How to Start a Nurse-Managed Foot Care Clinic

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The goals of a nurse-managed clinic are to prevent illness and encourage an active participation in health maintenance by increasing patient knowledge. A nurse-managed clinic that focuses on foot care presents an excellent opportunity to provide quality care to patients who are at risk by monitoring for debilitating foot conditions while teaching proper foot care techniques. It is well documented that foot care can prevent serious complications, such as amputation, making it essential for patients to be educated and receive professional foot care. This article addresses the development of a foot care clinic managed and staffed by nurses.

Nurse-managed clinics have become an attractive option that results in high levels of patient satisfaction (Craig, 1996; Granneman, Reahr, & Solari-Price, 1996). Increasing patient knowledge and encouraging an active role in health maintenance and illness prevention is imperative in an ever-increasing cost-conscious healthcare environment. Foot care is one area that lends itself readily to the concept of a nurse-managed clinic. It is well known that consistent, conscientious foot care can prevent amputation; therefore, it is essential for the patient with diabetes to be educated and receive proper foot care (Halpin-Landry & Goldsmith, 1999). Nursing foot care is well defined and includes physical and functional assessment, foot hygiene, nail care, skin care for corns and calluses, foot massage, and patient education (Lukacs & Kelechi, 1993). This article discusses the development of a nurse-managed foot care clinic, addressing issues such as identifying the need, financial considerations, staffing, marketing, and reimbursement.

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Identifying the Need

In 1994, an outpatient wound center was started in a 500-bed tertiary care, teaching, urban hospital. Five physicians, representing plastic surgery, vascular surgery, dermatology, and foot and ankle orthopaedics, initially staffed the center and transferred all patients with wounds from their primary practices into the wound center. Because the elderly patients with diabetes and patients with peripheral vascular disease represented 85% of the wound center's patient population, it became apparent that although these patients presented for wound care, approximately 70% were also in need of foot and toenail care. Many patients were homebound and had difficulty with transportation or were residents in extended care facilities. Most had such complex medical disorders, including chronic wounds, that any foot problems were not viewed by them as a priority in their care, even though foot care is an integral part of health promotion and maintenance. Consistent care of the feet and toenails is fundamental to mobility, comfort, and independence, especially in the elderly (Bryant & Beinlich, 1999).

Competency for Foot and Nail Care

After attending at a foot and ankle orthopaedic seminar where one of the breakout sessions included a nurse-provided education on diabetic foot care and toenail trimming, the possibility for providing foot care in this patient population was recognized. The Ohio State Board of Nursing was contacted and provided information on professional standards that stated it is within the scope of practice for registered nurses to provide foot and nail care. Registered nurses must have didactic and clinical preparation and demonstrate competence to a practicing clinician or physician to be responsible for providing such care for clients (Bryant, 1995). Professional nurses can assess feet for prevention of abnormalities and manage minor conditions, such as corns, calluses, tinea pedis (athletes foot), and anhidrosis (dry skin). They can also provide patient and/or family education and promptly refer for specialty care (Ohio Nurses Association, 1994).

Initially, clinical skill development consisted of trimming toenails of friends, family, and coworkers. With increased proficiency, the foot and ankle orthopaedic physicians acted as preceptors, assessing nursing competency while observing as feet were evaluated, toenails trimmed, and corns and calluses debrided.

Initially, this service was offered to patients of the wound center in a rather informal fashion, either before their wound care appointment or directly after, time permitting. Requests for foot care became overwhelming, and, because reimbursement was available, the organization of a foot care clinic was the next most logical step.

Starting the Foot Care Clinic

The concept of a nurse-managed foot care clinic did not have to be "sold" to administration. The wound center physicians supported the idea, because they saw the need for foot care in this patient population and wanted to keep patients in the system even after their wounds were healed. The foot care clinic would serve as a true prevention clinic, where nurses would provide foot and nail care, monitor for problems, and immediately refer back to the wound center for treatment as needed.

Location

Fortunately, the outpatient wound center was already established in an easily accessible first-floor area of the main hospital. Because of the potential for functional limitations of clients, consideration of the environment was important. One afternoon a week was designated for foot and nail care, with two of the six available examination rooms used. These two rooms held large, comfortable chairs that could be adjusted to elevate patients' feet, making it easy for the nurse to provide care. If a patient could not transfer from a wheelchair, one foot at a time was elevated onto the nurse's towel-covered lap and foot and nail care was provided in that manner.

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A pull-down examination light was essential for the assessment and provision of foot care. Because patients were primarily older adults often having more than one comorbidity, it was also important to adjust the room temperature to suit each patient. Complementary therapy nursing interventions were implemented by playing quiet, soothing music and placing a small bowl of lavender potpourri in the room to promote relaxation during the visit. The patients' feet were not soaked because of time constraints and also because soaking can lead to maceration and infection (Levin, 1993). A mild, nonfragrant lotion was used to gently massage the feet to complete the foot care treatment. Patients expressed satisfaction with these interventions and were often more receptive to subtle foot care instructions and teaching mixed casually into the conversation.

Policies and Procedures

A policy and procedure manual was written for wound care when the wound center opened, but specific foot care policies were necessary. Policies and procedures relating to foot care included instructions on how to perform a foot examination, namely a structural, vascular, neurologic, and skin assessment. Nursing practice guidelines for foot and nail care, directions on how to complete the nursing foot assessment tool, and patient education information regarding foot care were added. Billing policies were not required, because the hospital's patient financial services department handled all billing.

Financial Considerations

Expenditures for equipment, supplies, staffing, and staff education and training were considered. The number of patients scheduled for each clinic, amount of reimbursement anticipated per patient, and the actual overhead of running the clinic were all considered. Sixty percent of the overhead included registered nurse staff and secretarial salaries, whereas the other 40% was overhead for the wound center located within the hospital. Money for training of new staff and orientation of personnel was included.

Equipment and Supplies

Some equipment was purchased from nonhospital vendors because of their unusual nature. Battery-powered grinders, often used for woodworking crafts but used for debriding thick, mycotic toenails in the clinic, were bought at a local home-improvement store. Recently, an electronic debridement system that incorporates a spray mist to decrease the amount of toenail fungal dust in the air has been under review for purchase by the foot care clinic. Inhalation of nail dust is a potential health hazard to the practitioner, but little is known or understood about the effects of short- or long-term exposure to nail dust particles (Abramson & Wilton, 1985).

Toenail nippers were originally purchased from a drug store at a reasonable price, but they were large and difficult for some nurses to use and did not meet all patients' needs. Several nail nippers, ranging in size from 4 1/2" to 6", were ordered from a podiatry supply company. Orangewood

sticks and emery boards, which are essential when providing toenail care, were found at a beauty-supply store in the mall.

Semmes-Weinstein monofilaments, which are used to test for neuropathy, came from a vendor who represented a topical wound care product frequently used in the wound center. The remaining equipment was readily available in the hospital, including sterilizing/disinfecting solution for the nail nippers and sanding heads, moisturizing lotion, protective eyewear, masks, gowns, gloves, and #15-blade disposable scalpels used for debriding corns and calluses.

Staffing and Staff Education

Initially, 2 registered nursing staff provided care in the outpatient foot clinic. Forty minutes were allotted for new patients and 30 minutes for returning patients. The actual nail care and documentation was completed in this timeframe. It became apparent that more staff members were needed because of the increase in patient volume and because providing nail care was physically tiring work.

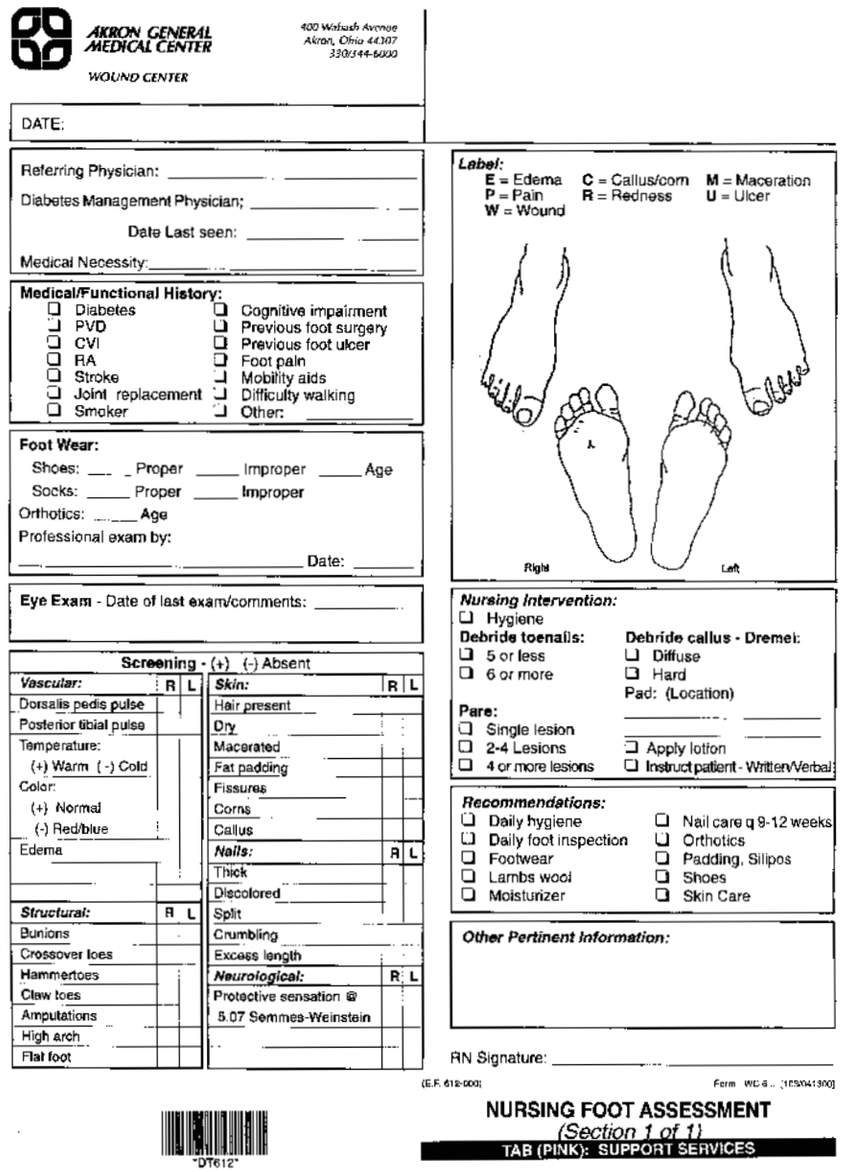
Staff education consisted of didactic and clinical preparation, with a return demonstration of foot assessment, toenail care, and callus and corn debridement. Currently, there are 7 nurses who are proficient in foot and nail care, and wound center secretarial support has been added. Nurses must annually reconfirm their competence by being observed by the clinical nurse specialist and approved on all steps and critical elements of the foot care procedure. Because of the collaborative nature of the foot care clinic, nurses can initiate consultations with pedorthics (custom shoe wear) and diabetes education, although a physician's prescription is necessary for both. Nurses can also consult with care management and social services or refer back to the wound center, as appropriate. Today, three examination rooms are used to treat patients for foot care on two full afternoons per week. Clinic volume has increased from approximately 600 patient visits in 1999 to more than 1,100 patient visits in 2001.

Marketing

Initially, the foot and nail care clinic was marketed to patients of the wound center during their clinic visits. Patients with existing foot problems and those at risk were targeted and educated on the benefits of quarterly preventive foot assessments and nail care. In most cases, a relationship had been established with these patients during their wound care visits, so they were willing to stay within the system for foot care.

Before establishing the outpatient foot care clinic, foot and nail care was provided for a small number of inpatients by referral from the wound center physicians. On discharge, these patients were referred back to the outpatient foot and nail care clinic. Medicare allows patients with specific underlying diseases to return for foot assessment and toenail trimming every 9 to 12 weeks, providing the opportunity to monitor those at risk for problems.

Another marketing strategy was to send a brochure explaining the foot care clinic to all inpatient units, resident and attending physicians, and those departments, such as social services, that came in contact with potential patients in need of the service. Brochures were mailed to physicians specializing in family practice, internal medicine, endocrinology, orthopaedics, and geriatrics. Information on foot and


AKRON GENERAL MEDICAL CENTER
WOUND CENTER
400 Wabash Avenue
Akron, Ohio 44307
330/344-6000

DATE:

Referring Physician:
Diabetes Management Physician:
Date Last seen:
Medical Necessity:

Medical/Functional History:
- ❑ Diabetes
- ❑ PVD
- ❑ CVI
- ❑ RA
- ❑ Stroke
- ❑ Joint replacement
- ❑ Smoker
- ❑ Cognitive impairment
- ❑ Previous foot surgery
- ❑ Previous foot ulcer
- ❑ Foot pain
- ❑ Mobility aids
- ❑ Difficulty walking
- ❑ Other:

Foot Wear:
Shoes: ___ Proper ___ Improper ___ Age
Socks: ___ Proper ___ Improper
Orthotics: ___ Age
Professional exam by:
Date:

Eye Exam - Date of last exam/comments:

Screening - (+) (-) Absent

Vascular:	R	L
Dorsalis pedis pulse		
Posterior tibial pulse		
Temperature: (+) Warm (-) Cold		
Color: (+) Normal (-) Red/blue		
Edema		

Structural:	R	L
Bunions		
Crossover toes		
Hammertoes		
Claw toes		
Amputations		
High arch		
Flat foot		

Skin:	R	L
Hair present		
Dry		
Macerated		
Fat padding		
Fissures		
Corns		
Callus		

Nails:	R	L
Thick		
Discolored		
Split		
Crumbling		
Excess length		

Neurological:	R	L
Protective sensation @ 5.07 Semmes-Weinstein		

Label:
E = Edema **C** = Callus/corn **M** = Maceration
P = Pain **R** = Redness **U** = Ulcer
W = Wound

Right Left

Nursing Intervention:
❑ Hygiene

Debride toenails:
- ❑ 5 or less
- ❑ 6 or more

Debride callus - Dremel:
- ❑ Diffuse
- ❑ Hard

Pad: (Location)

Pare:
- ❑ Single lesion
- ❑ 2-4 Lesions
- ❑ 4 or more lesions

- ❑ Apply lotion
- ❑ Instruct patient - Written/Verbal

Recommendations:
- ❑ Daily hygiene
- ❑ Daily foot inspection
- ❑ Footwear
- ❑ Lambs wool
- ❑ Moisturizer
- ❑ Nail care q 9-12 weeks
- ❑ Orthotics
- ❑ Padding, Silipos
- ❑ Shoes
- ❑ Skin Care

Other Pertinent Information:

RN Signature:

(E.F. 612-000) Form WC-6 ... [1/03/041300]

"DT612"

NURSING FOOT ASSESSMENT
(Section 1 of 1)
TAB (PINK): SUPPORT SERVICES

FIGURE 1. A nursing foot care assessment and intervention form.

TABLE 1
Common ICD-9 Codes

ICD-9 Code	Diagnosis
110.1	Dermatophytosis of nail (mycotic toenails)
250.50	Diabetes with neurological manifestations
250.0	Diabetes with peripheral circulatory disorders
443.9	Peripheral vascular disease
719.79	Difficulty in walking
369.4	Blindness
v58.61	Anticoagulant therapy
v43.64	Hip replacement
v43.65	Knee replacement

nail care services was also included on the hospital Web site.

After 6 months of operation, information about the foot care clinic was shared with the community. Community education included speaking at American Diabetes Association meetings, providing extended care facility programs, providing hands-on foot assessments at senior health fairs, and offering foot screening at a local shoe store that specialized in diabetic shoe wear.

Documentation

Patient documentation must meet Medicare and Medicaid's documentation standards for reimbursement (Lukacs & Kelechi, 1993). A nursing foot care assessment and intervention form was developed that reflects the necessity for the provision of foot care (see Figure 1). This form also includes documentation regarding patient education and any follow-up or referrals necessary. An order for foot care, either from the primary physician or a referring physician, must be present on the patient's chart. Patients with managed care may need a referral and precertification for each visit. The nurse in charge of the foot clinic is an advanced practice nurse (clinical nurse specialist), with a Certificate of Authority and a Standard Care Arrangement with a wound center foot and ankle orthopaedic surgeon.

TABLE 2
Common CPT Codes

CPT Code	Procedure
11720	Toenail debridement 1-5
11721	Toenail debridement 6 or more
11055	Paring or cutting of hyperkeratotic lesion (corn or callus) single lesion
11056	Paring or cutting of hyperkeratotic lesion 2-4 lesions
11057	Paring or cutting of hyperkeratotic lesion 4+ lesions
11755	Toenail biopsy

Reimbursement

Medicare, Medicaid, and most private insurance will reimburse for nail care every 9–12 weeks. A physician's order drives the hospital reimbursement process of nurse-provided foot and nail care; however, patients must have a medical necessity, including a specific disease process (Buescher, 1998) documented appropriately as International Classification of Diseases (ICD-9) codes (see Table 1).

Medicare and Medicaid patients are billed under the Center for Medicare/Medicaid Services (CMS) Ambulatory Payment Classification (APC) guidelines. These guidelines, which were implemented in 1997, shifted a cost-based outpatient reimbursement system to a capitated per visit system. The Current Procedural Terminology (CPT) codes typically billed in hospital outpatient settings are grouped into 462 APC groups based on resource use and clinical comparability (Schaum, 2001). Several CPT codes exist to bill for foot and nail care (see Table 2). Approximately 20% of those seen in the foot and nail care clinic are non-Medicare/Medicaid patients who are billed under appropriate CPT codes only.

Currently, nursing assessment and care may not be billed separately to Medicare, Medicaid, or private insurance, either in an outpatient setting or in the private sector. Even though the nursing assessment and care cannot be billed at this time, nurses must not be reluctant to document procedures and supplies. Any future changes in reimbursement will be directly influenced by how we, as practitioners, document the services we provide.

Research

Healthcare providers must evaluate their services' outcomes, including patient satisfaction, to survive and thrive in today's competitive healthcare market (Pulliam, 1991). Outcomes are complex and difficult to measure. A nurse-managed foot care clinic affords the perfect opportunity to research the effect of nursing care on patient outcomes. Outcome areas to consider in addition to patient satisfaction are prevention of illness, rate of hospitalization, and days lost from work or school (Craig, 1996). Most

BOX 3
Starting a Nurse-Managed Foot Care Clinic

- Identify the need
- Develop a budget
- Find a patient-accessible location
- Purchase equipment and supplies
- Educate staff
- Understand reimbursement
- Write policies and procedures
- Market the clinic
- Engage in research

important, research addressing ways to increase patient adherence to foot care guidelines and education is needed (Willoughby & Burroughs, 2001).

Conclusion

The goal of the nurse-managed foot clinic is to teach patients how to care for their feet and prevent debilitating foot problems by increasing patient knowledge and encouraging an active role in health maintenance. Patients are appreciating healthy feet through continued assessment, nursing interventions, and education. The concept of a nurse-managed foot care clinic (see Box 1) is well suited to the outpatient setting and offers comprehensive foot care education with ongoing evaluation to patients for the purpose of health promotion.

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