

**Extended English summary based on the publication:**

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# Uptake of biosimilars in Finland – Physicians' views

## Introduction and aims

The use of biological medicines has become increasingly common over the past decade in the treatment of certain chronic diseases that are of significance for public health and economy. In 2017, there were eight biological medicines among the ten best-selling medicinal products in Finland, measured in euros, with total wholesale value exceeding EUR 256 million.

A biosimilar is a biological medicine developed to be similar and comparable to a biological reference medicine. The development of biosimilars is partly based on the research data obtained from the development of the reference medicine, as a result of which they can be placed on the market with a price lower than that of the reference medicine. The promotion of the uptake of biosimilars increases price competition to the benefit of both the user of the medicine and society.

However, in Finland, the use of biosimilars in ambulatory care has been modest in comparison with the use of biological reference medicines. The aim of this study was to investigate the attitudes of physicians who prescribe biological medicines and their views on the uptake of

biosimilars, the factors that promote and prevent the uptake of biosimilars, and the sources of information about biological medicines that are used by physicians.

## Material and methods

The study focused on the treatment of dermatological, gastroenterological and rheumatological diseases in specialised medical care and on the treatment of diabetes in specialised medical care and primary health care. The study was conducted in the form of semi-structured interviews of, and group discussions with, physicians

who prescribe biological medicines during January–September 2018. A total of 45 physicians participated in the semi-structured interviews. Nine group discussions were conducted, with 31 physicians participating in them. The semi-structured interviews were analysed with content analysis and the group discussions with descriptive analysis.

## Results and conclusions

The physicians who participated in the semi-structured interviews held a largely positive view of the uptake of biosimilars. The majority of the



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physicians (n = 37/45) considered reference medicines and biosimilars equal in value. However, biosimilars were not as commonly prescribed as could have been expected based on the physicians' largely positive view: half (n = 21) of the physicians told that they start a biosimilar as the first biological pharmacotherapy and change the patient's previous biological pharmacotherapy to a biosimilar. The physicians' view of the generic substitution of biological medicines at pharmacies varied from approving to negative.

The uptake of biosimilars was most commonly promoted by social and

organisational factors, such as cost benefit to society (n = 38), shared operating culture between organisations (n = 37), and putting medicine purchases out to open tender and cooperation in medicine purchases (n = 37) (Table 1). Factors preventing the uptake of biosimilars were typically those related to physicians and patients, such as the physicians' personal opinions and desire for prescription autonomy (n = 40) and the patients' desire to use the reference product (n = 33). Furthermore, the high cost of biosimilars reduces their use, even if they were less expensive than the reference products (n = 33).

*Table 1. Factors promoting and preventing the uptake of biosimilars raised by physicians in semi-structured interviews (n = 45).*

Promoting factors	n
<b>Societal factors</b>	
Cost benefit to society	38
Use reduces the total costs of treatment	34
Societal or regulatory advice	23
Nationwide cooperation within a specialty	10
<b>Organisational factors</b>	
Shared operating culture within organisation	37
Putting medicine purchases out to open tender and cooperation in medicine purchases	37
Saving in the medicine costs of own unit	7
<b>Medicinal product- and medicine manufacturer-related</b>	
Cheaper price of biosimilar	35
Reliable manufacturer	4
Risk-sharing agreements	1
Availability problems with other products	1
<b>Patient-related</b>	
Good patient experiences	30
Cost-aware patients	7
<b>Physician-related</b>	
Desire to make rational treatment decisions	26
Sufficient knowledge of biosimilars	18

Table 1 continues

Preventing factors	n
<b>Physician-related</b>	
Personal opinions and desire for prescription autonomy	40
Limited price and cost awareness of biological medicines	30
Limited knowledge of biosimilars	25
Limited patient experience	19
Familiarity of the reference product	18
Other medicine groups are better alternatives treatment-wise	11
Desire to support the reference medicine industry	8
<b>Societal</b>	
High price of medicines usually reduces their use	33
Choice of medicine made in specialised medical care usually remains unchanged	32
Regional differences	15
Differences between working sectors	13
<b>Patient-related</b>	
Patient's desire to be treated with the reference product	33
Possibility of mix-up of medicines	6
<b>Medicinal product- and medicine manufacturer-related</b>	
Biosimilar is not available	30
Small difference in price between the reference medicine and the biosimilar	23
Different method or means of administration	19
Deficient training or material from the medicine manufacturer	16
New products have been placed on the market that are not biosimilars but compete over the same markets	11
Immunogenicity	10
No research data on the extrapolation of indications	3
<b>Organisational factors</b>	
Cost optimisation in a multichannel financing system	28
Absence of organisational policies and guidelines	26
Nurses' preferences and competence	20
Data system issues	7



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Physicians most typically received information about biosimilars from the pharmaceutical industry (n = 44). Physicians agreed on the relationship between the information provider and the quality of the information received: they felt that the reference medicine industry provides more extensive and comprehensive information about biological medicines (n = 17). The majority of physicians (n = 37) told that the information disseminated by the pharmaceutical industry affects their prescription decisions. Examples of physicians' other information sources included training events and conferences (n = 29) as well as scientific (n = 26) and professional publications (n = 24).

The results of the semi-structured interviews were corroborated by the group discussions: the views of the physicians who participated in group discussions on the uptake of biosimilars were similar to those of the physicians who participated in semi-structured interviews.

### Practical implications

- Physicians need independent and targeted information about biosimilars and their costs as well as about the legislation currently in force. Additionally, physicians need

*Independent information for health care professionals and patients in support of the promotion of the uptake of biosimilars is needed, as well as joint practices and technical solutions to secure rational prescription of medicines.*

feedback on prescribing medicines from the point of view of rational pharmacotherapy.

- Not only physicians, but also other health care professionals and patients need impartial and unambiguous information about biosimilars. Health care professionals must also ensure that their competence in providing guidance is duly maintained and developed and provide patients with the support they need in the implementation of medicinal treatment.

- Joint practices and operating procedures in support of the promotion of the uptake of biosimilars and rational prescription of medicines are needed to secure rational prescription of medicines on the national, organisational and individual level. An example of this are technical solutions integrated with patient data systems, such as those that enable price comparison of products when prescriptions are written.

### FURTHER READING

- Tolonen H et al. [Automatic substitution of biological medicines at pharmacies. Views on potential automatic substitution and the related medication safety aspects]. Finnish Medicines Agency Fimea. Serial Publication Fimea Develops, Assesses and Informs 5/2019. 49 p. ISBN 978-952-7299-03-6.



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