PHASE and the PAD-Net Screening Program.

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PHASE & PAD-Net

- Background
- PHASE program
- Shortcomings of PHASE
- PAD-net Screening Program for PAD
- Current status
- Next steps
PHASE & PAD-Net

- **Background**
- PHASE program
- Shortcomings of PHASE
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Peripheral Arterial Disease (PAD)

- Affects 8-12 million people in the USA.
- Incidence increases with age. US Census Bureau estimates that 40 million adults will be > 65 years old by 2010.
- Independent risk factor for cardiovascular events and mortality.
- Under-recognized and under-treated problem.
Scope of the Problem

• Age-adjusted prevalence is 12%
• Male=female
• Risk increases 2-3 fold every 10 years after 40 years of age
• Associated with critical coronary and carotid stenosis, which increases age-adjusted cardiovascular mortality by 6 fold and all cause mortality by 3 fold compared to age-matched controls.
In the early stages PAD may be clinically silent. 20% of these patients will gradually become symptomatic. IC (symptomatic PAD) affects up to 5% of the population aged 55-74 years. Framingham study 1970: At the time of diagnosis of IC:

- 33% will have CAD and/or CVD.
- 67% No other vascular bed involved but within 10 years
  - 43% developed CAD
  - 24% developed CHF
  - 21% had a CVA
5 YEAR OUTCOMES FOR PATIENTS WITH SYMPTOMATIC PAD

Patients presenting to doctor with intermittent claudication ($n = 100$)

**Outcome for leg**
- Will worsen ($n = 25$)
  - Will need intervention ($n = 5$)
  - Will need a major amputation ($n = 2$)

**Systemic outcome**
- Will have non-fatal cardiovascular event ($n = 5–10$)
- Will die ($n = 30$)
- Will survive with no cardiovascular event ($n = 55–60$)
  - Cardiac ($n = 16$)
  - Cerebral ($n = 4$)
  - Other vascular ($n = 3$)
  - Non-vascular ($n = 7$)
Traditionally thought to be a problem affecting the developed world.

With increasing globalization, more and more developing countries are seeing similar problems.

Cardiovascular disease is now considered an international pandemic (JAMA 2007. Vol 297(11)1253-1255)!
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One-Year Cardiovascular Event Rates in Outpatients With Atherothrombosis

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for the REACH Registry Investigators

Atherosclerotic cardiovascular disease (CVD), coronary artery disease (CAD), and peripheral artery disease (PAD) is associated with the same causes of mortality on a worldwide scale. Recent US data have confirmed that despite a decrease in age-adjusted national death rates, the absolute number of deaths from these conditions continues to increase, and prevalence is sharply increasing in other parts of the world. Thus, atherosclerotic disease care is an area poised to change, the leading cause of death worldwide by 2020.1

Thus far, most of the information available on atherosclerotic risk has been derived from single regional cohorts (such as studies conducted in Europe or North America). Studies from a single center of patient cohorts (with CAD, previous stroke patients without PAD, and generally limited to hospitalized patients) are opposed to outpatients or individuals in primary care or to patients in clinical trials (as opposed to patients in the community). Therefore, we conducted a comprehensive observational cohort study of 119,280 outpatients with PAD and coronary artery disease (CAD) from 557 primary care practices in 44 countries (1999-2004).

Methods: The One-Year Cardiovascular Event Rates in Outpatients With Atherothrombosis (REACH) Registry is an international, prospective cohort of 119,280 patients with atherothrombosis (CAD, PAD, or both) who were recruited from 557 primary care practices in 44 countries (1999-2004). Patients were followed for 1 year after the diagnosis of PAD, and clinical events occurring during follow-up were adjudicated by trained independent central adjudicators. The incidence of the end point of cardiovascular death, myocardial infarction (MI), and stroke was 6.9% of participants. Cardiovascular death, MI, or stroke rates were 2.9% overall, 4.0% for those with established diabetes mellitus, 7.3% for patients with multiple risk factors only, and 4.6% for patients with established CAD, 6.1% for patients with PAD, and 11.6% for patients with CAD and PAD. The incidences of the end point of cardiovascular death, MI, or stroke were lower in patients with PAD (4.6%) than in patients with CAD (6.1%) and were lower in patients with PAD (4.6%) than in patients with CAD (6.1%).

Results: The One-Year Cardiovascular Event Rates in Outpatients With Atherothrombosis (REACH) Registry is an international, prospective cohort of 119,280 patients with atherothrombosis (CAD, PAD, or both) who were recruited from 557 primary care practices in 44 countries (1999-2004). Patients were followed for 1 year after the diagnosis of PAD, and clinical events occurring during follow-up were adjudicated by trained independent central adjudicators. The incidence of the end point of cardiovascular death, myocardial infarction (MI), and stroke was 6.9% of participants. Cardiovascular death, MI, or stroke rates were 2.9% overall, 4.0% for those with established diabetes mellitus, 7.3% for patients with multiple risk factors only, and 4.6% for patients with established CAD, 6.1% for patients with PAD, and 11.6% for patients with CAD and PAD. The incidences of the end point of cardiovascular death, MI, or stroke were lower in patients with PAD (4.6%) than in patients with CAD (6.1%) and were lower in patients with PAD (4.6%) than in patients with CAD (6.1%).

The REACH (Reduction of Atherothrombosis for Continued Health) Registry has been established in countries with limited resources, and its outcomes are consistent with those observed in industrialized countries.

Conclusions: The REACH Registry is a comprehensive and validated observational cohort study of 119,280 outpatients with atherothrombosis in 44 countries (1999-2004). The results are consistent with those observed in industrialized countries, and they provide a basis for future research in the field of atherothrombosis.
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• **Reduction of Atherosclerotic Disease for Continued Health Registry (REACH)**

• 68,236 patients
  - Group I: 55,814 with disease (CAD, CVD, PAD)
  - Group II: 12,422 with at least 3 risk factors

• 5587 physician practices

• 44 countries

• From 2003-2004
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• CV Death, MI or CVA rate:
  – Group I=4.69% v/s Group II=2.15%
  – Group I: 4.52% (CAD); 5.35% (PAD); 6.47% (CVD)

• Add end point “hospitalization for athero-thrombotic event”:
  – Group I: 15.20% (CAD); 21.14% (PAD); 14.53% (CVD)

• Event rate was directly proportional to the number of vascular beds involved.
UNLIKE CAD AND STROKE, PAD IS AN UNDER-RECOGNIZED AND UNDER-TREATED PROBLEM.
Peripheral Arterial Disease Detection, Awareness, and Treatment in Primary Care

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Peripheral arterial disease (PAD) is a prevalent and underdiagnosed condition that is common and associated with an increased risk of death and lower limb amputation. Thus, PAD is an important public health issue.

Objective: To assess the feasibility of detecting PAD in primary care patients, and provide awareness of PAD, and identify high-risk factors for treatment of asymptomatic PAD patients in primary care.

Design and Setting: The PARTNERS Study, a randomized, controlled trial conducted at 27 sites in 25 states and 350 primary care practices throughout the United States, enrolled 1,020 patients in October 1999.

PARTNERS Study JAMA. 2001; 286:1317-1324
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- **PAD Awareness, Risk, and Treatment**: New Resources for Survival (PARTNERS) Program.
  - 27 sites in 25 cities.
  - 350 Primary Care Practices.
  - June-October 1999
  - 6979 patients evaluated by history and ABI measurement:
    - >70 years
    - 50-69 years with a h/o smoking or DM
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- **CVD**: h/o atherosclerotic coronary, cerebral or AAA disease.
- **PAD**: ABI \( \leq 0.90 \)
- **Of the 6979 patients, 29% had PAD**
  - 13% PAD. 55% of these were new diagnoses.
  - 16% PAD + CVD. 35% of these were newly diagnosed with PAD.
  - 24% CVD.
  - 47% Neither PAD or CVD (Reference Group)
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- 83% of patients with prior PAD were aware of the diagnosis but ONLY 49% of Physicians were aware of this diagnosis.

- Only 11% of those diagnosed with PAD had classic IC symptoms.
Comparing PAD to CVD, it was found that the risk factors were treated far less frequently in the former, when compared to the latter, even AFTER the diagnosis had been made!

<table>
<thead>
<tr>
<th>Factor</th>
<th>PAD (New)</th>
<th>PAD</th>
<th>CVD</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTN</td>
<td>84%</td>
<td>88%</td>
<td>95%</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>HPL</td>
<td>44%</td>
<td>56%</td>
<td>73%</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Antipl. Rx</td>
<td>33%</td>
<td>54%</td>
<td>71%</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Smoking</td>
<td>53%</td>
<td>51%</td>
<td>35%</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>
“Heart disease and stroke are the leading causes of death in the United States. Although most cardiovascular disease (CVD) is preventable, proven prevention approaches are not being adequately applied in clinical practice.”

–Elias Zerhouni, MD, Director, National Institutes of Health
April, 2004
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Secondary Cardiovascular Risk Reduction Strategies

- Clinician Presentation -
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PREVENTING HEART ATTACKS AND STROKES EVERYDAY

(PHASE)
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Secondary Prevention Population
Approximately 11% adults in KP-NCAL
- DM Diabetes
- CAD Coronary Artery Disease
- CVA Cerebrovascular Accident or
- TIA Transient Ischemic Attack
- AAA Abdominal Aortic Aneurysm
- PAD Peripheral Arterial Disease
- CKD Chronic Kidney Disease if age > 50 and
  - GFR < 30 or
  - GFR 30-60, plus proteinuria
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Secondary Prevention Population

- Diabetes: 68%
- CAD: 32%
- Stroke: 11%
- PAD: 9%
- CKD: 6%
- AAA: 2%

2003 Kaiser Permanente Northern California data
Secondary Prevention Age Distributions

- Less than 35: 2%
- 35 - 49: 13%
- 50 - 64: 33%
- 65 - 79: 38%
- 80 or older: 13%

2003 Kaiser Permanente Northern California data
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Proven Preventive Therapies

4 Drug Interventions

Antithrombotic Medication
– Treatment with Aspirin 81-325 mg daily for patients unless contraindicated
– If contraindicated, consider clopidogrel

Lipid Lowering Medications
– Treatment with statin is recommended even if LDL-C is <100 mg/dL

ACE Inhibition
– Treatment with ACE inhibitor long-term unless contraindicated

Beta Blockade
– Treatment with a beta blocker for members with CAD, PAD, and AAA unless contraindicated
Controlling 3 Risk Factors

• **Blood Pressure**
  BP 129/79 mm Hg for patients with heart failure, chronic kidney disease (renal insufficiency or proteinuria), and diabetes
  BP 139/89 mm Hg for patients with CAD, PAD, AAA, and CVD

• **Lipids**
  Statin dose sufficient to bring LDL-C levels < 100 mg/dL
  Statin recommended even if baseline LDL-C is < 100 mg/dL

• **Blood Glucose Control**
  HgA1c < 7.0 is optimal for members with diabetes
4 Lifestyle Changes

• Tobacco Cessation
  Smoking cessation should be a primary target in the clinical strategy.

• Physical Activity
  Regular, moderate physical activity is recommended for all patients.

• Healthy Eating
  Recommend a diet rich in fruits, vegetables, legumes, nuts, whole grains, and Ω-3 polyunsaturated fat.

• Weight Management
  Weight management reduces multiple risk factors
## Impact of Recommended Medications

<table>
<thead>
<tr>
<th>Risk Reduction in CV Events</th>
<th>Number Needed to Treat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antiplatelet 22%</td>
<td>41 in 2 yrs&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>Statin 28-37%</td>
<td>28-40 in 3-5 yrs&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>ACE inhibitor 23%</td>
<td>27 in 4 yrs&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
<tr>
<td>Beta Blocker 24%</td>
<td>56 in 1-2 yrs&lt;sup&gt;4&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

## Impact of Recommended Lifestyle Changes

<table>
<thead>
<tr>
<th></th>
<th>Risk Reduction for CV Events</th>
<th>Number Needed to Treat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco Cessation</td>
<td>36%</td>
<td>12¹</td>
</tr>
<tr>
<td>Physical Activity</td>
<td>20-24%</td>
<td>37-46 in 3-5 yrs²</td>
</tr>
<tr>
<td>Healthy Eating</td>
<td>10-75%</td>
<td>12-93 in 2-3 yrs³</td>
</tr>
<tr>
<td>Weight Management</td>
<td></td>
<td>Improves multiple risk factors</td>
</tr>
</tbody>
</table>

Impact of interventions for 300 Patients

Let’s take an example of a physician with about 300 secondary prevention patients

- Utilization of one recommended medication is increased by 30 patients
- At the end of four years, one of those patients will have avoided a heart attack, stroke, or death
## Impact of Recommended Interventions

<table>
<thead>
<tr>
<th>Drug</th>
<th>Increased Rx Use</th>
<th>Decrease in CV events over 4 yrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antiplatelet</td>
<td>30 patients</td>
<td>↓ 1.5</td>
</tr>
<tr>
<td>Statin</td>
<td>30 patients</td>
<td>↓ 0.9</td>
</tr>
<tr>
<td>ACE-I</td>
<td>30 patients</td>
<td>↓ 1.11</td>
</tr>
<tr>
<td>Beta Blocker</td>
<td>30 patients</td>
<td>↓ 1.1</td>
</tr>
</tbody>
</table>

Each of these interventions prevents about 1 CV event in 3-4 years because the number needed to treat (NNT) is about 30.
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Cardiovascular Risk Management Medication Algorithm

Protocol for these populations:
- AAA
- CAD
- CKD
- CVA/TIA
- PAD

DM (ACE-I >55 yrs; ASA, Statin >40 yrs)*

- ASA: ASA 81mg daily
  - Alternate: Consider Clopidogrel in CAD, PAD if intolerant to ASA.

- ACE-I
  - Lisinopril 10mg daily
    - Use Caution: If creat >2.5 or K+ >5.5
    - Alternate: If DM w/ Microalbuminuria, HF, or CKD, use ARB if ACE-I intolerant.

- Statin
  - Simvastatin 40mg daily
    - Give statin regardless of LDL. If GFR <30 reduce initial dose.

- Beta Blocker (for CAD/PAD/AAA)
  - Atenolol 25mg daily
    - Use Caution: Bradycardia <55, severe asthma, hypotension
    - Alternate: If HF or LVEF <40%, use Carvedilol. If creat >2.5, use Metoprolol.

Goals
- CAD, PAD, AAA, Uncomplicated HTN ≤130/89
- DM, CKD, CVA/TIA ≤129/79

BP
- If BP above goal
  - CAD, PAD, AAA
    - Beta Blocker + ACE-I
  - DIURETIC + ACE-I
    - Lisinopril
      - 10/12.5mg daily
      - Titrated to BP goal.
    - Lisinopril/HCTZ
      - 12.5→25mg daily
      - Titrated to BP goal.

- DM 2
  - If A1C >7.0
    - Metformin 500mg; ½ tablet bid→1 tablet bid→2 tablets bid
    - Contraindicated: Cr>1.4/1.5; treated w/meds for HF; LFTs>3 x ULN
  - Start Metformin→Glipizide together
  - Titrated every two weeks to reach goals.
  - If A1C >8.5 mg/dL
    - Add Atenolol
      - 25mg→50→100mg daily
    - Titrated to BP goal.

- ADD DIURETIC
  - HCTZ
    - 25→50→100mg daily
    - Titrated to BP goal.

- ADD Beta Blocker
  - Atenolol
    - 25→50→100mg daily
    - Titrated to BP goal.

- ADD Calcium Channel Blocker
  - Felodipine
    - 2.5→5~10→20mg daily
    - Titrated to BP goal.

- ADD Glipizide
  - 5mg: ½ tablet bid→1 tablet bid→2 tablets bid
    - Contraindicated: Severe sulfa allergy
    - Titrated every two weeks to reach goals.

- ADD NPH Insulin
  - 10 units SQ at hs
    - If SMBG <130 after 6 wks
      - Increase 2 units q 2 days until goals reached

- ADD Pioglitazone
  - 15~30mg daily
    - Contraindicated: LFTs>3 x ULN. Not recommended in HF.
    - Increase dose in 1 month if goals not reached.

- ADD Pioglitazone
  - 15~30mg daily
    - Contraindicated: LFTs>3 x ULN. Not recommended in HF.
    - Increase dose in 1 month if goals not reached.

Increase Statin
- Simvastatin 40→80mg daily
  - Titrated to LDL goal.

Switch Medication
- Ezetimibe/Simvastatin
  - 10/40~10/80mg daily
  - Titrated to LDL goal.

- Consider combination or other meds

Adapted from KPNC Clinical Practice Guidelines for:
- CAD, DM, Cholesterol, HTN, HF and Stroke

*Refer to the complete condition-specific guidelines for individual protocols for medication use, contraindications, possible side effects and lab monitoring. The guidelines can be found in the Clinical Library at http://cl.kp.org.
PHASE & PAD-Net

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- Antiplatelet Therapy: ASA.
- ASA alone has not been shown to reduce cardiovascular events in patients with PAD.
- Clopidogrel versus Aspirin In the Prevention of Recurrent Ischemic Events (CAPRIE):
  Clopidogrel had a 24% risk reduction in patients with PAD, when compared to ASA.
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- Existing screening for cholesterol, HTN, DM.
- Chem-7 is done frequently enough that CKD is likely to be picked up early.
- No screening process for PAD, AAA, carotid disease.
- We await the diagnosis to be made before implementing preventative strategies.
- These diagnoses are more often made by specialty services i.e. vascular surgery.
Arguments made against screening for PAD:

- This is a secondary prevention program not a primary prevention program.
- The Internists are already overburdened. This will be additional work load, without much to be gained, since most of the patients with PAD would already be enrolled in PHASE due to their other risk factors.
- The Internists are already excellent at diagnosing PAD and we do not need additional screening.
- There is no extra money for this!
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**Peripheral Arterial Disease**

Making the CV Connection

The major health impact of an undiagnosed, undertreated disease

**About 1 in 5 patients with established PAD had a major cardiovascular event within 1 year**

- 50%
- 40%
- 30%
- 20%
- 10%
- 0%

**PAD Registry: 1-year incidence of CV Death, MI, Stroke, or Hospitalization**

<table>
<thead>
<tr>
<th>PAD</th>
<th>PAD + CAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD</td>
<td>13.9%</td>
</tr>
<tr>
<td>PAD</td>
<td>17.4%</td>
</tr>
<tr>
<td>PAD + CAD</td>
<td>21.7%</td>
</tr>
</tbody>
</table>

The REACH Registry, which included more than 68,000 patients, is one of the largest, most recent observational studies to outline the real-world burden of atherothrombosis.

**8 million Americans suffer from PAD**

It is estimated that between 12% to 20% of the US population 65 or older have PAD.

**PAD patients face an increased risk of mortality**

All-cause Mortality Based on Severity of Disease

<table>
<thead>
<tr>
<th>Severity of Disease</th>
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<tbody>
<tr>
<td>PAD</td>
</tr>
<tr>
<td>PAD + CAD</td>
</tr>
<tr>
<td>CAD</td>
</tr>
</tbody>
</table>

Patients with PAD were 5.9 times more likely to die of CV disease than patients without PAD.

**PAD and the Health Care Provider**

- ACC/AHA PAD guidelines point out that primary care providers are in the best position to detect PAD.

- ACC/AHA PAD guidelines point out that primary care providers are in the best position to detect PAD.

- **It is estimated that only 25% of patients diagnosed with PAD are undergoing treatment**

- The ACC/AHA PAD Guidelines Class I Recommendations for PAD patients include both:
  - Symptom relief management for classification
  - CV risk reduction to reduce future events such as MI, stroke, and vascular death

**Find out more about PAD**

The Peripheral Arterial Disease (PAD) Coalition, www.padcoalition.org, is an alliance of more than 50 leading health organizations, vascular health professionals, and government agencies united around a common purpose—to raise public and health professional awareness about lower extremity PAD.

The PAD Coalition offers tools and information to improve the prevention, early detection, treatment, and rehabilitation of people with, or at risk for, PAD.

Bristol-Myers Squibb/Sanofi Pharmaceuticals Partnership is a proud sponsor of the PAD Coalition.
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LIFELINE SCREENING!
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- Simple to implement.
- Reproducible.
- Improved patient satisfaction.
- Low intra-observer variability.
- HIPAA-compliant.
- IT-compliant! SQL-compliant.
- Cost neutral.
- Should not increase the work of PCP.
- Partnership with PCP, Dr. Inna Spier at CMB satellite facility.
- Innovations Grant awarded January 2005.
Capturing PAD for the “PHASE” Program – A Pilot Study
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Program Goals:

• To accurately diagnose and capture “at risk” populations, with PAD (Peripheral Arterial Disease) for the “PHASE” program before patients become symptomatic.
• To improve smoking cessation rates.
• To streamline referrals to Vascular Surgery.
• To improve Medicare Reimbursement for the Health Plan i.e. make it cost neutral
• To serve as a pilot study for implementation at SCH and then hopefully across the Northern California Region
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Indications for Referral:

• All patients > 65 years
• All smokers > 50 years
• Any patient suspected of having PAD (who PCP would normally send to Vascular Surgery for evaluation).
• All “PHASE” patients > 65 with “PAD” diagnosis who have not had vascular surgery evaluation.
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STUDY DESIGN

• Demographic History:
  - age
  - smoking
  - suspicion of PAD

• Risk Factors: hypertension, hyperlipidemia, smoking, diabetes, heart disease, cerebrovascular disease and renal dysfunction.

• Non-invasive peripheral arterial screening (ABI/TBI & PVR)
  ABI (Ankle/Brachial Index), TBI (Toe Brachial Index) and PVR (Pulse Volume Recording) performed by trained MA.
  - If ABI is normal, but PAD is suspected, toe raise exercise performed and ABI repeated.
PADnet Lab™:
the easiest method to test for Peripheral Arterial Disease (PAD)

- Training takes less than one day
- Uses oscillometric means to obtain ABI values

PVR MACHINE

ADDRESS A SERIOUS HEALTH PROBLEM
8-10 million Americans have PAD. Without proper treatment, 30% are likely to die in five years of PAD-related heart attack or stroke.

FOR TECHNICIANS
Onsite training takes less than one day. Certification program included.

FOR PRIMARY CARE DOCTORS
FDA approved device sends test results instantly via the web for interpretation by a vascular specialist of your choice.

FOR VASCULAR SPECIALISTS
ABI and PVR tests help identify obstructive disease and determine whether medical or surgical treatment is necessary.

FOR PATIENTS
Non-invasive test that can be completed in 15-20 minutes, during a regular office visit. Saves time and travel to a Hospital or Specialty Lab.
Interpretation of test results:

- Initial examination interpreted independently by PCP at the satellite pod.
- Examination is also read independently by Vascular Surgeon from remote site using a HIPAA-compliant website.
- Final interpretation downloaded and printed at the satellite facility.
- Data entry at satellite facility.
- Corroboration on Normal or Abnormal interpretation obtained and recorded. This helps in the training of the PCP at the satellite.
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Work flow:

- Test results are entered into e-chart
- Referring PCP notified of abnormal findings
- If abnormal - patient receives a handout to explain PAD and help enroll into lifestyle change programs
  - Smoking cessation program
  - Exercise, walk program
  - Nutritional advice to reduce cholesterol
- Patients placed into “PHASE” program if appropriate.
- E-consult sent to Vascular Surgery for more extensive testing, if indicated.
## RESULTS

- **Total number screened**: 436
- **Abnormal Studies (ABI < 0.9)**: 36 (8.3%)
- **Male : Female**: 14:12
- **Abnormal Studies in > 65 year olds**: 17
  - > 70 year olds: 15 (88%)
- **Would have been referred to VS**: 125 (29%)
  - Abnormal: 12 (9.6%)*
  - Normal: 113 (90.4%)

* Mild PAD that could have been managed by PCP
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- Need at least 1000 patients
- Plan to expand to the main campus at SCH
- Awarded a Community Benefit Grant in January 2007
- IRB approval for publication of data
- Study was placed on hold due to lack of funds to buy the Biomedix PVR machine
- October 2007: PIC agrees to release funds to purchase machine
PHASE & PAD-Net

- Purchase on hold as it was not cleared by Biomed and IT, since it was a non-standard item.
- February 2008: Item purchased
- Study on hold till May 2008, due to influenza outbreak, resulting in lack of manpower to get the project started.
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- Discuss the addition of Clopidogrel in patients with PAD, at the next PHASE meetings.
- Establish program at SCH
- Publish results of the study
- Implement in NCAL region
- Implement KP nationally
CONCLUSIONS

• PAD has a high prevalence in a target population.

• Numbers are going to increase with time.

• PAD is an independent predictor of CV risk/death.

• Awareness is low in the general public AND amongst physicians.
CONCLUSIONS

• Most cases of early PAD are “silent” or often have atypical symptoms.
• Secondary prevention methods are often underutilized in patients with PAD.
• KP is uniquely positioned to implement secondary preventative strategies for the “at risk” population.
PHASE & PAD-Net

CONCLUSION

- Screening for PAD is an important component of secondary prevention of CV risk/death.
- Screening is relatively easy to implement in the Primary Care setting.
- Most cases of early PAD can be diagnosed and managed at the primary care level.
- Most referrals to VS for “rule out PAD” are unnecessary.
PHASE & PAD-Net

CONCLUSION

• Setting up a screening program requires buy-in from:
  – PIC
  – Chiefs of Medicine
  – PCP
  – Vascular surgeon

• Patience and persistence pays!