

Not everybody is created equal: Do we have a gender issue in the Swiss dialysis population?

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(on behalf of the srrgap and the Swiss Society of Nephrology)

Background and Aims

- For many medical specialties, a gender gap regarding diagnosis, research and treatment has been postulated. Specifically, enrollment of women into clinical trials is lower and cardiovascular disease outcomes are worse compared to men.
- No systematic analyses on gender distribution and characteristics have been performed so far in patients with endstage renal disease (ESRD) on renal replacement therapy in Switzerland.

Methods and study design

- Data from all individuals being on chronic dialytic therapy in the year 2014 from all medical establishments in Switzerland (both public and private; N=85) providing chronic treatment by either hemo- and/or peritoneal dialysis were gathered.
- For all patients, the minimal data set required by the ERA-EDTA registry was applied.
- Demographic and clinical factors were compared stratified by sex.
- A total of 4177 patients with valid gender information were available for analysis. Among those, only 36.6% were female.

Results

Table 1: General characteristics of the study population according to gender

	All (100%)		Male (63.4%)		Female (36.6%)	
	Mean	Median	Mean	Median	Mean	Median
Age, yr	67.2	70	67.1	70	67.4	70
Dialysis vintage, mo	58.3	37	55.5	35	62.9	41
Charlson Score	4.41	4	4.57	4.0	4.13	4.0
BMI	25.8	25.1	26.0	25.4	25.5	24.5
Hb, g/L	111.8	112	113.0	114	109.8	111

A total of 4215 patients from 85 centers were reported to the Registry. Based on data from the insurance companies, 100% coverage for both centers and patients treated in Switzerland in 2014 can be assumed. Mean age of women was higher by about 4 months. Moreover, female patients were longer on dialysis by 7.4 months and had a lower hemoglobin concentration of 0.4 g/dl. In contrast, male patients were sicker and had a higher BMI of 0.5 units vs. women.

Figure 2: Frequency (%) of original renal disease according to sex (given for those with a frequency > 1 percent)

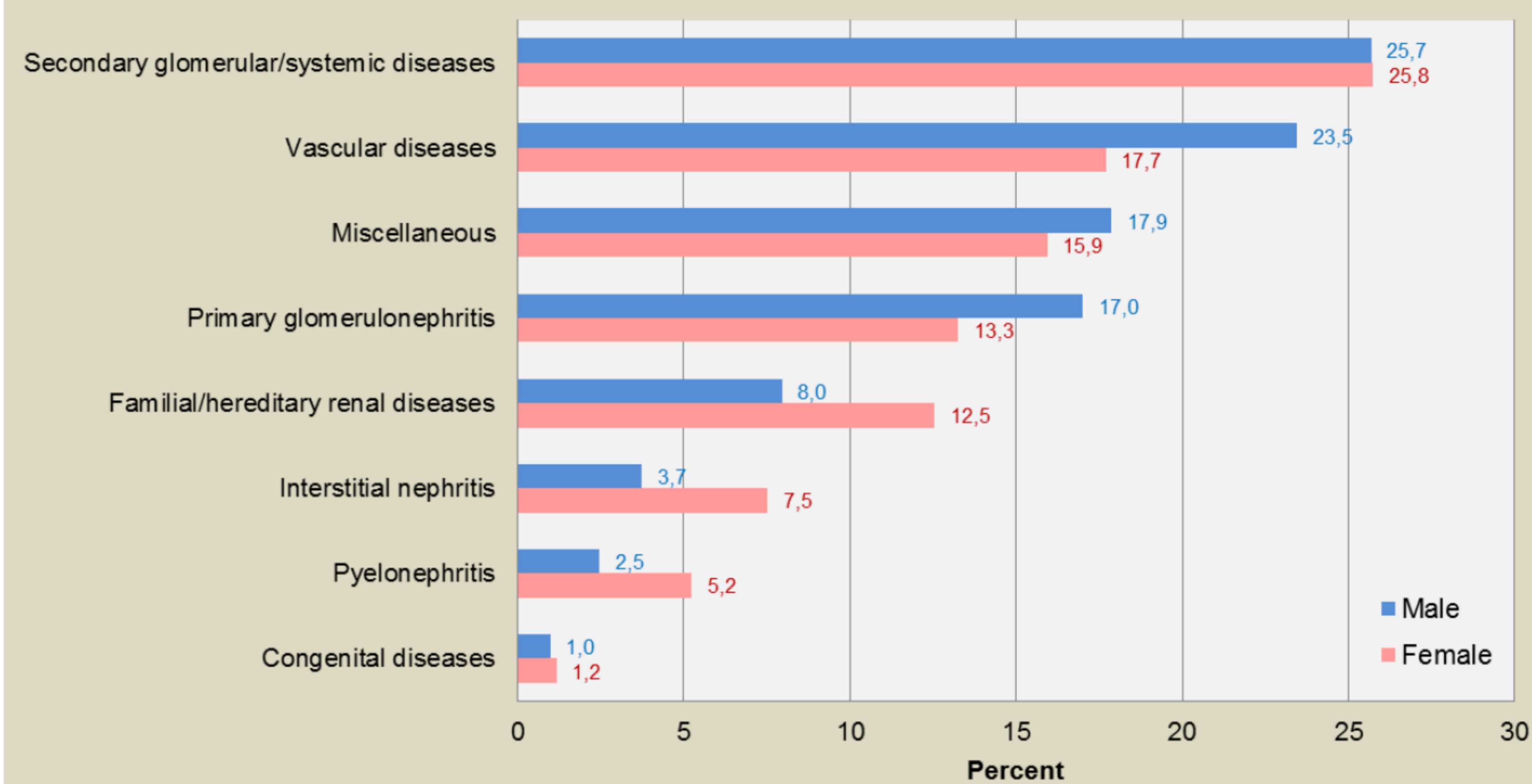
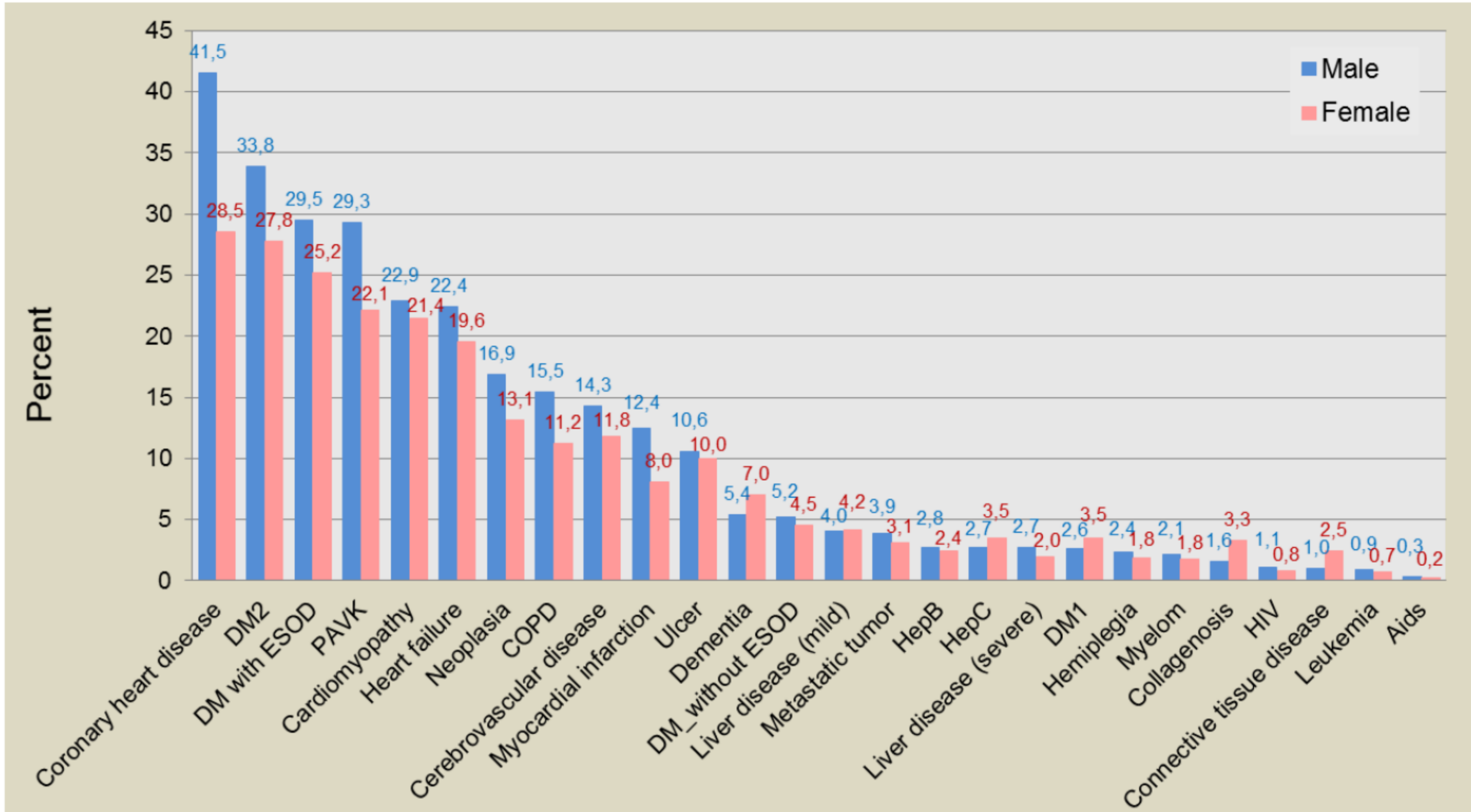


Figure 3: Comorbidities according to sex



Charlson comorbidity score was significantly lower in women (4.13 vs. 4.57). Specifically, the prevalence of type 2 diabetes mellitus (T2DM) was only 28% among female compared to 34% in male dialysis patients (p=0.000). Also, T2DM with end organ damage was less frequent in women (25% vs. 29%, p=0.000). Accordingly, myocardial infarction (12 vs. 8%), heart failure (22 vs. 20%) and peripheral vascular disease (22 vs. 29%) were all significantly less prevalent among women vs. men. The percentage of women vs. men dying on dialysis in the year 2014 was 11.6 vs. 10.7%, respectively (p=NS).

Summary and Conclusions

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- Like in other European countries, less than 40% of the dialysis population in Switzerland is female. This may be explained in part by a potentially lower prevalence of T2DM in women with chronic kidney disease. However, referral bias or poorer survival of females on dialysis cannot be ruled out from these data.
- Male dialysis patients in Switzerland seem to be sicker vs. female patients, as reflected in their higher comorbidity index, higher BMI and higher blood pressure (not shown). In contrast, female patients have a lower Hb concentration, potentially due to lesser use of erythropoietin stimulating agents or lower Hb target levels in women.