EU Big Data Stakeholder Forum 2023

04 December 2023

Session 3: Realising the potential of Patient Experience Data (PED) in EU medicine regulation – What is needed by regulators

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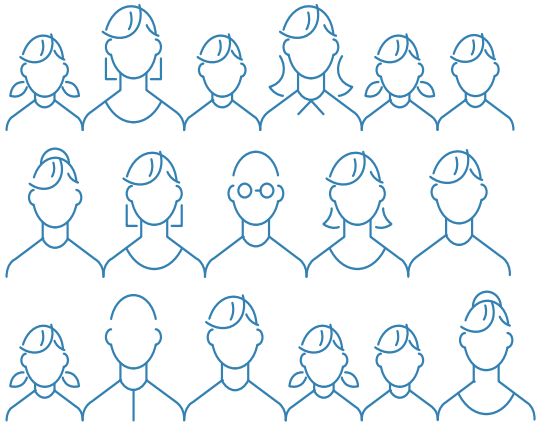
Outline

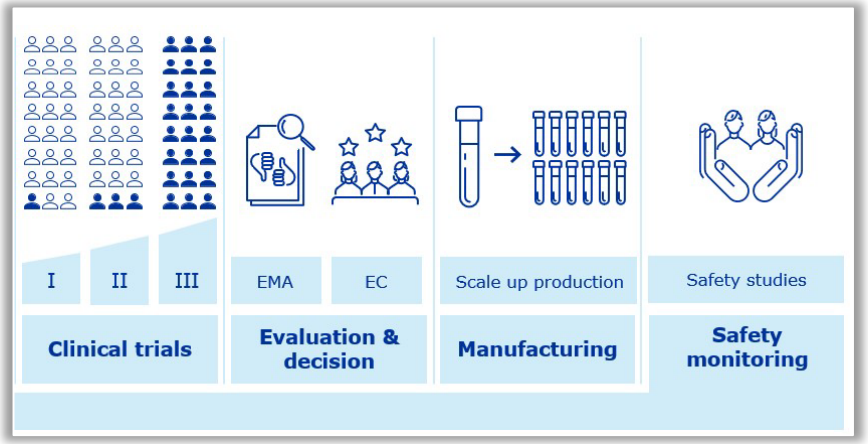
- Regulatory use cases of Patient Experience Data (PED)
- Opportunities to increase the use of PED in regulatory context
- What is needed by regulators – perspectives on required next steps



How do regulators get patients' input?

- Patients' representatives in EMA scientific evaluation committees and working parties
- Public consultation
- Public hearings
- Multistakeholder meetings and workshops
- Patience experience data (PED), especially through
  - Patient Reported Outcomes (PROs)
  - Patient Preference Studies (PPS)
  - Patient engagement

PED is an important piece of the totality of evidence supporting medicines' development and evaluation



Patient experience data relevant at different stages of medicines' development and regulatory evaluation:

- Early development and benefit/risk evaluation
- Pharmacovigilance and risk minimisation

PED in support of early medicines development and evaluation

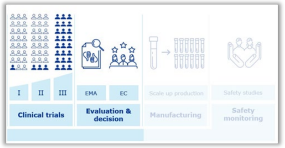
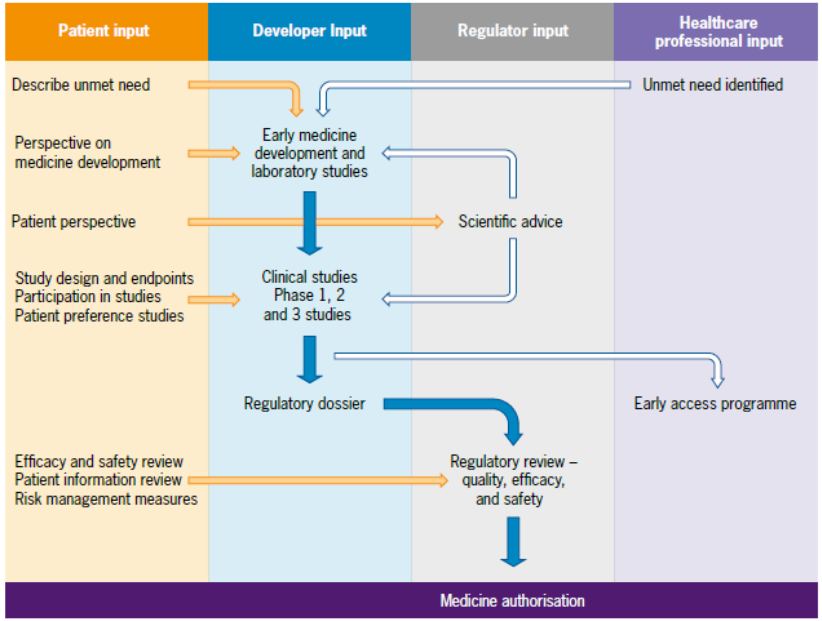


Figure 1a: Patient involvement during a medicine lifecycle – pre-authorisation

Source: CIOMS Working Group XI



Clinical trial design

- Selection of endpoints and outcome measures
  - that matters more to patients
- Formulation and delivery modes
  - to minimise burden and support adherence

Benefit/risk assessment

- Patient preferences (trade-offs)
- Acceptability of risks when planning the Risk Management Plan
- Input into product information

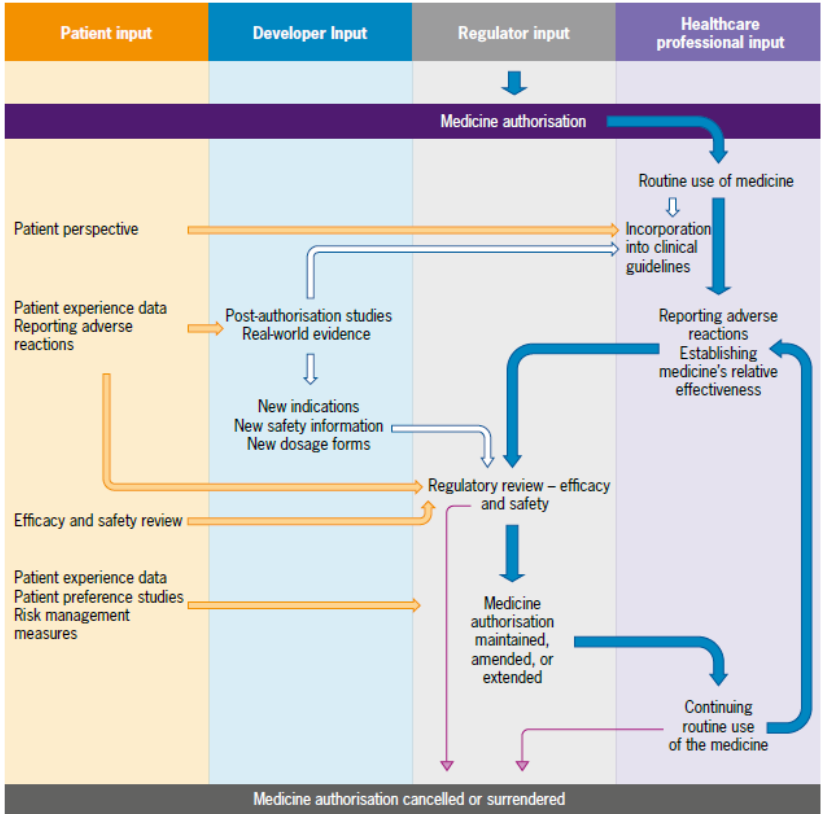
PED support pharmacovigilance & risk minimisation

Patient experience data is one of the main sources of information on the safety of medicines:

- Reporting of safety signals and Adverse Drug Reactions (ADRs)
- Patient preferences on tolerability and acceptability of ADRs and possible trade-offs
- Compliance with risk management measures
- Prevention of medication errors

Figure 1b: Patient involvement during a medicine lifecycle – post-authorisation

Source: CIOMS Working Group XI



Opportunities to further improve

To optimise the use of PED, more work is needed especially on:

- Data collection methods
- Data quality and completeness
- Methodologies applied to PED

TABLE 4 Reasons for patient-reported outcomes label claims exclusion identified in European public assessment reports reviewers' comments ($n = 76$).

Comments from EMA reviewers	Number of indications n (%)
Study conduct	
Data should be interpreted with caution as there was no blinding of the study treatment	1 (1.3%)
Potential bias in PRO data as a result of blinding failure	2 (2.6%)
Interpretability of QoL results and therefore their clinical relevance is unclear/limited	8 (6.6%)
Rational for timing and frequency of PRO collection was not fully described with regard to population, disease and/or treatment regimen	4 (5.3%)
PRO analysis was not robust enough or did not even exist	4 (5.3%)
PRO analysis was considered exploratory	4 (5.3%)
PROM selection	
PROM selected was not considered optimal	4 (5.3%)
Missing data	
Handling missing data was not included and/or sufficient	2 (2.6%)
Reliability of the results was hampered due to missing data	5 (6.6%)
Study design	
Value of data was questionable and caution in interpretation is needed when using open-label design	16 (21.1%)
No firm conclusion could be drawn from the QoL data of single arm trials	2 (2.6%)

Teixeira et al, 2022

Improving quality, reliability and representativeness of the data

- Reliability and representativeness
  - **Study design** and conduct of studies (open label designs/ lack of control, lack of/failure of blinding)
  - **Bias** (e.g. recall bias, reporting bias, dropout bias)
- Data quality and completeness
  - **Missing data** / lack of completeness and underlying mechanisms (information on mechanisms behind missing data, frequency of data generation, lack/limited follow-up, etc…)
  - Varying **quality** of PED collection methods (qualitative / quantitative / mixed), data sources / data collection tools (registries, surveys, wearables, social media)

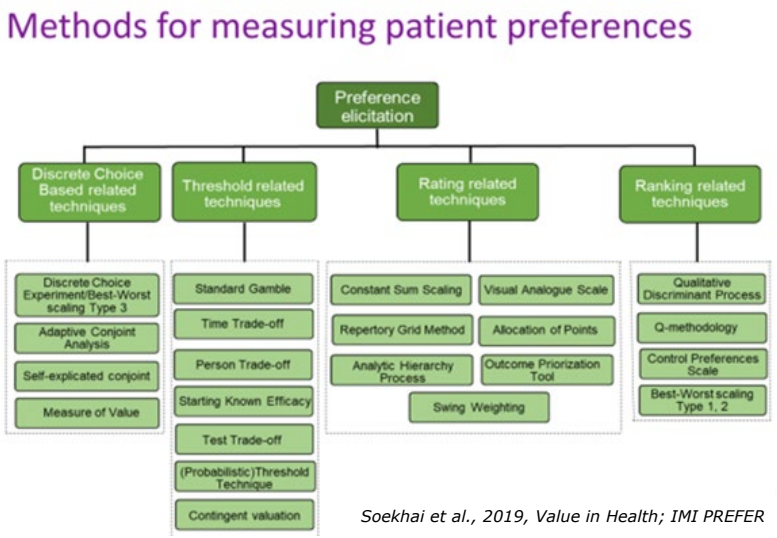
Complex and evolving analytical methods

Endpoints relevance

- Diversity and multiplicity of measures and scales
  - Generic vs. disease-specific measures
  - Different perspectives: PRO vs ClinRo vs ObsRo
- Different degrees of validation of scales
  - Lack of consensus in some cases
- Different degrees of implementation or use
  - E.g. in clinical trial setting versus routine care, making is challenging to perform pre- vs. post- approval comparisons and long-term follow-up

Complex methodologies which are also still evolving.

- Example of Patient Preference Studies



Soekhai et al., 2019, Value in Health; IMI PREFER

Opportunity for early interaction and support by regulators

The EU approach is to encourage companies to liaise early with regulators during Scientific Advice or Qualification, to discuss best way to generate and collect PED, and have a case-by-case discussion on their specific development plans

Scientific Advice

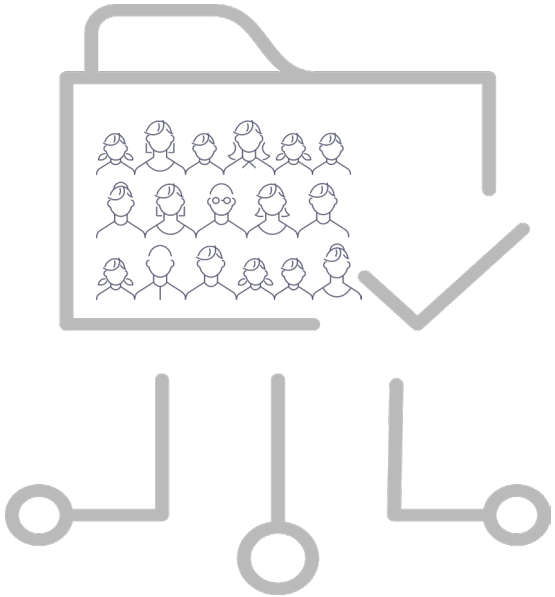
- **Supports the development of high-quality, effective & safe medicines**
- Scientific Advice can be provided on **any PED scientific question** (e.g., clinical trial design)

Qualification of novel methodologies

- **Opinion on the acceptability of a specific use of a PED method** (e.g. use of a novel PROs)
- **Advice on protocols and methods** intended to develop a novel method with the aim of moving towards qualification

On the journey…

- Regulators welcome PED as an important contributor to the totality of evidence...
  - EMA and EMRN working on an **EU Reflection paper**
  - **FDA's Patient-Focused Drug Development Guidance** Series
- … but we need reliable and representative PED with high quality standards that meet regulatory decision-making requirements
  - Scientific advice + qualification of novel methodologies
  - More methodological work and guidance and harmonisation (**ICH**)



On the journey…

- Transparency and trust to be improved
  - Where PED is needed, how it is collected and analysed, and how it is used
- Collaboration is a key enabler
  - **Patient's voice** is critical throughout the whole life cycle of medicines
  - **Collaboration** with the other downstream stakeholders (HTAs, payers, healthcare providers) facilitate **faster integration of PED** at each stage
  - The combination of various data sources and expertise will result in **safer** and **more effective** pharmacotherapy for everyone

Thank you!

Further information

See websites for contact details

Heads of Medicines Agencies www.hma.eu
European Medicines Agency www.ema.europa.eu

The European Medicines Agency is an agency of the European Union

More information

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