

Results from the Implementation of a Growth Disorders Related Twinning Programme (Partners4Growth) at tertiary pediatric endocrinology clinics

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INTRODUCTION

Early diagnosis of growth disorders (GD) in children and their timely treatment are important for better outcomes¹.

Recognizing GD and proper referral for investigations and treatment in Bulgaria are usually delayed.

To improve GD diagnosis and treatment, a national partnership program - **Partners4Growth (2019-2021)**, was developed.

AIM

Evaluation of the first results from the implementation of the **Partners4Growth (P4G)** Twinning Programme at Bulgarian tertiary pediatric endocrinology clinics

METHOD

- Start of **Partners4Growth** since 2019 at 6 centers – 3 experienced and 3 twin centers, after short pilot (2018)²
- Education and on-going support of twin centers' personnel
- Standardization of the methods for growth evaluation and follow-up.
- Supply with certified equipment and reagents.
- A questionnaire at baseline and at the 18th month of the Programme.
- 41 questions concerning diagnosis and management of GH disorders.

RESULTS

- **104 newly diagnosed** patients with GD (fig. 1)
- Pituitary MRI or CT scan (33.3%), fundoscopy, celiac disease antibodies and karyotyping in all patients at diagnosis.
- GH deficiency verified by 2 stimulation tests (tabl. 1)
- GH **treatment** started in **91 children**, 59 (65%) boys, mean age of 10.3±5.5 (2.1 – 17.9) years
- **35.8%** of all currently GH treated Bulgarian children.

Tabl. 1 Stimulation tests

Test	1 st choice (n, %)	2 nd choice (n, %)	3 rd choice (n, %)
Insulin tolerance test		3 (50%)	3 (50%)
Glucagon	4 (66,7%)	2 (33,3%)	
Arginine	2 (33,3%)	1 (16,7%)	
Clonidine			1 (16,7%)

Steps of Partners4Growth's implementation

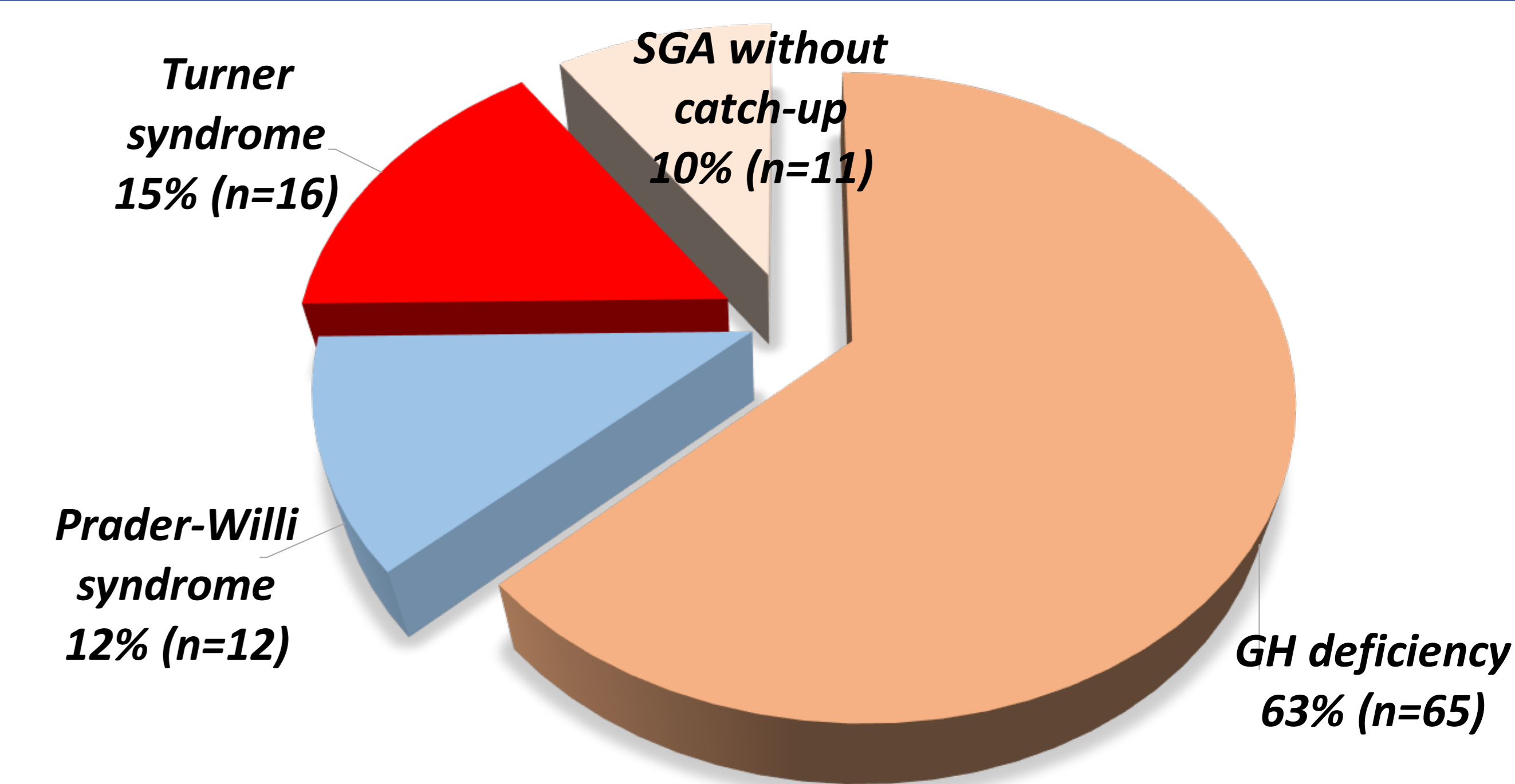
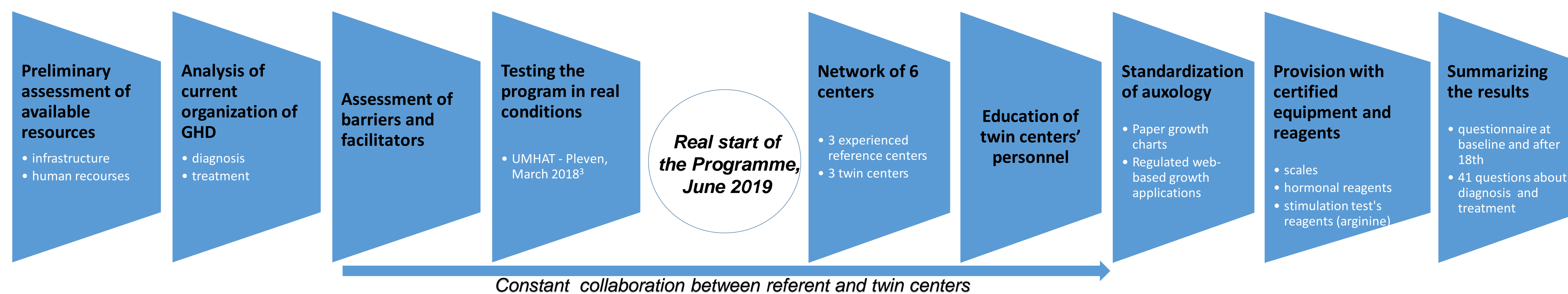


Fig. 1 Distribution of children eligible for GH treatment by diagnoses

CONCLUSIONS

- **Partners4Growth facilitated** the alignment of the tertiary pediatric endocrinology centers competences thus leading to **better geographic access** to diagnosis and treatment of growth disorders.
- For its short existence the Programme has significantly **increased** the number of newly diagnosed and treated patients.
- Further decrease of age at diagnosis remains a challenge for the duration of **P4G** and thereafter

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