Diabetes Foot Care

Presented by IHS Division of Diabetes
Treatment and Prevention
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Indian Health Service (IHS)
Best Practice for Diabetic Foot Care
A Strategy for Primary Care Clinicians

Stephen Rith-Najarian, MD

Captain, USPHS

Area Diabetes Consultant

Bemidji Area Indian Health Service

Learner Objectives

1. List risk four factors for diabetic foot complications
2. Be able to conduct a complete diabetic foot exam
3. List three interventions associated with decreased risk for foot complications
4. State four educational objectives for patients at high risk for foot complications
5. Describe four components of the chronic care model related to improving diabetic foot care

Protecting the Diabetic Foot
A Strategy for Primary Care Clinicians

- Screening for High Risk Patients
- Practical Interventions
- Implementation into Practice

Why is Foot Care Important for People with Diabetes?

- ~40% will develop peripheral neuropathy
- ~20% have an acute foot problem on foot exam
- ~15% will develop an ulceration (cost ~ $13–30K each)
- 5–10% progress to amputation (cost ~$50K/yr each)
- 43% with ulcer and 47% with amputation die in 5 yrs
- Most amputations can be prevented with resources currently available in primary care
- Most patients with diabetes get their care from primary care providers

CDC, 2008; Harris, 1993; Kumar, 1994; Borrsen, 1990; Reiber, 1999; Stockl, 2004; Rith-Najarian, 2001;Moulik, 2003

Foot-Related Risk Factors for Ulceration

Risk Factor	Ulcer	LEA
Neuropathy	+	+
Deformity	+	+
Limited Joint Mobility	+	+
Prior Ulcer/LEA	+	+
PVD	+	+
Onychomycosis	+	

Pham, 2000; Lavery, 1998; Rosenbloom, 1996; Walters, 1992; Kumar, 1994; Fernando, 1991; Rith-Najarian, 1992; Mayfield 1996; Alder, 1999, Boyko, 2006

Non-Foot-Related Risk Factors for Ulceration and Amputation

Risk Factor	**Ulcer**	**LEA**
Male Sex	+	
Duration DM	+	
Age	+	
hyperglycemia	+	+
hypertension	+	+
dyslipidemia	+	+
smoking	±	±
Vision < 20/40	+	
Other complications	+	+

Moss, 1996; Alder, 1999; Palumbo, 1995; Moss, 1992; Moss, 1999; Litzelman, 1997; Lee, 1993; Boyko, 1999; Nelson, 1988; Selby, 1995; Lehto, 1996; Eggers, 1999; Boyko 2006.

Simple Criteria to Identify High-Risk Feet in People with Diabetes

- Insensate to 10-gram monofilament

  or Insensate to 128-Hz tuning fork

- Foot deformity
- Prior ulcer or amputation
- Absent pulse or abnormal ABI pressure

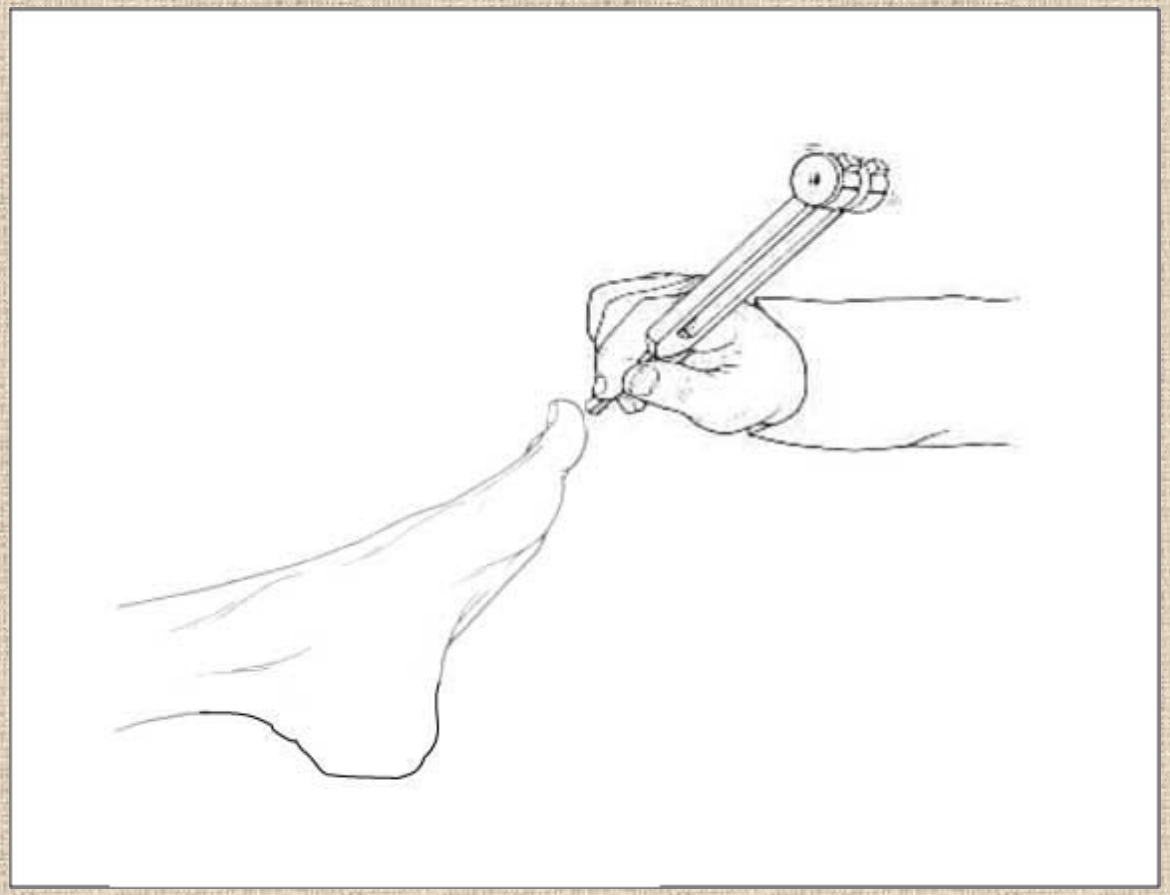
Diabetes Care, 15:1386-89, 1992; N Eng J Med, 1995;322:269-70.
Diabetes Care, 31:1679-85, 2008; Diabetes Res Clin Pract, 70:8-12, 2005
Feet Can Last a Lifetime, NIH/NIDDK, 2002

Perkins, Diabetes Care 2001;24:250-256

Diabetes Care, 1992;15:1386-89

Vibration Sensation testing
128 Hz tuning Fork

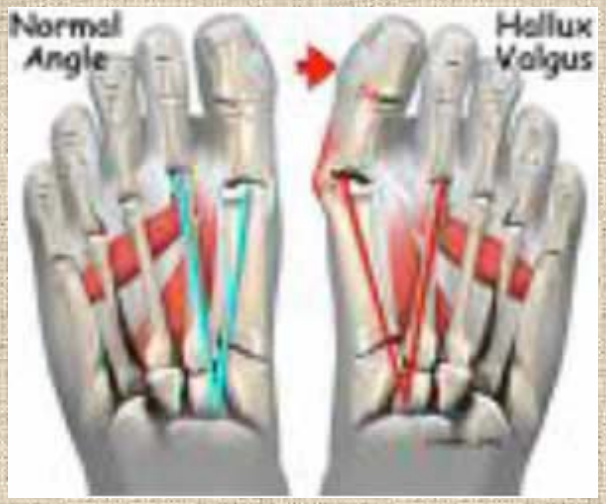
- Tested over the tip of the great toe bilaterally
- An abnormal response can be defined as when the patient loses vibratory sensation and the examiner still perceives it while holding the fork on the tip of the either toe

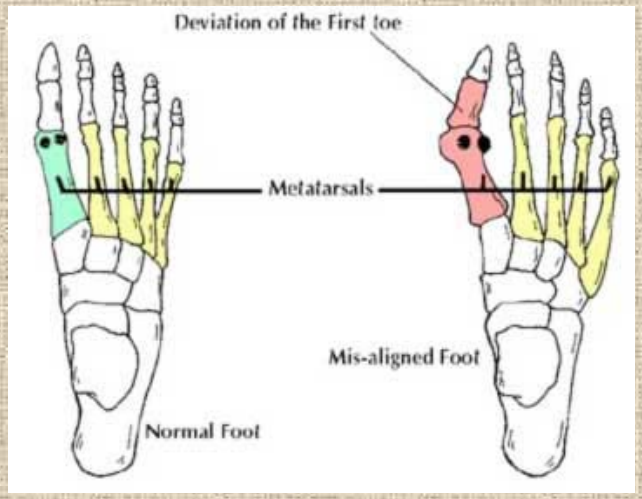


Singh JAMA 293:217–228, 2005
Abbott, Diabet Med 19:377–384, 2002

Development of Foot Deformities

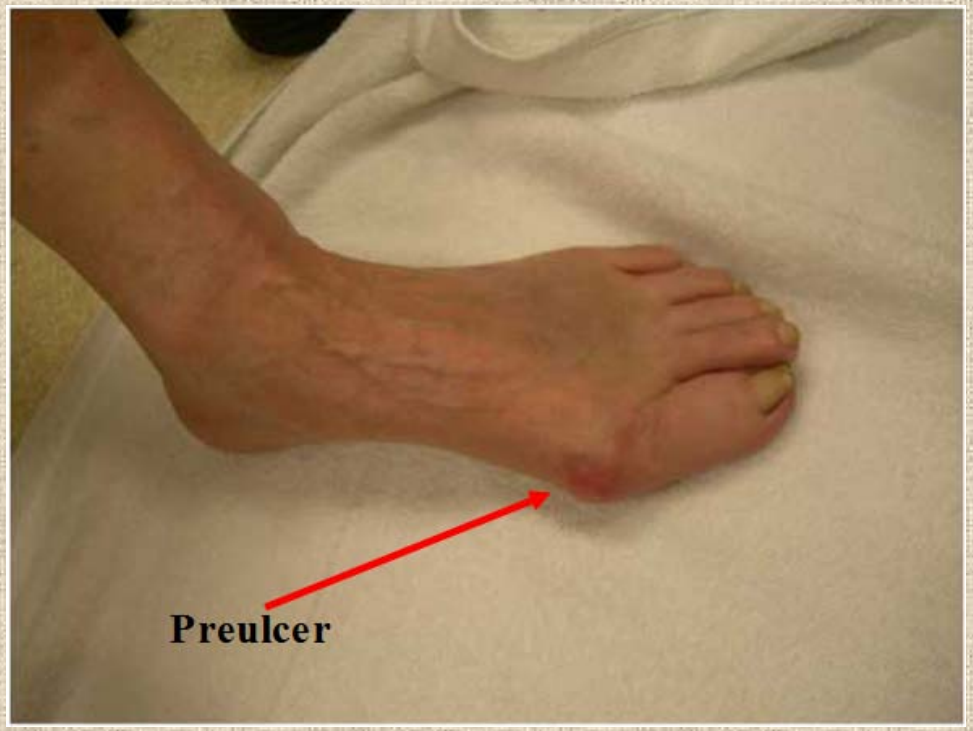
Bunions – hallux valgus



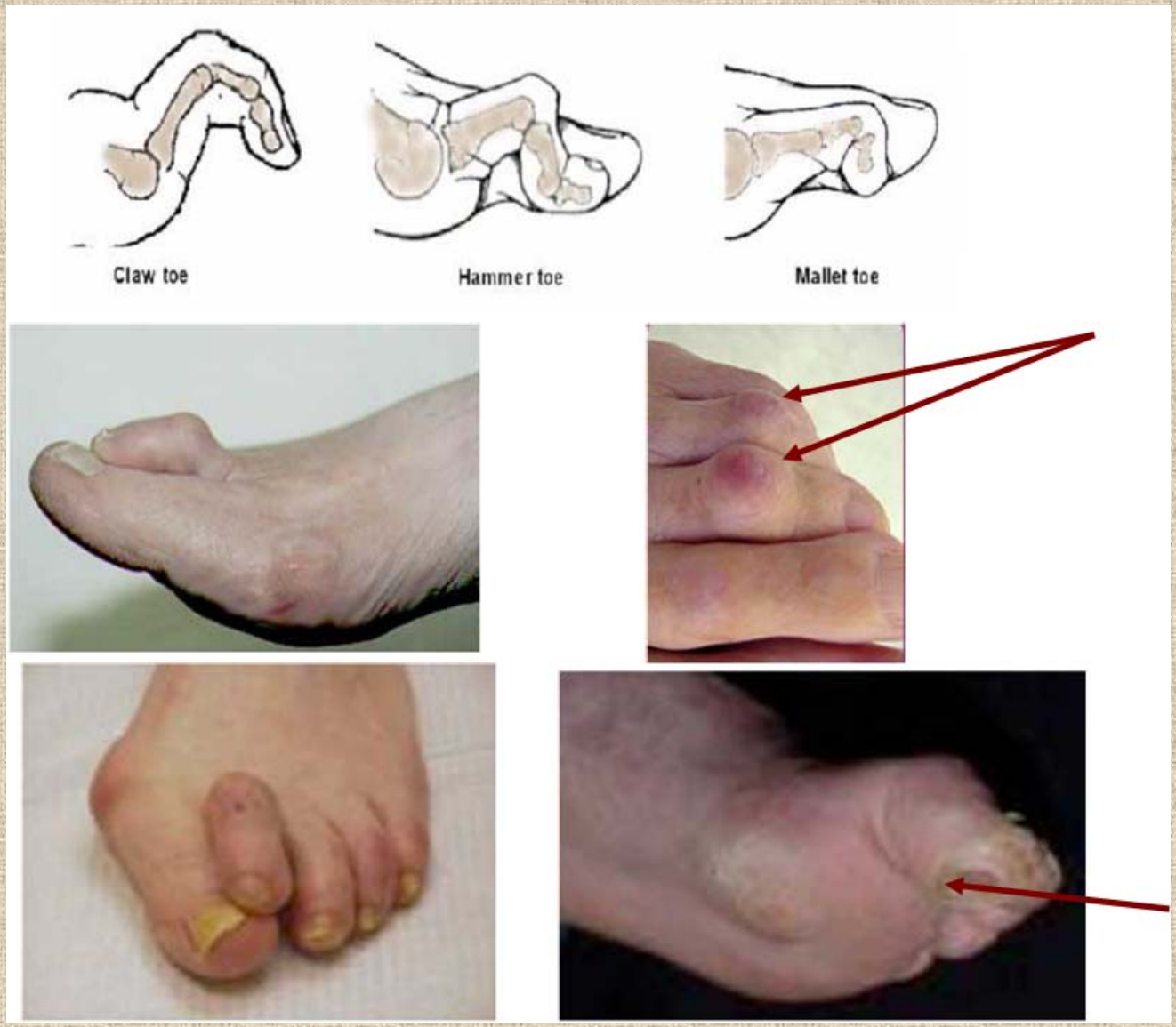


Foot Deformities associated with risk for Amputation

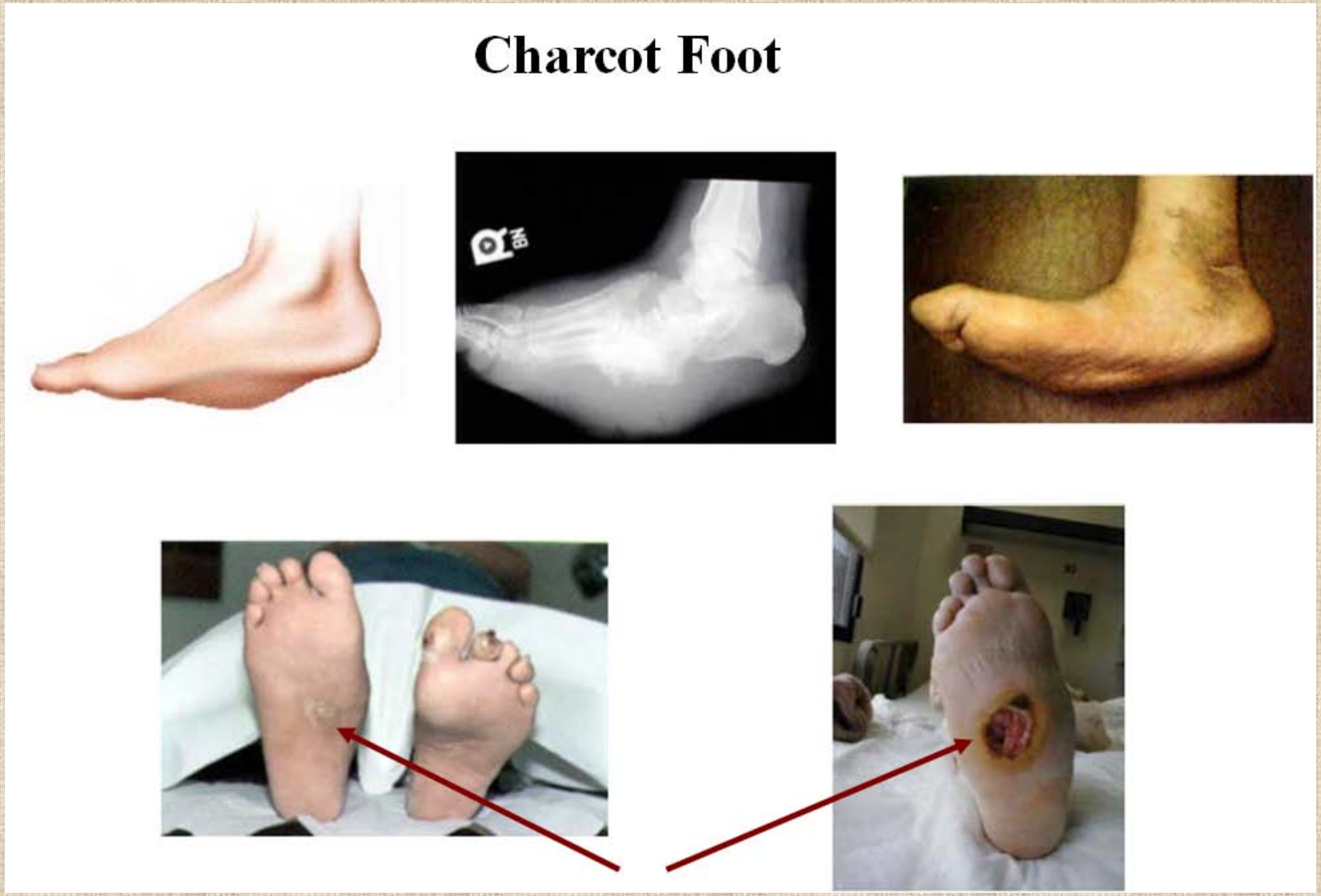
Bunions – hallux valgus



Foot Deformities Associated with Risk for Amputation



Foot Deformities associated with risk for Amputation

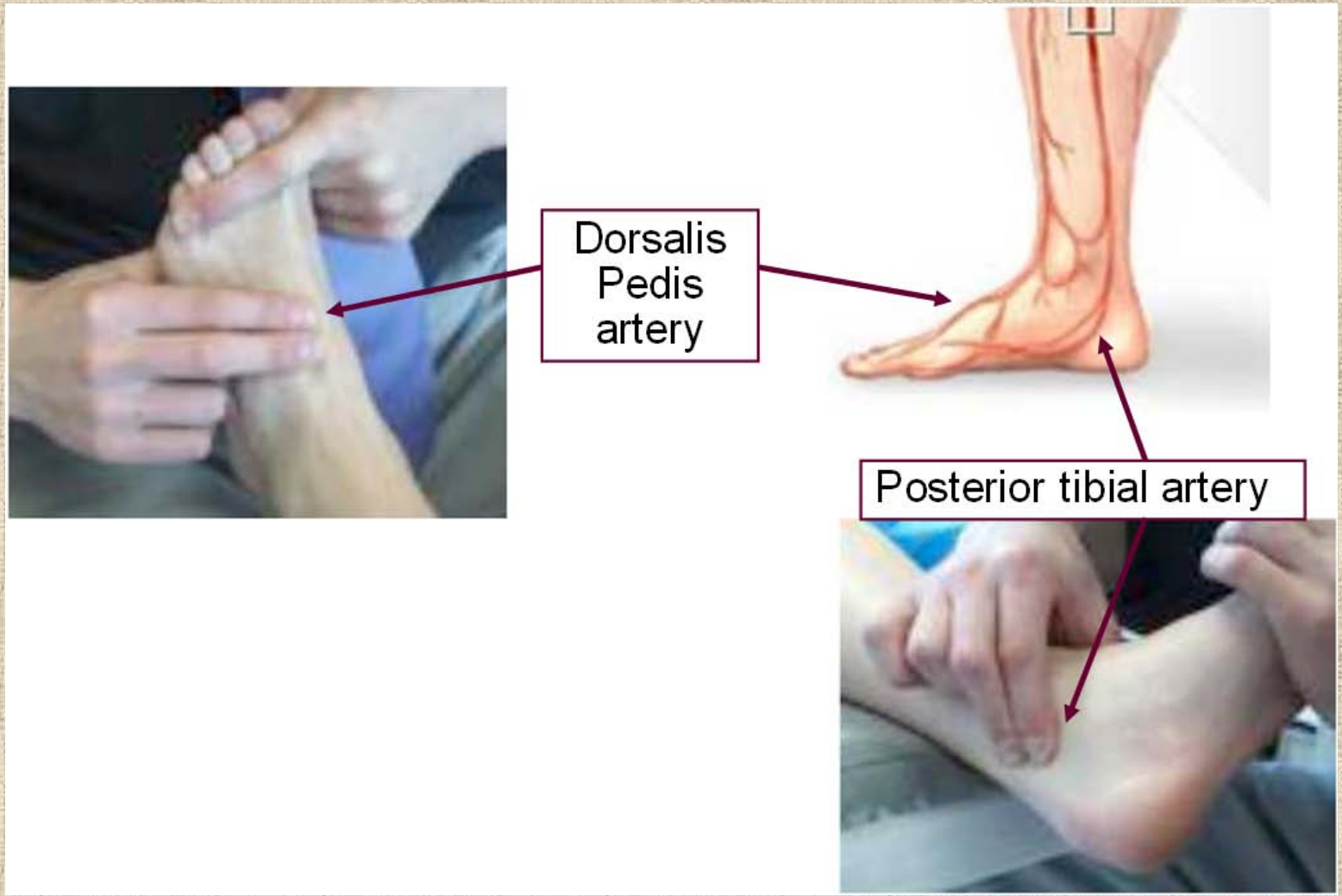


Selected Clinical Assessments of Peripheral Arterial Vascular Status and Abnormal Thresholds

Vascular Test	**Abnormal Threshold**
Pedal Pulses:	absent
Ankle Brachial Index (ABI):	< 0.8
Toe BI:	< 0.6

Pham Diabetes Care 2000;23:606-11
Wang, Circulation 2005;112:3501-3508
Suominen, European J Vasc Surg 2008;35:709

Arterial Anatomy of the Foot



Ankle Brachial Index

1. Measure Doppler brachial pressures in each arm

2. Measure Doppler pressure in each ankle

from Hurley et al, The Diabetic Foot, 1993

3. **Calculate ABI:** ABI = Ankle BP/Brachial BP

Divide the ankle pressure by the greater of the two brachial pressures

Correlation of POAD Symptoms by ABI Category

Severity Category	ABI Value
Normal	1.0–1.4
Borderline	0.90-0.99 or >1.4
Mild	0.70–0.89
Moderate	0.40–0.69
Severe	< 0.40

Wang, *Circulation* 2005;112:3501-3508

Protecting the Diabetic Foot
A Strategy for Primary Care Clinicians

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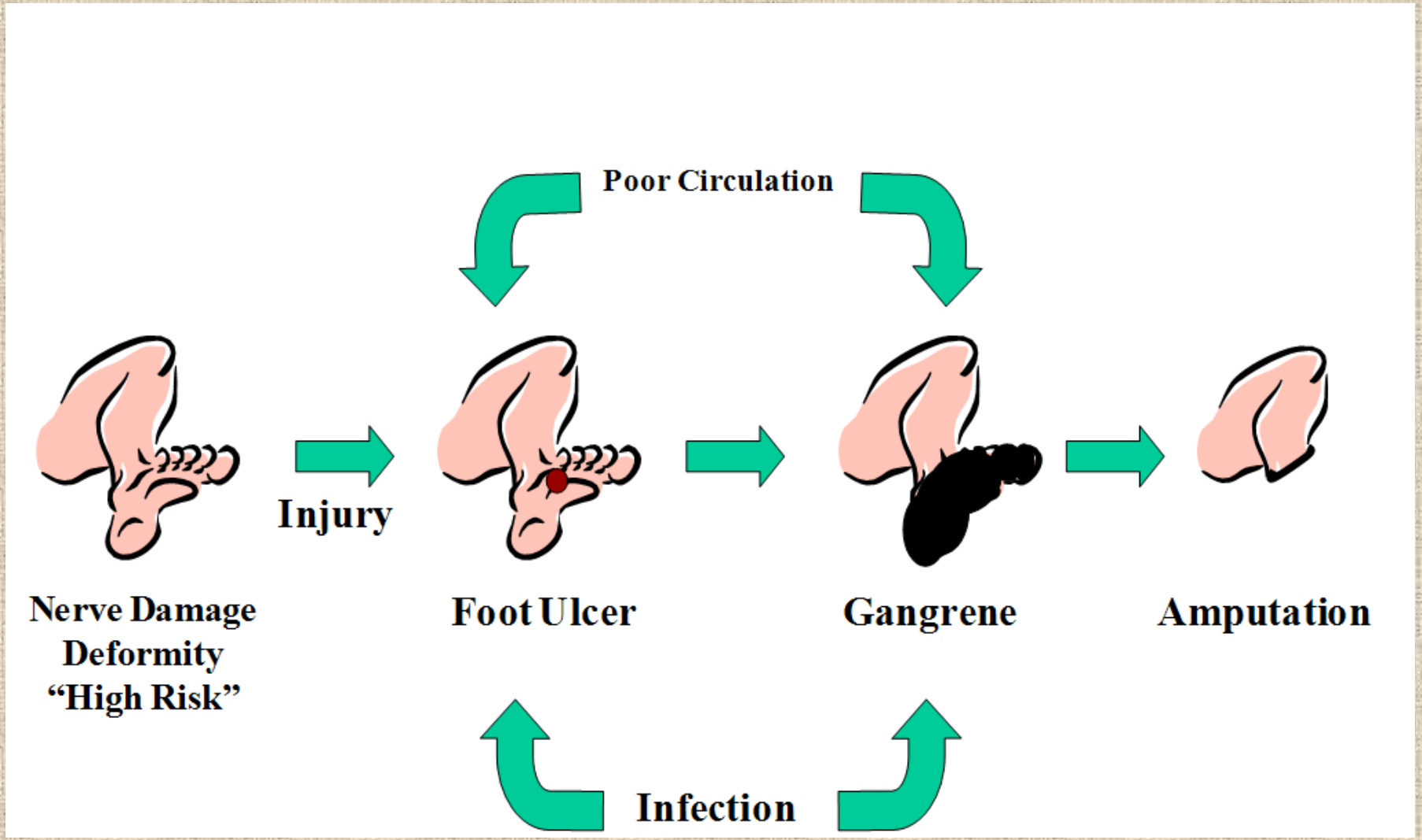
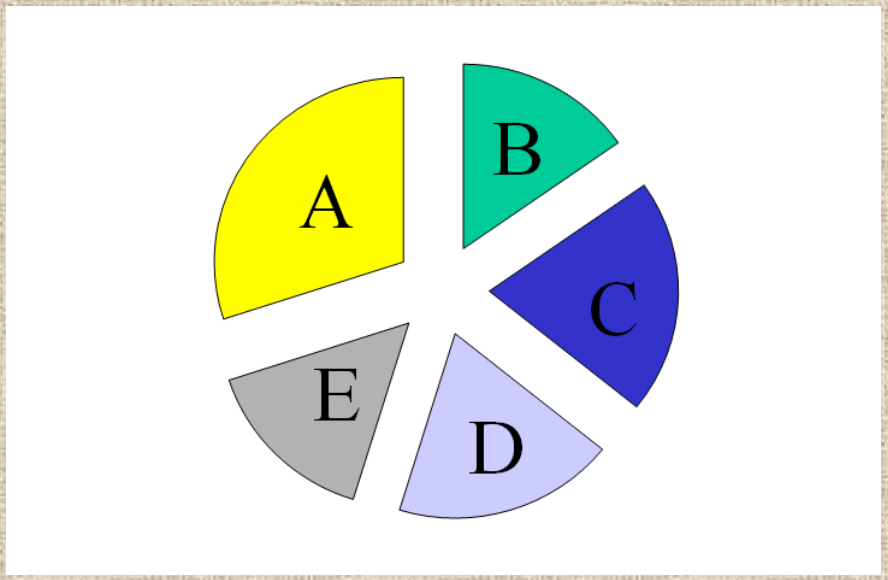
Pathways to Diabetic Limb Amputation: A Basis for Prevention



Component Causes Present in Causal Pathways Leading to Foot Ulcers in Persons with Diabetes

A+B+C → Ulcer



Component Cause	(%)
Neuropathy	78
Minor Trauma	77
Deformity	63
Edema	37
Callus	30
Infection	1
Ischemia	35

Strategies to Prevent or Delay Development of Common Component Causes of Foot Ulceration and Amputation

Component Cause	Intervention Strategy
Neuropathy	Good glycemic control, education on risk for foot injury
Minor Trauma	Clear walking space, nightlights, protective footwear
Deformity	Accommodative footwear, education to support footwear
Edema	Footwear accommodative to of edema Reduce edema: pharmacologically, compression stockings
Callus	Regular removal of callus Footwear that minimizes callus development
Infection	Education on reporting problems early
Ischemia	Reduce risk for atherosclerosis (hypertension, and lipid control, smoking cessation). Revascularize for critical ischemia

Reiber, Diabetes Care, 1999;22:157-62

Association of Patient Education and Amputation Prevention

Program	Reduction in LEA Rate	
Veterans, Tucson USA	70%	Malone, 1989
Kisa, Sweden	80%	Larrson, 1995
Kings College, London	44%	Edmonds, 1999
Geneva, SZ	85%	Assal, 1993
Madrid, Spain	50%	Calle-Pascual, 2001

Evidence-Based Education and Treatment Objectives for All Patients with Diabetes *Low-Risk Feet*

- Control glucose
- Control blood pressure
- Control lipids
- Smoking cessation

Dyck, 1999; Moss 1992; Moss 1999; Boyko 1999; Goldberg, 1998; Pyorala, 1997; UKPDS, 1998 Haire-Joshu, 1999

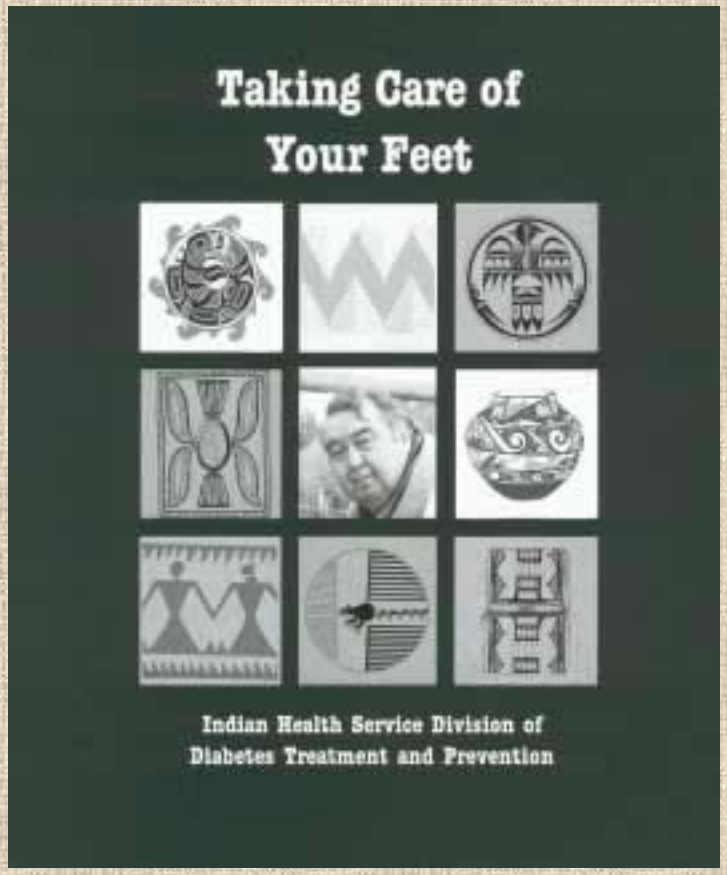
Evidenced-Based Footcare Educational Objectives for Patients with Diabetes *High-Risk Feet*

- Daily washing and inspection
- Clear walking area of dangerous objects
- Appropriate footwear (selection, fitting, and use)
- Use slippers indoors – no bare feet
- Proper Nail and Callus Care (no bathroom surgery)
- Avoid Extreme Temperatures
- Avoid Soaking
- Report Problems Promptly (infections, ulcers, cuts that do not heal)

Calle-Pascual, 2001; Reiber, 1999; Ward, 1999;Barth, 1991; Malone, 1989; Edmonds, 1986

IHS Patient Education Materials on Footcare

Pretested for learner comprehension



Hosey, Diabetes Educ 1990;16:407-414

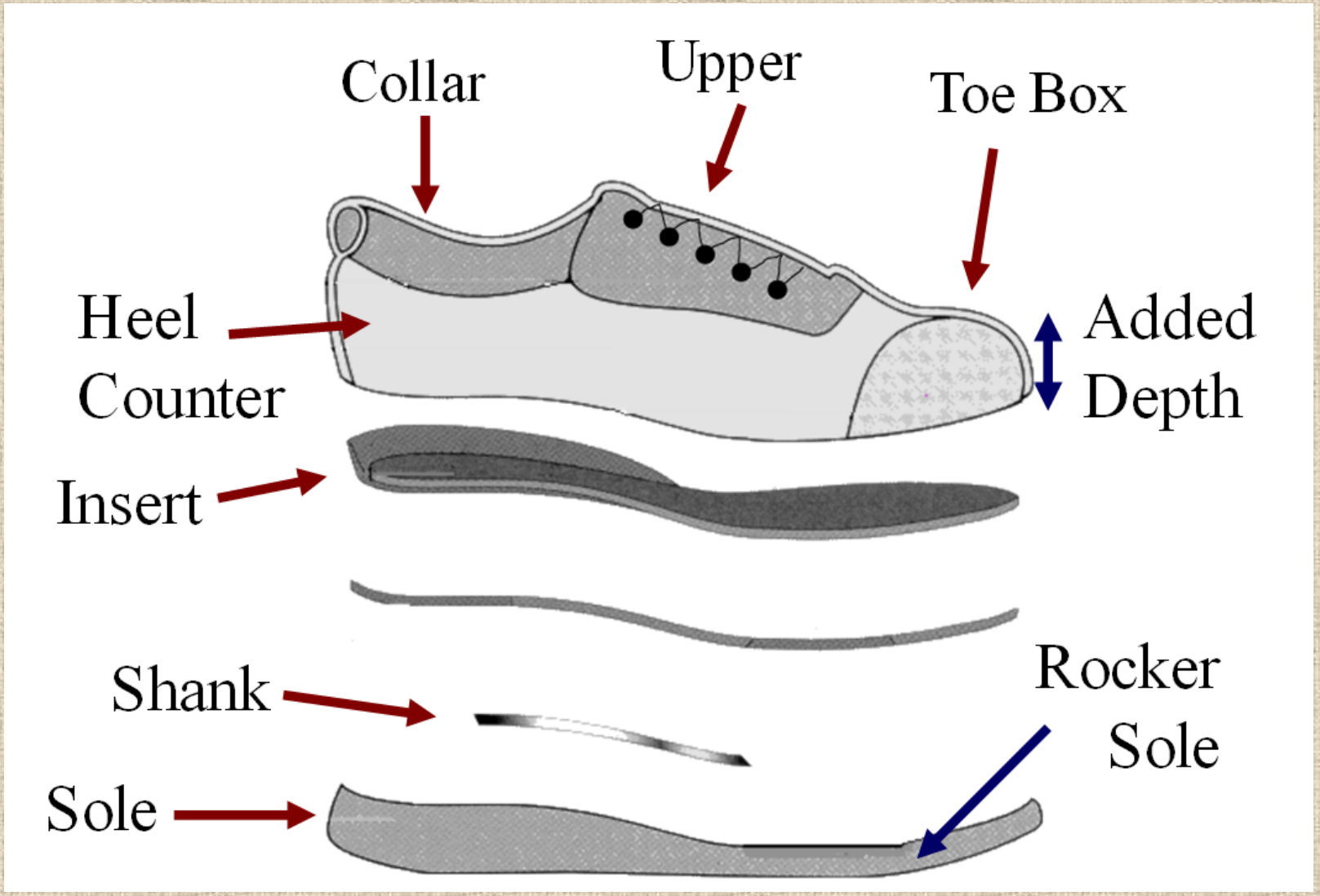
http://www.ihs.gov/MedicalPrograms/Diabetes/RESOURCES/Catalog/rde/index.cfm?module=catalog

Foot Wear and Prevention of Foot Lesions

- Reduced Peak Planter Pressures > 50%
- Reduced callus formation > 30%
- Ulcer recurrence rates reduced > 50%
- LEA rates reduced > 70%

Viswanathan Diabetes Care 2004;27:474-477
Chanteleau, Diabet Med 1994;11:114-6
Ashry, J Foot Ankle Surg 1997;36:268-71
Edmonds, Q J Med 1986;60:763-71

Footwear Anatomy 101



Footwear Selection

- **Normal feet: Standard shoes**
- **Insensate feet : Quality walking shoe or added depth shoe**
  - **Adjustable upper**
  - **Firm heel counter**
  - **Padded insert and collar**
  - **Broad sole with nominal lift**
- **Insensate feet + Minor deformity : Added depth shoe + custom insert**
- **Major Deformities: Custom molded shoes**

Tovey, Diabet Med 1984;1:69-71;
Dahmen, Diabetes Care. 2001;24:705-9

Custom-Molded Inserts and Extra-Depth Shoes

Fitting Shoes

- Select shoes that match the shape of the foot
- Measure both feet while standing
- Fit while wearing standard socks
- Fit largest foot
- 1 cm length between longest toe and shoe tip

Footwear Precautions

- Break-in:

  Start ½-hr on first day

  Then ↑ by ½-hr increments per day

  Inspect for redness after wearing

- Change shoes 1–2 x daily
- Check for foreign bodies
- Replace when worn out

Foot Wear for People With Diabetes

Here are Some Tips for Buying New Shoes to Help You Protect Your Feet?

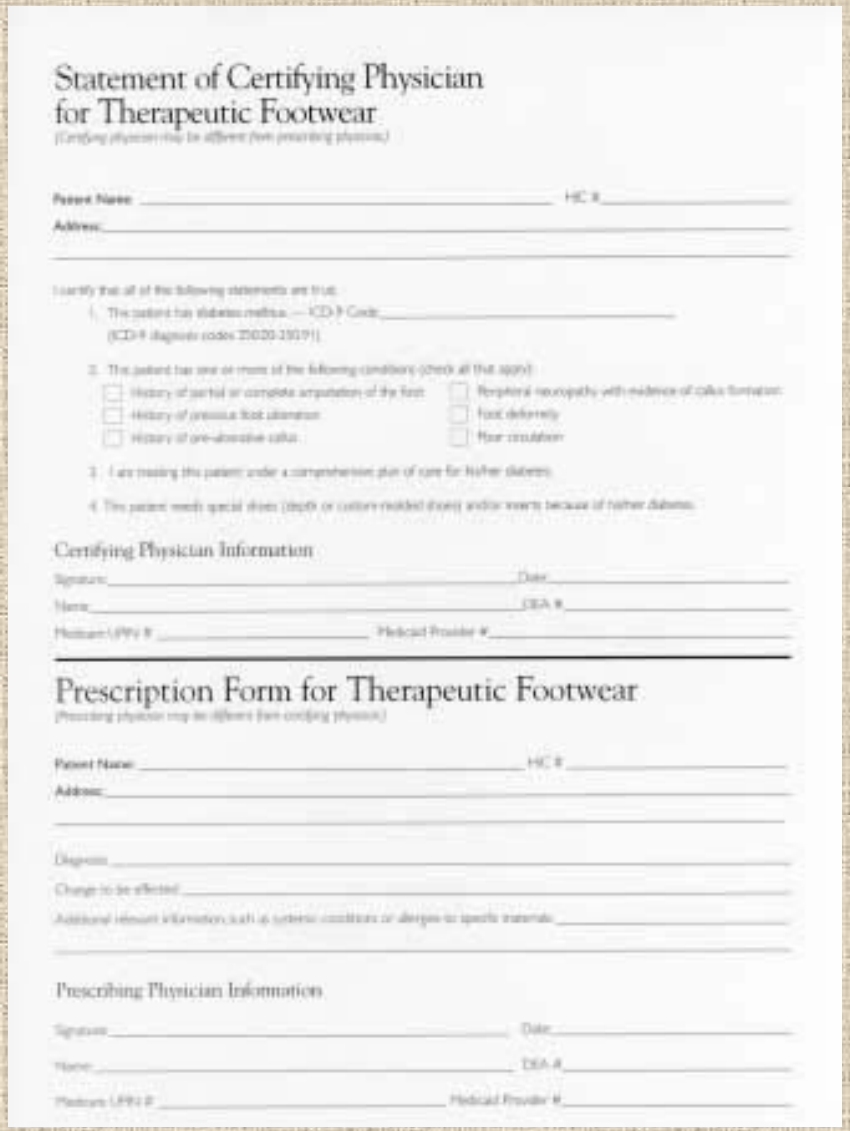
- Buy shoes in the afternoon. Most people's feet will be swollen by the afternoon.
- Tell the salesperson you have diabetes.
- Have the shoe salesperson measure both feet.
- Test the shoe fit by wearing them for at least 5 minutes in the store.
- If shoes hurt when you try them on, do not buy them.
- Break in new shoes by wearing them for 1-2 hours at a time for the first few days.
- Never wear new shoes all day.
- Check your feet for redness or irritation. If the shoes are causing redness or irritation, return them as soon as possible.

http://www.ihs.gov/MedicalPrograms/Diabetes/RESOURCES/Catalog/rde/index.cfm?module=catalog

Medicare Therapeutic Footwear Benefit

Three Steps:

1. Physician certification for therapeutic footwear (MD, DO)
2. Footwear prescription (usually a Podiatrist)
3. Fitting and dispensing (usually a Pedorthist)



Statement of Certifying Physician for Therapeutic Footwear

Certifying Physician Information

Prescription Form for Therapeutic Footwear

Prescribing Physician Information

Sugarman, Diabetes Care 1998:777-81.
Wooldridge. Am J Public Health 1996::935-8

Routine Podiatry Care for People with Diabetes

Associated with:

Increased self-foot-care knowledge and 30% reduction in callus *Ronnemaa Diabetes Care, 1997;20:1833-1837*

54% reduction in ulceration rates in case control study of 91 diabetic patients with a history of foot ulcers

Plank, Diabetes Care 2003;26:1691-1695

75% reduction in LEA rates in Medicare patients with diabetes and high-risk feet who received palliate podiatry foot care services Sowell, *J Am Podiatr Med Assoc 1999;89:312-7*

Principles of Podiatry Care for People with Diabetes

- Lubricate Skin
- Trim Nails
- Reduce Callus

Suico, 1998; Murray, 1996; Murray, 1996

Lubricate Dry Skin

- Autonomic neuropathy contributes to dry skin
- Instructed Patients to apply a moisturizing lotion daily
- Oil or water based lotions are a mater of patient preference
- May need care giver to assist

Lubricate Dry Skin

Nail Trimming: Normal Nails

- Use nail nippers, strait or curved.
- Good lighting, comfortable position, safety glasses
- Stabilize the toe with one hand, cut with the other
- Start at one edge and follow the curve
- File any sharp edges with emery board

Nail Trimming: Normal Nails

Nail Trimming: Curved Nails

- Use nail nippers, strait
- Good lighting, comfortable position, safety glasses
- Start at one edge and follow the curve
- Avoid cutting into corners
- File any sharp edges with emery board

Nail Trimming: Thick Mycotic

- Tend to be very brittle
- Can use nail nippers or dremel to trim off sharp edges
- Best to refer to a podiatrist or certified foot care nurse

Callus Debridement

- Good lighting, gloves, alcohol swab, and #15 disposable scalpel
- Wipe with alcohol swab, callus tissue will turn white
- Shave or pare down callus gradually
- Palpate intermittently to feel when you are close to pliable "normal" tissue, then stop.

Callus Debridement

Principles of Wound Care

- Assessing foot wounds
- Classifying foot wounds
- Management of uncomplicated wounds
- Vascular assessment
- When to refer

Assessing Foot Wounds

Begin by assessing the following criteria:

- Wound dimensions
- Quality of the wound bed and edges
- Surrounding erythema and cellulites
- Penetration to deep structures (fascia, tendon, bone, FB)
- Lower extremity blood flow
- Signs of systemic infection (Temperature, WBC)

Standard Classification Foot Wounds

University of Texas Wound Classification

Grade		Stage	
0	Pre-ulcer	A	No infection or ischemia
1	Superficial	B	Infection
2	Soft Tissue	C	Ischemia
3	Bone or Joint	D	Infection and ischemia

Armstrong, Diabetes Care 1998; 21:855-859

Management Principles Uncomplicated Wounds

- Clean and moist environment:
  - Wound debridment
  - Regular dressing changes
- Off loading
- Oral antibiotics directed by culture
- Monitoring of size
- Outpatient management appropriate
- May need to hospitalize for off loading
- Limited use of adjunctive healing agents
- Control glucose

Dressing Principle

- Wet to dry saline gauze dressing daily is the main stay.
- Adsorbent compounds are useful for soupy wounds
- Hydrocolloid gels and occlusive dressings have a role in dry wounds.
- Enzymatic debridement may be useful to soften eschar

Nutrition and Wound Healing

- Positive Nitrogen Balance for Anabolic State
- Vitamin C 500mg daily
- $ZnSO_4$ 220mg Daily × 10d then MVI with trace minerals QD

Heyman, J Wound Care. 2008;17:476-8, 480
Desneves, Clinical Nutrition, 2005 Dec;24:979-87

Simple Wound: Debridement

Management Principles Complicated Wounds

- Inpatient management appropriate initially
- Initial surgical wound debridement
- Vascular assessment and appropriate intervention
- Clean and moist environment:
  - Regular dressing changes
  - Consider negative pressure wound therapy
- Parental antibiotics directed by culture
- Off loading
- Monitoring of size
- Consider use of adjunctive healing agents

Factors Associated with Diabetic Foot Wound Healing

Risk Factor	Adjusted Odds Ratio (95% CI)
Sex	1.14 (1.08, 1.20)
Age	1.01 (1.00, 1.01)
Grade *	*1.93 (1.82, 2.05)*
Wound duration *	*1.30 (1.27, 1.32)*
*Wound size**	*1.32 (1.30, 1.34)*

* P <0.0001

Margolis, Diabetes Care 25:1835-1839, 2002

PATIENCE!

<25% ulcers healed at 12 weeks

Margolis Diabetes Care, 1999;22:692-695

Offloading with commercial healing shoes

Half-Shoes
~$50–80

Removable
Cast Walkers
~$150–500

70% patients did not increase activity and used device only 28% of time 30% patients record more activity, but only use device 60 % of time

Armstrong, Diabetes Care 26:2595-2597, 2003

Adjunctive Wound Healing Therapy

- All associated with higher and faster healing rates
  - Growth factors (~15–25%)
  - Skin graphs (~50%)
  - Hyper baric oxygen (~20%)
  - Electro-stimulation (?)
  - Maggot therapy (~50%)
- Dependant on adequate vascular supply and clean wound
- High cost and not always covered by insurance

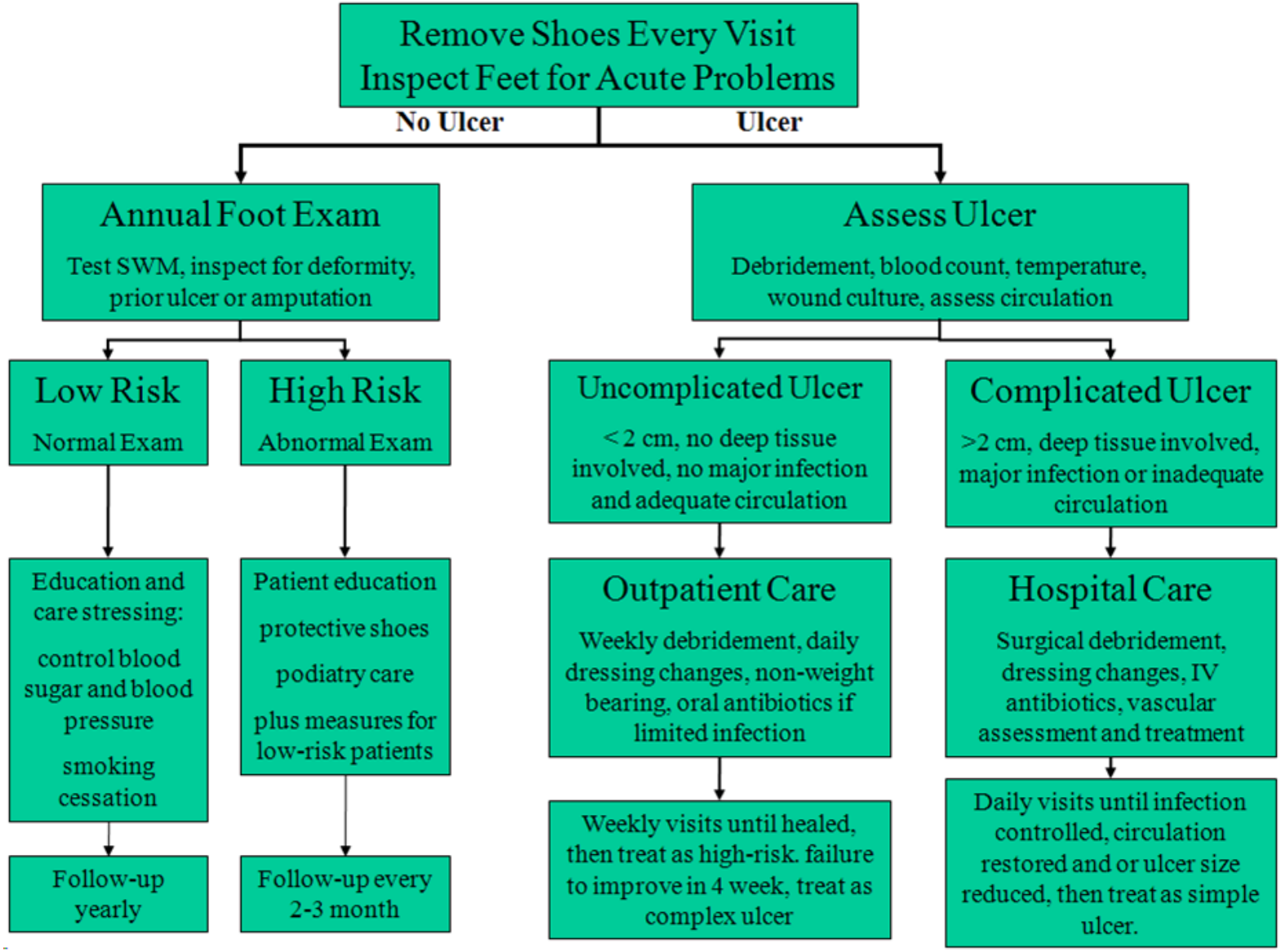
Weiman, Diabetes Care 1998;21:822–7;Gentzkow Diabetes Care 199;19:350–4; Faglia, Diabetes Care. 1997;20:1207–8; Peters, Foot Ankle Surge 1998;37:396–400; Veves, Diabetes Care 2001;24:290–295, Kessler Diabetes Care 2003;26:2378–2382; Carravaggi Diabetes Care 26:2853–2859, 2003; Sherman Diabetes Care 26:446–451, 2003

Adjunctive Wound Healing Therapy
A Rational Approach

- Ensure the basics first: clean wound, off loading, control infection, good nutrition, metabolic control, assess circulation.
- Monitor healing, if less than 50% reduction in size after 4 weeks, chances of healing < 10%. Consider adjunctive agents as resources permit. *Sheehan, Diabetes Care 2003;26:1879–1882; Margolis, Diabetes Care 26:1696–1700, 2003*
- Some adjunctive treatments require large capital expenditures. Resources may be better spent on a case manager that can improve all aspects of diabetic care.

Criteria for Vascular Evaluation in the Diabetic Foot

- Ulcer with clinical signs of ischemia
- Nonhealing ulcer
- Rest pain
- Nocturnal pain
- Lifestyle limiting claudication



J.Fam Pract;1998(47):127-132

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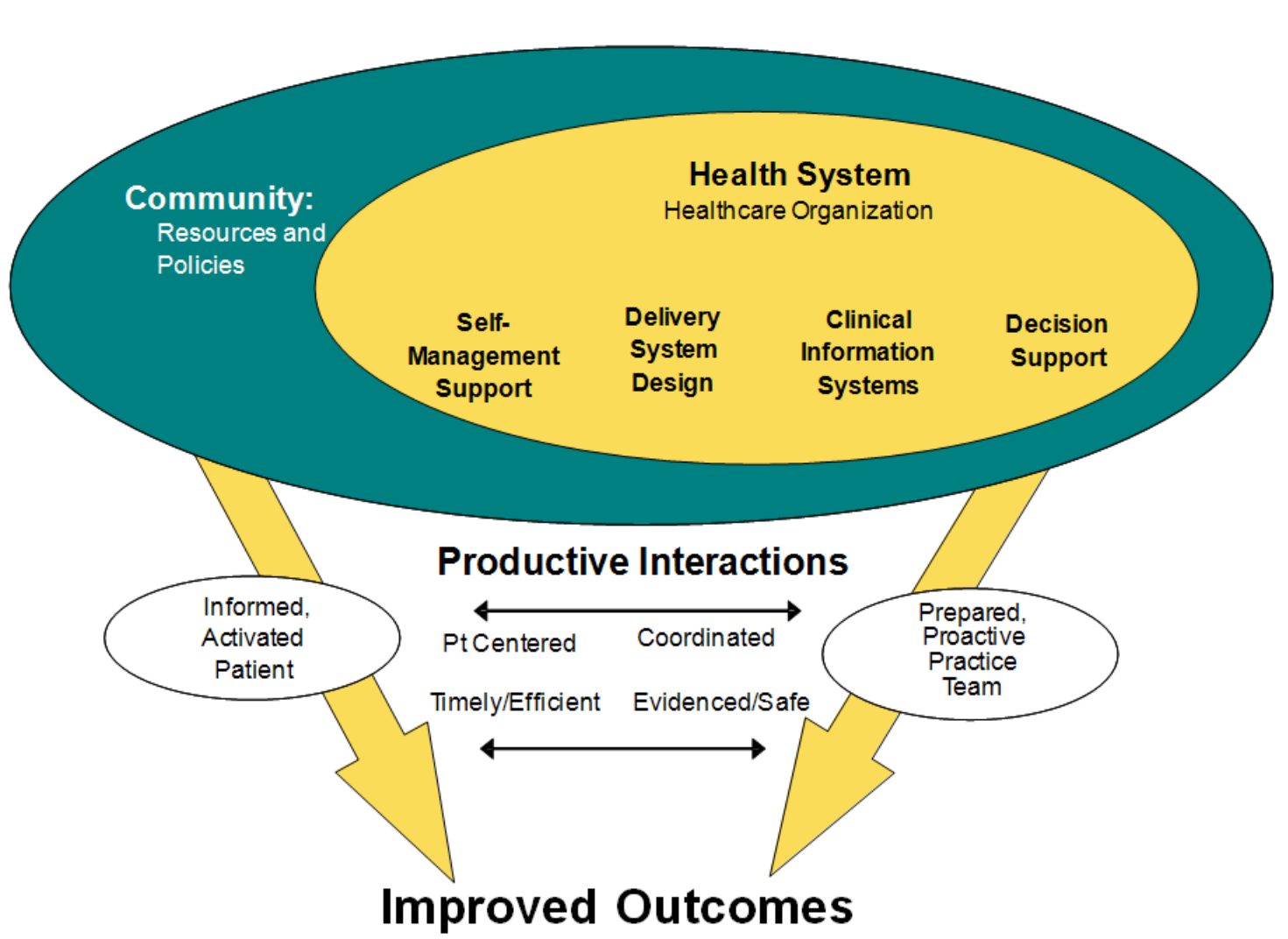
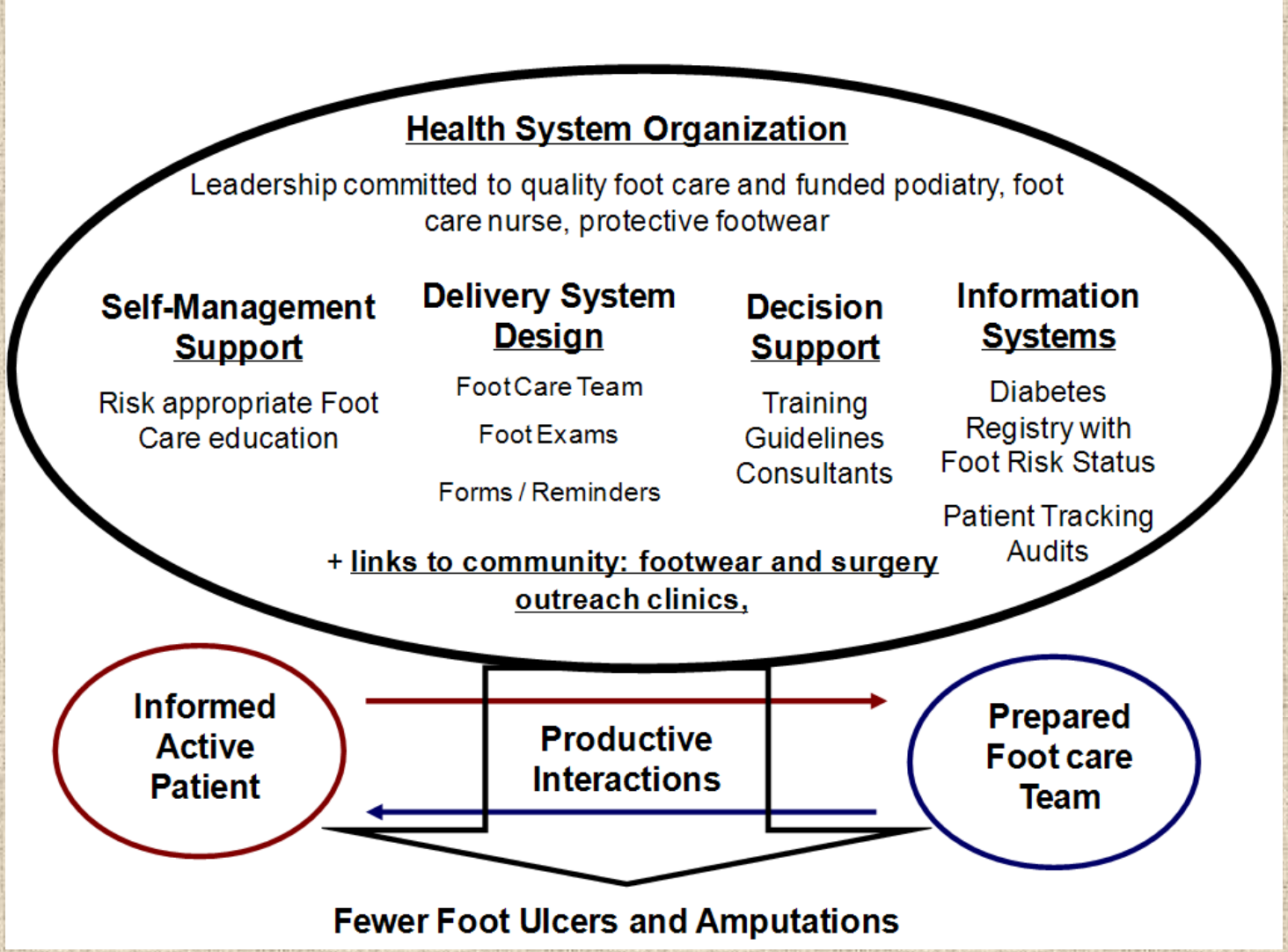
Improving Chronic Disease Care: The Chronic Care Model



Wagner EH. Effective Clinical Practice. 1998;1:2-4.

Chronic Care Model–Diabetic Foot Care Best Practice



Reiber , Lancet, 2005;366:1676-7

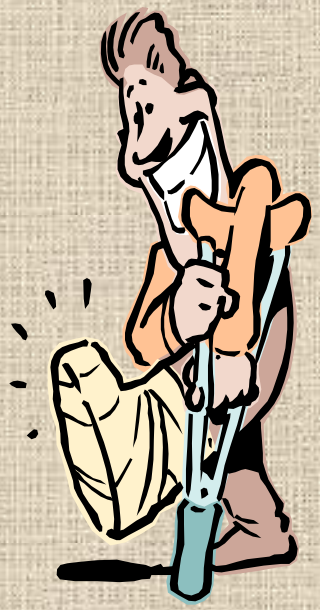
http://www.ihs.gov/MedicalPrograms/diabetes/resources/bestpractices.asp

System Redesign: Foot Care Team

Physician/PCP

Nurse Educator

Registrar and Patient Scheduling



PHN

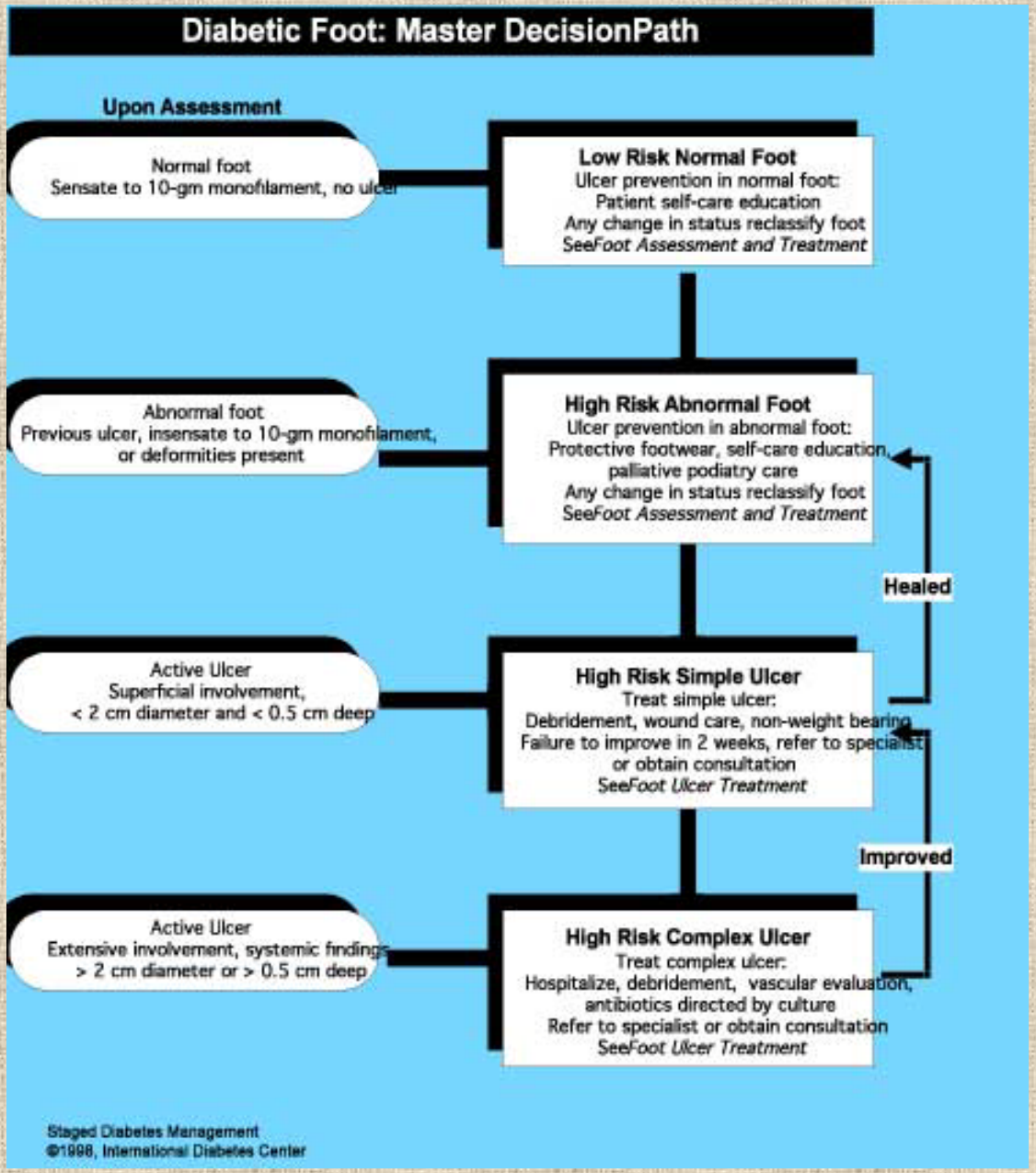
Podiatrist

CHR

Surgeon

Clinic Administration and Leadership

Decision Support Foot Care Guidelines



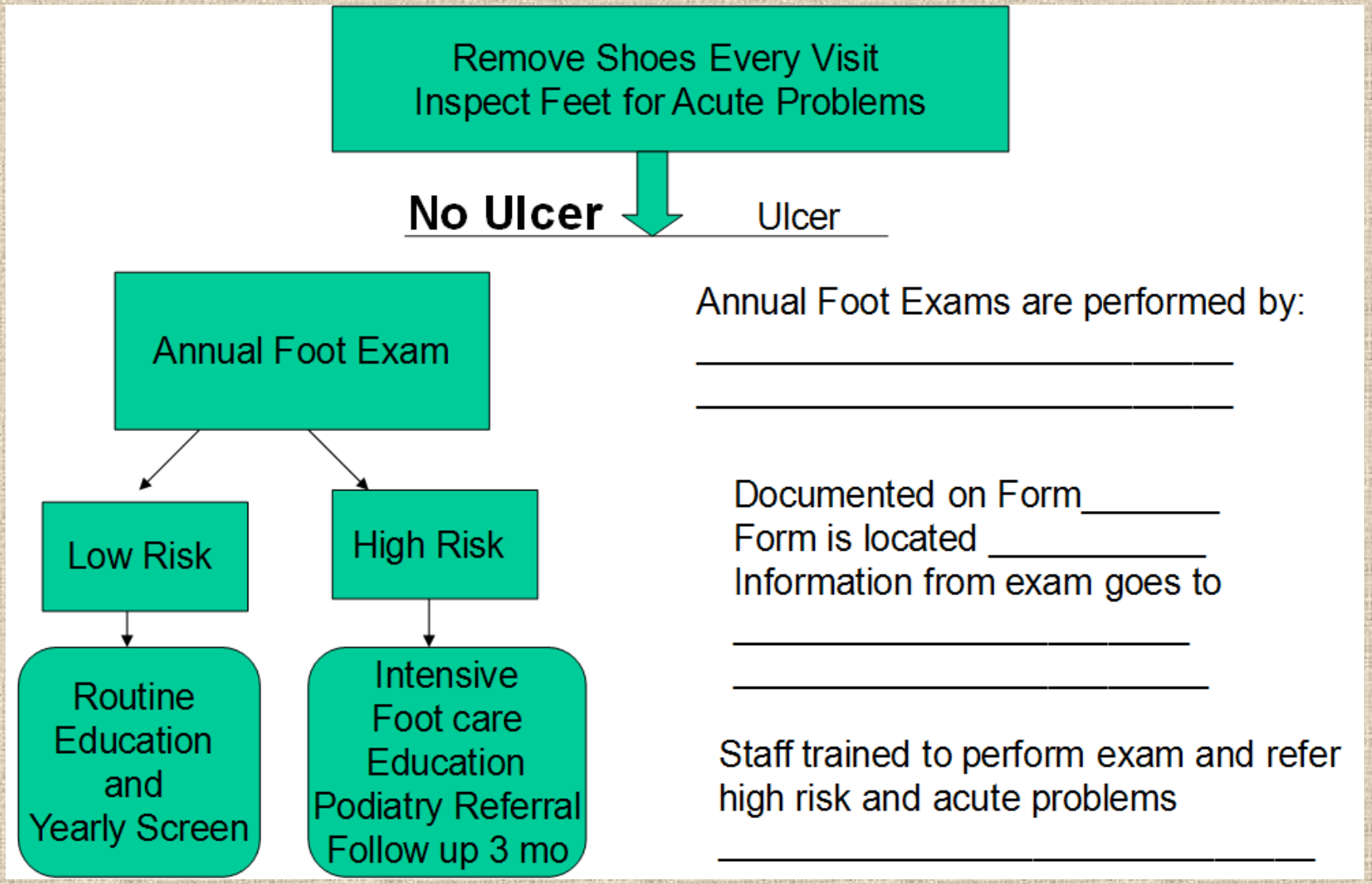
Rith-Najarian, J Fam Pract 1998;47:128-132

Moving the Guideline to Practice

Team Coordination

- Input from the team to customize guidelines
- Delineation of roles
- Documentation
- Training needs
- Measures for monitoring and evaluation

Example of Customization Questions



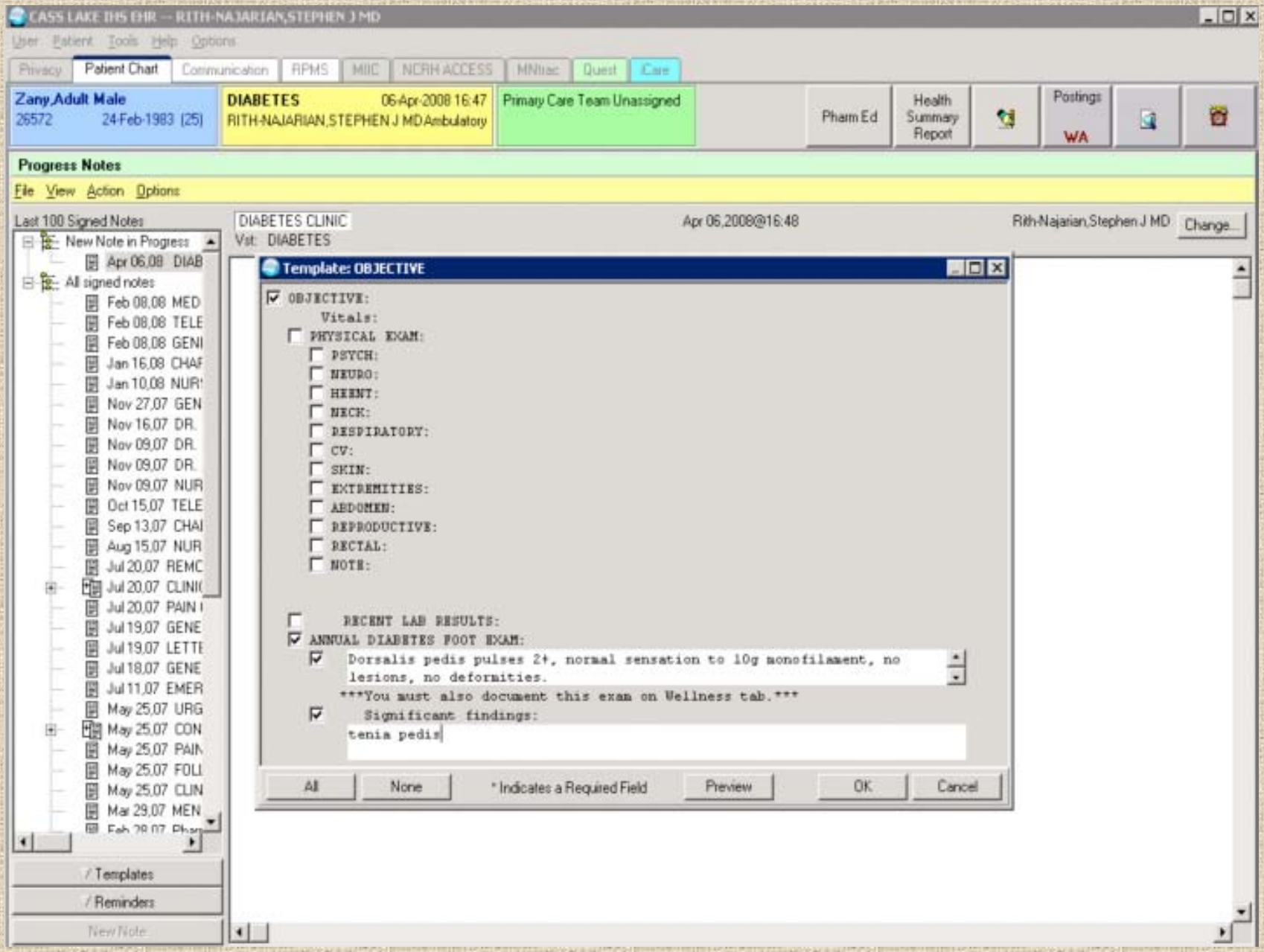
1994–1996 System Redesign
Reminders and Documentation forms

Exam and Risk Factors

Assessment

Treatment Plan

Referrals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User Patient Tools Help Options
Privacy Patient Chart Communication RPMS MIIC NCRH ACCESS MNtrac Quest Care
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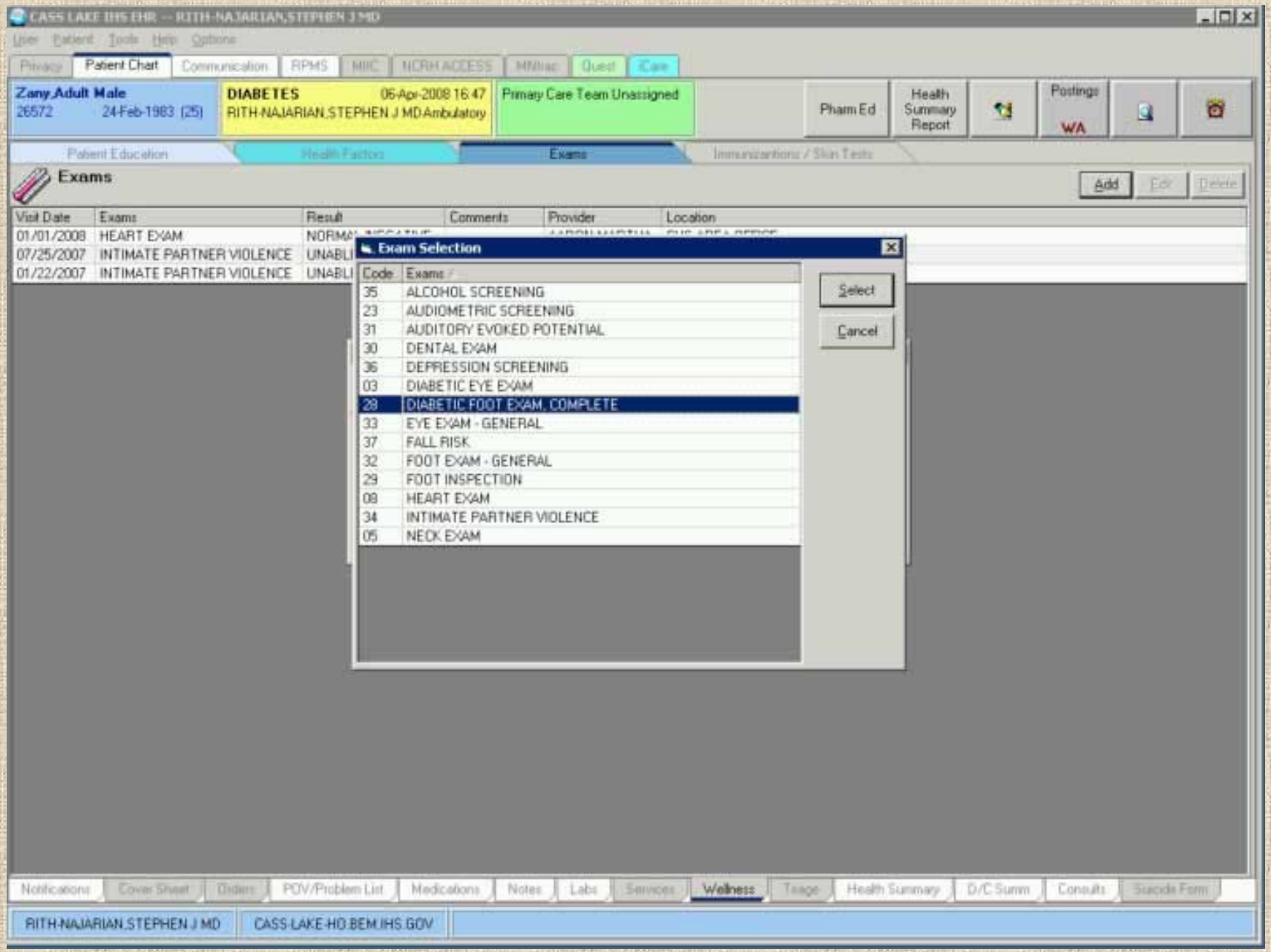
DIABETES 06-Apr-2008 16:47
RITH-NAJARIAN,STEPHEN J MD Ambulatory
Primary Care Team Unassigned
Pharm Ed
Health Summary Report
Postings
WA
Progress Notes
File View Action Options
Last 100 Signed Notes
New Note in Progress
Apr 06,08 DIAB
All signed notes
Feb 08,08 MED
Feb 08,08 TELE
Feb 08,08 GENI
Jan 16,08 CHAF
Jan 10,08 NUR
Nov 27,07 GEN
Nov 16,07 DR.
Nov 09,07 DR.
Nov 09,07 DR.
Nov 09,07 NUR
Oct 15,07 TELE
Sep 13,07 CHAI
Aug 15,07 NUR
Jul 20,07 REMC
Jul 20,07 CLINI
Jul 20,07 PAIN
Jul 19,07 GENE
Jul 19,07 LETTE
Jul 18,07 GENE
Jul 11,07 EMER
May 25,07 URG
May 25,07 CON
May 25,07 PAIN
May 25,07 FOLL
May 25,07 CLIN
Mar 29,07 MEN
/ Templates
/ Reminders
New Note
DIABETES CLINIC
Vst: DIABETES
Apr 06,2008@16:48
Rith-Najarian,Stephen J MD
Change...
Template: OBJECTIVE
OBJECTIVE:
Vitals:
PHYSICAL EXAM:
PSYCH:
NEURO:
HEENT:
NECK:
RESPIRATORY:
CV:
SKIN:
EXTREMITIES:
ABDOMEN:
REPRODUCTIVE:
RECTAL:
NOTE:
RECENT LAB RESULTS:
ANNUAL DIABETES FOOT EXAM:
Dorsalis pedis pulses 2+, normal sensation to 10g monofilament, no lesions, no deformities.
You must also document this exam on Wellness tab.
Significant findings:
tenia pedis
All
None
* Indicates a Required Field
Preview
OK
Cancel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26572 24-Feb-1983 (25)
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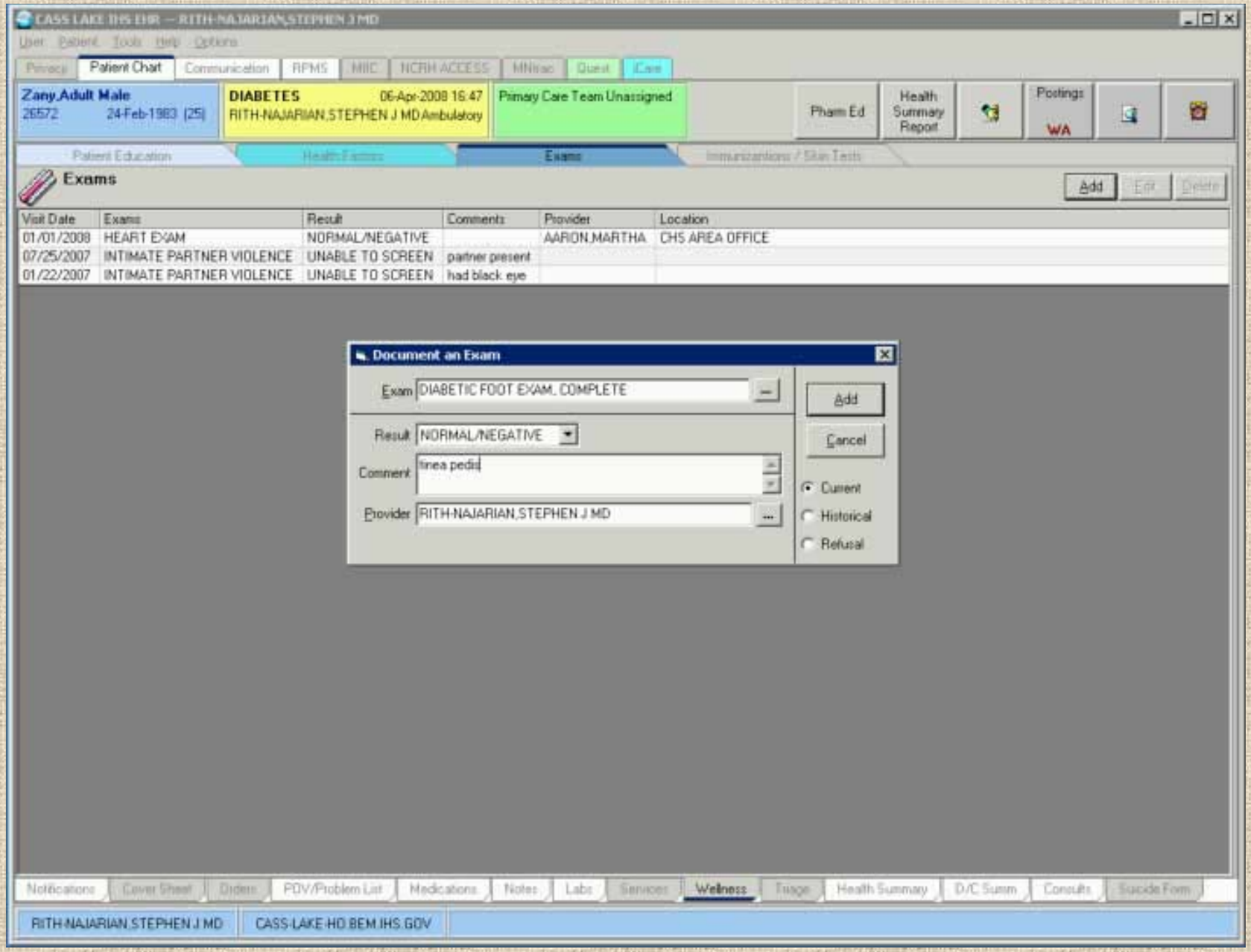
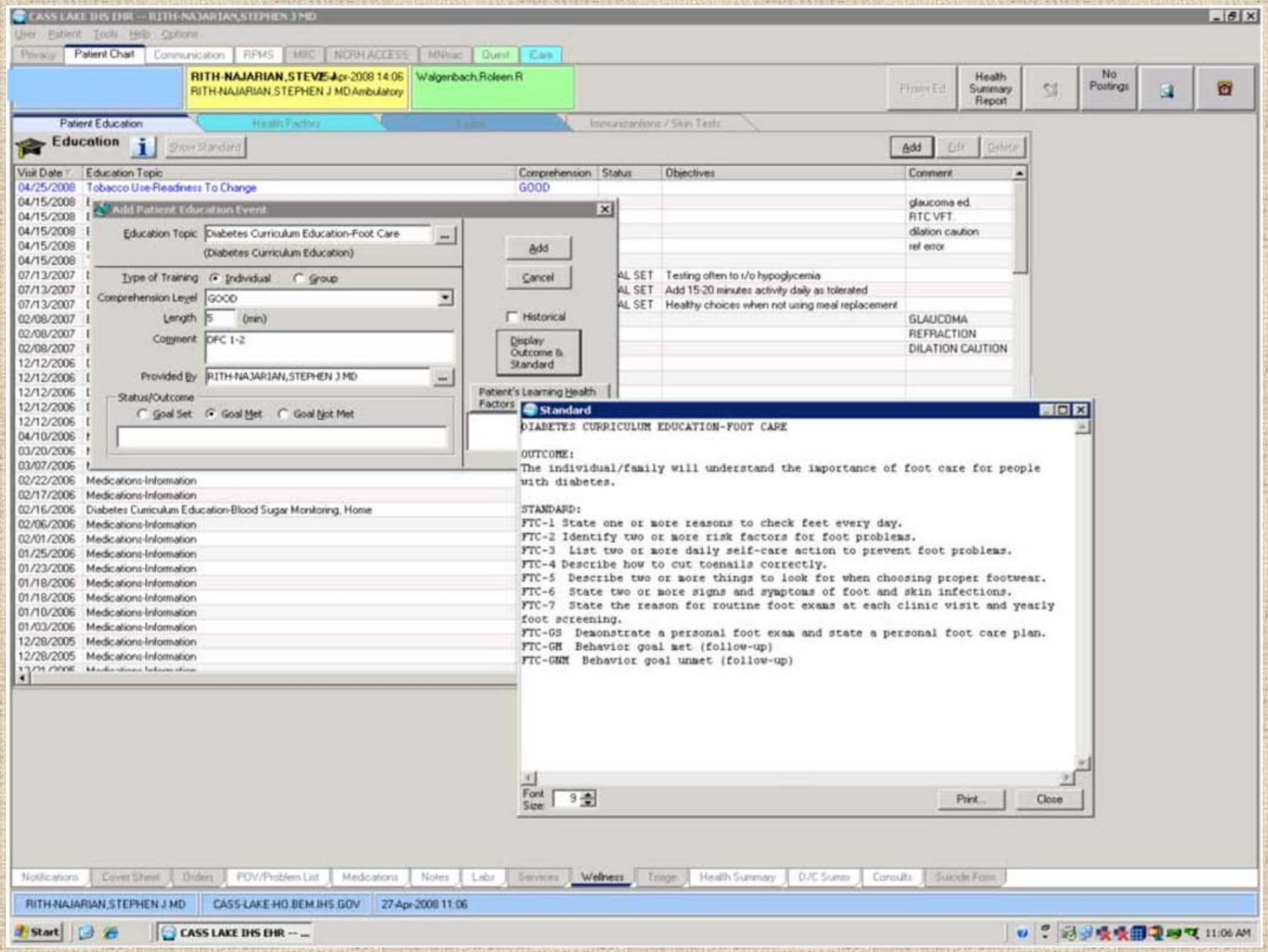
RITH-NAJARIAN,STEPHEN J MD Ambulatory
Primary Care Team Unassigned
Pharm Ed
Health Summary Report
Postings
WA
Patient Education
Health Factors
Exams
Immunizations / Skin Tests
Exams
Add
Edit
Delete
Visit Date
Exams
Result
Comments
Provider
Location
01/01/2008 HEART EXAM
07/25/2007 INTIMATE PARTNER VIOLENCE
01/22/2007 INTIMATE PARTNER VIOLENCE
Exam Selection
Code
Exams
35 ALCOHOL SCREENING
23 AUDIOMETRIC SCREENING
31 AUDITORY EVOKED POTENTIAL
30 DENTAL EXAM
36 DEPRESSION SCREENING
03 DIABETIC EYE EXAM
28 DIABETIC FOOT EXAM, COMPLETE
33 EYE EXAM - GENERAL
37 FALL RISK
32 FOOT EXAM - GENERAL
29 FOOT INSPECTION
08 HEART EXAM
34 INTIMATE PARTNER VIOLENCE
05 NECK EXAM
Select
Cancel
Notifications
Cover Sheet
Orders
POV/Problem List
Medications
Notes
Labs
Services
Wellness
Triage
Health Summary
D/C Summ
Consults
Suicide Form
RITH-NAJARIAN,STEPHEN J MD
CASS-LAKE-HO.BEM.IHS.GOV


CASS LAKE IHS EHR -- RITH-NAJARIAN,STEPHEN J MD
User Patient Tools Help Options
Privacy
Patient Chart
Communication
RPMS
MIIC
NCRH ACCESS
MNsac
Quest
iCare
Zany,Adult Male
26572 24-Feb-1983 (25)
DIABETES 06-Apr-2008 16:47
RITH-NAJARIAN,STEPHEN J MD Ambulatory
Primary Care Team Unassigned
Pharm Ed
Health Summary Report
Postings
WA
Patient Education
Health Factors
Exams
Immunizations / Skin Tests
Exams
Add
Edit
Delete
Visit Date | Exam | Result | Comments | Provider | Location
01/01/2008 | HEART EXAM | NORMAL/NEGATIVE | | AARON,MARTHA | CHS AREA OFFICE
07/25/2007 | INTIMATE PARTNER VIOLENCE | UNABLE TO SCREEN | partner present
01/22/2007 | INTIMATE PARTNER VIOLENCE | UNABLE TO SCREEN | had black eye
Document an Exam
Exam DIABETIC FOOT EXAM, COMPLETE
Result NORMAL/NEGATIVE
Comment tinea pedis
Provider RITH-NAJARIAN,STEPHEN J MD
Add
Cancel
Current
Historical
Refusal
Notifications
Cover Sheet
Orders
POV/Problem List
Medications
Notes
Labs
Services
Wellness
Triage
Health Summary
D/C Summ
Consults
Suicide Form
RITH-NAJARIAN,STEPHEN J MD
CASS-LAKE-HD.BEM.IHS.GOV


CASS LAKE IHS EHR -- RITH-NAJARIAN,STEPHEN J MD
Patient Chart
Education
Add Patient Education Event
Education Topic: Diabetes Curriculum Education-Foot Care
Add
Cancel
Historical
Display Outcome & Standard
Standard
DIABETES CURRICULUM EDUCATION-FOOT CARE
OUTCOME:
The individual/family will understand the importance of foot care for people with diabetes.
STANDARD:
FTC-1 State one or more reasons to check feet every day.
FTC-2 Identify two or more risk factors for foot problems.
FTC-3 List two or more daily self-care action to prevent foot problems.
FTC-4 Describe how to cut toenails correctly.
FTC-5 Describe two or more things to look for when choosing proper footwear.
FTC-6 State two or more signs and symptoms of foot and skin infections.
FTC-7 State the reason for routine foot exams at each clinic visit and yearly foot screening.
FTC-GS Demonstrate a personal foot exam and state a personal foot care plan.
FTC-GM Behavior goal met (follow-up)
FTC-GNM Behavior goal unmet (follow-up)
Print...
Close

System Redesign: Foot Care Case Manager

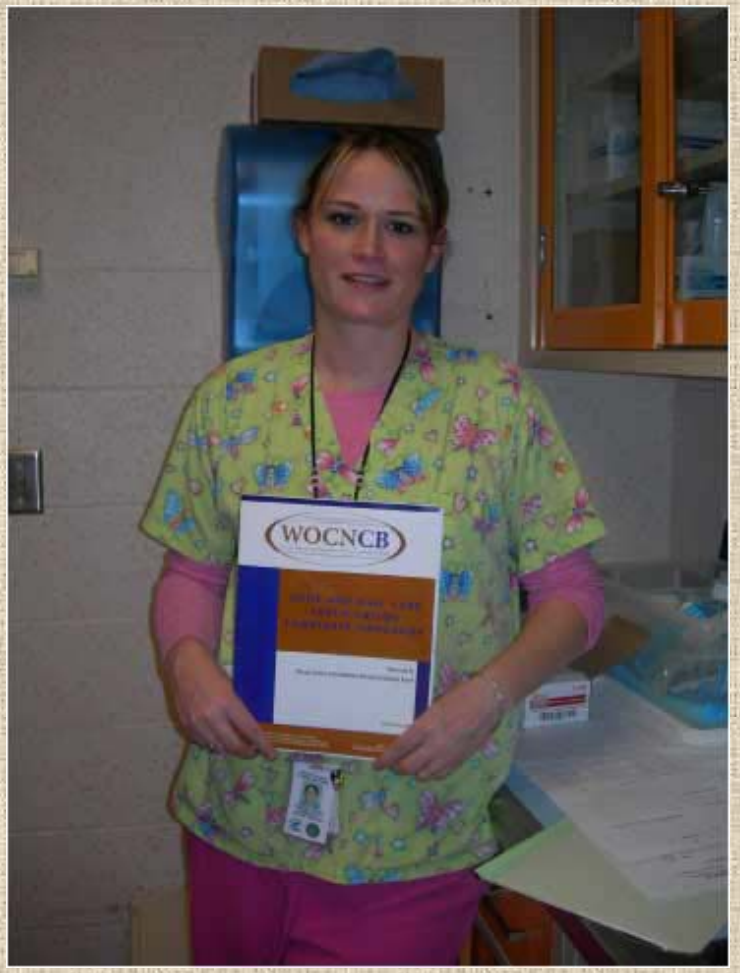
Foot and Nail Care Certification
Wound, Ostomy, and Continence Nurses Certification Board

Exam Eligibility Requirements

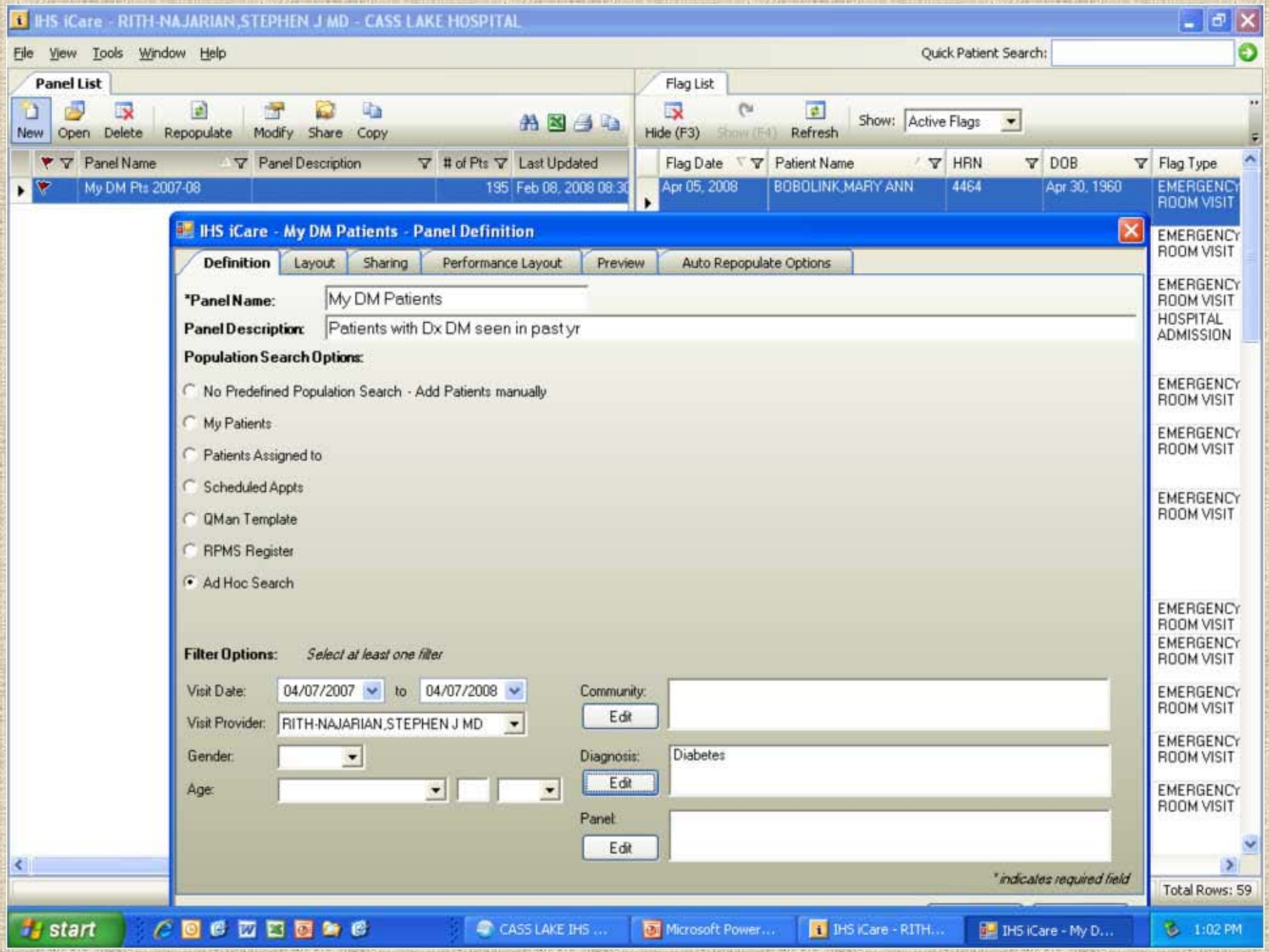
- Current RN license, and either #2 or #3:
- Completion of formal foot and nail program including five hours didactic; three hours of clinical practice with direct foot and nail care; or
- Completion of experiential pathway including five hours CE, plus eight hours of clinical practice (under supervision of expert).

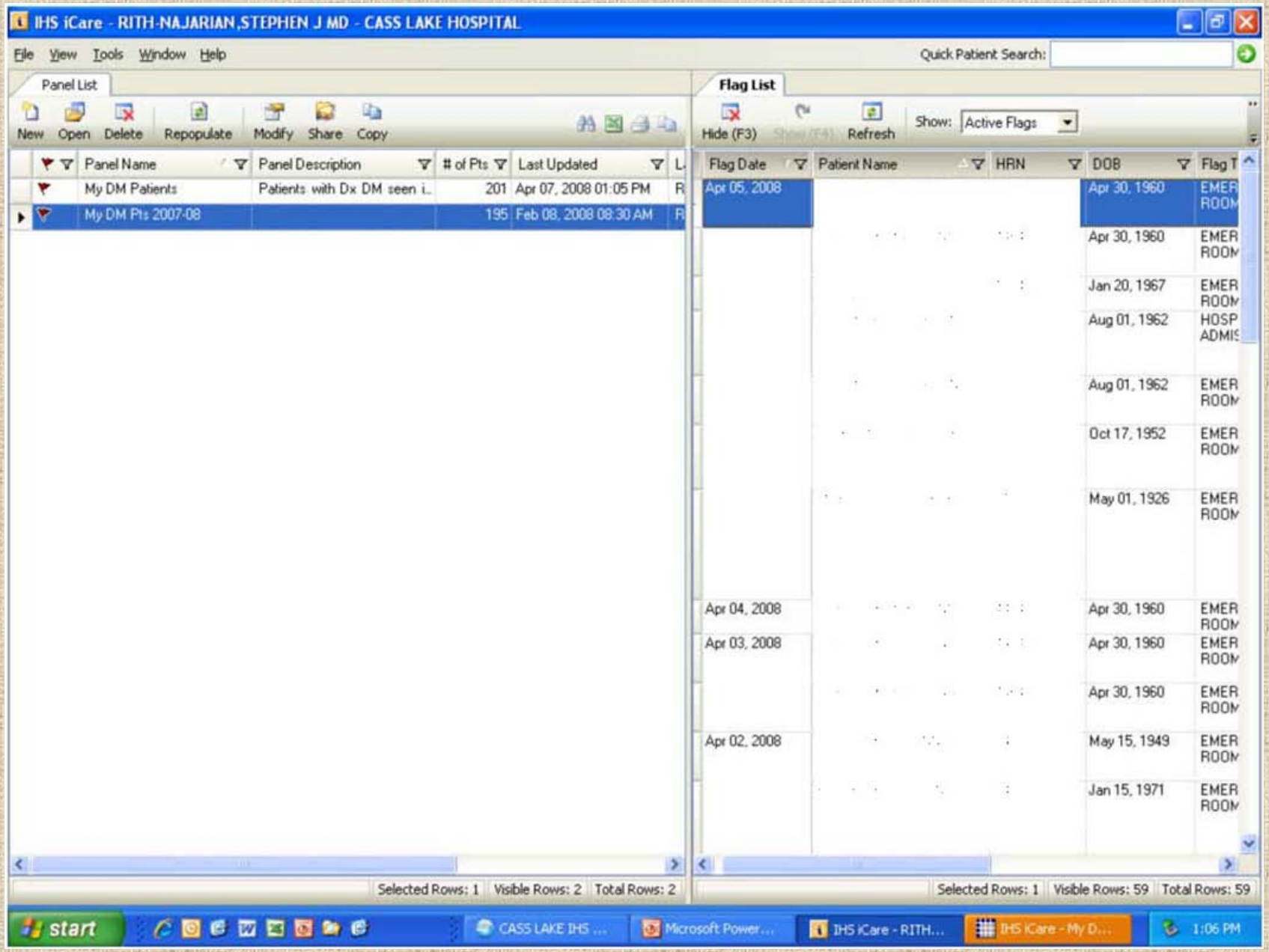
Training : http://www.wocncb.org/become-certified/foot-and-nail/education-courses.php

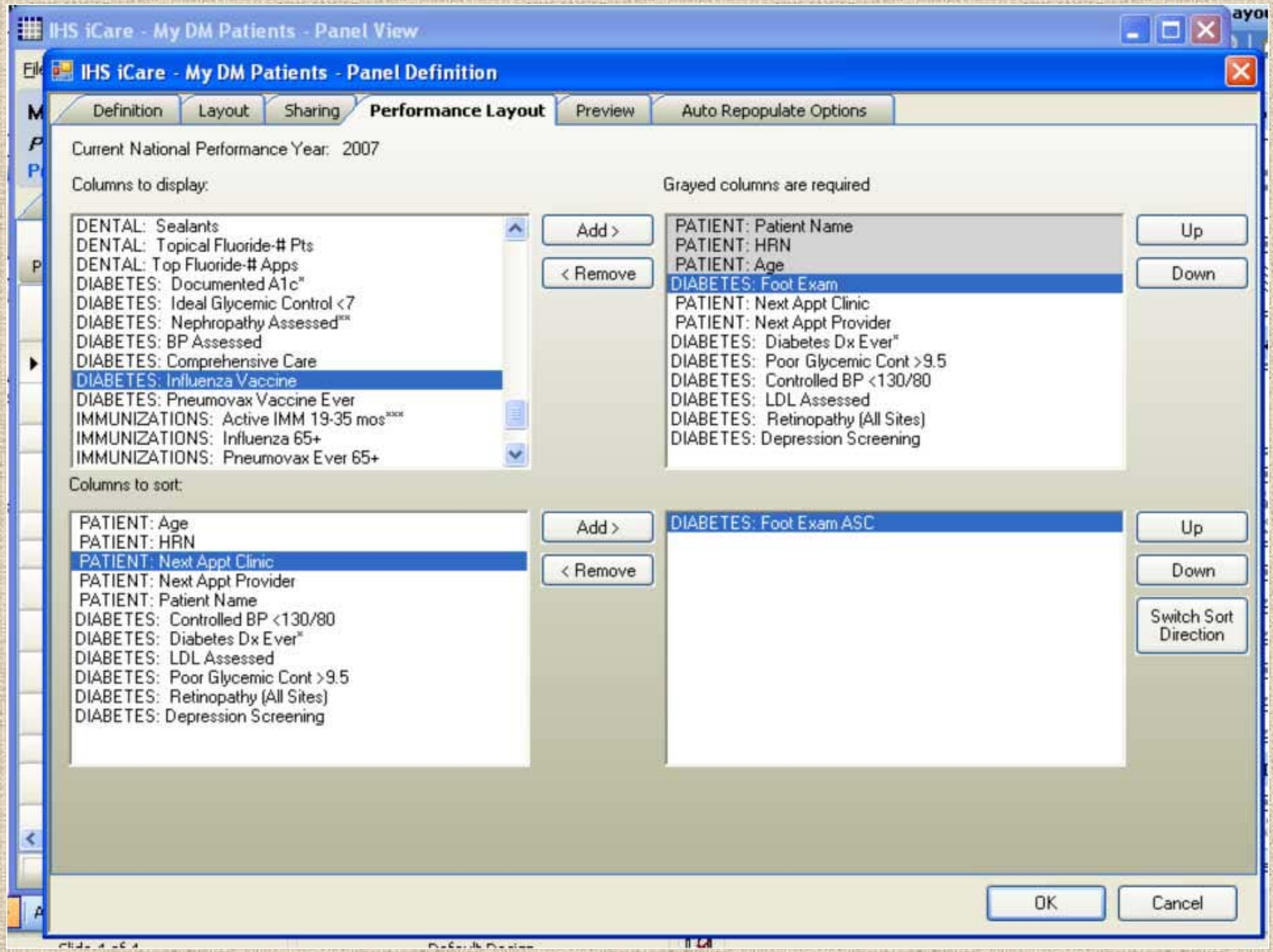
Exam: http://www.wocncb.org/become-certified/foot-and-nail/eligibility.php

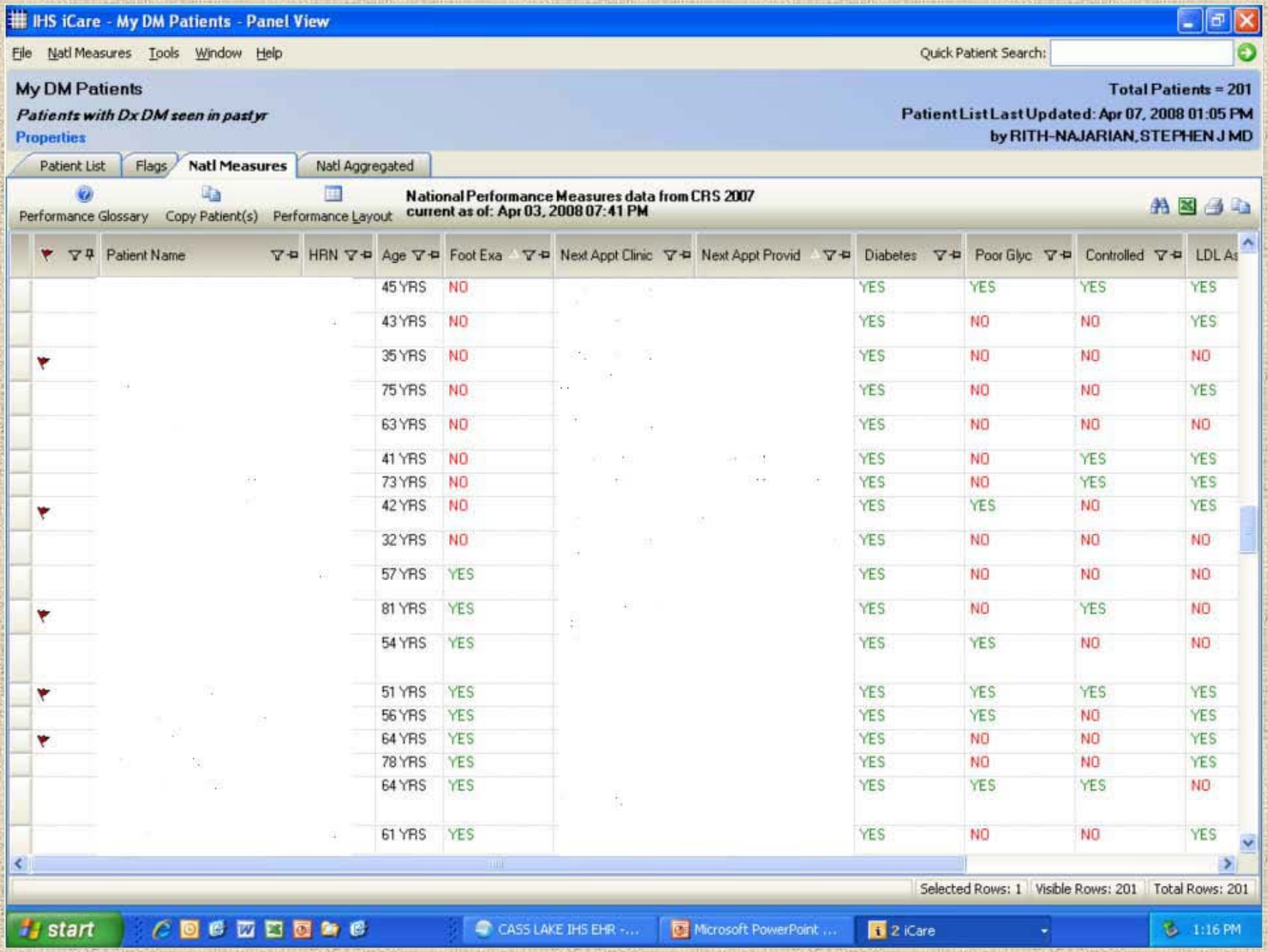


Information Technology
Electronic Diabetes Registry

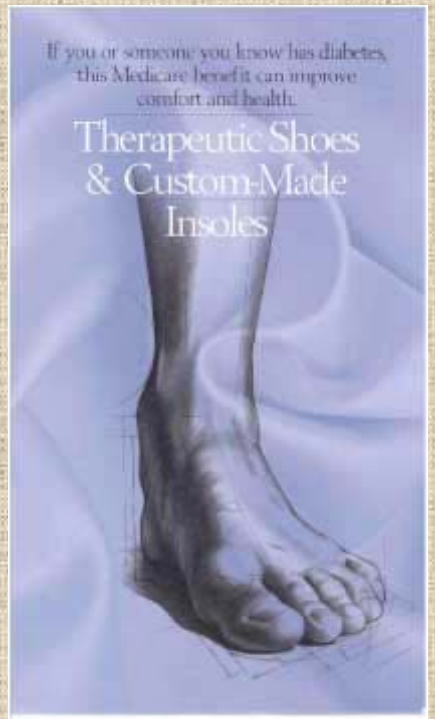

IHS iCare - RITH-NAJARIAN,STEPHEN J MD - CASS LAKE HOSPITAL
File View Tools Window Help
Quick Patient Search:
Panel List
New Open Delete Repopulate Modify Share Copy
Panel Name Panel Description # of Pts Last Updated
My DM Pts 2007-08 195 Feb 08, 2008 08:30
Flag List
Hide (F3) Refresh Show: Active Flags
Flag Date Patient Name HRN DOB Flag Type
Apr 05, 2008 BOBOLINK,MARY ANN 4464 Apr 30, 1960 EMERGENCY ROOM VISIT
IHS iCare - My DM Patients - Panel Definition
Definition Layout Sharing Performance Layout Preview Auto Repopulate Options
*Panel Name: My DM Patients
Panel Description: Patients with Dx DM seen in past yr
Population Search Options:
No Predefined Population Search - Add Patients manually
My Patients
Patients Assigned to
Scheduled Appts
QMan Template
RPMS Register
Ad Hoc Search
Filter Options: Select at least one filter
Visit Date: 04/07/2007 to 04/07/2008
Visit Provider: RITH-NAJARIAN,STEPHEN J MD
Gender:
Age:
Community: Edit
Diagnosis: Edit Diabetes
Panel: Edit
* indicates required field
EMERGENCY ROOM VISIT
HOSPITAL ADMISSION
Total Rows: 59
start
CASS LAKE IHS ...
Microsoft Power...
IHS iCare - RITH...
IHS iCare - My D...
1:02 PM


IHS iCare - RITH-NAJARIAN,STEPHEN J MD - CASS LAKE HOSPITAL
File View Tools Window Help
Quick Patient Search:
Panel List
New Open Delete Repopulate Modify Share Copy
Panel Name
Panel Description
# of Pts
Last Updated
My DM Patients
Patients with Dx DM seen i..
201
Apr 07, 2008 01:05 PM
My DM Pts 2007-08
195
Feb 08, 2008 08:30 AM
Selected Rows: 1
Visible Rows: 2
Total Rows: 2
Flag List
Hide (F3)
Refresh
Show:
Active Flags
Flag Date
Patient Name
HRN
DOB
Flag T
Apr 05, 2008
Apr 30, 1960
EMER ROOM
Apr 30, 1960
Jan 20, 1967
Aug 01, 1962
HOSP ADMIS
Aug 01, 1962
Oct 17, 1952
May 01, 1926
Apr 04, 2008
Apr 03, 2008
Apr 02, 2008
May 15, 1949
Jan 15, 1971
Selected Rows: 1
Visible Rows: 59
Total Rows: 59
start
CASS LAKE IHS ...
Microsoft Power...
IHS iCare - RITH...
IHS iCare - My D...
1:06 PM


IHS iCare - My DM Patients - Panel View
IHS iCare - My DM Patients - Panel Definition
Definition
Layout
Sharing
Performance Layout
Preview
Auto Repopulate Options
Current National Performance Year: 2007
Columns to display:
Grayed columns are required
DENTAL: Sealants
DENTAL: Topical Fluoride-# Pts
DENTAL: Top Fluoride-# Apps
DIABETES: Documented A1c*
DIABETES: Ideal Glycemic Control <7
DIABETES: Nephropathy Assessed**
DIABETES: BP Assessed
DIABETES: Comprehensive Care
DIABETES: Influenza Vaccine
DIABETES: Pneumovax Vaccine Ever
IMMUNIZATIONS: Active IMM 19-35 mos***
IMMUNIZATIONS: Influenza 65+
IMMUNIZATIONS: Pneumovax Ever 65+
Add >
< Remove
PATIENT: Patient Name
PATIENT: HRN
PATIENT: Age
DIABETES: Foot Exam
PATIENT: Next Appt Clinic
PATIENT: Next Appt Provider
DIABETES: Diabetes Dx Ever*
DIABETES: Poor Glycemic Cont >9.5
DIABETES: Controlled BP <130/80
DIABETES: LDL Assessed
DIABETES: Retinopathy (All Sites)
DIABETES: Depression Screening
Up
Down
Columns to sort:
PATIENT: Age
PATIENT: HRN
PATIENT: Next Appt Clinic
PATIENT: Next Appt Provider
PATIENT: Patient Name
DIABETES: Controlled BP <130/80
DIABETES: Diabetes Dx Ever*
DIABETES: LDL Assessed
DIABETES: Poor Glycemic Cont >9.5
DIABETES: Retinopathy (All Sites)
DIABETES: Depression Screening
Add >
< Remove
DIABETES: Foot Exam ASC
Up
Down
Switch Sort Direction
OK
Cancel

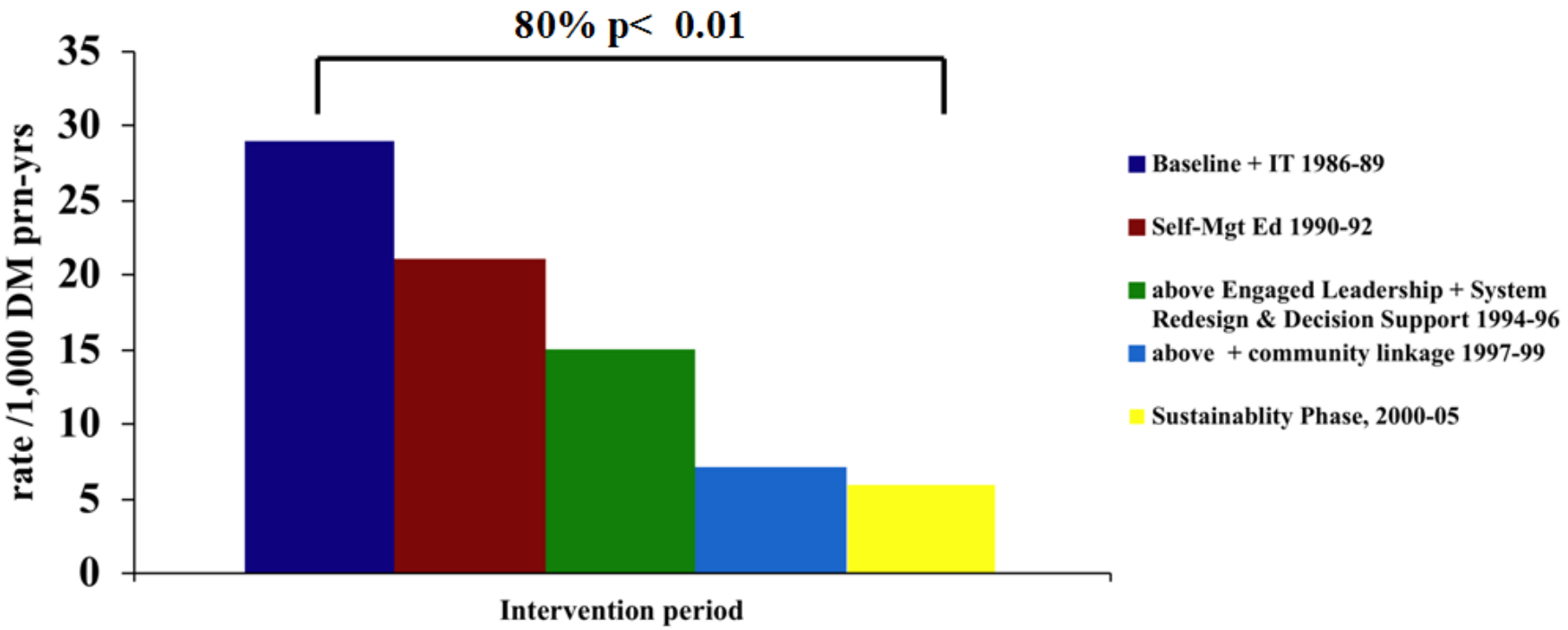

IHS iCare - My DM Patients - Panel View
File Natl Measures Tools Window Help
Quick Patient Search:
My DM Patients
Patients with Dx DM seen in past yr
Properties
Total Patients = 201
Patient List Last Updated: Apr 07, 2008 01:05 PM
by RITH-NAJARIAN,STEPHEN J MD
Patient List Flags Natl Measures Natl Aggregated
Performance Glossary
Copy Patient(s)
Performance Layout
National Performance Measures data from CRS 2007
current as of: Apr 03, 2008 07:41 PM
Patient Name HRN Age Foot Exa Next Appt Clinic Next Appt Provid Diabetes Poor Glyc Controlled LDL As
45 YRS NO YES YES YES YES
43 YRS NO YES NO NO YES
35 YRS NO YES NO NO NO
75 YRS NO YES NO NO YES
63 YRS NO YES NO NO NO
41 YRS NO YES NO YES YES
73 YRS NO YES NO YES YES
42 YRS NO YES YES NO YES
32 YRS NO YES NO NO NO
57 YRS YES YES NO NO NO
81 YRS YES YES NO YES NO
54 YRS YES YES YES NO NO
51 YRS YES YES YES YES YES
56 YRS YES YES YES NO YES
64 YRS YES YES NO NO YES
78 YRS YES YES NO NO YES
64 YRS YES YES YES YES NO
61 YRS YES YES NO NO YES
Selected Rows: 1 Visible Rows: 201 Total Rows: 201
start
CASS LAKE IHS EHR -...
Microsoft PowerPoint ...
2 iCare
1:16 PM

Community Linkages:
Referrals for Therapeutic Footwear



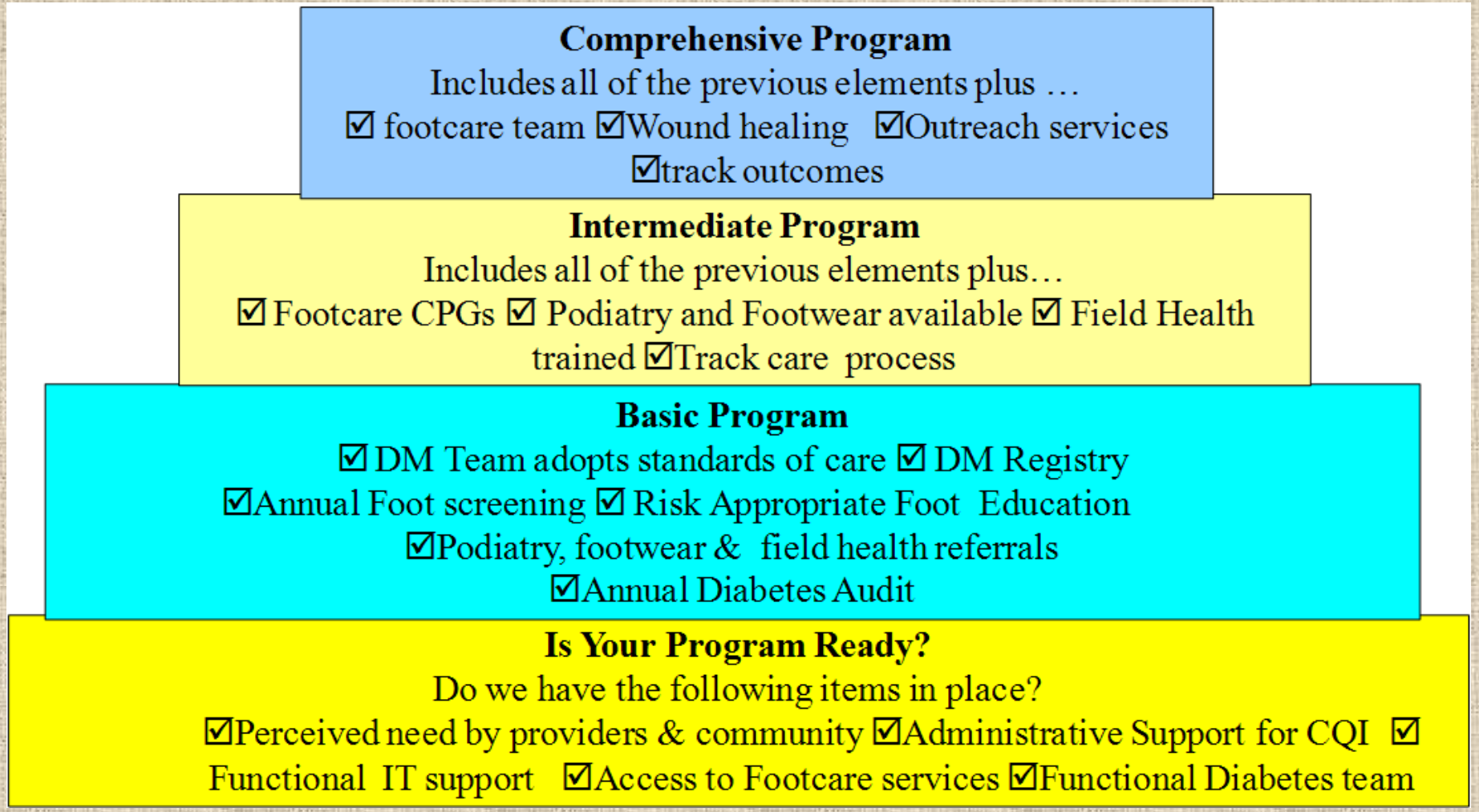
Community Linkage:
Wound Care Outreach Clinic

Average Annual Incidence Lower Extremity Amputations (LEA) among Diabetic Patients according to Chronic Care Model Intervention Period in an Indian Health Service Primary Care Setting



1986-1996: J Fam Pract 1998;47:128-132
1997-1999: Diabetes Care 2000;23:1445-46
2000-2005: Bemidji Area IHS Diabetes Program; CCM Interventions: Lancet 2005;366:1676-7

Stepped Approach for IHS "Best Practice" for Diabetic Foot Care



http://www.ihs.gov/MedicalPrograms/diabetes/resources/bestpractices.asp

Selected Internet Resources for Diabetic Foot Care

- IHS Best Practices–Foot Care

  http://www.ihs.gov/MedicalPrograms/Diabetes/HomeDocs/Tools/BestPractices/bp06_FootCare.pdf

- Feet Can Last a Lifetime–NIH

  http://www.ndep.nih.gov/resources/feet/index.htm

- Lower Extremity Amputation Prevention Program (LEAP)–HRSA

  http://bphc.hrsa.gov/leap/default.html