

# Biosimilar medicines clinical use: an experience based-EU perspective

Adrian van den Hoven

13 July 2017  
Washington D.C. ,USA

# Large Body of Confirmatory Evidence

## 11 Years of Biosimilar medicines Clinical Use


Real-world experience

700 million  
patient days<sup>1</sup>

*“Over the last 10 years, the EU monitoring system for safety concerns has not identified any difference in the nature, severity or frequency of adverse effects between biosimilars and their reference medicine”<sup>2</sup>*

Controlled experience

Articles

Switching from originator infliximab to biosimilar CT-P13 compared with maintained treatment with originator infliximab (NOR-SWITCH): a 52-week, randomised, double-blind, non-inferiority trial 

Kristin K Jørgensen<sup>\*</sup>, Inge C Olsen<sup>\*</sup>, Guro L Goll<sup>\*</sup>, Merete Lorenzen<sup>\*</sup>, Nils Bolstad, Espen A Haavardsholm, Knut E A Lundin, Cato Mørk, Jørgen Jahnsen<sup>†</sup>, Tore K Kvien<sup>†</sup>, on behalf of the NOR-SWITCH study group

Clinical and epidemiological research  
Concise report 

A nationwide non-medical switch from originator infliximab to biosimilar CT-P13 in 802 patients with inflammatory arthritis: 1-year clinical outcomes from the DANBIO registry

Bente Glinthorg<sup>1,2</sup>, Inge Juul Sørensen<sup>3,4</sup>, Anne Gitte Loft<sup>5</sup>, Hanne Lindegaard<sup>6</sup>, Asta Linauskas<sup>7</sup>, Oliver Hendricks<sup>8</sup>, Inger Marie Jensen Hansen<sup>9</sup>, Dorte Vendelbo Jensen<sup>2,3</sup>, Natalia Manilo<sup>10</sup>, Jakob Espesen<sup>11</sup>, Mette Klarlund<sup>12</sup>, Jolanta Grydehøj<sup>13</sup>, Sabine Sparre Dieperink<sup>3</sup>, Salome Kristensen<sup>14</sup>, Jimmi Sloth Olsen<sup>15</sup>, Henrik Nordin<sup>16</sup>, Stavros Chrysidis<sup>17</sup>, Dorte Dalsgaard Pedersen<sup>18</sup>, Michael Veedfald Sørensen<sup>19</sup>, Lis Smedegaard Andersen<sup>20</sup>, Kathrine Lederballe Grøn<sup>3</sup>, Niels Steen Krogh<sup>21</sup>, Lars Pedersen<sup>22</sup>, Merete Lund Hetland<sup>1,4</sup> On behalf of all departments of rheumatology in Denmark

<sup>1</sup> Medicines for Europe information based on EMA Post-authorisation Safety Update Reports (PSURs)

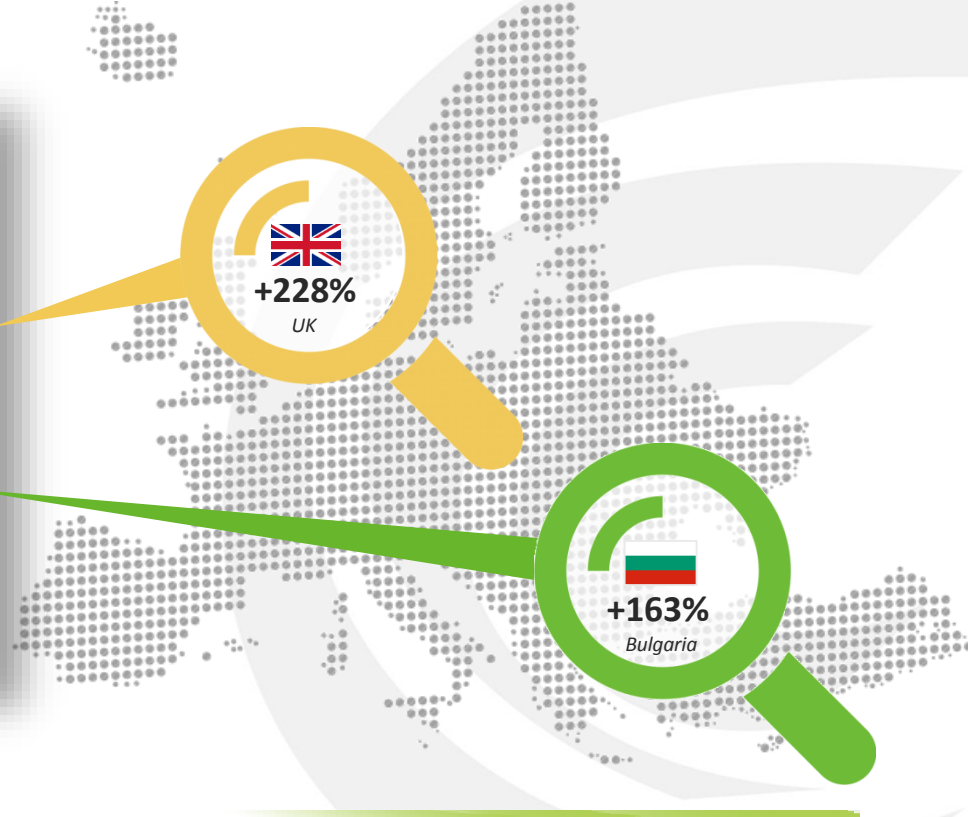
<sup>2</sup> EMA – European Commission: Biosimilars in the EU – Information guide for healthcare professionals, 2017 ([link](#))

# Biosimilar medicines increase patient access

## Change in # of treatment days (2016 vs. year before biosimilar entrance)



Epoetin	+66%
G-CSF (filgrastim)	+122%
Growth hormone (somatropin)	+41%
Anti-TNF (infliximab & etanercept)	+19%
Fertility (follitropin alfa)	+16%
Insulins	+19%



LAUNCH OF  
BIOSIMILAR  
MEDICINES

  
REDUCTION OF  
TREATMENT COST



MORE PATIENTS  
TREATED



MORE TREATMENT  
OPTIONS



MORE AUTONOMY  
TO PRESCRIBE



MORE  
INVESTMENT FOR:



HOSPITAL  
INFRASTRUCTURE



CAPACITY BUILDING



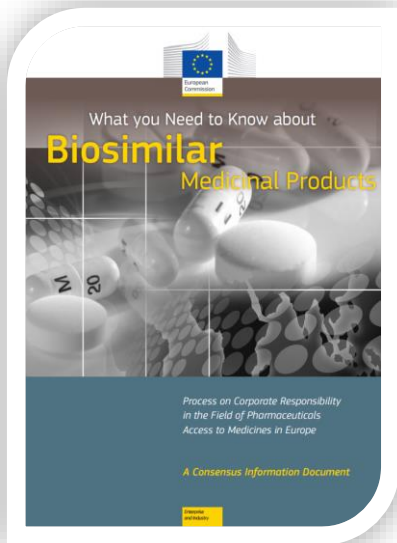
HEALTHCARE  
SERVICES

IMPROVED CARE AND HEALTH OUTCOMES FOR PATIENTS

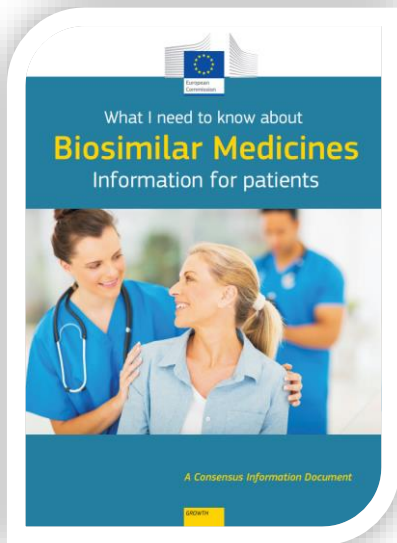


ENSURED SUPPLY CHAIN SECURITY

# References (1)



**What you need to know about biosimilar medicinal products**  
European Commission, 2013  
([link](#))



**What I need to know about biosimilar medicines – Information for patients**  
European Commission, 2016  
([link](#))



**Biosimilars in the EU – Information guide for healthcare professionals**  
EMA, 2017  
([link](#))



**The impact of biosimilar competition in Europe**  
QuintilesIMS, 2017  
([link](#))

# References (2)

- **Biosimilar regulation in the EU** ([link](#))  
*Kurki & Ekman, Review of Clinical Pharmacology 2015*
- **In support of the European Union biosimilar framework** ([link](#))  
*Schneider et al, Nature Biotechnology 2012*
- **Biosimilars: what clinicians should now** ([link](#))  
*Weise et al, Blood 2012*
- **Is there a reason for concern or is it just hype? A systematic literature review of the clinical consequences of switching from originator biologics to biosimilars** ([link](#))  
*Inotai et al, Expert Opinion on Biological Therapy 2017*
- **Interchangeability of biosimilars: A European perspective** ([link](#))  
*Kurki et al. Biodrugs 2017*
- **The safety of switching between therapeutic proteins** ([link](#))  
*Ebbers et al. Expert Opinion on Biological Therapy 2012*
- **Biosimilars: How can payers get long-term savings** ([link](#))  
*Mestre-Ferrandiz et al. PharmacoEconomics 2016*
- **Biosimilar infliximab In inflammatory bowel disease: Outcomes of a managed switching programme** ([link](#))  
*Razanskaite et al. Journal of Crohn's and Colitis 2017*
- **Delivering on the potential of biosimilar medicines** ([link](#))  
*IMS Institute 2016*
- **Biosimilars: a position paper of the European Society for Medical Oncology (ESMO), with particular reference to oncology prescribers** ([link](#))  
*Tabernero et al. ESMO Open 2017*