Diabetes Education – Identifying Self-Care Behaviors

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Objective

1. Describe the role of the diabetes educator
2. Describe how to motivate patients to make voluntary behavior changes
3. Discuss the effort to improve self care behaviors in the ESRD cohort

QE = Quality of Evidence; R = Recommendation (see Appendix A).

H. Perform And Document Patient Education For Preventive Foot Care And Footwear

OBJECTIVE

Empower the patient to perform proper foot care practices.

RECOMMENDATIONS

1. All patients and their families should receive self-management education for preventive foot care and selection of footwear. Instruction should include recommendations for daily foot inspection and preventive foot care, skin care, and use of emollients, nail care, and treatment for callus.

DISCUSSION

Begin with nonjudgmental assessment of the patient's current self-care practices including asking, "Do you do anything special to protect your feet?"

Patient and family foot education should include the following components and considerations:

- Keep it simple and appropriate for the patient's educational level.
- Make it interactive, including demonstrations in washing, drying, and inspecting feet; nail cutting; and suitable footwear selection, including footwear for temperature extremes.
- Provide opportunities for the patient to state the need for what are basics of daily skin and foot care and preventive measures.
- Include practice time during the educational session to demonstrate and have the patient, in return, demonstrate safe toenail trimming.
- Provide repetitive examples of and messages about how care of the feet can prevent complications. Include recommendations that distinguish minor foot problems from more serious problems that require early or immediate professional treatment, together with a name and telephone number for prompt assistance.
- Make realistic recommendations (appropriate to the patient's physical and visual capabilities) while personalizing information and

Guidelines

- Strength of the evidence-Fair
- Not Robust-however expert opinion

Guidelines

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Guidelines

- Provide repetitive examples of and messages about how care of the feet can prevent complications. Include recommendations that distinguish minor foot problems from more serious problems that require early or immediate professional treatment, together with a name and telephone number for prompt assistance.
- Make realistic recommendations (appropriate to the patient's physical and visual capabilities) while personalizing information and highlighting key points. This may include a referral to home healthcare.
- Provide written guidelines in large print and/or graphics that the patient can hang in the bathroom as a reference and reprints of lay articles. Patients should be alerted that elevation in blood sugar might be a sign of an active or impending infection. Use of a night-light or turning on lights when getting up at night may prevent foot injuries. Patients should be made aware of potential dangers in the home.

Guidelines

- For patients with high-risk feet, twice-daily inspection in good light is recommended, looking for any redness or drainage and running the hands over the foot to detect any swelling or increased local warmth. Patients with neuropathic fingers may need to enlist help or use a mirror to inspect their feet.
- Before putting on shoes, inspect for torn linings, rough spots, and foreign objects (e.g., gravel, stones, glass, and children’s toys).
- Alternating between pairs of shoes during the day is recommended. A minimum of two serviceable pairs of shoes, insoles, and orthoses are required.

Guidelines

- Educators can utilize numerous publications on patient foot care instruction that are free of charge and have no copyright restrictions. The following publications are available through the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), and American Association of Diabetes Education (AADE):
- Take Charge of Your Diabetes: Prevent Foot Problems
- Taking Care of Your Feet
- Tips on Good Foot Care: from Feet Can Last a Lifetime

Research

- Limited…
- Johnson, M et al Meeting educational needs of people at risk of diabetes-related amputation: a vignette study with patients and professionals- Qualitative study N=15

- Patients often felt let down, reporting that they had not received foot care advice, or adequate referral during the initial years of having diabetes…..

Diabetes Education

"The ultimate aim of footcare education for people with diabetes is to prevent foot ulceration and amputation."

Valk, GD. et al. The Cochrane Library 2007, Issue 4.

AMPUTATIONS IN DIABETES

Common:

- Worldwide – amputation 2° to diabetes q 30 sec.
- U.S.A. – 80,000 amputations/y (2002)
  - Higher rates in men, racial/ethnic minorities

Costly:

- $60,000/amputation
- $2 billion/y total costs

Lancet 2005; 366:1719 Diabetes Care 2004; 27:1598 Diabetes Care 2003; 26:495

Keep Feet Healthy

Over time, poorly controlled diabetes can cause:

Loss of feeling

Poor circulation

Skin breakdown, infection

Possible amputation

Motivating Patients to Make Voluntary Behavior Changes

Foot Self Care Management Instructions

- Wash feet daily
- Dry well between each toe
- Pat dry do not rub
- Dry skin→ moisturize-not between toes
- Wet skin→ dry w/antifungal powder
- No hot water soaks
- Clean socks daily
- Good fitting shoes
- No bare feet
- If wound repair

Foot Exams

- Routine Exam at each visit
- Complete exam once a year
  - Circulation—Sensation
  - Skin & nails—Structure
- Take off shoes/socks each visit
- Look @ feet @ least once a day

Reminder Resolution: * Foot Exam (PACT)

--LEVEL "0" - (NORMAL RISK)
Normal sensation and circulation
No deformity
No ulceration or history of amputation

--LEVEL "1" - (LOW RISK)
Decreased sensation or circulation
No deformity
No ulceration or history of amputation

- [ ] Refer patient to Podiatry
- [ ] Patient currently being followed by Podiatry.
- [x] LEVEL "1" FOOT EDUCATION:
  - -DO NOT walk barefoot
  - -Shoe style and fit
  - -Daily foot checks
  - -Daily foot hygiene
  - -Demo how to do a foot check
  - -Ulcers lead to gangrene and amputation
  - -Bathing of the feet, complete drying
  - -Emphasized the use of clean, non-restrictive socks/stockings
  - -Immediate follow-up of any foot injuries or ulcers
  - -Non-weight bearing whenever there are lesions on the foot

Level of Understanding: * (None selected)

Clear | Clinical Maint | Visit Info | < Back | Next > | Finish | Cancel

Clinical Reminders Activity
* **Foot Exam (PACT):**
A complete foot exam was completed at this encounter.

Patient Educations: **DM FOOT CARE EDUCATION**
Health Factors: **DAY LIMB CARE LEVEL 1**
Examinations: **DIABETIC FOOT EXAM, COMPLETE**

* Indicates a Required Field

Flag | Remote Data* Available | Posti CWA

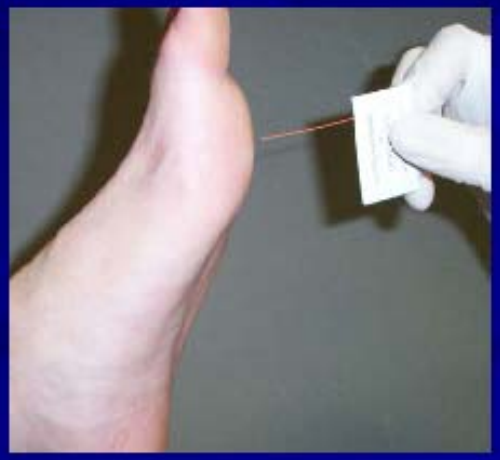
atts,Sharon A | Chang

* Foot Exam (PACT)
* Diabetes/IHD: Lipid Screen
Tobacco Counseling

Encounter
New Note

<No encounter information entered>

er Sheet | Problems | Meds | Orders | Notes | Consults | Surgery | D/C Summ | Labs | Reports



An Annual Foot Exam is a must!

Components of Foot Self-care Education

Instruct the veteran to:

- **Check your feet daily.**
- **Clean your feet daily & dry between toes!!!**
- **Bathe your feet in room temperature water-<u>not hot</u>!**
- **Use clean (preferably white) socks that are not too tight.**
- **<u>Avoid</u> walking barefoot.**
- **Always let your health care providers know right away if you have a cut or foot problem.**
- **Breaks in the skin of your feet can lead to gangrene and amputation!!!**
- **Try to stay off your foot if you have a cut-let the foot doctor decide how much walking you should do.**

Inspect Daily

- Use a mirror or family assistance if needed
- Present barriers to self-care:
  - I cannot see my feet:
    - Obesity
    - Impaired vision
    - Limited joint mobility

View Feet From Six Perspectives

Anterior

Lateral

Dorsal

Posterior

Medial

Plantar

Inspect Feet Every Day

Check each foot
(top, bottom, and sides) for:

- Changes in color
- Blisters and ulcers
- Calluses / Corns
- Dry skin
- Cuts and sores

TIP Use a mirror or ask someone for help

Tips for Foot and Skin Care

DO:

- ✓ Examine feet daily
- ✓ Wash skin with mild soap and water; pat dry
- ✓ Keep toenails trim and smooth
- ✓ Wear fresh socks daily
- ✓ Check inside shoes before wearing

DON'T:

- ⊘ Go barefoot
- ⊘ Soak feet, bathe, or shower in hot water
- ⊘ Use drugstore remedies to self-treat foot problems

Nail Trimming

- Cut nails straight across after a shower & file edges smooth
- Ask you patients what they are cutting nails with?

Prevention of Recurrence

- Protective footwear
  - Shoes
  - Inserts
- Daily foot care/inspection

Footwear

- Properly fitting, appropriate shoes
- Protective / Accommodative insoles

Shoe Fitting

- Better stores with knowledgeable sales people.
- Fit in afternoon
- Fit shoe to largest foot
- Shape of shoe to follow foot shape (outline on paper)
- Break in shoes slowly
- Fit shoe to longest toe (1/2 inch space)
- Width? Depth?
- Inspect shoes daily

Choose Properly Fitted Shoes

When buying shoes
get both feet measured and look for:

TIP Shop later in the day and try on both shoes

Diabetes Education

- "Foot care knowledge and patient behaviour seem to be positively influenced by education in the short-term…"

Valk, GD. et al. The Cochrane Library 2007, Issue 4.

Effort to Improve Self-Care Behaviors in the ESRD Cohort

- Dialysis patients have approximately a 10 times greater risk for non-traumatic amputation than non-ESRD patients. These rates are roughly 20-30 times higher than those among veterans with “normal” kidney function (GFR>=60)
- The goal of this project was to capture the time during dialysis to provide foot screening and self-management education about foot care

Methods

- Veterans undergoing hemodialysis at VA NWIHC dialysis unit at Omaha, Nebraska participated in the foot screening and foot care interactive self-management education study
- Single center dialysis unit, from 10/2004 to 12/2007 time frame studies
- All diaysis veterans participated in one or more interventions

Interventions

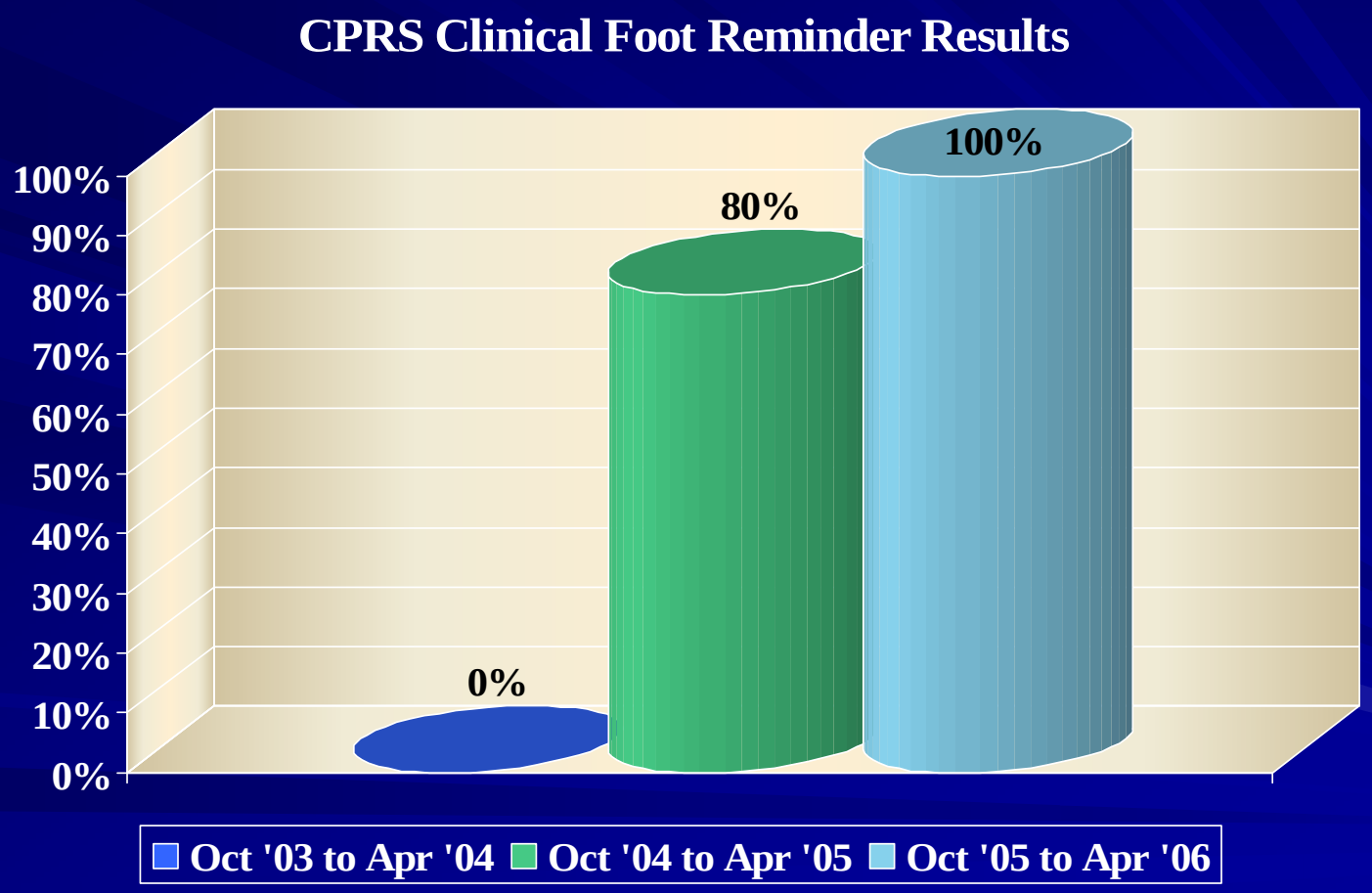
- Inservice of dialysis staff: foot screening, interactive patient foot care CD
- Nursing given access to computerized clinical foot reminders
- Consistency with template for charting of foot screen and assessments
- Ease in obtaining Prosthetic and Podiatry services
- Tracking Urea Reduction Ratio (URR%) for dialysis adequacy and relationship to increased risk for foot infections and amputations
- Staff resources, books, posters, posters from VA and DoD Tool Kit
- Formalized dialysis foot care team

Concepts of Interest

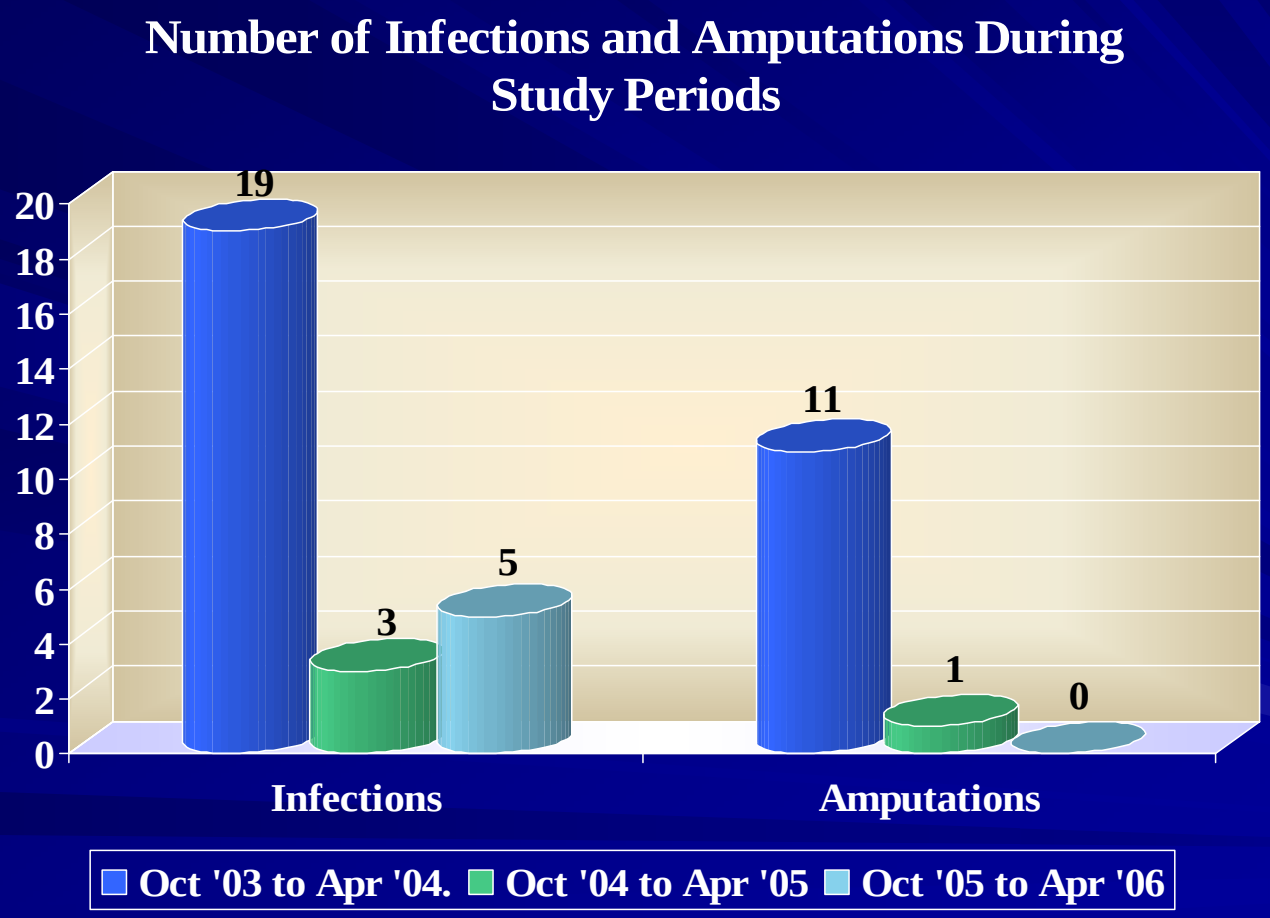
High-risk ESRD veterans not being routinely screened & educated for foot amputation prevention. We implemented a program a interactive education on screening & patient foot self-management education.

Our screening rates and patient satisfaction increased. Additionally, markers for infection, URR ratio's and amputation rates (as well as cost savings) improved.

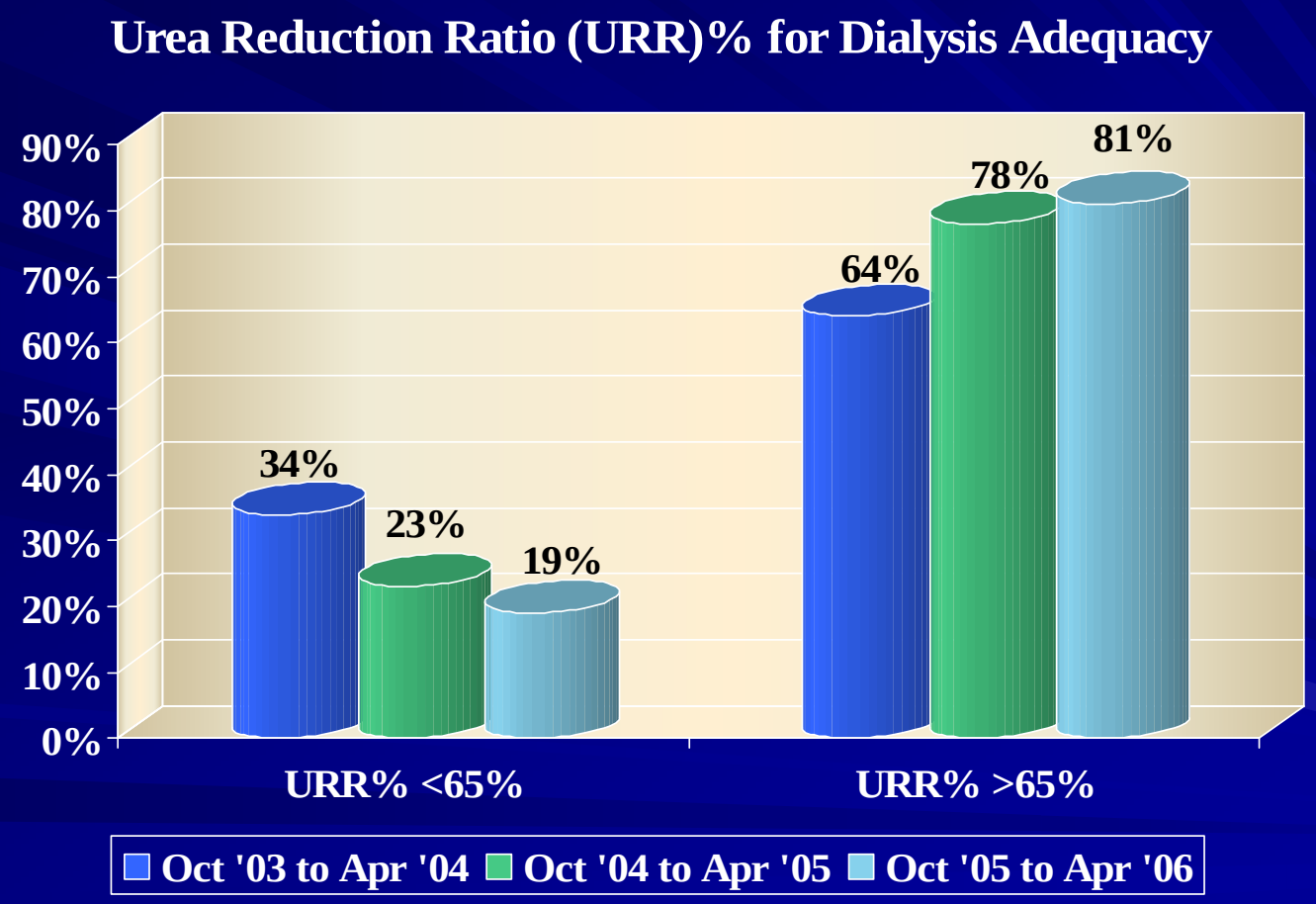
CPRS Clinical Foot Reminders Results



Number of Infections and Amputations During Study Periods



Urea Reduction Ratio (URR) % for Dialysis Adequacy



Findings and Conclusions

Maximizing the veterans time with patient centered foot care education during dialysis improved self-management foot care behaviors

- 94% overall Veteran satisfaction of new foot care interactive computerized self-management education method
- Definite trend of decreased URR % < 65%, increases infection leading to increased amputations
- Strong parallel of URR % > 65% decreases infection rates and decreases amputation rates
- Cost savings $440,000 to $825,000*
- Web Sites: www.oqp.med.va.gov/cpg/DM/DM_GOL.htm http://vaww1.va.gov/podiatry/page.cfm?pg=44

Lancet 2005; 366:1719 Diabetes Care 2004; 27:2198 Kidney Internat; 1999; 56:1524
AM J Kid Diseases 2002; 40:566

Take Home Message

- Up to 80% of amputations are preventable of patients with diabetes by the following:
  - Foot screens
  - Education, Education, Education- if done early

Thank You

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