



Multidisciplinaire Diabetic Foot Clinic Karel Bakker, MD PhD



Organisation of footcare

• There is strong evidence that the institution of a multidisciplinary foot-care team reduces amputation rate





"Improved survival of the Diabetic Foot: The role of a specialized foot clinic"

ME Edmonds, et all King's College Hospital, London

Q J Med. 1986 Aug;60(232):763-71







Multidisciplinary Diabetic Foot Team

... Dependent upon motivated members ...







Levels of foot care management

In all countries at least three levels of foot care managementare needed:

Level 1 Minimal model:

general practitioner, diabetic nurse and podiatrist

Level 2 Intermediate model: diabetologist, surgeon

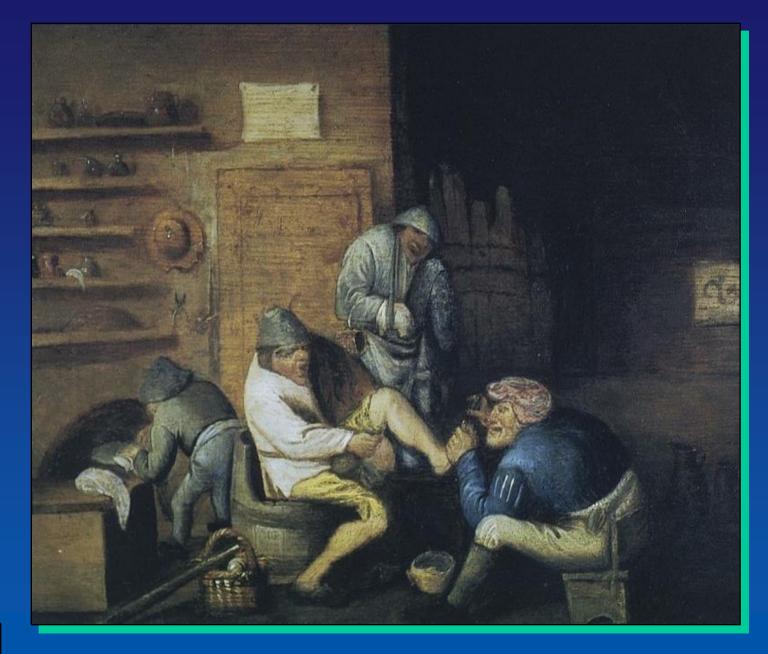
(general and/or vascular and/or orthopedic),

diabetic nurse and podiatrist

Level 3 Centre of excellence











Level of Management 1

- Personnel
 - GP
 - Diabetic Nurse
 - Podiatrist





Minimal model (1)

| Aim | Prevention and basic curative care |
|-----------------------|---|
| Patients | Own population |
| Setting | General practitioners' office, health centre or small regional hospital |
| Facilitating elements | Close collaboration with a referral centre |











Level of Management 2

- Personnel
 - Diabetologist
 - Surgeon (general and/or vascular and/or orthopedic)
 - Diabetic nurse
 - Podiatrist





Intermediate model (2)

| Aim | Prevention and curative care for all types of patients and more advanced assessment and diagnosis |
|-----------------------|---|
| Patients | From the regional catchment area of the hospital with possibly some referrals from outside the region |
| Setting | Hospital |
| Facilitating elements | Motivated coordinator to inspire team |
| 10 | Exchange experience with other centres |
| | Staff meetings to discuss diabetic foot patients |
| | Active collaboration with other departments within the hospital |
| | Active collaboration with extra-mural facilities (GP's, nursing homes, etc) |













Level of Management 3

Personnel

- Diabetologist
- Surgeon (vascular, orthopedic)
- Podiatrist
- Orthotist
- Educator
- Plaster technician
- Rehabilitation specialist
- Diabetic Nurse
- Psychiatrist





Centre of excellence (3)

| Aim | Prevention and specialised curative care for complex cases To teach other centres |
|-----------------------|---|
| Patients | National, regional or even international referral centre |
| Setting | Usually a large teaching or university hospital |
| Facilitating elements | Organise regional, national or international meetings Allow providers to visit to improve knowledge and practical skills Active collaboration with other reference centres Active participation in the development of guidelines |



Groepsspirit-teamoverleg







"A specialized wound-healing center concept: importance of a multidisciplinary department structure and surgical treatment facilities in the treatment of chronic wounds"

F Gottrup Copenhagen Wound Healing Center, Bispebjerg University Hospital

Am J Surg. 2004 May;187(5A):38S-43S





Organisation of footcare

• The specialist foot-care team must not only treat patients, but must also work in the primary care setting











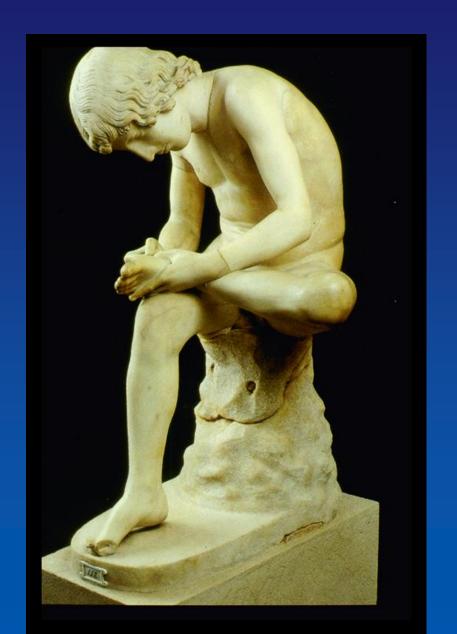
Organisation of footcare

 Make each patient a respected member of the team - you cannot succeed without their help





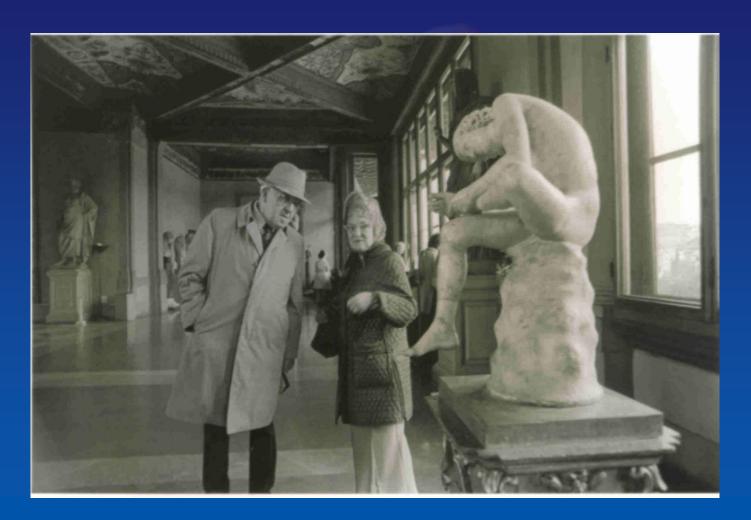
Education





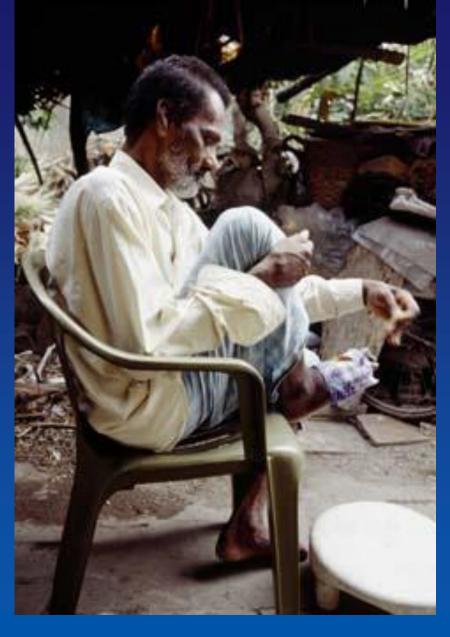


Education for "relatives"















Realistic time-dependent targets should be set. Several outcomes can be measured:

- Amputation rates
- Foot-related deaths
- Numbers of ulcers
- Healing times of ulcers
- Prevalence (a reduction in projected increase, rather than an overall reduction may be a more realistic target)
- Hospital stays related to the diabetic foot
- Cost of providing diabetic foot care

A monitoring system is essential for assessing the impact on foot clinic's outcomes.







"A specialized outpatient foot clinic for diabetic patients decreases the number of amputations and is cost saving"

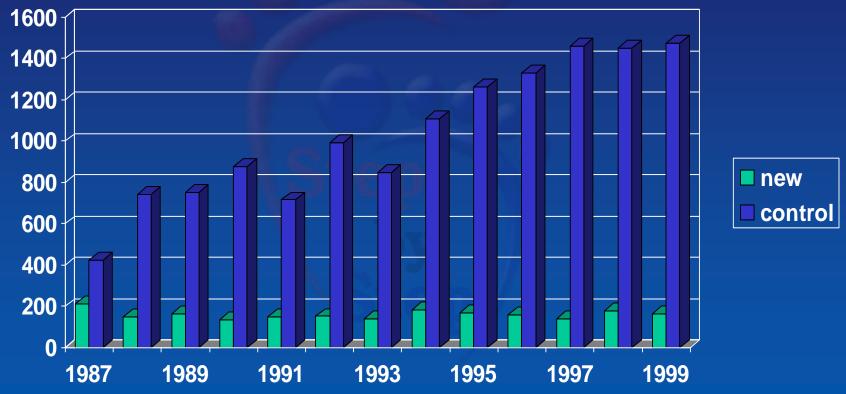
K Bakker, J Dooren Spaarne Hospital, Heemstede

Ned Tijdschr Geneeskd. 1994 Mar 12;138(11):565-9





Patients Footclinic Heemstede





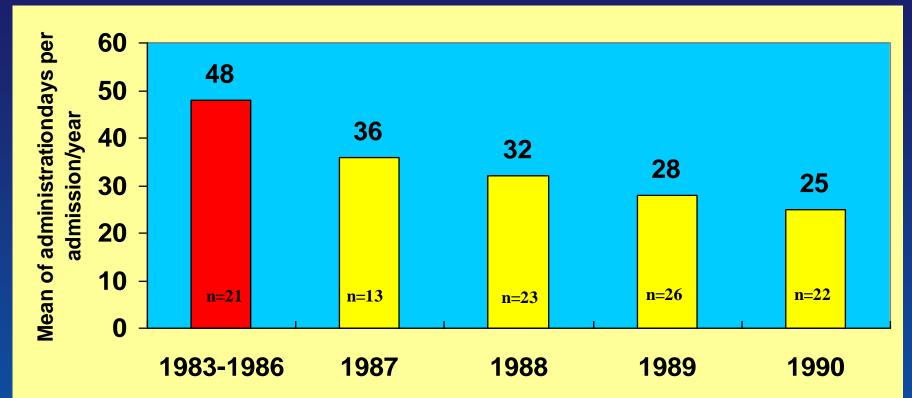




Ulcers Footclinic Heemstede



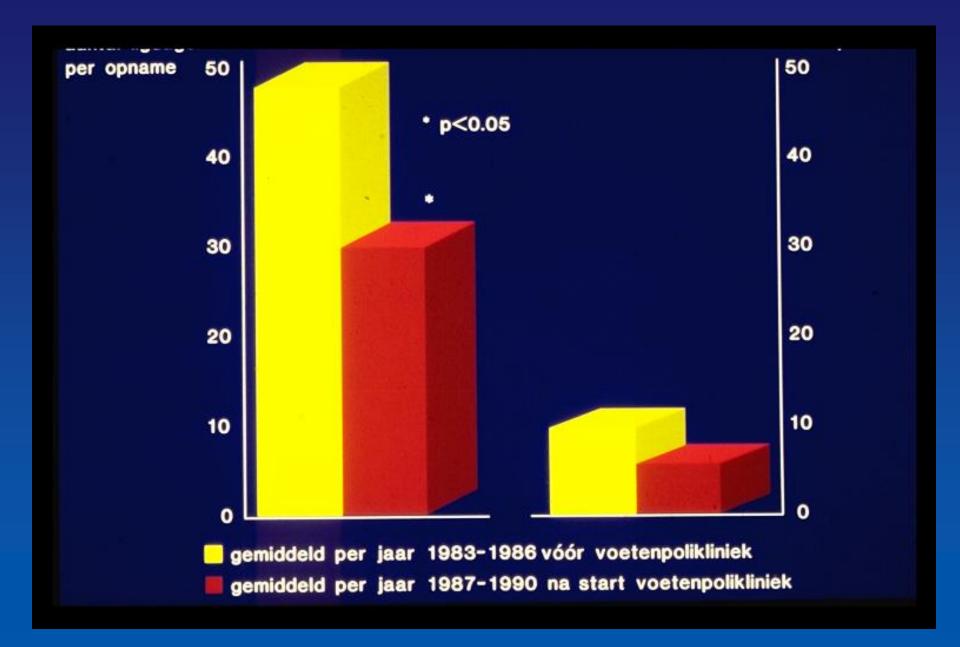




Number of admissiondays per admission per year before (1983-1986) the start of footclinic in the Spaarne Hospital Heemstede compared to the period after (1987-1990)







Spaarne Hospital Heemstede (The Netherlands)

Results of 4 year foot clinic (1987-1990)

Amputation reduction by 44%

 Reduction of hospital costs of 170.000 dollar per year

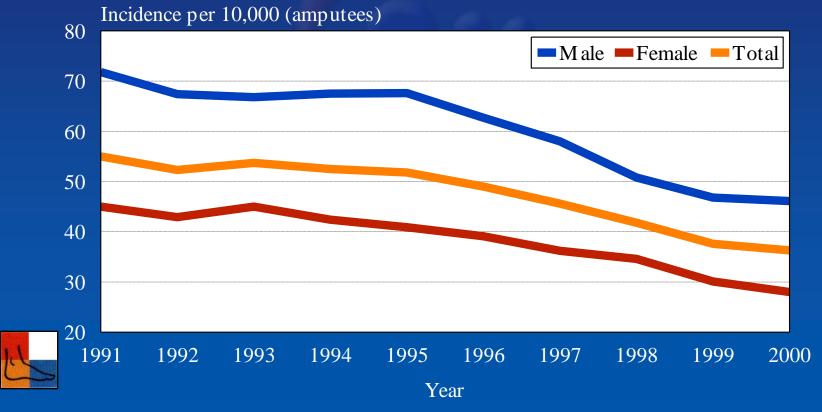




The Netherlands

Almost 500,000 known patients with diabetes Ulceration in 4% of diabetics in general practice

Lower extremity amputation



Hospitals in The Netherlands with podiatrist

| Year | 1995 | 2000 |
|--------------------------|----------|-------------|
| Number of hospitals | 39 (32%) | 84 (71%) |
| Private practice | 32 (82%) | 56 (67%) |
| Paid by hopsital | 7 (18%) | 22 (26%) |
| Combination of both | 0 | 4 (5%) |
| Number of hours per week | 4,6 | 5,9 |



Hospitals in The Netherlands with a specialized foot clinic

Year 1995 2000

Number of hospitals 20 (16%) 43 (36%)

Number of hours per week 3,2 4,6











