RWD, indications dynamics, some regulatory perspectives

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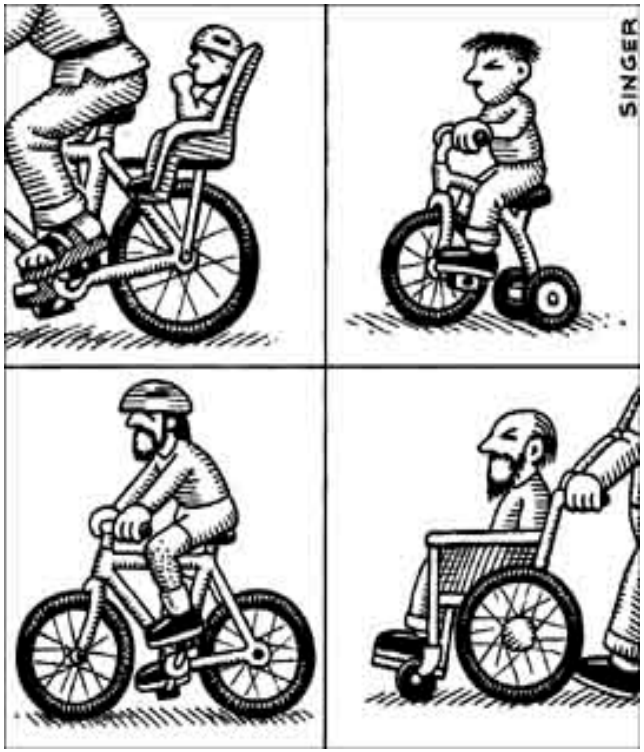
Declaration of interests

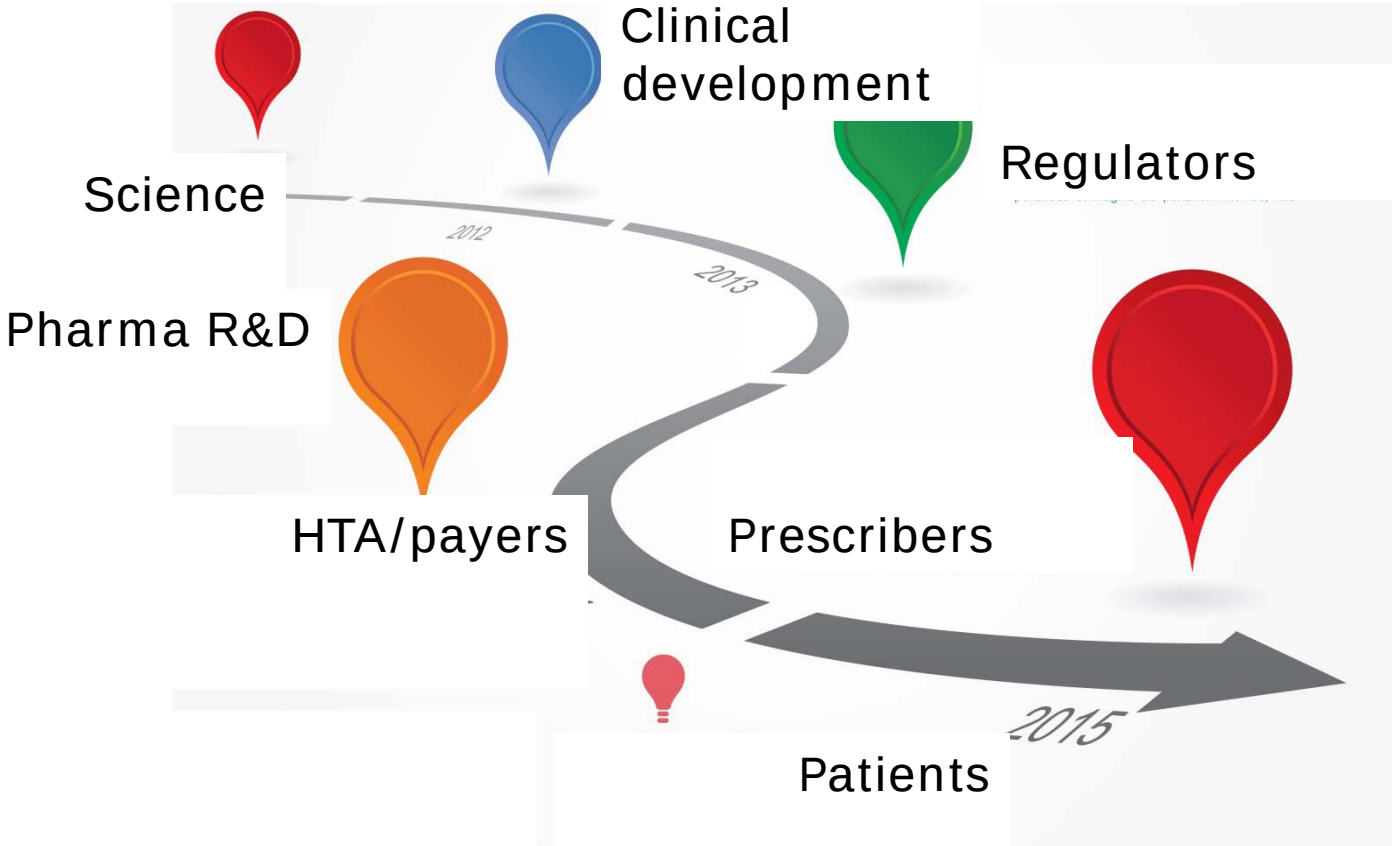
- Professor of Pharmacoepidemiology, Utrecht Institute of Pharmaceutical Sciences, 0.4 FTE.
- Chairman of the Dutch Medicines Evaluation Board (MEB), since mid 2007.
- Co-opted member of EMA PhVWP, 2006-2009; 2009-2015 co-opted member of EMA CHMP.
- Scientific Director WHO-Utrecht Collaborating Centre for Pharmaceutical Policy and Regulation, since 2008.
- This talk reflects my personal views; I am being inspired and challenged on a daily basis by many colleagues from these ‘environments’.

Key events in the lifecycle of a medicine



- First in man studies
- Fase III trials
- Positive B/R, approval for marketing authorization for (first) indication
- Positive decision about reimbursement
- Extension of use to new indications
- Negative B/R due to new (unknown) safety information
- Negative B/R due to inappropriate prescribing and/or use
- Off-patent, shift to generic versions
- Reinvention, new therapeutic scenario

Up- and downstream in drug development



Therapeutic indications in oncology over time

Table 2 – Number of indications restricted during the review process.

Year of approval	Number of indications	Indication requested (IR) available	Indications restricted
1995–2004	32	5	4
2005–2008	71	45	16
Total	103	50	20

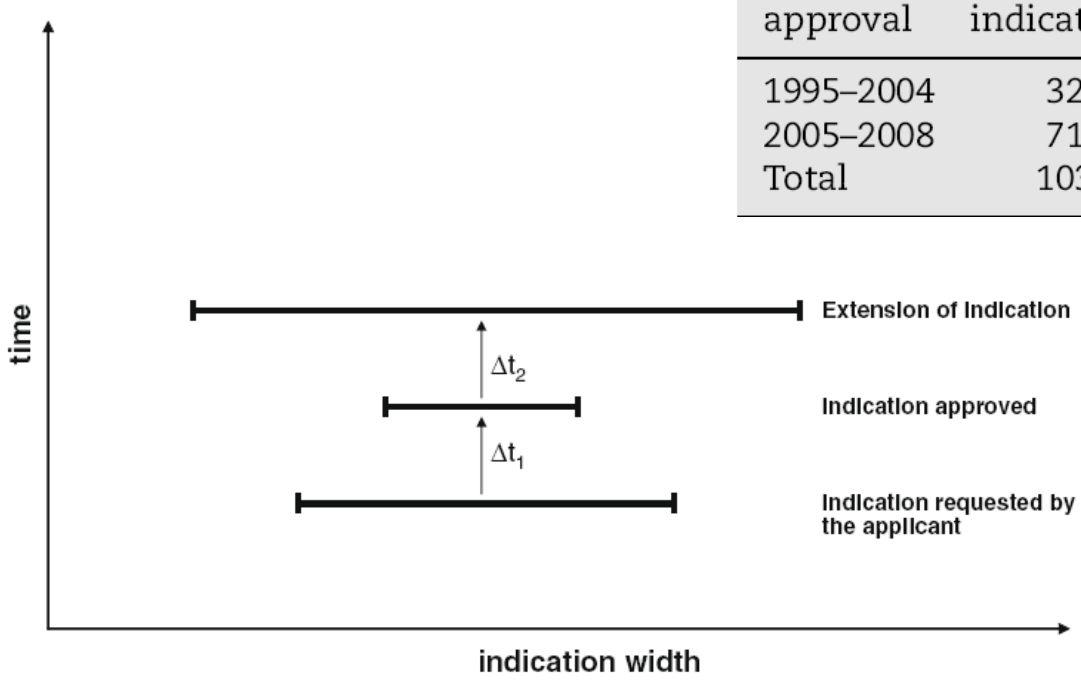


Fig. 3 – Graphical description of the regulatory dynamics over time for a general indication.

Tafuri G et al. Eur J Cancer 2010; 46: 471-5.

Some regulatory reflections

- RWE is not a ‘parachute’ for a poor clinical dossier.
- RWE should bridge intern and external validity.
- ‘Data’ is not the same as RWE: study design!
- Biomarkers, big promises, but .. (e.g. PDL-1, F508del).
- RWE: better insight in natural course of disease.
- How to liaise with down stream stakeholder (e.g. HTA)?
- RWE provides an estimate of the *non-data space* for decision making.