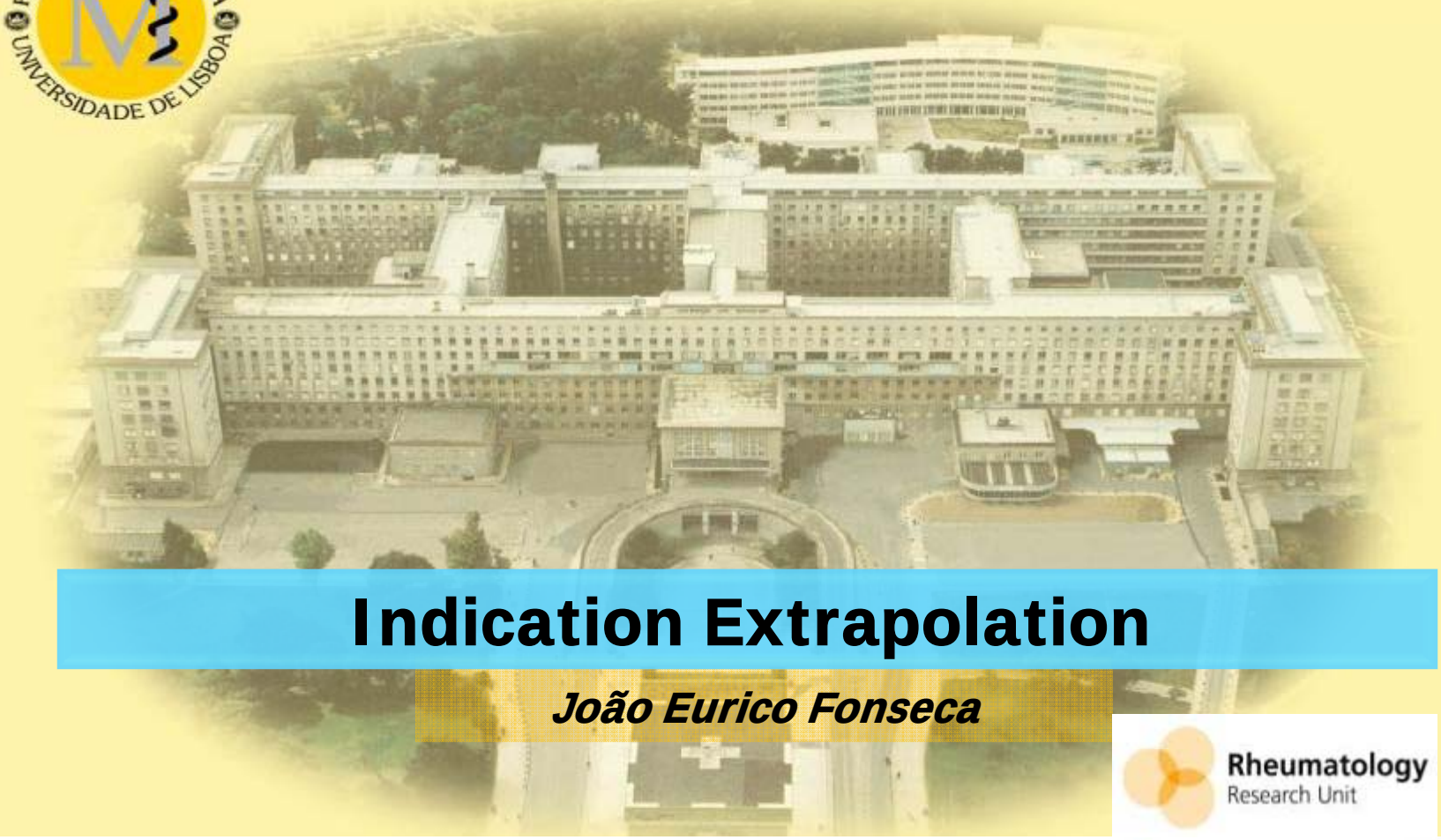

PhAMA
Innovative Medicines for Malaysia
1ST NATIONAL
BIO-THERAPEUTICS
CONGRESS – PUTTING PATIENT FIRST
22 NOVEMBER 2014



Indication Extrapolation

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Disclosure

I received unrestricted research grants or acted as a speaker for

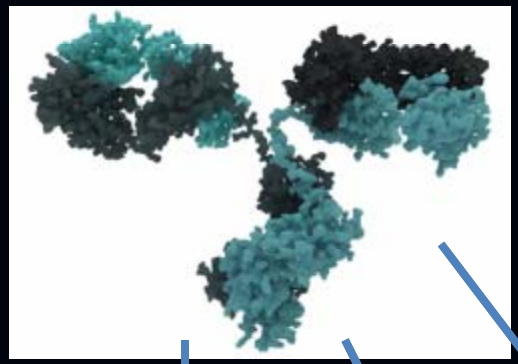
Abbvie, Amgen, BMS, Celtrion, Celgene, Janssen, MSD, Novartis, Novo Nordisk, Pfizer, Roche, Servier, UCB

Indication Extrapolation[1,2,3,4]

Reference product has been approved for Indications A, B, C and D

Approval in Indication **A**

2



1 Comparative CMC/quality, safety and efficacy studies of a biosimilar in a single disease or specific patient population (Indication **A**)

3 Extrapolation to other diseases or patient populations?

Indication **B**

Indication **C**

Indication **D**

Adapted from: 1.FDA Draft Guidances – Scientific Considerations in Demonstrating Biosimilarity to a Reference Protein Product (Feb 2012) – US Guidance 2. EMA: CHMP Guideline On Similar Biological Medicinal Products Containing Biotechnology-derived Proteins As Active Substance: Non-clinical And Clinical Issues (22 February 2006) 3. WHO Guidelines on Similar Biotherapeutic Products. http://www.who.int/biologicals/areas/biological_therapeutics/BIOTHERAPEUTICS_FOR_WEB_22APRIL2010.pdf 4.EMA: CHMP Guideline on Similar Biological Medicinal Products Containing Monoclonal Antibodies – Non-Clinical and Clinical Issues (30 May 2012)

Key Factors for Indication Extrapolation
based on EMEA, FDA and WHO Guidelines

- The **Mechanism of Action and/or the receptor(s)** of the innovator reference product is **known and the same across all indications** intended for extrapolation[1,2,3,4] or a strong scientific rationale [2] and relevant data[2,3,4] have been provided
- **Equivalence and clinical comparative studies have been performed in the most sensitive indication** or, if pertinent, in a well-defined and understood population of the patients most sensitive to detect clinical differences between the biosimilar and the reference medicine[1,2,3,4]
  - The **most sensitive indication/population** should ideally be the one that shows clinically relevant differences in terms of key efficacy and safety, including immunogenicity, parameters between two products[1]

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The Portuguese Society of Rheumatology position paper on the use of biosimilars

João Eurico Fonseca, João Gonçalves, Filipe Araújo, Inês Cordeiro, Filipa Teixeira, Helena Canhão, José António Pereira da Silva, Sandra Garcês, Luís Cunha Miranda, Sofia Ramiro, Ana Roxo, Fernando M. Pimentel-Santos, Viviana Tavares, Adriano Neto, Alexandre [illegible] Augusto Faustino, Cândida Silva, Catarina Ambrósio, Cátia Duarte, Cláu Helena Santos, Inês Cunha, João Carlos Ramos, José António Melo Gomes, Jo Luís Maurício, Margarida Silva, Miguel Bernardes, Mónica Bogas, Paulo Clen Renata Aguiar, Rui André, Rui Leitão, Sofia Pimenta, Tiago Meirinhos, S Walter Castelão on behalf of Sociedade Portuguesa de Re

ACTA REUMATOL PORT. 2014;39:60-71

Glossary

EXTRAPOLATION

Biosimilar products can be recognized for indications of reference products without performing clinical studies for all the clinical indications that reference products are approved for, supposing the equivalence with reference products by extrapolation of indications of reference products. If equivalence on efficacy and safety of the biosimilar and the reference product have been demonstrated in a particular indication, extrapolation of these data to other indications of the reference product may be possible if:

- A sensitive test model has been used, which is able to detect potential differences between the biosimilar and the reference product and
- The mechanism of action and/or involved receptor(s) is the same
- Safety and immunogenicity have been sufficiently characterized

Questions

1 Do you believe it is appropriate for a biosimilar to be approved for several, or all, indications of the innovator product, if clinical trials are performed in only one or two of those indications?

1) Yes
2) No
3) Unsure

2 Do you believe it is appropriate for a biologic with the same mechanism of action to be approved for several, or all, indications of the first biologic in that class, if clinical trials are performed in only one or two of those indications?

1) Yes
2) No
3) Unsure

3 Are you aware that a biosimilar may be approved for several or all indications of the innovator product on the basis of clinical trials in only one of those indications?

1) Yes
2) No
3) Unsure

4 Should biosimilars be tested in each indication for which approval is sought?

1) Yes
2) No
3) Unsure

5 For extrapolation purposes should biosimilars be tested in the most sensitive population for which approval is sought?

1) Yes
2) No
3) Unsure

6 Do you agree on extrapolating for children indications with only adult based trials?

1) Yes
2) No
3) Unsure

7 Do you agree on extrapolating for indications where very limited treatment options are available?

1) Yes
2) No
3) Unsure

8 Do you agree on extrapolating from indications with low occurrence of ADA to indications with high incidence of ADA?

1) Yes
2) No
3) Unsure

9 Do you agree on extrapolating from indications where the biosimilar is used in young populations with low comorbidity to indications where it is used in more fragile populations?

1) Yes
2) No
3) Unsure


Obrigado!
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