

Report of activities of ESPN Working Group

Name of Working Group	CKD-MBD
Year	2020 - 2021
WG Coordinator	Rukshana Shroff
WG Board Members	Jaap Groothoff, Justine Bacchetta, Claus Schmitt, Stella Stabouli. Liaison with Transplant working group – Agnieszka Prytula.
Number of WG Members	31

Research Activities

A. Completed Studies (Title, coordinator, short content (max 1-2 sentences)):
<p>1. Active vitamin D is cardioprotective in experimental uraemia but not in children with CKD Stages 3-5. From ESPN grant 2018. Co-ordinator M. Leifheit-Nestler. Describes the impact of active vitamin D on left ventricular hypertrophy and FGF23/klotho system in renal failure. Joint project: ESPN CKD-MBD WG and 4C Study consortium. Published in Nephrol Dial Transplant. 2021 Feb 20;36(3):442-451.</p>

B. Ongoing Studies (Title, coordinator, short content (max 1-2 sentences)):
<ul style="list-style-type: none"> • Assessment of calcium balance in children with chronic kidney disease (Cal-Bal study), Co-ordinator: Rukshana Shroff. Joint venture: ESPN CKD-MBD & Dialysis WGs; 6 centres in 6 countries: London, Heidelberg, Lyon, Athens, Adana and Vilnius. • GH treatment and CV outcomes in CKD children. Co-ordinator: Stella Stabouli. GH and CV outcomes: a case-control study. Joint project: ESPN CKD-MBD WG and 4C Study. • Collaboration with CERTAIN registry-study on CKD-MBD after renal transplantation. Co-ordinator: P Agnieszka. To analyse the evolution of hyperparathyroidism following renal transplantation; to identify the clinical and biochemical correlates of hyperparathyroidism. Joint project: ESPN CKD-MBD and Transplantation WGs and CERTAIN registry. • Phosphate education programme (PEP). Co-ordinator: Sevkan Bakkaloglu. New strategies in hyperphosphatemia management (ESPN research grant 2014.01). Detailed educational material & cell phone application accomplished. Distributed to ESPN units by January 2020. Evaluation of pilot study in June 2020. Data base and Webpage for data entry created by August 2020.

C. Planned Studies (Title, coordinator, short content (max 1-2 sentences)):
<p>1. Mineral bone metabolism after paediatric renal transplantation - (coordinator Agnieszka Prytula) - Collaboration with Certain registry- study on CKD-MBD and the evolution of hyperparathyroidism after renal transplantation Awarded an ESPN grant of €10,000 in Sept 2020</p>

2. GH treatment and CV outcomes in CKD children (coordinator Stella Stabouli)
GH and CV outcomes: a case-control study; Joint project: ESPN CKD-MBD WG and 4C Study

3. Cinacalcet use after transplantation : to develop an algorithm for use of cinacalcet post-transplant and address relevant safety issues (coordinator Justine Bacchetta)

4. Fractures in children with CKD4-5, on dialysis and after transplantation (coordinators Rukshana Shroff and Alexander Lalayiannis)
Joint project of ESPN CKD-MBD, dialysis and transplant WGs

Guideline Projects (Title, coordinator)

Completed and Published:

1. **Bone evaluation in paediatric chronic kidney disease: clinical practice points from the European Society for Paediatric Nephrology CKD-MBD and Dialysis working groups and CKD-MBD working group of the ERA-EDTA**

Coordinator: Sevcan Bakkaloglu SA.

Co-authors: Bacchetta J, Lalayiannis AD, Leifheit-Nestler M, Stabouli S, Haarhaus M, Reusz G, Groothoff J, Schmitt CP, Evenepoel P, Shroff R, Haffner D; European Society for Paediatric Nephrology (ESPN) Chronic Kidney Disease Mineral and Bone Disorder (CKD-MBD) and Dialysis working groups and CKD-MBD working group of the European Renal Association–European Dialysis and Transplant Association (ERA-EDTA).

Publication: Nephrol Dial Transplant. 2021 Feb 20;36(3):413-425.

2. Four guidelines published by the Pediatric Renal Nutrition Taskforce in 2020 – 2021 – please see publication list below.

Coordinator: Rukshana Shroff

Guideline started in 2020

Management of CKD-MBD in infants (coordinator J. Bacchetta)

Collaboration of CKD-MBD and Dialysis WGs and Pediatric Renal Nutrition Taskforce

All discussions via virtual meetings, starting March 2021 – first draft circulated for discussion.

Guideline starting in 2021

Diagnosis and management of cardiovascular disease in children with CKD, on dialysis and after transplantation (coordinators R. Shroff and S. Stabouli)

Collaboration of CKD-MBD, Dialysis and Transplant WGs

WG Meetings (Date – Place)

Four working group / board meeting held in 2020 – 2021.

All via zoom.

Minutes circulated to the group.

Publications

A. Published papers (bibliography):

1. Schön A, Leifheit-Nestler M, Deppe J, Fischer DC, Bayazit AK, Obrycki L, Canpolat N, Bulut IK, Azukaitis K, Yilmaz A, Mir S, Yalcinkaya F, Soylemezoglu O, Melk A, Stangl GI, Behnisch R, Shroff R, Bacchetta J, Querfeld U, Schaefer F, Haffner D; 4C and Study Consortium and the ESPN CKD-MBD Working Group. Active vitamin D is cardioprotective in experimental uraemia but not in children with CKD Stages 3-5. *Nephrol Dial Transplant*. 2021 Feb 20;36(3):442-451. doi: 10.1093/ndt/gfaa227. PMID: 33241290.
2. Bakkaloglu SA, Bacchetta J, Lalayiannis AD, Leifheit-Nestler M, Stabouli S, Haarhaus M, Reusz G, Groothoff J, Schmitt CP, Evenepoel P, Shroff R, Haffner D; European Society for Paediatric Nephrology (ESPN) Chronic Kidney Disease Mineral and Bone Disorder (CKD-MBD) and Dialysis working groups and CKD-MBD working group of the European Renal Association–European Dialysis and Transplant Association (ERA-EDTA). Bone evaluation in paediatric chronic kidney disease: clinical practice points from the European Society for Paediatric Nephrology CKD-MBD and Dialysis working groups and CKD-MBD working group of the ERA-EDTA. *Nephrol Dial Transplant*. 2021 Feb 20;36(3):413-425. doi: 10.1093/ndt/gfaa210. PMID: 33245331.
3. Stabouli S, Polderman N, Nelms CL, Paglialonga F, Oosterveld MJS, Greenbaum LA, Warady BA, Anderson C, Haffner D, Desloovere A, Qizalbash L, Renken-Terhaerd J, Tuokkola J, Walle JV, Shaw V, Mitsnefes M, Shroff R. Assessment and management of obesity and metabolic syndrome in children with CKD stages 2-5 on dialysis and after kidney transplantation-clinical practice recommendations from the Pediatric Renal Nutrition Taskforce. *Pediatr Nephrol*. 2021 Aug 10. doi: 10.1007/s00467-021-05148-y. Epub ahead of print. PMID: 34374836.
4. Desloovere A, Renken-Terhaerd J, Tuokkola J, Shaw V, Greenbaum LA, Haffner D, Anderson C, Nelms CL, Oosterveld MJS, Paglialonga F, Polderman N, Qizalbash L, Warady BA, Shroff R, Vande Walle J. The dietary management of potassium in children with CKD stages 2-5 and on dialysis-clinical practice recommendations from the Pediatric Renal Nutrition Taskforce. *Pediatr Nephrol*. 2021 Jun;36(6):1331-1346. doi: 10.1007/s00467-021-04923-1. Epub 2021 Mar 17. PMID: 33730284; PMCID: PMC8084813.
5. Nelms CL, Shaw V, Greenbaum LA, Anderson C, Desloovere A, Haffner D, Oosterveld MJS, Paglialonga F, Polderman N, Qizalbash L, Rees L, Renken-Terhaerd J, Tuokkola J, Vande Walle J, Shroff R, Warady BA. Assessment of nutritional status in children with kidney diseases-clinical practice recommendations from the Pediatric Renal Nutrition Taskforce. *Pediatr Nephrol*. 2021 Apr;36(4):995-1010. doi: 10.1007/s00467-020-04852-5. Epub 2020 Dec 14. PMID: 33319327; PMCID: PMC7910229.
6. Rees L, Shaw V, Qizalbash L, Anderson C, Desloovere A, Greenbaum L, Haffner D, Nelms C, Oosterveld M, Paglialonga F, Polderman N, Renken-Terhaerd J, Tuokkola J, Warady B, Walle JV, Shroff R; Pediatric Renal Nutrition Taskforce. Delivery of a nutritional prescription by enteral tube feeding in children with chronic kidney disease stages 2-5 and on dialysis-clinical practice recommendations from the Pediatric Renal Nutrition Taskforce. *Pediatr Nephrol*. 2021 Jan;36(1):187-204. doi: 10.1007/s00467-020-04623-2. Epub 2020 Jul 29. PMID: 32728841; PMCID: PMC7701061.

B.Submitted papers:

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Presentations at conferences during the year

A.Oral presentations:

1. Impact of active vitamin D on left ventricular hypertrophy and FGF23/klotho system in renal failure
- Maren Leifheit-Nestler

Presented at ERA-EDTA 2020

2. Calcium balance in children with CKD and on dialysis - Rukshana Shroff

Presented at ERA-EDTA 2020 and ASN 2020

3. Bone evaluation in children with CKD and on dialysis – Sevcan Bakkaloglu

Presented at ESPN CKD-MBD CME webinar – April 2021

CME webinar on CKD – 28 April 2021

13:00 – 13.20	At what eGFR should you start dialysis?	Evgenia Preka
13.20 – 13.40	Bone evaluation in CKD and dialysis patients	Sevcan Bakkaloglu
13.40 – 13.50	Q&A session with both speakers	
13.50 – 14.00	Break	
14.00 – 14.20	Vitamin D or Cinacalcet in children on dialysis?	Claus Schmitt
14.20 – 14.40	Bone disease in children with rare inherited kidney diseases	Justine Bacchetta
14.40 – 14.50	Q&A session with both speakers	
14.50 - 15.15	Keynote lecture Neurocognitive dysfunction in children with CKD	Jaap Groothoff
15.15	Thanks and close	

B.Poster presentations:

Sorry, details not available.