Laboratory Ordering With ATLAS version 19

Electronic Ordering with the Patient Centric Repository and Instrument Ready Foreign Barcodes

What's is ATLAS?

- Electronic Laboratory ordering System that is linked with Beaumont's Hospital Information System (HIS)
- Sends E-Orders directly to the laboratory
  - Atlas electronically sends an "E-Order" of the requesting test to Beaumont Laboratory computer system.
- Contains a centralized database of Beaumont Health patients, their demographics and insurance information

What's is the ATLAS PCR?

- An electronic database of patient records - the *Patient Centric Repository* (PCR)
  - Creates one continuous patient record that contains all the patient's lab reports ordered from your office, previously reports were not linked to each other.
  - Gives the physician the ability to review cumulative data on the patient from within Labworks.
  - Allows lab orders to be sent electronically from the client office directly to the Beaumont Laboratory computer system

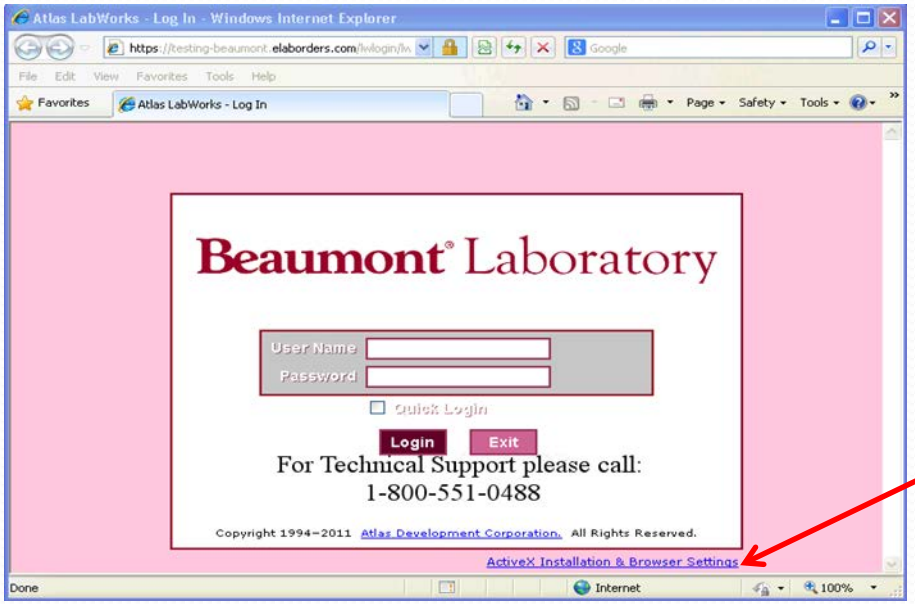
ATLAS User Notes

Diagrams, pictures, screen shots and system look and feel may vary in your LIVE system as compared to this demonstration.

- Screen colors will probably be different from those pictures – this is a deliberate difference between your LIVE system and the TEST (training and development) system from which these images were captured.
- Drop down menus may be slightly different depending on user security settings – users may not have access to all functionality within each menu – this is an intentional feature of the system.

System Requirements

- Microsoft Operating System Windows 7.0 or later.
- Internet Explorer Version 9 or later
- Active X installation
  - Link on sign in page to install Active X
  - Pop-up blocker needs to be turned off



Link to install Active X

The Patient Centric Repository (PCR)

- The Patient Centric Repository (PCR) is a database that contains the demographics and insurance information of the patients who have utilized the Beaumont Health system**.**
- When an Atlas request to retrieve the patient data from the PCR is processed, Atlas pulls the selected patient demographics and insurance information from the PCR files into the client's Atlas account files.
- The user must verify the demographic and insurance information and in the case of nonmatching information either update their account's files to match the PCR data or proceed with non-updated data.
- In order to maintain integrity in the PCR, users cannot edit information contained within the PCR.
- Patient files retrieved from the PCR can be identified because they have a BRL MRN ~ **The Beaumont Medical Record Number**

The Patient Centric Repository (PCR)

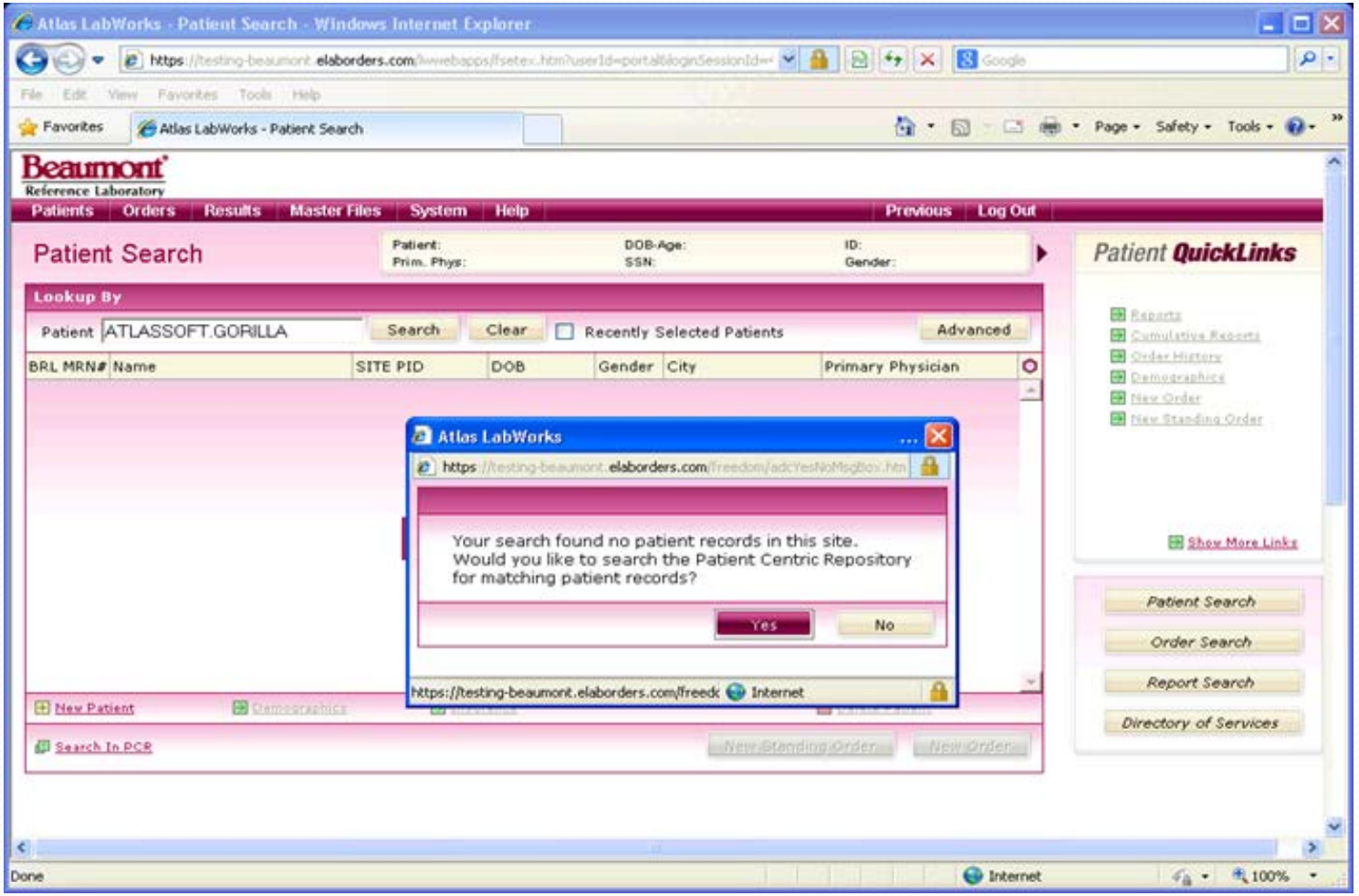
- Important points about the PCR Process
  - **User must retrieve the correct patient record by verifying that the key "Patient Identifiers" match**
  - Information contained within the PCR cannot be edited by the user. Only Beaumont Registration Department can change information in a Beaumont Patient Record.
    - If the Atlas user finds the Beaumont information needs to be updated they should send copies of the new information to the laboratory with the orders.

How to use the PCR

- Begin with Patient Search
- If your patient is in your system, **and has a BRL MRN # associated with their file** – you are all set, just complete your order like you always have done.
- But what if my patient isn't found in my site database?

Acquiring a Patient from the PCR

- When your patient is not found in your site files, a message displays.

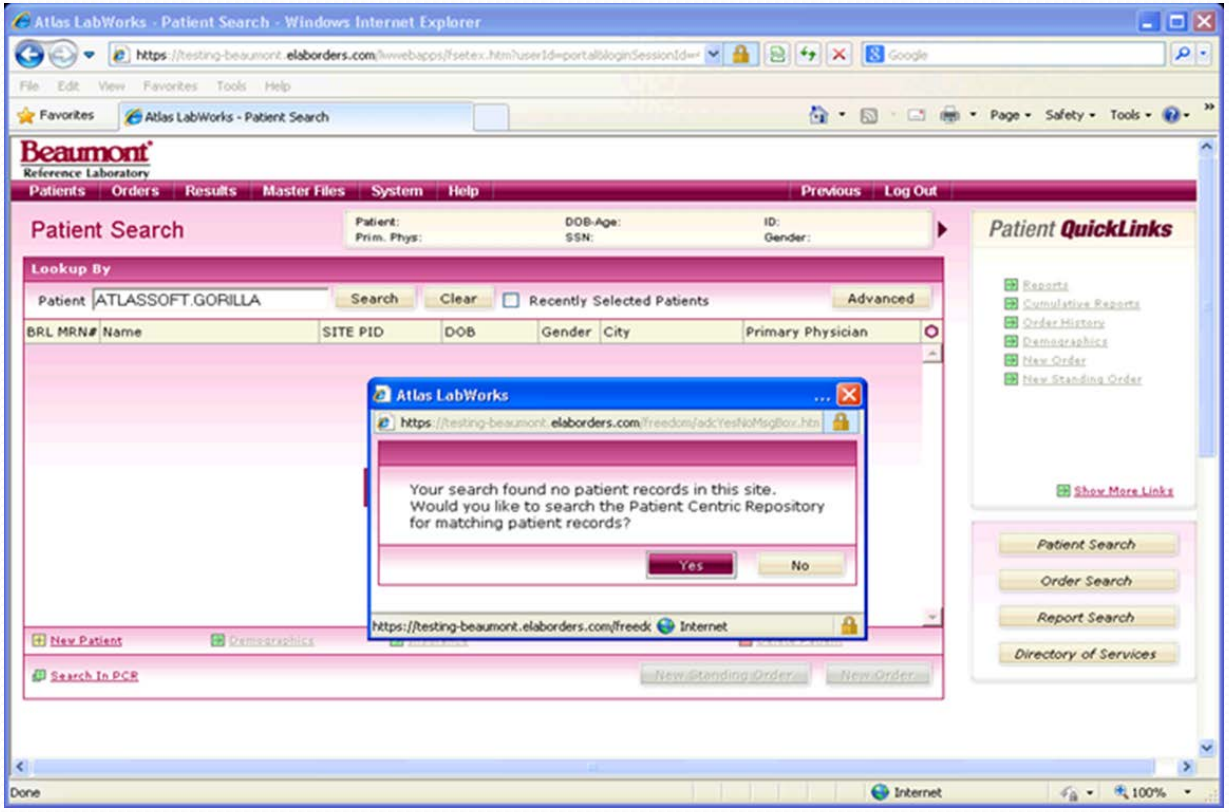


Acquiring a Patient from the PCR

- The message states that no matching record was found in the site, and asks if you wish to search the PCR for matching patient records
  - Click the yes button to begin the search
  - The PCR will be accessed
  - Patients matching the entered criteria will display
  - **Match the "Identifiers"**
  - Acquire the patient
  - Continue the order process

Now let's work through it!

- Patient Search for "Atlassoft, Gorilla, no patient is found in the site and the message to search the PCR displays.



I said "Yes" to search the PCR, now what do I do?

- A box will display showing you patients in the PCR who match your search criteria. In the picture below we searched just for the last name "Atlassoft"

Patient Centric Repository Patients

Name	MRN	DOB	Gender	PCR ID	City	Phone Number
ATLASSOFT,A	6001545	07/01/1970	Male	ALES00848	GARDEN CITY	(735)5551212
ATLASSOFT,ALLIGATOR	6002023	07/01/1972	Male	ALES00948	GARDEN CITY	(734)5554321
ATLASSOFT,B	6001546	07/02/1970	Female	ALES00849	TROY	(248)1234567
ATLASSOFT,BUTTERFLY	6002024	07/02/1972	Female	ALES00949	TROY	(248)8984321
ATLASSOFT,C	6001547	07/03/1970	Male	ALES00850	STERLING HEIGHTS	(586)7183543
ATLASSOFT,CATERPILLAR	6002025	07/03/1972	Male	ALES00950	ROYAL OAK	(248)5551212
ATLASSOFT,D	6001548	07/04/1970	Female	ALES00851	ROYAL OAK	(248)9876543
ATLASSOFT,DEER / ATLASSOFT,D	6002026	07/04/1972	Female	ALES00951	ST HEIGHTS	(586)7181234
ATLASSOFT,E	6001549	07/05/1970	Male	ALES00852	CLINTON TOWNSHIP	(586)7771234
ATLASSOFT,EAGLE	6002027	07/05/1972	Male	ALES00952	CANTON TWP	(734)6651234
ATLASSOFT,F	6001550	07/06/1970	Female	ALES00853	TROY	(248)9874321
ATLASSOFT,FOX	6002028	07/06/1972	Female	ALES00953	ROYAL OAK	(248)5554321

Cancel | Acquire Patient

So I have a list of possible matching patients in PCR, what do I do next?

- Select the patient that ***exactly*** matches at least 3 patient identifiers.
  - **Valid Patient Identifiers are:**
    - Last name
    - First name
    - Date of Birth
    - Phone number
    - Gender*

These 3 identifiers must ***exactly*** match your patient's information, if any one of these identifiers are different, it is not a valid match!

*Technically not an identifier, but can be useful in confirming proper patient ID

A Word of Caution!!!

- Make **absolutely** sure you are selecting the correct patient! Because the PCR database is so large, there is a good chance that patients with similar or the same names may be present in the system.
- Remember the appropriate patient identifiers are
  - **Last Name** – Must Match Exactly
  - **First Name** – Must Match Exactly
  - **Date of Birth** – Must Match Exactly
  - **Phone Number – This can vary**
  - **Gender***

*Technically not an identifier, but can be useful in confirming proper patient ID

So Why is Proper Identification of the Patient Such a Big Deal?

- **Every year, as many as 98,000 people in the U.S. die as a result of medical errors**.
- The lab **cannot** change patient identification on work received – the orders must be cancelled, and the patient(s) re-drawn. This is an inconvenience to the patient(s) and delays their test results and possibly affects their treatment.
- Work submitted under an incorrect patient can lead to serious medical consequences, and could even cause irreversible harm to the patient(s) involved. Someone could even die!
- Everyone involved in the misidentification of a patient – The physician, office staff, **YOU**, can be held legally liable for any harm done.

If I know the BRL MRN #, can't I just use that to identify the patient?

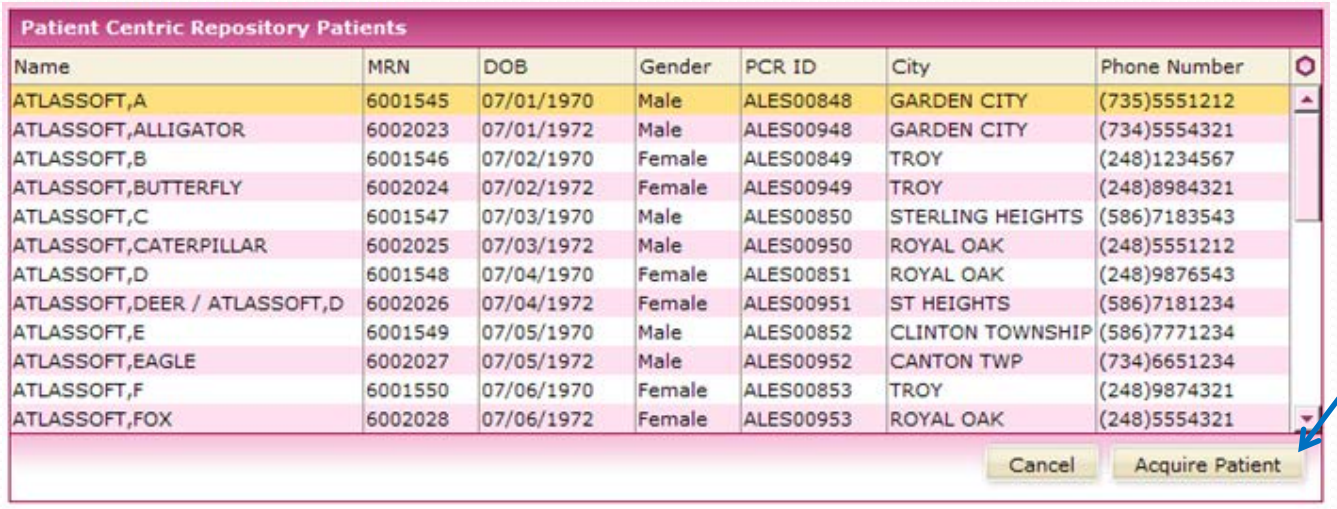
Never rely on just the BRL MRN# as a form of patient identification!

- MRN #'s can change when duplicate patient records are merged
- It is easy to misread an MRN
- It is not considered a valid identifier by the lab

Valid Patient ID requires 3 positive identifier matches – always!

OK, I've found the matching patient, now what?

- Highlight that patient by clicking the line their information is on
- Click the "Acquire Patient" button



Highlight the correct patient line by clicking on it , then click the "Acquire Patient" button

Congratulations! You have successfully acquired a patient file from the PCR!

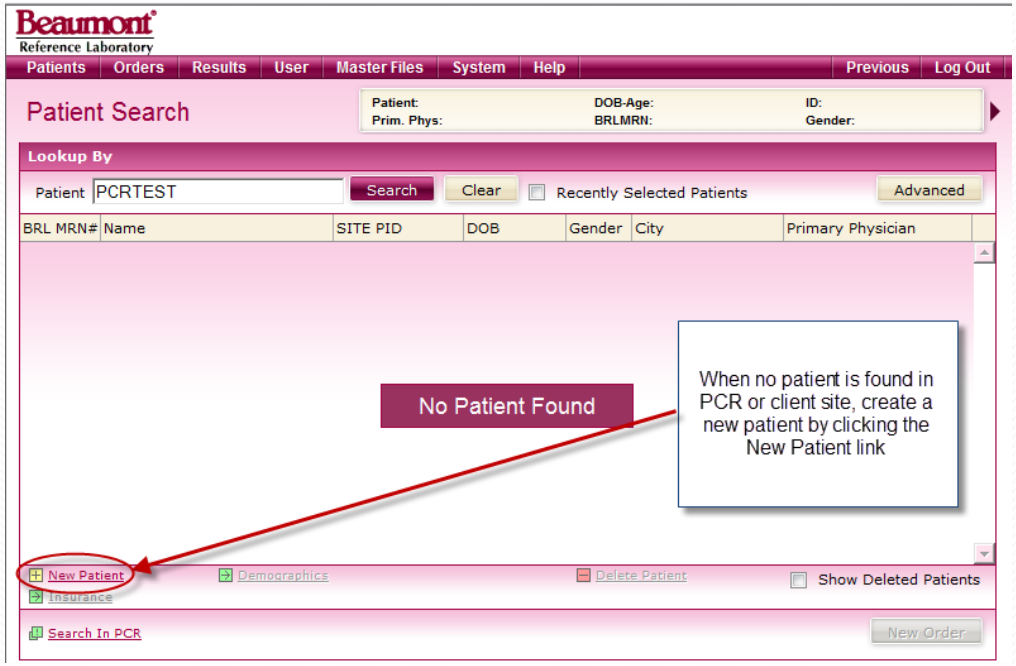
- A copy of the patient record has now been moved over to your client site database.

- You can now use this patient record to place orders in the same manner you have previously used.

I did not find my patient in the PCR or my client files, what do I do?

If you get the "No Patient Found" message, create a new patient by clicking the New Patient link

- Enter the patient demographics, Insurance and Guarantor information in appropriate fields – see the User Manual for the process.
- Send copies of the Patient's identification and insurance cards with the lab order.

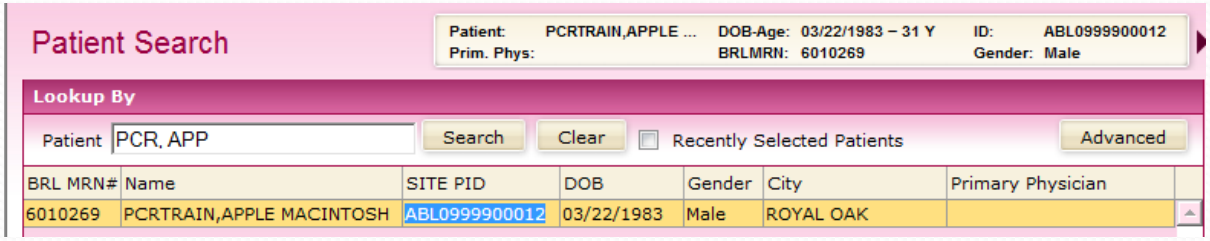


Placing Test Orders

- Select the correct patient
- Verify patient demographics and insurance, update if necessary
- Begin order process
- Select ordering physician
- Order tests
- Select diagnosis codes
- Answer any questions associated with the test orders

Select the Correct Patient

- Patient Menu
  - Search Patients
  - Enter Last, First Names
  - Click Search
  - Verify identifiers
  - Acquire from PCR if necessary
  - **Verify demographics**
  - **Verify Insurance**

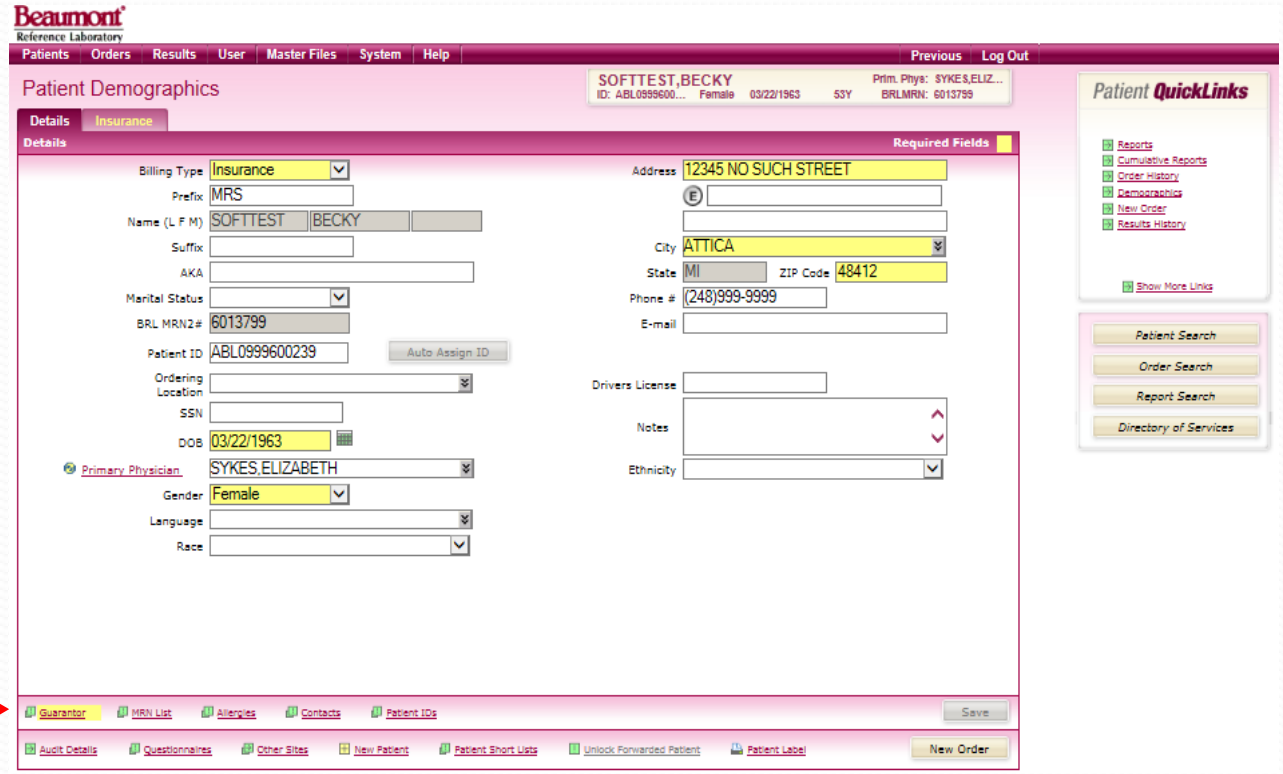


Patient Demographics Screen

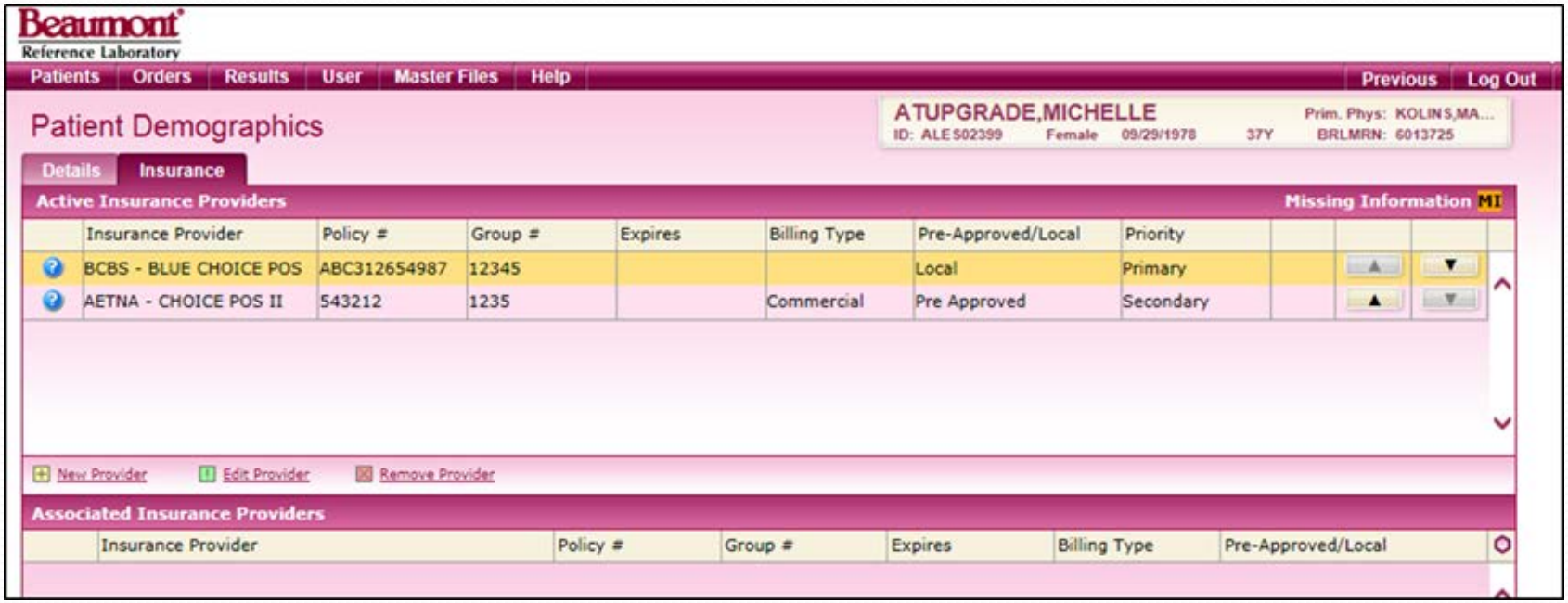
- Double click on the selected patient in patient search to open the patient demographics

The Details Tab

- Required fields are in yellow
- To update address, remove zip code first, then change address information
- The AKA field can be useful if the patient is known in your office by a “nickname”
- Mouse over or click on the Insurance tab to verify and edit insurance if necessary
- Guarantor link is in lower left corner of screen, there are required fields in the guarantor box



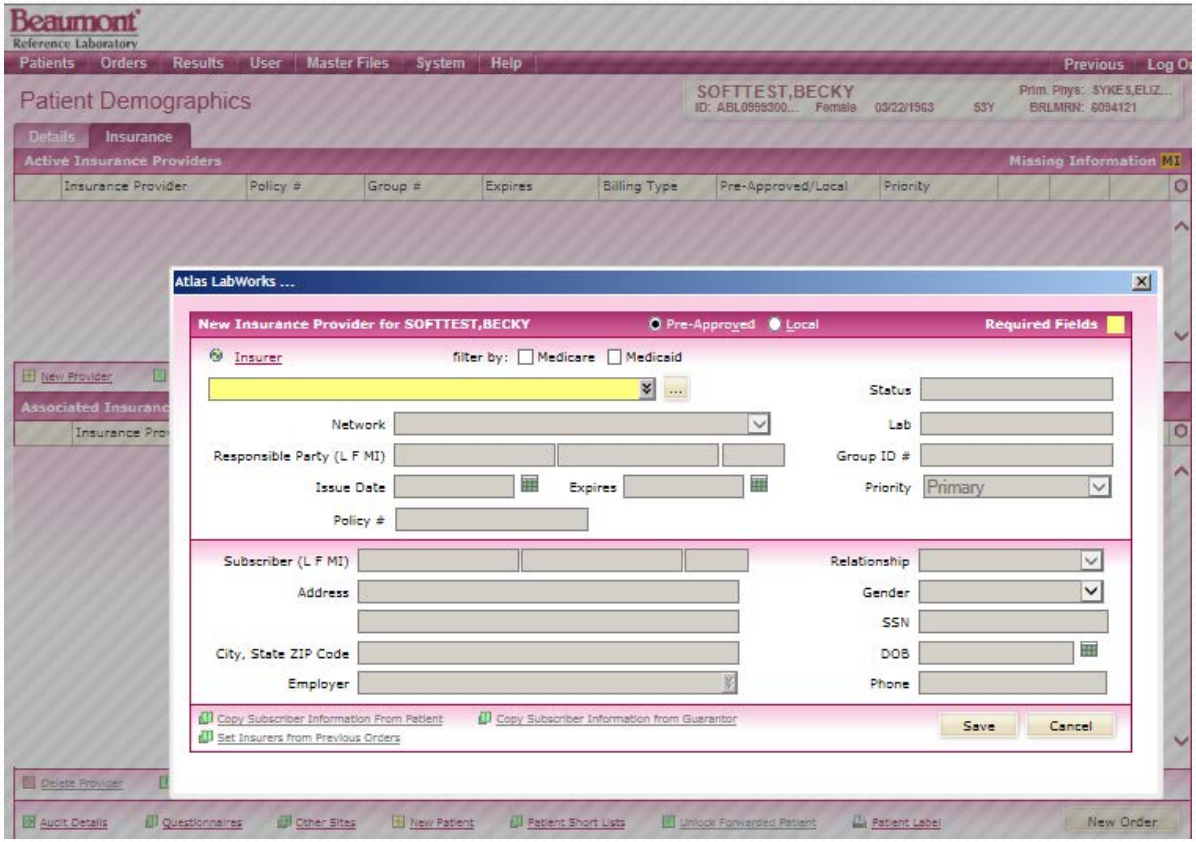
Patient Demographics Insurance Tab



- Insurance Tab can store multiple patient insurance policies
- Insurance Priority can be moved up or down by use of the arrow buttons in the right hand columns of the screen.
- Priority (primary, secondary) can be adjusted for the needs of the testing ordered.
- To edit a policy click on the policy line to highlight then click Edit Provider button located near the bottom of the screen
- To create a new policy, click the New Provider button

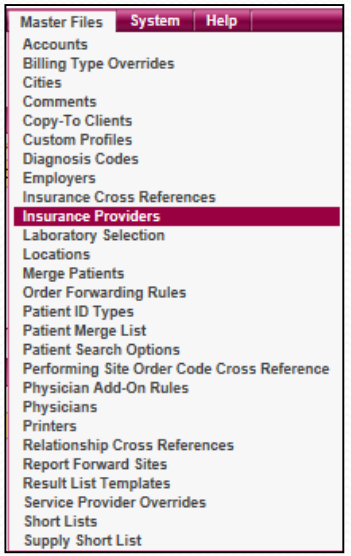
The New Insurance Provider Window

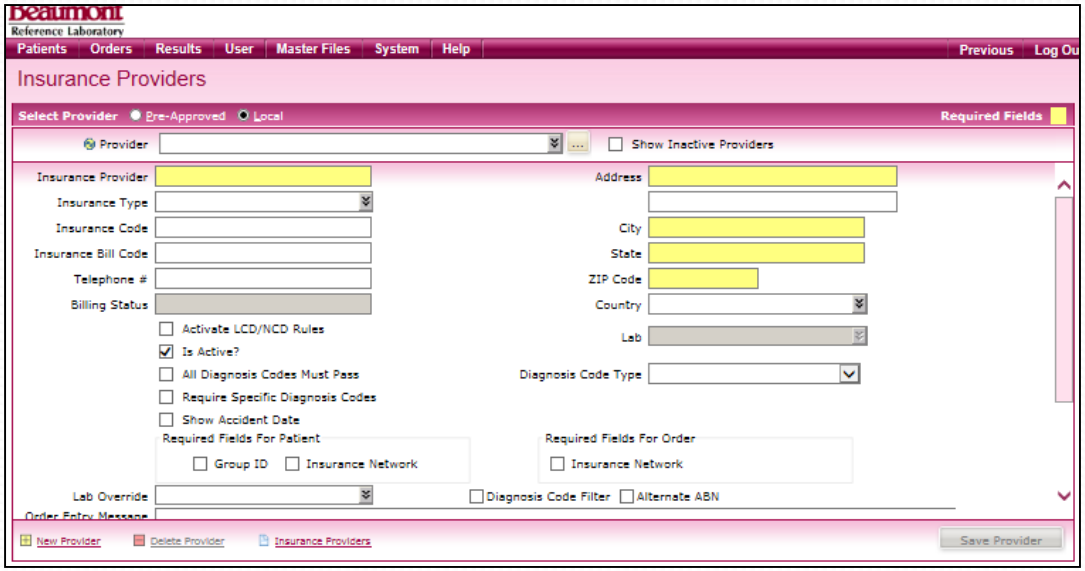
- When entering new insurance for a patient the insurance page pops out on the screen
- Required fields are in yellow
- The location of the Policy number has moved from the previous version of Labworks
- New to this version, the “Priority” field is used to set the primary or secondary status of the insurance being entered.
- Enter new information and click “Save” button to store information
- Guarantor information is accessed on the Details tab – see slide 22
- See User Manual for full details
- When done verifying or editing demographic and insurance information click save, the provider window will close, then click “New Order” in the bottom left corner of the Patient Demographics screen to continue the order process.



"Local" Insurances

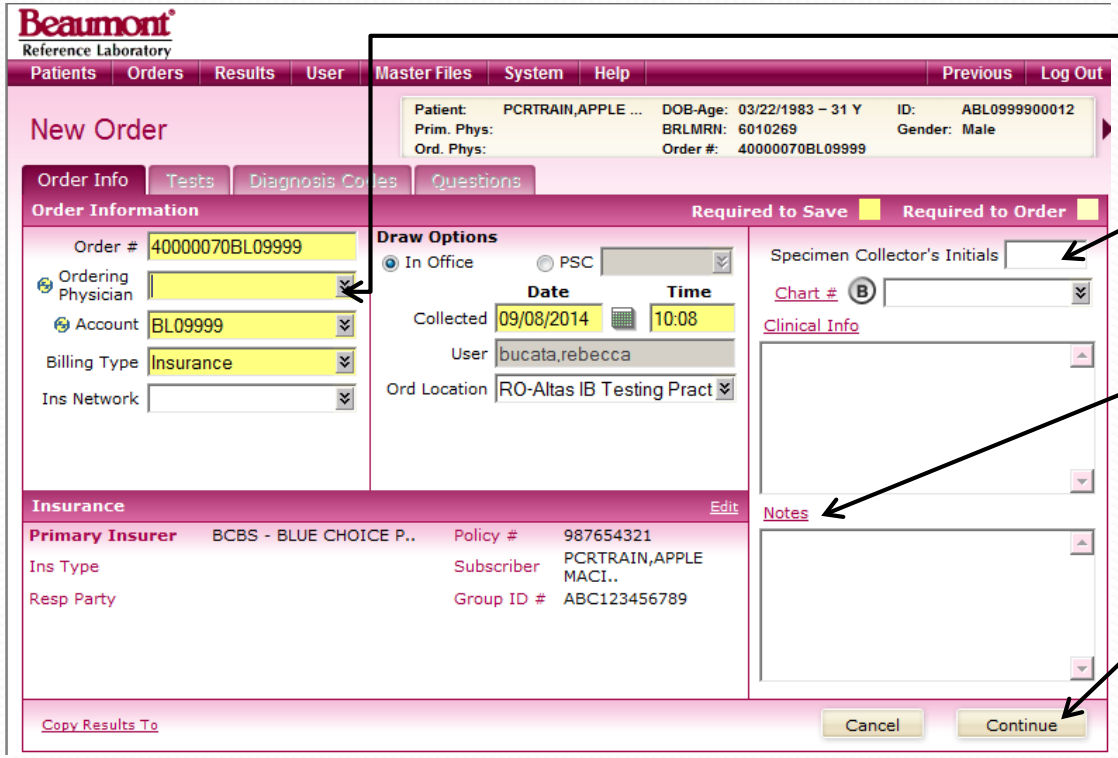
- If a patient's insurance is not found in the list of insurance providers a new insurance provider can be created through the Local Insurance menu
- To begin the process click on the Master Files Tab and select Insurance Providers
- When the Insurance Providers screen opens, click the New Provider button in the bottom left corner
- Click the "Local" radio button in the Select Provider header of the screen
- Required fields are highlighted yellow
- When entering a "local" insurance provider the user must select an insurance type from the drop down list – choices include Medicare, Medicaid Commercial, Automobile, Workers Compensation. Additionally the payor's (insurance company's) address and zip code are now required fields:
- Once the required information is entered, click the Save Provider button in the lower right corner. The Insurance Provider screen will close and you will be returned to Patient Demographics





Order Info Tab

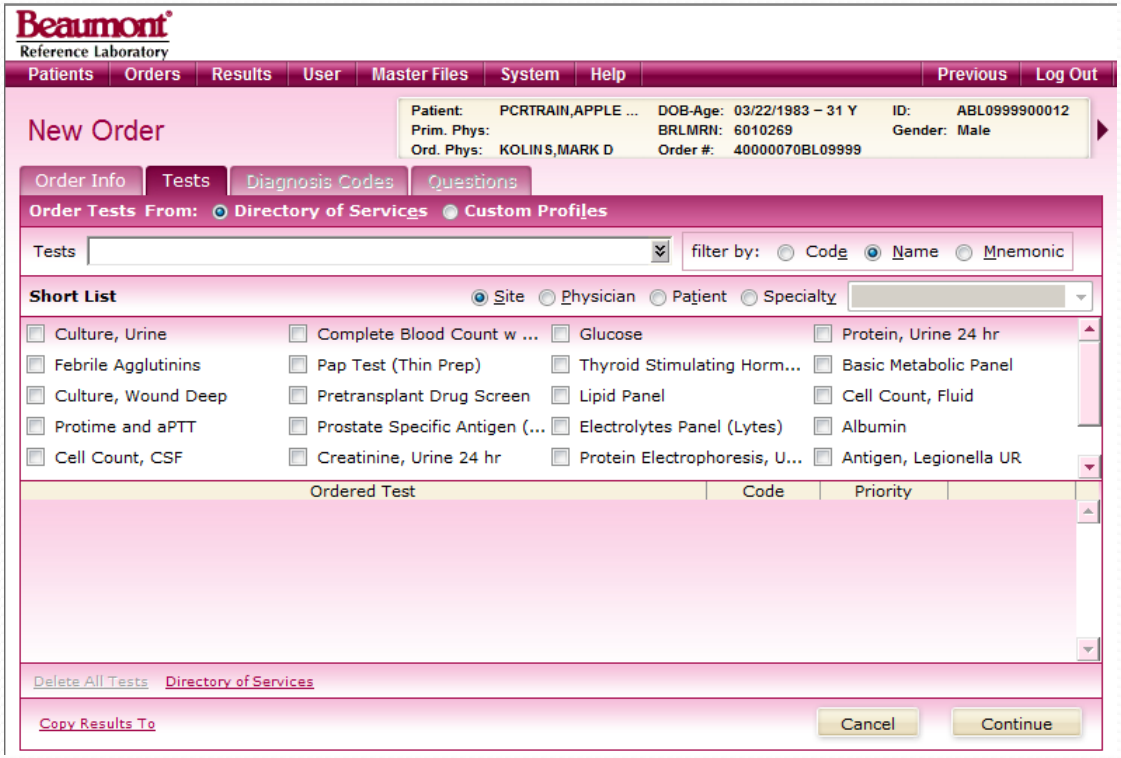
- Once Demographics and Insurance has been verified click the "New Order" button to start the order process



- Select Ordering Physician from Drop Down
- You can enter collectors initials if desired
- Copy To Link does not function, Put copy requests in Notes Box
- Click Continue to proceed

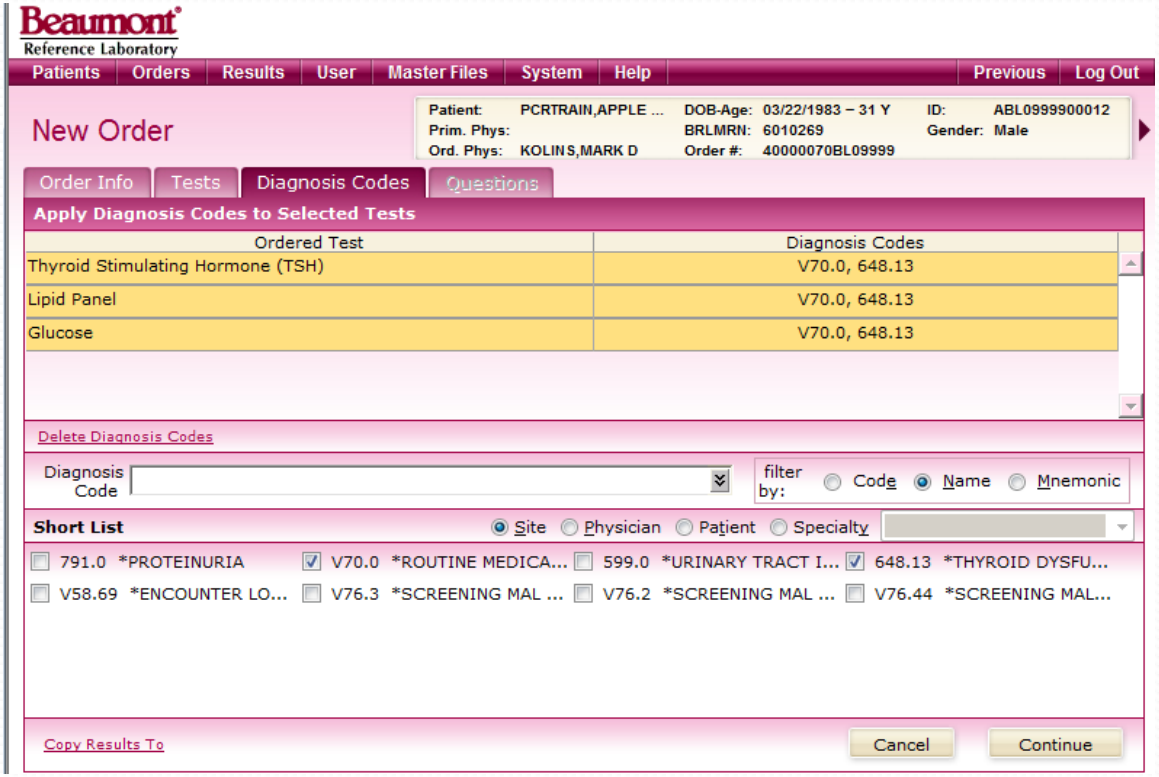
Tests Tab

- The Short List will contain the 25 most frequently ordered tests in your office
  - Directory of service button gives you the search capability
  - Custom Profile button lets you order any profiles you have built
- You can search by Test Name, Code, or Mnemonic
  - The Test Name is the actual name of the test
  - The Code is the EPIC Test Code (LAB####)
  - The Mnemonic is the Soft Test ID
- The Directory of Service Link can help you get to the Beaumont Laboratory Test Directory
- When all tests ordered, click Continue to proceed



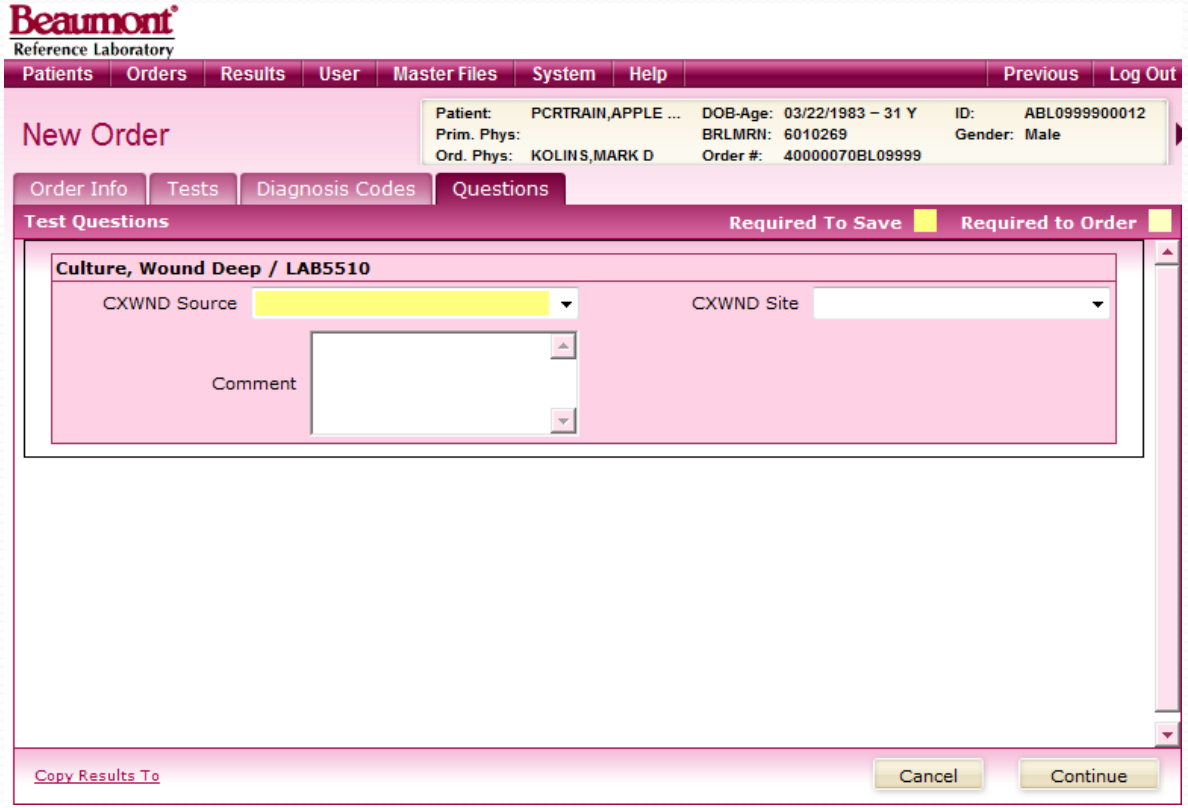
Diagnosis Codes Tab

- The Short List will contain the diagnosis codes most frequently used in your office
- Search by Mnemonic will allow a search by a "keyword"
- Search by code will allow you to pull up the Dx by the ICD9 code
- Search by name will allow looking up the code by the actual name
- Click Continue to advance to the Questions Tab
- You must select at least one diagnosis code per test



Questions Tab

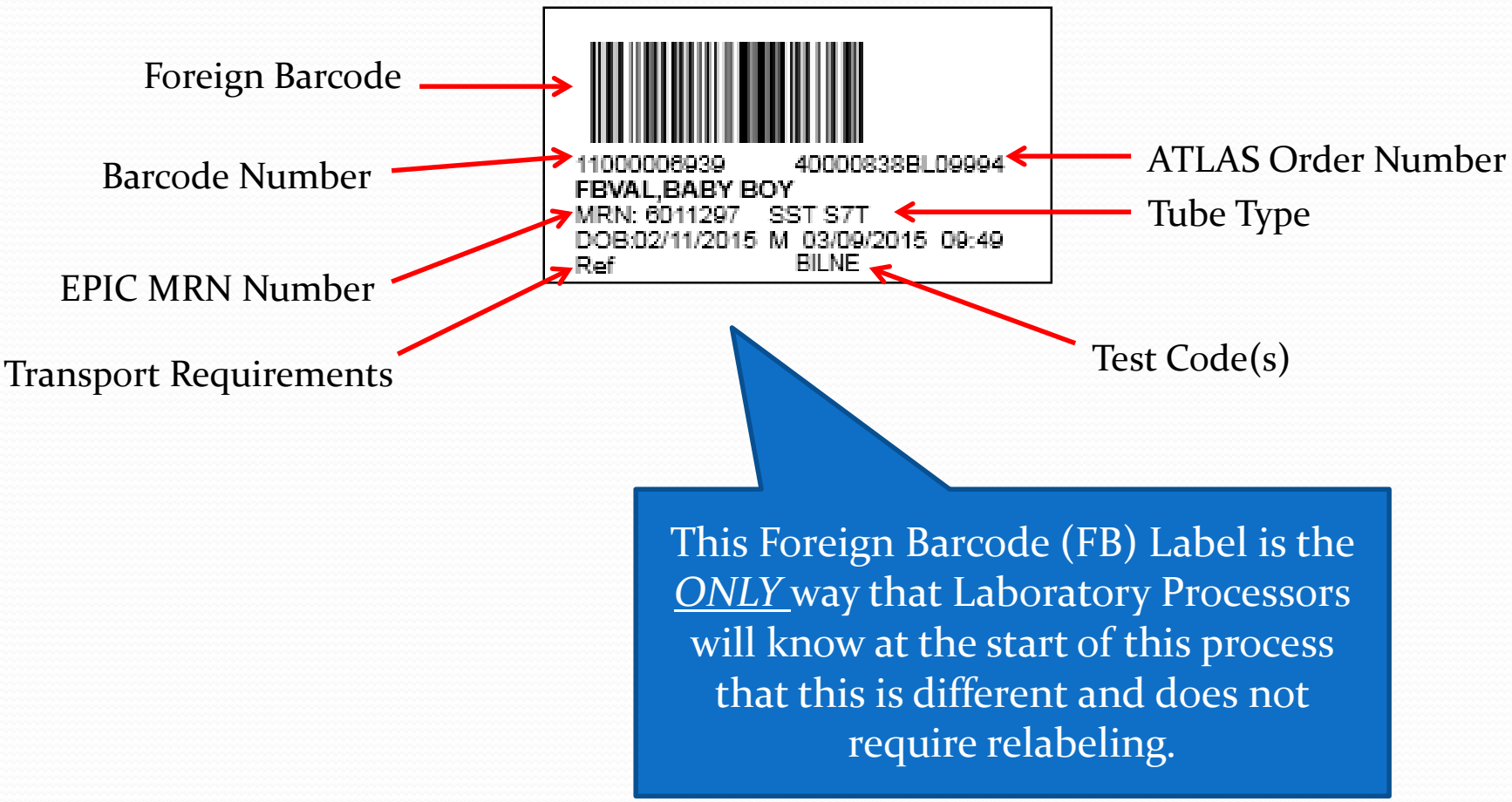
- The Questions Tab contains questions for information the lab needs to run the testing. Such as source and site for cultures, or LMP for PAP smears
- Required fields are in yellow



Instrument Ready Barcode Labels

- In Spring 2015 Beaumont Health implemented a new step in integration of laboratory services with outreach clients and our new affiliate laboratories at Botsford and Oakwood.
- Atlas Labworks, is used as the middleware in this integration. The Atlas system generates instrument ready barcoded specimen labels that are recognized within the Soft LIS system without the need for relabeling.

Instrument Ready Barcode Label



Barcode Limitations and ATLAS Order Entry Categories

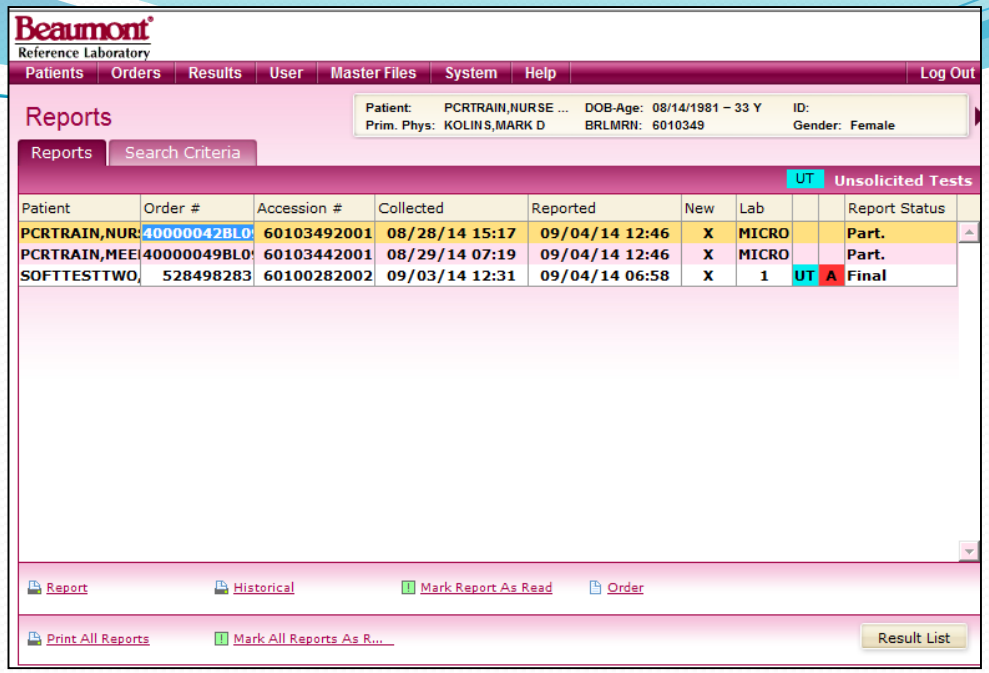
- In order to fully optimize the use of the instrument ready barcode labels, it was necessary to institute new order entry categories within the ATLAS system. This means that the way tests split out onto separate requisitions and order numbers has changed.
- Previously, orders split primarily according to their priority (routine vs. STAT) and transport conditions (refrigerated vs. frozen) with additional splitting off of Microbiology and Anatomic Pathology orders.
- Now several new categories have been added, 24 hour urine orders, sendout orders, and other categories will cause orders to split – this can affect the number of tubes that are required to be collected for orders on one patient.

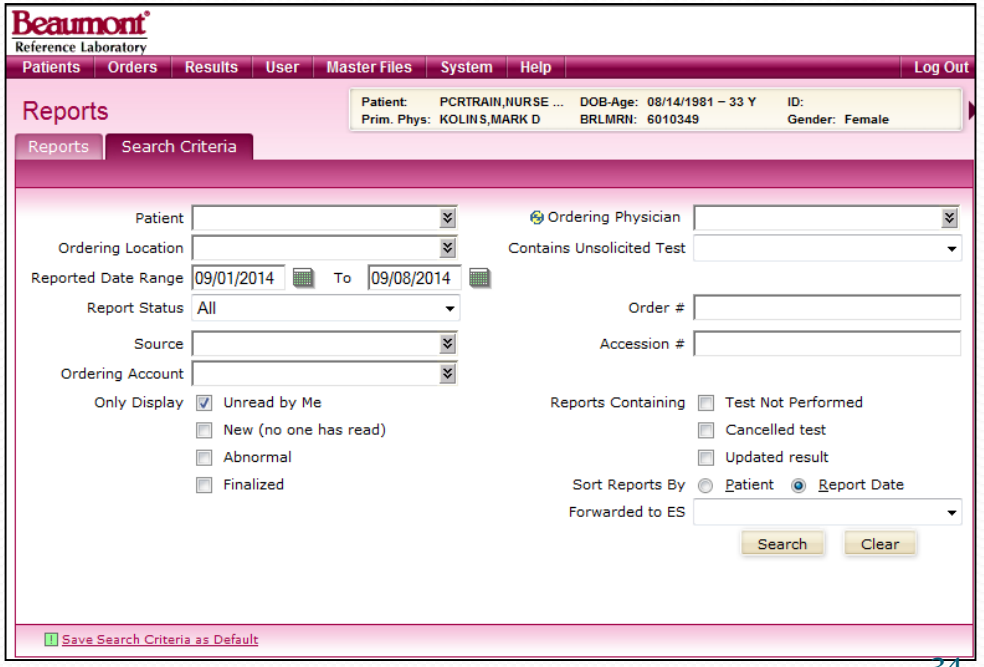
Ordering and Specimen Collection with Instrument Ready Barcode Labels

- Because of the way the order entry categories are utilized with the IRBC labels, the most efficient workflow is to place the orders in ATLAS and print out the specimen labels **before** collecting the samples from the patient. This will insure that all needed tubes and samples are collected.
- If for any reason, it is not possible to collect all the needed tubes or samples from the patient, it is still necessary to send the barcode labels for the not collected samples to the lab. Place the unused labels in the transport bag with the other samples. Do not attach more than one label to any sample. The laboratory will use the unused labels to determine if pour overs or aliquots are needed to complete the testing.

Reports

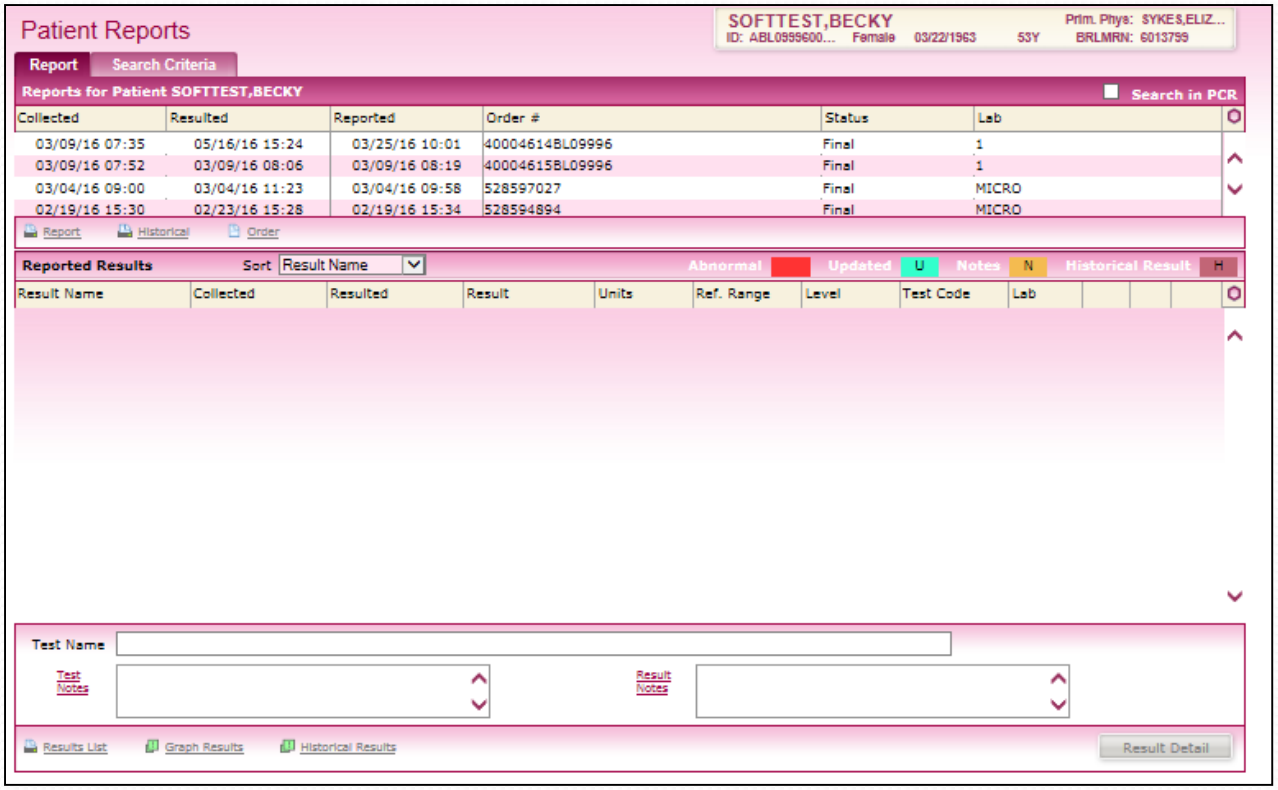
- Reports will usually be set up to generate automatically, per the office preferences
- The Report Tab Default display is all reports not yet reviewed by the client
- The Search Criteria Tab can help narrow selections when looking for a particular report of set of reports
- Links at the bottom of the Reports screen allow for printing and marking of reviewed reports





Patient Reports – Searching from the Patients Menu

You can quickly locate reports for a single patient through the Patients menu by doing the Patient Search function, selecting the patient, and then selecting the Patient Reports function on the patient menu.



So what else should I know about Beaumont Labworks?

- You may need to update patient information
- There is a built in link to the Beaumont Laboratory Test Directory

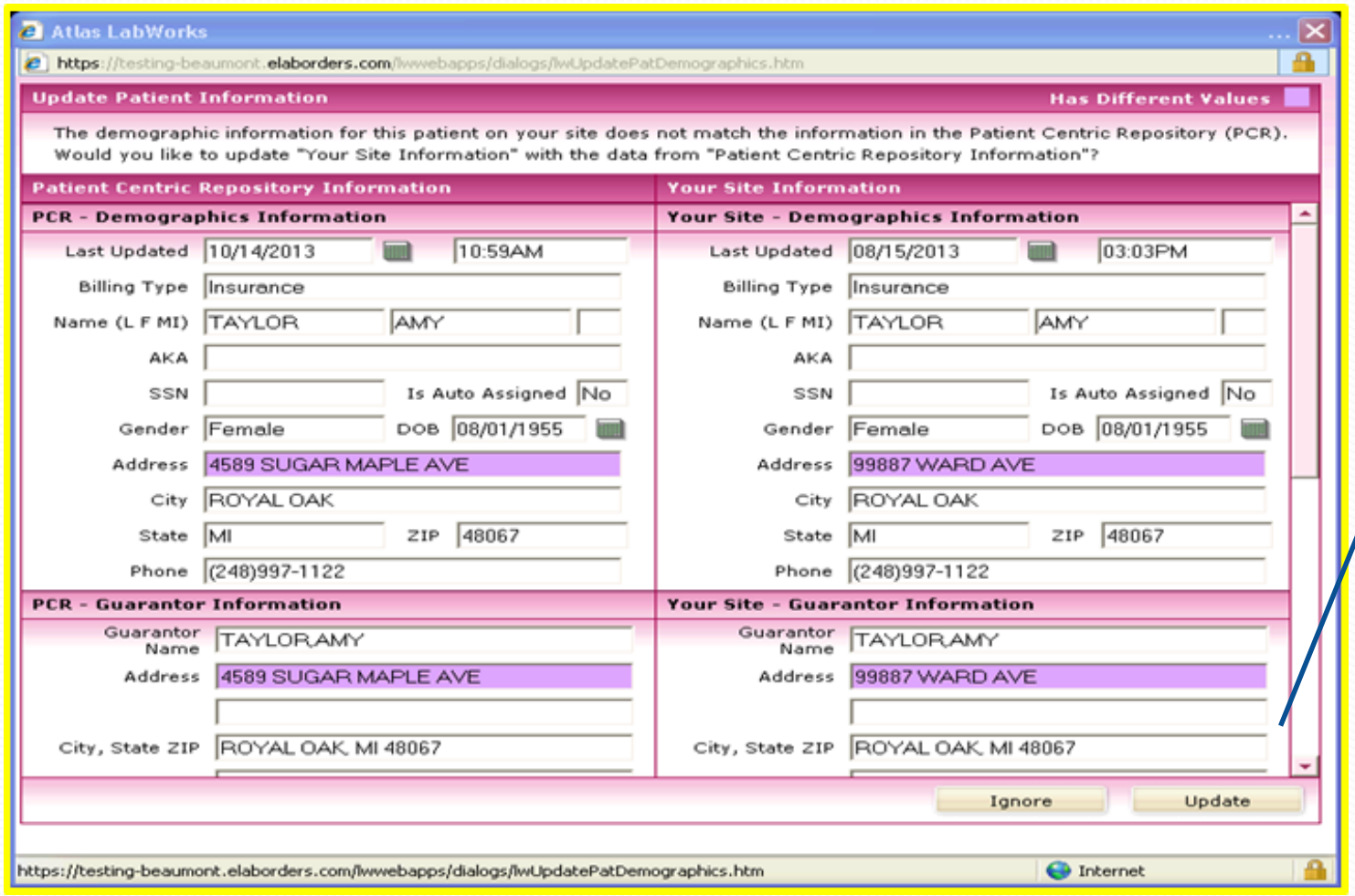
- New Look to the requisition forms – no more handwritten forms!
- You can generate cumulative reports

- You can create your own custom profiles
- Duplicate patient files may need to be merged

The "Update Patient Information" notice

- At times, the information contained in the PCR will not match the information in the patient's client site file.
- When this occurs a notification window will display listing both the PCR file and the account file information.
- The user has the choice of accepting an update of the account information from the PCR, or ignoring the mismatched information.
- Users cannot update PCR information; this must be done by the registration department of Beaumont Health.

The "Update Patient Information" notice



When PCR and site information for the patient file do not match this window displays. The mismatched information is highlighted. The user should verify the correct information with the patient, and if PCR information is correct update the site information by clicking the Update button.

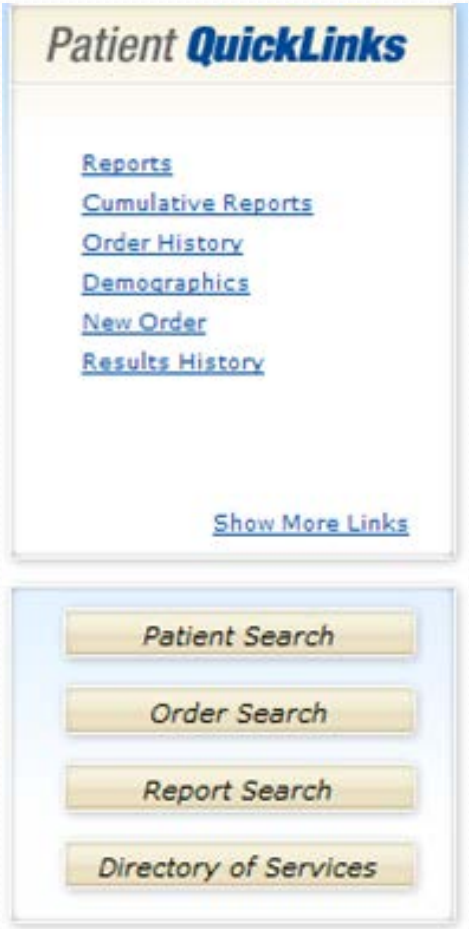
So what do I do if the PCR information is not correct?

- If the information in the site file is correct, but the PCR information is out of date, click the “ignore” button to keep the site information.
- Make a copy of the Patient’s Drivers License or State ID card, and their insurance card, and send it to the lab marked “New information, please update patient file”.

Link directly to the Beaumont Laboratory Test Directory

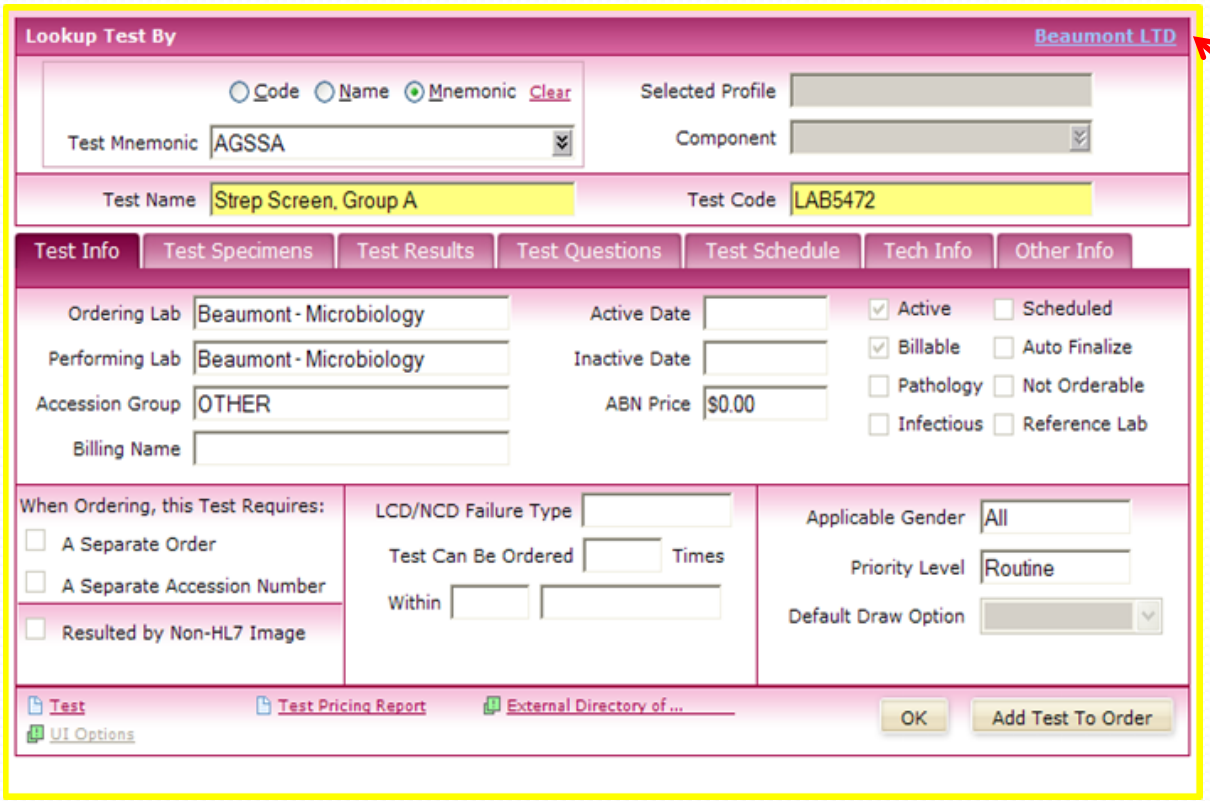
- New to this version of Atlas is a direct link to the Beaumont Laboratory Test Directory (LTD)

- Access the LTD by clicking the Directory of Services button in the QuickLinks column on the right side of the screen.



Link directly to the Beaumont Laboratory Test Directory

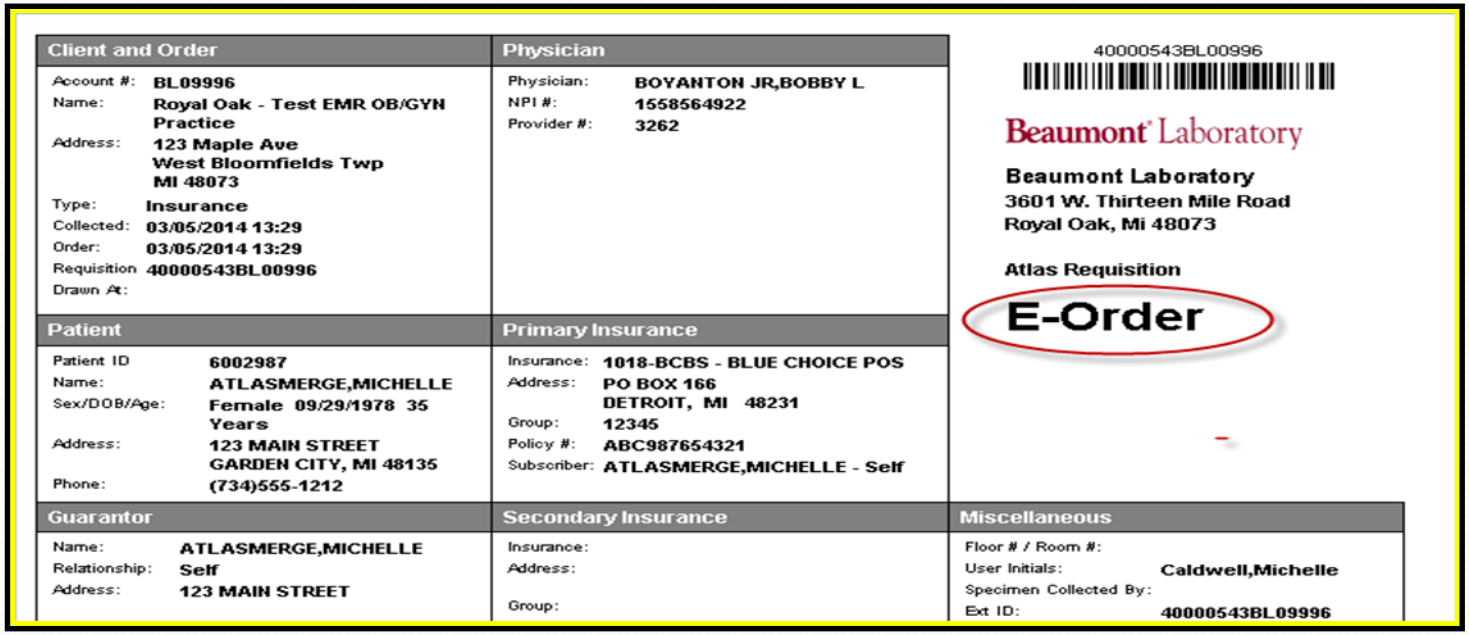
- The Link to the LTD is in the upper right corner of the Directory of Services screen



LTD Link!

The Requisition Form

- Requisition forms for clients using Electronic Ordering have Large Bold face “E-Order” in the upper right corner.
- This notifies the laboratory to look in the lab computer for the electronically transmitted order.



Client and Order

Account #: BL09996
Name: Royal Oak - Test EMR OB/GYN Practice
Address: 123 Maple Ave
West Bloomfields Twp
MI 48073
Type: Insurance
Collected: 03/05/2014 13:29
Order: 03/05/2014 13:29
Requisition 40000543BL00996
Drawn At:

Physician

Physician: BOYANTON JR,BOBBY L
NPI #: 1558564922
Provider #: 3262

Patient

Patient ID 6002987
Name: ATLASMERGE,MICHELLE
Sex/DOB/Age: Female 09/29/1978 35 Years
Address: 123 MAIN STREET
GARDEN CITY, MI 48135
Phone: (734)555-1212

Primary Insurance

Insurance: 1018-BCBS - BLUE CHOICE POS
Address: PO BOX 166
DETROIT, MI 48231
Group: 12345
Policy #: ABC987654321
Subscriber: ATLASMERGE,MICHELLE - Self

40000543BL00996

Beaumont Laboratory

Beaumont Laboratory
3601 W. Thirteen Mile Road
Royal Oak, Mi 48073

Atlas Requisition

E-Order

Guarantor

Name: ATLASMERGE,MICHELLE
Relationship: Self
Address: 123 MAIN STREET

Secondary Insurance

Insurance:
Address:
Group:

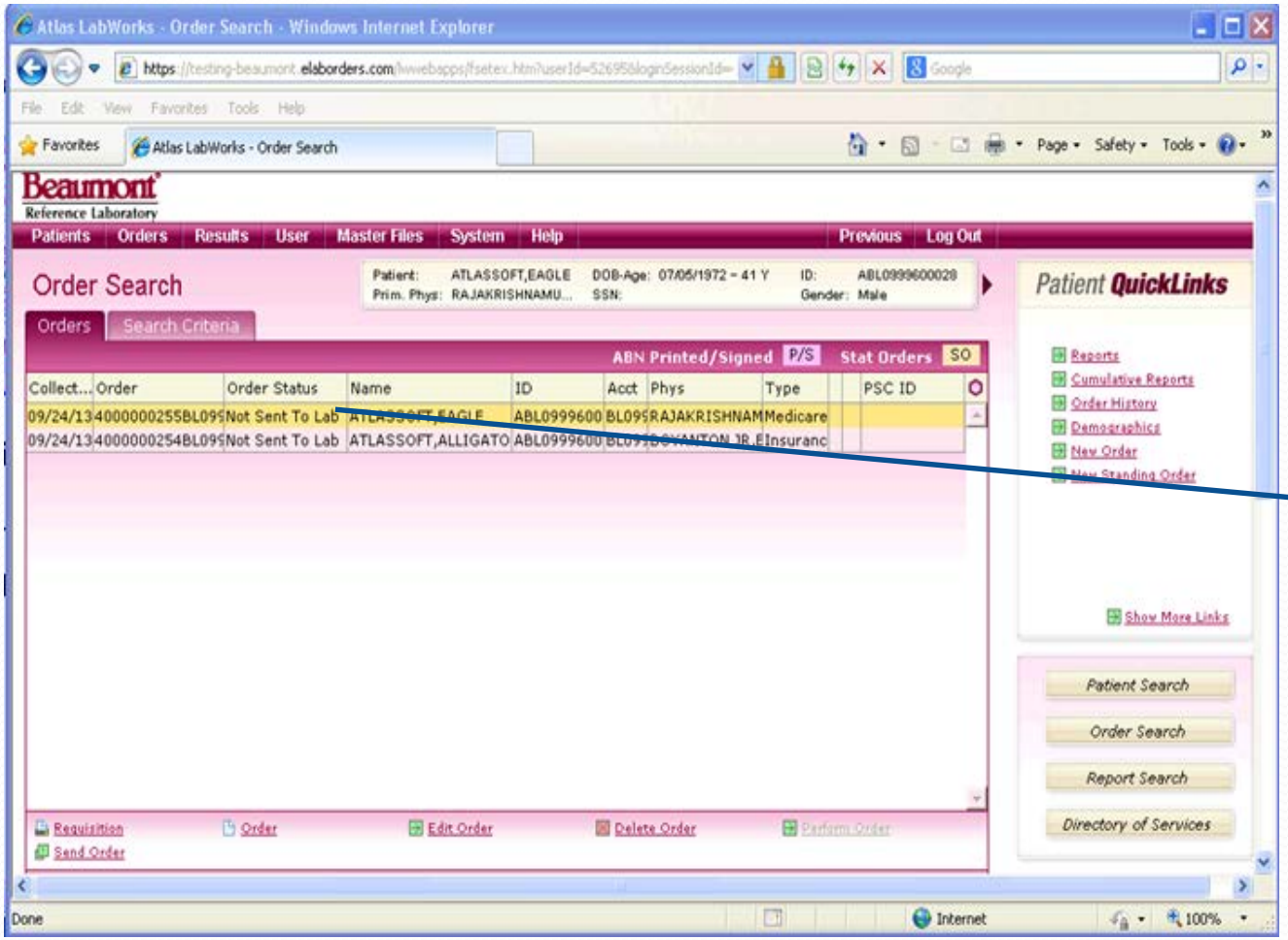
Miscellaneous

Floor # / Room #:
User Initials: Caldwell,Michelle
Specimen Collected By:
Ext ID: 40000543BL09996

The "Sent to Lab" status

- Orders placed in the system will have an initial status of *"Not Sent to Lab"*.
- At scheduled intervals the system will automatically send the electronic order to the laboratory, and the order status will then display as "*Sent to Lab*".
- If for some reason, the "*Sent to Lab*" step does not proceed, the order will be directed to an error queue in Labworks and an assigned Customer Service Representative or Laboratory Processor will resolve the issue and complete the order process at Beaumont Laboratory.
- Should you notice that an order remains at the *"Not Sent to Lab"* please package the specimen and requisition as you normally would and send the order on to the laboratory.
- If you should notice that none of your orders are advancing to the "*Sent to Lab*" status, please contact the laboratory, as a system error may have occurred within your application and assistance from the Laboratory IT department may be required to restore full functionality.

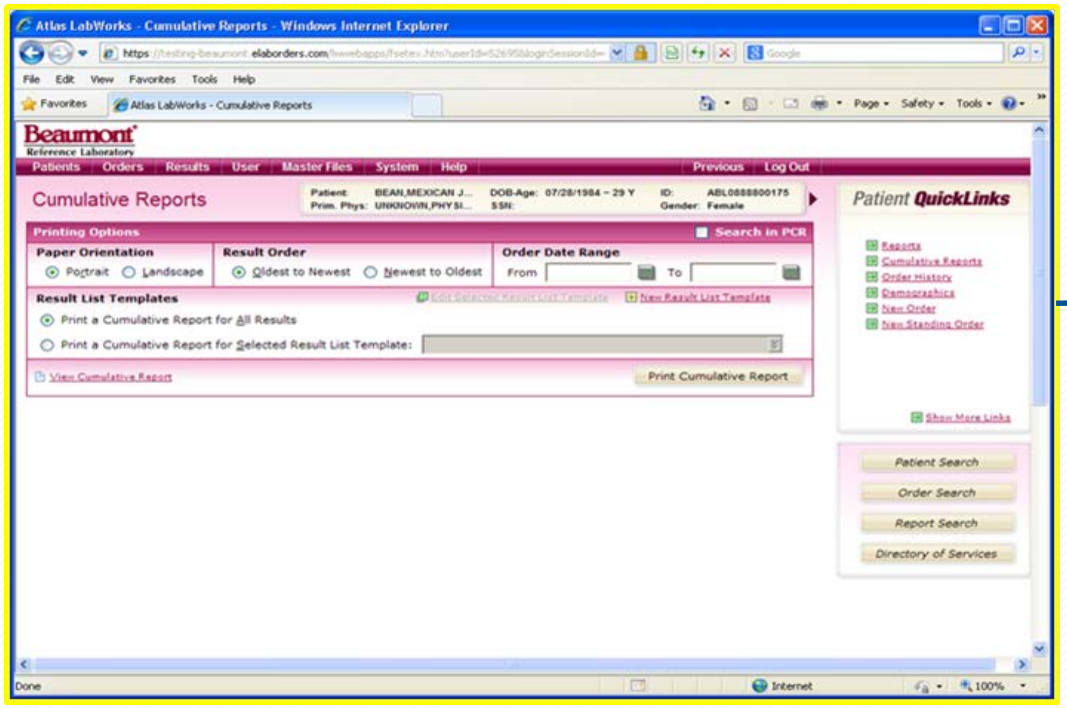
The "Sent to Lab" status



Orders initially have an Order Status of *Not Sent to Lab*. At scheduled intervals the Labworks system sends the orders to Beaumont Laboratory via the electronic interface. At such time the Order Status will display as *Sent to Lab*.

Cumulative Reports

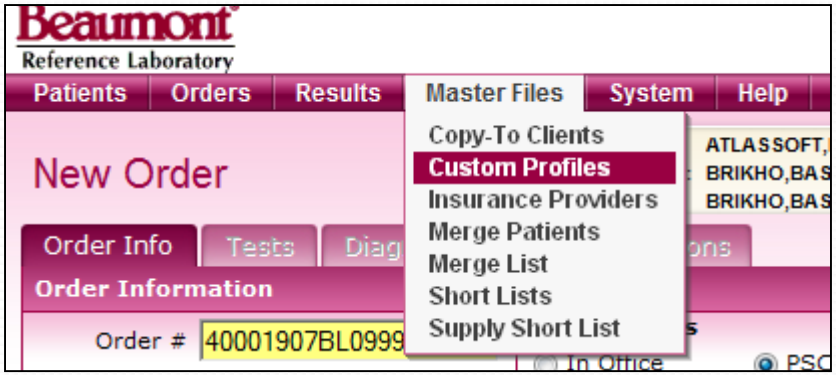
- While Labworks has always had “cumulative reports” they previously had very little value because individual orders on the same patient were not really linked to each other.
- Now because of the integrated patient file, cumulative reports have new value.



Cumulative Reports Screen, fill out the fields and select the options to define the type of cumulative report you wish to print, then click the “Print Cumulative Report” button

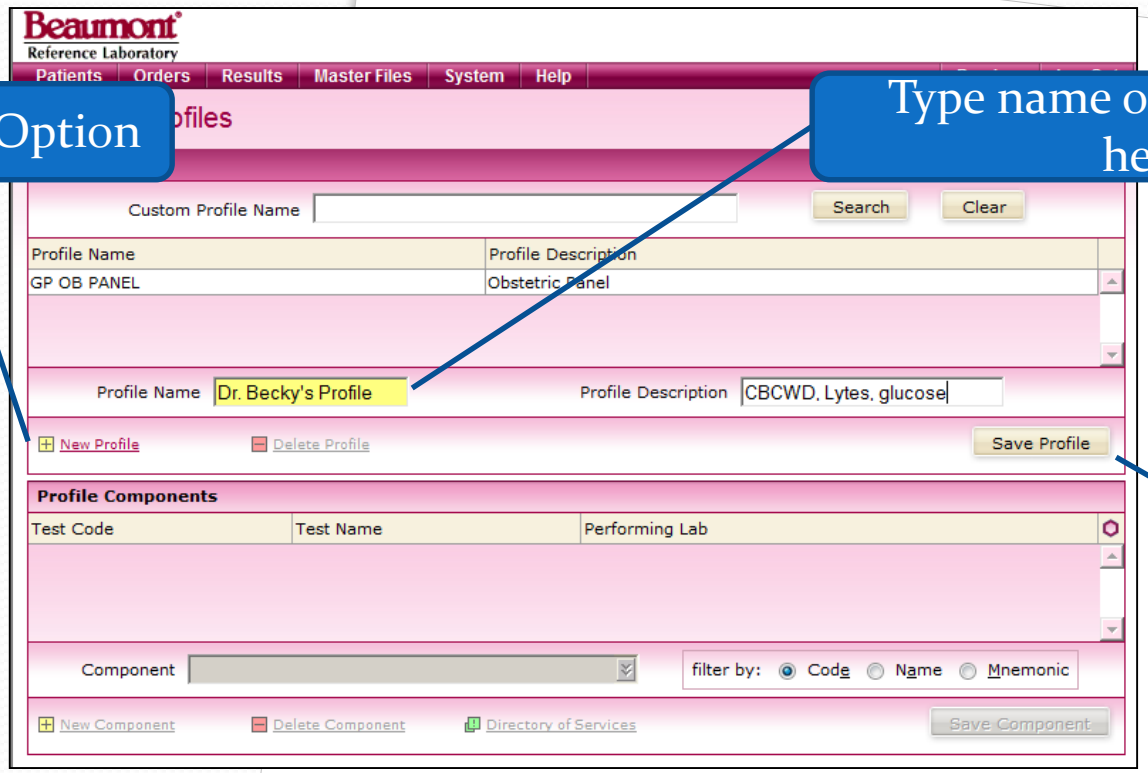
Setting Up Custom Profiles

- Clients have the ability to build their own custom profiles of tests in the Labworks system. Follow these steps to create a custom profile.



1. Click on Master Files
2. Select Custom Profiles

Custom Profile Set Up



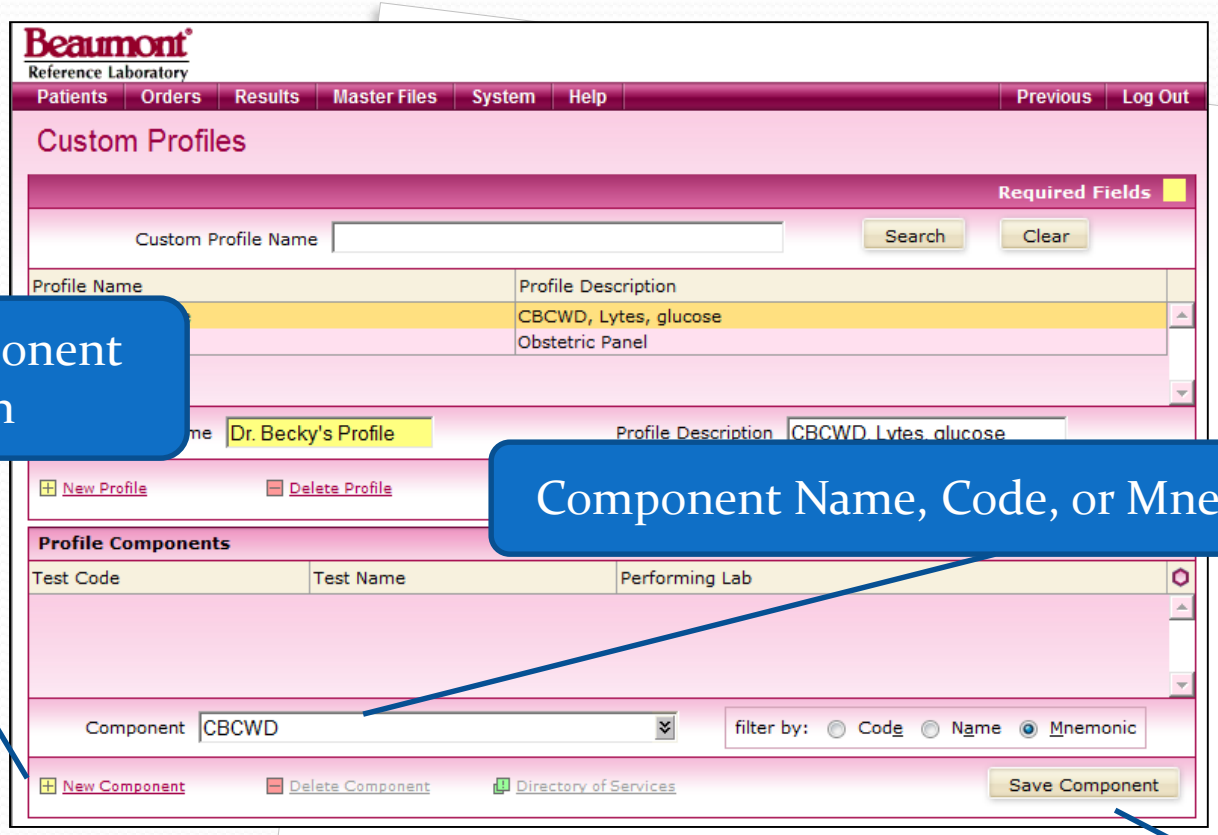
New Profile Option

Type name of new profile here

Click here to save the profile name

3. Click on New Profile
4. Enter a name for the new profile
5. Save the profile

Custom Profile Set Up



New Component option

Component Name, Code, or Mnemonic here

Save after each component selection

6. Click on New Component
7. Lookup and enter each component
8. Save after each component selection
9. Repeat steps 6-8 for each component

Merging Patient files – a tricky concept

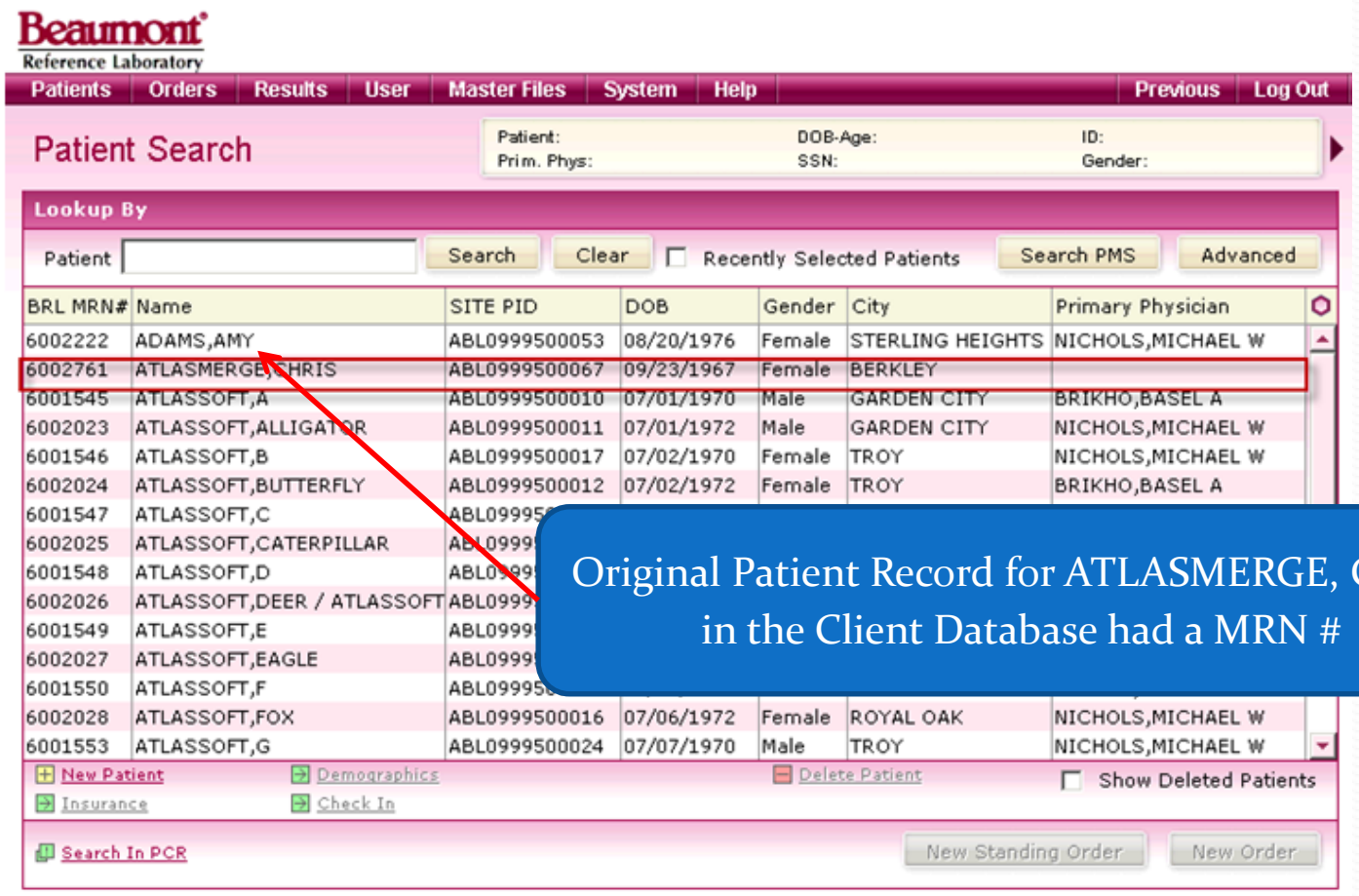
- On occasion a patient's information will be placed into the Beaumont Health patient database more than one time. This can occur due to name changes, use of nicknames, or registrar error.
- Beaumont Health strives to maintain the integrity of the patient's medical record by maintaining only a single copy of the patient file within its information systems.
- Computerized systems and specially trained personnel are utilized to recognize when patient files have been duplicated and after careful verification that the duplicate files are indeed records of only one unique patient, the patient records are merged in the Hospital information system.
- However, the duplicate files will continue to exist in the Labworks PCR system until the records are merged there as well.

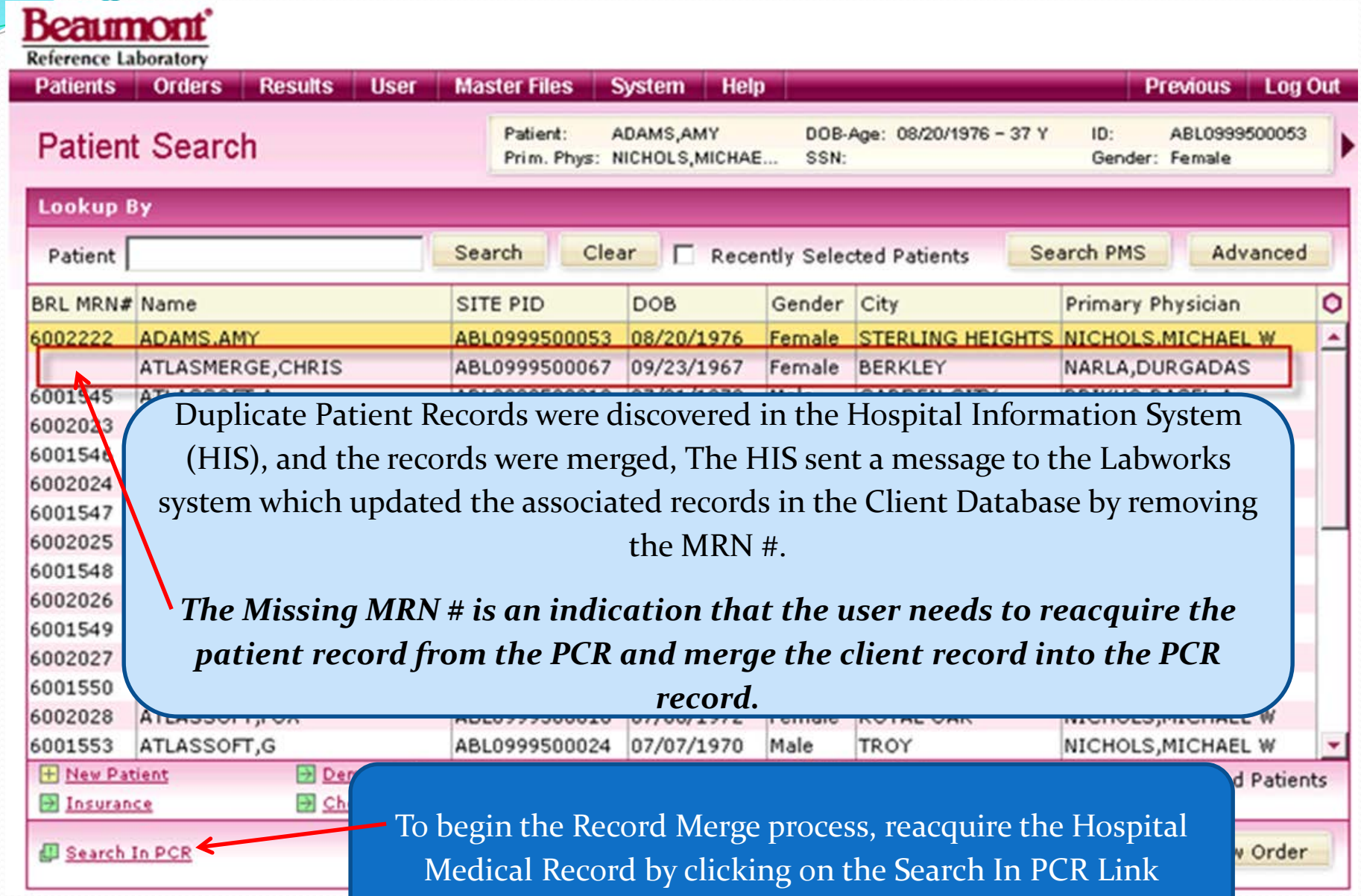
Merging Patient files – a tricky concept

How and When to perform a Patient Record Merge

- Often times the merge process is initiated within EPIC One Chart, The Beaumont Health Information System. When a merge occurs in the EPIC system, an electronic message is sent to the Labworks system that removes the MRN from the patient record in the Client's Labworks database for their office.
- The user should be verifying that an MRN is listed in the patient record for every order placed in the Labworks system. If the user encounters a patient file without an MRN, the user should re-acquire the patient record from the PCR and merge the PCR and client database patient records.

Merging Patient files – a tricky concept

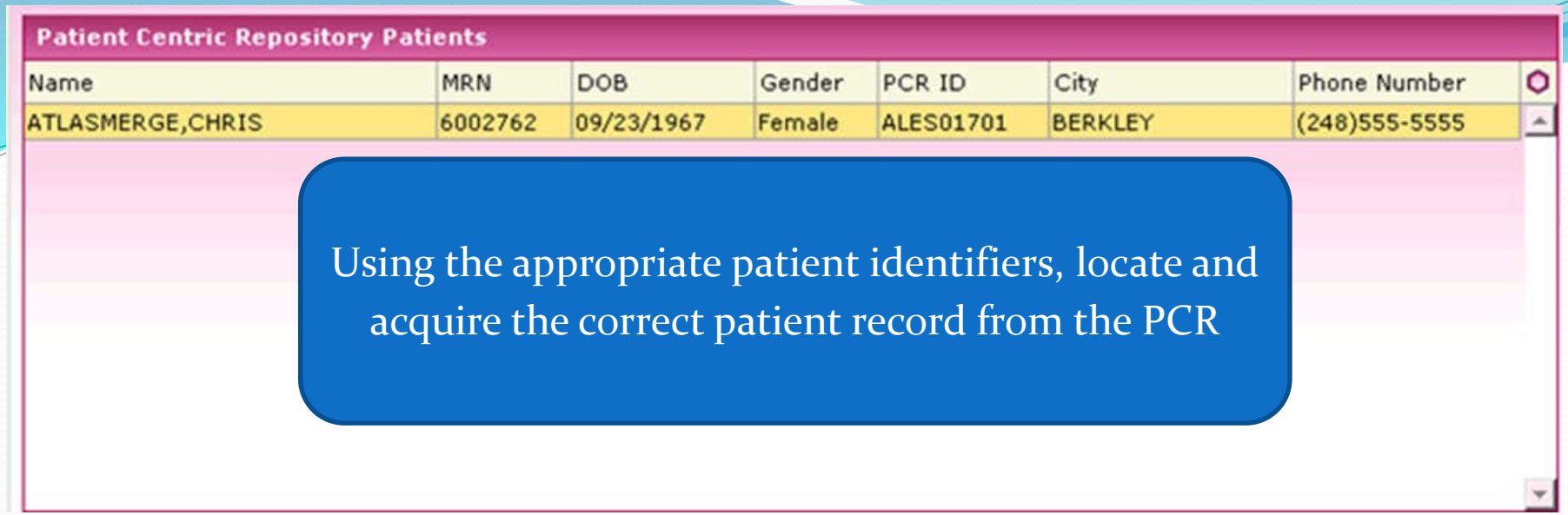




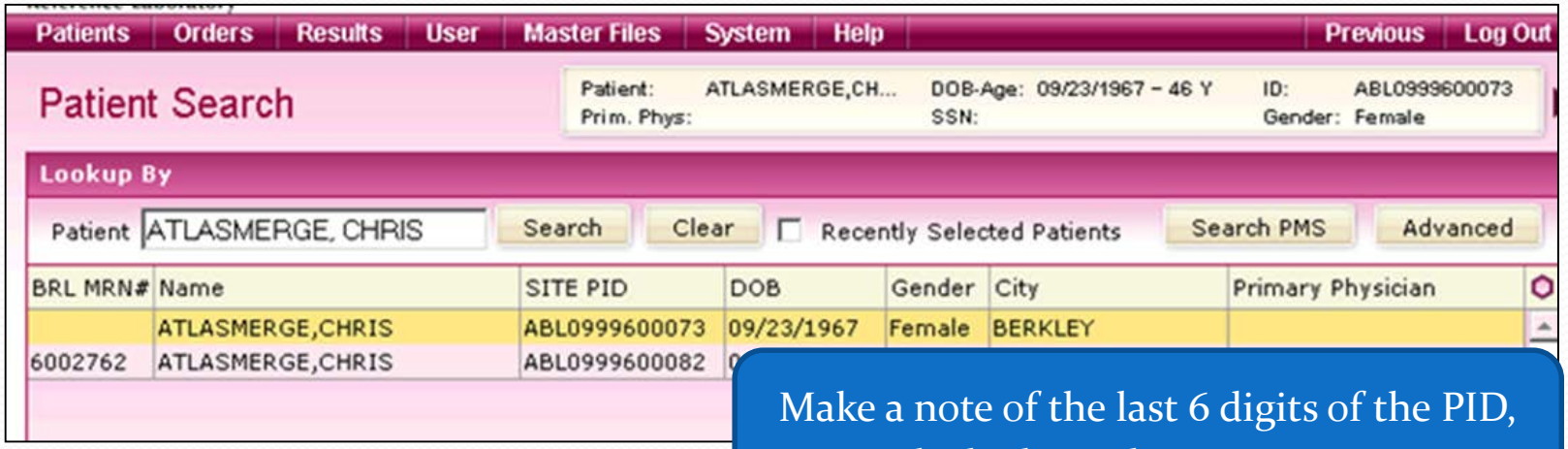
Duplicate Patient Records were discovered in the Hospital Information System (HIS), and the records were merged, The HIS sent a message to the Labworks system which updated the associated records in the Client Database by removing the MRN #.

The Missing MRN # is an indication that the user needs to reacquire the patient record from the PCR and merge the client record into the PCR record.

To begin the Record Merge process, reacquire the Hospital Medical Record by clicking on the Search In PCR Link

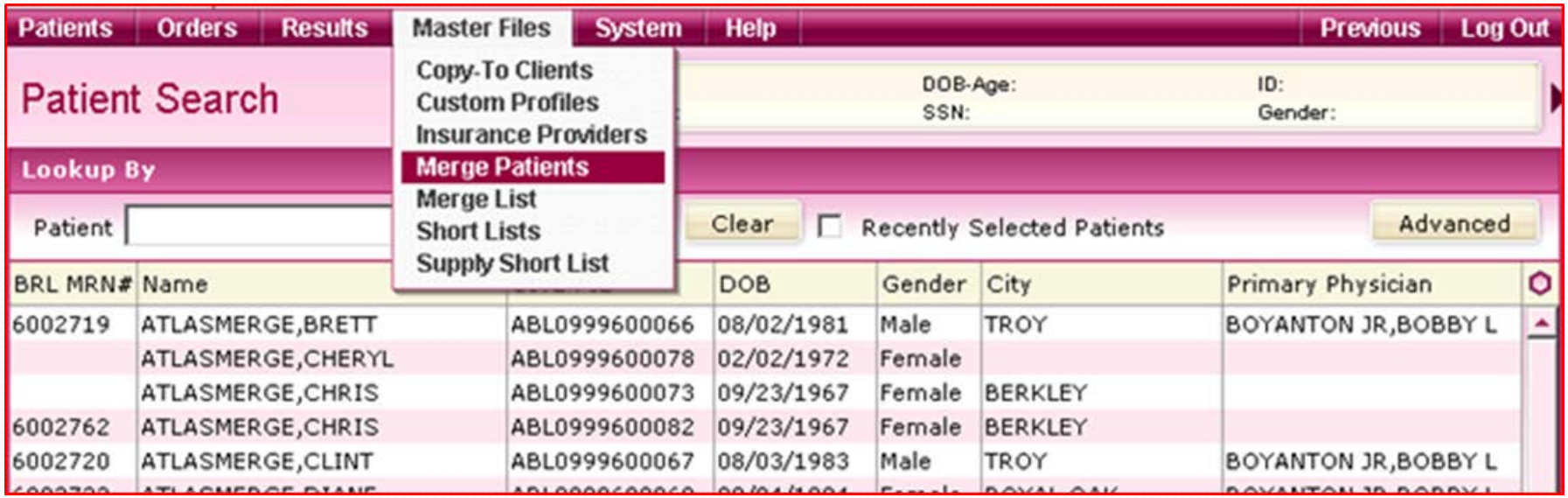


Once you have acquired the correct patient record from the PCR, you will have 2 patient records in your site database for the same patient, one with the MRN and one missing an MRN. You now need to merge the record that is missing the MRN ***into*** the record that has the correct MRN #.

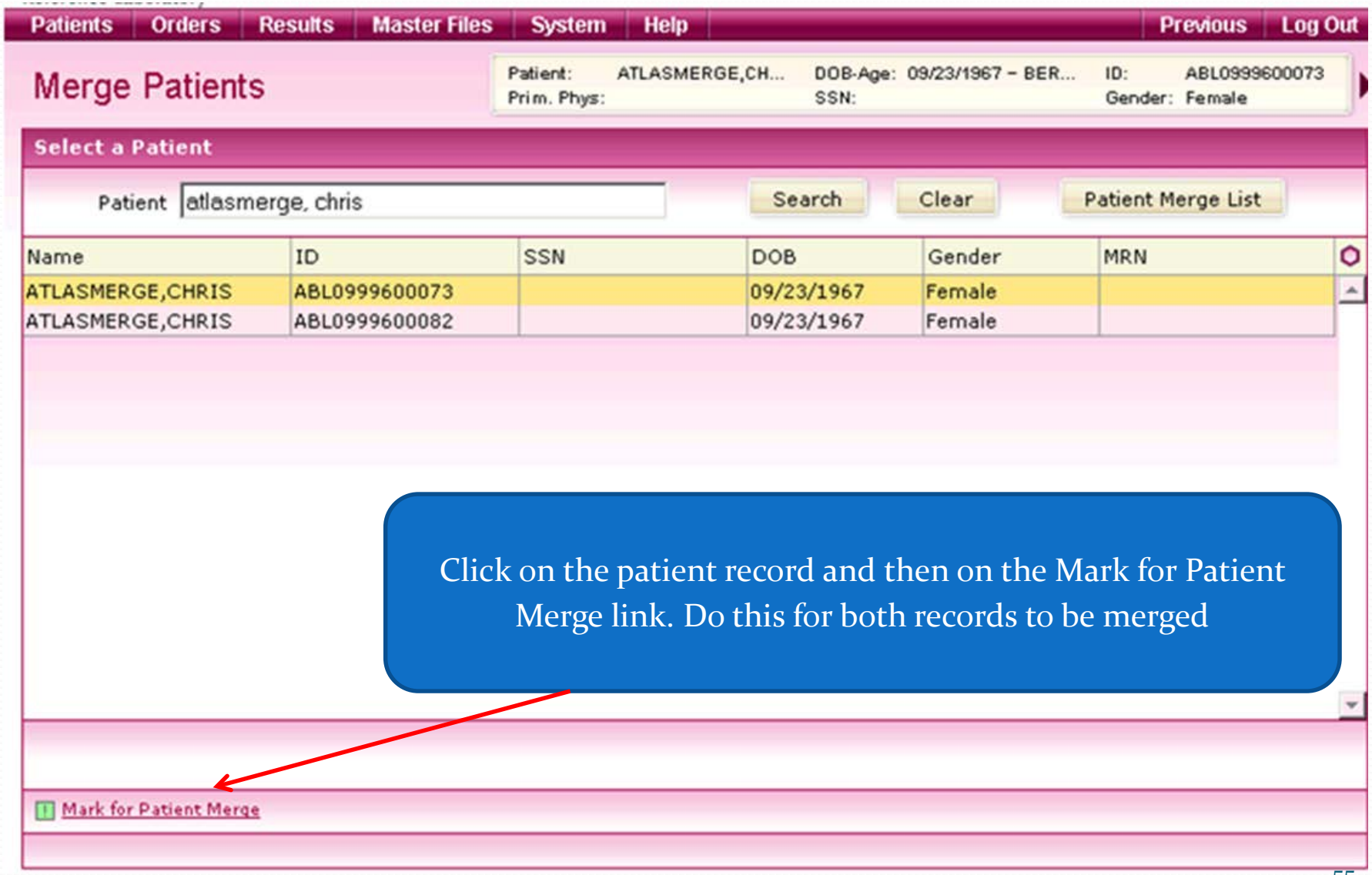


- The next step in the process is to enter the Merge Patients function.

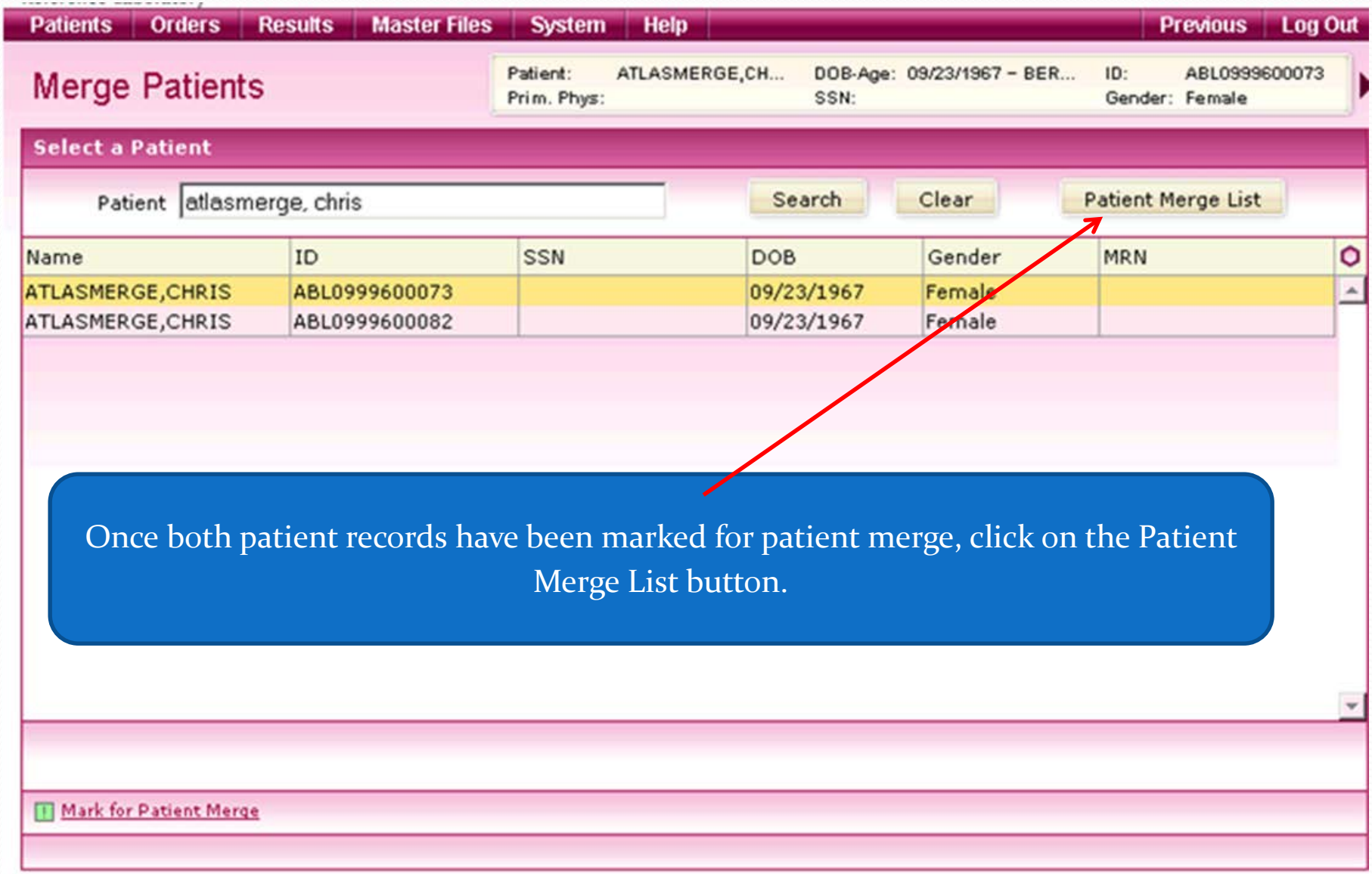
- Go to the Master Files dropdown menu and click on Merge Patients.

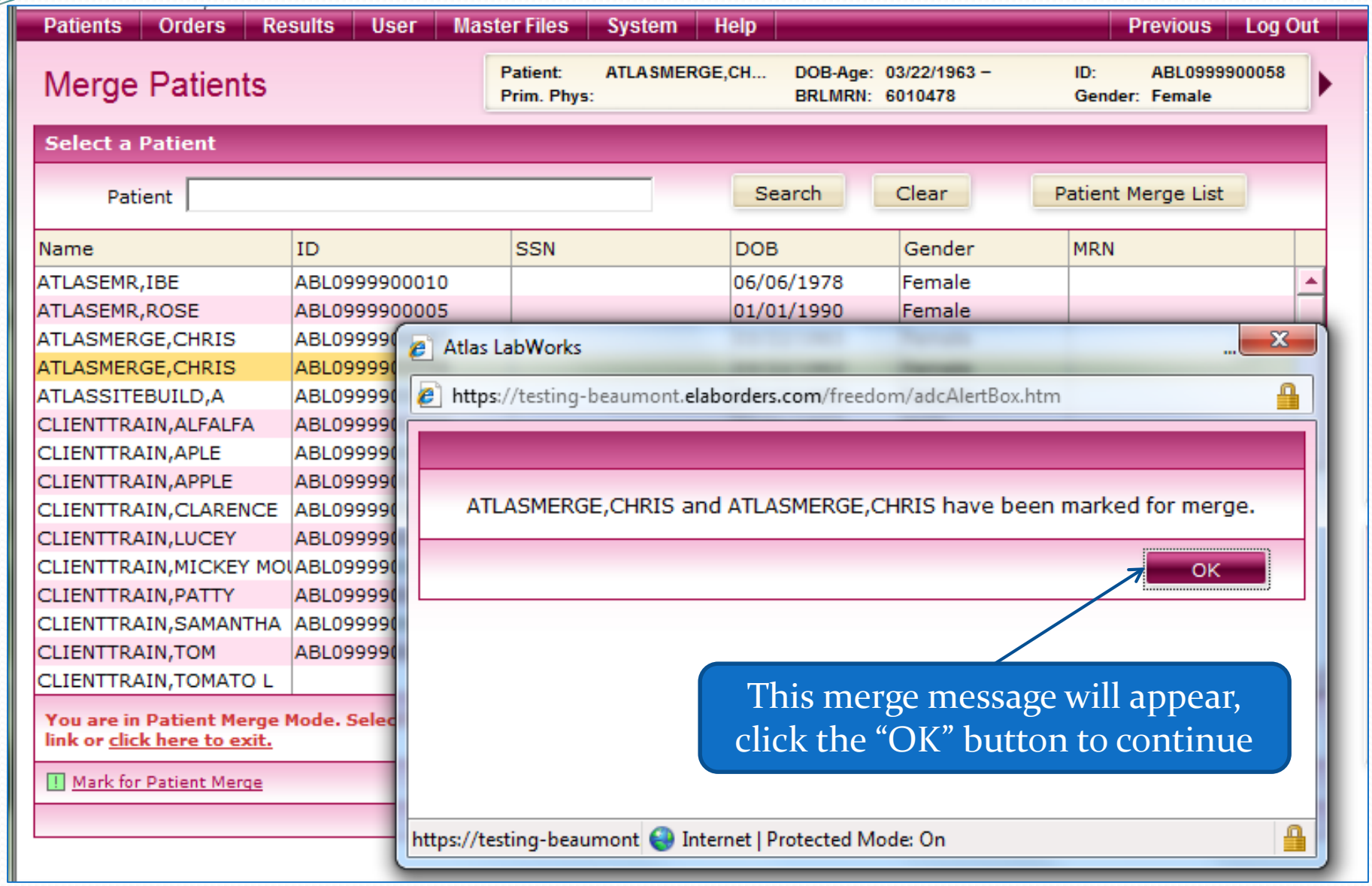


Search for your duplicate patients by last and first name. When you have located the patients to be merged, click on each one (one at a time) and click on the “Mark For Patient Merge” link.

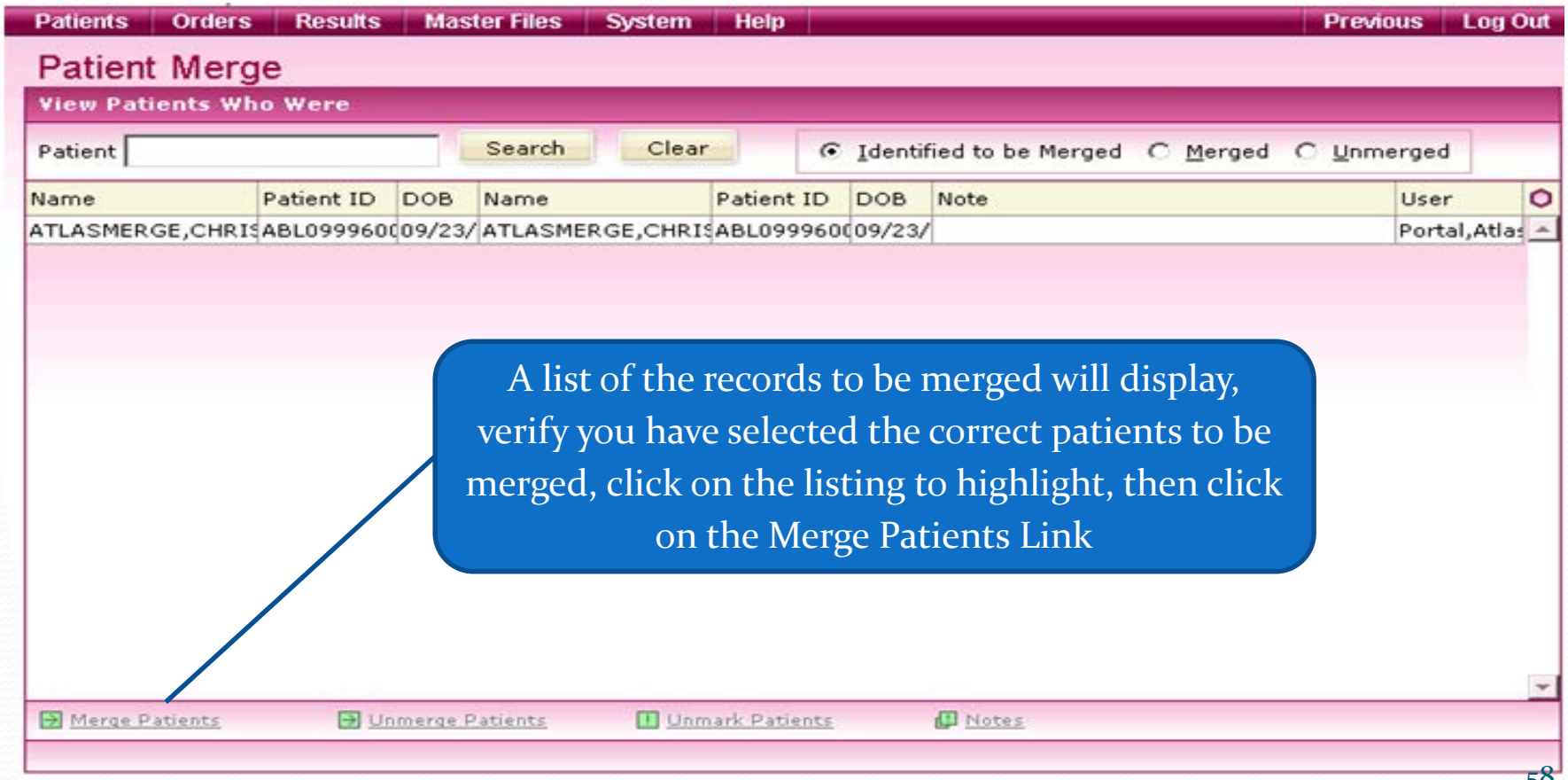


Once both patient records have been marked for merging, click on the patient merge list button.

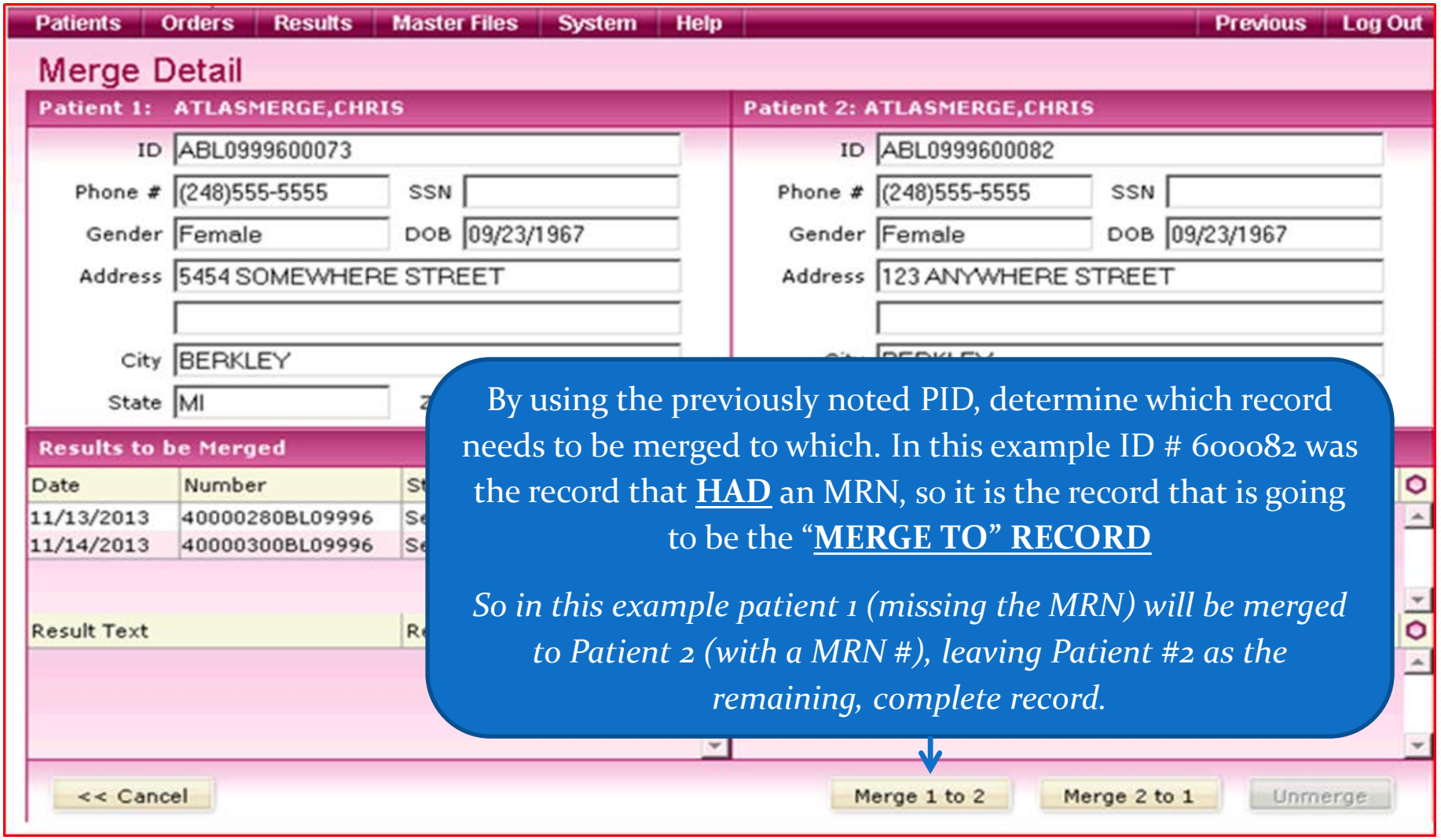



Patients
Orders
Results
User
Master Files
System
Help
Previous
Log Out
Merge Patients
Patient: ATLASMERGE,CH...
Prim. Phys:
DOB-Age: 03/22/1963 –
BRLMRN: 6010478
ID: ABL0999900058
Gender: Female
Select a Patient
Patient
Search
Clear
Patient Merge List
Name
ID
SSN
DOB
Gender
MRN
ATLASEMR,IBE
ABL0999900010
06/06/1978
Female
ATLASEMR,ROSE
ABL0999900005
01/01/1990
Female
ATLASMERGE,CHRIS
ATLASSITEBUILD,A
CLIENTTRAIN,ALFALFA
CLIENTTRAIN,APLE
CLIENTTRAIN,APPLE
CLIENTTRAIN,CLARENCE
CLIENTTRAIN,LUCEY
CLIENTTRAIN,MICKEY MOU
CLIENTTRAIN,PATTY
CLIENTTRAIN,SAMANTHA
CLIENTTRAIN,TOM
CLIENTTRAIN,TOMATO L
You are in Patient Merge Mode. Selec
link or click here to exit.
Mark for Patient Merge
Atlas LabWorks
https://testing-beaumont.elaborders.com/freedom/adcAlertBox.htm
ATLASMERGE,CHRIS and ATLASMERGE,CHRIS have been marked for merge.
OK
This merge message will appear, click the “OK” button to continue
https://testing-beaumont
Internet | Protected Mode: On

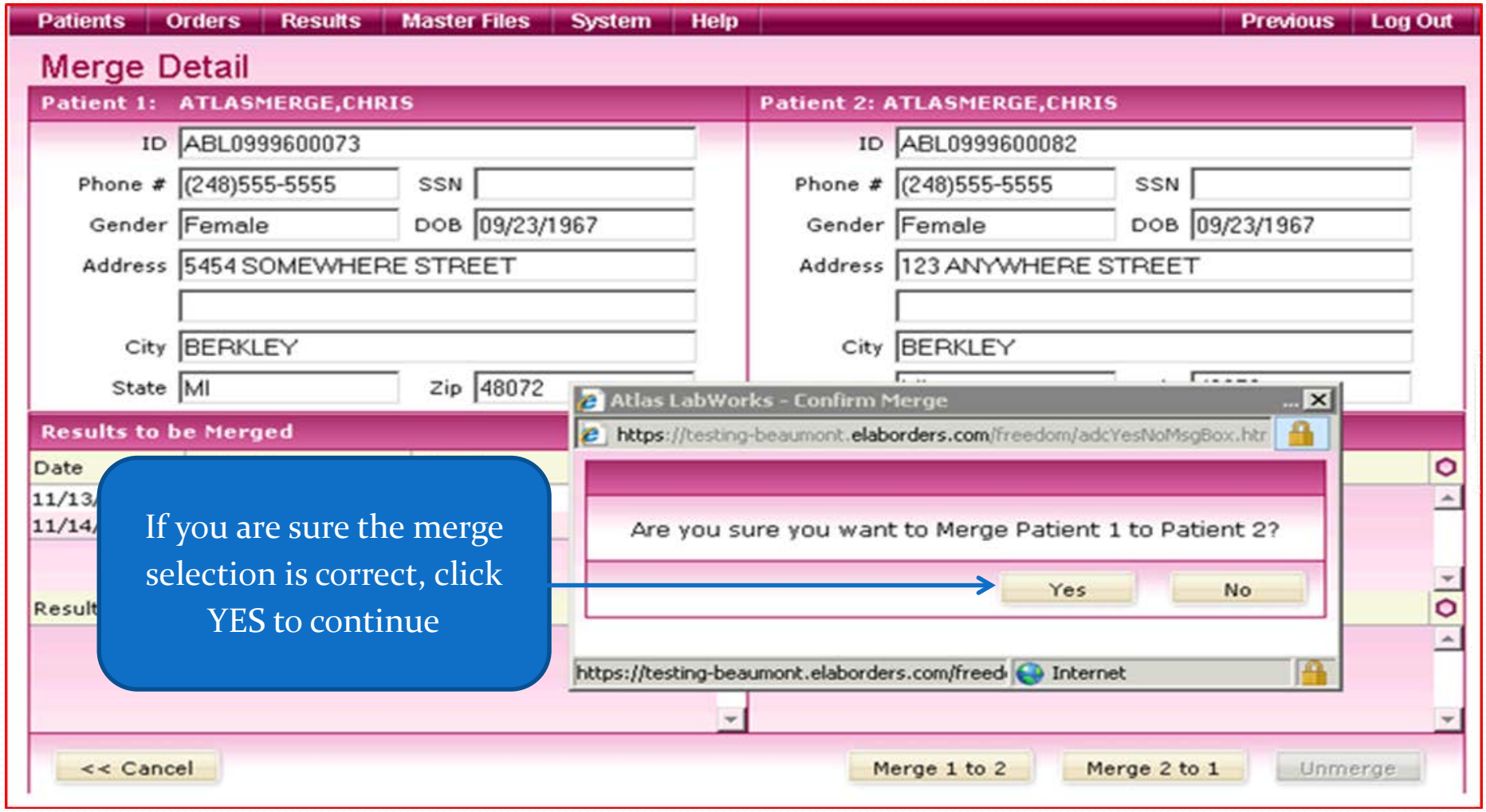
- The Patient Merge List will display.
- Verify you have selected the correct patients.
- Click on the listed patients to highlight the line.
- Click on the Merge Patients link.



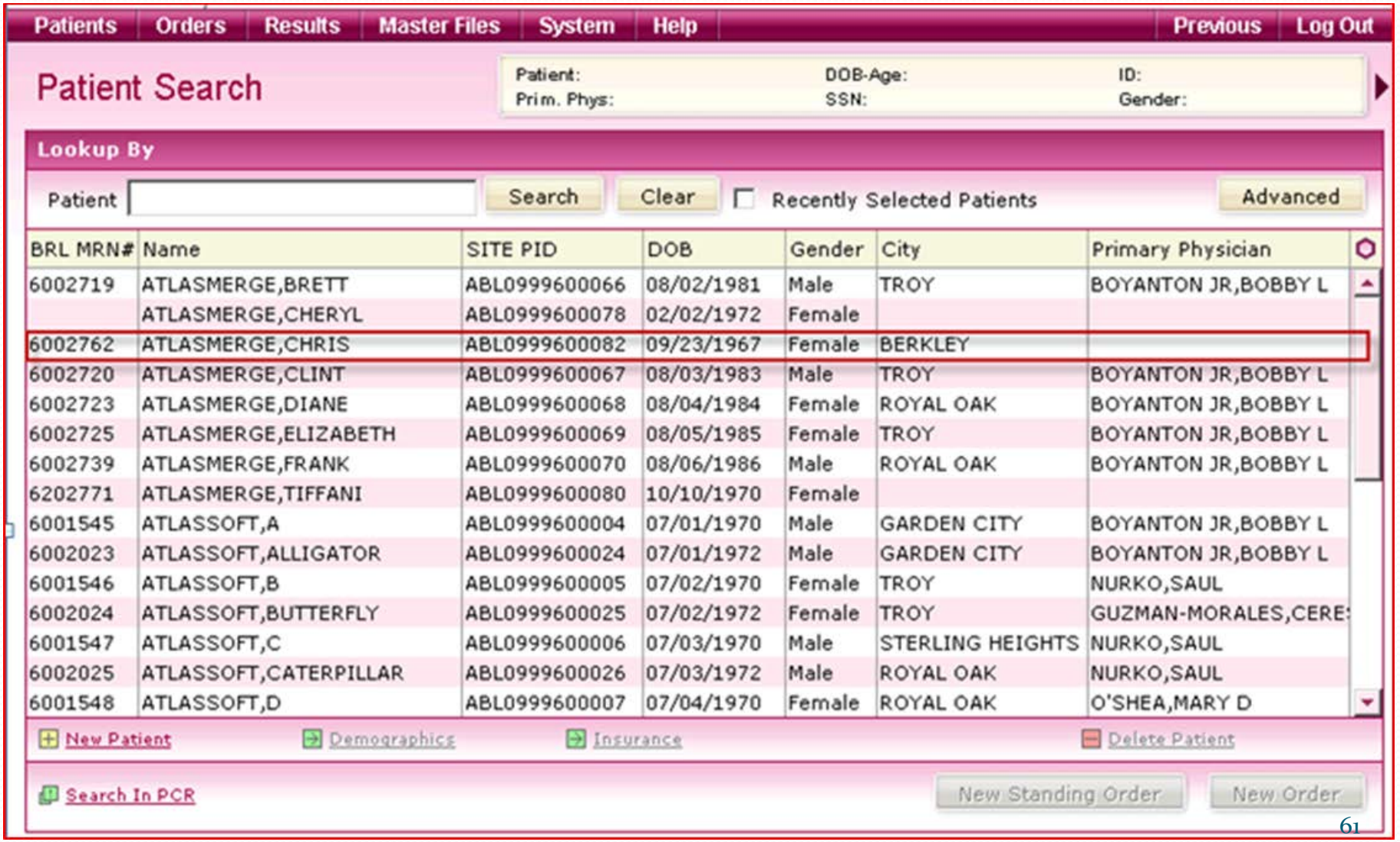
The Merge Detail screen will display. By using the PID # you previously made note of, determine which record needs to be merged into which, and click the corresponding button, Merge 1 to 2; or, Merge 2 to 1. The patient missing the MRN # is always ***MERGED TO*** the patient with the MRN #.



Once the appropriate “merge to” button has been clicked, a pop-up will display asking if you are sure you want to merge the records. Click the Yes button to continue.



The records will be merged, leaving one completely detailed record in the Patient Database. You have successfully merged the 2 patient records!



Final Points to Ponder

- Always make sure your patient identifiers match
  - Last Name
  - First Name
  - DOB
  - Gender*
  - Phone Number*
- Make sure your patient has the BRL MRN#
- Look up tests in LTD if you need more information
- Call Client Services if you need assistance! 1-800-551-0488

The End!