Customization Enables Mt. Diablo Medical Center's Cath Lab to Record Results Faster and More Accurately at the Point Of Care

Mt. Diablo Medical Center

Mt. Diablo Medical Center Highlights

Enhanced Workflow. Customizing the forms to collect and record data taken at the point of care speeds process, eliminates duplication of effort.

Higher Data Integrity. Customized forms also ensure that all the necessary data is collected and recorded properly.

Expanded Reporting. Apollo's powerful filtering and querying capabilities has supported the cath lab's efforts to generate reports-on-demand for physicians, administration, finance, and other departments throughout the hospital.

JCAHO Best Practice. After the implementation of Apollo, Cardiac Cath Lab Systems Analyst Jackie Mahon designs a comprehensive cath lab department report that receives a Best Practice from JCAHO.

Innovative customizations to Apollo has enabled Mt. Diablo Medical Center Cardiovascular Services to streamline workflow in the cath lab, promoting faster data collection and recording while eliminating duplicate efforts—all done at the point of care to ensure accurate data.

"My original goal was to provide a tool that staff members could follow to record a case regardless of prior training on the Q-Cath," explains Jackie Mahon, systems analyst for the cardiac cath lab.

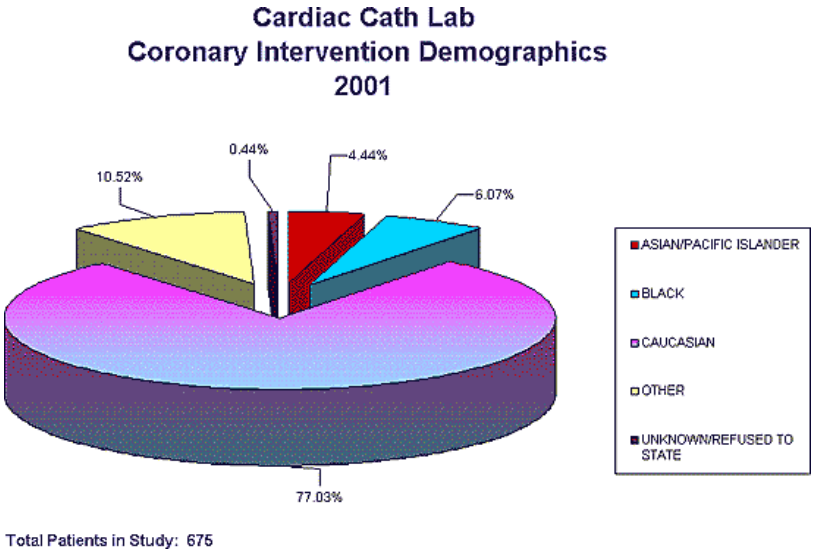
Mahon is responsible for maintaining the Apollo cardiovascular information system, Quinton Q-Cath interface, the ADT interface, and report writing. In addition, she assists in running the cath lab office, assisting physicians, staff, and patient families. She describes the working environment at Mt. Diablo as "always busy and one where you work with great people."

According to Mahon, "The process begins with the recorder (RN, x-ray tech or CVT) entering the patient information during a case into Q-Cath. I have written selection sets in Q-Cath that the recorder chooses from for approximately 60% of the cath log that imports into Apollo fields. This helps maintain the integrity of the data imported. The recorders can refer to a form I designed—Locator Guide & Required Entry. This provides quick location of alt keys for specific selection sets and required fields to be entered into the procedure log.

"The recorder simply follows the form and enters the information. The Locator Guide & Required Entry form helps ensure that the required data will be entered into Apollo. Any questions the recorder might have as he/she is entering data can

be immediately addressed by the physician at the point of care, helping to ensure data accuracy and eliminate additional and time consuming post-procedure activities."

Mt. Diablo Medical Center has provided cardiac services for over 25 years. In 1999, Mt. Diablo Medical Center's Heart Institute received national recognition when selected by HICA as one of the "Top 100 Cardiovascular Hospitals" in the United States. In addition, Mt. Diablo was one of only 34 hospitals nationwide to be named for both cardiovascular surgery and interventional cardiology.



Reports Completed in Minutes Versus Hours

Collecting, collating and reporting cath lab data was not always so streamlined Mahon recalls. "The previous cardiovascular database used by the cath lab was slow and cumbersome. We had to duplicate data into the system—adding to our workload and increasing the potential for errors. In addition, because the system could not run filters, we had to run multiple queries in order to collect the data needed for reporting. This is in marked contrast to Apollo, where we're able to combine multiple data types and queries, and then generate combination reports. Apollo is approximately 90% plus faster in generating reports in comparison to our previous system. The pop-up menus, the picklists, and the highly customizable features contribute to a streamlined process. Reports that once took hours to produce now take just minutes in Apollo."

JCAHO Best Practice

Mahon notes that after the implementation of Apollo, she designed a comprehensive cath lab department report that received a Best Practice from JCAHO.

"Because of Apollo's powerful data collection and reporting capabilities, we're more adept at accessing and analyzing the data the cath lab accumulates. The result has been an expansion in the number and types of reports we're producing for physicians, as well as for administration, finance, purchasing, pharmacy, clinicians, quality and risk management. With Apollo, we're able to provide staff across the hospital with the critical data they need to make informed decisions."

About LUMEDX: With over 500 heart center clients worldwide, LUMEDX is the market leader in fully integrated cardiovascular information systems and the No. 1 independent integrator of cardiology information solutions. LUMEDX offers the most proven, comprehensive package of clinical information tools, cardiovascular products, and services to help medical institutions enhance quality of patient care, reduce costs, streamline workflow, increase patient volume, and grow revenue.

Recorder Q-Cath Entry Check-off Sheet

Locator Guide

F2 = Admit /Discharge Comments
F2 + Alt 1 = PCI
F2 + Alt 2 = Case Comments
F2 + Alt 3 = Medications
F2 + Alt 4 = Conscious Sedation

F3 Apollo Fields
F3 + Alt 1 = PCI
F3 + Alt 2 = Diagnostic

Patient Sticker

IMPORTANT: Select from existing selection sets in Quinton unless otherwise indicated. DO NOT FREE FORM TYPE. If you want to add comments INSERT a line above or below existing text.

✓	REQUIRED ENTRY	LOCATOR	INSTRUCTION	RECORDER NOTES
	GENERAL			
	Patient ID – **H123456**	Patient Reg	**(H + no spaces)**	
	Diagnosis	Patient Reg	Select from list as many lines needed	
	Procedure(s)	Patient Reg	Select from list as many lines needed	
	Physician(s)	Patient Reg	Labeled Cath: for Cath & PTCA MD	
	Lab Personnel	Patient Reg	Labeled Circ, Mon, Tech, Scrub	
	Complications	Patient Reg	Select from list as many lines needed	
	Lab Room Number:	F2	Enter 1, 2, or 3	
	Patient Origin	F2	Select from list	
	Hospital: (If transfer)	F2	Select from list	
	Scheduling Status:	F2	Select from list	
	Procedure Sequence:	F2	Select from list	
	Consent Verified	F2	Select Line	
	H&P on Chart and Reviewed	F2	Select Line	
	Patient Into Procedure Room:	F2	**Enter Time 00:00 (use colon)**	
	MD Called:	F2	**Enter Time 00:00 (use colon)**	
	MD Arrived:	F2	**Enter Time 00:00 (use colon)**	
	Primary Reason for Delay	F2	If needed, select from list	
	Indications	F2	Select from list as many lines needed	
	Patient Ready:	F2 + Alt 2	**Enter Time 00:00 (use colon)**	
	Access Time:	F2 + Alt 2	**Enter Time 00:00 (use colon)**	
	LVEF%:	F2 + Alt 2	Enter EF – numbers, no % symbol	
	Left Ventriculogram:	F2 + Alt 2	Select from list	
	Ventricular Function:	F2 + Alt 2	Select from list	
	EF Method:	F2 + Alt 2	Select from list	
	Medications	F2 + Alt 3	Select from list: D=Dose,U=Unit	
	(Meds) For and Result	F2 + Alt 3	"For" and "Result" free form type	
	Inflations	F2 + Alt 1	Select as needed	
	SCA / LCA or SCA / RCA	F2 + Alt 1	Select as needed	
	Status of PCI:	F2 + Alt 1	Select from list	
	PCI Start :	F2 + Alt 1	**Enter Time 00:00 (use colon)**	
	PTCA of:	F2 + Alt 1	Free Form Type	
	Wire Cross Time:	F2 + Alt 1	**Enter Time 00:00 (use colon)**	
				8/6/01

	REQUIRED ENTRY	LOCATOR	INSTRUCTION	RECORDER NOTES
	After Case Stopped:			
	Contrast Amount Cath:	F2	Enter amount	
	Fluoro Time Cath:	F2	Enter total minutes	
	Contrast Amount PCI:	F2	Enter Amount	
	Fluoro Time PCI:	F2	Enter Total Time	
	Patient Discharge to:	F2	Select from list	
	Patient Destination:	F2	Select from list	
	Sheath Status:	F2	Select from list	
	IABP Inserted:	F2 + Alt 1	Select from list	
	Closure Device:	F2	Select from list	
	CATH			
	Cath Result	F3 + Alt 2	Select from list	
	Coronary Dominance	F3 + Alt 2	Select from list	
	Number Diseased Vessels	F3 + Alt 2	Enter number	
	Number Diseased Lesions	F3 + Alt 2	Enter number	
	Cath Stenosis	F3 + Alt 2	Select from list	
	Cath TIMI Flow	F3 + Alt 2	Select from list	
	CAD	F3 + Alt 2	Select line if yes	
	Quantitative Angiography	F3 + Alt 2	Select line if yes	
	Aortic Stenosis	F3 + Alt 2	Select from list	
	STOP HERE IF NO PTCA			
	OR GRAFT			
	GRAFT			
	Graft Name	F2 + Alt 2	Free Form Type	
	Type of Graft	F2 + Alt 2	Select from list	
	Graft Material	F2 + Alt 2	Select from list	
	Graft Origin	F2 + Alt 2	Select from list	
	Location of Lesion related to Graft	F2 + Alt 2	Select from list	
	Graft Description	F2 + Alt 2	Select from list	
	Enter Cath Stenosis if not done in	**Diagnostic -**	**Do not duplicate if already entered**	**F2 + Alt 1**
	PCI			
	PCI Result	F2 + Alt 1	Select from list	
	Number Vessels Attempted	F2 + Alt 1	Enter Total	
	Number Vessels Successful	F2 + Alt 1	Enter Total	
	Number Lesions Attempted	F2 + Alt 1	Enter Total	
	Number Lesions Successful	F2 + Alt 1	Enter Total	
	Number Major Arteries Attemped	F2 + Alt 1	Enter Total	
	EQUIPMENT			
	Stent Vendor, Size & Type	F2 + Alt 1	Select from list; ENTER Size & Type	
	Rotablator	F2 + Alt 1	Select if yes	
	Guide Catheters Total:	F2 + Alt 1	Enter Total	
	Guidewires Total:	F2 + Alt 1	Enter Total	
	Balloon Catheters Total:	F2 + Alt 1	Enter Total	
	Stents Total:	F2 + Alt 1	Enter Total	
	Atherectomy Cutters Total:	F2 + Alt 1	Enter Total	

INTERVENTION: COMPLETE "LESION" ENTRIES

LESIONS – APOLLO REQUIRED FIELDS

IMPORTANT: **Enter ALL information on 1 lesion at a time**. **DO NOT SKIP** from 1 lesion to another. If entry does not occur in "each lesion" order, it will cancel import capabilities into Apollo.

Enter Lesion information after "Case Stopped"

All fields in F3

REQUIRED ENTRY	Locator	Lesion #1 ⮟	Lesion #2 ⮟	Lesion #3 ⮟	Lesion #4 ⮟	Recorder Comments
PRE						
Segment	F3					
Vessel Type	F3					
Lesion in Graft	F3					
Location in Graft	F3					
Previously Dilated Lesion	F3					
Pre Stenosis	F3					
Method	F3					
Pre TIMI Flow	F3					
Pre Thrombus	F3					
Type ABC	F3					
Calcification	F3					
Sidebranch	F3					
Distal Disease	F3					
Contour	F3					
Lesion Length	F3					
Lesion Accessibility	F3					
POST						
Post Stenosis	F3					
Crossed with Guidewire	F3					
Post TIMI Flow	F3					
Post Thrombus	F3					
Lesion Result	F3					
Failure	F3					
Abrupt Closure	F3					
Abrupt Closure Reopened	F3					
Dissection	F3					
Vascular Perforation	F3					
Stent Total	F3					
Deployment	F3					
Deployment Assessed by:	F3					
Dislodged	F3					
Dislodged Location	F3					

Interventional Cardiology
ACC Database Report

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