Pediatric Renal Nutrition Taskforce –
Clinical Practice Recommendations

Christina L. Nelms, MS RD LMNT
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Objectives

- Describe the formation and purpose of the Paediatric Renal Nutrition Taskforce (PRNT)
- Review the evidence review process for the Clinical Practice Recommendations
- Outline updates from the *Clinical Practice Recommendations* (CPRs)
The Pediatric Renal Nutrition Taskforce (PRNT) is an international team of pediatric renal dietitians and pediatric nephrologists, who develop clinical practice recommendations (CPRs) for the nutritional management of various aspects of renal disease management in children.

Taskforce coordinators:

- Rukshana Shroff, Great Ormond Street Hospital for Children, London, UK, Rukshana.Shroff@gosh.nhs.uk
- Vanessa Shaw, University of Plymouth and UCL Great Ormond Street Institute of Child Health, University College London, UK,

Other taskforce members:

- An Desloovere, Pediatric Nephrology, University Hospital Ghent, Belgium, an.desloovere@uzgent.be
- Bernd Hoppe, University of Bonn, Bonn, Germany, Bernd.Hoppe@ukbonn.de
- Brad Warady, M.D. Children's Mercy Kansas City, Kansas City, Missouri, USA, bwarady@cmh.edu
- Christina Nelms, Paediatric Renal Nutrition Consultant and Educator, USA, clnelms@gmail.com
- Fabio PagliaLonga, Pediatric Nephrology, Dialysis and Transplant Unit, Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan, Italy, fabio.pagliaLonga@unimi.it
- Jetta Tuokkola, New Children's Hospital / Helsinki University Hospital, Finland, jetta.tuokkola@hus.fi
- Johan Vande Walle, UZgent University Hospital Ghent, UZ Ghent, Belgium, Johan.vandewalle@uzgent.be
- JWM Renken-Terhaerdt, Wilhelmina Children's hospital, University Medical Center Utrecht, Utrecht, The Netherlands, jrenken
- Larry Greenbaum, Emory University and Children's Healthcare of Atlanta, USA, Lgreen6@emory.edu
- Leila Qizalbash, Great Northern Children's Hospital, Newcastle upon Tyne Hospitals, Newcastle, UK, Leila.qizalbash@nuth.nhs.uk
- Michiel J.S. Oosterveld, Emma Children's Hospital, Amsterdam University Medical Center, Amsterdam, The Netherlands, m.ooosterveld@amc.uva.nl
- Nonnie Polderman, British Columbia Children's Hospital, Vancouver, Canada, npolderman@cw.bc.ca
Members of the PRNT
Participants in the first-third Delphi Survey
Goals of CPRs

- KDOQI considered a durable foundation, but there is need to capture advances from newer research
- Update one topic at a time and periodically review
- Provide practical, useful guidance to clinicians
- Distribute to under-served areas of the world, and ultimately impact patient and families
- Consider international perspective
Formation of Taskforce

- Originally devised as European taskforce
  - Core working group – board members
  - 5 physicians and 5 dietitians chosen from multiple applicants
- North Americans (4) added after the first meeting and additional funding secured
- External advisory group included invited clinicians to help form guidelines on topics of expertise
- Inclusion of multi-national reviewers to strengthen international approach
The Paediatric Renal Nutrition Taskforce

The Paediatric Renal Nutrition Taskforce comprises Paediatric Renal Dietitians and Paediatric Nephrologists from 8 countries across Europe and North America who are dedicated to improving the nutritional care of children with kidney disease.

The taskforce is endorsed by ESPN and IPNA.

Why was the Paediatric Renal Nutrition Taskforce created?

The taskforce was set up in December 2017, prompted by the challenges and inconsistencies in the nutritional management of children with kidney disease globally. Many renal centres do not have trained dietitians and the importance of nutrition in patient care is not always addressed in medical education.
Evidence Review Process
PICO Questions

- **Population** – Children from birth to 18 years of age with kidney diseases
- **Intervention**
- **Comparator**
- **Outcomes**

Group derived search terms in major medical databases
Grading and Follow Up

- Use of the AAP grading system
  - High (A), moderate (B), low (C), and very low (D), X – unable to perform studies

- Delphi method
  - International leading experts sent e-questionnaire for level of agreement
    - Strongly agree to strongly disagree
    - 70% consensus required

- Research recommendations included
A new term needed – **Suggested Dietary Intake** (SDI)

A number of different terms have been used in international recommendations to describe nutrient adequacy; these include Population Reference Intake (PRI), Recommended Dietary Allowance (RDA), Adequate Intake (AI) and others. Since these recommendations for dietary adequacy have different definitions and have used different methods in their derivation, some of the resulting recommendations differ widely… We have taken a pragmatic approach and quoted the range of the published values for our recommendations. We refer to this new reference using a novel term, **Suggested Dietary Intake**
Updates from the Recommendations
The dietary management of calcium and phosphate in children with CKD stages 2-5 and on dialysis
The dietary management of calcium and phosphate in children with CKD stages 2-5 and on dialysis – clinical practice recommendation from the Pediatric Renal Nutrition Taskforce

Louise McAlister1*, Pearl Pugh2*, Laurence Greenbaum3, Dieter Hafner4, Lesley Rees1, Caroline Anderson5, An Desloover6, Christina Nelms7, Michiel Oosterveeld8, Fabio Paglialonga9, Nonnie Polderman10, Leila Qizalbash11, Jose Renken-Terhaerdt12, Jetta Tuokkola13, Bradley Warady14, Johan Vande Walle6, Vanessa Shaw1,15, Rukshana Shroff1

*These authors contributed equally
1 Great Ormond Street Hospital for Children NHS Foundation Trust, and University College London Institute of Child Health, London, UK
2 Nottingham Children’s Hospital, Nottingham University Hospitals NHS Trust, Nottingham, UK
3 Emory University and Children’s Healthcare of Atlanta, USA
4 Children’s Hospital, Hannover Medical School, Germany
5 Southampton Children’s Hospital, University Hospital Southampton NHS Foundation Trust, Southampton, UK
6 University Hospital Ghent, Belgium
7 PedsFeeds LLC, University of Nebraska, USA
8 Emma Children’s Hospital, Amsterdam University Medical Center, The Netherlands
9 Fondazione IRCCS Ca’Granda Ospedale Maggiore Policlinico, Milan, Italy
10 British Columbia Children’s Hospital, Vancouver, Canada
11 Great Northern Children’s Hospital, Newcastle Upon Tyne, UK
12 Wilhelmina Children’s Hospital, University Medical Center Utrecht, The Netherlands
13 New Children’s Hospital, Helsinki University Hospital, Finland
14 Children’s Mercy Kansas City, USA
15 University of Plymouth and Great Ormond Street Hospital for Children NHS Foundation Trust, and University College London Institute of Child Health, London, UK
Themes

- Sources of calcium and phosphorus
- Calcium and phosphorus intake assessment
- Calcium and phosphorus requirements
- Upper and lower limits
- Hypercalcemia, hypocalcemia/hypophosphatemia
Energy and protein requirements for children with CKD stages 2-5 and on dialysis
Energy and protein requirements for children with CKD stages 2-5 and on dialysis – clinical practice recommendations from the Pediatric Renal Nutrition Taskforce

Vanessa Shaw¹,², Nonnie Polderman³, José Renken-Terhaerd⁴, Fabio Pagliaonga⁵, Michiel Oosterveld⁶, Jette Tuokkola⁷, Caroline Anderson⁸, An Desloovere⁹, Laurence Greenbaum¹⁰, Dieter Haffner¹¹, Christina Nelms¹², Leila Qizalbash¹³, Johan Vande Walle⁹, Bradley Warady¹⁴, Rukshana Shroff²,¹⁵, Lesley Rees²,¹⁵

1 University of Plymouth, UK
2 University College London Institute of Child Health, London, UK
3 British Columbia Children’s Hospital, Vancouver, Canada
4 Wilhelmina Children’s Hospital, University Medical Center Utrecht, The Netherlands
5 Fondazione IRCCS Ca’ Granda Ospedale Maggiore Policlinico, Milan, Italy
6 Emma Children’s Hospital, Amsterdam University Medical Center, The Netherlands
7 Children’s Hospital and Clinical Nutrition Unit, Internal Medicine and Rehabilitation, University of Helsinki and Helsinki University Hospital, Helsinki, Finland
8 Southampton Children’s Hospital, University Hospital Southampton NHS Foundation Trust, Southampton, UK
9 University Hospital Ghent, Belgium
10 Emory University and Children’s Healthcare of Atlanta, USA
11 Children’s Hospital, Hannover Medical School, Germany
12 PedsFeeds LLC, University of Nebraska, USA
13 Great Northern Children’s Hospital, Newcastle Upon Tyne, UK
14 Children’s Mercy Kansas City, USA
15 Great Ormond Street Hospital for Children NHS Foundation Trust, London, UK
Themes

- Energy and protein requirements
- Nutritional prescription
- Oral feeding and solid introduction
- Management of nutritional adequacy in growth decline
- Use of enteral tube feeding
Assessment of nutritional status in children with kidney diseases
Themes

- Anthropometric measures
- Dietary evaluation
- Biochemical measures
Upcoming Recommendation Documents

- Delivery of the nutritional prescription
- Potassium management
- Obesity and metabolic syndrome
- Kidney transplant
Questions?

Contact: clnelms@gmail.com