



## NIHR Cancer and Nutrition Collaboration

### Children and Teenagers / Young Adults (CTYA) Work stream

#### Strategy 2019 – 2021

##### Background

A group of clinicians, researchers, epidemiologists and representatives of the voluntary sector were invited to meet at a workshop held in London in October 2018 with the dual aims of sharing views about the current state of knowledge and discussing priorities for further work in the field. The purpose was not only to consider nutrition and its relationship with cancer in its broadest context but also to identify where data currently exist that might help clarify the current state of knowledge about nutritional status in children/TYA with cancer.

It was agreed to move forward with a programme of work to improve nutritional care in CTYA with cancer; to influence and optimise clinical practice; and to drive research to gain a better understanding of the challenges identified. This aligns with the strong interest shown by patients and parents in good nutrition during and after treatment. A strong commitment made to move forward as the CTYA work stream within the NIHR Cancer & Nutrition Collaboration.

##### Funding

The Children's Cancer and Leukaemia Group (CCLG - [www.cclg.org.uk](http://www.cclg.org.uk)) and Teenagers and Young Adults with Cancer (TYAC - [www.tyac.org.uk](http://www.tyac.org.uk)) funded the work stream's inaugural meeting and will continue to support its activities with a grant to the end of 2020.

##### Objectives

**Theme 1: To explore barriers and facilitators to more consistent and effective use of current knowledge about nutrition in CTYA with cancer.**

The work stream will establish a group to review existing practice, to define consistent and clinically feasible nutritional assessment for CTYA and to re-establish guideline development in nutritional management.

**Theme 2: Review availability of existing data on nutritional status within nationally collected data sets.**

The work stream will undertake work to see whether data are already available that could provide an opportunity to look at the relationship between nutritional status and outcome.

**Theme 3: Better understand nutritional morbidity in CTYA survivors.**

The work stream will evaluate the evidence currently available to describe the nutritional morbidity facing survivors and whether nutritional interventions (together with

interventions in related areas such as exercise and life style changes) could positively impact the health of survivors.

#### **Theme 4: Collaborative working**

The work stream will:

1. Ensure opportunities to include the patient voice in all aspects of future work (including younger voices and parents/carers)
2. Explore opportunities for links and collaboration with other work streams within the NIHR Cancer and Nutrition Collaboration, and others.
3. Establish and maintain communication and collaboration with the international community, in particular with the nutrition committees of the North American Children's Oncology Group (COG) and the International Society of Paediatric Oncology (SIOP) and with global agencies via the proposed international Paediatric Advisory Group.

#### **Membership**

##### **Work stream Lead:**

Professor Mike Stevens (Emeritus Professor of Paediatric Oncology, University of Bristol)

Contact at: [m.stevens@bristol.ac.uk](mailto:m.stevens@bristol.ac.uk)

##### **Core Group members:**

Professor Faith Gibson (Professor of Child Health and Cancer Care, University of Surrey and Great Ormond Street Hospital for Children NHS Foundation Trust)

Louise Henry (Senior Specialist Dietician - Paediatric & TYA Cancer, Royal Marsden)

Dr Martin McCabe (Consultant in Paediatric & TYA Oncology, Christie Hospital)

Dr Gemma Pugh (Lecturer, Sports & Exercise Medicine, Queen Mary University, London)

Monika Siemicka (Senior Specialist Haematology and TYA Dietitian, Guys Hospital)

Professor Rod Skinner (Professor of Paediatric Oncology & BMT, Newcastle upon Tyne)

Dr Dan Stark (Consultant in Medical & TYA Oncology, Leeds)

Dr Sara Stoneham (Consultant Paediatric Oncologist, University College Hospital, London)

#### **Active Projects**

##### **Metabolic dysregulation in skeletal muscle and adipose following allogeneic haematopoietic stem cell transplantation (HSCT) in children, teenagers and young adults.**

Mike Stevens and Steve Wootton co-lead an international collaborative group (involving the Universities of Bristol, Southampton, Exeter, Kings College London, University College Dublin and Copenhagen) on "Metabolic dysregulation in skeletal muscle and adipose following allogeneic haematopoietic stem cell transplantation in children, teenagers and young adults". Following participation at a joint Wellcome Trust – WHO consultation ("*Transforming Nutrition Science for Better Health*") in October 2018, this group was awarded funding (£49,412) for 12 months from March 2019 to develop a proposal for a

potential 5 year programme grant. The proposal seeks to generate a deeper understanding of muscle metabolism and nutritional status by investigating survivors of HSCT in childhood and early adult life - both as a model for accelerated ageing and to see if nutritional and exercise interventions can help re-establish healthy skeletal and adipose metabolism after HSCT. The NIHR Cancer and Nutrition Collaboration remains the coordinating entity in this work. As part of this work, Mike Stevens with Professor Julian Hamilton Shield (Professor in Diabetes and Metabolic Endocrinology) and colleagues at the University of Bristol NIHR Bristol BRC Nutrition, Diet and Lifestyle Theme are undertaking a systematic review of changes in body composition after allogeneic haematopoietic stem cell transplantation with total body irradiation for the treatment of leukaemia in children, teenagers and young adults.

**Review article: The influence of nutrition on clinical outcomes in children with cancer**  
Mike Stevens is co-authoring a manuscript (with Professor Ronnie Barr, McMaster University, Canada) as part of a special supplement on nutrition to be published in the journal *Pediatric Blood & Cancer*.

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