

### Logging into PedCath for the first time

If you are logging in to **PedCath** for the first time, the default password is *Taussig*. Once you have used this password to login, you must change it immediately, and will be prompted to do so.

If you are using a demo version of **PedCath**, there is no login screen

### Exploring the BROWSE screen

The screenshot displays the PedCath software interface. At the top, there is a menu bar (File, Edit, View, Tools, Help) and a toolbar with various icons. Below this, there are three main data tables:

Name	MRN	Cath Date	Cath No.	Staff Name	Role
Deere, John	1234567	09/24/1995	783	Matherne MD, Paul	Attending
Doe, John	123456789012			Heller MD, Felice	Fellow
Oxygen, Lotsa	123				
Plastie, Angela	BB518				
Rogers, Buck	1285656				

Below the tables are buttons for "Find", "Add Patient", "Edit Patient", "Add Cath", "Edit Cath", and "Personnel Record".

The bottom section of the screen is divided into three panels:

- Diagrams:** Shows a detailed anatomical diagram of a heart with catheters inserted. The diagram is labeled "Diagram 1 of 1" and "post-valvuloplasty". It includes various numerical values and percentages representing hemodynamic data.
- Calculations:** Displays a list of calculations for "Set 1 of 2: Pre-valvuloplasty". A red warning message states "Some Calculation Values Overridden". The calculations are:
  - Qp = 2.85 L/min (5.82 L/min/m<sup>2</sup>)
  - Qs = 2.48 L/min (5.06 L/min/m<sup>2</sup>)
  - Rp = 2.28 units (1.12 units x m<sup>2</sup>)
  - Rs = 27.81 units (13.63 units x m<sup>2</sup>)
  - Qp/Qs = 1.15 : 1
  - Rp/Rs = 0.08
- Diagnoses / Procedures:** Lists "85. Pulmonary Valve Stenosis" and "537. Balloon Pulmonary Valvuloplasty".
- Adverse Events:** An empty text box for recording adverse events.
- Diagnosis / Procedure Comments:** Contains the text: "Bicuspid pulmonary valve. Moderate pulmonary insufficiency. Hyperdynamic outflow tract. No residual outflow tract gradient."

The BROWSE screen gives you a visual snapshot of every patient and every cath. Take a moment to browse through the sample patients. Clicking on a patient will update the bottom portion of the screen. Notice how **PedCath** displays patients with multiple caths (Buck Rogers) and multiple sets of hemodynamic data (Lotsa Oxygen and John Deere).

## Adding a New Patient to PedCath

Click on the **Add Patient** button



or click on the **New Patient** icon.



Fill in patient information as shown in the box.

**New Patient Record**

First Name:

Last Name:

MRN:

Date of Birth:

Gender:

## Adding a Cath Report

With the patient you just entered highlighted, click the **Add Cath** button,



or click the **New Cath Report** icon.



This will open the **Edit Cath Screen**:

**Edit Cath Report**

File Edit View Tools Report Components

Patient Information: First Name: John, Last Name: Doe, Medical Record Number: 123456789012, Date of Birth: 09/19/1995, Gender: Male

Report Components:

Case Information: Cath Date: 09/26/1998, Cath Number: 95c-bb11, Vein: right femoral, Artery: right femoral, Weight (kg): 9.5, Height (cm): 85.0, Fluoroscopy Time (min): 16.00, Contrast Total (cc): 12.00

Personnel:

Name	Role
Hammill MD, William	Attending
Sara E. Regan, MD	Fellow
Dr. Kymberly Shackelford	Referring
W. Fletcher Lane, MBBS	Surgeon

Hemodynamic Sets: Set 1 of 1: Example cath

Calculations:

BSA = 0.47 m<sup>2</sup>

Qp = 9.72 L/min (20.68 L/min/m<sup>2</sup>)

Qs = 2.59 L/min (5.51 L/min/m<sup>2</sup>)

Rp = 1.65 units (0.77 units x m<sup>2</sup>)

Rs = 21.22 units (9.97 units x m<sup>2</sup>)

Qp/Qs = 3.75 : 1

Rp/Rs = 0.08

View Calculations Calculation Override

Hemodynamics: Heart Rate (bpm) 121, Inspired O2 (%) 21, Thermo CO (L/min) 3.00, Hemoglobin (gm/dL) 8.8, O2 Consumption (VO2/m<sup>2</sup>) 198, Blood pH 7.37, pCO2 43.0, pO2 83.0, HCO3 25.0

Right:

O2%	Site	Sys/A	Dias/V	Mean
67	SVC			
81	RA			6
88	RV	50	7	
89	PA	37	13	25
	RPA			
	LPA	37	12	22

Wedge:

Right Mean:  Left Mean:

Left:

O2%	Site	Sys/A	Dias/V	Mean
97	LA			8
	LV	95	10	
97	aAO	95	39	57
97	dAO	97	40	61

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## Entering Case Information

Add information about this cath in the **Case Information** box.

Case Information	
Cath Date	06/18/2001
Cath Number	fr443
Vein	7 fr rt
Artery	6 fr rt
Weight (kg)	54.5
Height (cm)	158
Fluoroscopy Time (min)	13
Contrast Total (cc)	86

## Selecting and Removing Cath Personnel

Click on the **Add Personnel to Cath Report** icon,

You may select personnel by highlighting their names and clicking OK

To change someone's role, click on his or her role in the list for this cath, and use the drop down list to select a new role.

To remove personnel from a cath, click on the **Remove Personnel** icon.

Only administrators may add new personnel to the **PedCath** master list.

## Entering Hemodynamic Sets

Go to the **Hemodynamics Sets** section of the screen (left, middle) and enter a title, "post intervention" in the box next to the "Set 1 of 1" text. Each cath may have up to eight sets of hemodynamics.

Set 1 of 1:	post intervention	
		<input type="button" value="Add Set"/> <input type="button" value="Delete Set"/>

Now click on the Hemodynamics tab unless it is already open and add the cath information listed below.

Hemodynamics					User Fields		Measurements		
Heart Rate (bpm)	68		Hemoglobin (gm/dL)	10.9		pCO2	41.0		
Inspired O2 (%)	21		Oxygen Consumption	118		pO2	91.0		
Thermo CO (L/min)			Blood pH	7.42		HCO3	26.0		
Right					Wedge				
O2%	Site	Sys/A	Dias/V	Mean	Right Mean	6			
71	SVC				Left Mean	6			
	RA	16	12	11					
	RV								
71	PA			15					
	RPA								
	LPA								
Left									
O2%	Site	Sys/A	Dias/V	Mean					
96	LA								
	LV	110	8						
	aAO	108	62	83					
96	dAO	105	58	80					

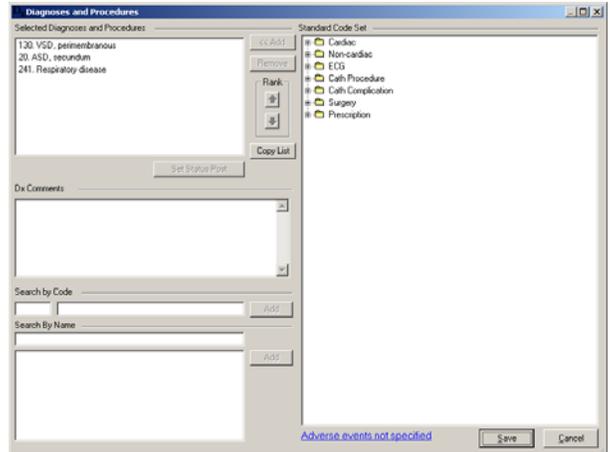
## Entering Diagnosis/ Procedures

Click on the **Diagnosis and Procedures** icon



If asked, choose Yes to save your changes.  
The **Diagnosis** screen will be displayed.

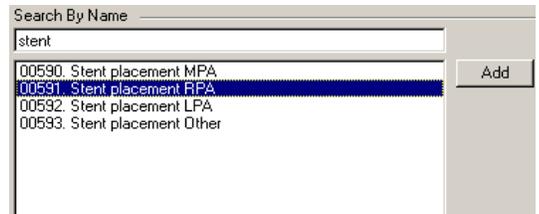
Note: This tutorial assumes you are using the diagnostic code set shipped with the **PedCath** demo CD. If your screen has a different list on the right, you are using one of the alternative codes sets available with **PedCath**. You will still have the tree list and search capabilities described below, but the code descriptions, code numbers and category organization will be different.



A tree list of all possible codes is available in the right-hand box. The upper-left box is for diagnoses and procedures associated with this cath. The two sections in the lower left contain search tools to help you find the correct codes. You may search by code number or by text fragment.

### Text Search

In this example, we will search by name first. Enter *stent*. You can see that two of the procedures you performed are listed. To place them on the selected procedures section either double click the selection or click the Add button on the right.



### Code Search

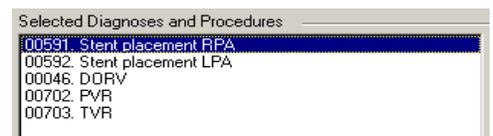
Now search by code. In the select code box, enter 00046. DORV should pop up next to it. Click the Add button to place it in the procedures box.



### Tree List Search

Finally, we can use the tree list to find our last two Dx. Codes. In the tree list, click on the + sign next to Surgery Procedure. Scroll down to PVR and TVR (codes 00702 and 00703). When a code has been highlighted, click on the <<Add button to add it to the list of Selected Diagnoses and Procedures.

Now highlight one of the 5 codes for this cath and use the **Rank** arrows to move it up and down in the list. **PedCath** allows you to set the relative importance of each diagnostic code.



Click the OK button to exit from this screen. Your selections are saved automatically.

## The Diagram Manager

Click on the **Diagram Manager** icon,  under the **Report Component Managers** section (upper right on the Edit Cath Report Screen).

Each cath may have up to three diagrams associated with it.

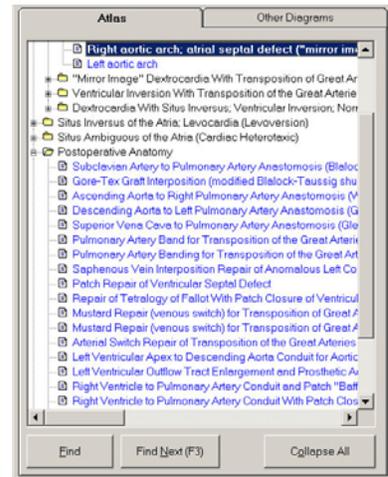
### Selecting a Heart Diagram

Click on the **Add Diagram** icon,  to view a selection of different heart diagrams.

For this patient, click on the + sign next to *Postoperative Anatomy*

Then choose *Right Ventricle to Pulmonary Artery Conduit with Patch Closure of the Ventricular Septal Defect for Truncus Arteriosus and Right Aorta Arch*

To select this diagram for this cath, double click on the heart diagram title, which will be highlighted and underlined in blue. You can also click the Select Diagram button.



When you have selected your diagram, PedCath returns to the **Diagram Manager** screen.



To edit your new diagram, just click on the **Edit Diagram** icon.

## Editing a Heart Diagram

### Erasing

Choose the **Freehand Tool** icon.  Next click on a medium sized line.



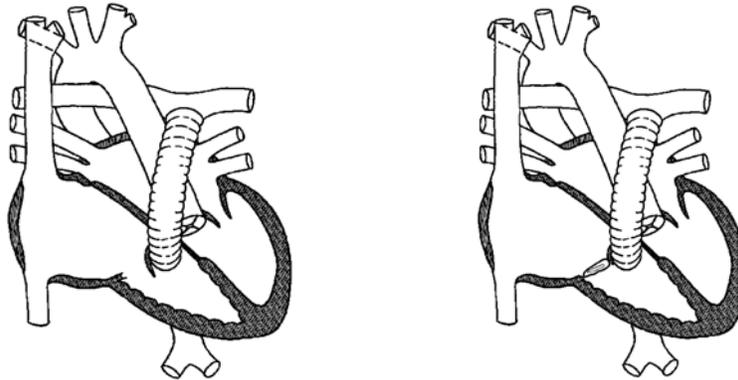
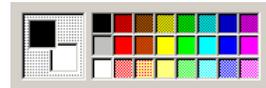
Now click on white to select it as a foreground color and right-click on white to also select it as a background color.



### Freehand Drawing

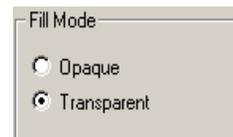
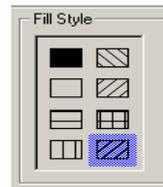
With the **Freehand Tool** set to white, erase part of the Tricuspid Valve by writing over it.

Change the foreground color to black and choose a smaller line width. Sketch a prosthetic tricuspid by drawing a loop where the original valve was.

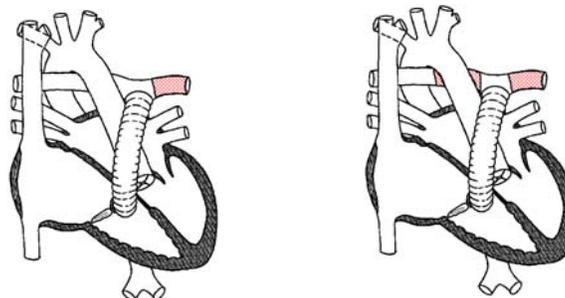


### The Blob Tool

Click on the **Blob Tool** icon.  Select a thin line, a diagonal crisscross **Fill Style**, a transparent **Fill Mode**, a black foreground, and a red background.



Use the **Blob Tool** to draw stents in the Pulmonary artery by tracing an outline of each stent along the walls of the artery.



### Undo and Erase

If you make any errors you can either use the **Undo** icon  to erase the last thing you drew, use the **Freehand Tool** set to white to erase, or use the **Selection Tool**  to click on the item to make a box appear around the item then press the Delete key.

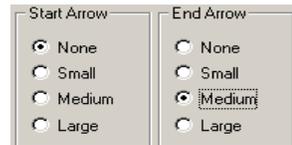
### Saving Diagram Templates

Because you made extensive changes to the diagram, click on the **Save Template** button to save it as a permanent template for the patient. This template will be available for any later cath for this patient.

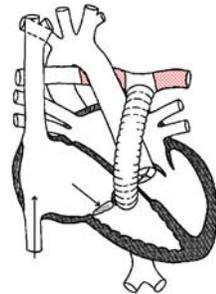


### Using Arrows

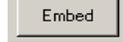
To show the path or direction of the catheter, click on the **Line Arrow Tool** . Select a line width, no **Start Arrow**, and a medium **End Arrow**.



Choose a black foreground and a white background. Now start the arrow at the beginning of the IVC and ending it in the RA. Draw another arrow beginning in the RA and ending in the RV.



### Embedding Hemodynamic Values into your Diagram



Click on the **Embed** button to insert all of the hemodynamic data into the diagram.

Your final diagram should look similar to this one. Close the Edit Diagram box, saving the patient diagram for this cath (right).

