



## Variability Of Practice Patterns From A Survey Of International Vascular Sonographers: Lessons Learned & How We Can Be More Value Added

Jill Sommerset RVT, FSVU



## Disclosures

- BD
- Siemens
- Aveera Medical
- Moonrise Medical



## Variability across the globe in Arterial Duplex Imaging

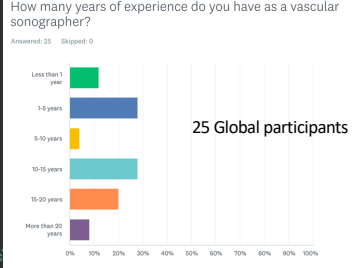



## Survey: Variability of Practice and Protocol Patterns of Arterial Duplex Imaging for Peripheral Arterial Disease


How many years of experience do you have as a vascular sonographer?

Answered: 25 Skipped: 0

25 Global participants

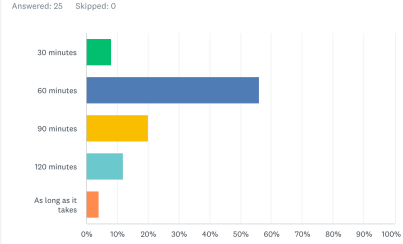


Experience Range	Percentage
Less than 1 year	~12%
1-5 years	~28%
5-10 years	~2%
10-15 years	~28%
15-20 years	~18%
More than 20 years	~12%




## How much time is allotted to perform a bilateral arterial duplex with physiologic testing and reporting combined?

Answered: 25 Skipped: 0

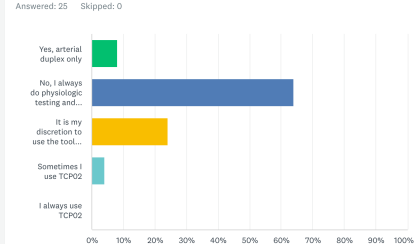


Time Range	Percentage
30 minutes	~12%
60 minutes	~52%
90 minutes	~20%
120 minutes	~12%
As long as it takes	~4%




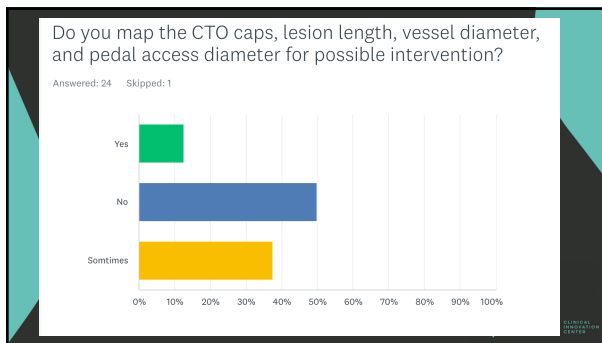
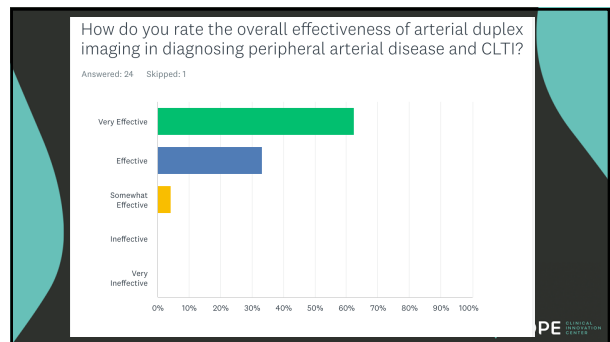
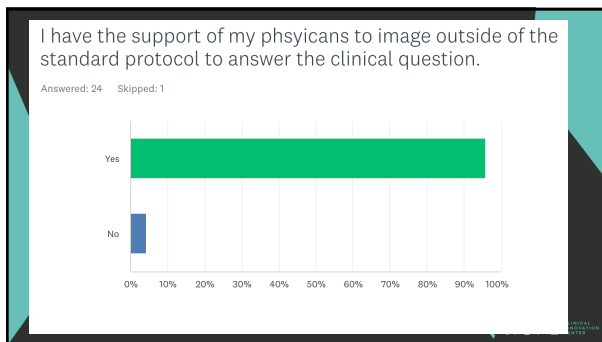
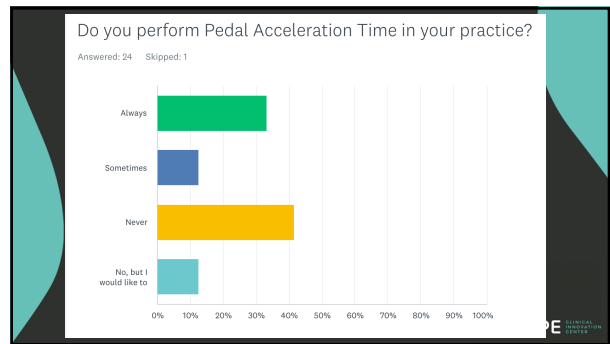
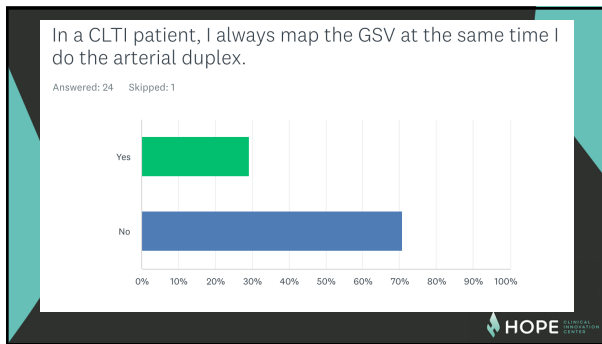
## Do you work at a center that only does Arterial Duplex and no physiologic testing?

Answered: 25 Skipped: 0



Response	Percentage
Yes, arterial duplex only	~12%
No, I always do physiologic testing and...	~60%
It is my discretion to use the tool...	~20%
Sometimes I use TCPD2	~4%
I always use TCPD2	~4%



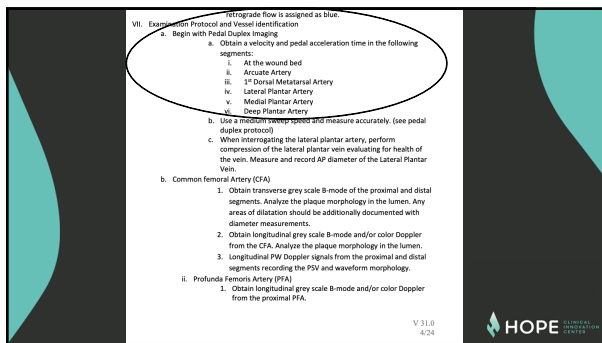
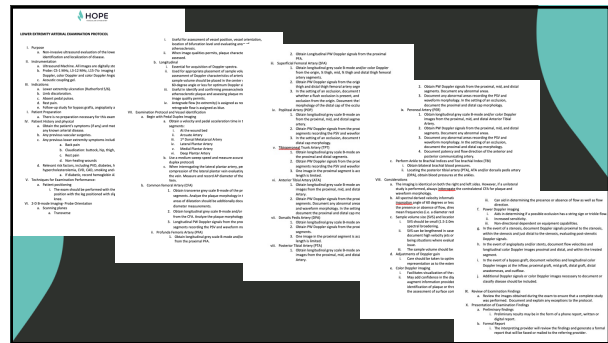
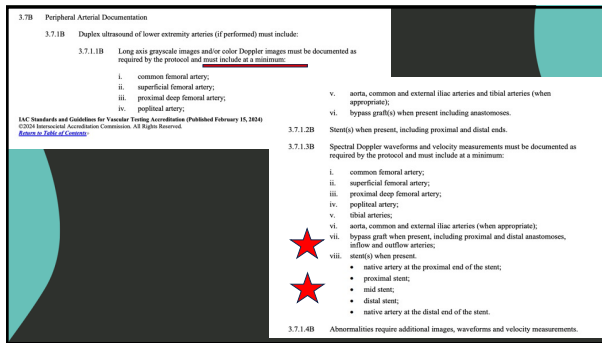
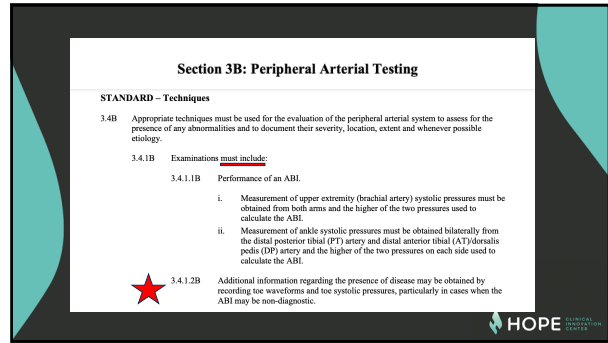


### Location of participants

- 16 USA
- 1 El Salvador
- 1 Portugal
- 1 India
- 1 Australia
- 1 UAE
- 1 Mexico City


\* All international responses:

- perform PAT
- Map GSV
- Do not do physiologic testing



### Use non-invasive tests appropriate for the patient...


Co-morbidities	Smoker, Non-Diabetic	Smoker, Diabetic	Non-smoker, Diabetic, ESRD
Symptoms	Claudication/rest pain	Non-compressible ABI	Tissue Loss / CLTI
Test	Segmental pressures/ABI	TBI/Toe Pressure	PAT

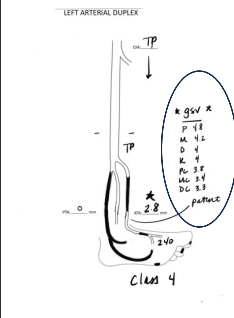



### Case Illustration

70 yr old with left foot rest pain non healing wounds

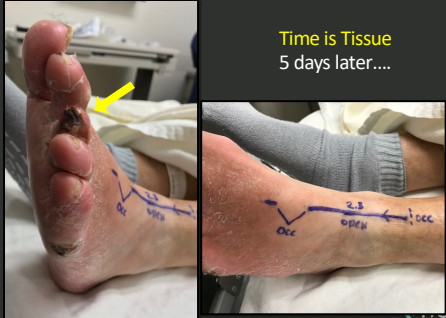
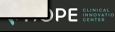
- Diabetic
- Non-smoker

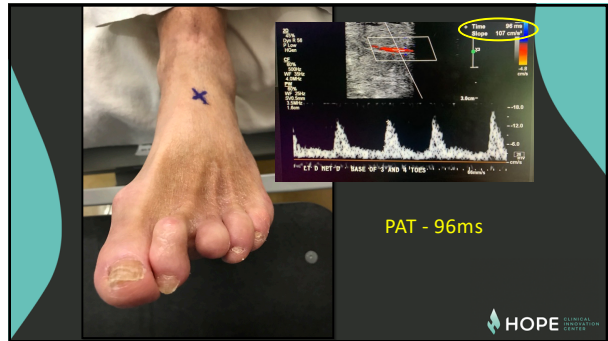
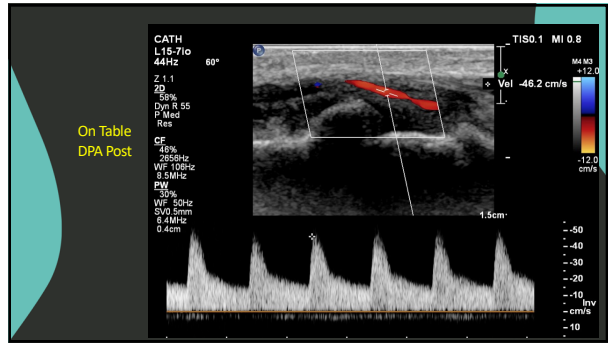
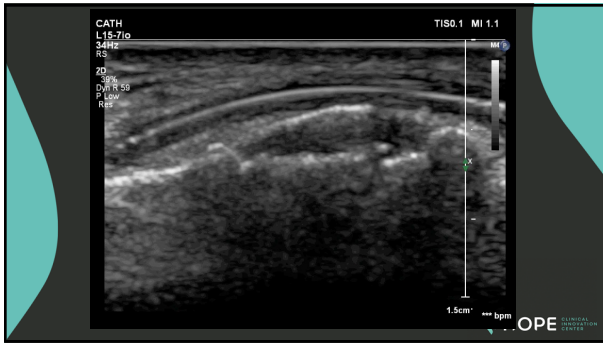


### Time is Tissue

5 days later....

## Advance the arterial duplex protocol AND digital reports

Tight	Soft	TI	RI	RI
Location	Pressure (kPa)	Waveform (mm)	Compressible (Pressure/Ratio)	Waveform (mm)
Common Iliac		Triphasic		RI
Femoral Iliac				RI
Iliofemoral		Triphasic		RI
Aorta AD 1500	10.74	Triphasic		11125
Aorta AD 1750	10.47	Monophasic		11124

Conclusions

Right  
Abnormal right lower extremity arterial exam demonstrates moderate arterial occlusive disease at rest (ABI 0.61 - 0.79). Mild digital ischemia noted in the right foot. Post Exercise right lower extremity: There is no ischemic response to exercise (baseline abnormal ABI unchanged).

Left  
Left lower extremity arterial physiologic exam is normal at rest. Post Exercise left lower extremity: There is an ischemic response to exercise.

## Opportunity to elevated reports

### DVA

Wound photo

HOPE		Complete on all DVA patients	
Pop:	16/52 m	Patent DVA?	Y/N
Inflow Artery:	14/42 m	Do you see pulsatile, color doppler features outside the conduit on the foot (toward heel)?	Y/N
Distal conduit:	0.42 m	If yes: 9/4 psv/edv 15.2 vPAT	
Distal conduit:	16.2 m	Do you see pulsatile, color doppler features outside the conduit on the forefoot (toward ball of foot)?	Y/N
LPV:	0.46 m	If yes: 4/2 psv/edv 15.6 vPAT	
LPV:	10.7 m	Arterial PAT:	
LPV:	8.4 m	Arteries:	TMA
GSV:	3.9 m	Dorsal met:	1.6 m/s
		Medial Plantar:	10.8 m/s
		Lateral Plantar:	NV

### Summary

- Why are vascular technologists held to a "minimum" ?
- Vascular surgery and endovascular techniques continue to evolve, vascular ultrasound protocols and reports should too.

**Let's elevated our game!**

## Thank you