# Support for patients treated with growth hormone to reach their growth potential: addressing adherence barriers through personalised behavioural patient-support programmes

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## INTRODUCTION

- Recombinant human growth hormone (r-hGH) treatment can optimize growth potential.<sup>1</sup>
- However, optimal outcomes are not always achieved, owing to several reasons, including poor adherence.<sup>2</sup>
- This analysis sought to operationalize drivers of nonadherence in r-hGH patients using the evidence-based capability, opportunity and motivation (COM-B) behavioural framework as applied to adherence.<sup>3</sup>
- The COM-B framework can be used to help explain why
- These insights were used to guide the design of a tailored patient support service.
- The most influential factors were selected and mapped across the disease and treatment journey.

## RESULTS

## Adherence factors

- A multitude of factors emerged from the research as influential in determining adherence to r-hGH in patients with GH.
- These could be summarized in six key categories, and

## Current stage of work



patients do not engage in a recommended behaviour, such as adherence.

## OBJECTIVES

- Identify key support needs across the r-hGH patient/caregiver pathways that drive optimal adherence and self-management.
- Utilize the COM-B framework to ensure a robust, evidence-based approach is taken to surface and identify these factors.
- Make recommendations for the design, content and techniques for a patient support program (PSP) for people treated with r-hGH.

## METHODS

- A narrative review of the literature was conducted to determine drivers of non-adherence and key support needs in people prescribed r-hGH treatment.
- Academic papers dated 2000 to present day, focusing primarily on the needs of r-hGH patients and their caregivers, were sourced using key search terms.
- Findings were consolidated and summarized within the COM-B (**Figure 1**).

were relevant for either the patient and caregiver or the patient only (**Figure 2**).

• These six adherence factors were found to be influential at different stages of the patient/caregiver pathways and this was a consideration for the support recommendations (**Figure 3**).

## Figure 2. Six COM-B factors and need observed in patient or caregiver



## 2. Tailored reminders/support messages



reviews – influencers of adherence in people prescribed r-hGH

### Psychological Lack of understanding of disease or the treatment (*Disease coherence*) Lack of understanding of implications of non-adherence (*Treatment coherence*)

## **C**APABIL

#### Physical – Lack of skill in administering treatment (*Treatment coherence*/ *Self-administration*)

 Puberty associated non-compliance (Teenage years)

#### Reflective

- Lack of perception regarding long term consequences of GHD (Disease coherence) Self-administration)
- Low belief in control over GHD (Disease coherence)
- Incorrect belief in timeline of GHD (Disease coherence)
- Low belief in need for daily HGH (Treatment coherence)
- Concerns regarding effects of HGH (Treatment-related anxiety)

ADHERENCI

- Value attached to height (Teenage years)
- Low confidence in administering HGH (Self-administration)
- "Fatigue" from injections



Caregiver

Figure 3. Six COM-B factors and how they influence patients' ability to adhere at various points along the Patient/Caregiver pathway



### 3. PSP nurse coaching modules



 The personalization questionnaire, tailored reminder and support messages, and nurse-coaching modules will be piloted within the Saizen PSP programme.

## REFERENCES

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# MOTIVATION

#### (Teenage years)

#### Automatic

- Fear/anxiety/ regarding injections (Treatment-related anxiety)
- Psychology/emotional problems
   (Emotional burden)

#### Physical

- Cost
- Access to specialist centre
- Injection discomfort
   (Treatment-related anxiety)

## 

- Social

  Inadequate support from HCPs
  (Disease/Treatment coherence)
- Inadequate support for transition to self-care
- (Transition to adult care)
- Poor communication between caregiver-child (*Teenage years*)

## Support design recommendations

 Based on these insights, three high-level support recommendations were made, to enhance PSPs by incorporating content and techniques that will facilitate adherence and support overall disease management.

#### **1. Personalisation Questionnaire**

Patient

To identify needs and tailor support for each individual

#### 2. Tailored reminders/support messages

Electronically delivered and prioritized by behavioral topic

#### **3. PSP nurse coaching modules**

Evidence-based behavior-change techniques focusing on core behavioral drivers of non-adherence.

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## DISCLOSURES

Ekaterina Koledova is an employee of Merck KGaA, Darmstadt, Germany. Jorge Cancela is an employee of Ares Trading, an affiliate of Merck KGaA. Clare Maloney and Sumaira Malik are employees of Atlantis Healthcare, London, UK.



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