



## ESPGHAN/ESPEN/ESPR/CSPEN guidelines on pediatric parenteral nutrition

**Background:** Previous guidelines on Paediatric Parenteral Nutrition (PN) were published in 2010, by the European Society of Paediatric Gastroenterology, Hepatology and Nutrition (ESPGHAN) and the European Society for Clinical Nutrition and Metabolism (ESPEN), supported by the European Society of Paediatric Research (ESPR) were published. The aim of the present paper was to provide up-to-date evidence for health professionals working with infants, children and adolescents receiving PN.

**Methods:** The current document is a revision of the 2005 guidelines produced by the same 3 organizations (ESPEN, ESPGHAN, ESPR) together with the Chinese Society of Parenteral and Enteral Nutrition (CSPEN).

Experts participating in the guideline updating process were all professionals with extensive experience in managing PN from a wide range of European countries, Israel and China. The guideline development process was coordinated by a guideline steering committee. Each chapter of the guideline was prepared by a separate author group. These author groups were responsible for screening titles and abstracts identified by a systematic literature search for inclusion, for conducting additional expert searches (including secondary sources such as other published valid guidelines), for evaluating the quality of studies included in the given chapter and assigning evidence levels to the literature. Based on the evidence level of included studies experts formulated and graded recommendations.

A consensus conference was held in February 2015. All chapter manuscripts were revised following the recommendations of the consensus conference and then reviewed and edited by the project steering committee. Final consensus on each individual guideline and its individual recommendations was achieved and assessed by online voting. This process lasted until January 2018.

Funding for the consensus conference (including travel expenses for participants) was provided by all participating societies. No other funding was received for the guideline updating process and participants received no payment. Support was provided by the Hungarian Cochrane organization.

**Results/conclusions:** The present document provides guideline for the use of PN across the wide range of pediatric patients, ranging from extremely premature infants up to teenagers weighing up to and over 100 kg [1]. It covers their individual macro- and micronutrient needs [2–8], fluid requirements [9], venous access [10], organizational aspects [11], home parenteral nutrition [12], standardized vs. individualized PN [13], and last but not least a wide range of safety considerations for prevention and

management of complications such central line associated bloodstream infections (CLABSI) [14].

### Conflict of interest

None declared.

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Walter A. Mihatsch

Ulm University, Ulm, and Helios Hospital, Pforzheim, Germany

Christian Braegger

University Children's Hospital, Zürich, Switzerland

Jiri Bronsky

University Hospital Motol, Prague, Czech Republic

Wei Cai

Shanghai Jiao Tong University, Shanghai, China

Cristina Campoy

Department of Paediatrics, School of Medicine, University of Granada, Granada, Spain

Virgilio Carnielli

Polytechnic University of Marche, Ancona, Italy

Dominique Darmaun

Université de Nantes, Nantes, France

Tamas Desci

Department of Pediatrics, University of Pécs, Pécs, Hungary

Magnus Domellöf

Department of Clinical Sciences, Pediatrics, Umeå University, Sweden

Nicholas Embleton

Newcastle University, Newcastle upon Tyne, United Kingdom

Mary Fewtrell

Great Ormond Street Hospital for Children, NHS Foundation Trust and UCL Institute of Child Health, London, United Kingdom

Natasa Fidler Mis

University Medical Centre Ljubljana, Ljubljana, Slovenia

Axel Franz

University Children's Hospital, Tübingen, Germany

Olivier Goulet

University Sorbonne-Paris-Cité Paris-Descartes Medical School, Paris, France

Corina Hartman

Schneider Children's Medical Center of Israel, Petach Tikva, Israel and Carmel Medical Center, Haifa Israel

Hill Susan

Great Ormond Street Hospital for Children, NHS Foundation Trust and UCL Institute of Child Health, London, United Kingdom

Iva Hojsak

Children's Hospital Zagreb, University of Zagreb School of Medicine, University of J. J. Strossmayer School of Medicine Osijek, Croatia

Silvia Iacobelli

CHU La Réunion, Saint Pierre, France

Frank Jochum

Evangelisches Waldkrankenhaus Spandau, Berlin, Germany

Koen Joosten

Department of Pediatrics and Pediatric Surgery, Intensive Care, Erasmus MCSophia Children's Hospital, Rotterdam, the Netherlands

Sanja Kolacek

Children's Hospital, University of Zagreb School of Medicine, Zagreb, Croatia

Berthold Koletzko

Ludwig-Maximilians-Universität Munich, Dr. von Hauner Children's Hospital, Munich, Germany

Janusz Ksiazyk

Department of Pediatrics, Nutrition and Metabolic Diseases, The Children's Memorial Health Institute, Warsaw, Poland

Alexandre Lapillonne

Paris-Descartes University, Paris, France

Szimonetta Lohner

Department of Pediatrics, University of Pécs, Pécs, Hungary

Dieter Mesotten

KU Leuven, Leuven, Belgium

Krisztina Mihalyi

Department of Pediatrics, University of Pécs, Pécs, Hungary

Francis Mimouni

Department of Pediatrics, Division of Neonatology, The Wilf Children's Hospital, the Shaare Zedek Medical Center, Jerusalem, Israel

the Tel Aviv University, Tel Aviv, Israel

Christian Mølgaard

Department of Nutrition, Exercise and Sports, University of Copenhagen, and Paediatric Nutrition Unit, Rigshospitalet, Copenhagen, Denmark

Sissel J. Moltu

Oslo University Hospital, Oslo, Norway

Antonia Nomayo

Evangelisches Waldkrankenhaus Spandau, Berlin, Germany

Jean Charles Picaud

Laboratoire CarMEN, Claude Bernard University Lyon 1, Hopital Croix Rousse, Lyon, France

Christine Prell

Ludwig-Maximilians-Universität Munich, Dr. von Hauner Children's Hospital, Munich, Germany

John Puntis

The General Infirmary at Leeds, Leeds, UK

Arieh Riskin

Bnai Zion Medical Center, Rappaport Faculty of Medicine, Technion, Haifa, Israel

Miguel Saenz de Pipaon

Department of Neonatology, La Paz University Hospital, Red de Salud Materno Infantil y Desarrollo e SAMID, Universidad Autónoma de Madrid, Madrid, Spain

Thibault Senterre

CHU de Liège, CHR de la Citadelle, Université de Liège, Belgium

Ranaan Shamir  
*Schneider Children's Medical Center of Israel, Petach Tikva, Israel*  
*Tel Aviv University, Tel Aviv, Israel*

Venetia Simchowitz  
*Great Ormond Street Hospital for Children, NHS Foundation Trust and*  
*UCL Institute of Child Health, London, United Kingdom*

Peter Sztanyai  
*General University Hospital, First Faculty of Medicine, Charles*  
*University in Prague, Czech Republic*

Merit M. Tabbers  
*Emma Children's Hospital, Amsterdam UMC, Amsterdam, the*  
*Netherlands*

Chris H.B. van den Akker  
*Emma Children's Hospital, Amsterdam UMC, Amsterdam, the*  
*Netherlands*

Johannes B. van Goudoever  
*Emma Children's Hospital, Amsterdam UMC, Amsterdam, the*  
*Netherlands*

Anne van Kempen  
*OLVG, Amsterdam, the Netherlands*

Sascha Verbruggen  
*Evangelisches Waldkrankenhaus Spandau, Berlin, Germany*

Jiang Wu  
*Xin Hua Hospital, Shanghai, China*

Weihui Yan  
*Department of Gastroenterology and Nutrition, Xinhua Hospital,*  
*School of Medicine, Shanghai Jiao Tong University, Shanghai, China*