

Search and Select function

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There is a search icon in several places on the program. This is a very important function of Socrates as it is used to search for lists of patients and surgeries and also to segment sub-sets of patients and surgeries when doing statistics, running follow-up reports, exporting data or extracting sub-sets of patients in a data file. The same search window will be displayed if you want to use the export or extract functions and it functions the same way in all these locations. It allows you to search for patient lists by any single field, or combination of any fields in the database. There is no limit to the sub-sets you can search for in one search, i.e. patients who are Male, surgeon is Dr Toogood, age is over 50, pre op Knee Society pain score is less than 100 etc.

The best way to learn how to use this feature is to wait until you have some data and then spend a couple of hours setting up and running searches. Once you have done it a few times the logic becomes a lot easier to follow. Don't forget that you can also export the data to excel where you might have to do statistics for complex combinations and corrections.

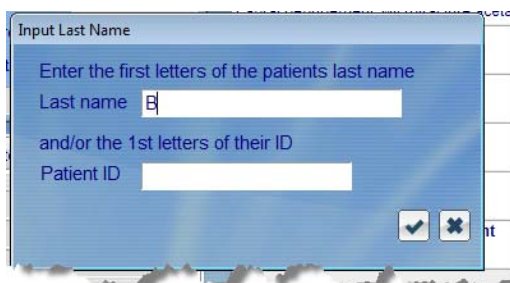
SEARCH FOR PATIENT OR SURGERY LISTS OR SUB-SETS

There are three search icons on the patient demographics window. The one on the far left allows you to search for a patient by name or ID, the one in the middle searches for anything to do with the patient, the one on the right for anything relating to surgery records.

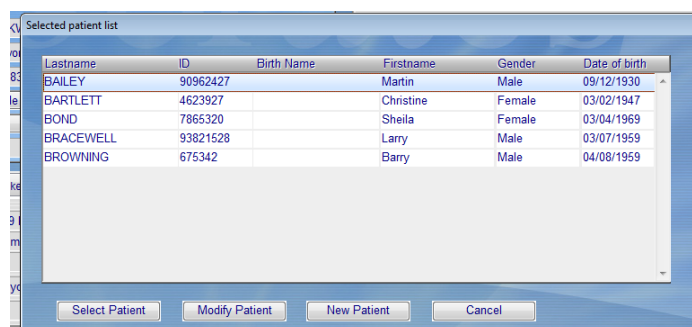


Searching for a patient

Click on the magnifying icon on the left above the patient last name and this window will pop up. Type in *either* the last name, or the ID, and a list will come up with anything matching. You don't need to type in both. You can also type in part of the name or ID. The ID is handy if you are Welsh, or Korean, for example, as you may have lots of Jones' or Lee's and using the ID is a quicker way of finding a patient.



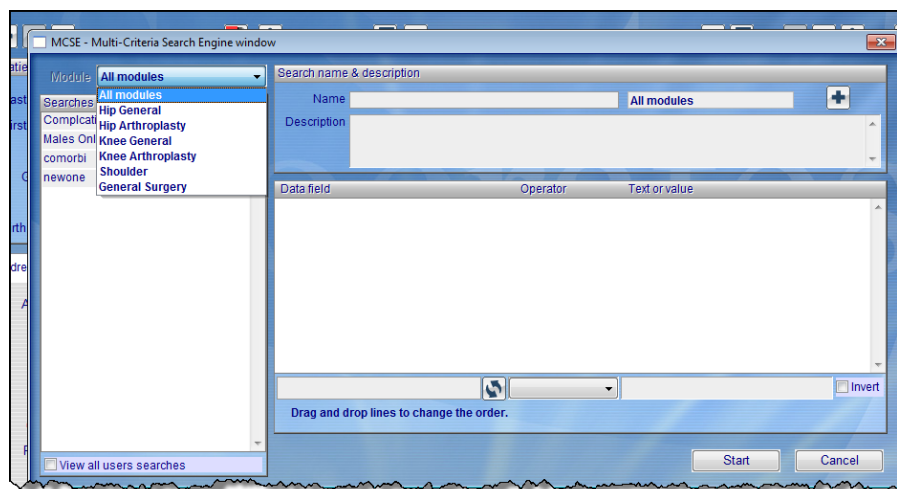
The search below brought up all patients whose name began with B.



You can select the one you want by using the alt key and the first letter.

Searching for a surgery records

The other two Search icons on this screen will bring up the window below.



The search function in the middle searches for information relevant to the **patient** such as name, address gender etc. The one on the right searches for data relating to their **surgeries**. These will usually be different, since a patient has one entry for their demographics but they may have several surgeries. The patient would only show up on the patient search once but they might appear several times on the surgery search. Mostly you would use the search function on the far right for statistics, and searches are normally done on the surgeries, rather than patients.

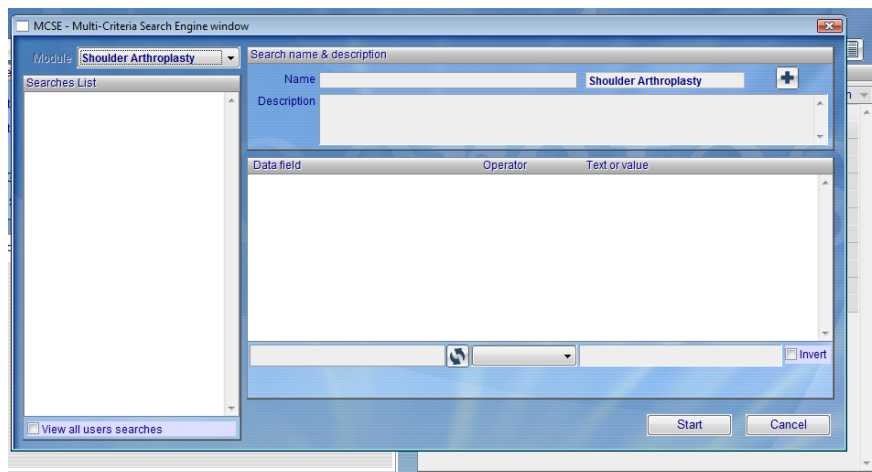
The example below is a run on the **patient** search (middle search icon) for Males – all modules. Each male patient is displayed once, with their surgeries listed. Note Mr Bracewell has had 5 surgeries.

Patient list							
Patient	Patient ID	Date of birth	Gender	Surgeries	Last record	Next visit	
ARKWRIGHT Trevor	479830	06/07/1959	Male	Hip General:1, Hip Arthroplasty:1, Knee General:3, Knee Arthroplasty:1, Shoulder:1, Total:5	23/11/2009	05/04/2005	
BAILLEY Martin	90962427	09/12/1930	Male	Hip General:1, Hip Arthroplasty:1, Knee General:2, Shoulder:1, Total:5	01/11/2008	05/04/2005	
BRACEWELL Larry	93821528	03/07/1959	Male	Hip General:1, Hip Arthroplasty:2, Knee General:2, Total:5	01/11/2008	05/04/2005	
BROWNING Barry	675342	04/08/1959	Male	Hip General:1, Knee General:2, Total:3	02/10/2008	05/04/2005	
DUNNE Martin	64954599	03/04/1963	Male	Hip Arthroplasty:1, Knee General:2, Total:3	01/04/2008	05/04/2005	
DUNOVIC Slobodan	6543223	03/04/1958	Male	Knee General:3, Total:3	01/11/2008	05/04/2005	
FAGAN Graham	462927g	04/09/1970	Male	Knee General:1, Knee Arthroplasty:1, Total:2	08/08/2003	05/04/2005	
FINALL Gregory	462927	02/03/1959	Male	Hip General:2, Knee General:1, Total:3	02/10/2008	05/04/2005	
GILBERT Donald	609312	06/03/1949	Male	Hip General:1, Knee General:2, Total:3	04/11/2005	05/04/2005	
INNEWICH Daniel	573900	03/08/1951	Male	Knee General:1, Total:1	07/05/2003	05/04/2005	
MANSON Henry	46495758	04/09/1942	Male	Knee General:1, Total:1	07/05/2003	05/04/2005	
MARTIN Greg	465298376	04/05/1966	Male	Knee General:1, Total:1	06/05/2007	05/04/2005	
MCMASTERS Bill	364854646	04/11/1938	Male	Knee General:1, Total:1	05/08/2004	05/04/2005	

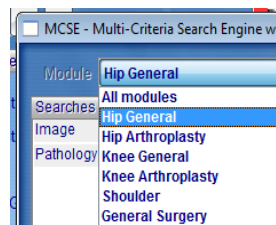
Here is a **surgery** search (search icon on the right) for all males - all modules and you can see that he is listed separately for each surgery. He would have 5 entries on this list in total for the different modules where he has had surgery data entered.

Surgery list									
Module	Patient	Patient ID	Date of birth	Gender	Study(ies)	Surg date	Surgeon	Side	
Hip General	BARTLETT Christine	4623927	03/02/1947	Female				Right	
Hip General	BOND Sheila	7865320	03/04/1969	Female		02/02/2008	MARTENS Freda	Right	
Hip General	BRACEWELL Larry	93821528	03/07/1959	Male	NEW ONE	01/01/2005	MARTENS Freda	Right	
Hip General	BROWNING Barry	675342	04/08/1959	Male				Right	
Hip General	FINALL Gregory	462927	02/03/1959	Male		01/01/2001	THOMPSON Philip	Right	
Hip General	FINALL Gregory	462927	02/03/1959	Male		01/01/2001	THOMPSON Philip	Left	
Hip General	GILBERT Donald	609312	06/03/1949	Male	EARLY DISCHARGE STUDY	03/12/2002	MARTENS Freda	Left	
Hip General	GORDON Hilary	46329836	03/02/1955	Female		03/02/2002	THOMPSON Philip	Right	
Hip General	PALMER Georgina	65836	05/04/1969	Female		02/02/2002	THOMPSON Philip	Right	
Hip Arthroplasty	ARKWRIGHT Trevor	479830	06/07/1959	Male	EARLY DISCHARGE STUDY; NE	01/01/2004	DALLAINE Godart	Right	
Hip Arthroplasty	BAILLEY Martin	90962427	09/12/1930	Male	EARLY DISCHARGE STUDY	02/09/2000	KERWOOD Frances	Left	
Hip Arthroplasty	BARTLETT Christine	4623927	03/02/1947	Female		03/02/2000	THOMPSON Philip	Right	
Hip Arthroplasty	BRACEWELL Larry	93821528	03/07/1959	Male		05/06/2001	NOLAN Robert	Left	
Hip Arthroplasty	BRACEWELL Larry	93821528	03/07/1959	Male		17/10/2008	NOLAN Robert	Left	
Hip Arthroplasty	DUNNE Martin	64954599	03/04/1963	Male		05/04/1998	MARTENS Freda	Right	
Hip Arthroplasty	FAITHFULL Janet	464746777	09/06/1944	Female		04/05/2006	THOMPSON Philip	Left	
Hip Arthroplasty	GORDON Hilary	46329836	03/02/1955	Female		04/04/2006	THOMPSON Philip	Right	
Hip Arthroplasty	WILLIS Sam	45238399	04/07/1977	Male	METAL IONS	04/05/2005	EDELWEISS Martin	Right	
Knee General	ARKWRIGHT Trevor	479830	06/07/1959	Male		02/01/2008		Right	
Knee General	ARKWRIGHT Trevor	479830	06/07/1959	Male		07/08/2004	DONALDSON Mary	Right	

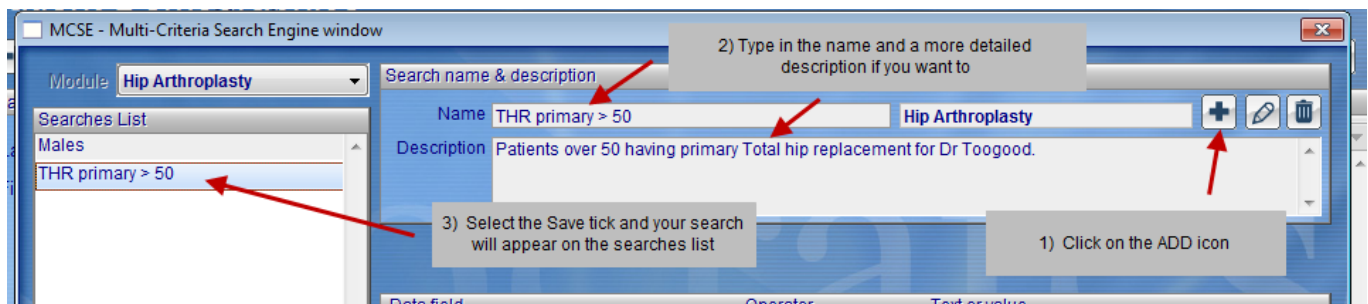
Starting a Search



The first time you do a search all the windows will be empty as above. To begin your search, first choose the module you want to use, it doesn't usually make sense to use "all modules" since most of the data is specific to a record within a surgery module.

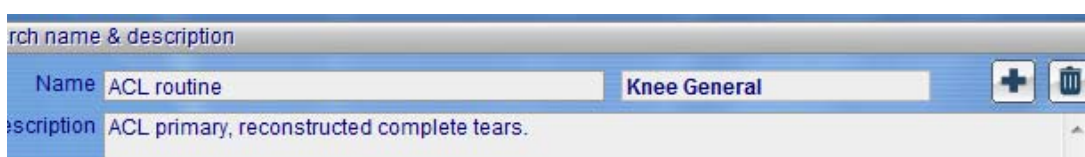


Before you start any search you must give it a name. If it's something you want to search for routinely you can name it and save it so that next time you don't have to put in all the search parameters again. If it's just a one off search type in anything, you don't have to save it, or you can keep this name for all your future "one off" searches. You can modify what you search for at any time using the same search name. Once you've decided what to call your search, click on the **ADD** icon and type in the Name you have chosen for your Search. You can add more details to remind you what's included in your search in the description section if you want to. Then click on the tick to save to save this search.



The search name above is described including for Dr Toogood's primary total hip replacements for patients over 50.

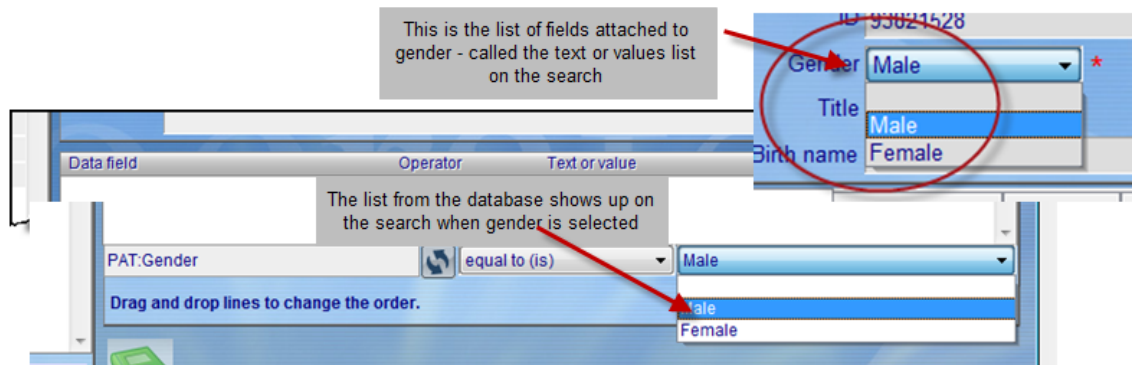
Another example could be where you want to follow up all your surgeries where patients had primary ACL, complete tears which were reconstructed. We have named the search ACL routine and included in the description the parameters we want to include in our routine search.



How to define what you want to search for

At this stage you have only named your search; now you need to set up the parameters you want to look for in your search. All the lists and fields on the program are hidden away in the first column as **data fields**, and then the responses attached to that list are in the list on the right called a **text** or **value**. For example:

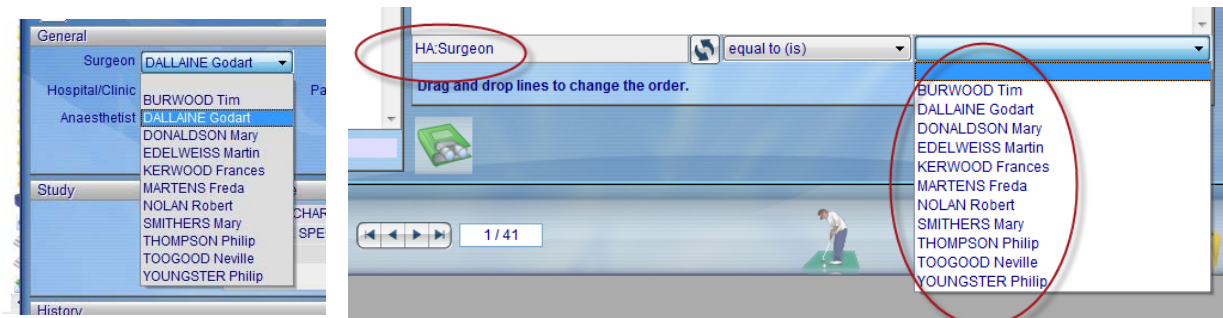
If the **data field** is Gender, the **text** or **value** that would appear in the 3rd column would be, in this case, a text list, and would show the list which corresponds with Gender - Male, Female.



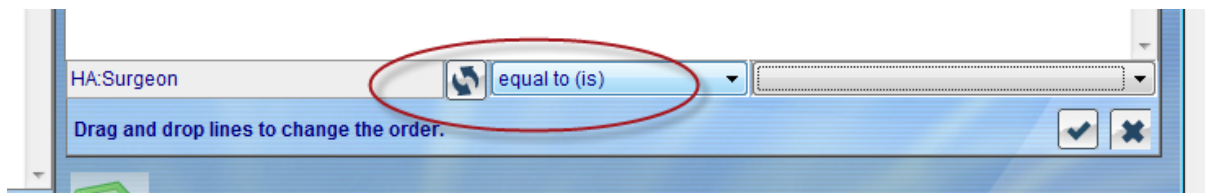
You must populate each of the 3 columns below (if they are viewable) to define what you are searching for.

The 3 parameters which will need populating are:

Data field is the title/name in Socrates of the field you are looking for. An example would be Gender if you were looking for Males or Females, Surgeon would show up all available surgeons on your list.



Operator - These are a bit tricky and it takes a while to get to know the rules. Basically this is where you select what is appropriate for that field i.e. *is or equals, equal or greater than, contains*. In the case of Gender *is or equal* makes sense. We will explain this in more detail later in the chapter. Some operators are automatically filled in when the data field is chosen, see more info later in this chapter.

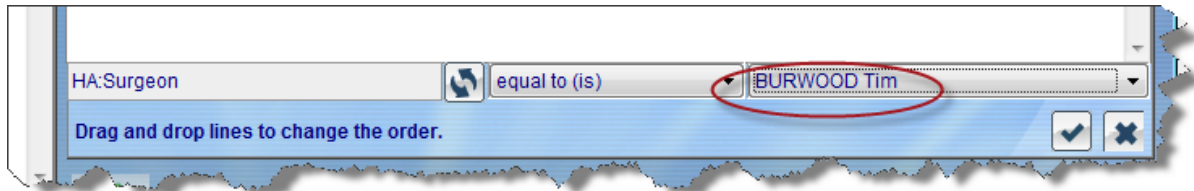


Text or Value

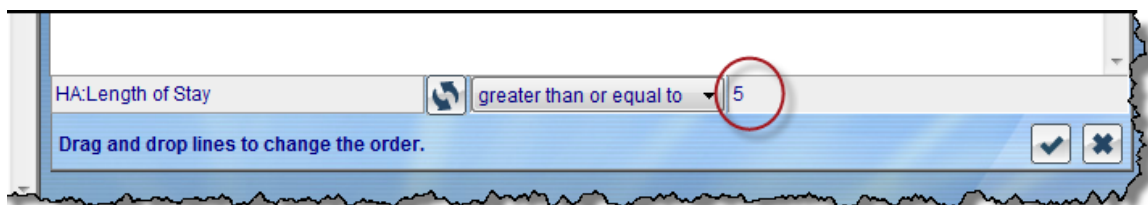
Value - If it's a number/value you are searching for e.g. Previous surgeries more than 1, you would type in 1 into Text or Value in the 3rd column

Text = If it's a pre-set field in the software, the available list for the data field you selected will be displayed, i.e. if looking for Gender the list showing Male and Female will appear in this column, Surgeons names if the list is Surgeons etc. All the fields on the list for the data field you have chosen will be displayed.

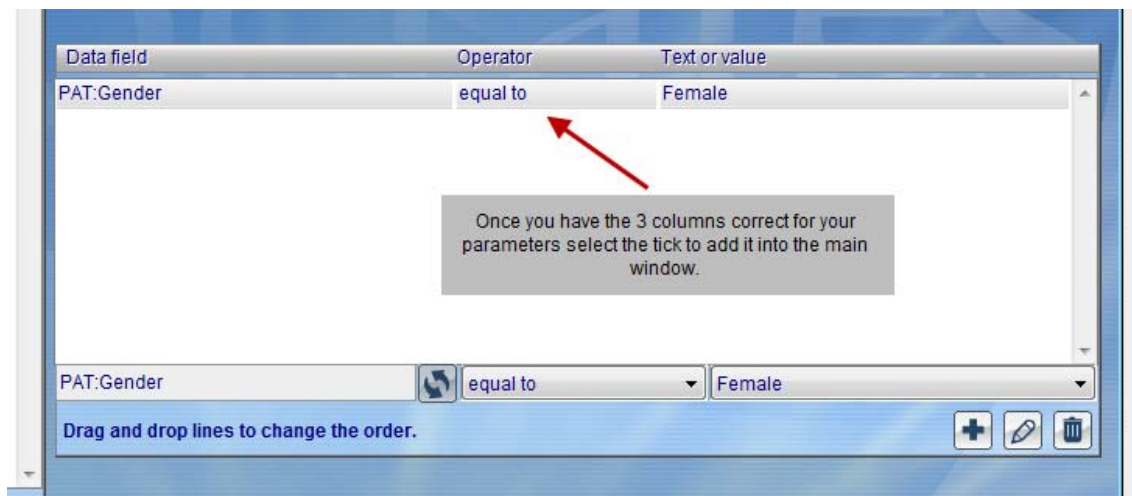
The 3rd column will now display whatever options are in the list for the data field you chose.



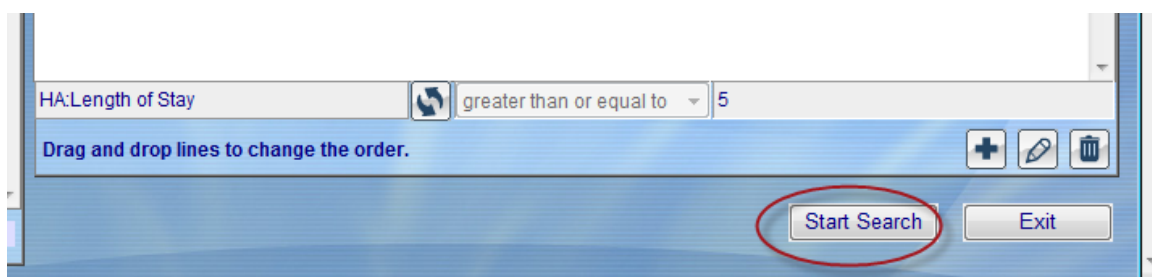
If it's a numeric field put in the number you want – in the example you want all length of stays which were equal or greater than 5 days so 5 was typed into the field.



Check that the 3 columns are correct then select the **Save** tick and they will appear in the main window.



If this is all you want to search for click the **START SEARCH** icon and away goes your search looking for whatever is in the window.



If you want more criteria, say Age at Surgery is more than 50 for all men, you need to add this as well. In this case we just typed in the number 50 to the last field since it's a numeric value.

Data field	Operator	Text or value
PAT:Gender	is or equal	Male
HG:Age at surgery	greater or equal	50

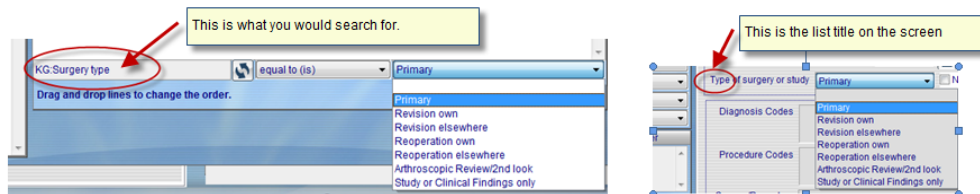
Here's another example from the Knee general module.

Data field	Operator	Text or value
KG:Ligament ACL Condition	equal to	Complete tear
KG:Ligament ACL Treatment	equal to	Reconstruct
KG:Ligament ACL Graft type	equal to	Autograft
KG:Ligament ACL Tendon type	equal to	Hamstring doubled Semi T/Gracilis

What you are asking for here is all individual surgeries where there was a complete tear of the ACL which was reconstructed, with autograft which was hamstring doubled Semi T. It would only show you surgeries where all 4 of these were present in the same surgery.

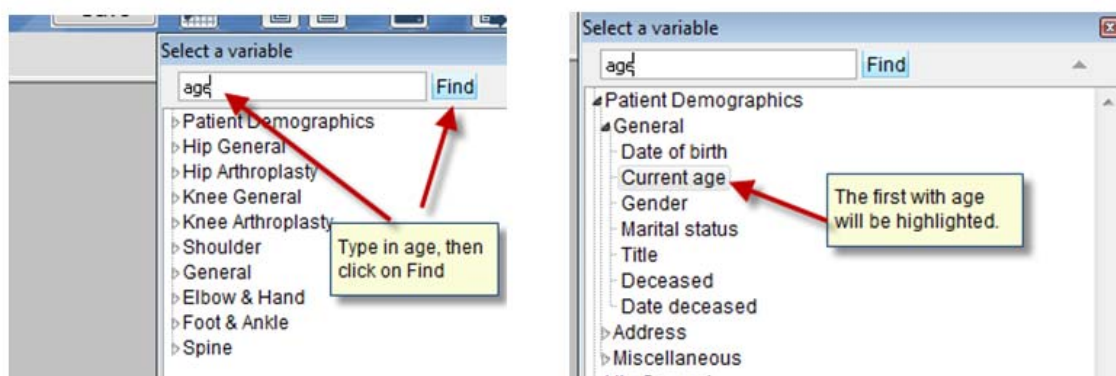
How to find the field you want

The first list called the data field is the name we gave the list title. So if you are looking for males or females you would need to select the list called Gender since that's what we called it. Or if you are looking for the list of primary, or revisions, reoperations etc you would look for the list titled Surgery type. It helps if you know you way around the screen when you are searching for data.



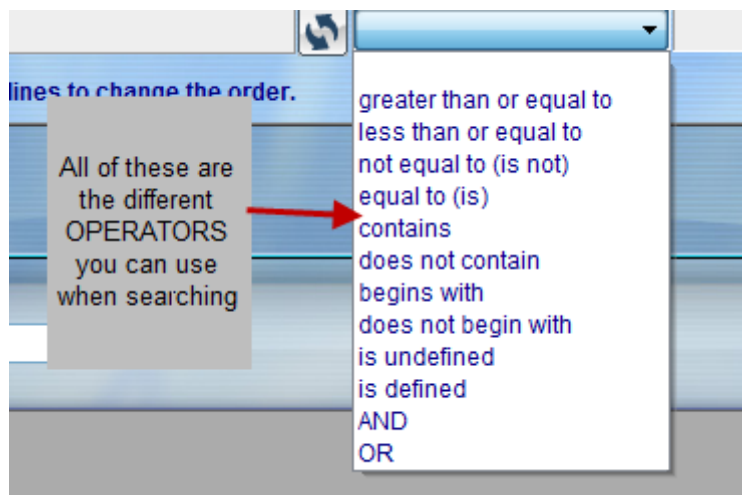
Using the Find function

To help speed up your search we have a Find function. Providing you know the name of the field you are looking for you can type it in, then click on find. If that's not the one you want you can click on find again or use ALT + the down arrow key to go to the next, and the next until you find the one you want. Note that its looking for age in the example, specifically those letters so the next one you might find could be *language*.

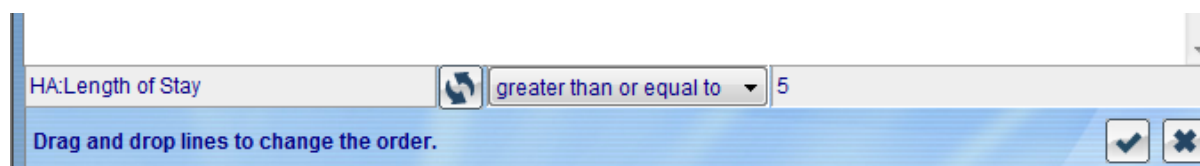


Which operator to use

Ok, so now we have explained that you need to select the appropriate operators, data field and text or values but if you aren't accustomed to doing this sort of stuff some of the terminology might seem a little strange. You will need to understand the operators and how they work with each of the different lists in order to link the first and last columns together.



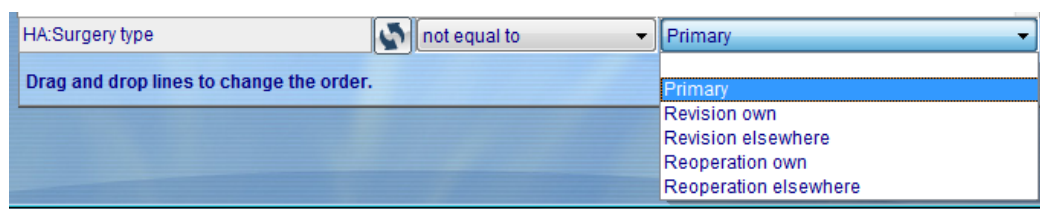
Greater than or equal – this is like asking for something that is **the same as or more than**. It's normally used for numeric values. So if you wanted to search for all patients 50 or over, or length of stay of 5 days or more, or number of previous surgeries more than 3, you would use this operator.



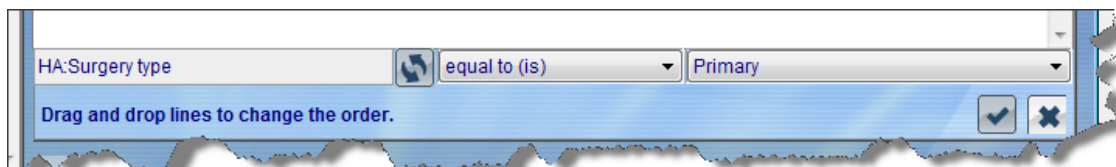
Less than or equal – this is like the above, only it looks for **the same as or less than** and again is used for numeric values equal to or less than you want i.e. patients aged 49 and under.

Note: Remember if you are looking for 'equal or greater than', or 'equal or less than' not to include the same number in both searches. For example if you asked for all surgeries where the age was greater or equal than 50, then where it was equal or less than 50 you would get 50 year olds in both lists. You need to use either 49 in the equal or less than, or 51 in the greater or equal than.

Not equal to – is the same as *is not*. You can use this for when you are looking for anything on a list except one of the items. In the example below if you selected *not equal to Primary* you would find all the fields on the list except for those that were Primary. Another way to find all the others except Primary would be to list all the other data fields on the list except Primary, and use *is equal to* and then put an AND in between them. See later in this chapter for how to insert the ANDs. Or if you wanted to find all the surgeries for every surgeon except one, choose this operator. If you wanted to exclude 2 of them use *is not equal to* then insert the AND, and then *is not equal to* for the 2nd surgeon.



Equal to (is) – is the same as 'is'. So if you wanted to find all the primary Hip arthroplasty surgeries only, you would do as below. It is also used to find fields that are on an exclusive list, to isolate if that field is the **only** one selected on a multi list. See later in this chapter on Multi lists.

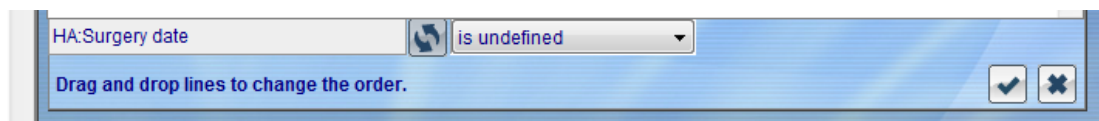


Begins with – use the first letter/s of a name you might be searching for. e.g. patient whose name might begin with A. This is case sensitive.

Is defined – this will show all entries on lists where something in the selected list has been entered.

If you wanted to look for all surgeries in one of the modules for example, you could just look for all patients whose last name is defined. That would bring up a list of everyone in that module who had a last name.

Is undefined – finds fields that have not been entered. Thus if you were looking for any field where data hasn't been entered on a list it will show up on a list of "is undefined"



Two examples – if looking for any surgeries where the date hasn't been entered, or there has been no surgeon name selected using *is undefined* would display the surgeries where these fields are empty. If you wanted to find all surgeries where the Type (primary revision etc) hadn't been entered using undefined would display these. This can be handy when looking for fields that are important but might have been missed out when entering data.

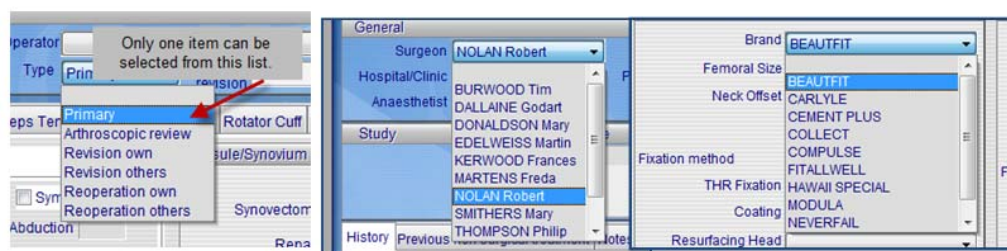
'AND' and 'OR'

Now it gets a bit more tricky, when to use **AND** or **OR** is a very important aspect of searching. We have built in some smarts to Socrates which means that it makes some decisions for you. In some cases this might be what you want, in others you will need to override it and choose your own operator.

First it's important to appreciate the difference between an exclusive list and a multi list.

Exclusive Lists

On an Exclusive List only one item on these lists can be selected in each surgery record. Examples of exclusive lists are the standard lists such as surgery type or gender where you can only select one per surgery, and some of the lists you can make up yourself, lists of surgeons, assistants, etc and implants.



If you tried to search for all surgeries where there was 'Primary' AND 'Revision own', or 'Dr's Burwood and Nolan' there would be no results, since an individual surgery can't have more than one entry on an exclusive List.

Multi lists

These lists allow you to select more than one item on the list for an individual surgery. There are several different types of multi lists, the standard set lists with the check boxes (see location type), all the adaptable fields, and the Study lists.

You can search for more than one of these in an individual surgery, or where they have been entered in **any** surgeries in the database. This is when you need to be clear about the ANDs and the ORs.

When to use the OR in your search

On an Exclusive List:

Let's take these three examples – the lists for gender, surgery type (primary, revision etc) or assistant. It's not possible to have a single record/surgery that has both male and female selected, nor can you have a surgery which is both primary and revision, nor more than one assistant.

Thus when you search for anything that is on an exclusive list Socrates makes a logical assumption that if you select 2 items from the same list (say *primary* and *revision own* on the Type list) you are looking for all surgeries where there was either a primary OR a revision selected. This is designated as an OR in search-speak. It will the automatically insert the OR– as it did below. So even though in layman's terms you might think you are searching for all primary and revision surgeries you are in fact searching for all surgeries where the type was either primary, or revision since in Socrates no single surgery can have a primary and a revision. You can add more than 2 to the list and the OR's will automatically be inserted. So if you wanted to look for any surgeries where there was either a primary, revision own or elsewhere you'd put in these 3 and the program would insert the OR , and you will have a list of all surgeries which has these fields selected.

Data field	Operator	Text or value
HA:Surgery type	equal to	Primary
-OR- HA:Surgery type	equal to	Revision own

If you did this manually and deleted the OR and inserted an AND as below (see later how to do this) the search would not show up any entries since a surgery can't have a primary **and** a revision. It would be like searching for all surgeries where gender was Male and Female.

Data field	Operator	Text or value
HA:Surgery type	equal to	Revision own
AND	AND	
HA:Surgery type	equal to	Primary

This search would display an empty screen

A rule of thumb is that anything on an Exclusive List must want an OR and the program figures this out for you. Another example is below, this search will show up all surgeries for these 3 surgeons.

Data field	Operator	Text or value
HA:Surgeon	equal to (is)	BURWOOD Tim
-- OR -- HA:Surgeon	equal to (is)	DALLAINE Godart
-- OR -- HA:Surgeon	equal to (is)	DONALDSON Mary

Other times you would use OR.

If you want to search for fields which are in several different screens you can use OR if you want to find anything that might have either this.... or this...

Another example would be if you wanted to find all surgeries which were revision, either own or elsewhere, with either Osteoarthritis or Inflammatory Arthritis as the pathology. Any surgeries in the database with any of these...

Data field	Operator	Text or value
HA:Surgery type	equal to (is)	Revision elsewhere
-- OR -- HA:Surgery type	equal to (is)	Revision own
HA:Pathology	equal to (is)	Osteoarthritis
-- OR -- HA:Pathology	equal to (is)	Inflammatory Arthritis

When to use the AND in your search

The ANDs are a bit trickier since there are times when you would use either an AND or an OR on the same list if it was a multi list or crossing to different lists. Before you decide which one to use, you need to have a clear idea of what you are looking for. Are you searching for surgeries where there was 1 or more of the items present in a list in a single surgery? For example on the search in the example below, both # 'neck of femur' and 'generalised laxity' is selected. Do you want all individual surgeries where *both were present*, as in the examples? Or do you want any surgeries where *either of these* were present?

As there are 2 options - you might want either AND or OR - the program can't know what you want but it will default to an OR since we thought this was more common. Thus, when you insert 2 items on the data field the OR will automatically be inserted.

Data field	Operator	Text or value
HG:Prev relevant conditions	contains	Neck of Femur
-- OR -- HG:Prev relevant conditions	contains	Generalised ligamentous laxity

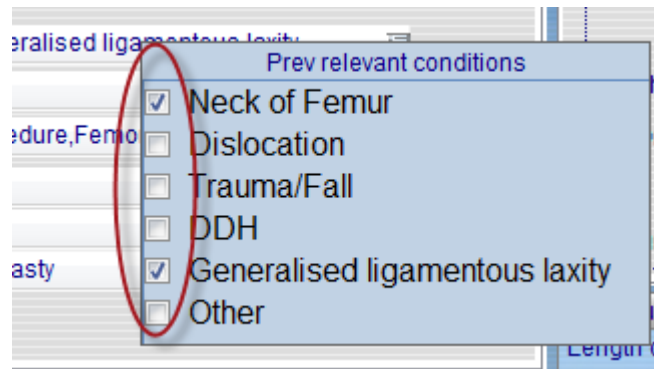
Thus the search above will find all surgeries where there was either of these entries.

The image shows two side-by-side screenshots of a software interface for selecting 'Prev relevant conditions'. Both screenshots display a list of conditions with checkboxes:

- ☐ # NOF
- ☐ Dislocation
- ☐ Trauma/Fall
- ☐ DDH
- ☒ Generalised ligamentous laxity
- ☐ Other

In the right-hand screenshot, the 'Neck of Femur' option is also visible and checked, with a red circle highlighting the checkbox.

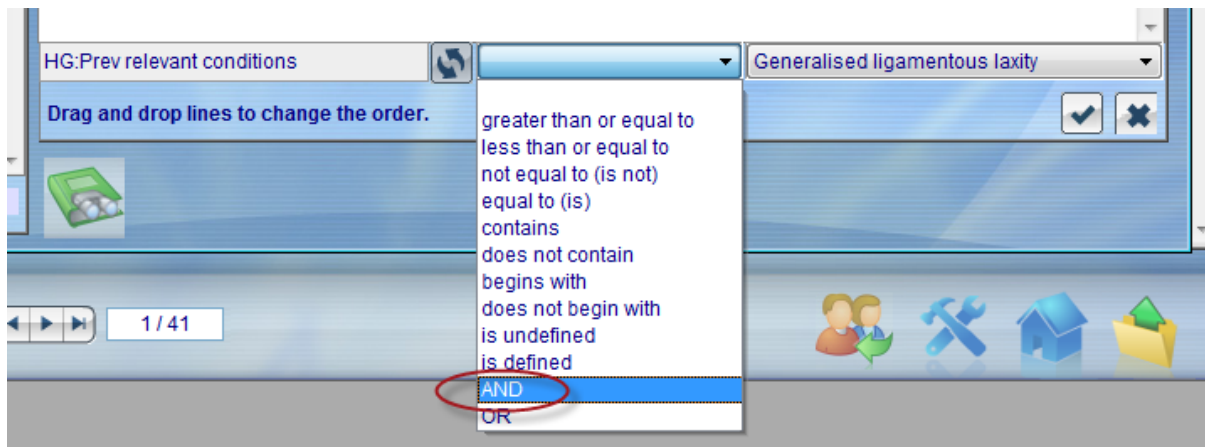
But what if what you wanted were all surgeries where they had *both* these selected in the **same** record/surgery? You didn't want to see the other surgeries where either of these present, just those where they were both selected on the same surgery. The OR won't find these for you, you will need to insert the AND, and delete the OR.



What you have done so far is found both of the fields you want and added them to your list but the OR has inserted itself, you need to get rid of it and use AND between the 2 fields.

Data field	Operator	Text or value
HG:Prev relevant conditions	contains	Neck of Femur
– OR – HG:Prev relevant conditions	contains	Generalised ligamentous laxity

After you have selected the first condition click on the Add icon to insert a new search field then go to the middle operator and select the AND at the bottom of the list and then select the tick.



Now you will see this.

Data field	Operator	Text or value
HG:Prev relevant conditions	contains	Generalised ligamentous laxity
	AND	

Then insert the next field you want.

Data field	Operator	Text or value
HG:Prev relevant conditions	contains	Generalised ligamentous laxity
	AND	
HG:Prev relevant conditions	contains	Fracture neck of Femur

This search will only find surgeries which had both of these present in the same record.

You can also add the AND, drag it between the lines and the OR will disappear. Just click on the AND and drag it between these 2 fields. The OR will disappear from the last field and your search will now find only those surgeries which had both Neck of femur and Generalised laxity in the same surgery.

Data field	Operator	Text or value
HG:Prev relevant conditions	contains	Neck of Femur
-- OR -- HG:Prev relevant conditions	contains	Generalised ligamentous laxity
	AND	

Once you have inserted the AND click on it and drag it between the 2 search lists

The OR has gone and it will now find those surgeries which have both of these in the same surgery.

Data field	Operator	Text or value
HG:Prev relevant conditions	contains	Neck of Femur
	AND	
HG:Prev relevant conditions	contains	Generalised ligamentous laxity

When to use 'Contains' in your search

If searching for an adaptable field or keyword (complication, patient keyword, pre-existing conditions) the program will automatically insert '**contains**' into the middle window. This will find any surgery that had the keyword or combination of keywords in your list. It also works for Notes, if you are searching for anything in the notes text you can use this operator. See Searching for Notes later in the chapter.

Searching for multiple fields in the same surgery.

You will often want to search for a list of surgeries where there were a number of fields selected and only the individual surgeries which had these selected to be displayed. When you select from different data fields the program makes an assumption that you want only individual surgeries where all these fields are selected. It doesn't insert any ANDs or ORs. See the next example, it just assumes that you wanted surgeries of Dr Thomson, which had diabetes, and were revision own, and had osteonecrosis etc.

Data field	Operator	Text or value
HA:Surgeon	equal to (is)	THOMPSON Philip
HA:Comorbidities	contains	Diabetes
HA:Surgery type	equal to (is)	Revision own
HA:Pathology	equal to (is)	Osteonecrosis
HA:Femur Brand	equal to (is)	BEAUTFIT
HA:Femur THR Fixation	equal to (is)	Cement
HA:Obesity	equal to (is)	Severe Obesity
PAT:Gender	equal to (is)	Female

Or this example.

Data field	Operator	Text or value
HG:Surgeon	equal to	TOOGOOD Neville
HG:Prev relevant conditions	equal to	# NOF
HG:Previous surgeries nb	greater than or equal to	2
HG:Diagnosis	contains	Ossification of lab & impingement bumps
HG:Synovium Pathology	equal to	Focal Synovitis (limited to a/f)
HG:NAH Total Score	greater than or equal to	50
PAT:Gender	equal to	Male

Drag and drop lines to change the order.

HG:Surgeon equal to TOOGOOD Neville

+ ✎ 🗑

Only individual surgeries which had ALL these parameters selected would appear on your list, not ANY surgeries which might have been done by Dr Toogood with more than 2 previous surgeries etc.

Mixing ANDs and OR's

Data field	Operator	Text or value
HA:Additional procedure	contains	Sub troch osteotomy
-- OR -- HA:Additional procedure	contains	Femoral shortening
	AND	
HA:Bone Quality	equal to (is)	A Dense

Data field	Operator	Text or value
HA:Additional procedure	contains	Sub troch osteotomy
-- OR -- HA:Additional procedure	contains	Femoral shortening
	AND	
HA:Bone Quality	equal to (is)	A Dense
	OR	
HA:Surgeon	equal to (is)	BURWOOD Tim

Searching for Notes

It's possible to search for any text entries in any of the notes sections. Here is an entry in the surgical notes section.

Common details

Date 01/01/2004 Age 44 Operator Surgeon Blood Loss Anaest

Type Revision own Duration 70 min Charnley B Anaesthetic time

Surgical details Revision details Implant details Custom fields Notes

- Surgery 28/12/2010 : Difficult approach due to adhesions from previous surgery.

To find this record, or any other record which might have any of these words in it, choose the word or phrase you want to search for. In this case we have selected *approach*. Use CONTAINS as the operator and then type in the text you want to search for. You could also have just typed in part of the word, app for example.

HG:History Notes contains approach

Drag and drop lines to change the order.

+ ✎ 🗑

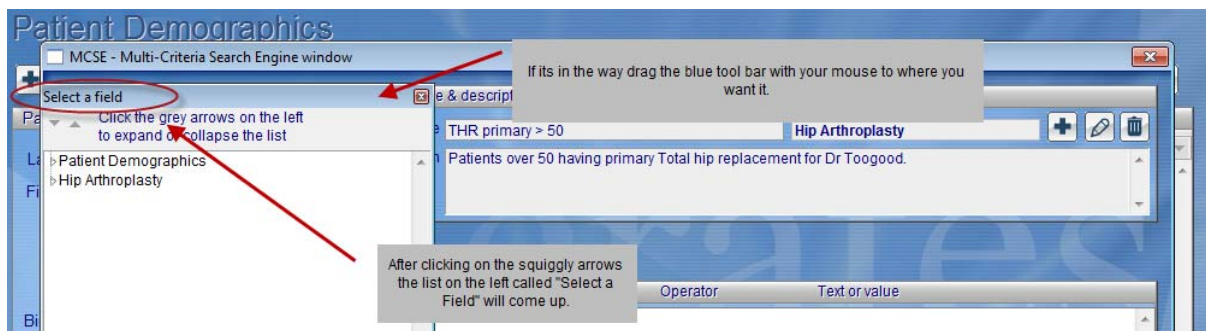
Locating the search lists

Ok, so we've told you how to add these criteria but where to find them?

Start with the little squiggly icon.



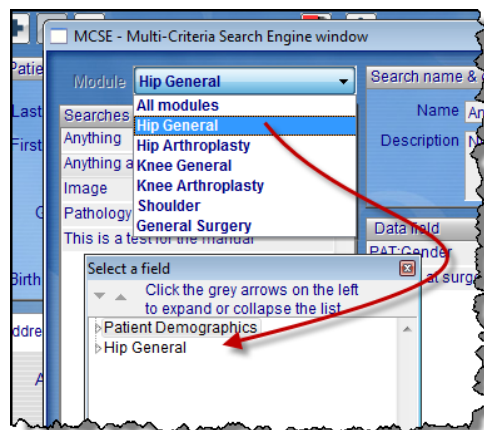
As soon as you click on it a long skinny window pops up called **Select a Field**. Every field in the module is hidden inside this list. If it's in the way you can drag it to the side by clicking on the blue bar at the top of the window, hold the mouse down and drag it to the side.



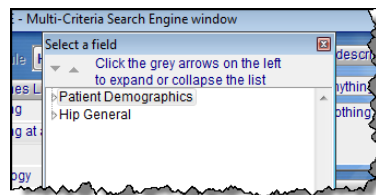
All the fields for the entire Hip arthroplasty module (or which ever one you have selected) can be accessed when you click on the little arrow next to the module name.

You now need to know where to find these fields to select. There are a lot of fields in each module and the list is too long to have in one long vertical list. In general they are listed on the search list in the same order as they are found on the screens where the data is entered.

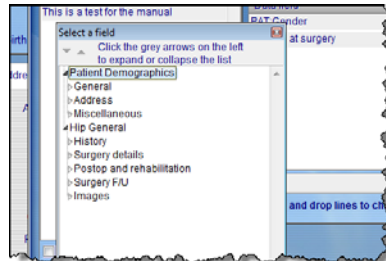
First make sure you selected the module you want to search in.



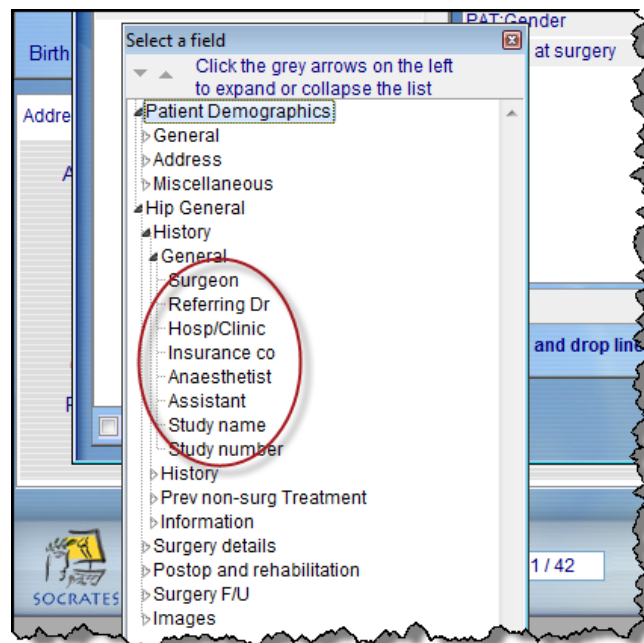
When you first click on the squiggly arrow you will see the window below. The Patient demographics, then the name of the module you selected will be there with little grey triangle icons next to them.



If you click on the triangle the sub list inside will become visible. Inside each is another triangle which will open up the list of fields inside that list.



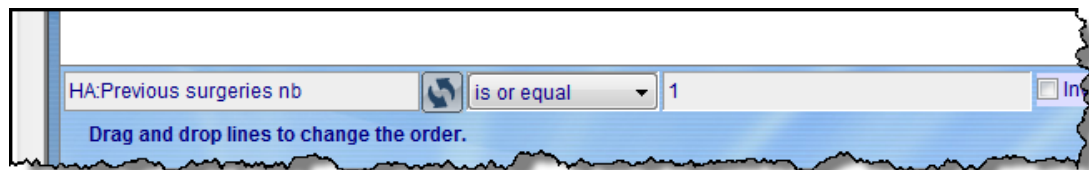
If you just keep clicking you will finally come to the actual fields list you want to select for the search criteria.



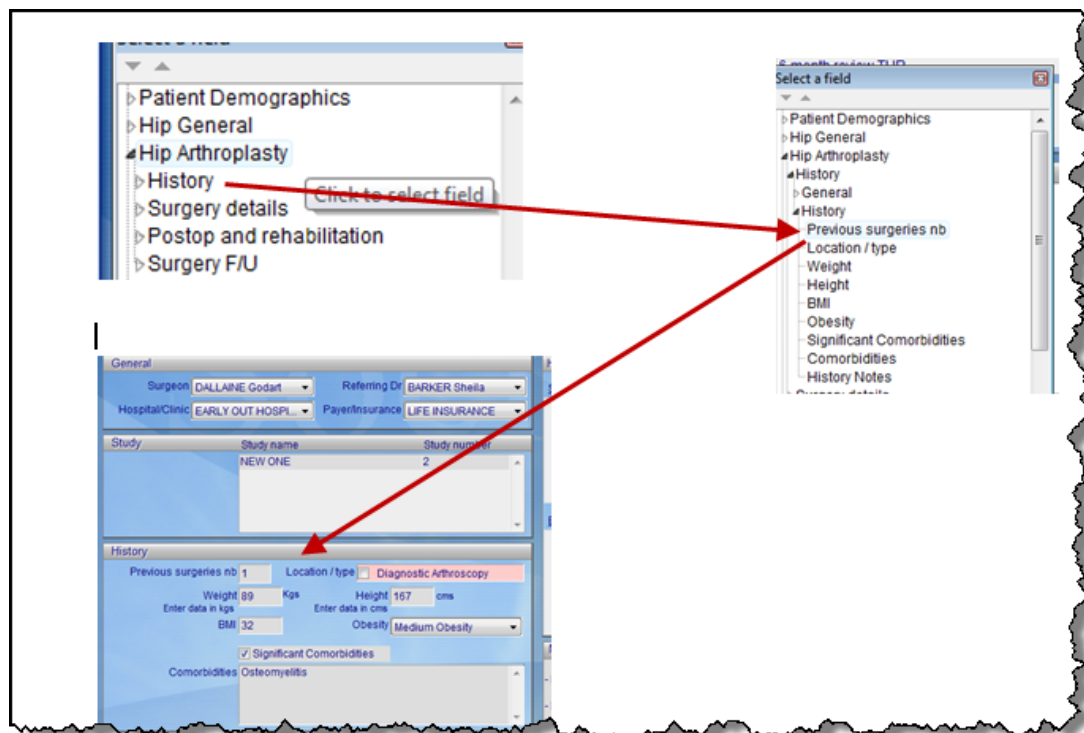
It should match the order that you find these fields on the screen. See those circled above, and below is a shot of the actual screen where the data was entered.

General		
Surgeon	BURWOOD Tim	Referring Dr BARKER Sheila
Hospital/Clinic	EARLY OUT HOSPI...	Payer/Insurance co NEVERPAY
Anaesthetist	BROWN Ted	Assistant BADE Sam
Study	Study name	Study number
	EARLY DISCHARGE STUDY	6

Here's another example of the process. We wanted to look at all surgeries where there had been one previous surgery in the Hip arthroplasty module.



We know this is on the history screen so we click inside the history "triangle" and the fields that are on the history screen are displayed and *Previous surgeries nb* is there. We select it and enter the number 1, Add this to the list, then select START and that's it.



Finding your selected surgeries

Once you have clicked on *Start Search* the list of those which fit the criteria will be displayed, and the search criteria you selected displayed on the bottom right. Below we asked for Males over 30 at time of surgery.

Module	Patient	Patient ID	Date of birth	Gender	Study(ies)	Surg date	Surgeon	Side
Hip Arthroplasty	ARKWRIGHT Trevor	479830	06/07/1959	Male	EARLY DISCHARGE STUDY; NE	01/01/2004	DALLAINE Godart	Right
Hip Arthroplasty	BAILEY Martin	90962427	09/12/1930	Male	EARLY DISCHARGE STUDY	02/09/2000	KERWOOD Frances	Left
Hip Arthroplasty	BRACEWELL Larry	93821528	03/07/1959	Male		05/06/2001	NOLAN Robert	Left
Hip Arthroplasty	BRACEWELL Larry	93821528	03/07/1959	Male		17/10/2008	NOLAN Robert	Left
Hip Arthroplasty	DUNNE Martin	64954599	03/04/1963	Male		05/04/1998	MARTENS Freda	Right

4 patients / 5 surgeries

PAT:Gender = Male
HA:Age at surgery >= 30

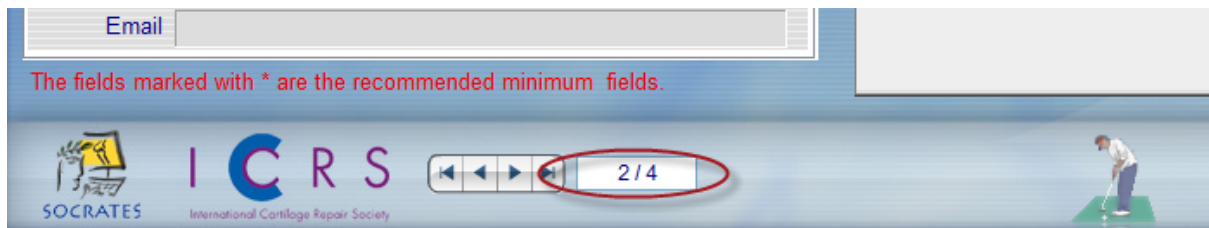
To scroll through the list double click on the first patient, (or the one you want) and you will then be in the sub set of the surgeries you selected in your search.

This patient record will then be displayed and any surgeries they may have that fitted the criteria will be in blue, any others on the list that don't fit are greyed out.

Surgery	Site and side	Latest FUP	Injury	Examination
05/06/2001	Hip Arthroplasty Left Primary	6y		
02/04/2003	Knee General Right	5y	03/04/2002	02/02/2003
07/04/2004	Knee General Right			
01/01/2005	Hip General Right			
17/10/2008	Hip Arthroplasty Left Revision own	DOS		

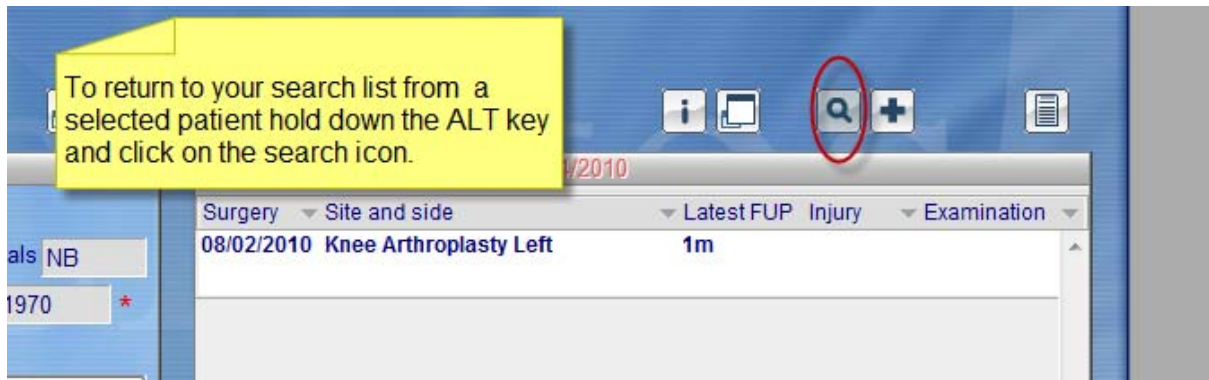
Both of the highlighted surgeries fit the criteria of your search.

At the bottom of this screen on the scroll bar it will show the number of records in that search and which one is being displayed. The example shows 2/4 even though in the main database there are 41 patients.



You can then scroll through and view the records for only those who are in your search list.

To return to your list at any time just hold down the ALT key and then the search icon and the full list of your search will be displayed.



To return to the main database click on the 2 people icon.

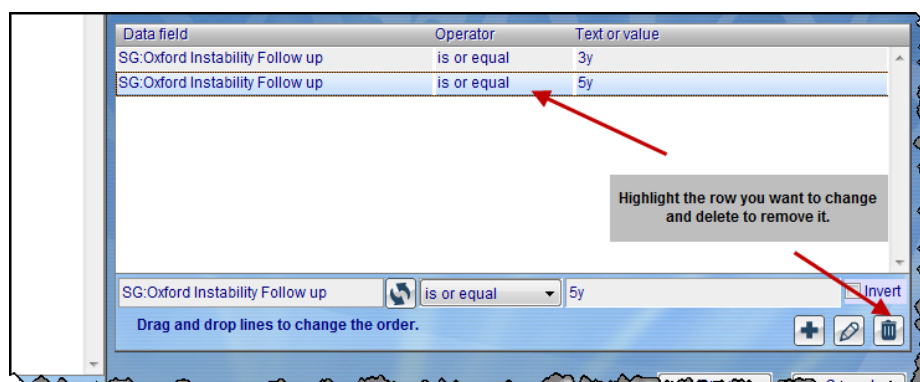


The 41 are now available.



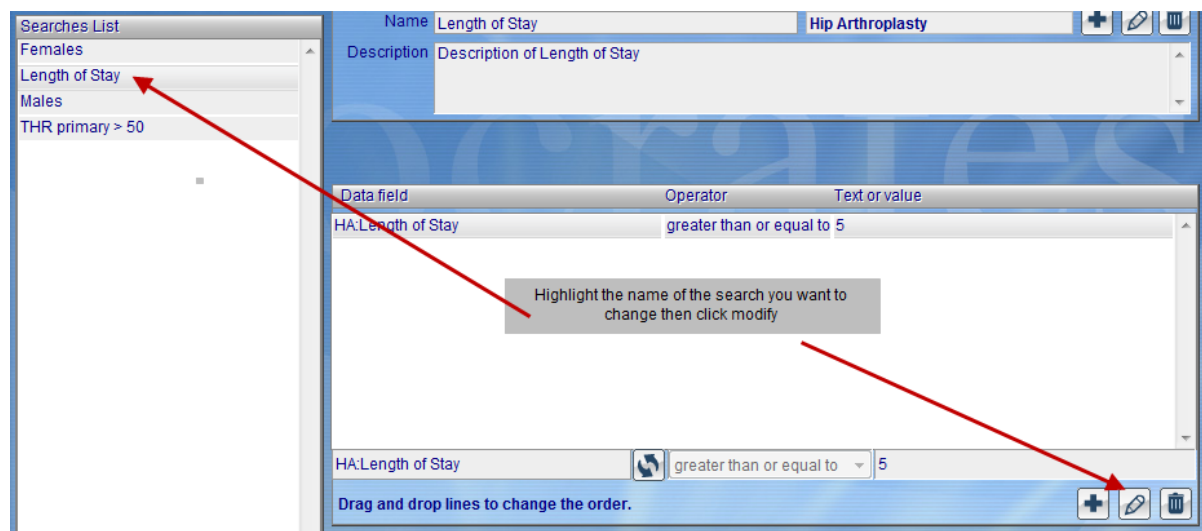
Modifying or deleting your search criteria

If you have a search saved and you want to change the criteria you can do one of 2 things. Select the row you want to change and then either delete it using the rubbish bin or change the criteria selected for that search.

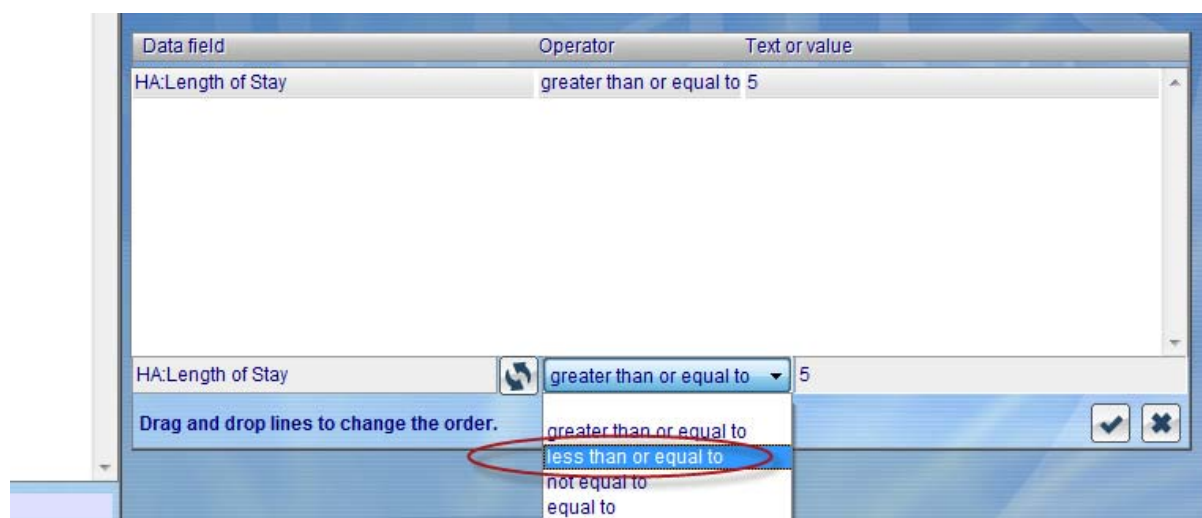


If you want to change your saved search to now look for something else, or add an additional item to your search list, highlight the name in the searches list and click the modify icon.

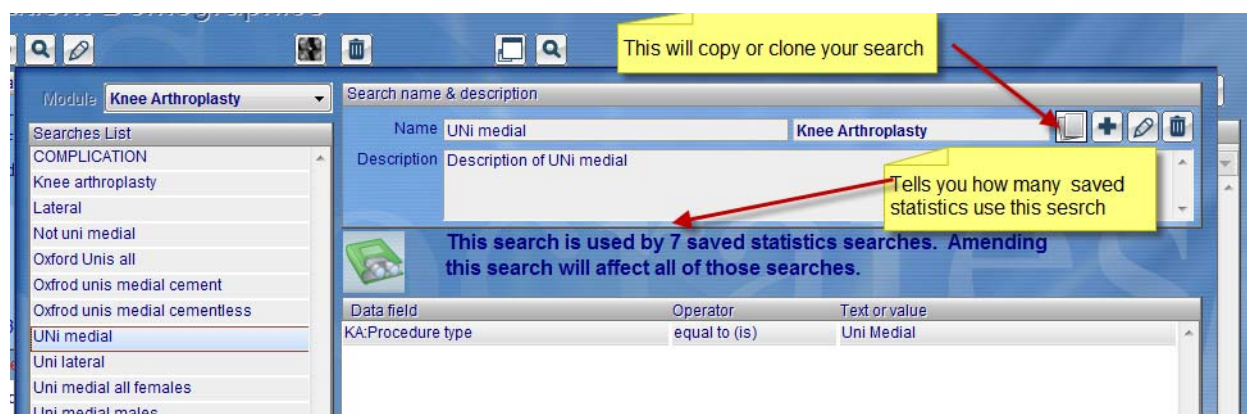
Note that if you change your search rather than set up a new one if you want to add or change something about it if this search is being used in any of the saved statistics it will change what they run the in the statistics search on also. See below, and the statistics chapter.



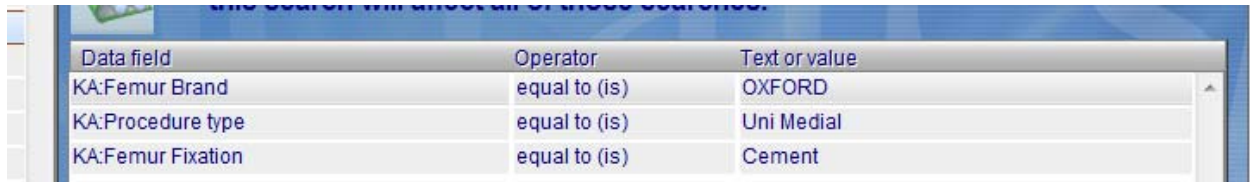
Change whichever of the 3 columns you want to change or add another new line and select save.



Copying or cloning your search



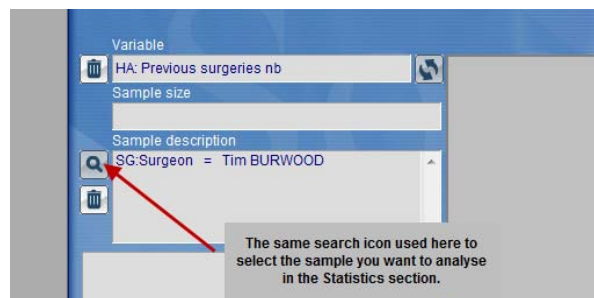
It is possible to copy or clone your searches. This is useful if you have searches that you want to build on but still want to keep the original search. An example - you want to be able to run searches and statistics on all your Uni Knees (UKRS) so you create a search for this as above. But you also want to break them down into UKR's which were medial and lateral, and those that are cemented and cementless, maybe males vs females. You can click on the copy/clone icon and it will reproduce the same search, then you can add your new search parameters to it and rename it and then again, and again until you have built several searches based on the one before. This saves time and also ensures that your original searches are saved. This can become important if you have used the saved searches in the statistics. If you have saved a search and then change it the statistics that you originally searched for in that group will change to the new search, and you may not want this to happen. When you highlight a search it will tell you how many saved statistics searches are attached to that search. If you are planning to add or take away any of the parameters and are not sure if you want to do this for your saved stats search just copy it, and make a new saved search. This will leave the old one unchanged and your statistics will be run on the original search you used when you set it up.



Data field	Operator	Text or value
KA:Femur Brand	equal to (is)	OXFORD
KA:Procedure type	equal to (is)	Uni Medial
KA:Femur Fixation	equal to (is)	Cement

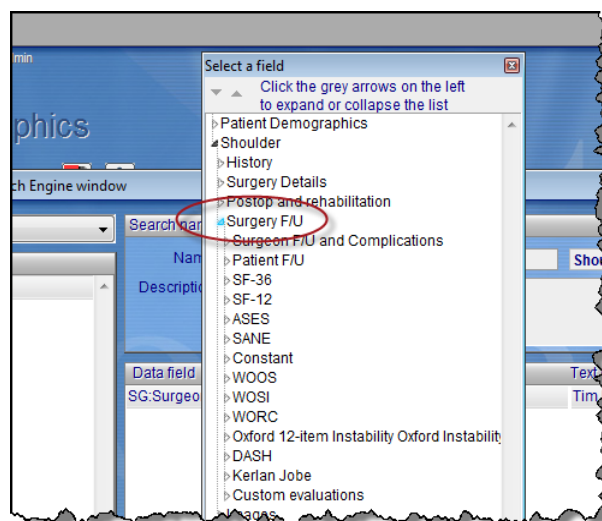
Using the Search icon in the Statistics section

The same window appears when you need to search for who/which surgeries you want to be included in your statistics. First decide what you want to analyse, then use the search function to select the group you want analysed. See the Statistics chapter for more details.



Searching for score results

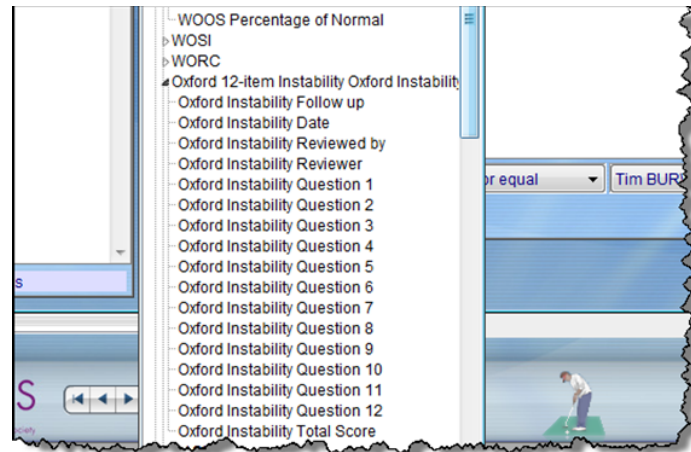
All the scores and surveys – in fact anything that's attached to a time period inside the Surgery Follow-up section – abbreviated to **Surgery FU**.



Find the score or follow-up you want and just keep clicking until you get to the field you want to search for.

Here's the Oxford shoulder score options listed below. You can search for each question – did the patient have less trouble bending with one implant vs. another at 6 weeks for example. Some of the lists have the questions in full, some just the number of the question so you would have to refer back to the score for the text. Or you can search for the score, or sub score totals.

If you select a question the various answers will appear in the drop down box.



Attaching a follow up to a search

If you want to look for surgeries with a certain score you wouldn't normally want to include all time points in the one search. Use the field which gives you the follow up option, it's usually at the top of the list of all the questions. Then select the time point you want. In the example below we have asked for those over 50 at the preop time point.

Data field	Operator	Text or value
SG:Oxford Instability Follow up	contain	preop
SG:Oxford Instability Total Score	greater or equal	50

If you want a range use the *greater than* or *less than* to select the range. Or just the time point – use *is or equals* or *contains* and type in the follow up. Type preinj for preinjury, preop for pre op, w for weeks, m for months y for years. **DO NOT USE ANY SPACES.** So, preinj,preop,3w,6m,5y. It won't work if you use spaces or any other format. This search will find you all surgeries with Oxford Instability scores follow ups between 1 and 4 years.

Data field	Operator	Text or value
SG:Oxford Instability Follow up	greater or equal	1y
SG:Oxford Instability Follow up	less or equal	4y

Searching for scores outside normal limits.

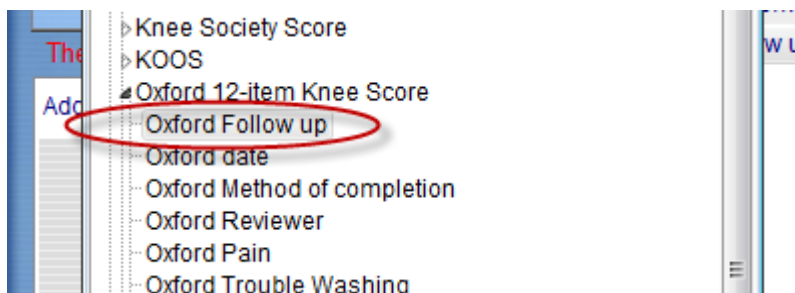
If you are looking for score "outliers" say those with a low score at a post op time point, or a high score preop you need to include both the score, and the time point you are looking for. In the next example we are asking for all score at a 2 year time point or greater with an Oxford score that is less than 20.

Data field	Operator	Text or value
KA:Oxford 12-item Score	less than or equal to	20
KA:Oxford Follow up	greater than or equal to	2y

The next looks for all preop scores over 40.

Data field	Operator	Text or value
KA:Oxford 12-item Score	less than or equal to	40
KA:Oxford Follow up	equal to (is)	preop

You will find the follow up in all the scores immediately after the score name.



Searching for surgeries with missing scores at selected time points.

If you want to see who is missing their scores at the set time points you can do this in 2 ways. The missing visit reports in the reports section will show you all patients who have missed any time points. If you are looking for a specific group at a specific time point, this can be done through the standard search function. For either of these to work the surgeries need to have had a protocol allocated to them. If this isn't done the program can't "know" what scores should have been there at the correct time points. Assuming that this is set up, here's how to do it.

- Select the protocol.
- Then the follow up period for the score you are looking for the missing scores, type this in preop, 1w, 6y etc.
- Then select the score total, and choose undefined.

The example below will show us all those surgeries where there was no preop Oxford score in the TKR standard protocol.

Data field	Operator	Text or value
KA:Protocol	equal to (is)	Total knee arthroplasty - standard
KA:Oxford Follow up	equal to (is)	preop
KA:Oxford 12-item Score	is undefined	

The next example will show those with missing 2 year Oxford scores.

Data field	Operator	Text or value
KA:Protocol	equal to (is)	Total knee arthroplasty - standard
KA:Oxford Follow up	equal to (is)	2y
KA:Oxford 12-item Score	is undefined	

A SUMMARY

Clear the search window of any previous search parameters, either by highlighting and clicking on the 'delete' icon, or choose/generate a new search or new parameters.

Choose the middle window that makes sense i.e. Surgery side is or equal Right or left.

When you have the three fields selected use the **ADD** icon to add to the window then click on **START** and the list will be generated.

If you are searching for multiple parameters when you have selected all that you want, check the window, then click on 'START' and the search will commence or be stored in the sample window if using the search to segment groups for statistics.

THE SEARCH LISTS

After you have chosen what you want and clicked Start, a list will appear of those surgeries which fit your search criteria. Double click on one of the patients to display that record in the demographics window. The number of patients that fitted the criteria will be displayed on the scroll bar on the bottom, then you can scroll to the next patient on that list of results. To exit the list of surgeries from this search, go back to the home page and click back on "patients" to refresh the file and have access to the whole database again. The search in the example below only returned 5 surgeries, 4 patients so that's what you see on the scroll bar.



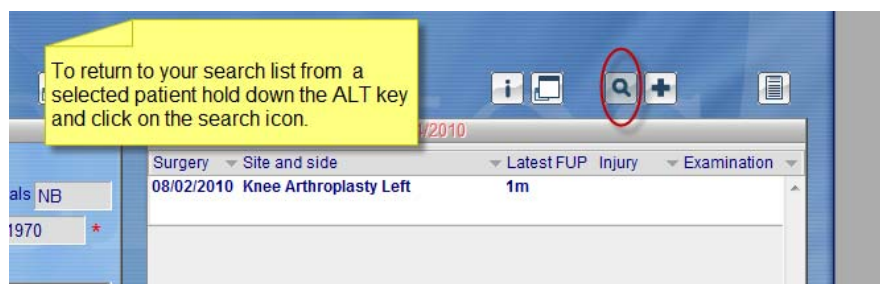
Sort search lists

Once the list of patients you are searching for is displayed, you can use the small down-arrows next to Date, patient, surgeon, etc, to sort the list by that variable.

Click on the grey triangles to sort by date, surgeon, alphabetically etc.

Module	Patient	Patient ID	Date of birth	Gender	Study(ies)	Surg date	Surgeon	Side
Hip Arthroplasty	BAILEY Martin	90962427	09/12/1930	Male	EARLY DISCHARGE STUDY	02/09/2000	KERWOOD Frances	Left
Hip Arthroplasty	BRACEWELL Larry	93821528	03/07/1959	Male		05/06/2001	NOLAN Robert	Left
Hip Arthroplasty	BRACEWELL Larry	93821528	03/07/1959	Male		17/10/2008	NOLAN Robert	Left
Hip Arthroplasty	DUNNE Martin	64954599	03/04/1963	Male		05/04/1998	MARTENS Freda	Right
Hip Arthroplasty	WILLIS Sam	45238399	04/07/1977	Male	METAL IONS	04/05/2005	EDELWEISS Martin	Right

To return to your list at any time just hold down the ALT key and then the search icon and the full list of your search will be displayed.



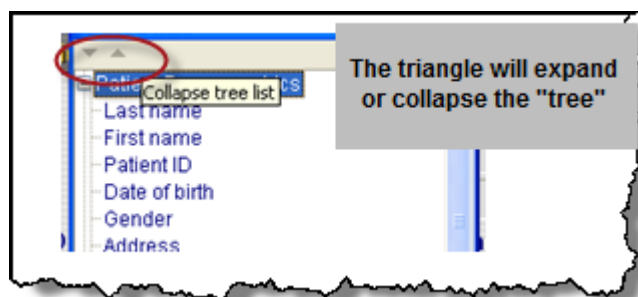
Search Tips

Make sure that the window is blank before you start a new search. To do this highlight the fields left from the previous search and click on the 'delete' button.

When searching for, or categorising by numeric values, be careful not to include the same group in both categories. An example is if searching for two groups of patients, one over 50 and one under 50. The correct way to do this is to search for "patients whose age is equal to or greater than 50". The next group is "patients whose age is less than or equal to 49". If you include 50 in both searches, patients aged 50 will appear in both groups.

Collapse the search list

When you return to the search list you will see two small up- and down-arrows at the top Left corner. Click on the up-arrow to collapse the list down to the original major headings, it makes it easier to find where you are.



Search problems

There are two common reasons why searches may fail.

- (i) After adding all the criteria to the window, you forgot to click on the 'Add' icon to insert it into the search window. It will then display all the patients in the database or whatever was on the previous window.
- (ii) You have forgotten to clear what was already in the window and you end up searching for so many criteria that no patients match it and it comes up blank, or with the wrong list. In the next example we wanted to display all male patients = or > 25 of Dr. Dallaine with labral pathology degenerative. We won't find anyone on this search since on the previous search, Dr Edelweiss wasn't cleared and we are now asking for surgeries for this criteria who had both surgeons. Since it's not possible to have more than one surgeon in the same surgery the list will be empty. You would have to use the OR between Dr Dallaine and Edelweiss if you were to find anyone.

Always check the window to see that what is displayed is what you want to search for before clicking on START.

Search Engine window

Search name & description

Name Pathology and Rx > 25 Dr Dr Hip General

Description Description of Pathology and Rx Synovium Males > 25 for Dr D

Data field	Operator	Text or value
HG:Surgeon	is or equal	DALLAINE Godart
HG:Surgeon	is or equal	EDELWEISS Martin
HG:Age at surgery	greater or equal	25
HG:Labrum Pathologies	is or equal	DGN

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