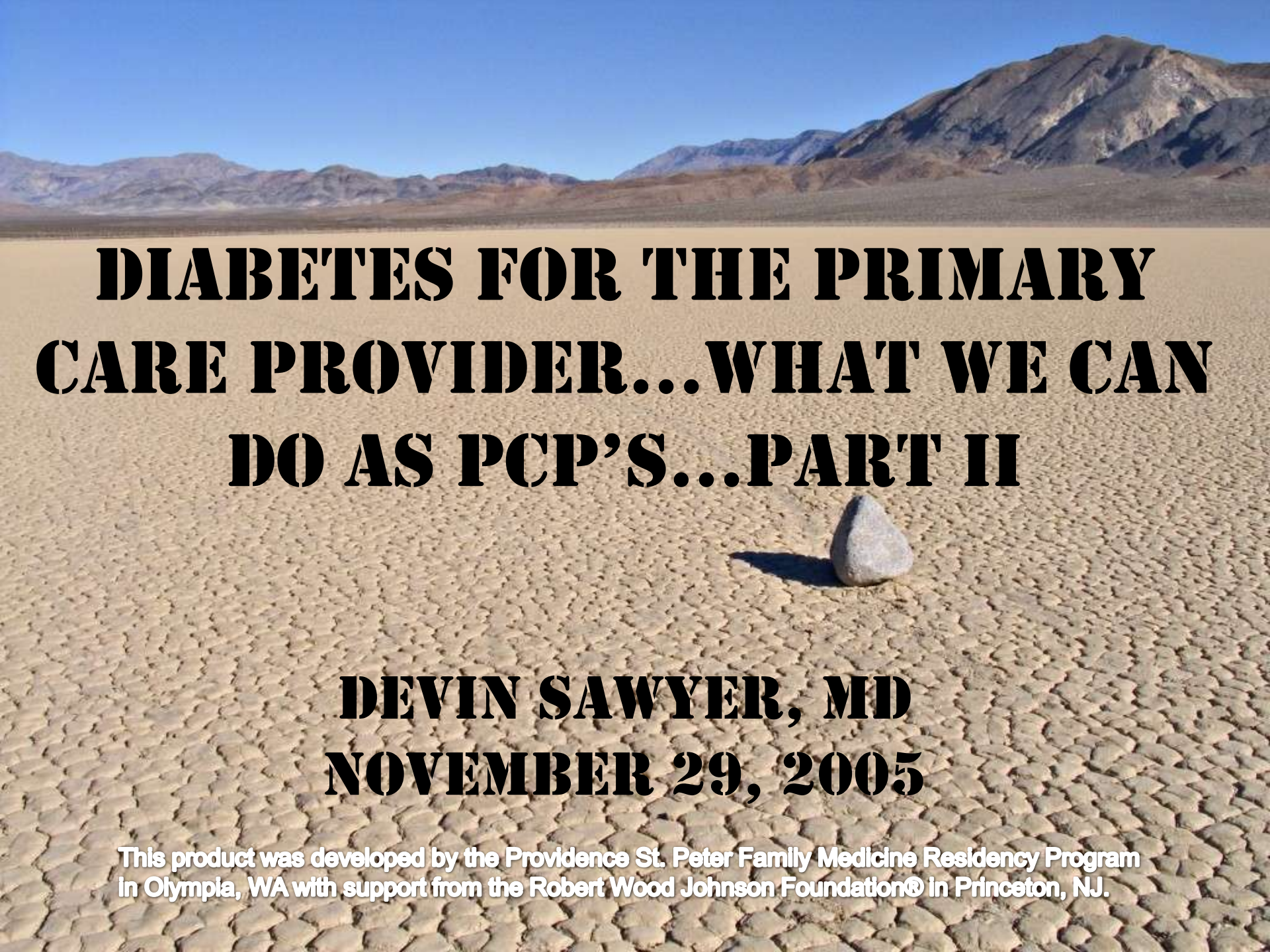

DIABETES FOR THE PRIMARY CARE PROVIDER…WHAT WE CAN DO AS PCP'S…PART II

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NOVEMBER 29, 2005

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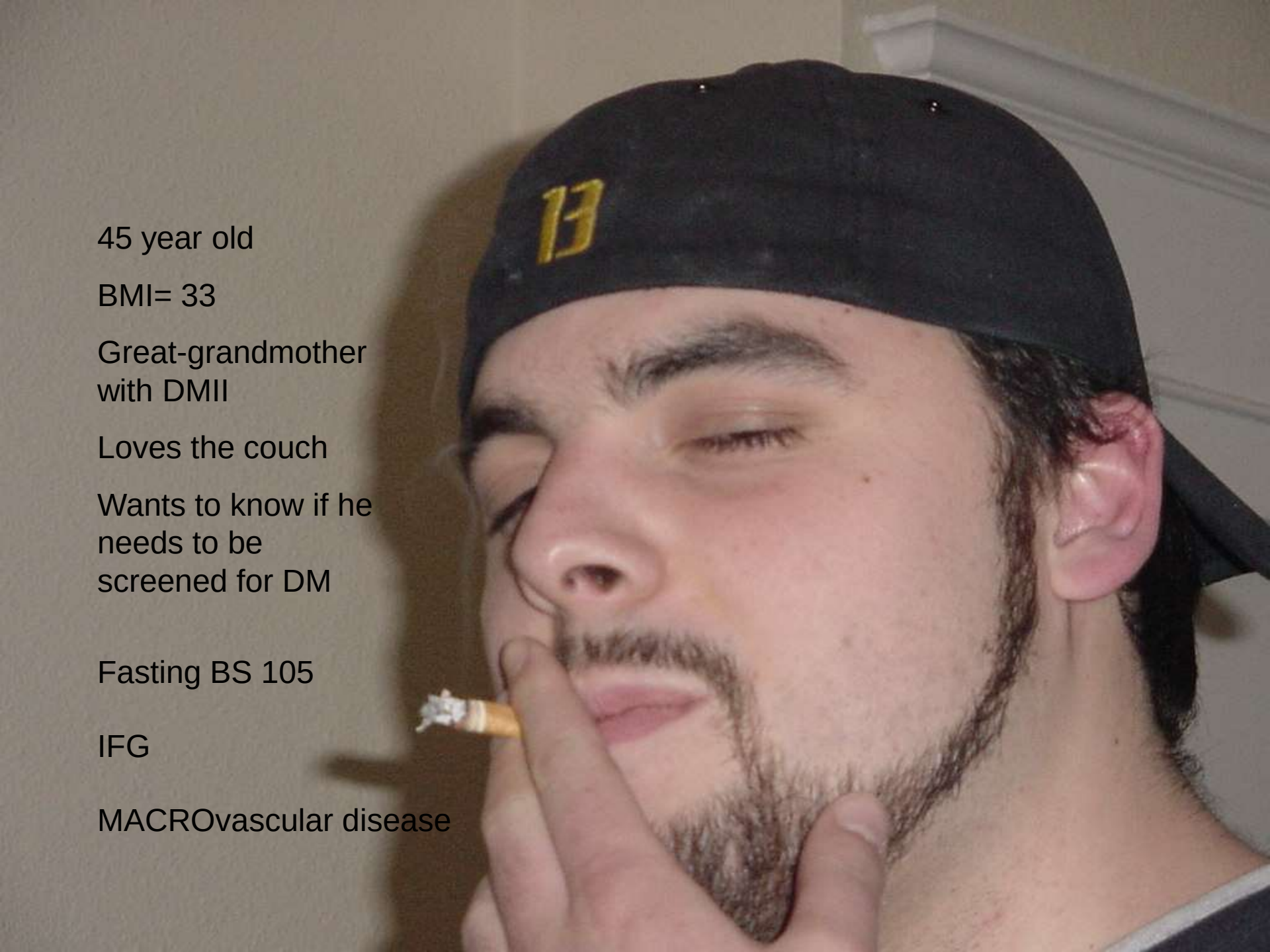


45 year old

BMI= 33

Great-grandmother with DMII

Loves the couch

Wants to know if he needs to be screened for DM

Fasting BS 105

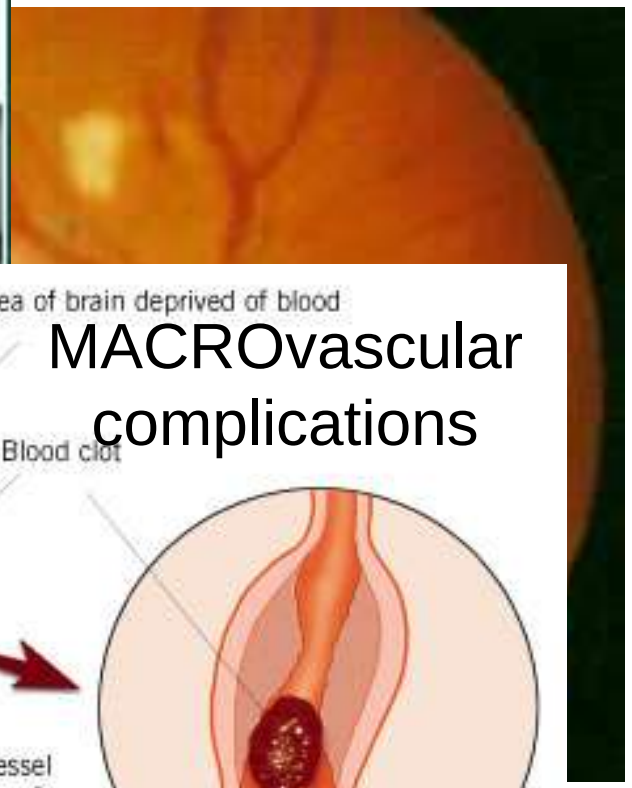
IFG

MACROvascular disease

10 years later…

- 55 yo “let myself go”
  - known DMII
  - Obesity
  - still smoking
  - Hypertension
  - …wants to “start over”
- Where is he heading?
- What do you do?

Ghost of Christmas Future…



MACROvascular complications

MICROvascular complications

Dx, surveillance, and Tx of DM…

- Increase insulin release
- Increase insulin responsiveness
- Modify intestinal absorption of carbs
- Give exogenous insulin

Lantus: start where you think is appropriate…20, 25, 30 units,…

Check am fasting BS

If FBS >120 go up by SS

- <120 0 units
- 121-140 2 units
- 141-160 4 units
- 161-180 6 units
- >180 8 units

Thanks Sam Ritchie!

Example:

- Start at 20 units
- M= 200 then 28 units
- T= 163 then 34 units
- W= 220 then 42 units
- Th= 131 then 44 units
- F= 110 then 44 units

HTN…below 130/80

- Treat early and treat aggressively
- ACEI offer other advantages
  - No adverse effect on lipids
  - May *lower* BS
  - May *prevent* DM (HOPE & LIFE)
  - Slow progression of nephropathy
  - May slow progress of retinopathy
  - Safe and well tolerated
  - Cheap
  - ARB’s work as well (new data)

Lipids

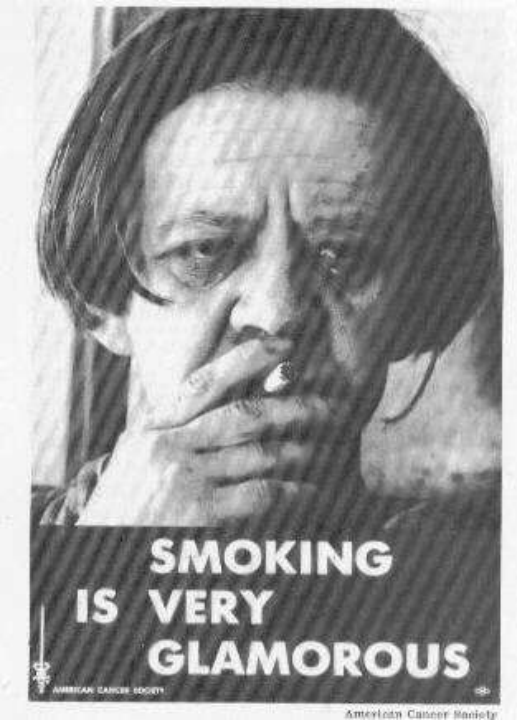
Risk of a MACROvascular event equal to patient with known CAD

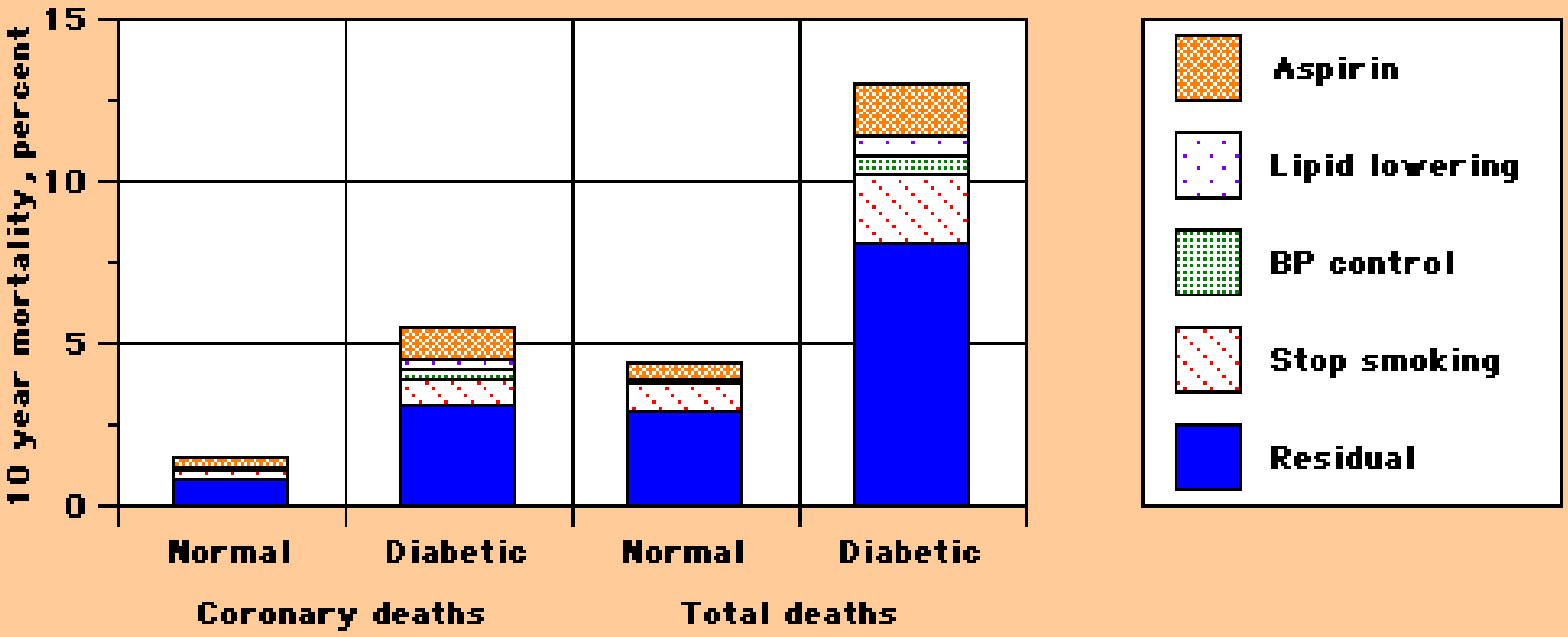
Start STATINS with goal to get most patients to <100


What is next for our patient?
CNN FILE

DM: “Smoking is bad for you” Why?

- Independent risk factor all-cause mortality
- Mortality increases with dose and duration
- Risk returns to baseline at 10 years
- Increases LDL, VLDL, and lowers HDL
- Makes insulin resistance worse
- Harder to control BS’s
- Makes neuropathy worse
- Cessation is the most beneficial intervention on survival outperforming any other single intervention





Increased cardiovascular risk in type 2 diabetes Calculated effects of different interventions on coronary and total deaths in 1000 normal and 1000 men with type 2 diabetes aged 35 to 57 years without a history of myocardial infarction. Although risk was reduced by the therapeutic interventions (particularly cessation of smoking), there was a residual three to four fold increase in mortality in the diabetic men, due presumably to the effects of hyperglycemia or hyperinsulinemia. (Data from Yudkin, JS, BMJ 1993; 306:1313.)

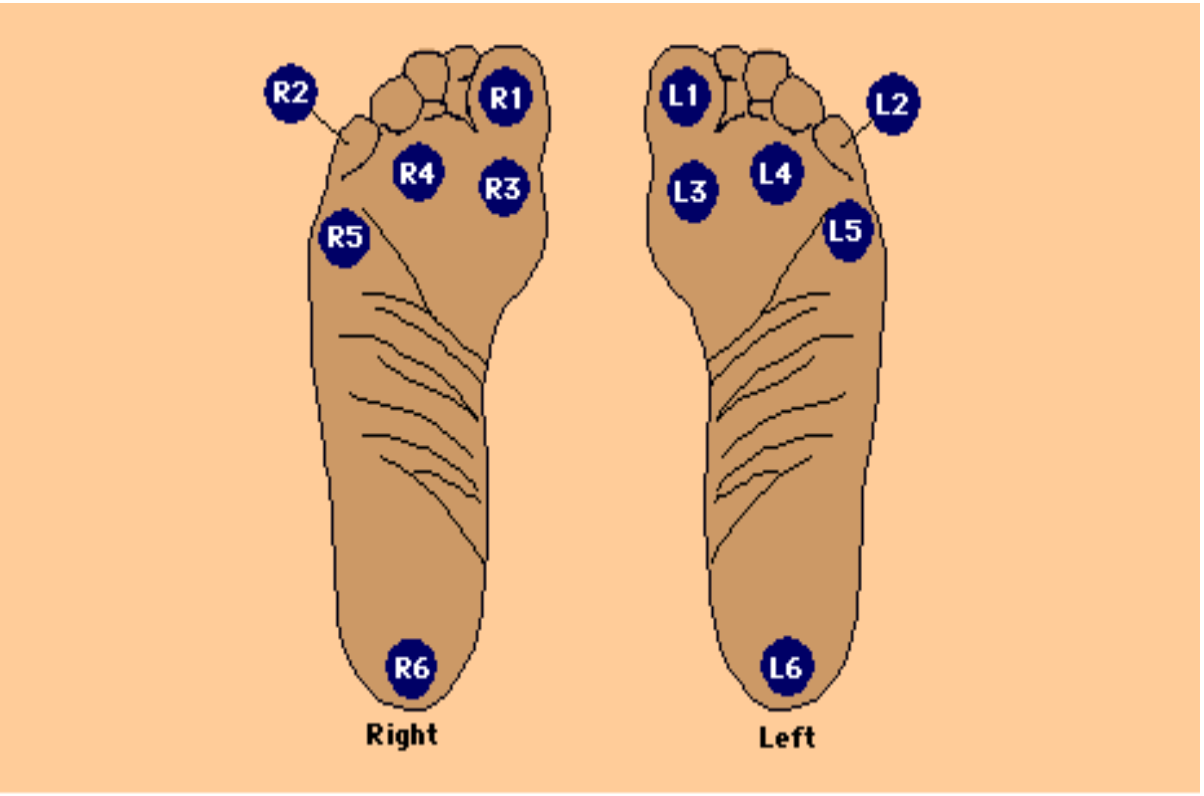
More to come in January…


RE: MICROvascular disease,
What do you screen for in our patient?…and how?

Neuropathy

- Prevalence is 32% overall and 50% for 60+ years
- 1993 (Diabetes Care) survey study of 1434 PCP's showed 50% of PCP's report doing semiannual neurologic and foot exam
- 1996 (Diabetes Care) HMO chart review study of 14,539 patients showed 6% had a documented foot exam

Neuropathy- the foot exam



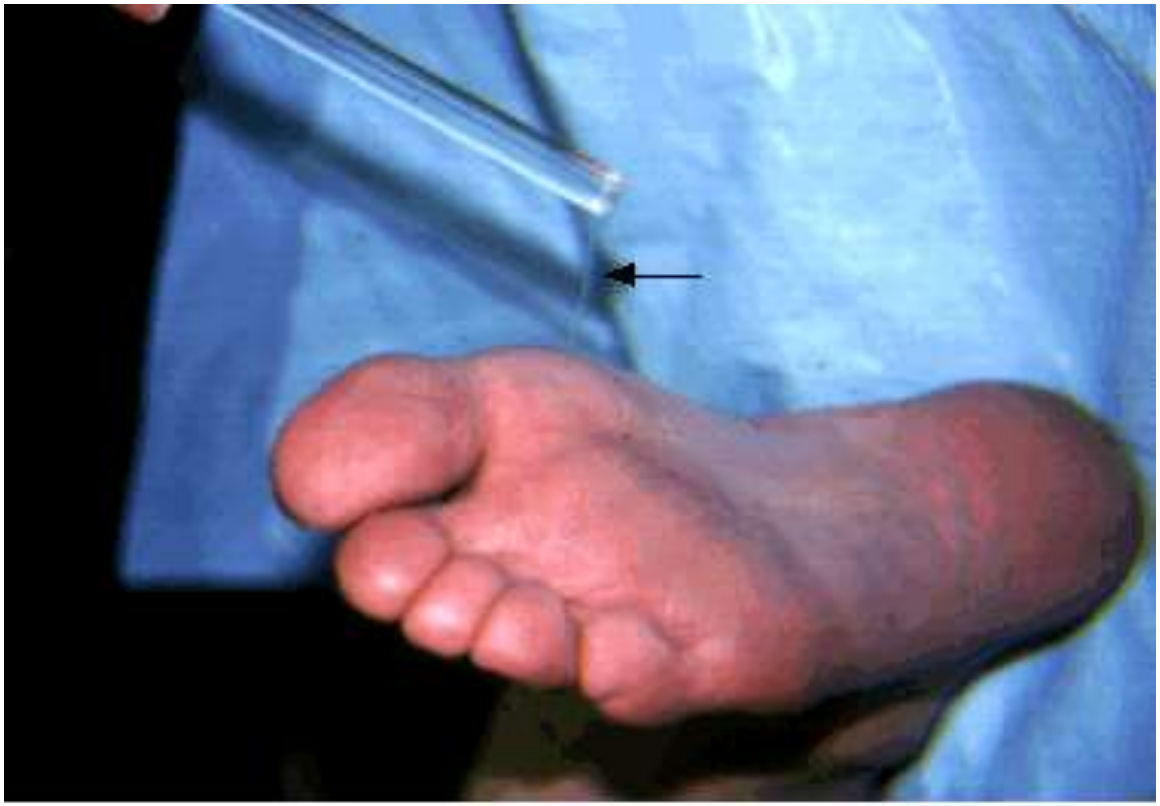
Testing sites for pressure sensation in evaluation of diabetic foot The monofilament used to evaluate pressure sensation should be tested at each of the 12 sites shown, which represent the most common sites of ulcer formation. Failure to detect cutaneous pressure at any site indicates that the patient is at high risk for future ulceration.

Semmes-Weinstein 5.07 (10-g) monofilament:

Developed by Gillis W. Long Hansen's Disease Center, LEAP Program, 5445 Point Clair Road, Carville, Louisiana 70721; telephone (504) 642-4714.

90% sensitivity if normal

85% specificity if positive in one of 12 sites

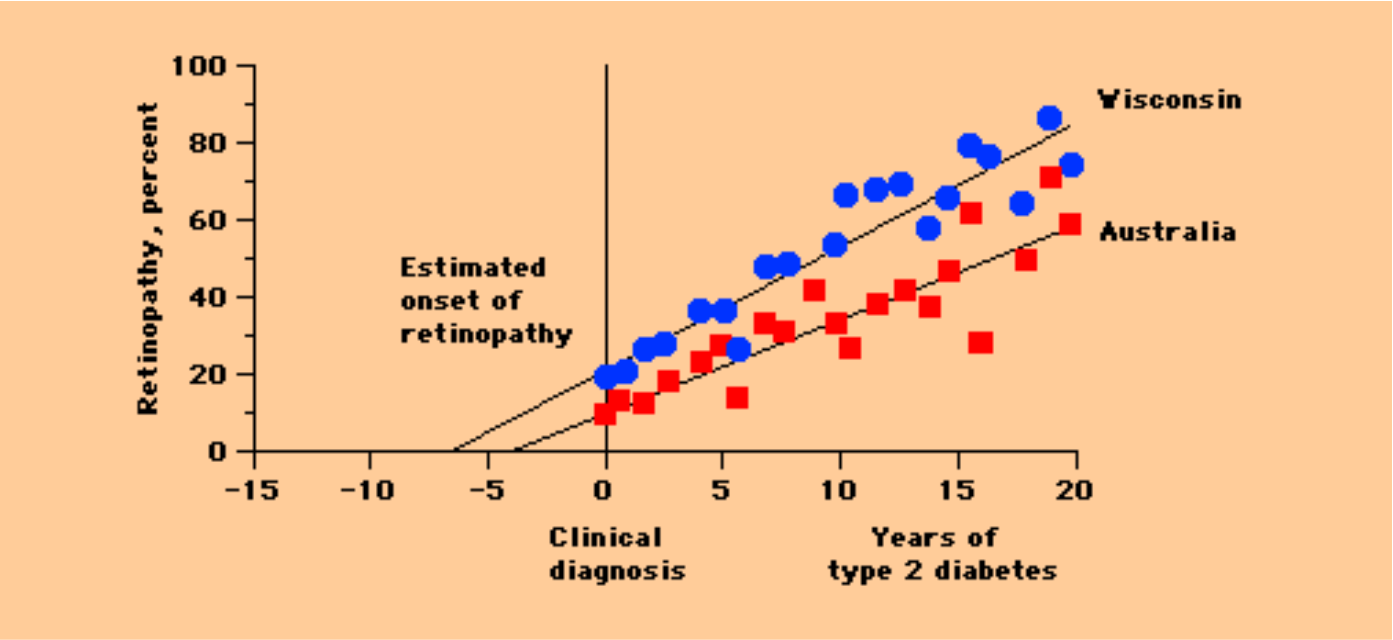


Monofilament estimation of pressure sensation
Use of the monofilament pressure esthesiometer for quantitative assessment of the cutaneous pressure perception threshold in the foot. The filament (arrow) is placed at a right angle to the skin on the plantar surface of the foot; pressure is then gradually increased until the filament buckles, indicating that a known amount of pressure (determined by the stiffness of the filament) has been applied. The patient is asked if the pressure has been felt. Diabetic patients with reduced pressure threshold are at increased risk for foot ulcers. Courtesy of David McCulloch, MD.

Neuropathy- what now?

- Advise-
  - Check feet every day (mirror, partner)
  - Wear snug shoes, clean socks, no open toes
  - Consider diabetic shoe
  - Check temp of bath water
  - Trim toes nails
  - Wash and moisturize feet daily
  - (All DM's should receive this advise but it should be stressed if Monofilament screen is positive)
- Podiatry referral for high risk patients

Retinopathy- referral annually



Onset of retinopathy precedes diagnosis of type 2 diabetes
Prevalence of retinopathy in relation to years after onset of diabetes among patients in southern Wisconsin (blue circles) and rural western Australia (red squares). At diagnosis (year zero), retinopathy was already present in 10 to 20 percent of patients. The lines extrapolate back to an estimated onset of retinopathy four to seven years before the clinical diagnosis was made. (Data from Harris, MI, Klein, R, Welborn, TA, Knuiman, MW, Diabetes Care 1992; 15:815.)

Why?

- 1994 study (Diabetes Care) estimates 94,304 person-years of sight would be saved if all DMII were screened appropriately, with a $472.1 million savings to Medicare
- Because laser therapy prevents visual loss
- When do you start looking?
- With diagnosis

Nephropathy

Microalbumin/Crt ratio

MA = 30 is micro-proteinuria, suggests nephropathy
-Confirm with 2nd test
-Start ACEI or ARB
-Glycemic control

MA = 300 is macro-proteinuria
-Glycemic control
-Prep for dialysis

Your Top Priority for MACROvascualar risk reduction in:

1. Stop smoking
2. ASA
3. BP
4. Lipids
5. Diet
6. Exercise
7. ACEI

Your Top priority for MICROvascular complications:

1. Smoking Cessation
2. Blood Sugar Control
3. Screen
4. BP control
5. ACE inhibitor
6. Diet
7. Exercise

Your top priority for everything else:

- Screen for depression
- Immunizations
- Routine health maintenance
- Weight loss
- Diet
- Exercise
- Dental health

This is the easy stuff…but how do you work with a patient to be successful as you define it?

- Prepare for the visit
- Plan ahead
- Negotiate agenda early
- Ask permission to share what you think you know
- Negotiate a plan

P

P

N

P

P

How do you help patients help themselves?

- Explore Background
- Discuss Barriers- “day-to-day” problems
- Ask about Successes
- Are they Willing to make a change? Do they have goals?
- Help then set an Action plan
- Remember and Reinforce

B
B
S
W
A
R

How do you do this all at the same time and in 20 minutes?

Provider

P
P
N
P
P

B
B
S
W
A
R

Patient

Patient leaves with:

- A script, referral, immunization, lab order, etc… that you think is important
- A specific action plan that you have reached collaboratively that is patient driven and patient oriented, specific and doable, that the patient feels is important
- Patient may return next time more engaged understanding that their disease is not your burden, and more empowered to participate in their care
- Can we do this with patients in groups?

769/1000

"MOMENT OF TRUTH"