

# IdaFlo *TR* - Continuous Real-Time Blood Flow Monitor

Moving from a blind to a controlled post PCI hemostasis in order to avoid Radial Artery Occlusion (RAO)

*A new wireless Flow Monitoring  
we call Radial Occlusion Artery Monitor (ROAM)*

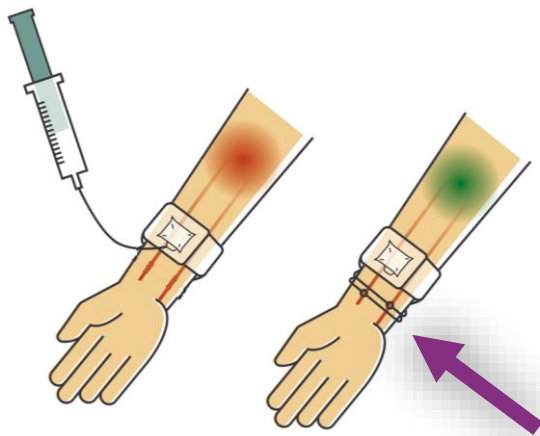
Speaker's name: Dr. Giovanni Amoroso

- I have the following potential conflicts of interest to declare:
- IdaHealth, Inc. (research grant and speaker's fee)

- Radial Occlusion (RAO) is the most common complication after Transradial (TRA) PCI with a reported occurrence rate as high as **33%**
- Current post PCI TRA compression is performed blindly: blood flow is **not monitored** routinely nor continuously, but only when a problem is suspected
- More than 50% of operators do not assess **radial artery patency** before discharge
- Once the radial artery is occluded, it cannot be used as a **future access site**
- Because the radial artery is also a **feasible conduit** for coronary surgery or dialysis, the importance of its patency extends beyond PCI

# Flow detection using the ROAM System

Pre, peri and post procedural  
real-time blood flow monitoring



Current (blind)  
practice

**ROAM**

Real-time wireless IdaFlo *TR* monitoring  
application

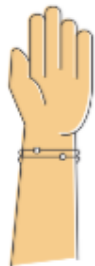


→ Venous  
system  
evolution

→ Actual arterial  
flow

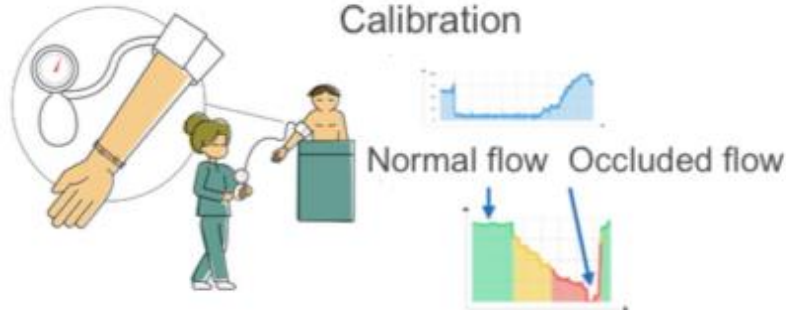
→ Arterial flow  
evolution

## Step 1



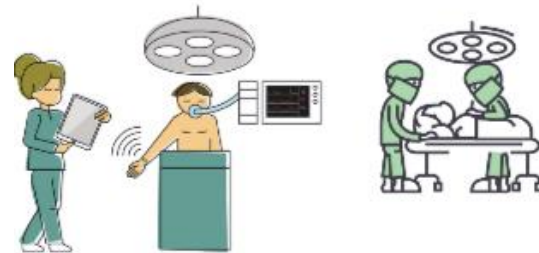
Monitor setup

## Step 2



## Step 3

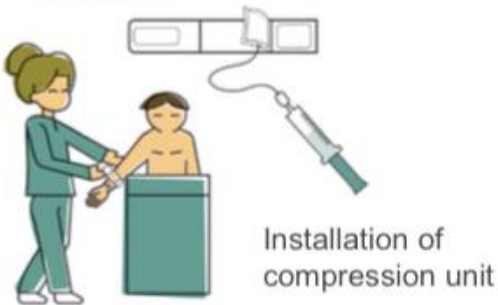
Continuous monitoring and data collection



## Continuous real-time flow monitoring throughout 1 - 6

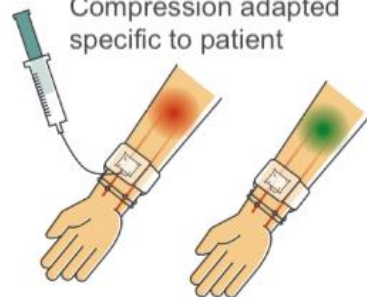
## Step 4

End of intervention



## Step 5

Compression adapted specific to patient

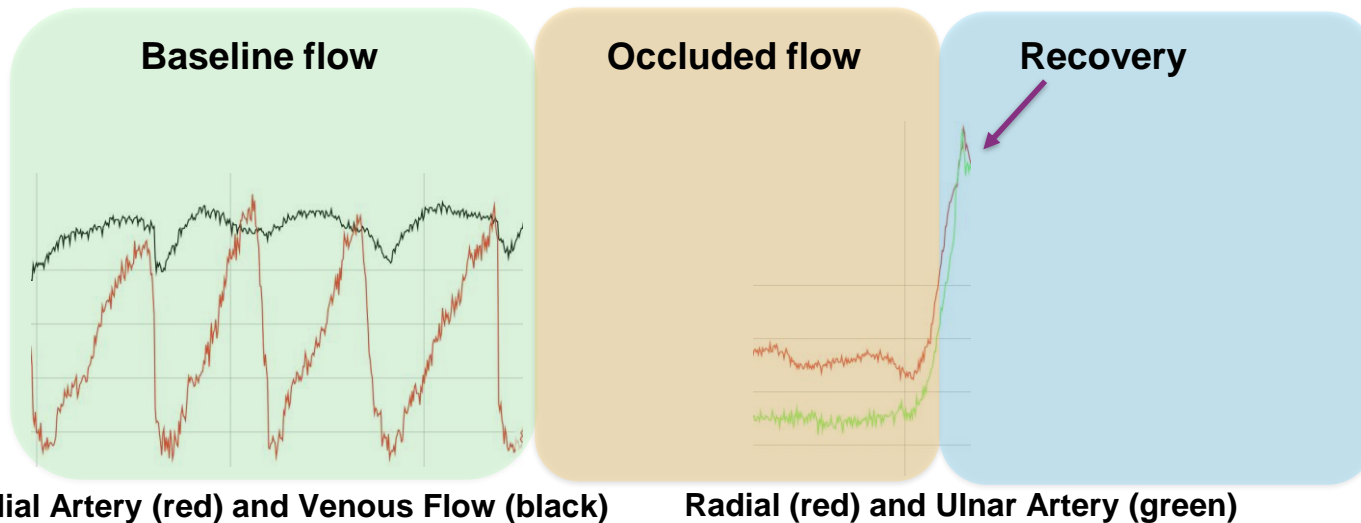


## Step 6

Patient monitored and released without occlusion

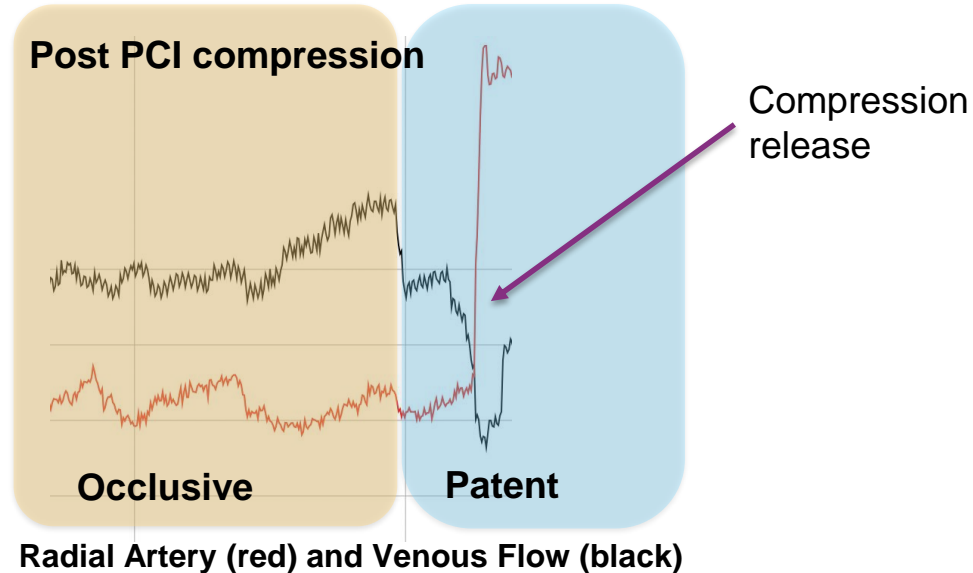


- Prior to taking patients to the catheterization laboratory, we tested
  1. Quality of baseline flow measurements
  2. Response (amplitude and time-delay) to occlusion and release (by blood pressure cuff)
- FIM data confirm that IdaFlo *TR* is able to detect radial artery flow changes **in real time**



*Raw monitored data: the final IdaFlo TR application will show a processed and augmented layout*

- FIM data also confirms that IdaFlo *TR* allows to achieve patent hemostasis



# Expected advantages using IdaFlo *TR*



## Physician

Establishes radial artery patency for each patient with an affordable technology

Unaware ➡ Targeted



## Nurse

Decreases workload as multiple patients can be effectively and simultaneously monitored

Overloaded ➡ Empowered



## Patient

Allows patient's involvement in the process and reassures about course of events

Stressed ➡ Happy

**IdaFlo *TR* adds eyes to a blind procedure**



- Design of IdaFlo *TR*
- Validation of the data recording
- Validation of results vs Echo Doppler
- Validation of IdaFlo *TR* mediated clinical outcomes/advantages
- Identify specific needs (pre, peri and post procedural)
- Create simple IFU for nurses and cardiologists

- IdaFlo *TR* works by non-invasive, accurate, and continuous real-time flow measurements of the radial artery
- IdaFlo *TR* provides remote wireless, artificial intelligence and telemedicine capabilities
- Preliminary results confirm proof of concept: larger studies are needed before clinical implementation
- IdaFlo *TR* will allow clinicians to anticipate and overcome radial occlusions
- IdaFlo *TR* has the potential to increase safety of TRA coronary procedures and to reduce workload