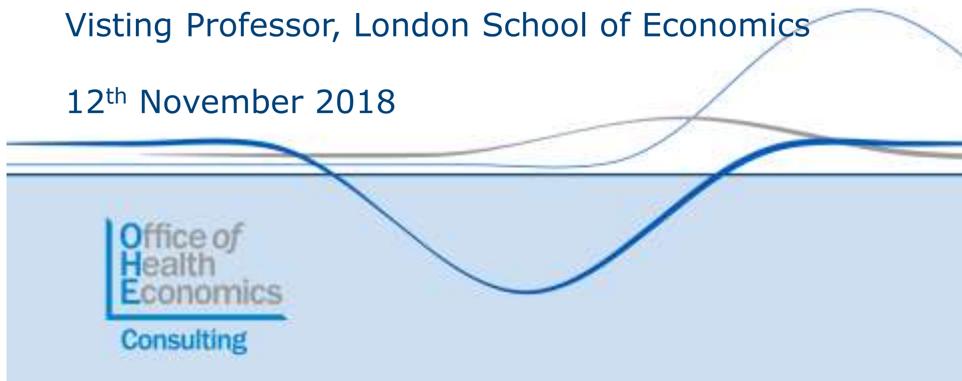
The Debate on Indication-Based Pricing

Adrian Towse
Director of the Office of Health Economics
Visting Professor, London School of Economics

12th November 2018



Acknowledgements

Towse, A., Cole, A., and Zamora, B. (2018). The Debate on Indication-Based Pricing in the U.S. and Five Major European Countries. OHE Consulting Report, London: Office of Health Economics. Available at: https://www.ohe.org/publications/debate-indicationbased-pricing-us-and-five-major-european-countries

Cole, A., Towse, A., Lorgelly, P. and Sullivan, R. (2018). Economics of Innovative Payment Models Compared with Single Pricing of Pharmaceuticals. OHE Research Paper 18/04, London: Office of Health Economics. Available at: https://www.ohe.org/publications/economics-innovative-payment-models-comparedsingle-pricing-pharmaceuticals#overlay-context=publications

Thank you to AstraZeneca and to IQVIA respectively for their funding of these two projects. Thank you also to my colleague Amanda Cole for her work on both of these projects.

I. Potential ***benefits* of IBP** – aligning price with value could expand patient access

Matching payments with value

- Permits rational prices which reflect true differences in value across indications (Bach 2014; Pearson et al. 2017; Flume et al. 2016)
- Reimbursement systems that do not account for changing value across indications or over time may produce suboptimal long-term societal outcomes (Garrison & Veenstra 2009)
- Allows physicians to make value-based prescribing decisions (Bradley, 2017)
- Outcomes contracts can reduce uncertainty; net price can thereby reflect actual value in the real-world setting (Yeung and Carlson 2017)
- Could encourage research into better targeting (Sachs et al 2017)
- Can be used as a tool to make treatment indications with poor cost-effectiveness more affordable (Bach 2016)

I. Potential ***benefits* of IBP** – aligning price with value could expand patient access

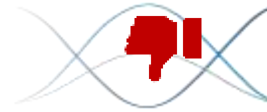
Expand patient access

- Would facilitate reimbursement in indications for which, based on current prices, the treatment is not cost-effective (Hui et al. 2017)
- IBP expands patient access and maximises quality-adjusted life years (QALYs) gained from a given budget, as well as encouraging the development of new indications. This provides the right signals for R&D (Mestre-Ferrandiz et al. 2015)

Balancing the needs of all stakeholders

- Could balance affordability for payers, sustainability for manufacturers and access for patients (Pearson et al. 2017)

II. Potential ***drawbacks* of IBP** – unaffordable for payers?



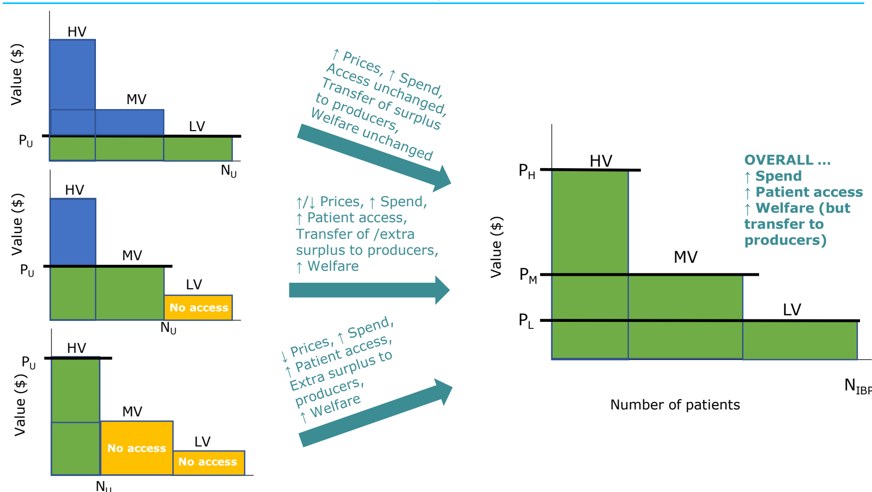
Some argue that IBP would benefit industry at the expense of rising costs for payers

- "Relative to uniform pricing, IBP results in higher prices for patients who benefit the most, higher utilization by patients who benefit the least, higher overall spending, and higher manufacturer profits" (Chandra & Garthwaite 2017)
- Payers clear that IBP by itself does not meet challenges to affordability (Pearson et al. 2017; Bach 2016)

We would qualify this: In the short-run expenditure is likely to rise, but in the **long-run IBP would provide the right incentives for R&D and could increase price competition at the indication-level**, driving down prices and delivering better value to the health system

II. Potential ***drawbacks* of IBP** – unaffordable for payers?

Uniform pricing scenarios: → IBP scenario (**static**)

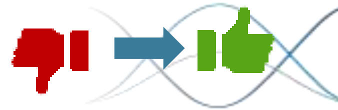


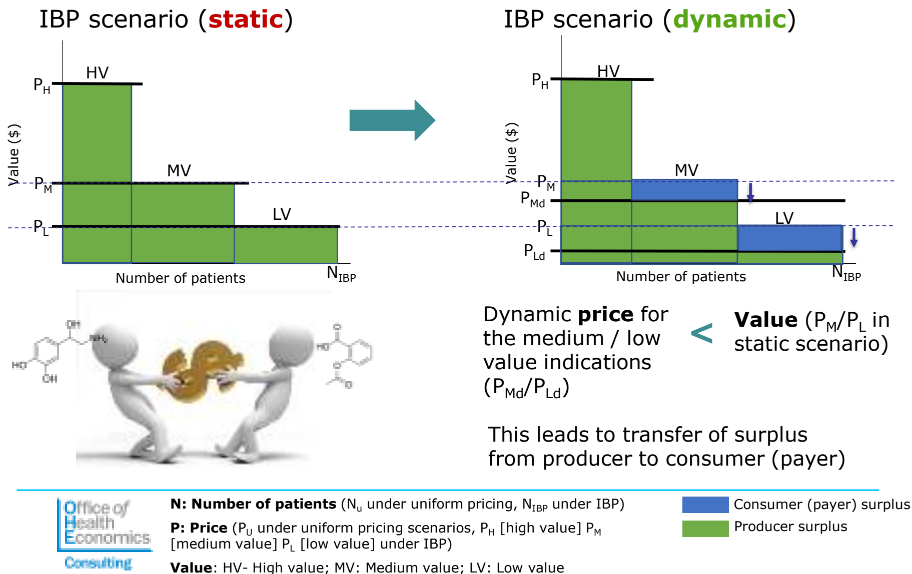
N: Number of patients (N_u under uniform pricing, N_{IBP} under IBP)

P: Price (P_U under uniform pricing scenarios, P_H [high value] P_M [medium value] P_L [low value] under IBP)

Value: HV- High value; MV: Medium value; LV: Low value

II. Potential ***drawbacks* of IBP** – unaffordable for payers?





Dynamic **price** for the medium / low value indications (P_{Md}/P_{Ld}) < **Value** (P_M/P_L in static scenario)

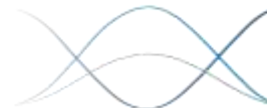
This leads to transfer of surplus from producer to consumer (payer)

Office of Health Economics Consulting

N: Number of patients (N_u under uniform pricing, N_{IBP} under IBP)
P: Price (P_U under uniform pricing scenarios, P_H [high value] P_M [medium value] P_L [low value] under IBP)
Value: HV- High value; MV: Medium value; LV: Low value

Consumer (payer) surplus
Producer surplus

III. IBP – The details matter



What format should IBP take?

- IBP aligns payments with value, but efficacy differs from effectiveness; this means that evidence-based IBP prices (set ex-ante) might be quite different to outcomes-based reimbursement (based on realised value) (Yeung & Carlson 2017)

Barrier (opportunity?): data collection

- Poor data availability for tracking use by indication per patient (Pearson et al. 2017; Bach 2014)
- Feasibility of data collection must be balanced with the clinical relevance of the outcome (Yeung & Carlson 2017)
- Data lacking on effectiveness in sub-populations (Sachs et al. 2017)
- IBP could facilitate the collection of richer real-world data, and provide greater transparency in the utilisation of cancer drugs (Bach 2014)

Office of Health Economics Consulting

III. IBP – The details matter

Legal and contractual barriers (surmountable?)

- Market-specific contractual barriers, e.g. Medicaid's best-price rule (Pearson et al. 2017)
  - ➢ This could be overcome, e.g. through contracts using weighted average price for multiple indications, or through product differentiation (Sachs et al. 2017)
- Bulk purchases by pharmacies, and volume-based payments by doctors and hospitals (Bach 2014)
- Off-label use, anti-kickback statute (Pearson et al. 2017)
- Privacy concerns inhibit data sharing with manufacturers (Sachs et al. 2017)

Political challenges may be greater than technical challenges (Bach 2014)

In summary…

- The case for IBP continues to be debated.
  - Some argue that IBP would lead to higher prices and increasing expenditure on medicines.
  - This depends on how uniform prices are set and the extent IBP promotes price competition
  - In principle it could be both efficient – increasing the numbers of patients using a medicine and increasing the numbers of new indications that offer value for money – and potentially promote competition.
- If IBP were to be implemented, a number of barriers need to be overcome to enable its potential benefits to be realised.
- US health plans and PBMs are currently piloting IBP approaches with the objective to better manage expenditure

Reference list

- Bach, P.B., 2016. Walking the Tightrope Between Treatment Efficacy and Price. Journal of Clinical Oncology; 34(9): 889-891.
- Bach P.B., 2014. Indication-specific pricing for cancer drugs. JAMA. 2014 Oct 22-29;312(16):1629-30.
- Bradley, J., 2017. Cancer, Financial Burden, and Medicare Beneficiaries Journal of Clinical Oncology 35, no. 22 (August 2017) 2461-2462.
- Chandra A, Garthwaite C., 2017. The Economics of Indication-Based Drug Pricing. N Engl J Med. Jul 13; 377(2):103-106.
- Flume M, Bardou M, Capri S, Sola-Morales O, Cunningham D, Levin L-A, et al., 2016. Feasibility and attractiveness of indication value-based pricing in key EU countries. Journal of Market Access & Health Policy; 4(1):30970.
- Garrison LP Jr, Veenstra DL., 2009. The economic value of innovative treatments over the product life cycle: the case of targeted trastuzumab therapy for breast cancer. Value Health; 12(8):1118-23.
- Hui L, von Keudell G, Wang R, Zeidan AM, Gore SD, Ma X, Davidoff AJ, Huntington SF, 2017. Costeffectiveness analysis of consolidation with brentuximab vedotin for high-risk Hodgkin lymphoma after autologous stem cell transplantation. Cancer. 2017 Oct 1;123(19):3763-3771.
- Mestre-Ferrandiz,J., Towse, A., Dellamano, R., and Pistollato, M. 2015. Multi-indication Pricing: Pros, Cons and Applicability to the UK. Seminar Briefing 56. Office of Health Economics. 2015.
- Pearson SD, Dreitlein WB, Henshall C, Towse A., 2017. Indication-specific pricing of pharmaceuticals in the US healthcare system. J Comp Eff Res. Jul; 6(5):397-404.
- Sachs R, Bagley N, Lakdawalla DN., 2017. Innovative Contracting for Pharmaceuticals and Medicaid's Best-Price Rule. J Health Polit Policy Law. Sep 28.
- Yeung K, Li M, Carlson JJ. Using Performance-Based Risk-Sharing Arrangements to Address Uncertainty in Indication-Based Pricing. J Manag Care Spec Pharm. 2017; 3(10):1010-1015

Contacts

To enquire about additional information and analyses, please contact Adrian Towse at atowse@ohe.org

To keep up with the latest news and research, subscribe to our blog, OHE News
Follow us on Twitter @OHENews, LinkedIn and SlideShare

OHE Consulting Ltd
Southside, 7th Floor
105 Victoria Street
London SW1E 6QT
United Kingdom
+44 20 7747 8850
www.ohe.org

OHE's publications may be downloaded free of charge in our website.