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IP6: IS INDICATION BASED PRICING FEASIBLE AND/OR BENEFICIAL FOR SOCIETY?



What is the case for IBP?

- Price should be linked in some way to value
- Increasingly medicines offer patient benefit in different contexts
- A single price for a single drug disconnects price and value
- I use the term *indication-based pricing (IBP)* to refer to the concept of having different prices when a drug is used in different contexts
 - For different disease (e.g. different cancers)
 - At different stages of disease
 - At different points in the treatment regimen
 - In various combinations with other therapies
- IBP is a way of implementing VBP



What are the arguments for and against: single price model vs IBP



Bach, P. B., 2014. Indication-specific pricing for cancer drugs. JAMA, 312 (16), 1629-1630. Chandra, A. & Garthwaite, C., 2017. The economics of indication-based drug pricing. New England Journal of Medicine, 377 (2), 103-106.

Initial static effects: Bach versus Chandra and Garthwaite

				Unifor price		High/low valu at uniform pric	e ce What	could IBP lo	ook like?
		Survival gain (years)	Typical treatment duration (months)	Total typical treatment cost (\$)	Current monthly price (\$)	Indicator of current value: Cost per life year gained (approx.)*	Monthly price based on Indication with most value	Monthly price based on Indication with least value	Monthly price based on value of \$150,000 per life year gained
First line – low value indication (LOW VALUE)	(i) first-line treatment recurrent/ metastatic HNSCC	0.23	4.16	\$42,875	\$10,319	\$190,556	\$471	\$10,319	\$8,123
Locally advanced – high value indication (HIGH VALUE)	(ii) locally advanced HNSCC	1.64	1.39	\$14,292	\$10,319	\$8,706	\$10,319	\$226,075	\$177,798
HNSCC: Squamo	ous cell carcinom	a of the head	d and neck				Bach (2014)	Chandra & Garthwaite (2017)	"Value- based" prices
							Price goes down for low-value indication	Price goes up for high-value indication	

The varying impacts of moving to IBP



Existing literature fails to take into account three critical factors

- 1.Level of uniform price assumed under a single price
 - Is it credible to assume profit-maximising uniform price would be equivalent to lowest value indication?
 - More likely profit-maximising uniform price corresponds with higher value indications, with manufacturers choosing to forgo lower value indications altogether to protect profits
 - Where IBP expands access, social welfare is increased
- 2. The presence of an HTA system to guarantee value
 - If differentiated prices under IBP are set using an acceptable cost-effectiveness threshold, then *the spend is a worthwhile* and cost-effective way to generate health gains for patients.
- 3. The dynamic context...
 - Impact on incentives for R&D and role of competition

- IBP could optimise R&D incentives:
 - •Allowing companies to target further indications -permitting entry into new indication markets without compromising existing indication markets
 - •In turn, this will likely drive competition at the indication-level
- Manufacturers are not price-setting monopolists.
 - Competing entry during patent-life
- Value-based indication prices (based on setting price at the maximum WTP) should therefore be seen as price 'ceilings'; competition can drive prices down below these levels.



The potential impact of competition



Indication timeline for EMA-approved PD-1 and PD-L1 inhibitors

Source: EMA authorisation documentation

*Note that Avelumab is an orphan medicinal product granted conditional approval by the EMA

Abbreviations: Non-Small Cell Lung Cancer (NSCLC); Renal Cell Carcinoma (RCC); Squamous Cell Cancer of the Head and Neck (SCCHN); Urothelial Carcinoma (UC); Merkel Cell Carcinoma (MCC).

Conclusion

- •IBP can deliver short term rewards of greater patient access, and long term gains of incentivising R&D and competition
 - In the short term, IBP can *improve overall welfare* if patient access increases, but expenditure may rise
 - Existing research has neglected longer term impact: optimised *incentives for R&D can lead to new treatments options for patients*
 - Increased price competition at the indication-level drives down prices and *delivers better value to the health system*

Sources



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