

# Moving Forward: **+MMAs - More Active Minutes!** Feasibility of a Structured Hospitalar Exercise Program in Pediatric Oncology

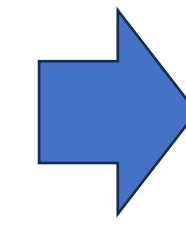
Joana Rebelo<sup>1,2</sup>, Janine Coelho<sup>1,2</sup>, Rita Pires<sup>1,2</sup>, Sónia Sampaio<sup>1,2</sup>, Nélia Gaspar<sup>1,2</sup>, Maria do Bom-Sucesso<sup>1,2,3</sup>

<sup>1</sup> Pediatric Oncology Department, ULS São João, Porto, Portugal | <sup>2</sup> ERN PaedCan, European Reference Network for Paediatric Cancer | <sup>3</sup> Medical Faculty, University of Porto, Portugal

## Pediatric cancer patients Hospitalization



- Children with cancer are often inactive during hospitalization
  - deconditioning, fatigue, and reduced quality of life
- Exercise is recommended BUT structured hospital-based programs are rare, and not yet implemented in Portugal
- WHO guidelines emphasize that **every move counts**



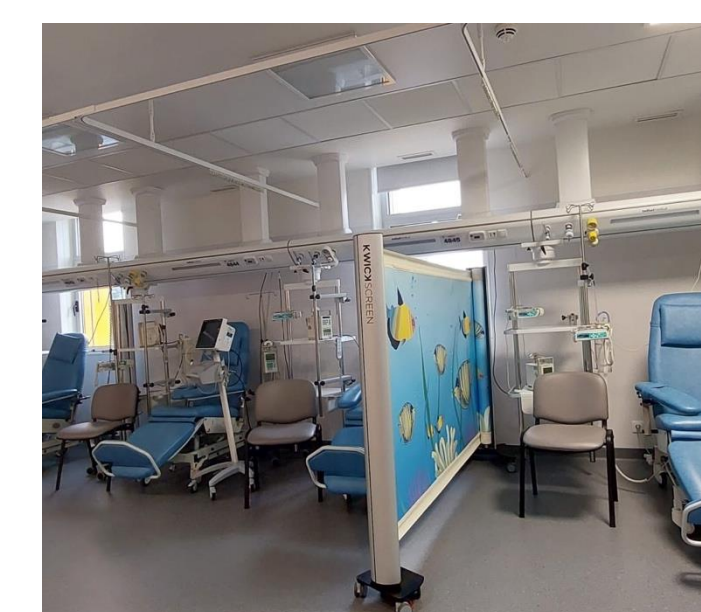
**Hospitalization represents an opportunity to replace sedentary time with active minutes  
Every minute counts!**

## **+MMAs – More Active Minutes! Program**

Portuguese pediatric oncology reference center dedicated to solid tumors

- Phase 1: bedside exercise during hospitalization
- Phase 2: outpatient group sessions

**Hospital-based structured and adapted exercise program**



## How was the program designed?

### Study design

- Prospective interventional feasibility study
- Pediatric oncology multidisciplinary team + exercise professionals
- Partnership with patient association (ePAG) for acquisition of exercise equipment
- Ethics approval submitted

### Participants

- Children and adolescents  $\geq 5$  years during hospitalization
- Defined inclusion and exclusion criteria

### Intervention

- Simple exercise equipment available at bedside
- Short, structured exercise guides in printed and digital formats
- Easy-to-perform exercises adapted to clinical condition
- No interference with daily clinical routine
- Multiple sessions per week, depending on clinical status

### Monitoring

- Logbook including:
  - Exercise minutes; Rate of Perceived exertion (RPE);
  - Enjoyment; Adverse events; Family participation

**Exercise equipment available at bedside for independent use at any time  
No dedicated space required — integrated into the daily hospital routine**

## What will we evaluate?

### Feasibility outcomes:

- Recruitment and adherence
- Safety and acceptability
- Integration into the clinical routine
- Active minutes during hospitalization
- Session internal load (session RPE)
- Family participation
- Continuation of exercise after discharge

## Expected Results

- Feasible, safe, and acceptable program
- Integration into the hospital routine
- Increased active minutes during hospitalization
- Potential functional and psychosocial benefits
- Use of simple, low-cost equipment and easy-to-perform exercises
- Potential for integration into daily life beyond hospitalization
- Empower patients to perform exercise autonomously during hospitalization and continue it at home

## Take Home Messages

Hospitalization represents both a period of inactivity and an opportunity to promote active minutes and empower patients to exercise.

This study evaluates the feasibility of integrating a structured exercise program into routine pediatric oncology care in Portugal, using simple, low-cost, and easily reproducible strategies without the need for dedicated spaces or changes to clinical routines.

Exercise may become a standard non-pharmacological component of supportive care in pediatric oncology.