

# Quality Management and Control



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# Background

- Diabetic foot complications have life-long implications, and are costly both to the health care system and to the patients. Prevention and treatment in time is essential.
- Setting goals in the clinic is necessary for quality assurance
- Systematic registration of foot data is important for the outcome and for quality assurance
- Motivation ☺



## Recognition of staff work reinforces quality

- All health care providers strive to deliver high quality care to their patients. The motivation of health professionals is crucial and must therefore be strengthened and supported by creating a culture where you work every day with the ambition of doing a job a bit better than you did yesterday, focusing on the effects and results for the patients.



# Quality in foot care

- Quality is important
- Know your own data
- Set realistic goals (treatment delay, healing time, etc.)
- Free of foot complications
- Good quality of life
- Cost-effectiveness
- Attention to patient preference



# Diabetic Foot and Clinical Outcome

## Diabetic foot ulcers

- Major suffering: incapacity, dependence, fear, isolation, depression, amputation
- Reduced life expectancy
- Costly
- Wide variation in outcome: both between and within countries

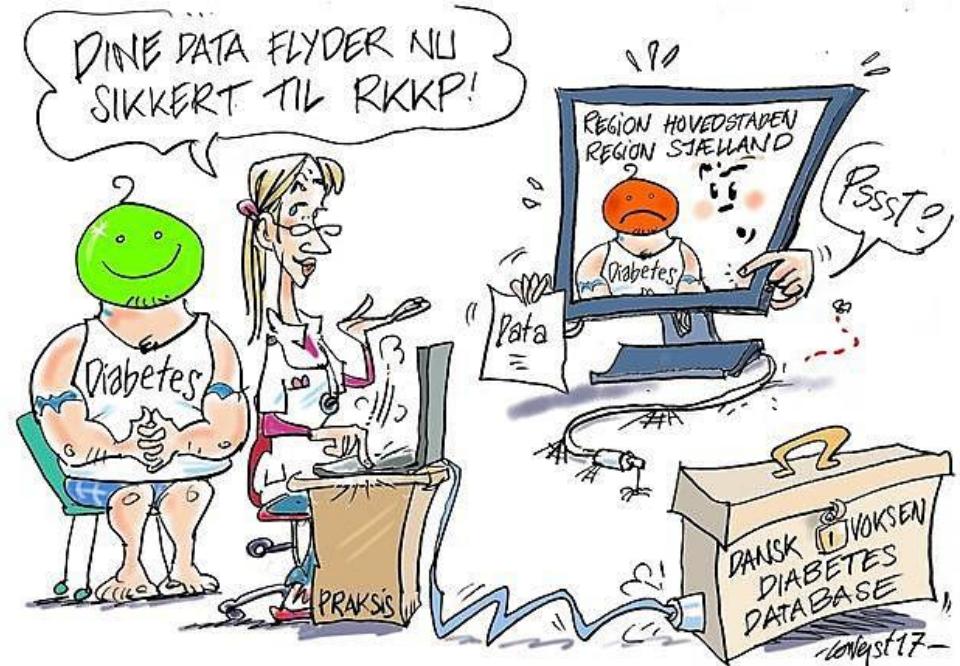
## Prevention

- Primary prevention (first ever ulcer)
- Recurrence (new ulcer in same place)
- New ulcer episode (any new ulcer)

# Record foot data - systematic and always

We need robust documentation to:

- Improve quality of our work
- Improve clinical outcome
- Focus on motivation
- Goal setting
- Show clinical activity
- Focus on health economies



Depending on the clinician!

## Education and motivation of staff

- Instructions for the healthcare professionals “How to Register”
- Instructions in the form of guidelines should be both oral and written
- Education/training of new staff should be done step by step in a daily dialog with a skilled member of the team
- Educate new staff members why registration is important
- Keep “old members” of the staff motivated
- Regular audits and feedback to the staff
- Talk about the challenges and advantages of registering data

# Clinical Practice

- The system must be simple, clear and easily understood by all health care professionals in the multi-disciplinary team and easily documented without the need for expensive equipment
  - Data/outcome could be used in benchmarking with other centres/hospitals
  - Data/outcome could optimise our daily work
  - Data registration should be systematically structured

## Limitations:

The health care provider may not be involved in the choice of system  
and the possibilities

# Examples of registration



# Systematic foot screening

- Foot data must be recorded in the electronic patient record
- Data can be used to improve quality
- Data is used in research
- Patients must be informed of the results of the examination

**Seneste fodundersøgelse**

Dato for seneste fodundersøgelse

**Fodstatus basis**

|   |  |
|---|--|
| Ikke relevant                           | <input type="checkbox"/>   |
| Normal fodstatus                        | <input checked="" type="checkbox"/> Ja   |
| Neuropatisymptomer                      | <input type="checkbox"/> Ja, højre <input type="checkbox"/> Nej, højre <input type="checkbox"/> Ja, venstre <input type="checkbox"/> Nej, venstre  |
| Perifer neuropati                       | <input type="checkbox"/> Nej <input type="checkbox"/> Smertefri <input type="checkbox"/> Smertevid   |
| Blotesiometri (mV) højre                | <input type="checkbox"/>   |
| Blotesiometri (mV) venstre              | <input type="checkbox"/>   |
| Bevaret fodpuls                         | <input type="checkbox"/> Ja, højre <input type="checkbox"/> Nej, højre <input type="checkbox"/> Ja, venstre <input type="checkbox"/> Nej, venstre  |
| Regelmæssig fodterapi                   | <input type="checkbox"/> Ja <input type="checkbox"/> Nej   |
| Interval for behandling hos fodterapeut | <input type="checkbox"/> Hver 14. dag <input type="checkbox"/> Månedligt <input type="checkbox"/> Hver 6. uge <input type="checkbox"/> Hver 2. mdr. <input type="checkbox"/> Hver 3. mdr. <input type="checkbox"/> Hver 4. mdr. <input type="checkbox"/> Hver 5. mdr. <input type="checkbox"/> Hver 6. mdr. <input type="checkbox"/> > 6. mdr. |
| Kommentar                               | <input type="checkbox"/>   |
| Udvidet fodstatus                       | <input checked="" type="checkbox"/> Ja <input type="checkbox"/> Nej  |
| Perifer arteriel insufficiens           | <input type="checkbox"/> Ja, højre <input type="checkbox"/> Nej, højre <input type="checkbox"/> Ja, venstre <input type="checkbox"/> Nej, venstre  |

**Distalt tåtryk (mmHg) højre**

**Distalt tåtryk (mmHg) venstre**

**Distalt ankeltryk (mmHg) højre**

**Distalt ankeltryk (mmHg) venstre**

**Data for distal trykmåling**

**Amputation højre**

**Amputation venstre**

**Claudicatio intermittens**

**Charcot fod**

**Monofilament**

**Fodsår**

**Infektion**

**Foddeformimeter**

**Callositeter**

**Negleforandringer**

**Ødem**

**Abnorm gangafvikling**

**Vejledning fodtej**

**Semiortopædisk fodtej fra år**

**Håndsyet fodtej fra år**

**Hjælpermidler udleveret**

**Henvisning til privat praktiserende fodterapeut sendt**

**BASIS**

**UDVIDET**

Gendan    Luk   F9    Annuller

Ex. eletronic patient record

# Registration of foot ulcer

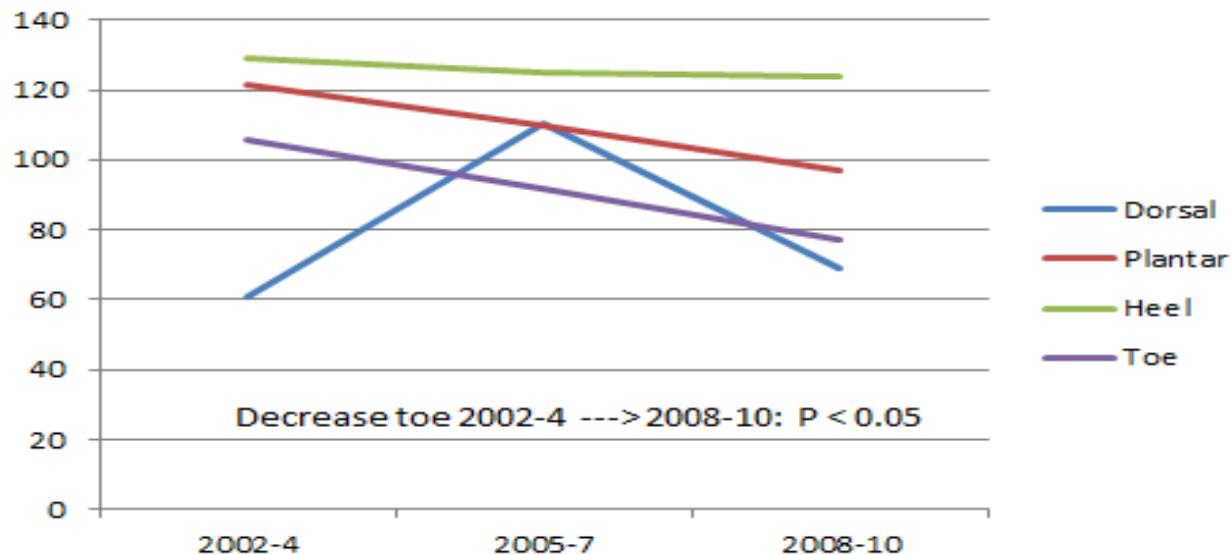
The screenshot shows a medical software interface with a left sidebar containing navigation links like 'Vis journal', 'Synopsis', 'Patientstation', etc., and a main panel divided into sections:

- Diagnoseliste:** A red box highlights a list of diagnoses including Ulcus perforans pedis (DL979C), Essential hypertension (DI109), Type 2-diabetes med fodsår (DE115B), Diabetisk polyneuropati (DG632), and Astma UNS (DJ459).
- Debutår:** Shows 'Ingen data registreret'.
- Medicinering:** A long list of medications including acetylsalicylyre (HJERTEMAGNYL) 75 mg tablet, amiodipin (AMLODIPIN TEVA\*) 20 mg tablet, atorvastat (ZARATOR) 40 mg tablet, buprenorphin (TEMGESIC) 0,4 mg resorbilletter, sublinguale, ciprofloxacin 250 mg tablet, dexibuprofen (SERACTIV) 300 mg tablet, flucloxacillin (HERACILLIN) 500 mg tablet, formoterol og budesodin (symbicort turbuhaler) 4,5+160 mikrog/dosis inhalationspulver, hydrocortison og miconazol 10 + 20 mg/g (BRENTACORT) 20+10 mg/g creme, insulin aspart (NOVORAPID FLEXPEN) 100 E/ml injektionsveske, oplosning, insulin glargin (LANTUS SOLO STAR) 100 E/ml injektionsveske, oplosning, fyldt pen, lisinopril og hydrochlorothiazid 20 mg + 12,5 mg (LISINOPRIL) 20+12,5 mg tablet, metformin (METFORMIN "ACTAVIS") 500 mg tablet, montelukast (SINGULAIR) 10 mg tablet, morphin (MORFIN "DAK") 10 mg tablet, paracetamol 500 mg tablet, tapentadol (PALEXIA DEPOT) 250 mg depottablett, testosteron (TESTOGEL) 50 mg/dosis gel, brev, vardenafil (LEVITRA) 20 mg tablet, zopiclone (ZOPICLON "STADA") 7,5 mg tablet.
- Behandlingsmål:** Shows 'Ingen data registreret'.
- Epikrise/Notat til prak læge:** Shows 'Rapport: Diabetes'.
- Øjenstatus:** Ingen data registreret.
- Nyrestatus:** Ingen data registreret.
- Nervestatus:** 06-06-17. Nerver: Perifer neuropati: **Smertefuld**.
- Fodstatus:** 06-06-17. Biotesiometri (mV) højre: 50, Biotesiometri (mV) venstre: 50. Bevaret fodpuls: Ja, højre, Nej, venstre.
- Makrovaskulær status:** Ingen data registreret.
- Awareness:** Ingen data registreret.

## Classification of foot ulcers:

- **Neuropathic ulcers** (DL979A) with vibration threshold > 25mV and foot pulses
- **Neuroischaemic ulcers** (DL979C) with distal toe pressure between 41-70 mmHg and/or ankle pressure < 90 mmHg and vibration threshold > 25mV
- **Ischaemic ulcers** (DL979E) with distal toe pressure < 40 mmHg/ ankle < 75 mmHg

# Results of data: Focus on rapid wound healing



# Procedure codes

|   |  | Kode             |
|---|--|------------------|
| Ydelse  |  | BLXB0            |
| Alm besøg i fodklinikken (hver gang)                                  |  |                  |
| Når der er læge el. ort.kir. ind over                                 |  | BVDY06           |
| Vejledning, instruktion, undervisning og rådgivning af pt             |  | BVDY0            |
| Biothesiometri (fodstatus)  |  | ZZ5104           |
| Anden sårbehandling på UE<br>Podning (som tillægskode)                |  | KQDB99<br>ZZ710A |
| Beskæring ingen sår   |  | KQDA99           |
| Kompressionsbehandling  |  | BLPA80           |
| Neglebehandling   |  | KQDH20           |
| Aircast/Terapisandaler/individuelle indlæg/Heellift når det udleveres |  | BLPA83           |
| Behandling indlæg med forfodsafsl. når der ikke udl. BLPA83           |  | BLXB18B          |
| Behandling indlæg med bagfodsafsl. når der ikke udl. BLPA83           |  | BLXB18C          |
| Individuelt aflastning af tå med silikone                             |  | BLXB21           |
| Individuelt aflastning af tå med skum og andet blødt materiale        |  | BLXB22           |
| Tenotomi udført af ort.kir.<br>Tillægskode i form af TUL1 el TUL2     |  | KNHL39           |
| Fjernelse af tå negl  |  | KQDH00           |
| Telefonkonsultationer   |  | BVAA33A          |
| Skriftlig kommunikation   |  | BVAC             |
| Udlevering af skriftlig informatins materiale                         |  | BVAC0            |
| Henvisning til andre instanser og myndigheder (fodterapi)             |  | BVAC21           |
| Tillægskoder som jeg ikke ved om vi får noget for?                    |  |                  |
| Ordination af håndsyet sko  |  | XF23             |
| Ordination af semiortopædiske sko                                     |  | XF24             |
| Kontrol af fodtøj   |  | X08001           |
| Charcot deformitet (kontrol) særydelse                                |  | 64B              |

# Monitoring data and feedback

- Regular checks of data registration by a skilled member of the team (ex. Team leader of the foot clinic)
- Conduct systematic audits
- Monitoring results is mandatory (ex. by the quality department and the team leader of the foot clinic)
- Feedback to the healthcare professionals (registrations without feedback is pointless)
- Set clear goals for the staff
- Present the data to the staff regularly
- Use the ideas from the user

## Show the activity and data

- To the manager
- To colleagues
- To the healthcare politicians
- Use the data in research
  - Abstracts
  - Presentations at conferences
  - Publications



## Limitations / challenges

- New electronic patient records
- Technical difficulties
- Extraction of data
- Proper and same coding by all health care provider
- Delegating
- Time consuming
- Change the registration form if it does not make sense



# Use local and international guidelines

|  | Version | Type       | Titel ▾  | Status     | Ændret dato | Ændret af          | Næste revisionsdato |
|--|---------|------------|--|------------|-------------|--------------------|---------------------|
|  | 2       | Vejledning | Charcotfod - diagnostisering og behandling på S... | Publiceret | 06-02-2018  | Laurette Sosniecki | 05-02-2020          |
|  | 2       | Vejledning | Den diabetiske fod på SDCC                         | Publiceret | 06-02-2018  | Laurette Sosniecki | 05-02-2020          |
|  | 3       | Instruks   | Fodinspektion, Neuropati undersøgelse, Biothesi... | Publiceret | 06-02-2018  | Laurette Sosniecki | 06-02-2020          |
|  | 2       | Instruks   | Fodsårsbehandling på SDCC                          | Publiceret | 06-02-2018  | Laurette Sosniecki | 05-02-2020          |
|  | 2       | Instruks   | Fodtøj og aflastning på SDCC                       | Publiceret | 05-02-2018  | Laurette Sosniecki | 05-02-2020          |
|  | 1       | Instruks   | Podning af sår på SDCC _ Lokale forhold            | Publiceret | 06-02-2018  | Laurette Sosniecki | 05-02-2020          |
|  | 2       | Instruks   | Vejledning i egenomsorg for fodder                 | Publiceret | 06-02-2018  | Laurette Sosniecki | 05-02-2020          |



**The 2015 IWGDF Guidance documents on prevention and management of foot problems in diabetes: development of an evidence-based global consensus**

*Prepared by the IWGDF Editorial Board*

Few and ambitious goals  
that set direction for quality  
work and create motivation  
for all employees



# Thanks for your attention

