

Medstreaming PVI Workflow

Ahmed Saad, Ph.D.,
VP of Engineering and R&D,
MedStreaming LLC

CONFIDENTIAL AND PROPRIETARY

THE CONTENTS OF THIS MATERIAL ARE CONFIDENTIAL AND PROPRIETARY TO MEDSTREAMING AND MAY NOT BE REPRODUCED, PUBLISHED, OR DISCLOSED TO OTHERS WITHOUT THE EXPRESS AUTHORIZATION OF MEDSTREAMING.

Medstreaming Marketing



Agenda

- Introduction
- Integrate RAPID core data elements into workflow
- GUDID database integration
- Other workflow benefits



Medstreaming / M2S – who we are.

- Founded in 2006
- Corporate headquarters - Redmond, WA / West Lebanon, NH
- 218 employees (70% engineers)
- 743 clients / over 1750 sites
- 85% of clients use CVIS products
- National leader and pioneer of cardiovascular workflow & innovation
- Name brand vascular luminary users include
 - Sentara Health
 - Promedica
 - Johns Hopkins
 - Mayo Clinic
 - Southcoast

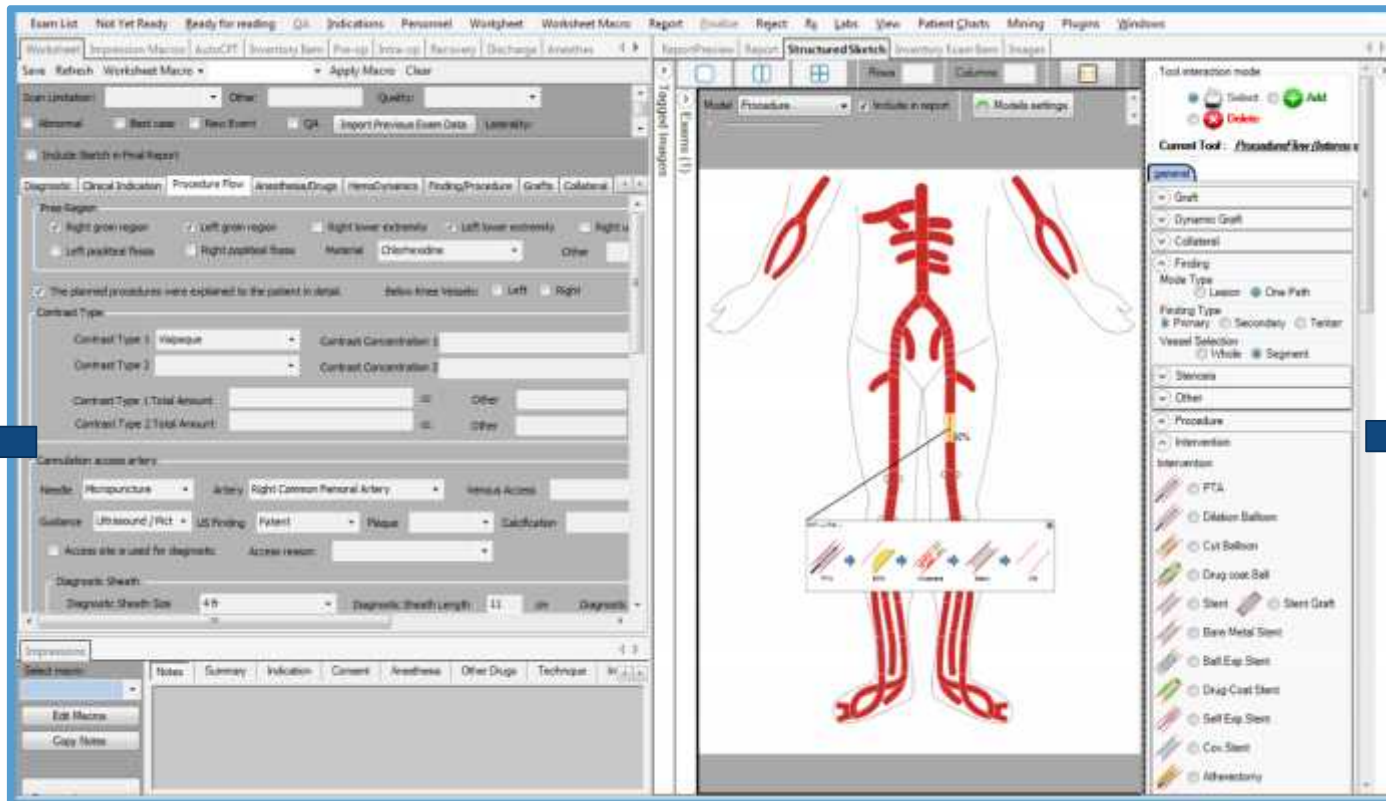


MedStreaming PVI workflow

Multimedia Structured Report



A thumbnail image of a multimedia structured report. It features a text-based report on the left and several anatomical diagrams on the right, including a full-body vascular map and a close-up of a catheter or sheath.



The screenshot displays the MedStreaming PVI workflow software interface. The main window is titled "Structured Sketch" and shows a central anatomical diagram of a human torso and legs with red vessels. The interface includes a top menu bar with options like "Team List", "Not Yet Ready", "Ready for reading", "QA", "Indications", "Personnel", "Worksheet", "Worksheet Macro", "Report", "Quality", "Reject", "Rg", "Labs", "View", "Patient Charts", "Mining", "Plugins", and "Windows". Below the menu bar, there are various toolbars and panels. On the left, there are sections for "Diagnosis", "Clinical Indication", "Procedure Flow", "Assessment/Drugs", "Hemodynamics", "Findings/Procedure", "Grafts", and "Collateral". The central area contains a "Model" section with "Procedure" and "Include in report" options. On the right, there is a "Tool interaction mode" panel with "Select", "Add", and "Delete" buttons, and a "Current Tool" dropdown menu. Below this, there are several lists of tools and interventions, including "Graft", "Dynamic Graft", "Collateral", "Feeding", "Mode Type", "Feeding Type", "Vessel Selection", "Stentless", "Other", "Procedure", "Intervention", and "Intervention".

Registry

AutoCPT

Case costing



Agenda

- Introduction
- **Integrate RAPID core data elements into workflow**
- GUDID database integration
- Other workflow benefits

Traditional form based data entry

Lesion

	Single Lesion (SEG 1)	Single Lesion (SEG 2)	Single Lesion (SEG 3)	Single Lesion (SEG 4)	Single Lesion (SEG 5)
Vessel segment L	left middle superficial fr				
Graft					
Graft segment					
Collateral Segment L					
Maximum % stenosis	90%				
Overall lesion length (mm)					

TASC grade: A B C D Protected against atery

well visualized not well visualized

not injected selectively injected non selectively injected

Previously treated lesion: In stent restenosis: yes no Stent type: In stent thrombosis: yes no Fractured stent

Main artery size: small medium large has endoluminal wall irregularities Main diameter: mm

Dissection: mild moderate severe Involving the diameter mm length cm

Aneurysm: yes no diameter mm length cm

Length: focal tubular diffuse Diffusely diseased

Plaque: mild moderate severe Ulcerated

Calcification: None focal mild moderate severe

Course: normal tortuous Eccentricity: concentric eccentric

Contour: smooth irregular Thrombus: absent present

No reflow Spasm endo leak

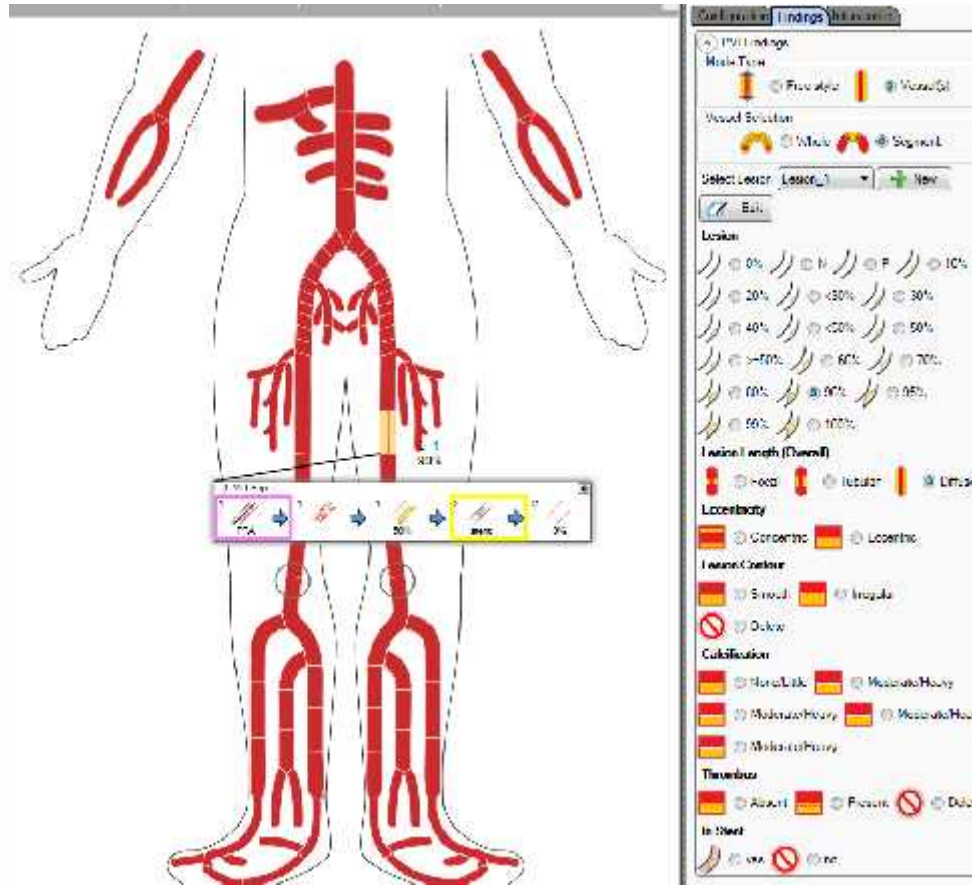
Intimal hyperplasia Fibromuscular dysplasia leak

Persistent flow Reconstituted flow AV malformation

Perforation Rupture FMO

Distal Embolus

Graphics Fusion Layer©



Team-based documentation

Integration with structured procedure log and nursing notes

Icon	Description	Starttime	Endtime	Notes	Created by	View	Remove
	Peripheral Interventions	8/12/2016	5:05:50 AM	Peripheral Interventions	nsband		
	Peripheral Interventions	8/12/2016	5:04:55 AM	Peripheral Interventions	nsband		
	Peripheral Arteriography	8/12/2016	5:02:32 AM	Peripheral Arteriography	nsband		
	Arteries	8/12/2016	0:01:35 AM	The left common femoral artery was visualized using ultrasound. The vessel was found to patent.	nsband		
	Sheath Start	8/12/2016	5:01:40 AM	Sheath start	nsband		
	Sheath Stop	8/12/2016	5:01:40 AM	Sheath stop	nsband		
	Time Out	8/12/2016	5:01:31 AM	Timeout was observed. 8/12/2016 0:01:37 AM Name and DOB verified.	nsband		
	Patient Prepared	8/12/2016	0:01:21 AM	The right groin area and left groin area were prepared and draped in sterile fashion using chlorhexidine soap per the manufacturer's instructions.	nsband		
	Physician Arrived	8/12/2016	0:01:22 AM	Physician arrived.	nsband		
	Physician Notified	8/12/2016	5:01:21 AM	Physician notified.	nsband		
	Patient On Table	8/12/2016	5:01:09 AM	The patient was brought to the endovascular suite in a sitting, stable position and placed on the table in supine position.	nsband		
	Patient in Lab	8/12/2016	5:01:04 AM	Patient in Lab	nsband		
	Informed Consent	8/12/2016	0:00:05 AM	Informed consent was obtained from the patient after discussion of risks, benefits, rationale and alternative therapy. The planned procedures were	nsband		

More RAPID core data elements

Management | Doctor Center | My Workflow | Doctor Entry | Shared Profile

Radiology | Curative Care | Analyze | Bill

All Elements

App	Lab
<input type="checkbox"/> Acquired	<input type="checkbox"/> Acquired
<input type="checkbox"/> Mid process	<input type="checkbox"/> Non-healing application
<input type="checkbox"/> Unknown condition	<input type="checkbox"/> High dose + low-healing application
<input type="checkbox"/> Lower condition	<input type="checkbox"/> Acute fracture
<input type="checkbox"/> Additional pain	<input type="checkbox"/> Fracture extension

Rule	Lab
Treatment of injury with current prescription <input type="checkbox"/> Yes <input type="checkbox"/> No	Treatment of injury with current prescription <input type="checkbox"/> Yes <input type="checkbox"/> No
Acute injury <input type="checkbox"/> None	Acute injury <input type="checkbox"/> None
<input type="checkbox"/> Displaced fracture	<input type="checkbox"/> Displaced fracture
<input type="checkbox"/> Non-displaced fracture	<input type="checkbox"/> Non-displaced fracture
<input type="checkbox"/> Fracture (open)	<input type="checkbox"/> Fracture (open)
Displacement <input type="checkbox"/> Less than 1 cm	Displacement <input type="checkbox"/> Less than 1 cm
<input type="checkbox"/> Less than 1 cm	<input type="checkbox"/> Less than 1 cm
<input type="checkbox"/> Greater than 1 cm	<input type="checkbox"/> Greater than 1 cm
<input type="checkbox"/> Greater than 1 cm	<input type="checkbox"/> Greater than 1 cm
Displacement <input type="checkbox"/> Less than 1 cm	Displacement <input type="checkbox"/> Less than 1 cm
<input type="checkbox"/> Less than 1 cm	<input type="checkbox"/> Less than 1 cm
<input type="checkbox"/> Greater than 1 cm	<input type="checkbox"/> Greater than 1 cm
<input type="checkbox"/> Greater than 1 cm	<input type="checkbox"/> Greater than 1 cm

For RPTB: No request No request

For RPTB: No request No request

Radiology | Curative Care | Analyze | Bill

Doctor Center | My Workflow | Doctor Entry | Shared Profile

Radiology | Curative Care | Analyze | Bill

All Elements

App	Lab
<input type="checkbox"/> Acquired	<input type="checkbox"/> Acquired
<input type="checkbox"/> Mid process	<input type="checkbox"/> Non-healing application
<input type="checkbox"/> Unknown condition	<input type="checkbox"/> High dose + low-healing application
<input type="checkbox"/> Lower condition	<input type="checkbox"/> Acute fracture
<input type="checkbox"/> Additional pain	<input type="checkbox"/> Fracture extension

Rule	Lab
Treatment of injury with current prescription <input type="checkbox"/> Yes <input type="checkbox"/> No	Treatment of injury with current prescription <input type="checkbox"/> Yes <input type="checkbox"/> No
Acute injury <input type="checkbox"/> None	Acute injury <input type="checkbox"/> None
<input type="checkbox"/> Displaced fracture	<input type="checkbox"/> Displaced fracture
<input type="checkbox"/> Non-displaced fracture	<input type="checkbox"/> Non-displaced fracture
<input type="checkbox"/> Fracture (open)	<input type="checkbox"/> Fracture (open)
Displacement <input type="checkbox"/> Less than 1 cm	Displacement <input type="checkbox"/> Less than 1 cm
<input type="checkbox"/> Less than 1 cm	<input type="checkbox"/> Less than 1 cm
<input type="checkbox"/> Greater than 1 cm	<input type="checkbox"/> Greater than 1 cm
<input type="checkbox"/> Greater than 1 cm	<input type="checkbox"/> Greater than 1 cm
Displacement <input type="checkbox"/> Less than 1 cm	Displacement <input type="checkbox"/> Less than 1 cm
<input type="checkbox"/> Less than 1 cm	<input type="checkbox"/> Less than 1 cm
<input type="checkbox"/> Greater than 1 cm	<input type="checkbox"/> Greater than 1 cm
<input type="checkbox"/> Greater than 1 cm	<input type="checkbox"/> Greater than 1 cm

For RPTB: No request No request

For RPTB: No request No request



Agenda

- Introduction
- Integrate RAPID core data elements into workflow
- **GUDID database integration**
- Other workflow benefits

GUDID device integration



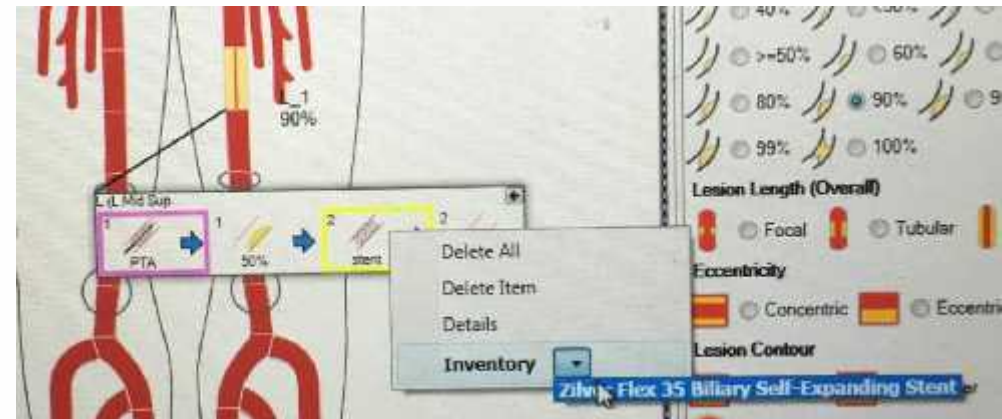
+



011082700250165917170500301105020385

GUDID device integration

The screenshot shows a software interface for adding a new medical device. On the left is a form with fields for 'Item Name', 'Manufacturer', 'Model/Model #', 'SKU', 'Lot #', 'Expiration Date', 'Quantity', 'Unit of Measure', 'GUDID', 'Supplier', 'Description', 'Part Number', 'Version/Model', 'Units Qty', 'Weight', 'Length', 'Width', 'Height', 'Units Qty', 'Volume Qty', and 'Lot/Pack Box'. Below the form are buttons for 'Cancel' and 'Add'. On the right is a table with columns: 'Item', 'Description', 'Category', 'GUDID', 'Supplier', 'Unit of Measure', and 'Status'. A table row is visible with 'Zinc Flex 35 Biliary Self-Expanding Stent' in the 'Item' column. Below the table is a detailed view of the selected item, showing fields for 'GUDID', 'Supplier', 'Description', 'Part Number', 'Version/Model', 'Units Qty', 'Weight', 'Length', 'Width', 'Height', 'Units Qty', 'Volume Qty', and 'Lot/Pack Box'.



GUDID device integration



GUDID device integration

Add/Edit
Description in label: 0.0% POOLED SCREENING CE

Description in report: 0.0% POOLED SCREENING CE

Category:

GMDN:

Supplier: ORTHO-CLINICAL DIAGNO

Estimate/UDI: 1675B7500754E

Precoder number (Version/Model): 6902314

worder Qty:

Description:

Unit:

Unit Price:

Market Cost:

Status:

Diameter:

Length:

Width:

Height:

Used Qty:

Maximum Qty:

Manufacturer:

Room:

Notes:

Export/Import

Export data shown on grid only

Description in label
Description in report
Estimate/UDI

Category
Supplier: COOK INCORPOR
worder number (Version/Model)

Status
Room
Unit

GMDN:

Description in label	Description in report	Category	GMDN	Supplier	Diameter
Compass BDS Bilary Stent	Compass BDS Bilary Stent		Polymeric bilary stent, non-bioabsorbable	COOK INCORP	
Compass BDS Bilary Stent	Compass BDS Bilary Stent		Polymeric bilary stent, non-bioabsorbable	COOK INCORP	
Compass BDS Bilary Stent	Compass BDS Bilary Stent		Polymeric bilary stent, non-bioabsorbable	COOK INCORP	
Cotton-Leung Self-Flex Bilary Stent	Cotton-Leung Self-Flex Bil...		Polymeric bilary stent, non-bioabsorbable	COOK INCORP	
Cotton-Leung Self-Flex Bilary Stent	Cotton-Leung Self-Flex Bil...		Polymeric bilary stent, non-bioabsorbable	COOK INCORP	
Cotton-Leung Self-Flex Bilary Stent	Cotton-Leung Self-Flex Bil...		Polymeric bilary stent, non-bioabsorbable	COOK INCORP	
Cotton-Leung Self-Flex Bilary Stent	Cotton-Leung Self-Flex Bil...		Polymeric bilary stent, non-bioabsorbable	COOK INCORP	
Cotton-Leung Self-Flex Bilary Stent	Cotton-Leung Self-Flex Bil...		Polymeric bilary stent, non-bioabsorbable	COOK INCORP	
Cotton-Leung Self-Flex Bilary Stent	Cotton-Leung Self-Flex Bil...		Polymeric bilary stent, non-bioabsorbable	COOK INCORP	
Cotton-Leung Self-Flex Bilary Stent	Cotton-Leung Self-Flex Bil...		Polymeric bilary stent, non-bioabsorbable	COOK INCORP	
Cotton-Leung Self-Flex Bilary Stent	Cotton-Leung Self-Flex Bil...		Polymeric bilary stent, non-bioabsorbable	COOK INCORP	
Cotton-Leung Self-Flex Bilary Stent	Cotton-Leung Self-Flex Bil...		Polymeric bilary stent, non-bioabsorbable	COOK INCORP	
Formula 418 Bilary Stent System	Formula 418 Bilary Stent ...		Bare-metal bilary stent	COOK INCORP	
Formula 418 Bilary Stent System	Formula 418 Bilary Stent ...		Bare-metal bilary stent	COOK INCORP	
Formula 418 Bilary Stent System	Formula 418 Bilary Stent ...		Bare-metal bilary stent	COOK INCORP	
Formula 418 Bilary Stent System	Formula 418 Bilary Stent ...		Bare-metal bilary stent	COOK INCORP	
Formula 418 Bilary Stent System	Formula 418 Bilary Stent ...		Bare-metal bilary stent	COOK INCORP	
Formula 418 Bilary Stent System	Formula 418 Bilary Stent ...		Bare-metal bilary stent	COOK INCORP	
Formula 418 Bilary Stent System	Formula 418 Bilary Stent ...		Bare-metal bilary stent	COOK INCORP	
Formula 418 Bilary Stent System	Formula 418 Bilary Stent ...		Bare-metal bilary stent	COOK INCORP	
Formula 418 Bilary Stent System	Formula 418 Bilary Stent ...		Bare-metal bilary stent	COOK INCORP	
Formula 418 Bilary Stent System	Formula 418 Bilary Stent ...		Bare-metal bilary stent	COOK INCORP	
Formula 418 Bilary Stent System	Formula 418 Bilary Stent ...		Bare-metal bilary stent	COOK INCORP	
Formula 418 Bilary Stent System	Formula 418 Bilary Stent ...		Bare-metal bilary stent	COOK INCORP	
Formula 418 Bilary Stent System	Formula 418 Bilary Stent ...		Bare-metal bilary stent	COOK INCORP	
Formula 418 Bilary Stent System	Formula 418 Bilary Stent ...		Bare-metal bilary stent	COOK INCORP	
Formula 418 Bilary Stent System	Formula 418 Bilary Stent ...		Bare-metal bilary stent	COOK INCORP	
Formula 418 Bilary Stent System	Formula 418 Bilary Stent ...		Bare-metal bilary stent	COOK INCORP	
Formula 418 Bilary Stent System	Formula 418 Bilary Stent ...		Bare-metal bilary stent	COOK INCORP	
Formula 418 Bilary Stent System	Formula 418 Bilary Stent ...		Bare-metal bilary stent	COOK INCORP	
Formula 418 Bilary Stent System	Formula 418 Bilary Stent ...		Bare-metal bilary stent	COOK INCORP	

of 3



Device IOT

How did the physicians use these devices ?

Angioplasty - single lesion - first lesion

Inflation device (inventory) Hand inflation Multiple inflation

Inflation pressure: atm Inflation start time: Inflation end time: Inflation time: sec

Inflation Pressure	Inflation Time	Time (Start)	Time (End)	Remove
				X

Max inflation pressure: atm for sec

Actions:

Rotational speed: rpm Burr size: mm Atherectomy length: mm Pass time: sec Activated speed low Activated speed med Activated speed high

Rotational speed	Burr size	Atherectomy Length	Pass time	Remove
				X



Max burr size: mm Number of passes: Jetstream total treatment time: Jetstream total activation time:





Agenda

- Introduction
- Integrate RAPID core data elements into workflow
- GUDID database integration
- **Other workflow benefits**

Automatic CPT code generation



 Show Final Codes Only

Add / Edit Code
 Code:
 Include in Final Codes?
 Modifier:
 Vessel:



	Up	Down	Code	Modifier 1	Modifier 2	Modifier 3	Modifier 4	Description
▶	↑	↓	Q3967					Contract Type
	↑	↓	J3010					Fentanyl
	↑	↓	J2250					Versad
	↑	↓	75625	XU				Angiography, abdominal, by serology, radiological supervision and interpretation
	↑	↓	75710	XU	LT			Angiography, extremity, unilateral, radiological supervision and interpretation
	↑	↓	70007	RT				Ultrasound guidance for vascular access requiring U/S evaluation of potential access sites, documentation of se
	↑	↓	37224	LT				PTA, Femoral Poplitea, Arteria



Thank You
ahmed@medstreaming.com

CONFIDENTIAL AND PROPRIETARY

THE CONTENTS OF THIS MATERIAL ARE CONFIDENTIAL AND PROPRIETARY TO MEDSTREAMING AND MAY NOT BE REPRODUCED, PUBLISHED, OR DISCLOSED TO OTHERS WITHOUT THE EXPRESS AUTHORIZATION OF MEDSTREAMING.



Additional materials: Pre and post images in the opnote

