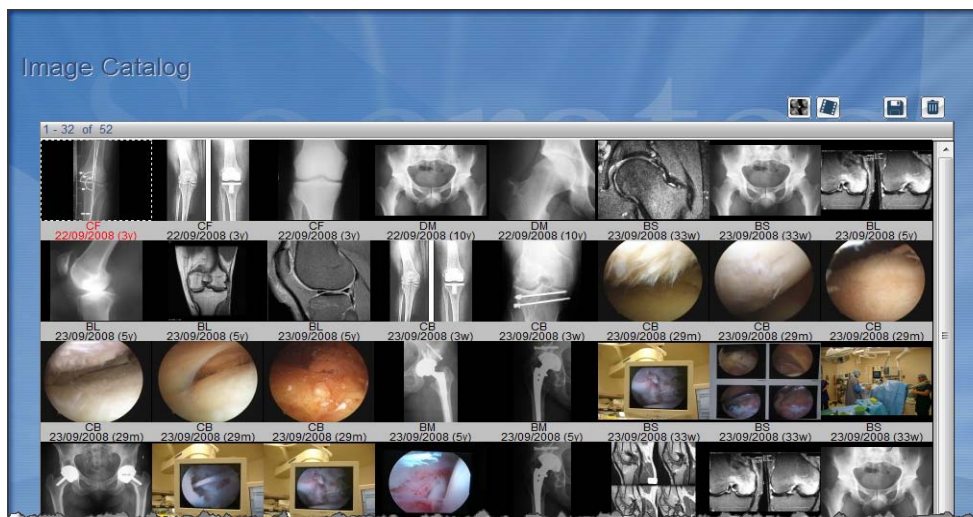
The **Images Icon** on the **Patient Demographics Screen** shows you all the images filed *for that patient*, for all surgeries they may have had and the number embossed on the icon indicates the number of images filed.
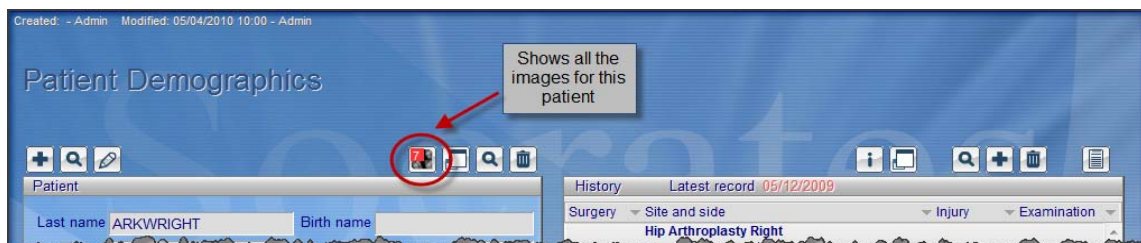
The **Images Icon** on the **Surgery History and Examination Screen** indicates the number of images filed *for this examination or surgery*.
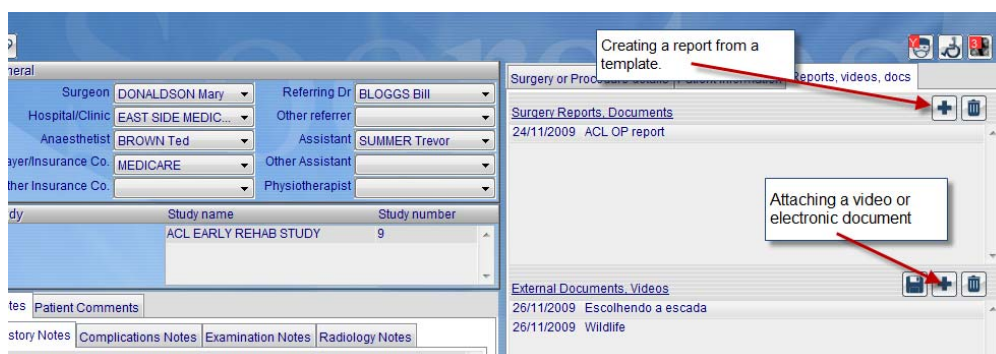
## ATTACHING AND IMPORTING OTHER DOCUMENTS OR VIDEOS

Socrates allows you to attach and import any electronic document or video to a patient record.

Select the **Reports/Videos/Docs tab** on the right half of the history screen to bring up the Surgery Reports (upper part)/Videos (lower part) configuration.

Attaching an External Document or Video

Click the **Add icon**, the program opens your browser so you can locate the required file. Double-click on the file to open it.
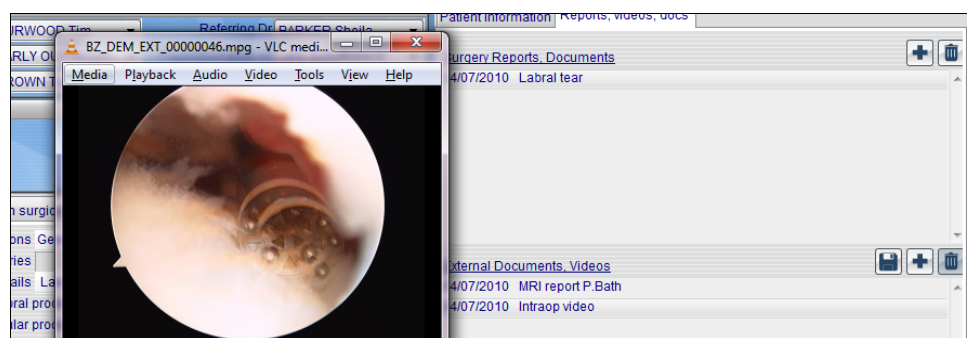
CREATING SURGERY REPORTS

It is possible to create reports automatically by setting up templates which will insert data you have *already entered*. These templates are created in the **Set-Up Screen** Documents Template. Here is an example of an **ACL Operation Report Template**:

The report will be generated as below. (This example shows you the screen in which the document is created.) You can add further text right on the page now that it is created, and then print or save it. You can also export the document as a PDF or Word document to an external file. See the chapter on Report Templates and Word Processing for more information on creating report templates.

SEARCHING

Once you have data entered, the Socrates Search functions will become very important, enabling you to find lists of patients and surgeries, as well as to extract subsets and do statistics.

As an overview, let's move back up into the **Patient Demographics** screen. You've probably already noticed there are *three* **Search icons** along the top of this screen. The three different searches allow you a great deal of latitude in your style of search.
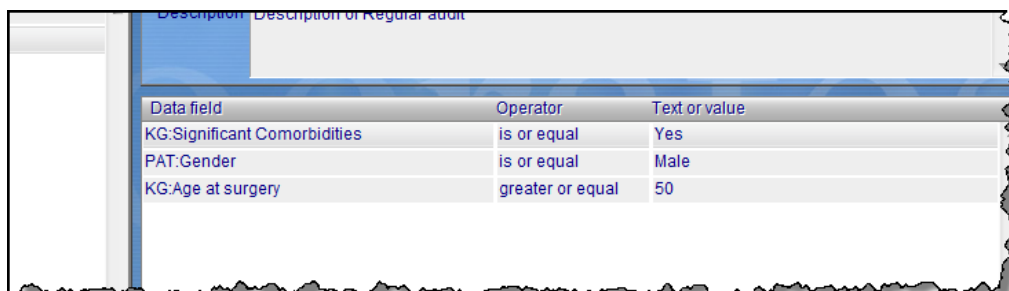

The **Search icon on the left** allows you to type in all, or part of, a patient's name to search for a record. When you click on the **tick icon,** a list of all patients of that name, or starting with the letters you type, will be displayed.

The **Search icon in the middle** looks for information relevant to a *patient's demographics*, such as name, address, gender, etc. You could, for example, search for all male patients over the age of 65 who live in the metropolitan area.

The **Search icon on the right** searches for information relevant to *surgeries*. These searches are usually different, since all patients have one entry for their demographics, but they may have had several surgeries. You may want to pull together a list of all total knee replacements in the past five years who have had diabetes as a significant comorbidity.

Below is an example of a simple search, we've asked for a list of surgeries for Males = or > than 50 with significant comorbidities.
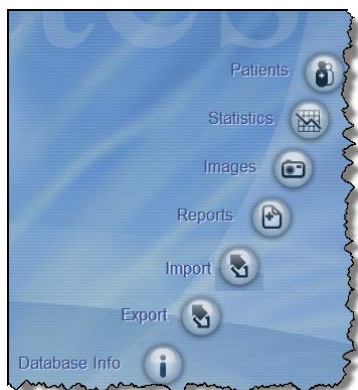
Data field	Operator	Text or value
KG:Significant Comorbidities	is or equal	Yes
PAT:Gender	is or equal	Male
KG:Age at surgery	greater or equal	50

Detailed instructions for how to set up multi-variable searches are in the chapter on Search and Select.

WHAT'S LEFT?

Let's check out some of the features on the home screen that we haven't been to yet.
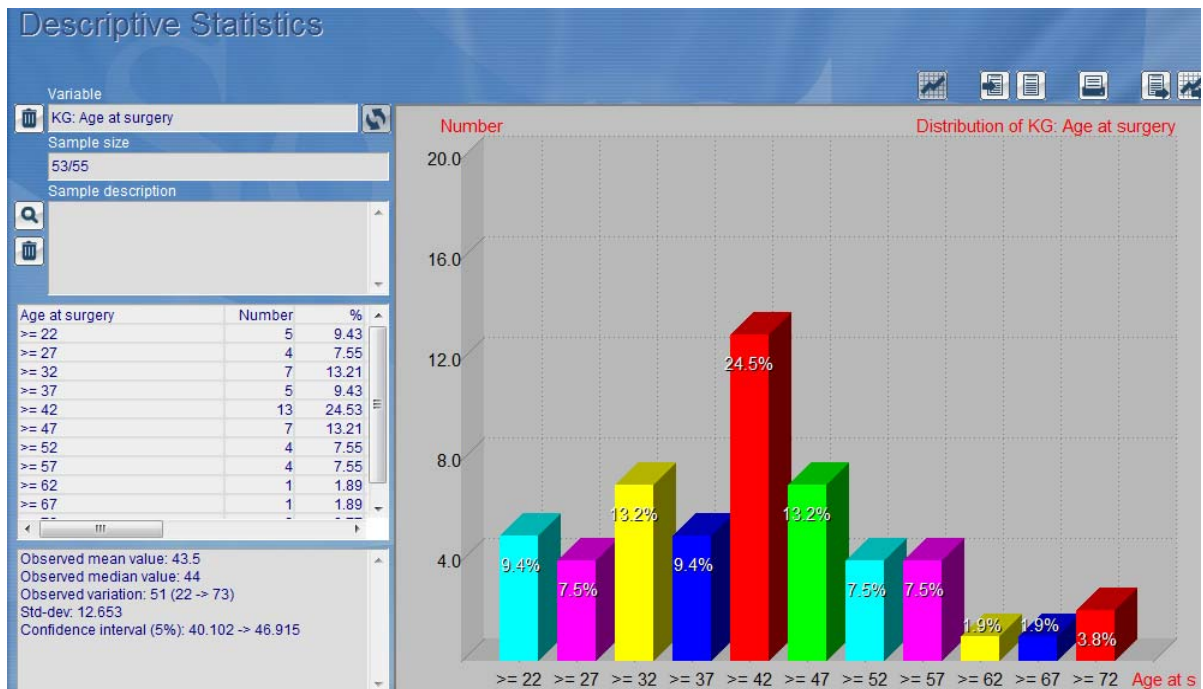
STATISTICS

All the variables in Socrates are available for basic descriptive statistics. The most attractive feature however, is the fact that these statistics *can be done by anyone, even those without a statistical background,* providing you know what you want to ask for.

You can use the search function to select a sub-group with any number of variables, for example males 50 years or older, with an ACL procedure done between 1/1/2000 and 1/1/2007. All statistics can be viewed as table, graphs, or charts, and can be exported as TIFF images. All the data can be exported to Excel and then printed and your own graphs made form Excel. Socrates can calculate mean, median, confidence intervals, and standard variation for numerical values. The **Statistics Screen is** accessed directly from the **Home Screen**.

This example shows mean and mean/median age at surgery.

The next example shows the mean preop pain KOOS score, but we have used the search function to select just males.
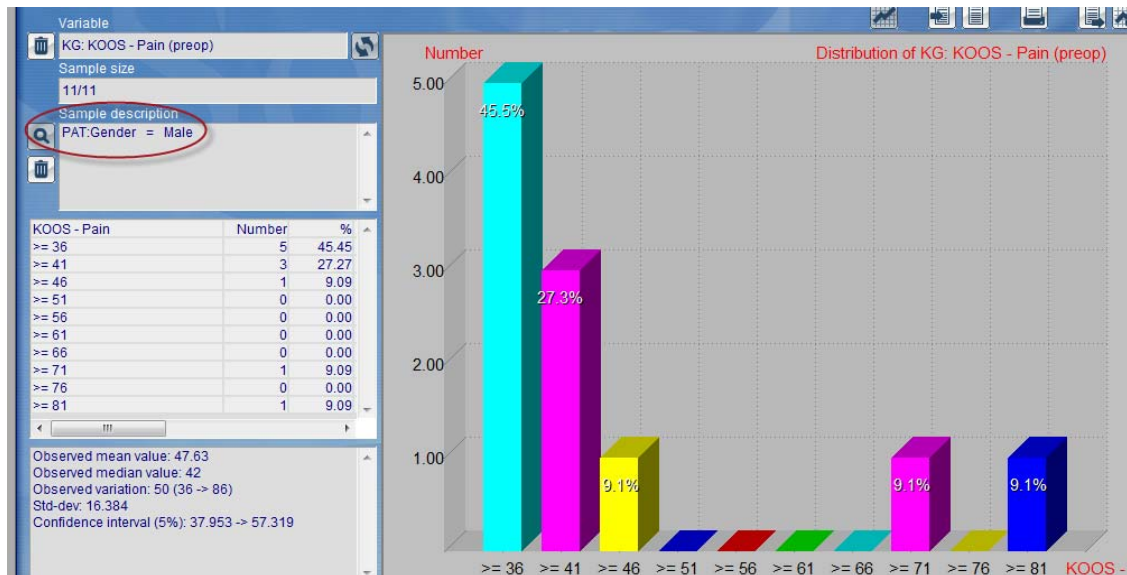
Saving your routine analyses

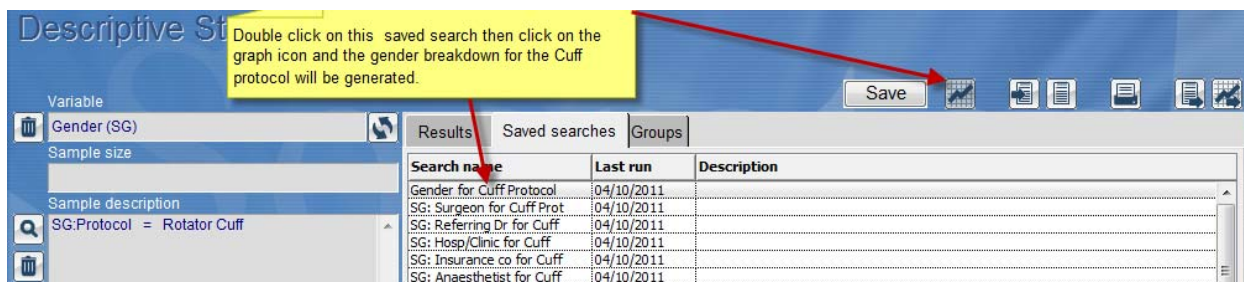It's possible to save the descriptive statistics that you run routinely both as an individual searches, and also to group them. Check this out in the demo file.

Below is a Grouped Search. We chose the variables to be included in this group from the individual searches we had saved which are in the third column to be included in a group we called *Shoulder*. At the bottom of the screen is "Send to worksheet" if you click on that it will save all the data in the group to a worksheet ready for export to excel.
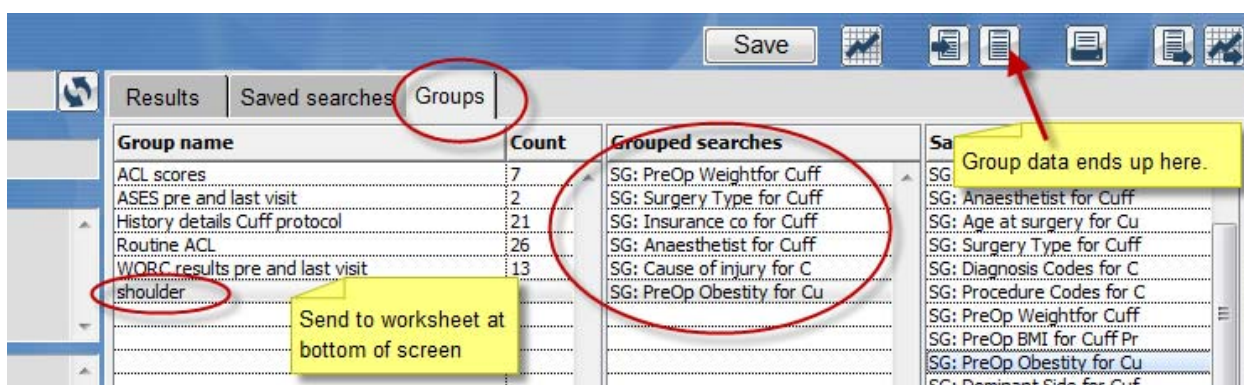

IMPORTING DATA FROM OTHER SYSTEMS

Once again, Socrates comes to the rescue! What about all of those records you have already entered into your current system? Socrates allows you to **import demographics**, (names, addresses, dates of birth, etc.) from any program, providing that program can export the fields into a text file. More detail in the Importing chapter of the User Manual. You would need to ask your practice management software or EMR company to export the patients you want into this format for you. We can also do custom imports so if your EMR has more data that you would like in Socrates, talk to us, we can probably write an import which will bring these data in routinely.

EXPORTING DATA

You won't be able to do away with statisticians forever, especially if you want to publish data. They often want data in its raw form so it may become necessary to **export your data** into a more sophisticated statistics package at some stage for more complex evaluation. All the fields in Socrates can be exported to Excel or a statistics package such as SPSS. The window below looks pretty busy but the important message is that all data can be exported to a stats program outside of Socrates if need be.
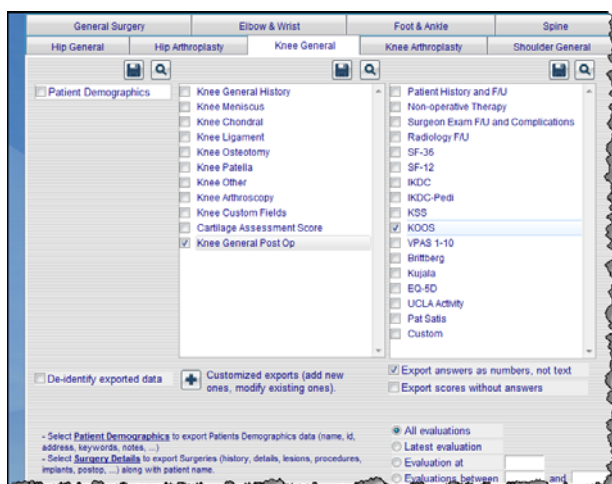
REPORTS

Remember that back a few pages we talked about grouping your surgeries into protocols which had time points and scores allocated to them, pre-op, 6 weeks, 5 years etc.

Once you've entered a surgery into a protocol there's lot of great information you can get out of these reports.

You can find out who is due, or overdue for their follow ups. Who didn't complete their surveys? How are the groups doing? Whose score last time was worse than the time before? Who entered their scores by the web based system, how are just those patients doing?

There are also reports which summarise the complications, and an audit report which will display the breakdown of the various types of surgery by surgeon, what % are primary, revisions etc.

It will keep track of what's been sent and received by email, how long it took for them to be answered, and whether the method was email or on line in the clinic.

The Follow up Report will also tell you who is due back between a selected data range.

If you want to have a play with this go to the 'missing visit', 'patient summary' and 'protocol summary' reports. Choose either the Knee general *ACL routine* protocol, or the Shoulder *Cuff*. There are some dummy patients in these protocols which will give you an idea of how they work.

All these reports can be printed and exported to Excel. The next example is a summary by protocol, preop score vs. the latest, or choose a time point.

The next is an example of the missing visit report.

In the Set Up screen if you checked the "*Show the list of patients who are overdue*" they will show up on a list every time you start up Socrates.
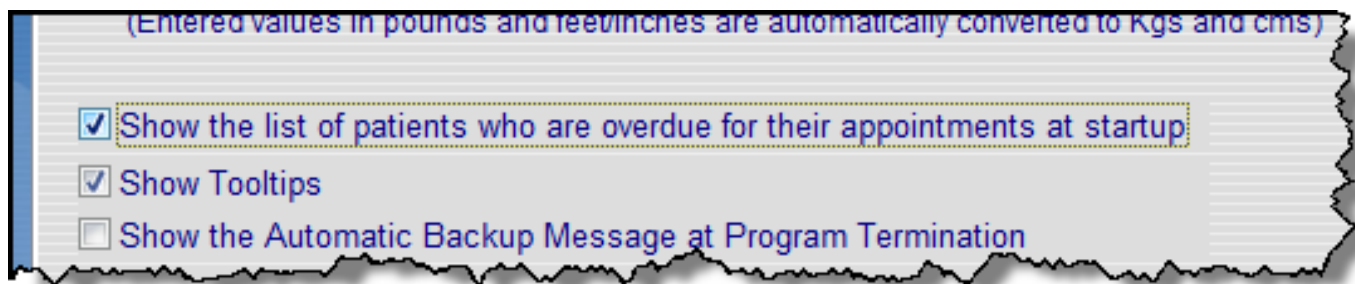
So, between all these reports if you do want to keep track of your patients we think we have it covered..

PAUSE… A MOMENT TO REFLECT… A COFFEE BREAK…

So… you've made it this far. Thank you for taking this tour with us, in which we highlighted the **powerful, and flexible, features of Socrates**.

Remember, the level of detail required to make the most of this program is *entirely up to you*. Additionally, that level of detail may also vary for subsets of your patient population. Some studies may require detailed information on a particular surgical procedure, while others may only need basic info. Pick and choose those elements as they suit your practice, your interests, your patients. Socrates will do the rest.

Another point to emphasise once again is the fact that there is an inevitable investment of time involved in setting up any new program. Have a good think about what sort of data you want to collect in the short term, but importantly, what sort may be of interest in the long term. Think about who will be entering the data: you? a medical secretary? a research fellow? What level of clinical expertise will be required to enter the data you want accurately and completely? These sorts of decisions need to be considered before you set up the screens, fields, and windows.

But not to worry: we're here to help. All of the information you need is available to you either in this User Manual, through a phone call or email to us here at Socrates Ortho, or even perhaps by way of a personal visit. (If you want to speak over the phone, just email us, and we'll set up a mutually convenient time.) As always, the choice is yours.

Email: info@socratesortho.com

Now… time for a quick cup of tea and a little walk around the office before you sit down and delve into more of Socrates.