

# FIGON session #4

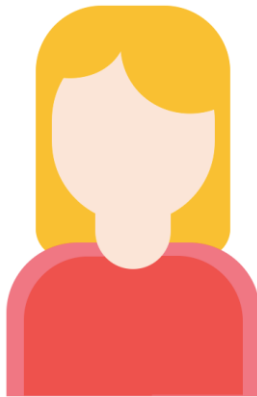
## **Unmet Medical Need**

Kevin Klein  
Exon Consultancy

# Case #1: Does the new experimental treatment fulfil an unmet medical need?

Jane is in her late 50s

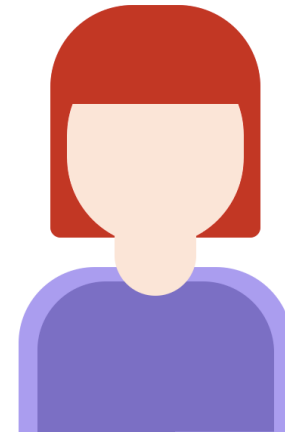
- diagnosed with **advanced pancreatic cancer**
- Jane knows the outlook is bleak
- There are **no further life-extending treatments**
- She has, at best, **one or two more years to live**
- ❖ New promising life-extending treatment



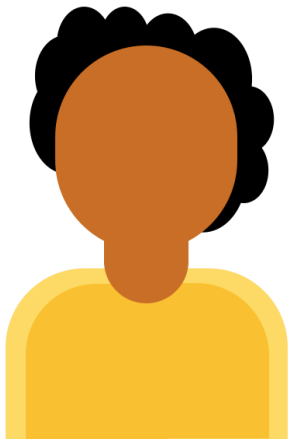
# Case #2: Does the new experimental treatment fulfil an unmet medical need?

July is in her early 60s

- Diagnosed **with hypercholesterolemia**.
- Currently **under treatment** with a statin
- Her cholesterol is **reasonably well under control**, and she is experiencing **no side effects**
- The **number needed to treat (NNT)** in secondary prevention for her situation is 83 to prevent one death
- ❖ New treatment that can potentially improve the NNT



# Case #3: Does the new experimental treatment fulfil an unmet medical need?



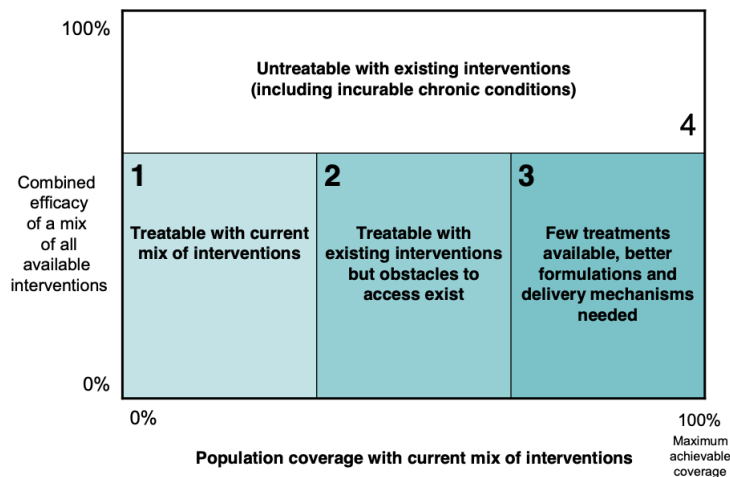
Ben is 14 years old:

- has a **neurological disorder** which impairs his daily life
- he has been under treatment with a **once-weekly injection** that needs to be **administered by a healthcare professional**.
- ❖ New treatment option, **reducing** the administration frequency from a **once-weekly to a 3-monthly injection**

# The concept of UMN in regulatory policy has been used throughout decades

## WHO (Priority Medicines – 2013)

Figure 1.5.1: Identifying pharmaceutical gaps (unmet therapeutic needs): a public health perspective



## EC (CMA – 2006)

COMMISSION REGULATION (EC) No 507/2006  
of 29 March 2006

on the conditional marketing authorisation for medicinal products for human use falling within the scope of Regulation (EC) No 726/2004 of the European Parliament and of the Council

2. For the purposes of paragraph 1(c), ‘unmet medical needs’ means a condition for which there exists no satisfactory method of diagnosis, prevention or treatment authorised in the Community or, even if such a method exists, in relation to which the medicinal product concerned will be of major therapeutic advantage to those affected.

## EMA (PRIME scheme – 2018)

Products eligible to PRIME support shall:

- Target conditions where there is an **unmet medical need**, i.e. for which there exists no satisfactory method of diagnosis, prevention or treatment in the Community or, even if such a method exists, in relation to which the medicinal product concerned will be of major therapeutic advantage to those affected;
- Demonstrate the **potential to address the unmet medical need** to a significant extent, for example, by introducing new methods of therapy or improving existing ones.
- The available data should support the claim that the product has the potential to **bring a major therapeutic advantage to patients** in a given indication, through a clinically meaningful improvement of outcomes, such as having an impact on the prevention, onset and duration of the condition, or improving the morbidity or mortality of the disease.

# How is the 'concept of UMN' currently used in drug development?

- In general, the concept of UMN is meant to distinguish more pressing societal health needs from less pressing needs.
- Identifying UMN to stimulate research activities and incentivise the development of innovative treatments:
  - Channel public research funds
  - Access to alternative or dedicated regulatory pathways
    - *E.g. conditional marketing approval, accelerated assessment, PRIME etc.*
  - Favourable pricing & reimbursement condition

# Reform of the EU Pharmaceutical Legislation – New proposal to define UMN

- Goal
  - “Steer pharmaceutical investment into medicines for unmet medical needs”
  - “...towards a need-driven innovation model that will better serve patients and health systems”
  - Broadly applicable definition
- New EC proposal for defining UMN and high UMN (orphans)
  - Granted additional market exclusivity to incentivize product development
  - Remains unclear how proposed criteria will be applied in practice
    - E.g. link to regulatory, reimbursement incentives

## ***Article 83 (Directive)***

### *Medicinal products addressing an **unmet medical need***

1. A medicinal product shall be considered as addressing an unmet medical need if at least one of its **therapeutic indications relates to a life threatening or severely debilitating disease** and the following conditions are met:
  - a) there is **no medicinal product authorised** in the Union for such disease, or, where despite medicinal products being authorised for such disease in the Union, the **disease is associated with a remaining high morbidity or mortality**;
  - b) the use of the medicinal product results in a **meaningful reduction in disease morbidity or mortality** for the relevant patient population.
2. Designated orphan medicinal products (...) shall be considered as addressing an unmet medical need.



## Article 83 (Directive)

Medicinal products addressing an  
**unmet medical need**

## Article 70 (Regulation)

Orphan medicinal products addressing a  
**high unmet medical need**

1. A medicinal product shall be considered as addressing an unmet medical need if at least one of its **therapeutic indications relates to a life threatening or severely debilitating disease** and the following conditions are met:
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2. Designated orphan medicinal products (...) shall be considered as addressing an unmet medical need.

1. An orphan medicinal product shall be considered as addressing a high unmet medical need where it fulfils the following requirements:
  - a) there is **no medicinal product authorised** in the Union for such condition or where, **despite medicinal products being authorised** for such condition in the Union, the applicant demonstrates that the orphan medicinal product, in addition to having a **significant benefit, will bring exceptional therapeutic advancement**;
  - b) the use of the orphan medicinal product results in a **meaningful reduction in disease morbidity or mortality** for the relevant patient population.

Orphan products considered to fulfil an UMN and are assessed through Article 70 (Regulation): HUMN

# Assessment of EC's proposed criteria defining unmet medical need

- Create a better understanding of how **recent approvals** by EMA are likely to satisfy the **UMN criteria** proposed by EC
- Assessed a cohort of **new active substances** approved by EMA between 2019 and 2022
- Based on wording/statements from **CHMP assessments** to assess fulfilment of criteria

# A cohort of 111 products assessed to what extent UMN criteria are fulfilled

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111 products



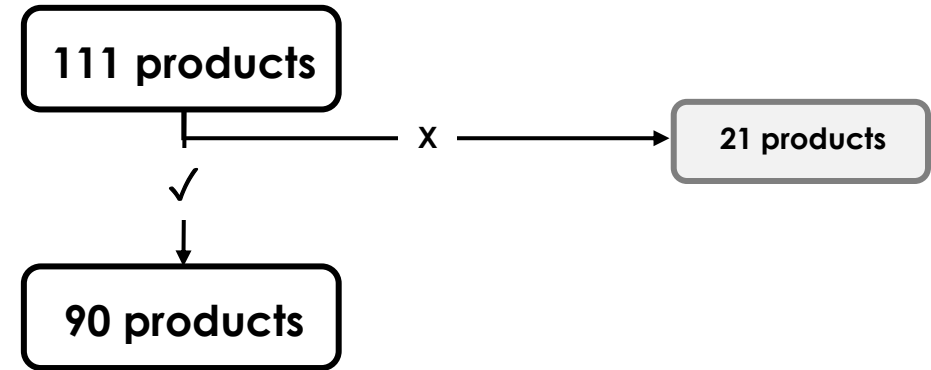
- ❖ When is a disease considered life-threatening?
- ❖ ...when severely debilitating?

# Majority of products address a life-threatening or severely debilitating disease

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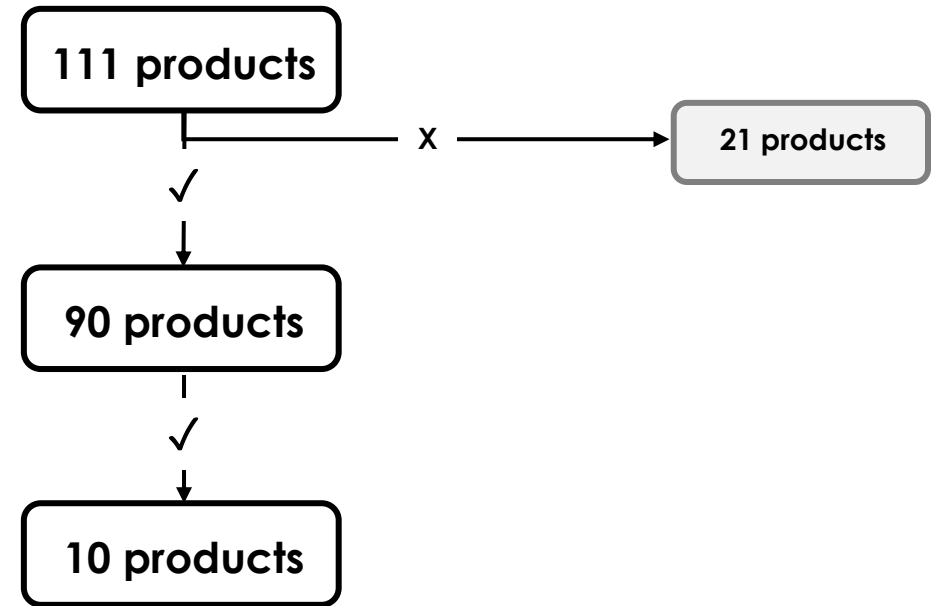


# Only very few products address a disease for which no products are authorised

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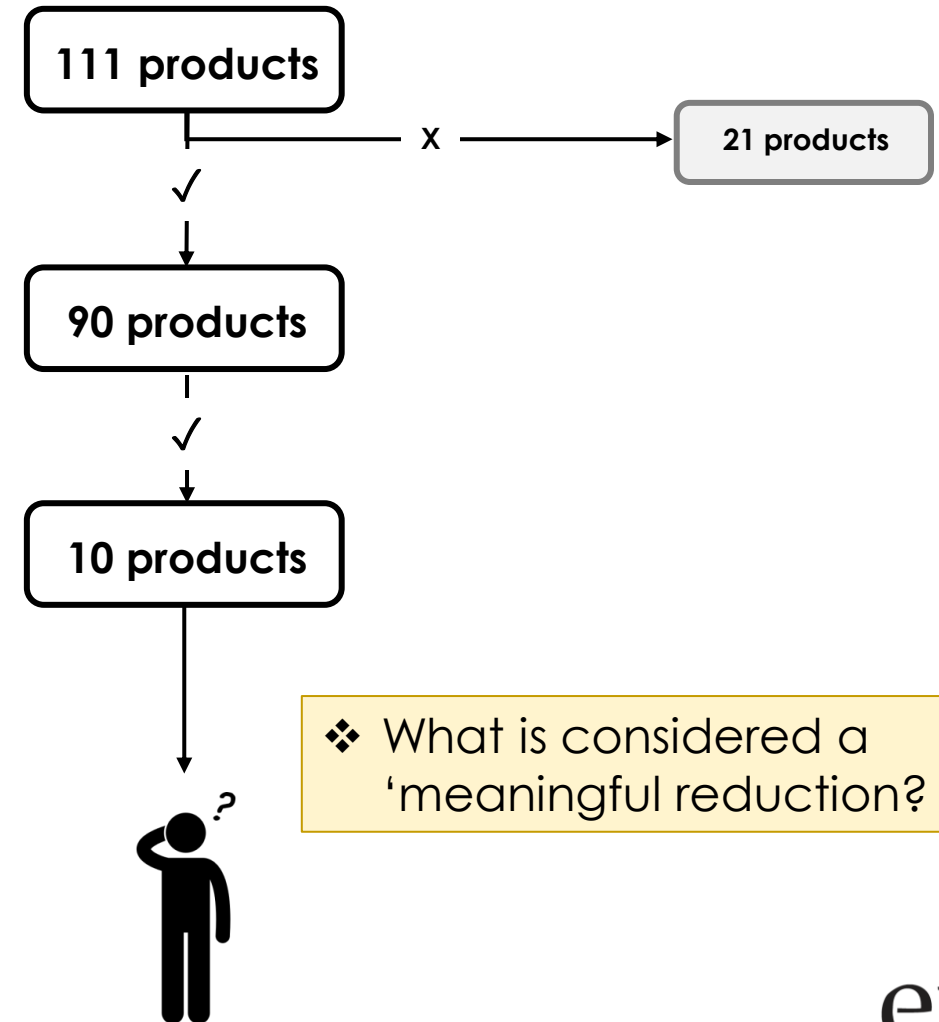


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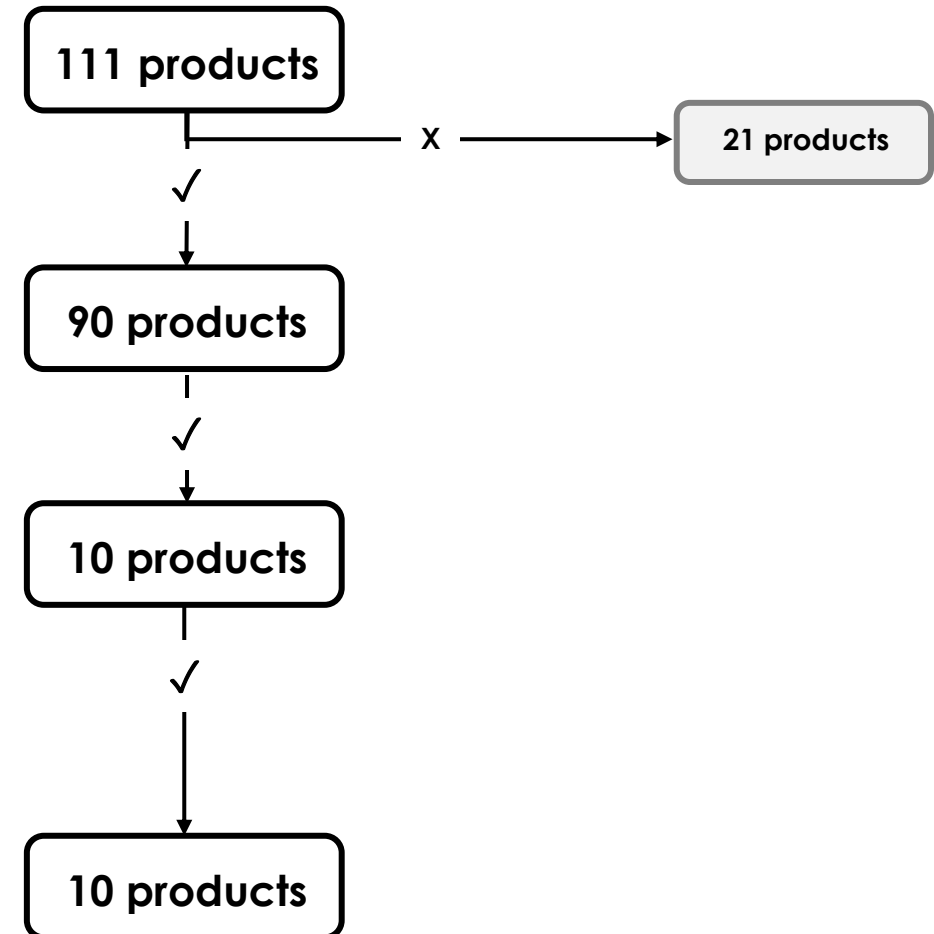


# All products addressing a disease for which no product is authorised are likely fulfil last criterium

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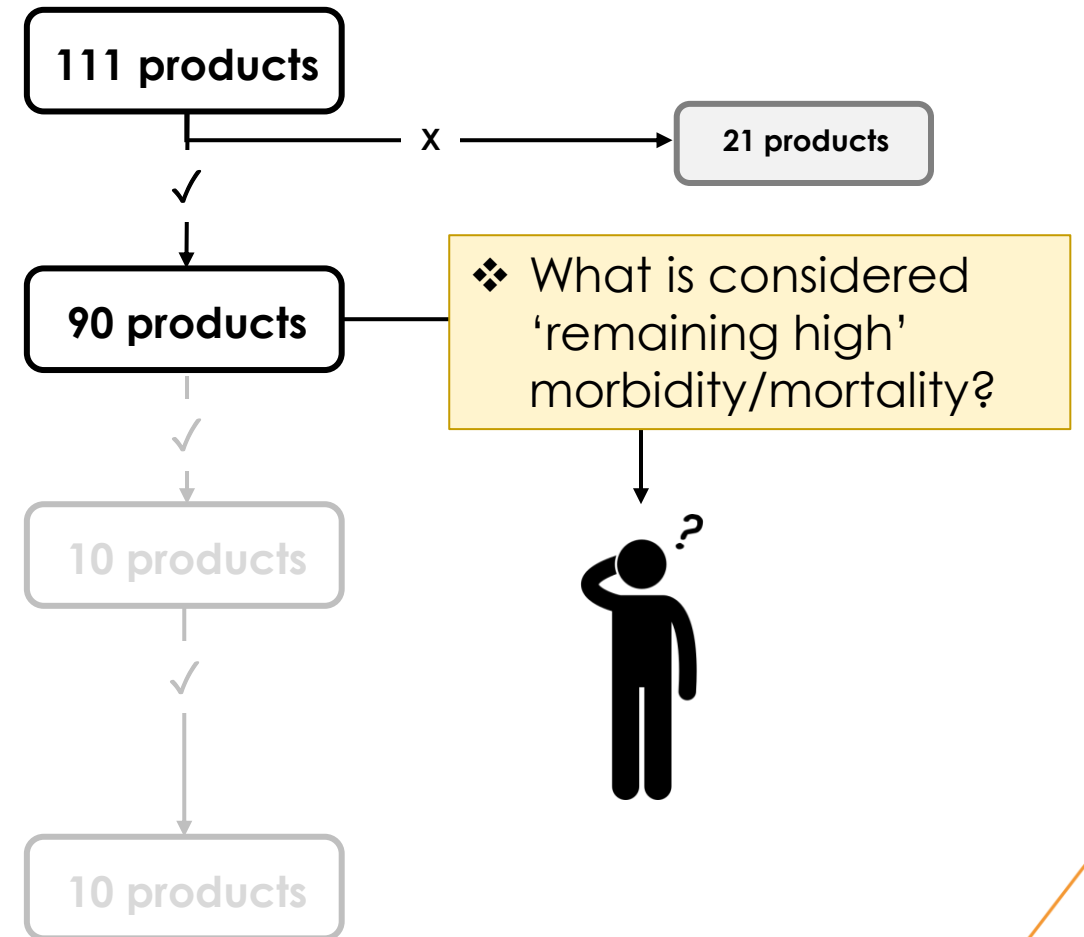


# Most products relate to diseases for which products are already authorised – here it becomes challenging...

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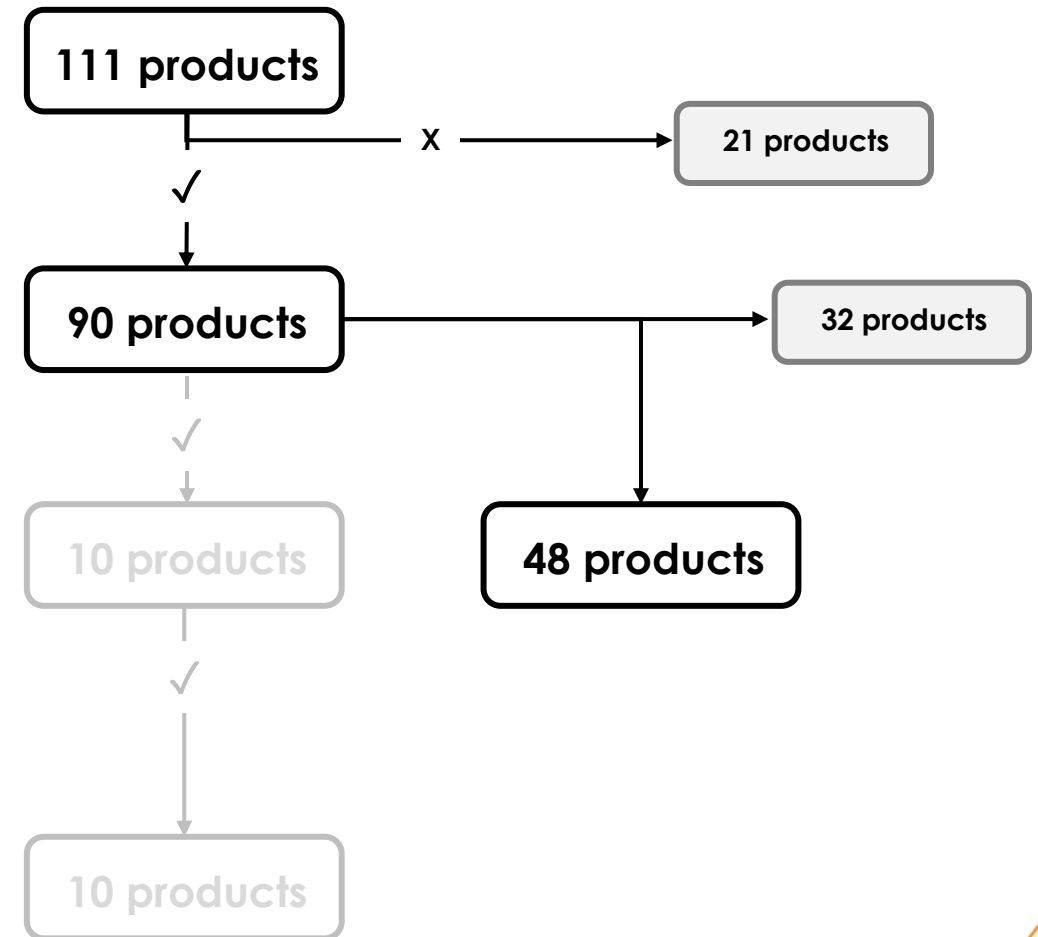


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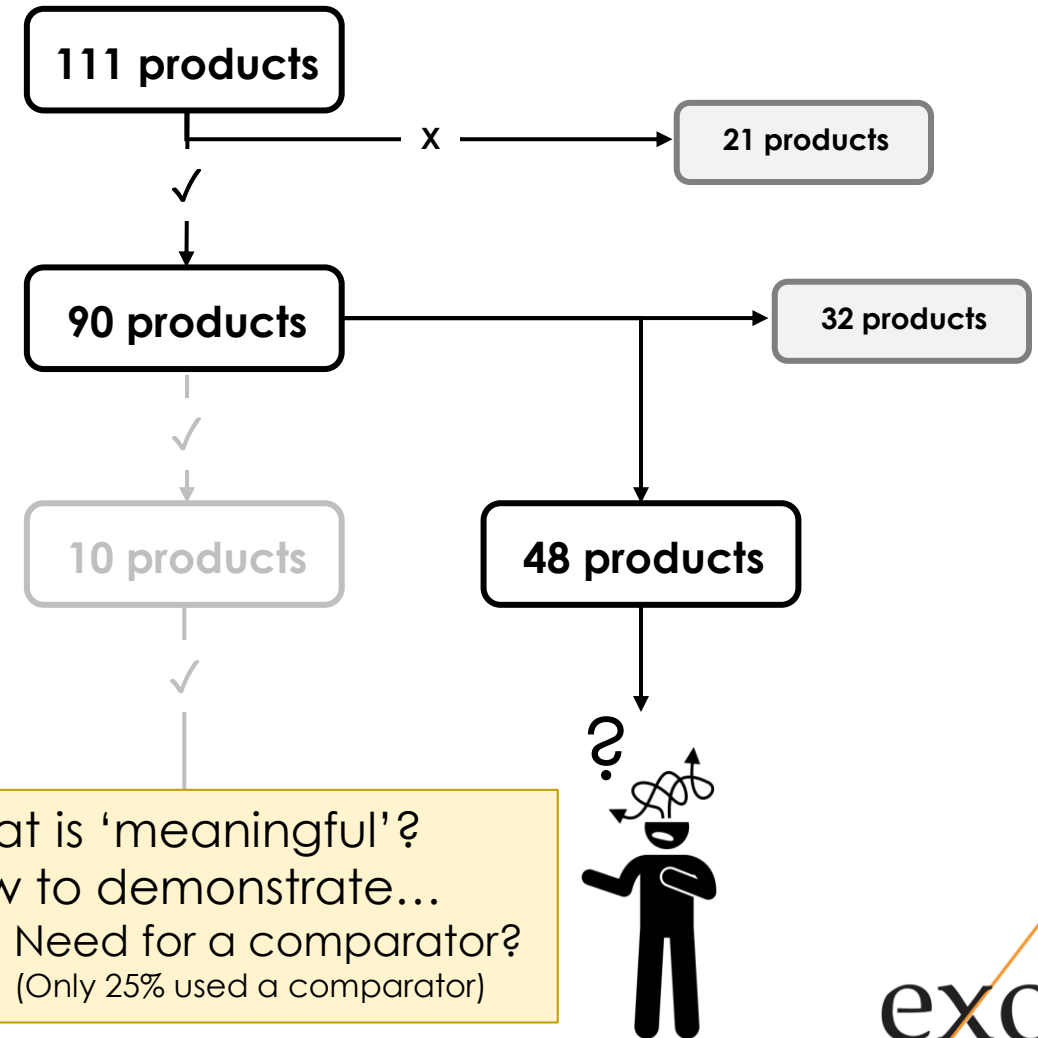
# Most products relate to diseases for which other products are already authorised

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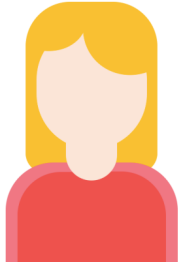
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- ❖ What is 'meaningful'?
- ❖ How to demonstrate...
  - ❖ Need for a comparator?  
(Only 25% used a comparator)

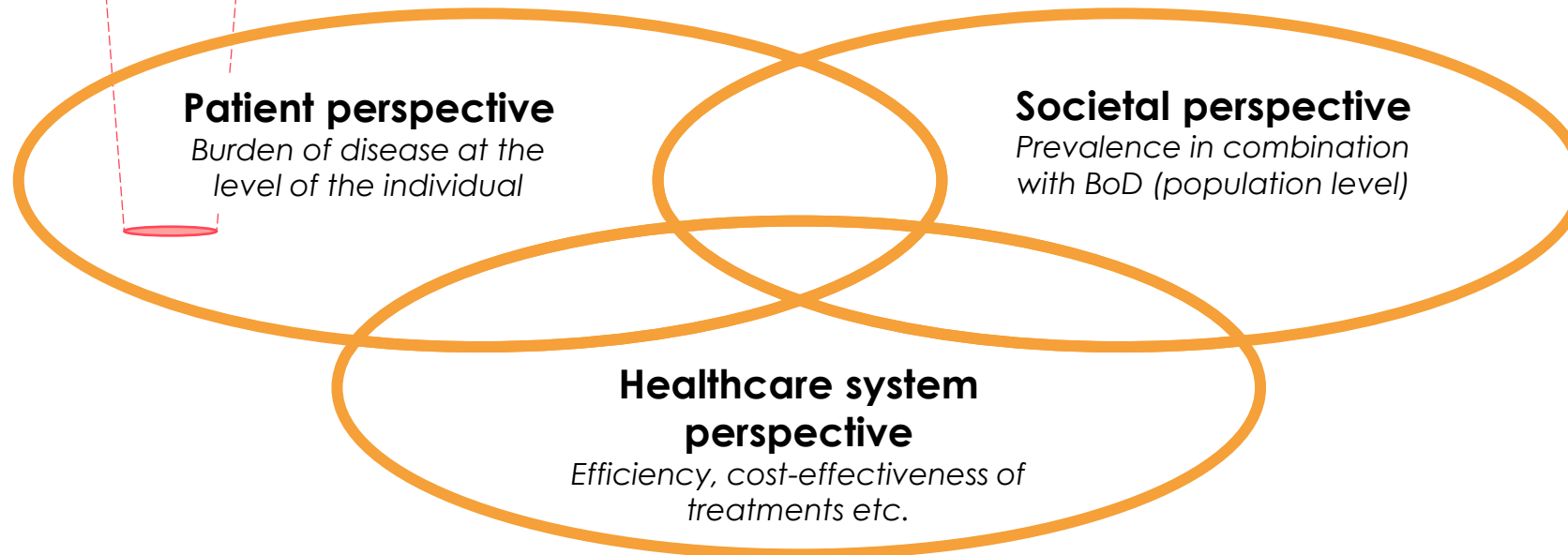


### Potential life extending treatment:

- Jane is running out of time
- Addresses clear UMN for Jane
- Willing to accept uncertainty



Jane (advanced pancreatic cancer)

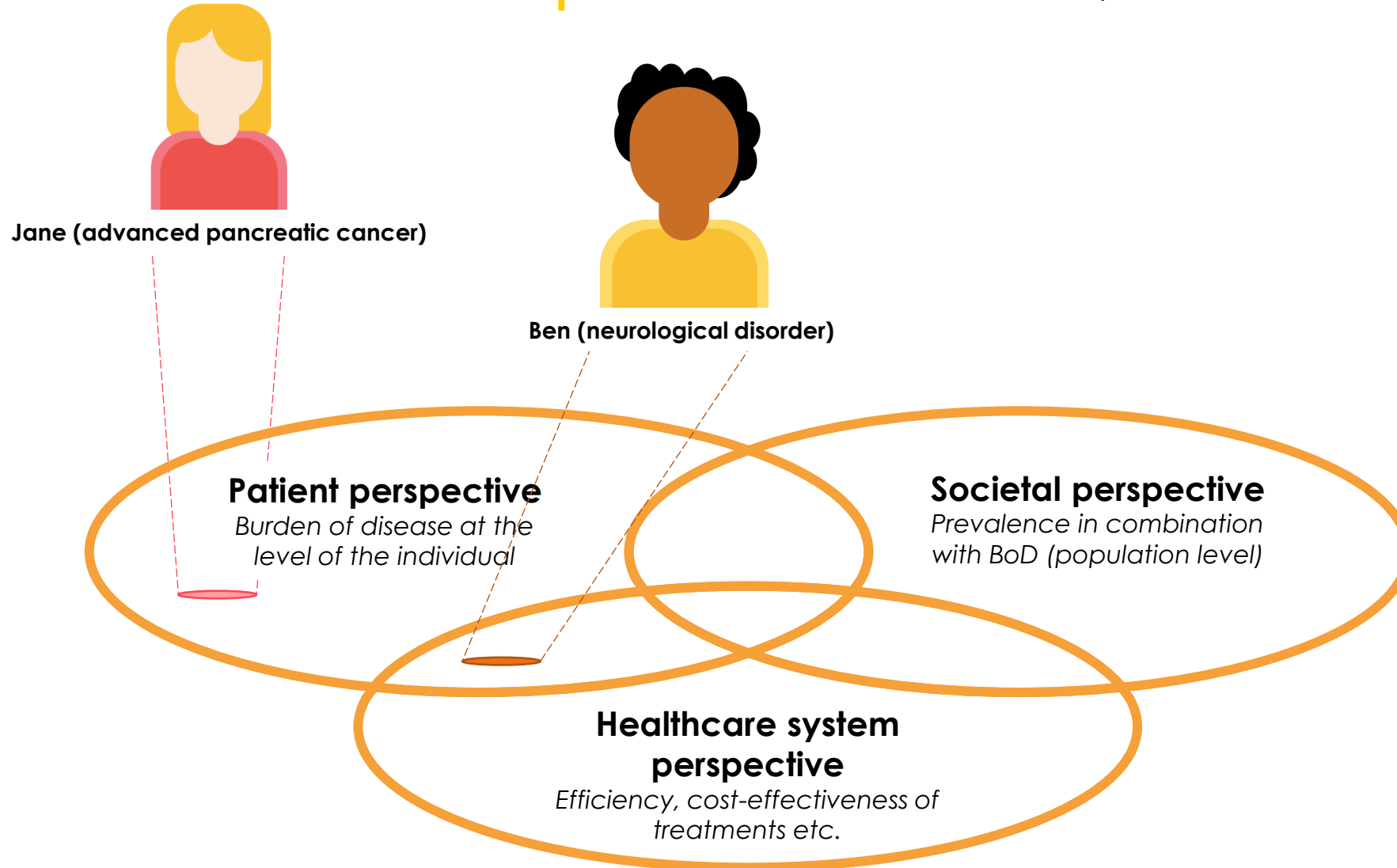


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### From once-weekly to a 3-monthly injection:

- Increases the convenience, improves QoL?
- Potentially improve adherence?
- Reduces burden on healthcare systems?



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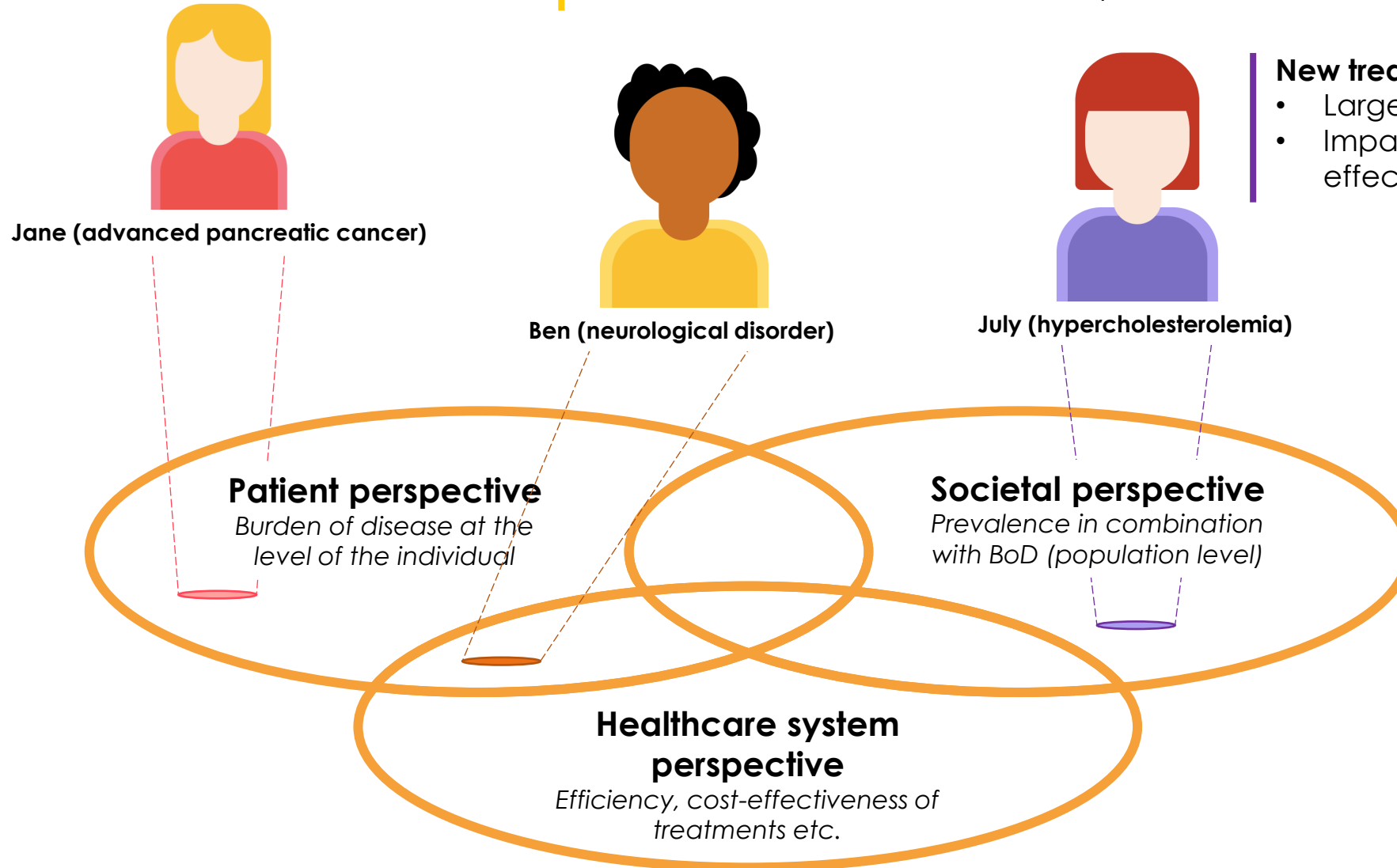
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### New treatment reducing NNT:

- Large societal burden
- Impact on NNT significant effects at population level



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Jane (advanced pancreatic cancer)

Ben (neurological disorder)

July (hypercholesterolemia)

#### Patient perspective

*Burden of disease at the level of the individual*

#### Societal perspective

*Prevalence in combination with BoD (population level)*

#### Healthcare system perspective

*Efficiency, cost-effectiveness of treatments etc.*



Current proposal by EC

# In conclusion

- The current EC proposal to define UMN...
  - Unclear how proposed criteria will be used in practice...
  - Cut-off values to define when an individual criteria is fulfilled?
  - How is the criterium relating to availability of treatments applied to 'line of treatment' (e.g. oncology)?
  - Need for comparator to demonstrate 'meaningful' improvement?
  - To what extent are societal needs addressed by current proposals?

Backup slide

exon



# A context-neutral understanding of UMN

- UMN refers to any medical condition that is not adequately prevented, treated or diagnosed by authorised interventions
- Within the broader context-neutral understanding of UMN, certain areas of UMN can be incentivized to stimulate innovation and addressing needs
- Within each incentivized area of UMN, it is important to identify and align on criteria to determine the eligibility of a product candidate for incentives and rewards (include all stakeholders)

