IQWiG Reports – Commission No. A18-29

# Hydrocortisone (adrenal insufficiency in children) –

## Benefit assessment according to §35a Social Code Book V[1]

## Extract

[1] Translation of the executive summary of the dossier assessment *Hydrocortison (Nebenniereninsuffizienz bei Kindern) – Nutzenbewertung gemäß § 35a SGB V* (Version 1.0; Status: 10 August 2018). Please note: This document was translated by an external translator and is provided as a service by IQWiG to English-language readers. However, solely the German original text is absolutely authoritative and legally binding.

# Publishing details

**Publisher:**

Institute for Quality and Efficiency in Health Care

**Topic:**

Hydrocortisone (adrenal insufficiency in children) – Benefit assessment according to §35a Social Code Book V

**Commissioning agency:**

Federal Joint Committee

**Commission awarded on:**

2 May 2018

**Internal Commission No.:**

A18-29

**Address of publisher:**

Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen
Im Mediapark 8
50670 Köln
Germany

Phone: +49 221 35685-0
Fax: +49 221 35685-1
E-mail: berichte@iqwig.de
Internet: www.iqwig.de

**Medical and scientific advice:**

- Matthias Breidert, Waid City Hospital, Zurich, Switzerland Germany

IQWiG thanks the medical and scientific advisor for his contribution to the dossier assessment. However, the advisor was not involved in the actual preparation of the dossier assessment. The responsibility for the contents of the dossier assessment lies solely with IQWiG.

**IQWiG employees involved in the dossier assessment:**

- Ana Liberman
- Christiane Balg
- Gertrud Egger
- Tatjana Hermanns
- Katharina Hirsch
- Vjollcë Olluri
- Ulrike Seay
- Volker Vervölgyi

**Keywords:** hydrocortisone, adrenal insufficiency, child, adolescent, benefit assessment

## Executive summary of the benefit assessment

### Background

In accordance with §35a Social Code Book (SBG) V, the Federal Joint Committee (G-BA) commissioned the Institute for Quality and Efficiency in Health Care (IQWiG) to assess the benefit of the drug hydrocortisone. The assessment was based on a dossier compiled by the pharmaceutical company (hereinafter referred to as the "company"). The dossier was sent to IQWiG on 2 May 2018.

### Research question

The aim of this report is to assess the added benefit of hydrocortisone in comparison with the appropriate comparator therapy (ACT) in newborn babies, children and adolescents (birth to < 18 years of age) with adrenal insufficiency.

The ACT specified by the G-BA served as the basis for formulating the research question presented in Table 2 for this benefit assessment.

Table 2[2]: Research questions of the benefit assessment of hydrocortisone (Alkindi)

| Research question | Indication | ACT[a] |
|---|---|---|
| 1 | Adrenal insufficiency in newborn babies, children and adolescents (birth to < 18 years of age) | Hydrocortisone |
| a: Presentation of the ACT specified by the G-BA.<br>ACT: appropriate comparator therapy; G-BA: Federal Joint Committee | | |

The drug hydrocortisone with the trade name Alkindi – hereinafter referred to as hydrocortisone (Alkindi) – has received marketing authorization exclusively for paediatric use (Paediatric-use Marketing Authorization [PUMA]). The G-BA has specified the drug hydrocortisone as the ACT. Hereinafter, the ACT is therefore referred to as hydrocortisone (not Alkindi).

The company used the ACT specified by the G-BA.

The assessment was conducted by means of patient-relevant outcomes on the basis of the data provided by the company in the dossier.

### Results

No RCTs were available for assessing the added benefit of hydrocortisone (Alkindi). The company presented the 2 single-arm studies Infacort 003 and Infacort 004. The study Infacort 003 included 24 children < 6 years of age with adrenal insufficiency who received one treatment with hydrocortisone (Alkindi). The study Infacort 004 is a follow-up study of Infacort

[2] Table numbers start with "2" as numbering follows that of the full dossier assessment.

003. In the study Infacort 004, hydrocortisone (Alkindi) treatment was continued in 18 of the 24 children. The study is still ongoing.

The company conducted a systematic search on the comparator therapy hydrocortisone (not Alkindi), but it did not present the identified evidence, since it decided not to carry out a comparison at all.

The data presented by the company do not permit balancing the benefit and harm of hydrocortisone (Alkindi) in comparison with the ACT and are therefore not suitable for assessing the added benefit.

**Probability and extent of added benefit, patient groups with therapeutically important added benefit[3]**

Table 3 presents a summary of the probability and extent of the added benefit of hydrocortisone.

Table 3: Hydrocortisone (Alkindi) – probability and extent of added benefit

| **Indication** | **ACT[a]** | **Probability and extent of added benefit** |
|---|---|---|
| Adrenal insufficiency in newborn babies, children and adolescents (birth to < 18 years of age) | Hydrocortisone | Added benefit not proven |
| a: Presentation of the respective ACT specified by the G-BA.<br>ACT: appropriate comparator therapy; G-BA: Federal Joint Committee | | |

The G-BA decides on the added benefit.

[3] On the basis of the scientific data analysed, IQWiG draws conclusions on the (added) benefit or harm of an intervention for each patient-relevant outcome. Depending on the number of studies analysed, the certainty of their results, and the direction and statistical significance of treatment effects, conclusions on the probability of (added) benefit or harm are graded into 4 categories: (1) “proof”, (2) “indication”, (3) “hint”, or (4) none of the first 3 categories applies (i.e., no data available or conclusions 1 to 3 cannot be drawn from the available data). The extent of added benefit or harm is graded into 3 categories: (1) major, (2) considerable, (3) minor (in addition, 3 further categories may apply: non-quantifiable extent of added benefit, added benefit not proven, or less benefit). For further details see [1,2].

**References for English extract**

Please see full dossier assessment for full reference list.

1. Institute for Quality and Efficiency in Health Care. General methods: version 5.0 [online]. 10 July 2017 [Accessed: 04 June 2018]. URL: https://www.iqwig.de/download/General-Methods_Version-5-0.pdf.

2. Skipka G, Wieseler B, Kaiser T, Thomas S, Bender R, Windeler J et al. Methodological approach to determine minor, considerable, and major treatment effects in the early benefit assessment of new drugs. Biom J 2015; 58(1): 43-58

*The full report (German version) is published under https://www.iqwig.de/en/projects-results/projects/drug-assessment/a18-29-hydrocortisone-adrenal-insufficiency-benefit-assessment-according-to-35a-social-code-book-v.9647.html.*