

An Introduction to iFR Scout™ Pullback Measurements

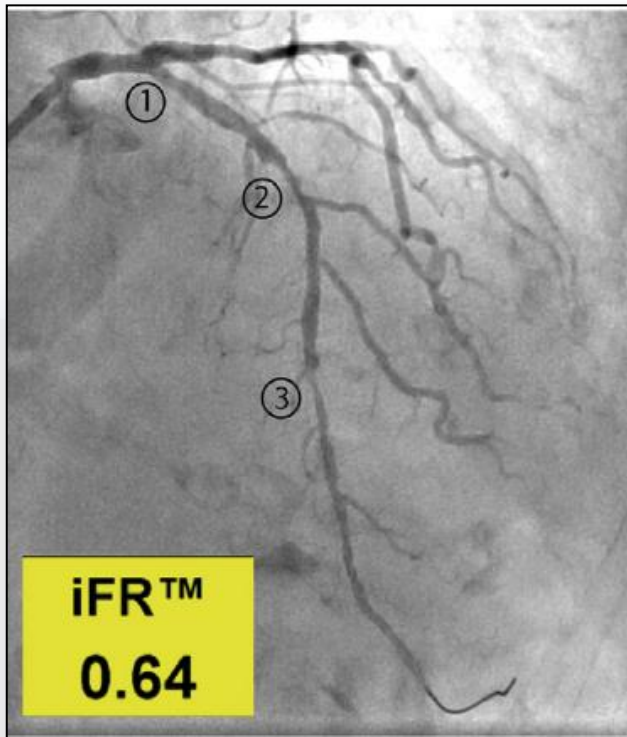
Moving from Justified PCI to Guided PCI

iFR[®]
instant wave-Free Ratio™

 **VOLCANO**
PRECISION GUIDED THERAPY

iFR[®] is a registered trademark of Volcano Corporation
iFR Scout™ is a trademark of Volcano Corporation

From Justification...

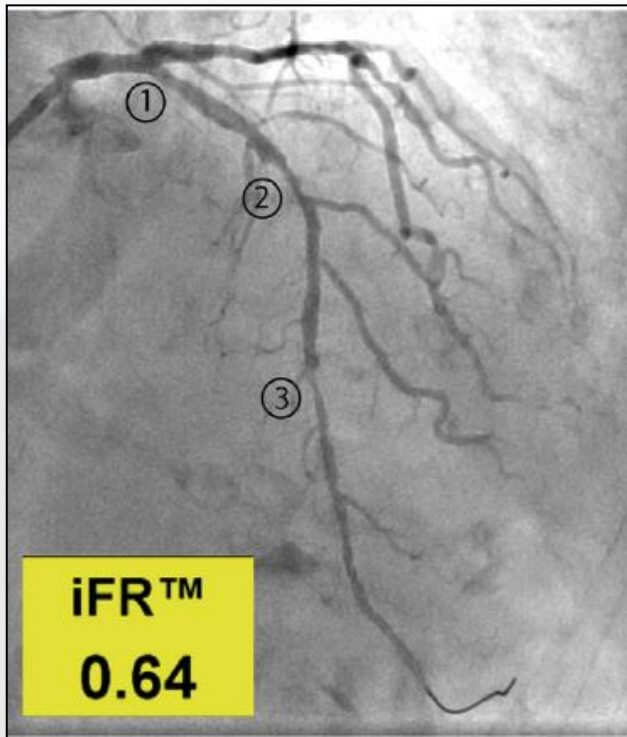


Historically, a distal FFR or iFR value would be used to **justify** stenting this LAD with multiple lesions

- Where should the stent be placed?
- How many stents will you need?
- Was normal blood flow returned?

[Nijjer S, et al. "Pre-Angioplasty Instantaneous Wave-Free Ratio \(iFR\) Pullback Provides Virtual Intervention and Predicts Hemodynamic Outcome for Serial Lesions and Diffuse Coronary Artery Disease. JACC: Cardiovascular Interventions 2014; 12: 1386-1396.](#)

From Justification...



FFR can be used to make pullback measurements, but is seldom used. Why?

- ✓ Requires IV hyperemia
- ✓ Can be difficult to interpret
- ✓ Requires an additional FFR pullback assessment after treating the first lesion to assess the “updated” severities of the remaining two lesions
- ✓ Requires hyperemia for a final “post” FFR assessment to document success

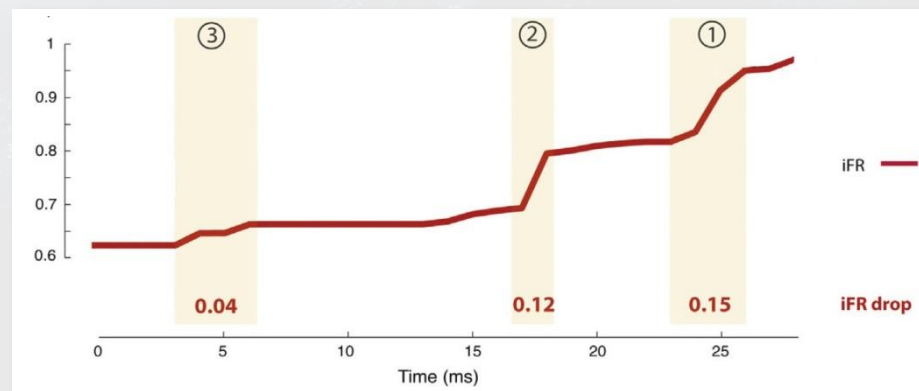
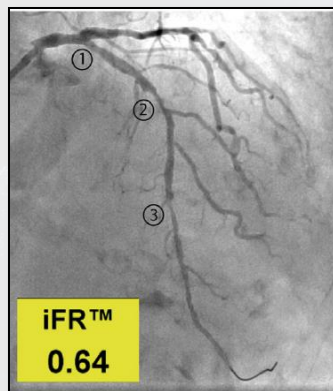
“Serial Lesion FFR Made Simple.” www.cathlabdigest.com. Web. January 20, 2015

Nijjer S, et al. “Pre-Angioplasty Instantaneous Wave-Free Ratio (iFR) Pullback Provides Virtual Intervention and Predicts Hemodynamic Outcome for Serial Lesions and Diffuse Coronary Artery Disease. *JACC: Cardiovascular Interventions* 2014; 12: 1386-1396.

...to Guidance

iFR pullback assessments map the ischemic contribution of each lesion without the confounding effect observed with FFR pullback assessments, providing **guidance** in the determination of a treatment plan

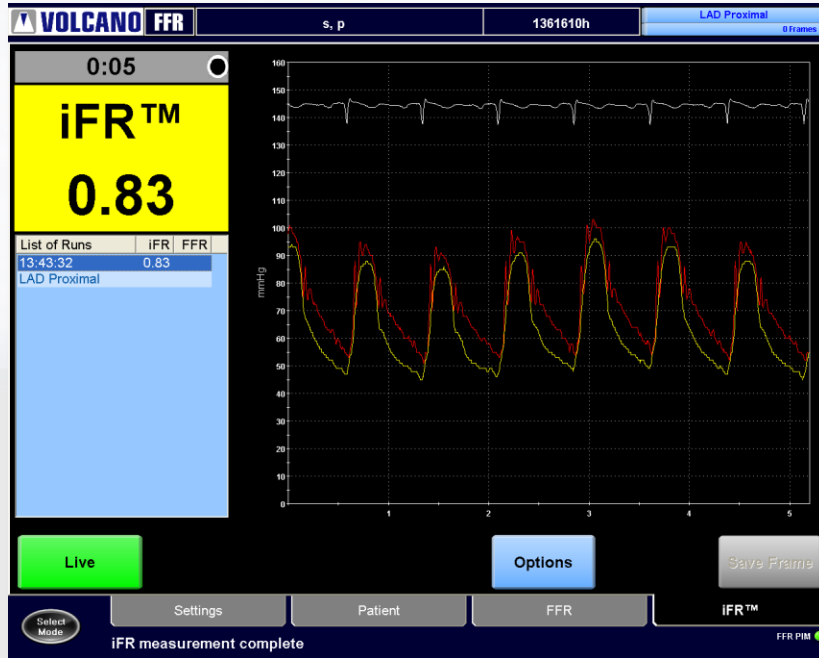
- Faster without IV hyperemic agents (pre- or post- PCI)
- Easier without interim reassessments as each lesion is treated



Adapted from Nijjer S, et al. "Pre-Angioplasty Instantaneous Wave-Free Ratio (iFR) Pullback Provides Virtual Intervention and Predicts Hemodynamic Outcome for Serial Lesions and Diffuse Coronary Artery Disease. JACC: Cardiovascular Interventions 2014; 12: 1386-1396.

Assessing Diffuse Disease

What should I do?



Scenario 1: Diffuse Disease

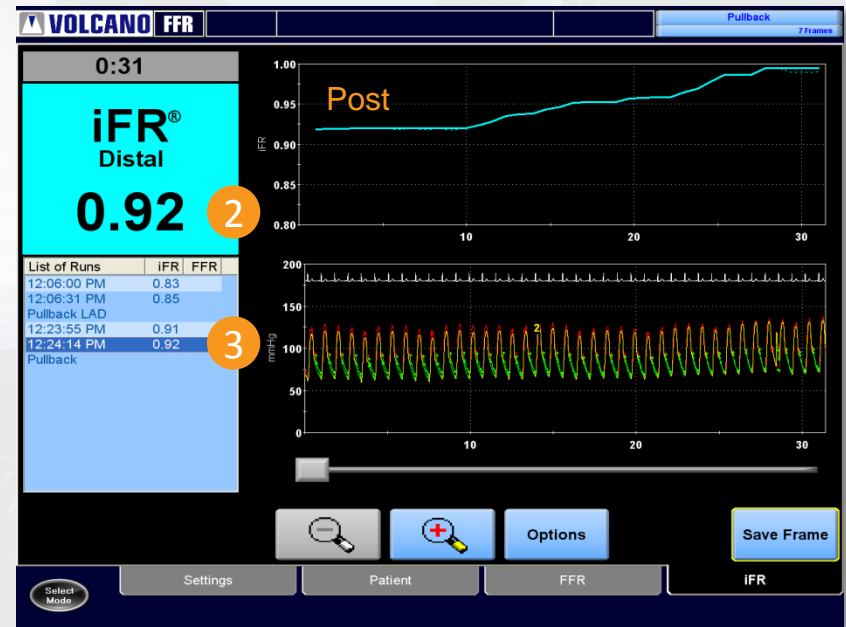
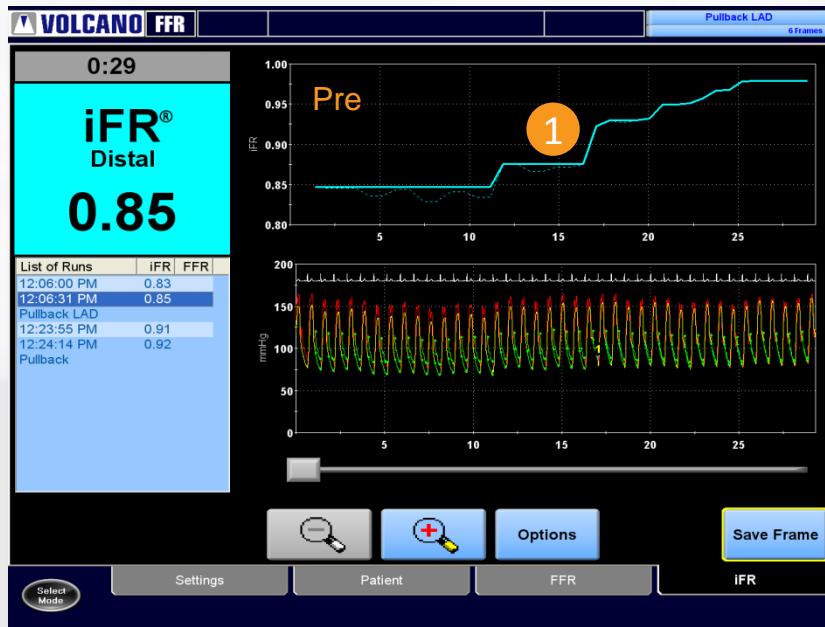


Scenario 2: Focal Disease

Would this change your treatment strategy?

Simulated case for educational purpose

Guidance and Results



1. Is there is a focal lesion(s) that can be treated?

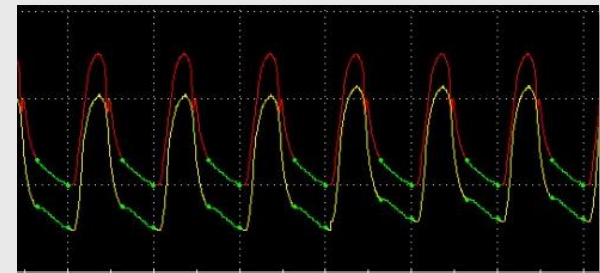
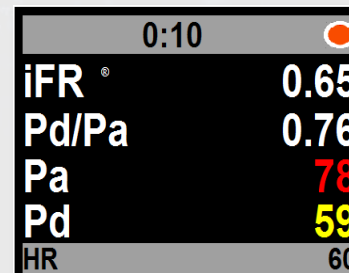
2. Was the ischemia resolved?

3. Document the results

Simulated case for educational purpose

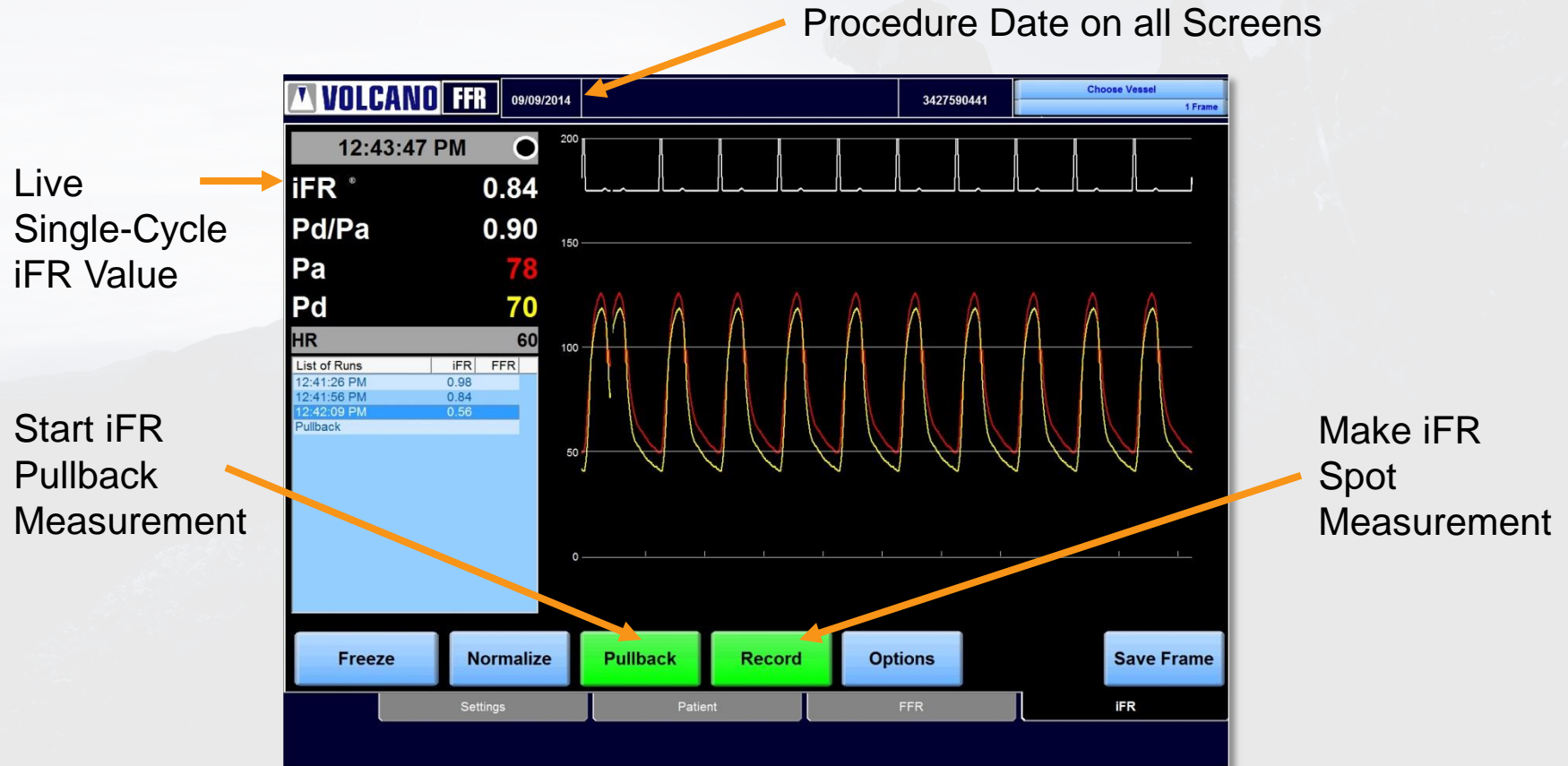
iFR Scout™ Pullback Software

- Provides the benefits of pullback measurements without the need for hyperemia
- Significant features
 - Pullback assessment of multiple lesions
 - Live display of single-cycle iFR value
 - Highlighting of the Wave-Free Period

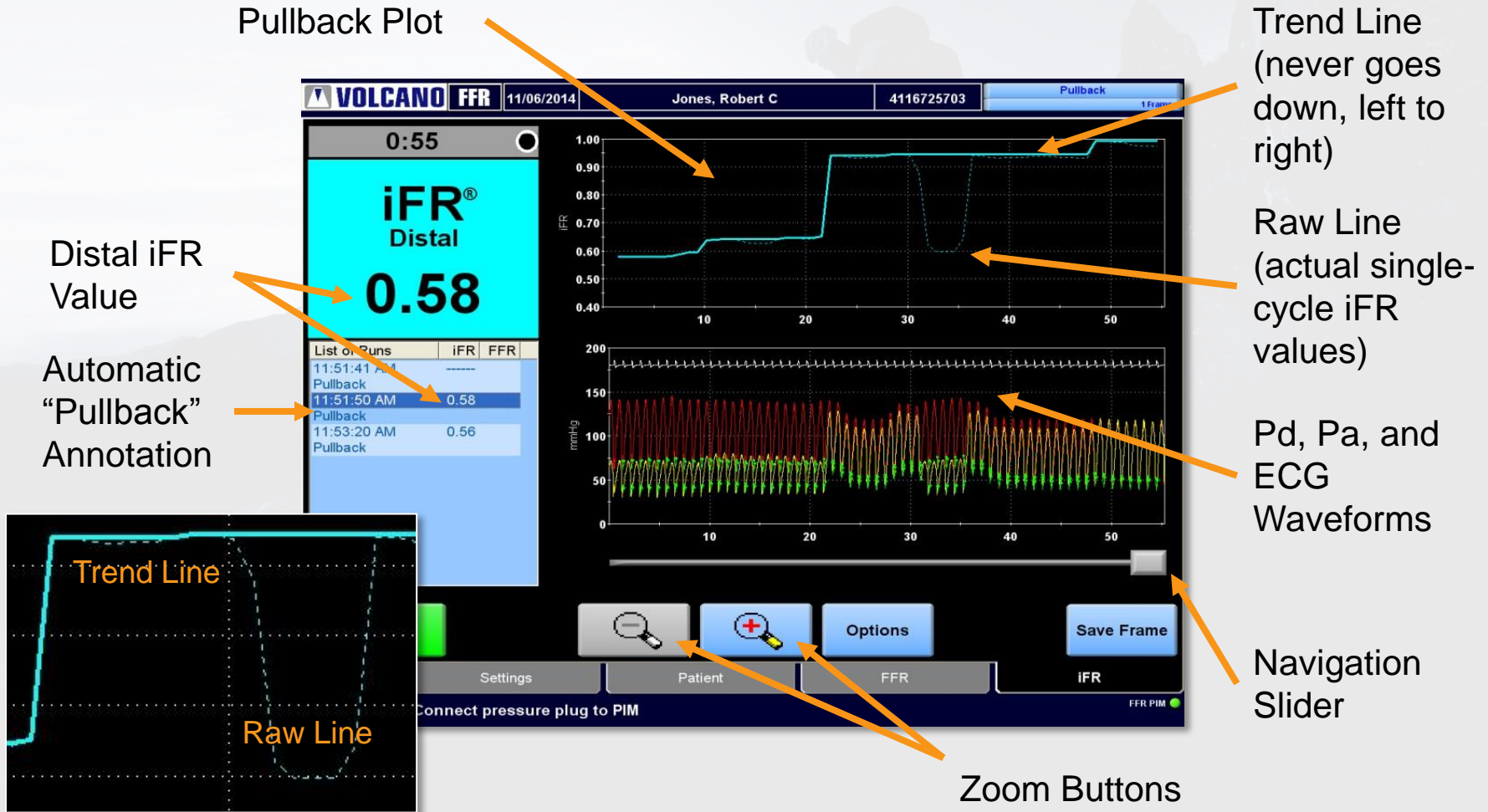


iFR Scout Operator's Manual, 505-0101.27

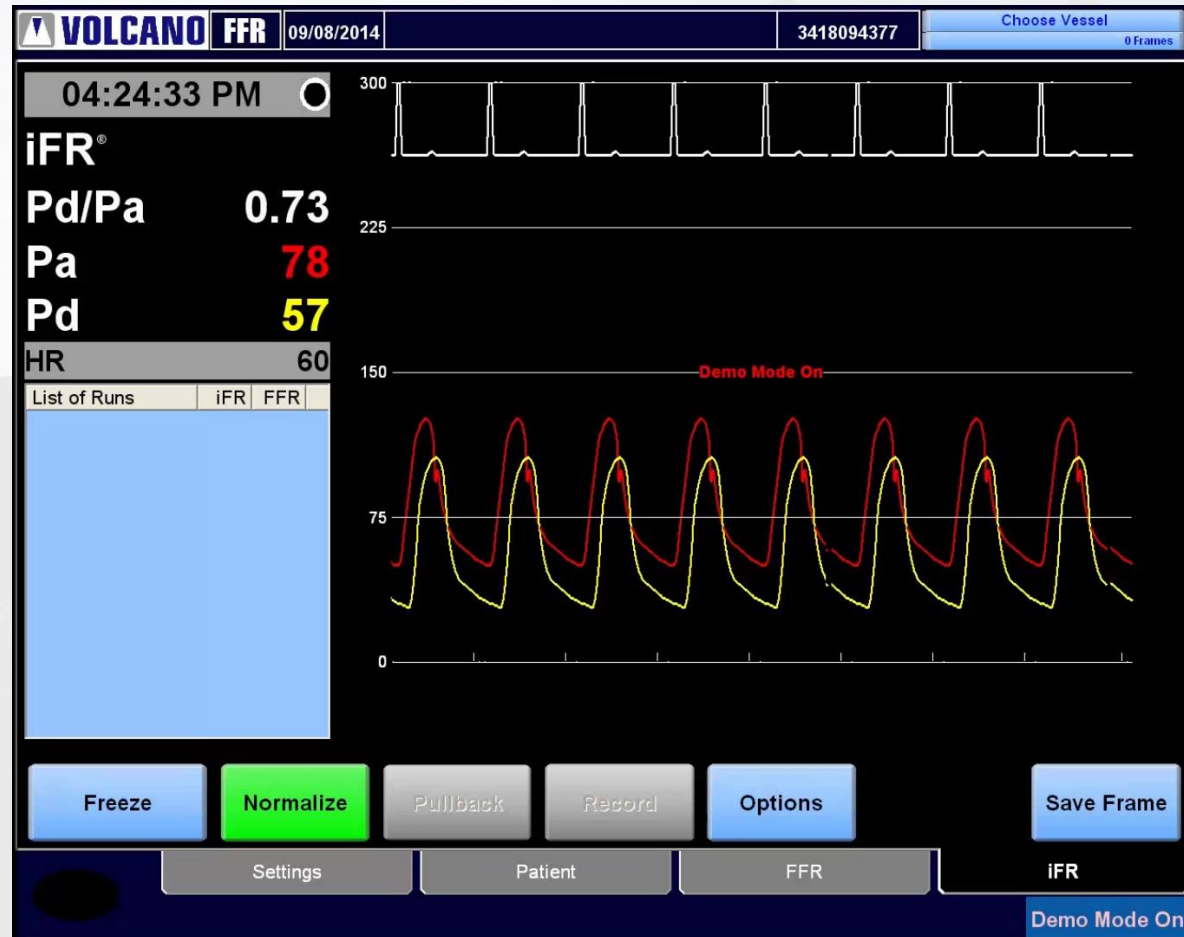
The iFR Scout™ Interface: Live Waveforms



The iFR Scout™ Interface: Results



iFR Scout™ Demonstration



Closing

- With the addition of iFR Scout pullback measurement capability, Volcano's iFR modality helps moves physiology from physiologic justification to physiologic guidance
- iFR Scout may be useful for assessing serial lesions and diffuse disease as well as for documenting treatment results, without the need for a hyperemic agent