

# Haemodialysis in patients aged over 80 years

Til Leimbach, Joachim Kron, Jutta Czerny, Birgit Urbach, Sabine Aign, Susanne Kron\*

KfH Kidney Centre Berlin-Köpenick, Berlin, Germany, #Department of Nephrology, Charite, Universitätsmedizin Berlin, Germany

In Germany every fifth incident dialysis patient currently is 80 years of age or older. The question arising is no longer if to treat these patients but how and to gain knowledge on factors influencing the overall quality of end-stage renal disease care in this cohort. Single centre data of all dialysis patients aged over 80 years were analyzed with regard to survival, social circumstances, vascular access, and pre-dialysis nephrology care.

Between 1<sup>st</sup> January 2001 and 31<sup>st</sup> December 2012

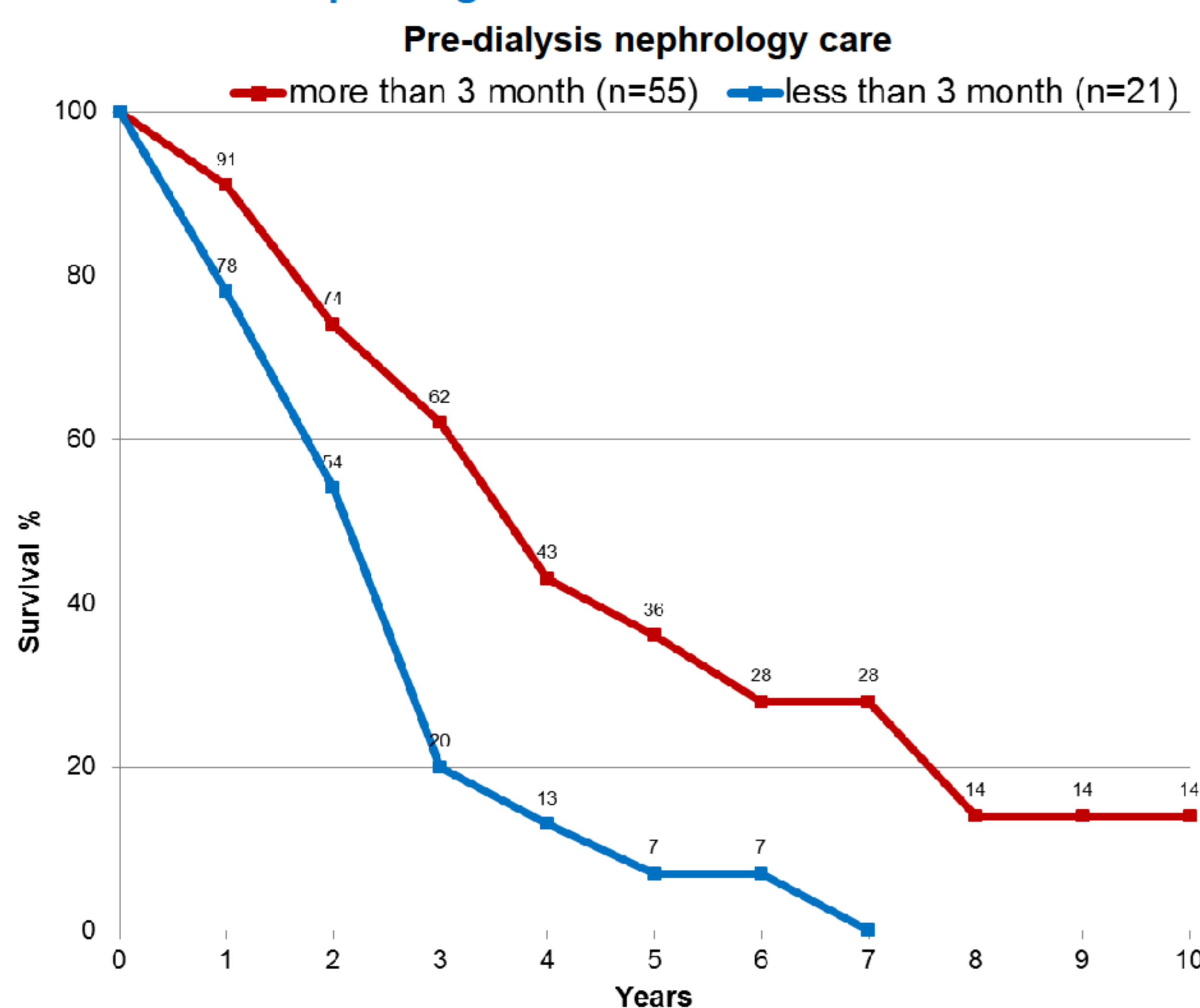
## 76 patients over 80 years of age

(32 female and 44 male) started chronic ambulatory haemodialysis treatment.

Median age at begin of dialysis was 82 years (80 – 91 years).

**Patients (n = 55) with more than 3 month of nephrological care prior to dialysis** (3 to 161 month, median 31 month)

survived significantly longer than **patients (n=21) having had less than 3 month contact to nephrologists:**



On 31<sup>st</sup> December 2012

## 38 patients aged ≥ 80 years

(18 female and 20 male) underwent chronic hemodialysis treatment, corresponding to **19 %** of all dialysis patients of our centre.

The median age was 84 years (80 – 94 years).

The median previous dialysis duration was 50 months (1 – 155 months).

### Characteristics of prevalent patients 80 years of age or older (n=38)

Age (years)	84 (80 – 94)
Female	18 (47 %)
Time on haemodialysis (month)	50 (1 – 155)

#### Renal disease

Vascular nephropathy	18 (47 %)
Diabetic nephropathy	6 (16 %)
Glomerulonephritis/vasculitis	6 (16 %)
Interstitial nephritis/pyelonephritis	5 (13 %)
Other	3 (8 %)

#### Comorbidities

Diabetes	19 (50 %)
Heart disease*	21 (55 %)
Cancer	12 (32 %)
Peripheral vascular disease*	9 (24 %)
Cerebrovascular disease*	5 (13 %)

\*Heart disease: myocardial infarct, coronary intervention, implanted pacemaker or defibrillator, congestive heart failure. Peripheral vascular disease: with intervention. Cerebrovascular disease: stroke, vascular intervention.

#### Social status

living at home	33 (87 %)
living with relatives	2 (5 %)
nursing home residents	3 (8 %)

#### Vascular access

Fistula	31 (82 %)
Graft	3 (8 %)
Catheter	4 (10 %)

The respective vascular access had been used for **43 month (1 – 155 month)**. 10 access complications had occurred in 8 patients, in 4 cases a new vascular access had to be established (3 grafts, 1 catheter). One access had been lost in **39 patient years** on dialysis. Compared to all in-center patients (one loss in 37 patient years) the elderly suffered less access failures overall.

The long-term use of catheters can be avoided in almost all patients over 80 years.

Early establishment of a functioning vascular access and careful scheduling of first dialysis treatment reduce complications and increase survival. Most first dialysis treatments were carried out via av-shunt in an outpatient setting:

### Pre-dialysis nephrology care and circumstances of dialysis commencement (n=38)

<b>Early referral (&gt; 3 month)</b>	30 (79 %)
median 45 month (3 – 161 month)	
<b>Late referral (&lt; 3 month)</b>	3 (8 %)
<b>Emergency referral to hospital</b>	5 (13 %)

#### Vascular access in the first dialysis session

Fistula	30 (79 %)
Graft	1 (3 %)
Permanent catheter	4 (10 %)
Temporary catheter	3 (8 %)

#### Dialysis commencement in the first dialysis session

Outpatient setting	24 (63 %)
Hospital setting	14 (37 %)

Pre-dialysis nephrology care is a decisive factor for haemodialysis patient's prognosis. In contrast to other factors, it is well-modifiable. The development or improvement of local nephrology care structure and a close cooperation between primary care physicians and nephrologists are necessary.

**Life expectancy and social status of patients starting dialysis aged 80 years or older were nearly comparable to the general population of the same age.**

**Long-term pre-dialysis nephrology care is of most importance for successful dialysis treatment in the elderly especially in Octogenarians and Nonagenarians.**

