



*“Successful long-term hemodialysis treatment in patients with end-stage renal failure depends on a large extent upon a trouble-free vascular access. Unfortunately, the maintenance of the vascular access still remains a significant clinical problem”.*

Kjellstrand CM et al. Clin Nephrol. 1975; 4(1): 37-40



*“Providing satisfactory vascular access for hemodialysis remains one of the most challenging problems confronting the nephrology team”.*

Schwab SJ et al. *Kidney Int.* 1989; 36(4):707-711.

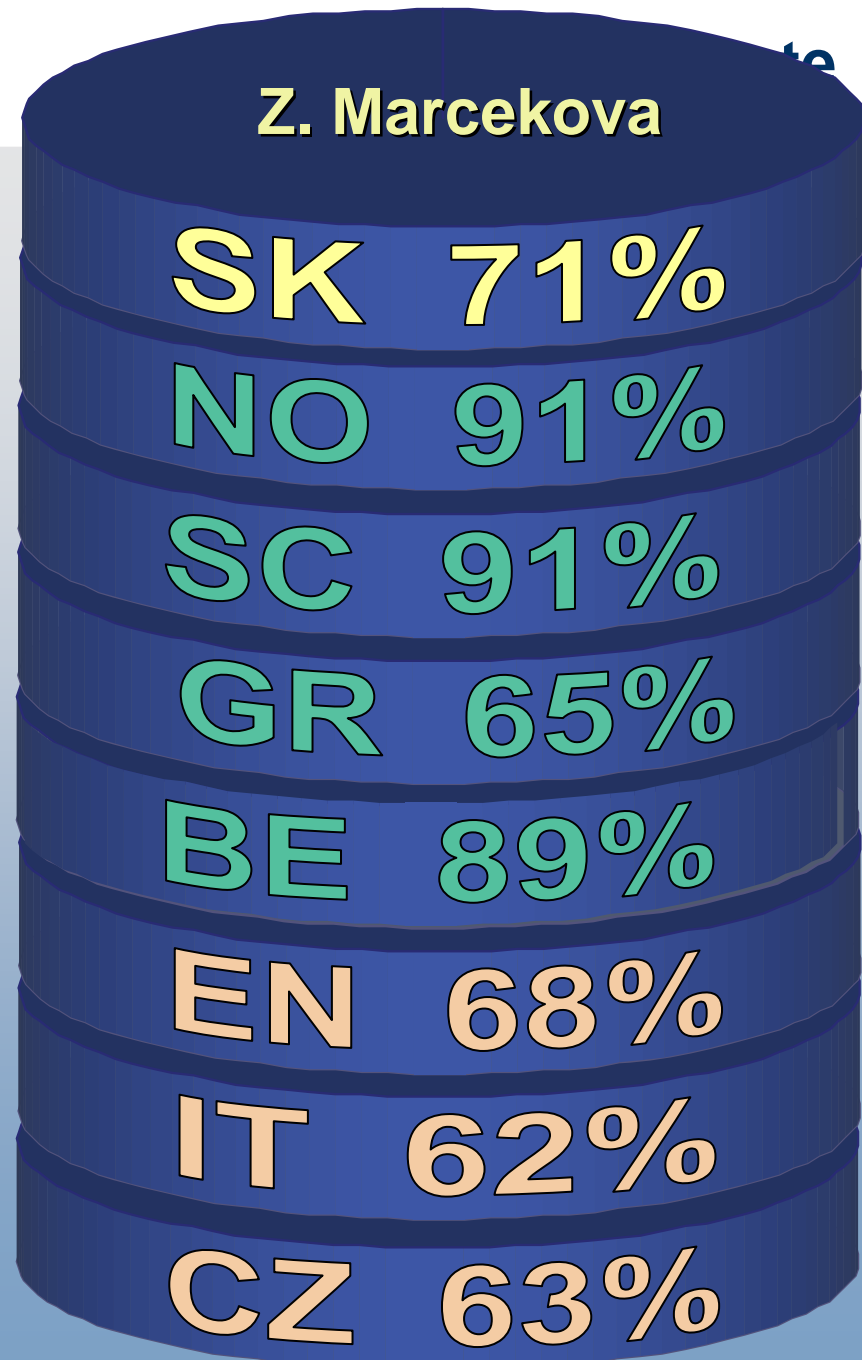
# European Practice Database

## Comparison of Renal Care Practice in Europe

### Vascular access

Project of the Research Board of EDTNA/ERCA

Jean-Yves De Vos, Monique Elseviers  
EPD Coordinators

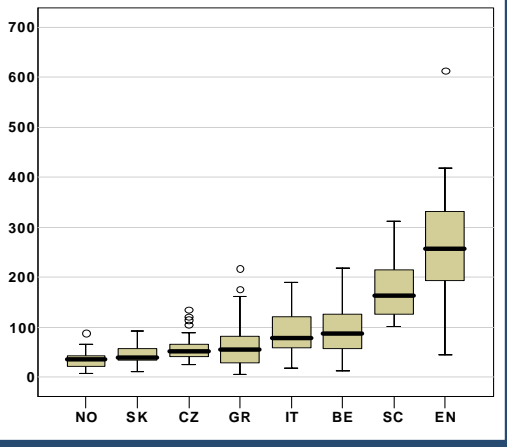


8 countries

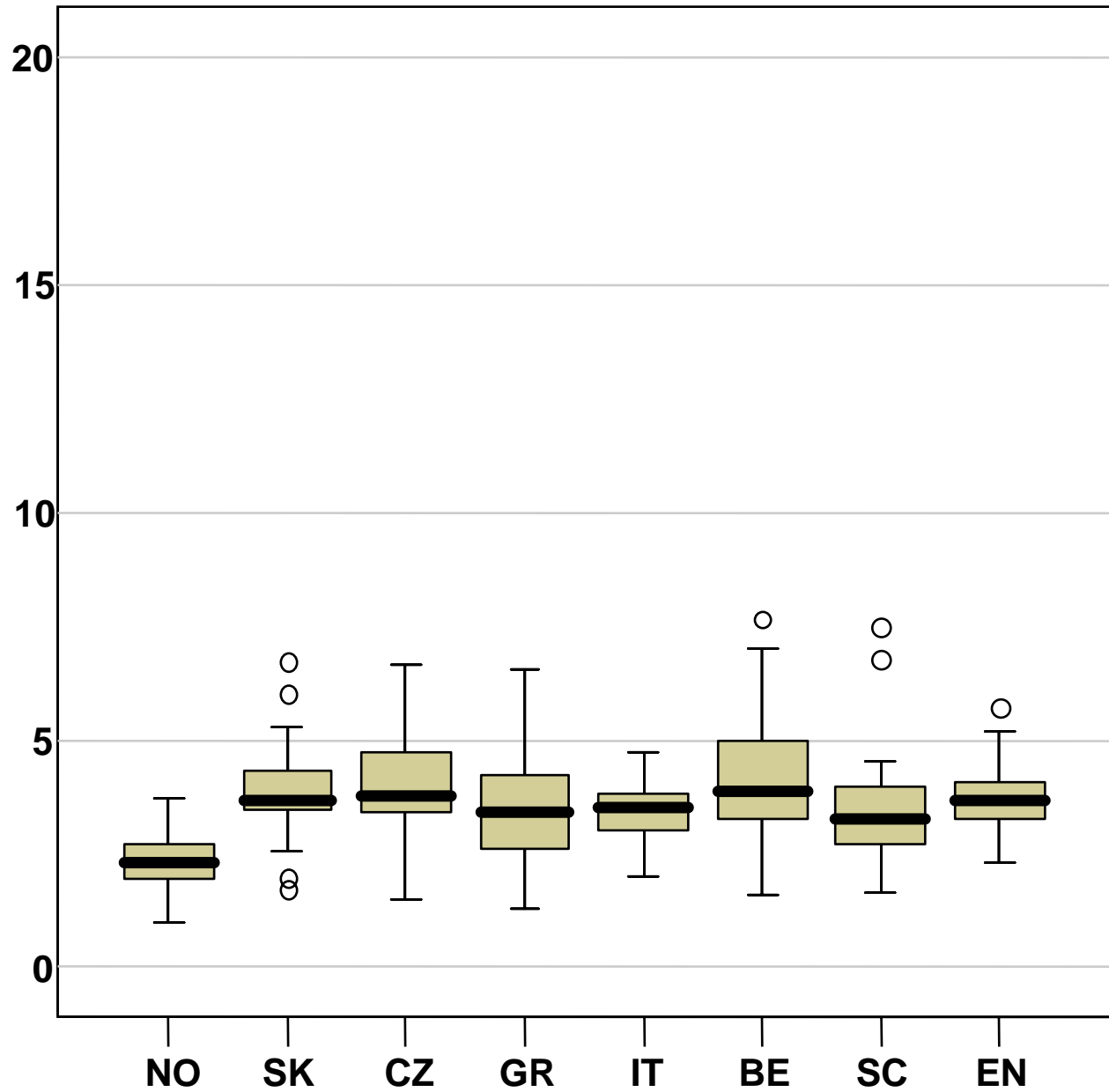
276 centres (including 393 HD units)

21.861 dialysis patients ( including 3.226 PD patients)

# Patient / Staff ratio per country



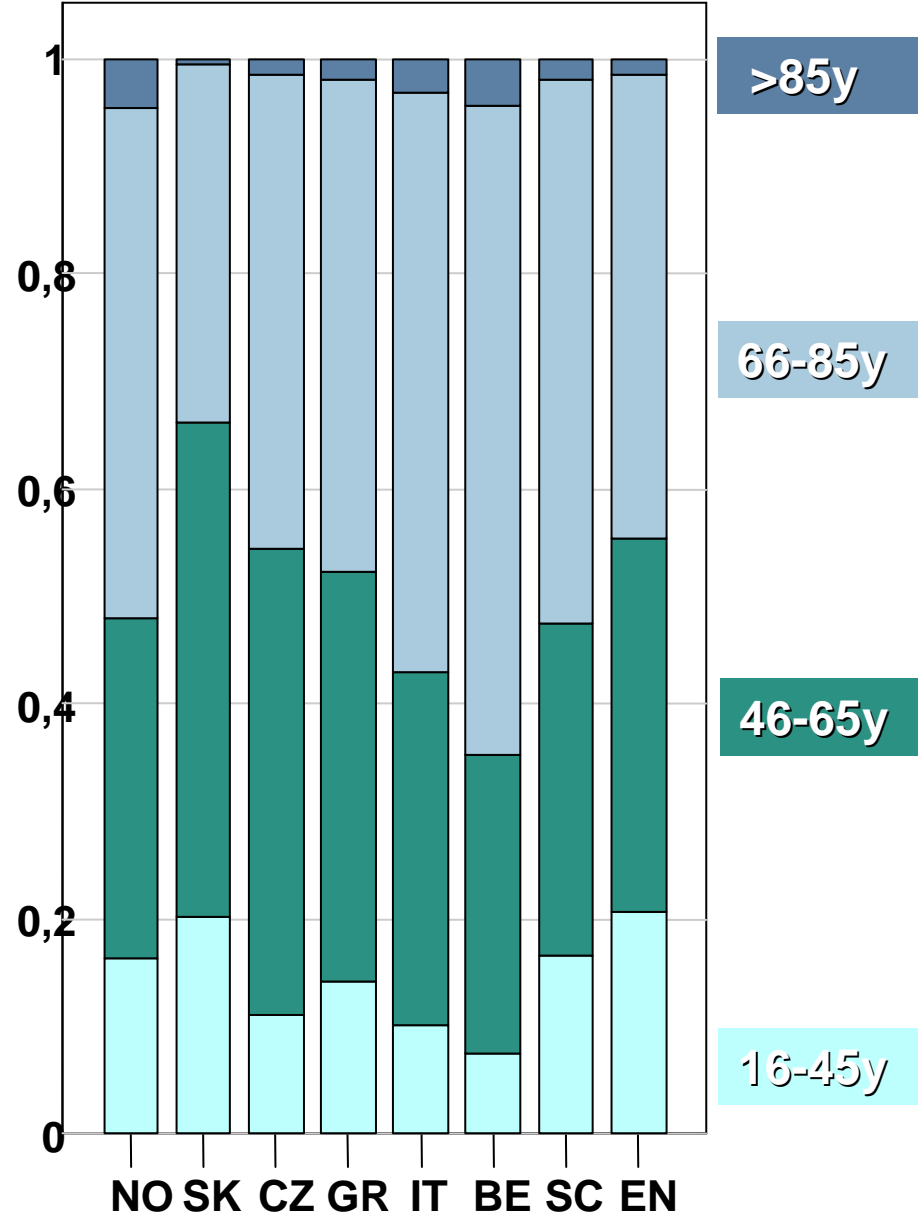
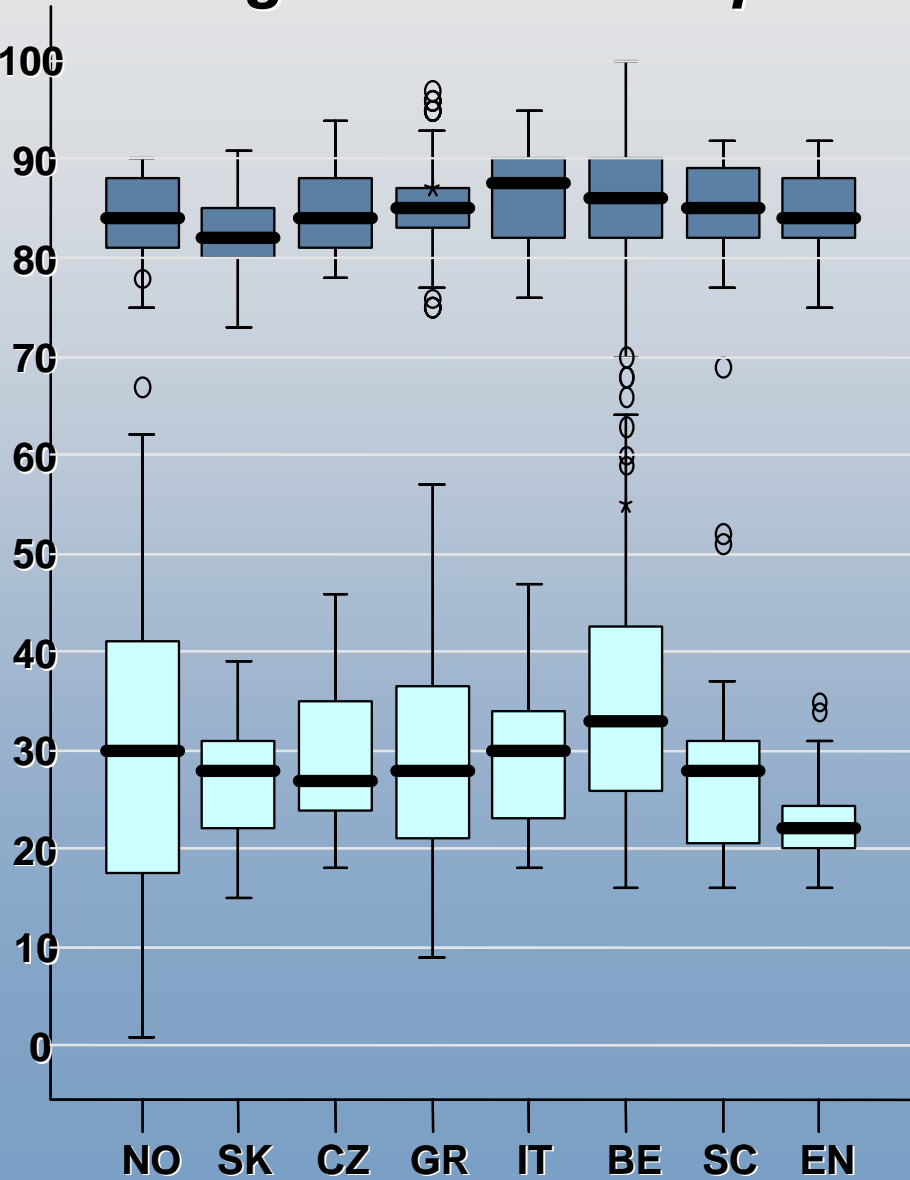
Patient / Staff ratio



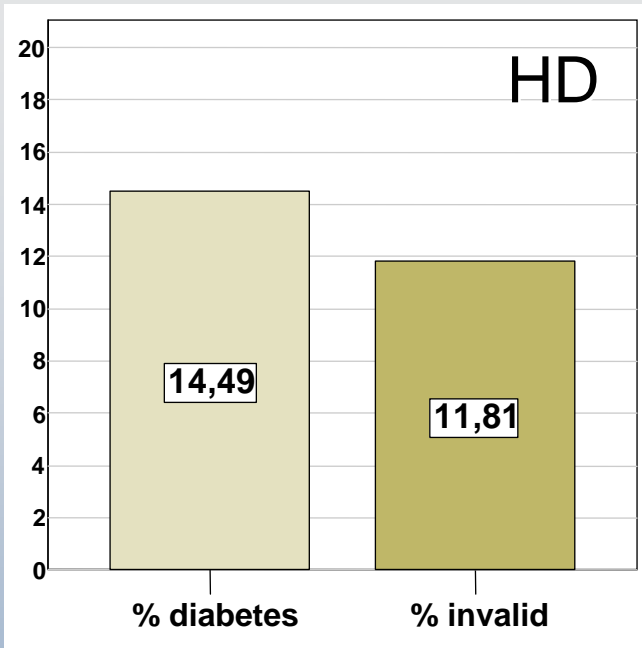
With inclusion of nurse assistants

# Age distribution of HD patients

## Youngest and oldest patient

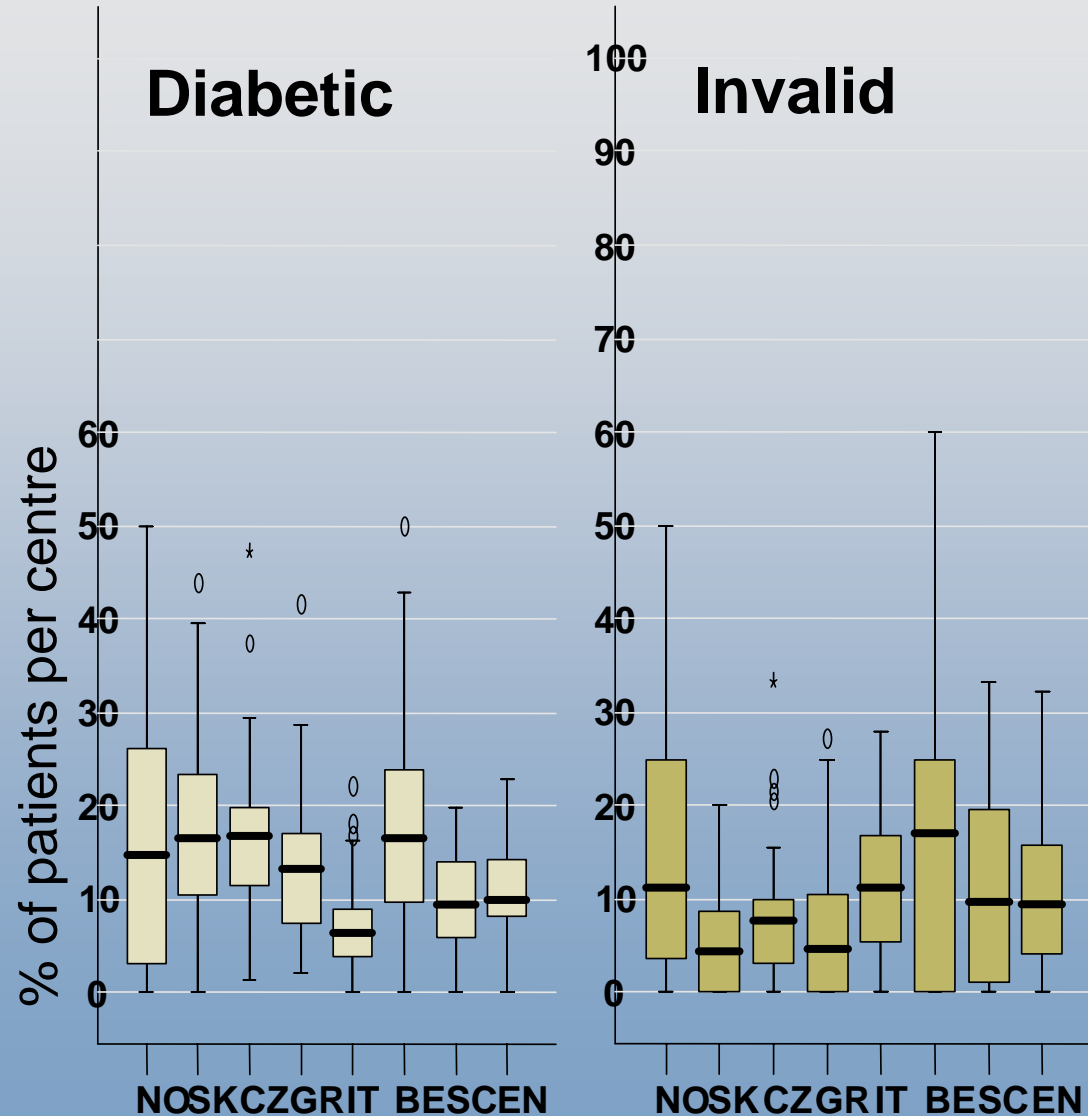


# HD: Diabetic and Invalid patients



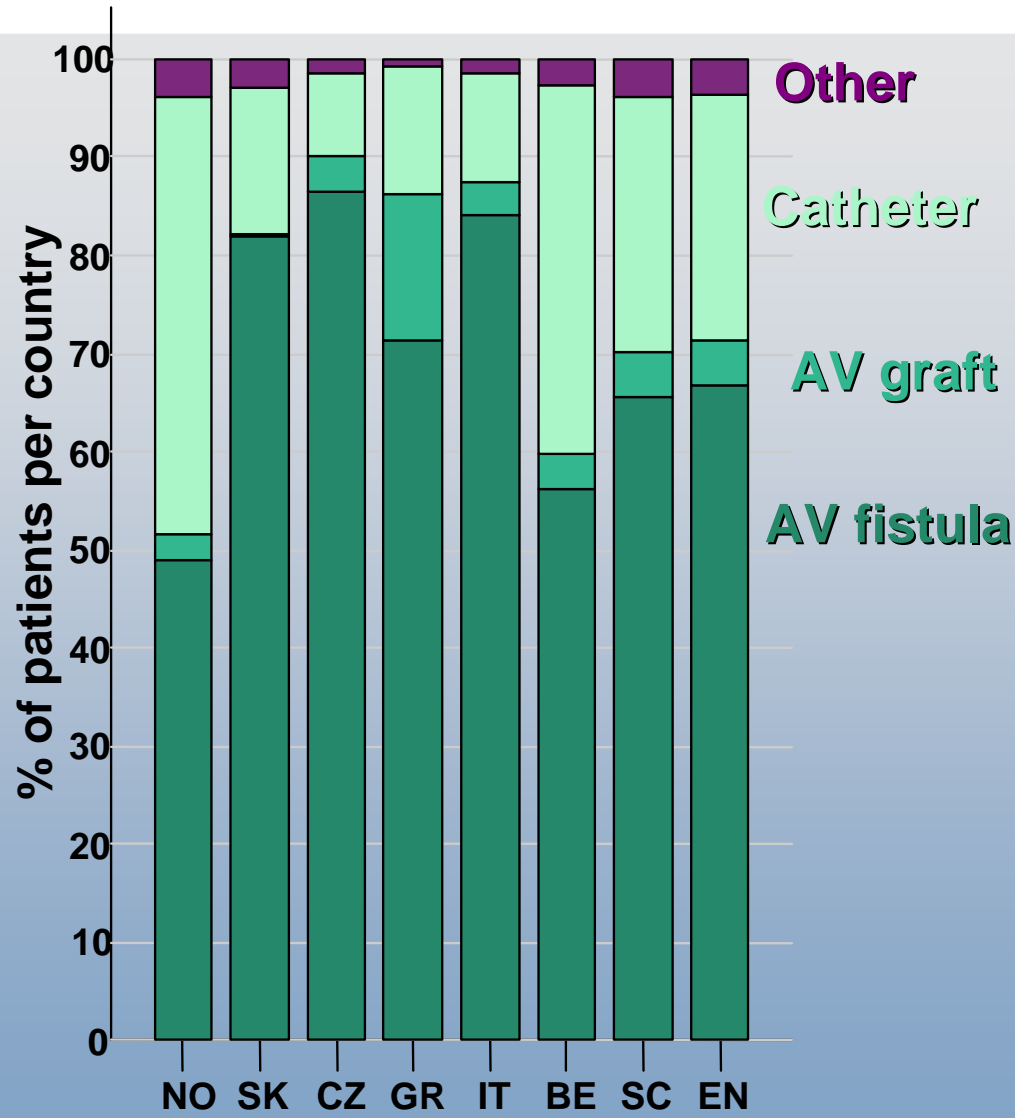
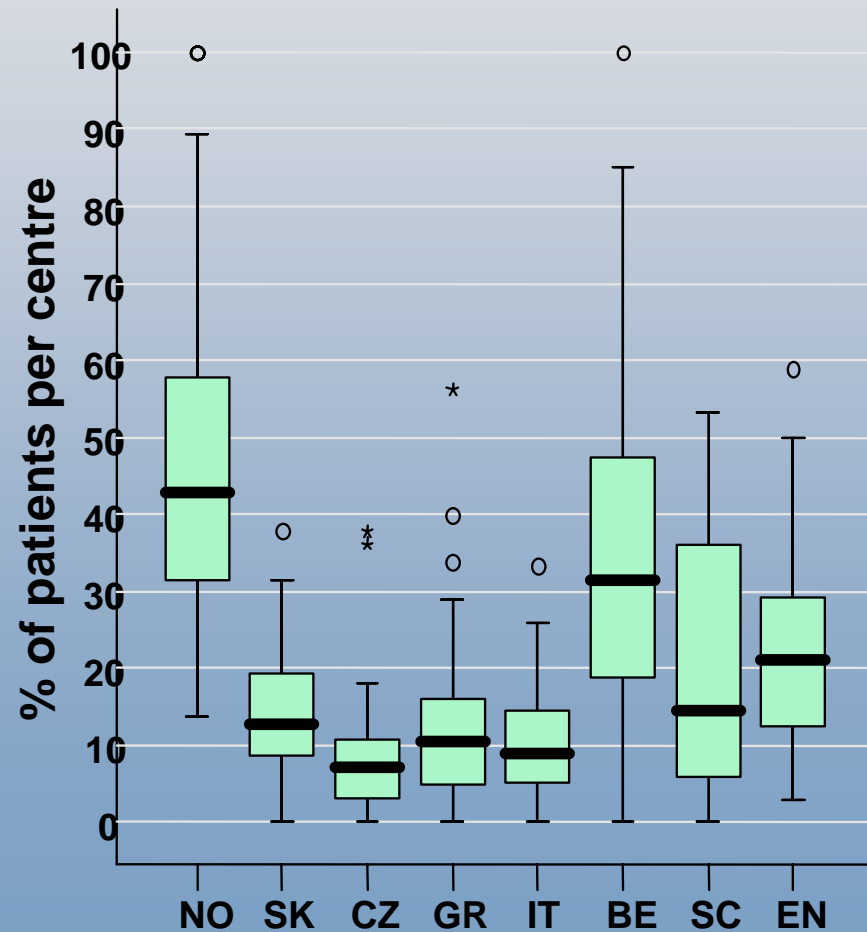
Invalid=not able to go to the bathroom independently

**In PD treatment  
17.7% of patients  
had diabetes**

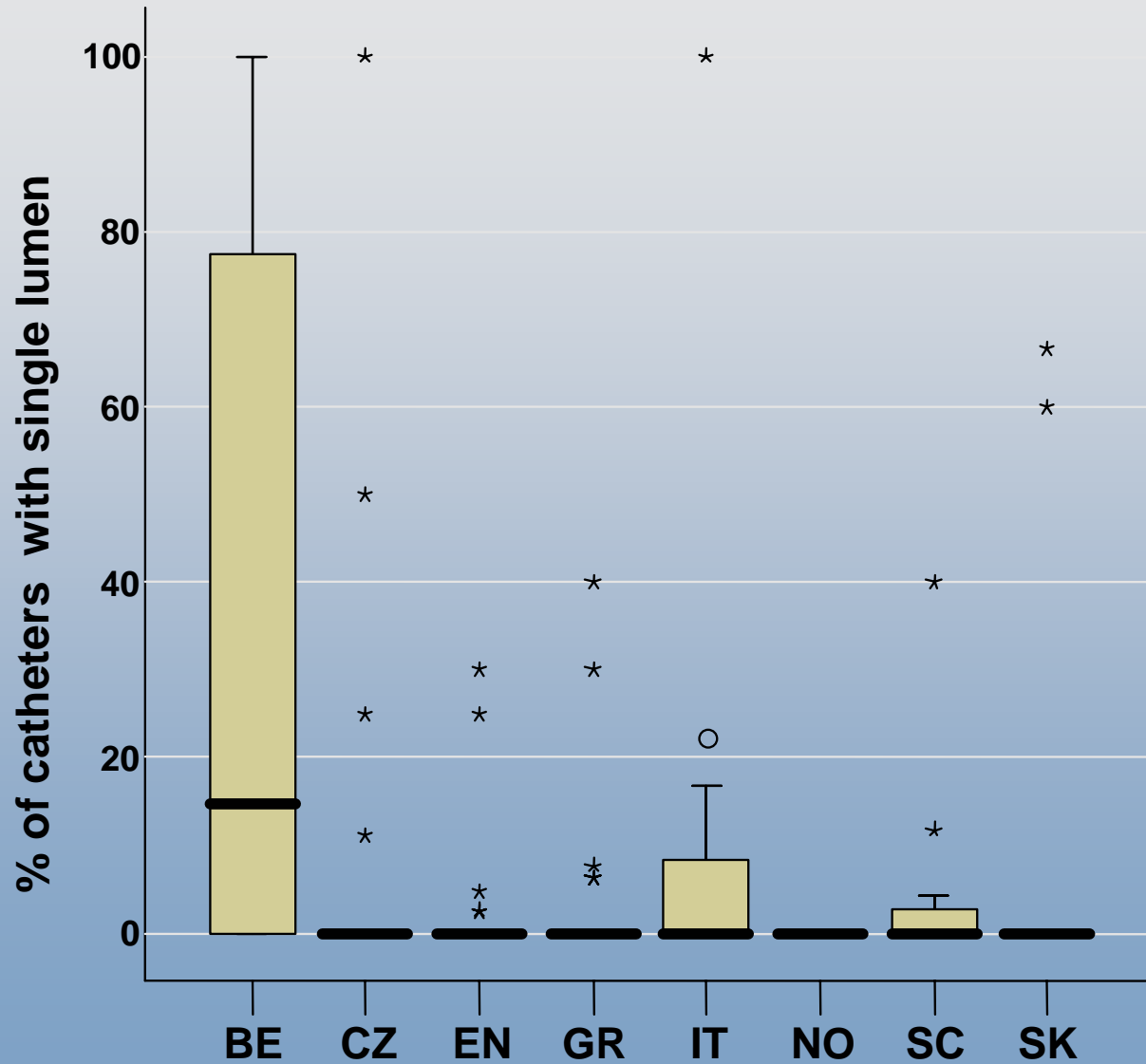


# HD: Vascular access

## Variation in catheter use



# Use of single lumen catheters



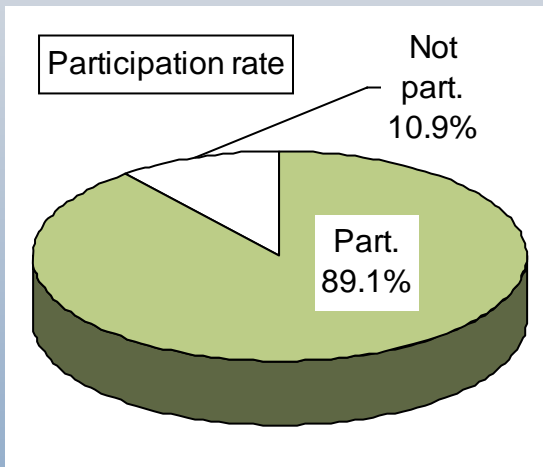
# Results of the DIALYSIS CENTRE QUESTIONNAIRES

## Participating Centres

- **Participation: 57/64 centres**
  - **54 adult centres** (one not included in centre analysis)
  - **3 paediatric centre** (not included in further analysis)
- 11/54 (20%) of dialysis centres belonged to a university hospital
- 35 centres (65%) had between one and three satellite units
- All centres offered chronic HD treatment
- 46/54 centres (85%) also offered PD treatment

### HD-Modalities offered (% of centres):

- Slow nocturnal HD           7%
- Home HD                        28%



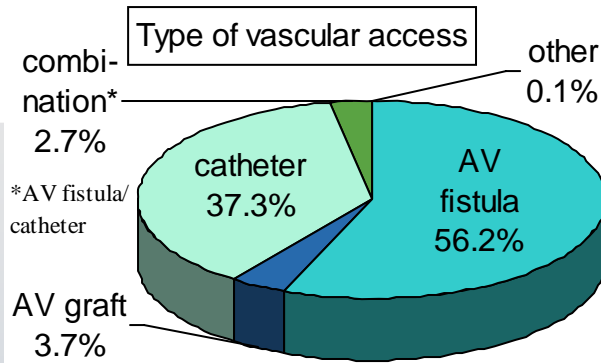
Participatie in VL was 97% van de centra. Participatie in W was 83% van de centra.

In Vlaanderen werden deze bevestigingen reeds 5 maal georganiseerd (ORPADT enquête). In Wallonie is dit echter de eerste bevestiging van deze omvang.

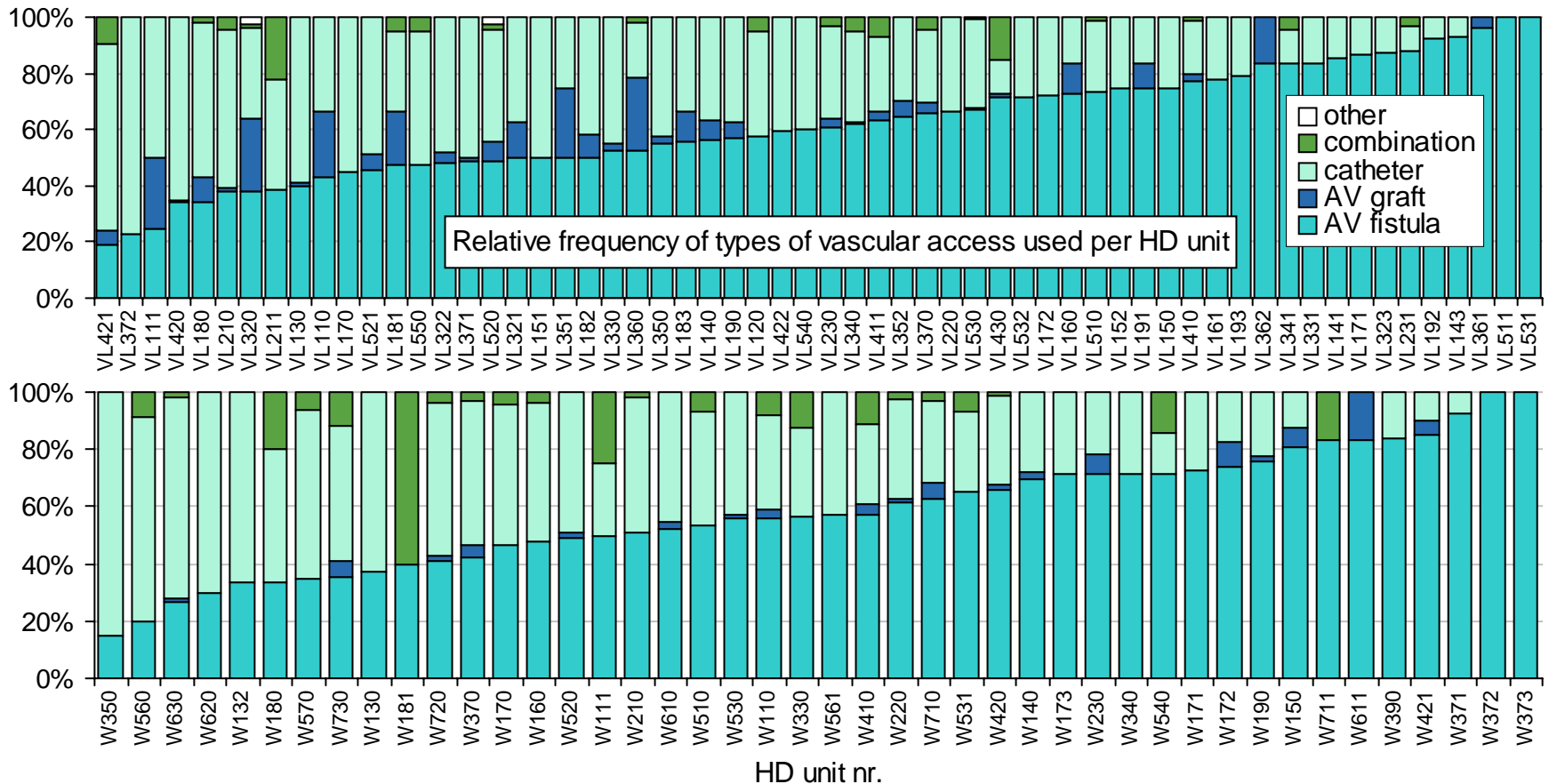
19% van de VL en 46% van de W centra hebben *geen CAD*.

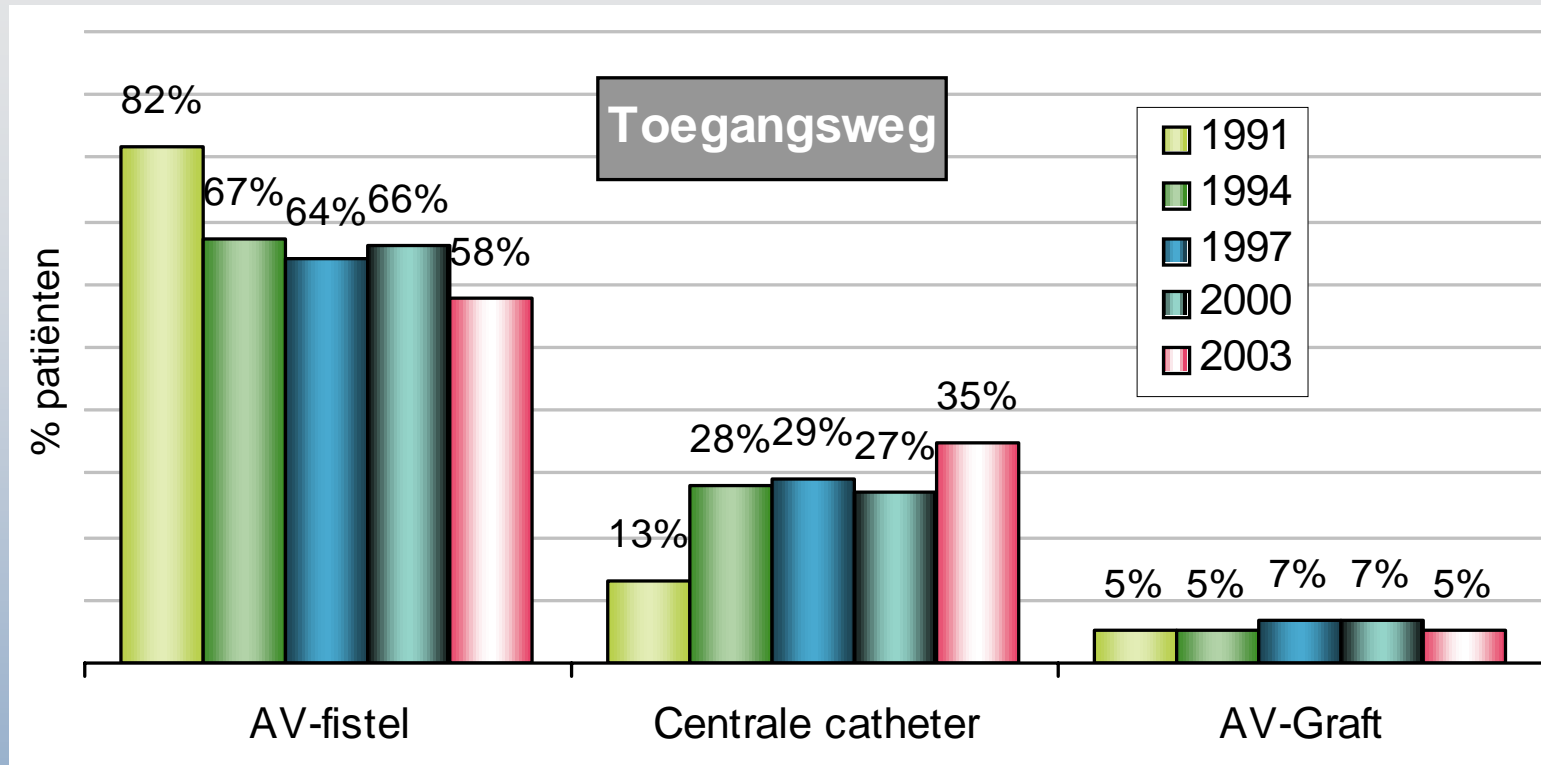
Op datum van bevestiging behandelden 6 verschillende centra in België samen 24 thuis HD patiënten (range 1-13 patiënten per centrum).

# Haemodialysis: Vascular Access (1)



Minstens 37,3% van de Belgische HD patiënten wordt gedialyseerd met een centraalveneuze katheter als vasculaire toegangsweg !



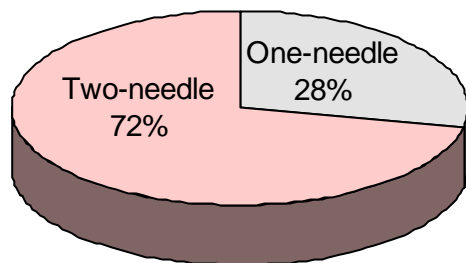


- Het gebruik van centrale catheters varieerde van 3 tot 77% per centrum. Zestien op 60 HD centra gebruikten centrale catheters in meer dan 40% van hun patiënten. Vijf satelietcentra hadden geen patiënten met catheters
- 65 patiënten werden gedialyseerd met een combinatie van AV-fistel en catheter (49 in 2000).

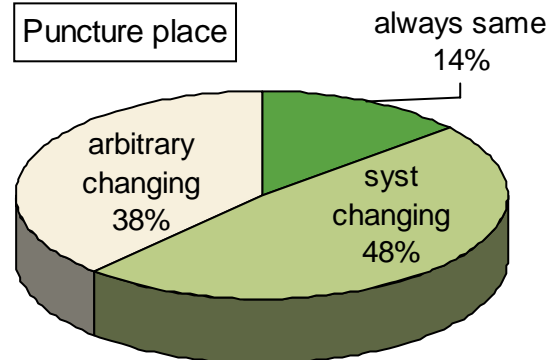
# Vascular access in chronic HD patients

National Questionnaire

Needle system used



Puncture place

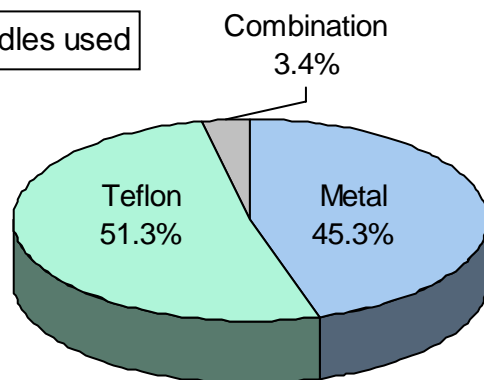


28% van de Belgische patiënten wordt nog met een éénnaaldtechniek behandeld.

Vooraf Teflon-katheternaalden worden gebruikt bij het aanprikken van AV fistels.

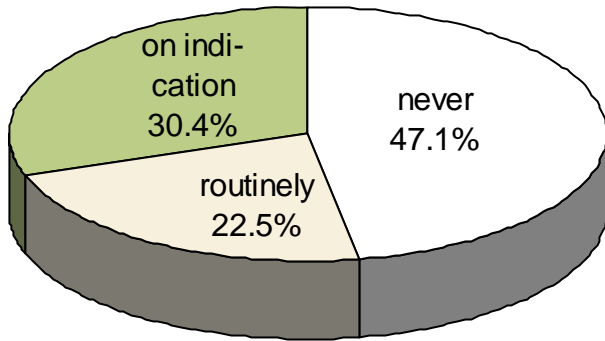
Punctietechniek is verdeeld in gebruik.

Needles used

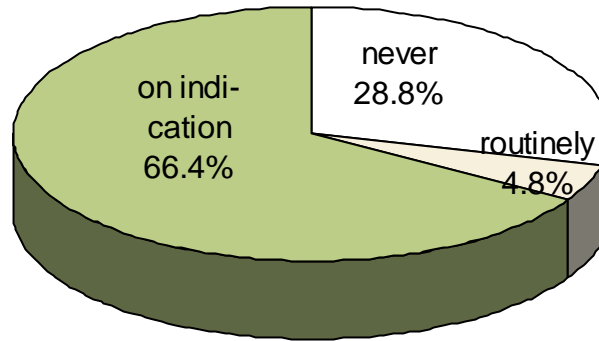


## AV fistulae: functional assessment

AV fistulae: access flow measurement



AV fistulae: access recirculation measurement



Routinemetingen van AV fisteldebiet, maar vooral van recirculatie, is laag.

89% van de gebruikte katheters is permanent.

40% van de gebruikte katheters is van het type single-lumen.

## Characteristics of catheters

- 89% of catheters used were permanent catheters (in 92% of centres permanent catheters were used)
- 40% of catheters used were single lumen catheters (in 67% of centres single lumen catheters were used)