Management Of Children With Congenital Nephrotic Syndrome – Lessons From An ESPN Survey

Stephanie Dufek¹, Elisa Ylinen², Agnes Trautmann³, Claus Schmitt³, Enrico Vidal⁴, Andrea Pasini⁵, Constantinos Stefanidis⁶, Argyroula Zampetoglou⁶, Alberto Edefonti⁷, Tuula Holtta² and Rukshana Shroff¹

¹ Great Ormond Street Hospital for Children NHS Foundation Trust, London, UK, ² University of Helsinki and Helsinki University Hospital, Helsinki, Finland, ³ Center for Pediatric & Adolescent Medicine, Heidelberg, Germany, ⁴ University-Hospital of Padova, Padova, Italy, ⁵ Azienda Ospedaliero-Universitaria Sant'Orsola-Malpighi, Bologna, Italy, ⁶ "A & P Kyriakou", Children's Hospital, Athens, Greece,

⁷ Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan, Italy

Background

Congenital nephrotic syndrome (CNS) is one of the most challenging conditions within the field of pediatric nephrology. The early management remains crucial, both for initial survival, but also to minimize long-term morbidity.

Methods

6-year survey across 17 centers in 11 countries from members of the ESPN Dialysis Working Group

Inclusion criteria:

All patients in a pediatric dialysis unit who are diagnosed with CNS since 01/01/2010 - including those in whom withdrawal of care was performed **Exclusion criteria:**

Presentation after the first 3 months of life

Results

Total of 84 children (43 (51%) male)

At birth

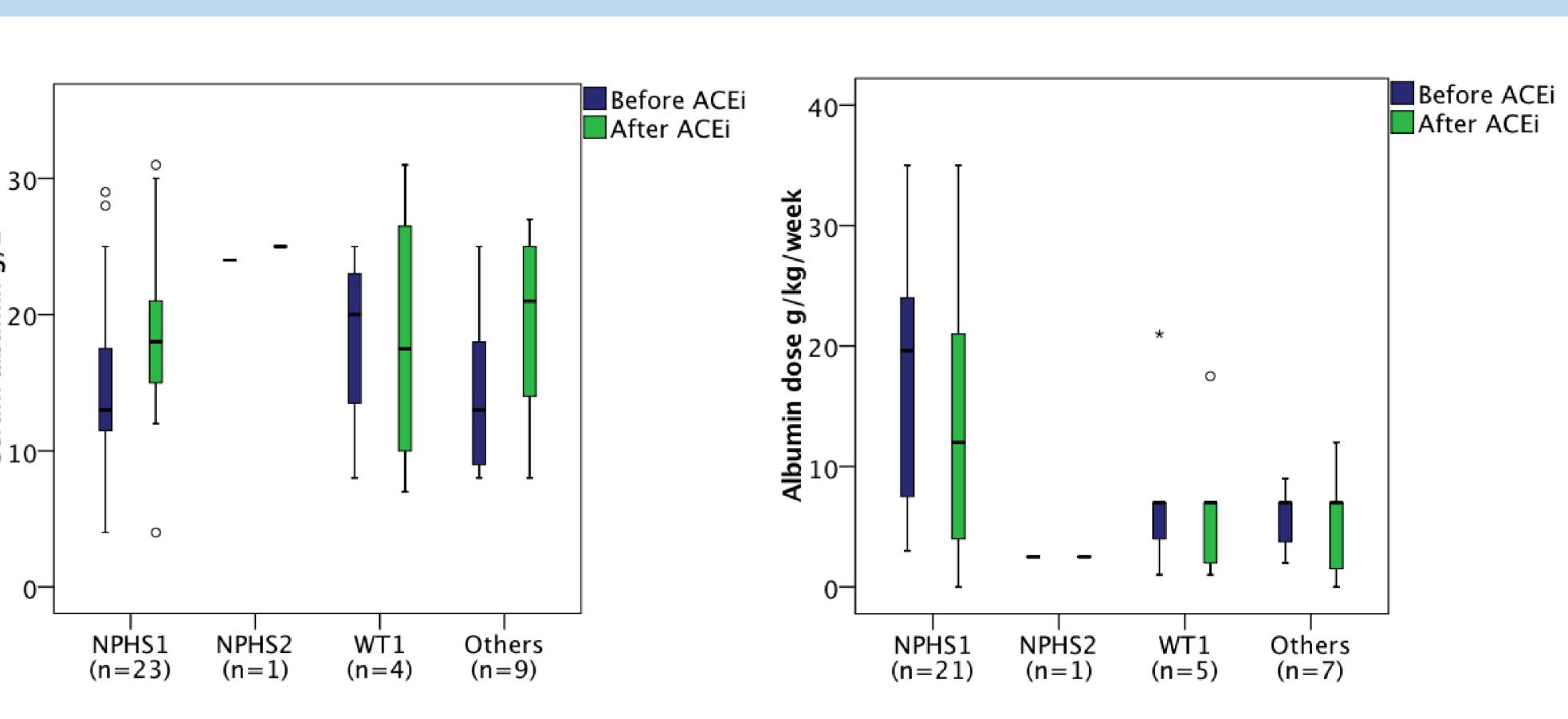
	Median	IQR
Gestational age (weeks)	37	35 - 38
Birth weight (g)	2700	2315 - 2060
IQR: Inter quartile range		

At presentation in tertiary center

	Median	IQR
Age (days)	11	2 - 51
Albumin (g/L)	11	8 - 16
Creatinine (µmol/L)	27	16 - 56

IQR: Inter quartile range

ACE Inhibitor



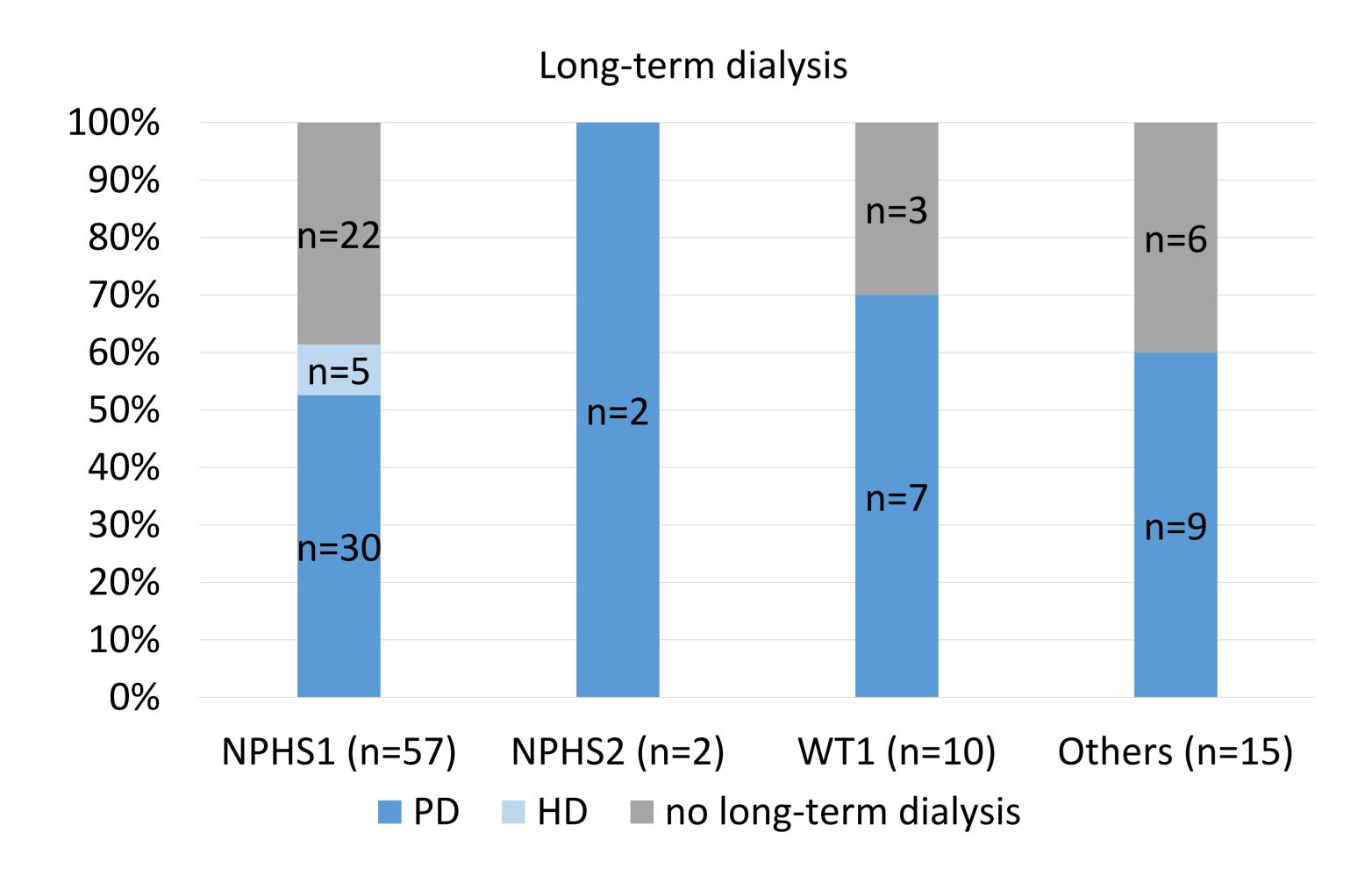
Dialysis

Long-term dialysis was initiated in 53 (63%)

At start of dialysis

	Median	IQR
Age (months)	9	5.5 - 15
Weight (kg)	8.4	6.4-9.6
Albumin (g/L)	22	17 - 27
Creatinine (µmol/L)	246	188 - 294

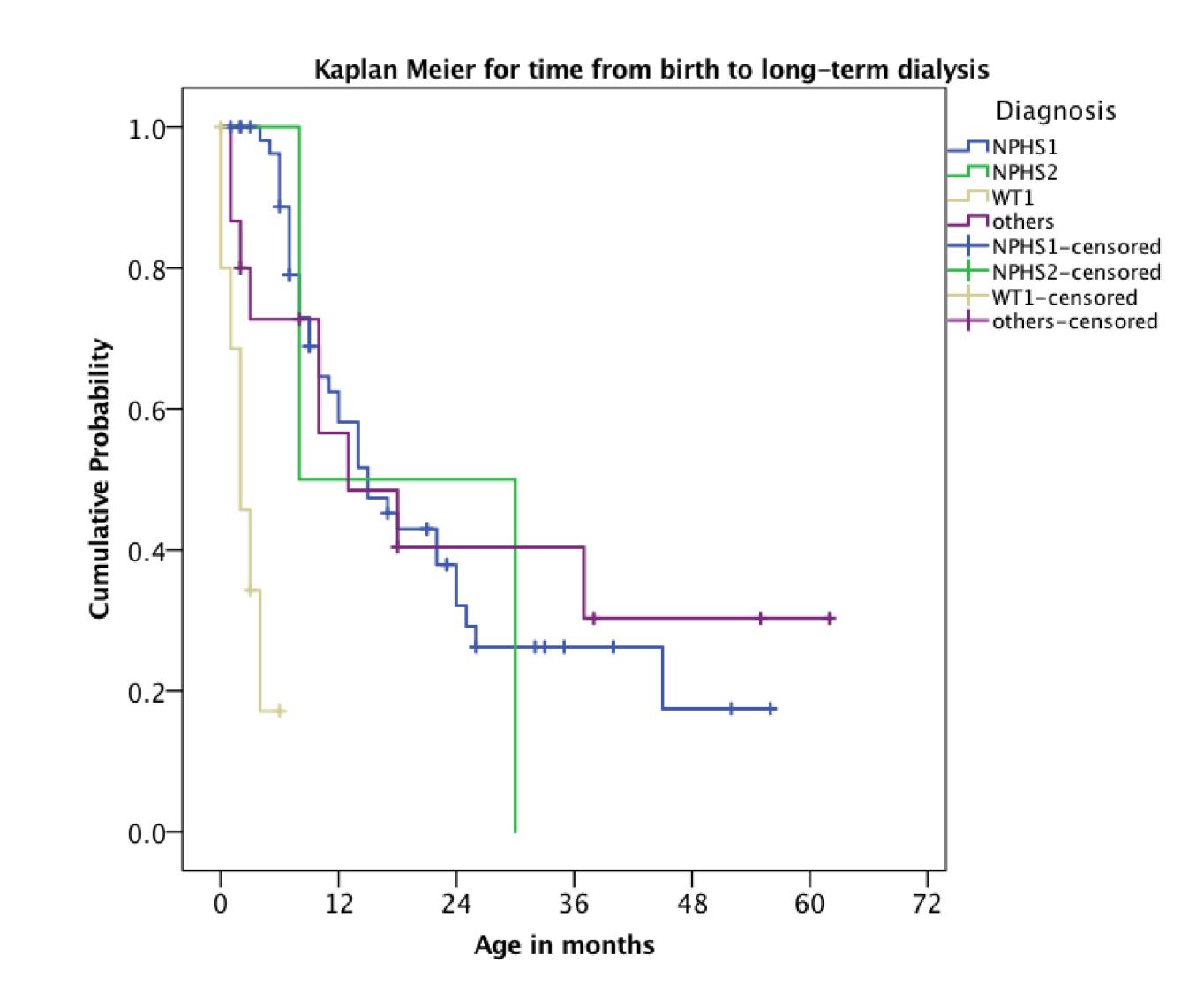
IQR: Inter quartile range



Conclusion

Early management in children with CNS may include a trial of antiproteinuric medication independent of the underlying genetic cause for CNS. 50% of children with CNS start dialysis by the age of one year.

Survival curve for requirement of long term dialysis (n=84)



Outcome

