“Innovation”: a reality check?

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Assessing Therapeutic Advance

1. Efficacy
2. Adverse Reactions
3. Convenience

Prescrire's Ratings

Added Therapeutic Value

BRAVO:
The product is a major therapeutic advance in an area where previously no treatment was available.

A REAL ADVANCE:
The product is an important therapeutic innovation but has certain limitations.

OFFERS AN ADVANTAGE:
The product has some value but does not fundamentally change the present therapeutic practice.

POSSIBLY HELPFUL:
The product has minimal additional value, and should not change prescribing habits except in rare circumstances.

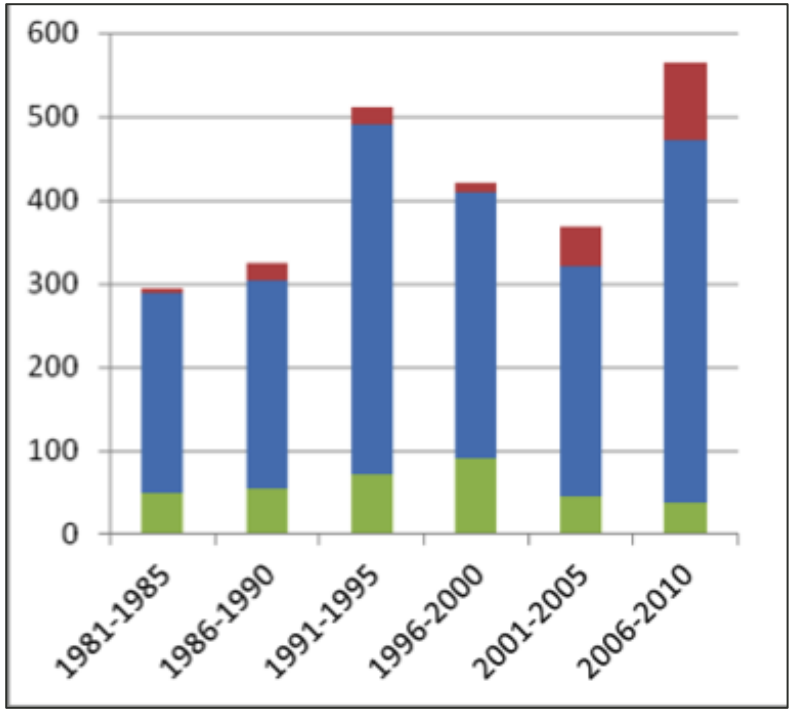
No (or questionable) Added Therapeutic Value

NOTHING NEW:
The product may be a new substance but is superfluous because it does not add to the clinical possibilities offered by previous products available. In most cases it concerns a me-too product.

JUDGEMENT RESERVED:
The editors postpone their rating until better data and a more thorough evaluation of the drug are available.

NOT ACCEPTABLE:
Product without evident benefit but with potential or real disadvantages.

Prescrire's ratings 1981 to 2010
Trend in added therapeutic value



Negative Added Therapeutic Value

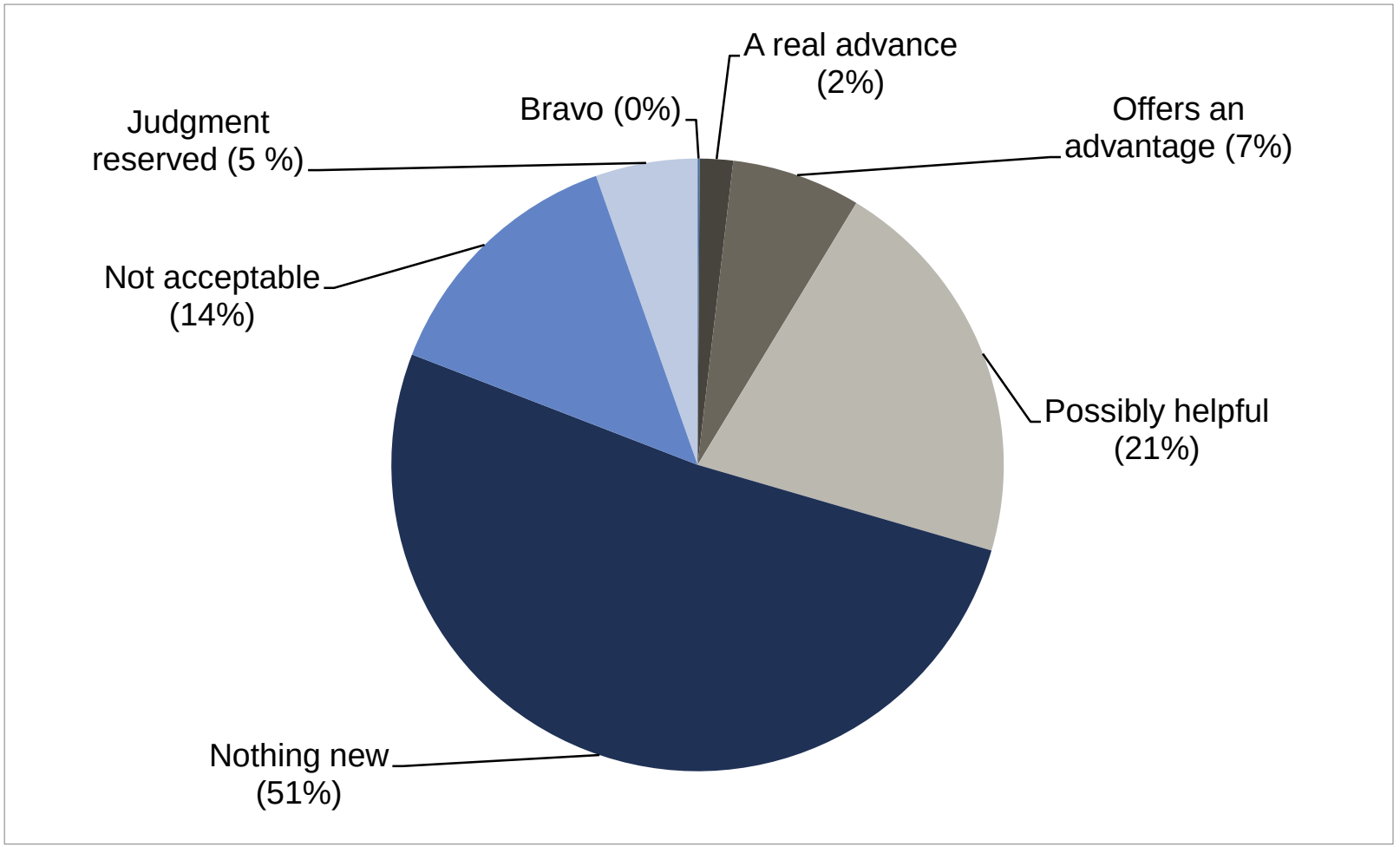
Positive Added Therapeutic Value

Neutral Added Therapeutic Value

Prescrire's ratings 2000 to 2012

Percentages per category

N=1158



Therapeutic advance is missing in action (1)

- Clinical research (funded) by pharmaceutical companies
  - Not enough R&D focusing on unmet health needs (due to low return on investment)
  - Aim is to obtain marketing authorisation, no need to show therapeutic advance
  - Marketing becomes priority
- Faster and faster marketing approvals
  - Premature marketing authorisations often based on weak evidence
  - Post-marketing 'Risk-minimisation' measures are often inadequate
  - Dangerous drugs being approved and subsequently withdrawn
    - Rofecoxib ⇔ serious cardiovascular problems
    - Benfluorex ⇔ valvular heart disease

Therapeutic advance is missing in action (2)

- Large majority of new medicines bring “nothing new” or are “not acceptable”
  - Patients are being unduly exposed to adverse drug reactions (ADRs)
  - Monitoring and costs of drug-induced harm are largely borne by patients & health systems
  - This burden is increasing
    - Estimated 197,000 deaths per year in EU from ADRs
    - EU Societal cost of ADRs Euro 79 Billion / year

High medicines prices

- Are often set/negotiated in opacity.
- Real cost of R&D remains unknown.
- Yet little therapeutic advance – disconnection between a drug's price and its therapeutic value assessment
  - Some examples: neuroleptics "anti-psychotics"; 3rd & 4th generation contraceptives
- More than 100 influential oncologists have recently described current prices of cancer medicines as: "astronomical, unsustainable and even immoral" (*BMJ 2013;346:f2810)*
- Medicines' prices are not adjusted to the number of patients to be treated nor to treatment duration
- High prices => incoherent and ineffective allocation of public resources in terms of public health.

So… what to do?

What is needed?

- Political will to demand evidence of “therapeutic advance” to become a criteria in marketing authorisation
  - More comparative clinical trials
  - More research for unmet medical needs
  - More publicly-funded research including independent clinical trials
  - Essential to help/support the work of health technology assessment bodies
- Transparency and access to clinical, regulatory and pricing data to:
  - Allow independent analysis and information sharing
  - Encourage public scrutiny
  - Identify
    - Real innovation = real therapeutic advance!
    - Older medicines that could be improved: Renovation!
  - Develop and support informed choice
  - Provide the best care possible to patients.

Thank you

More information?
Please email talves@prescrire.org
or visit
www.prescrire.org/english

EXTRA SLIDES

Step-wise approach & simple methodology

1. Learning more about the condition to be treated

- What is the natural outcome of the condition?
- What is the reference treatment (gold-standard)?
  - A non-drug option?
  - Another medicine (already existing)?

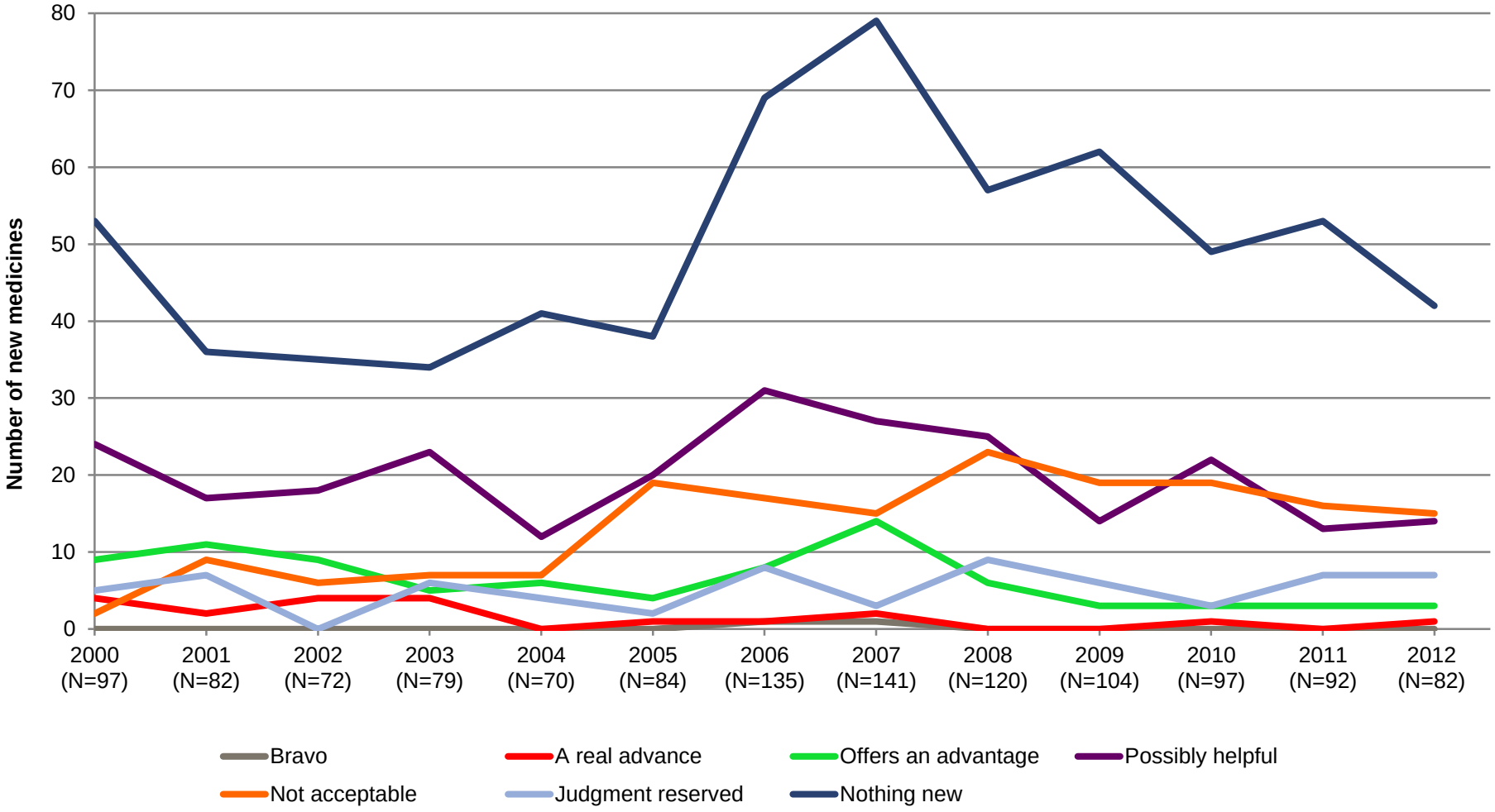
2. Analysing the literature

- Comparing new drug to available therapeutic options
- Thorough data analysis searching for answers to relevant clinical questions
  - Published literature as well as public agency documents
  - Unpublished literature

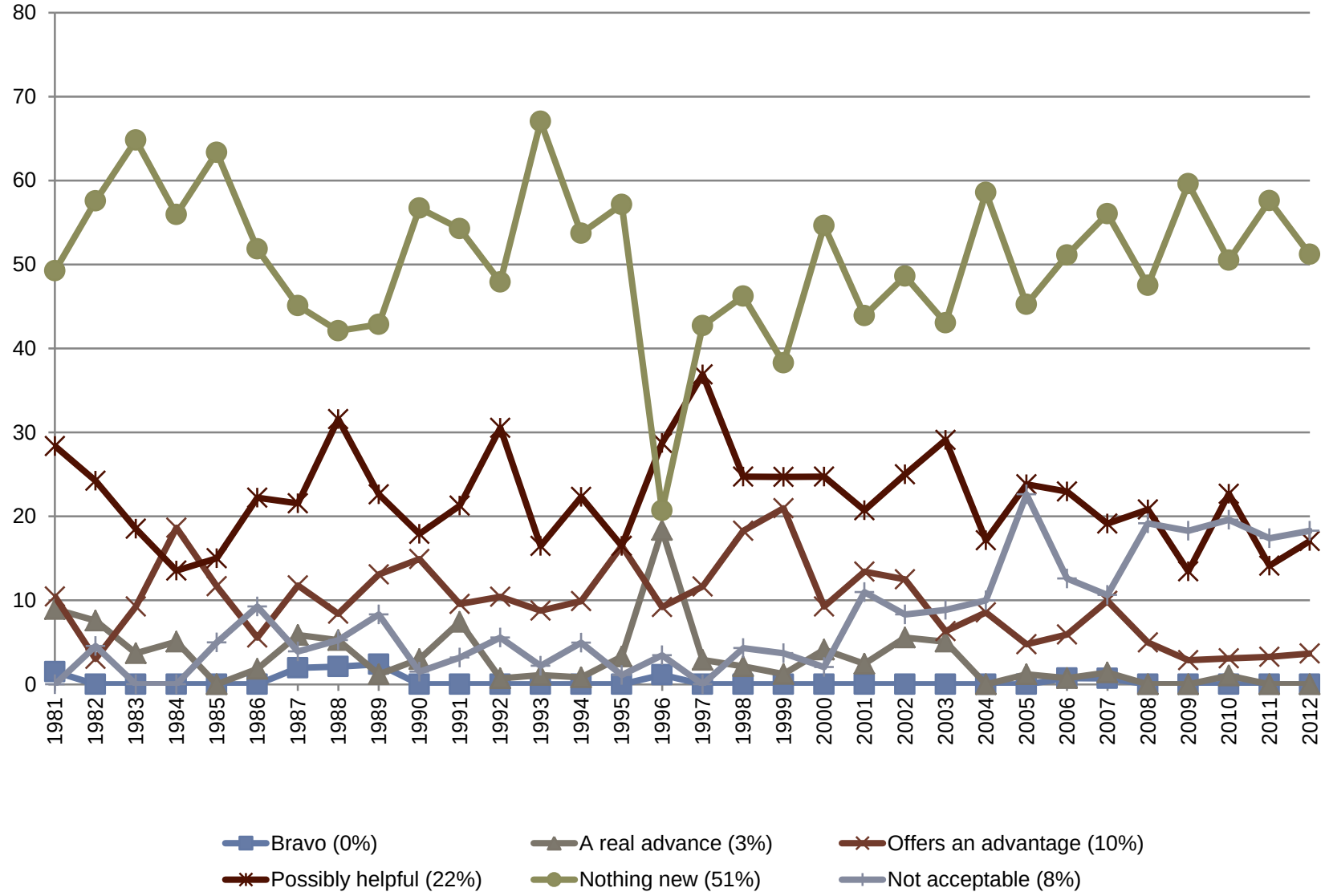
3. From a patient's perspective…

- Clinical evaluation of its efficacy (mortality, quality of life, morbidity)
- Clinical evaluation of its adverse drug reactions (frequency, severity)
- Convenience (number of doses, packaging)
- (Price, reimbursement).

New medicines per category from 2000 to 2012



Prescrire's ratings over the last 32 years



The one who pays the piper calls the tune

- A study published in 2011 has shown that...
  - Publicly-funded research has contributed to the discovery of 2/3 of the medicines with real added therapeutic value between 1998 and 2005, and very little to the development of drugs with no added therapeutic value.

    Sampat BN, Lichtenberg F. What are the respective roles of the public and private sectors in pharmaceutical innovation? Health Affairs 2011; 30 (2).

How do our results compare with others?

Swedish Drug Regulatory Agency

- A 2005 study, over a sample of 54 medicines, showed in 74% of the cases similar results in the assessment of therapeutic advance.
- Differences in assessments were mainly due to the use of different comparators.

French “transparency committee"

- Two studies over a sample of 600 medicines showed convergent results.
- The French “transparency committee" is generally less demanding than Prescrire and attributes less value to convenience aspects.

Canadian Human Drug Advisory Panel

- Between 2004 and 2009, of 84 drugs in common the CHDAP and Prescrire agreed on the evaluation for 70 (weighted Kappa = 0.319).