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## CONFERENCE ABSTRACT

# Design of an educational plan for children receiving growth hormone and their families in safe drug handling

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### ***Introduction***

Growth hormone deficiency (GHD) treatment for children requires growth hormone (GH) injections, typically administered daily or weekly until the child reaches adult height. Because therapy continues over many years, compliance with the therapy regimen is indispensable. As hospital pharmacists we are uniquely positioned to play a key role in educating patients in safe drug handling.

### ***Aim***

The aim of this attempt is to increase patient adherence through understanding the treatment burden for children treated with GHD and trying to overcome it, through educational sessions involving them and their family. As hospital pharmacists our goal is to adequately educate children and their families in safe drug handling, taking into consideration that GH is an expensive drug ( $\approx$ 1.500 euros per child per month) which needs to be stored in specific conditions.

### ***Service description***

Most pediatric endocrinologists see patients who are receiving GH therapy 2-4 times per year. On the other hand pharmacists meet with the patients every month, during their visit to the hospital pharmacy, in order to get their monthly treatment.

The hospital pharmacy of Panarkadian General Hospital is dispensing, for the time being, GH to 21 children aged 11-17 years old. Plans are made to establish a 10-15 min educational interview during patient venue, in order to ensure/guarantee two key points of their treatment outcome. The first one should be appropriate drug storage. GH needs to be stored at temperatures 3-10°C, that sometimes may raise issues during summer vacations and while traveling. The second one should be proper drug administration. Demonstration models of the injection devices can be requested by the pharmaceutical companies in order for the children to get used to handling them on their own. Moreover, proper injection sites for GH should be indicated. Parents are informed via printed material while children are educated through practice using demonstration models. Video presentation was found pleasant, usefull and more effective in the case of children.

## ***Conclusions***

Optimizing patient management and adherence for children receiving growth hormone (GH) therapy is not the only responsibility of the patient, their family, and of the prescribing doctor but also the pharmacist. There needs to be a multi-disciplinary approach, involving a number of different healthcare professionals

consisting of doctors, nurses, psychologists at the first period after diagnosis (concerning the necessity and the benefits of treatment) and hospital pharmacists throughout the course of treatment (concerning drug storage and administration). Hospital pharmacists can ensure timely and efficient drug dispensing, educate children and their family in safe drug handling in order to prevent loss of quality of life due to non-adherence to GH regimens and optimize outcomes for patients.