The Economics of Cancer and Value Based Pricing: An Industry Perspective

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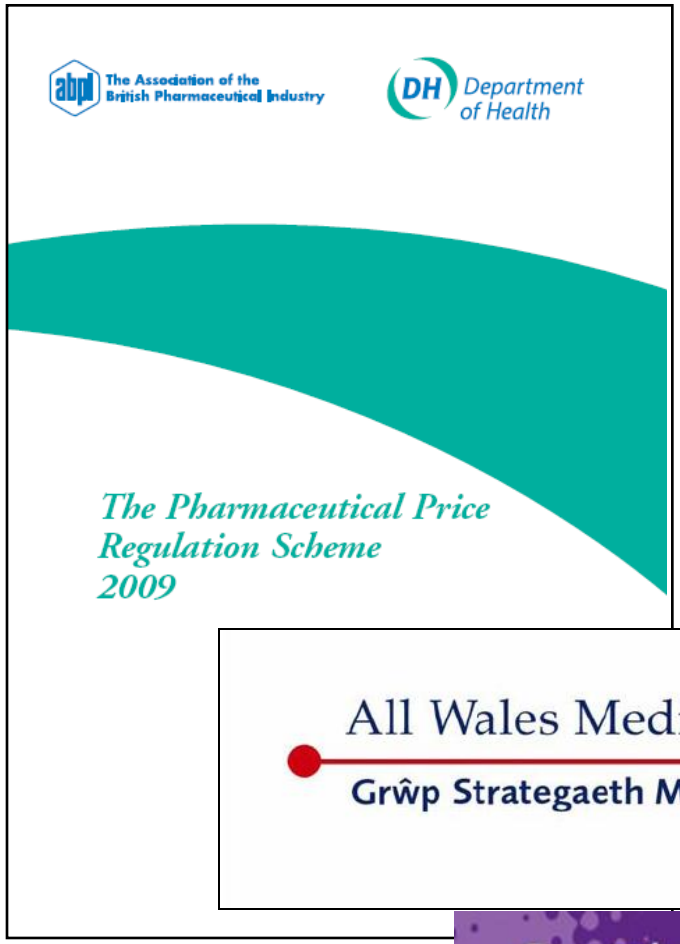
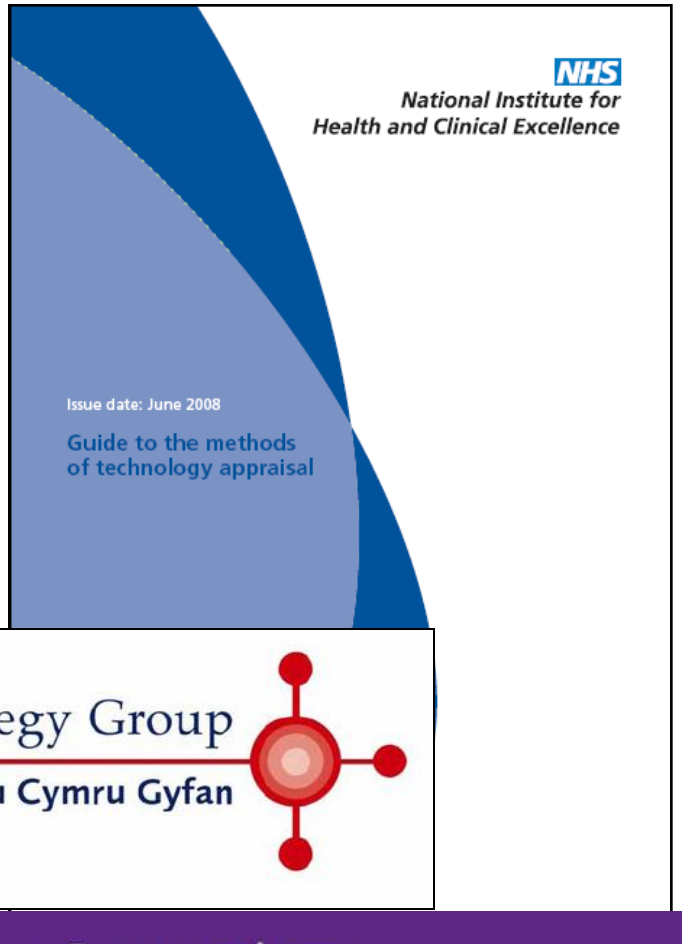
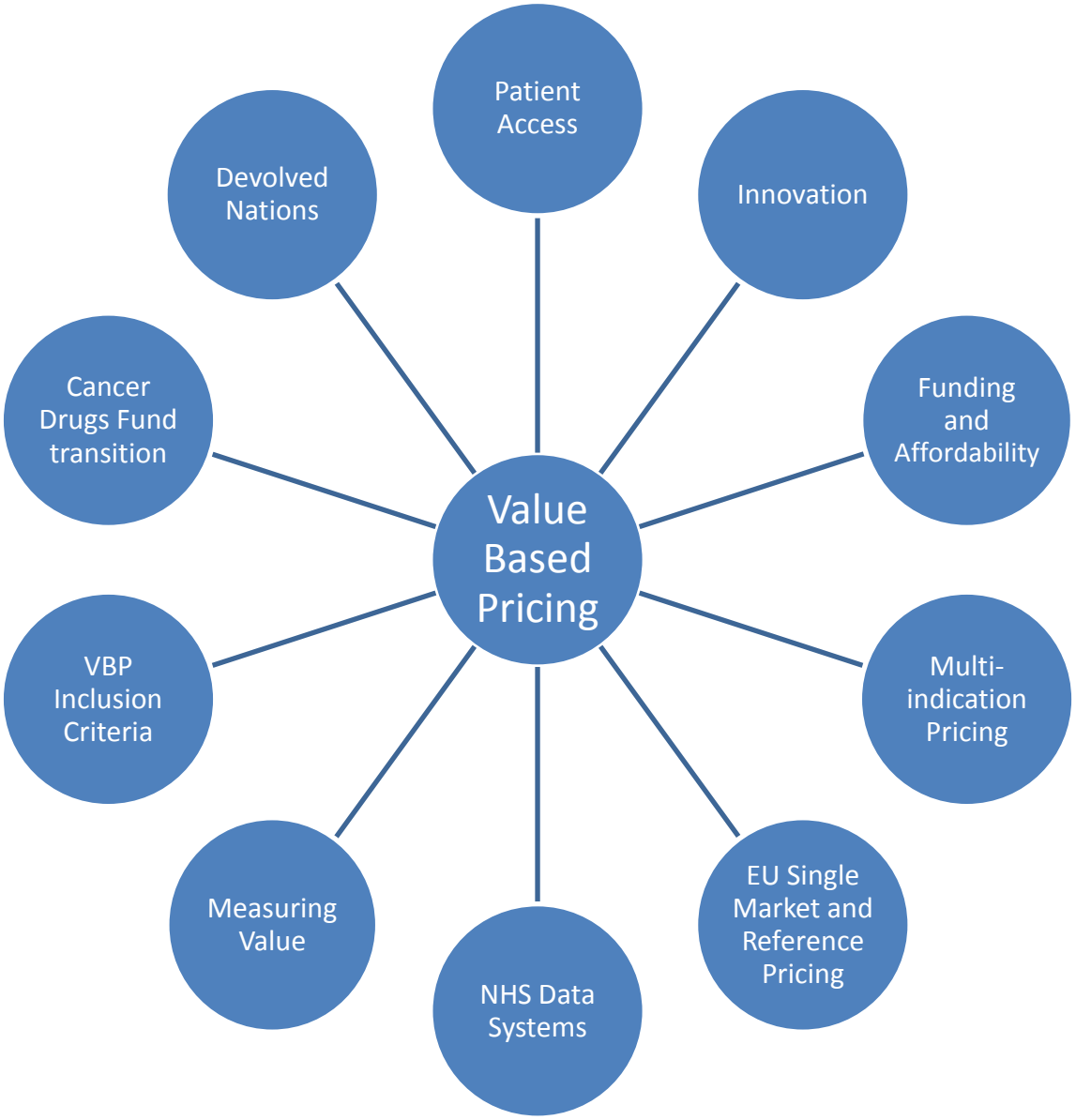
Is Value Based Pricing already with us?



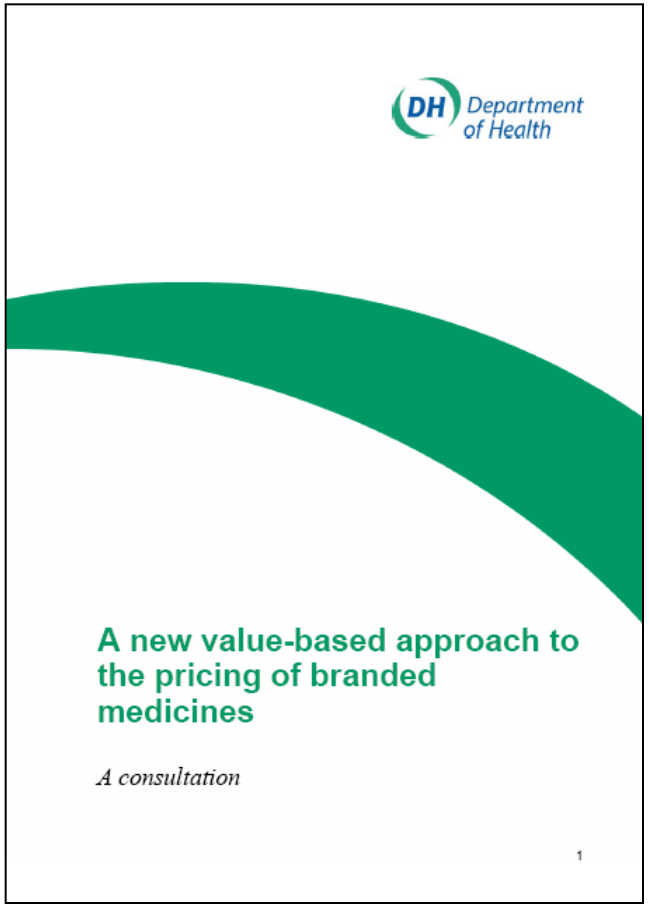


What problem are we are trying to solve?

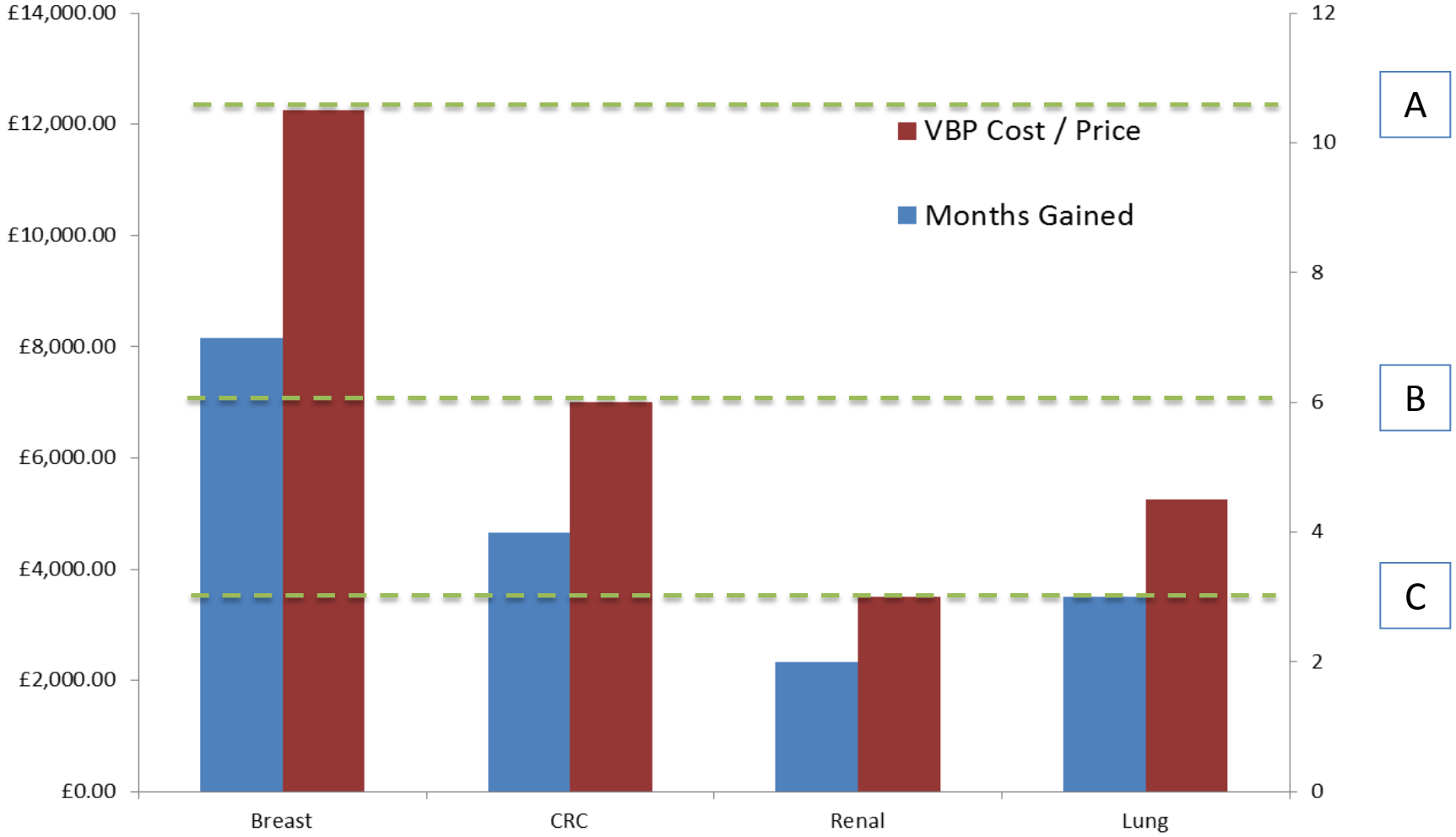


VBP Consultation Summary

- Objective of *outcomes* and *innovation*
- VBP prospective only
- Evolutionary in design:
  - Free *contingent* pricing at time of license
  - Preserves a QALY and Threshold based system
  - Plan to publish *maximum reimbursed price*
  - NICE remains focal point for CE analysis and price recommendation
- A new “basic threshold” in development
- QALY *modifiers* introduced (Burden of Illness, Innovation, Societal perspective)



Multiple indication oncology medicines: How do we set a Value Based Price?*



** Hypothetical figures for illustrative purposes only*

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Indication Pricing

- Significant logistical challenge to realise VBP principle for medicines with multi-indications
- Single vial / tablet; no control mechanism at point of purchase
- Two possible options:
  1. Opportunity to utilise existing PPRS clawback mechanism to realise VBP retrospectively
  2. Agree ex-ante weighted average VBP based on projected patient numbers retrospective audit / adjustment
- Requires utilisation data by indication to estimate a weighted average VBP

A European Perspective

- Inevitable variations in assessment of *value* and therefore *price* demanded across member states
- Price discrimination could manage this but unfeasible - EU Single Market dictates freedom of movement of goods
- Understanding UK prices in wider context important
- Is the UK an outlier in willingness to pay for new oncology medicines? If so what are longer term impacts?
- Simply demanding lower prices via VBP will not improve access to new oncology medicines in the UK

Economics of Cancer: Other Key Issues

1. Regulatory versus HTA evidence requirements:
   - Time Horizon
   - Patient crossover
   - Endpoints
   - Comparator selection
   - Cost Effectiveness Heterogeneity
2. QALY *weightings* and oncology
   - Societal preferences
   - Evidence requirements
3. Economic challenge of partnership therapies in oncology
4. Integrating clinical and HTA needs
   - Clinical trial design
   - NHS data systems and registries

Back Up

Cancer Drugs licensed in last 5 years

Table A6: Summary of UK usage

Drug molecule	P/C	Launch year	UK DDD rank	UK usage as a percentage of European 5 average	UK usage as a percentage of European 10 average	UK usage as a percentage of all countries average
Bevacizumab	P	2005	13	14%	16%	17%
Bortezomib	P	2004	12	57%	57%	63%
Cetuximab	P	2004	8	73%	82%	102%
Dasatinib	P	2006	7	87%	99%	107%
Erlotinib	P	2005	13	31%	33%	37%
Lapatinib	P	2008	11	29%	24%	25%
Lenalidomide	P	2007	11	21%	24%	20%
Nilotinib	P	2008	9	71%	58%	66%
Panitumumab	P	2008	12	6%	6%	6%
Pemetrexed	P	2004	13	26%	26%	30%
Sorafenib	P	2006	13	19%	20%	23%
Sunitinib	P	2006	12	54%	56%	67%
Temsirolimus	P	2008	7	17%	25%	25%
Thalidomide	P	2008	6	80%	120%	66%
Trabectedin	P	2008	8	28%	27%	27%
Cancer drugs <5 years (volume)			**12**	**41%**	**45%**	**45%**

Source: **Extent and causes of international variations in drug usage**, *Mike Richards (2010)*

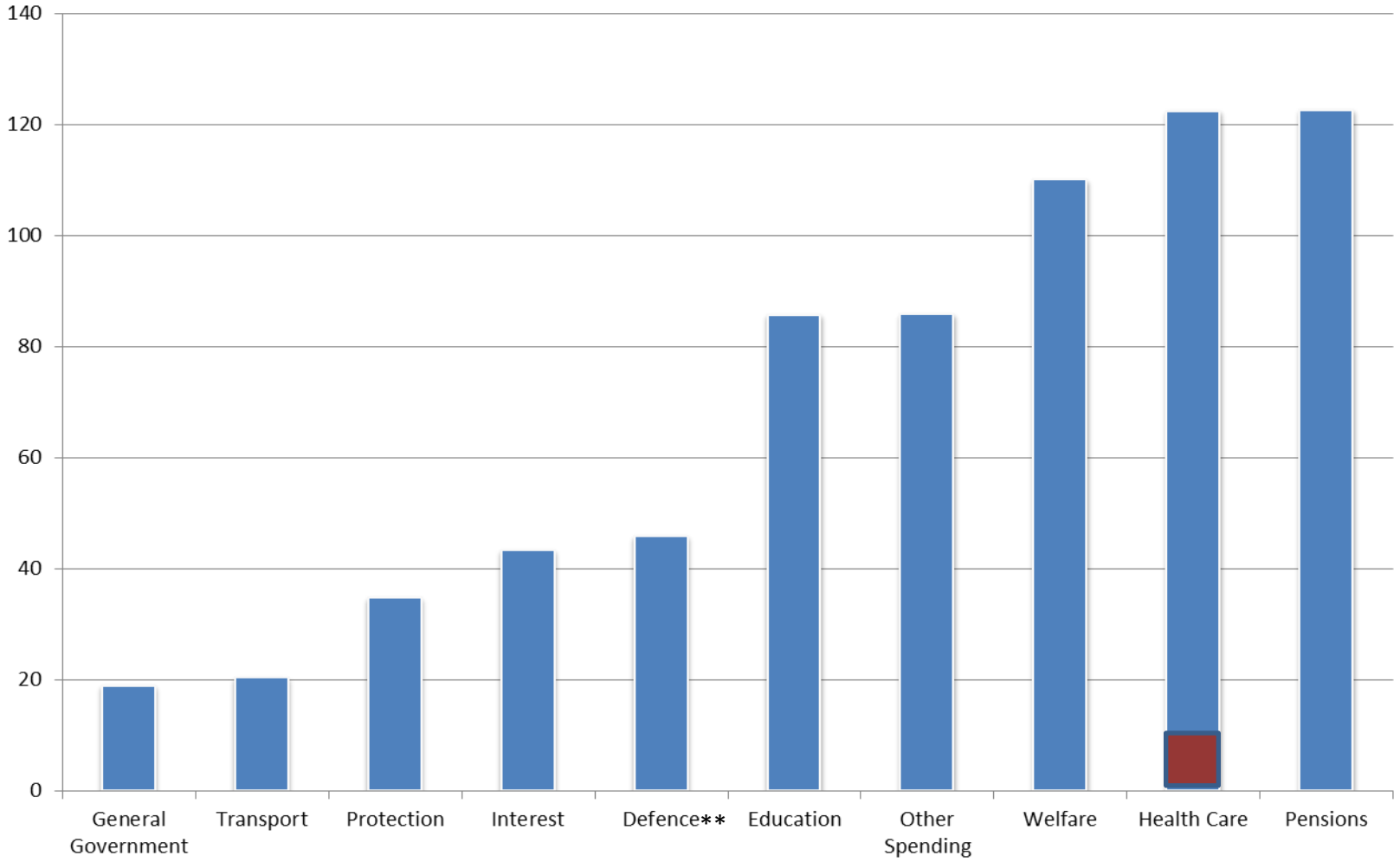
QALY Modifier Definitions

- **Burden of Illness**
  - Severity and societal preferences
  - Unmet need (no effective treatment, high QALY loss)
- **Innovation**
  - Therapeutic innovation and improvement
  - Qualitative assessment not only incremental QALY
  - Incentivise companies to focus on breakthrough treatments
- **Societal Benefit**
  - Not only direct healthcare costs and benefits e.g. carers

- Categories for each of 3 weighting domains determined by "expert panels"

Source: A new value-based approach to the pricing of branded medicines a consultation, December 2010. www.dh.gov.uk

UK Public Spending (2011)*



Source: http://www.ukpublicspending.co.uk/uk_health_care_spending_10.html#ukgs30230

** Includes Foreign Aid Investment of 6.5billion

= Branded Medicines (£9bn)

A Funding Directive for VBP medicines?

"A key aim of value-based pricing will be to ensure that NHS patients have consistently good access to effective, clinically appropriate drugs – which the current funding direction is also designed to achieve. We therefore intend to maintain the effect of the funding direction in the new value-based pricing arrangements to ensure that the NHS in England consistently funds medicines with a value-based price. ***The NHS will be required to fund drugs already recommended by NICE, as well as drug treatments subject to the value-based pricing regime.*** *This means* ***patients will continue to have the legal right to clinically appropriate, cost-effective drugs and treatments*** *as set out in the NHS Constitution and accompanying handbook*"

(*Section 3.84, Government response to Futures Report*)

Included Drugs

- The vast majority of branded medicines already on the market before 2014 will be covered by the successor arrangements to the current PPRS. We are, however, still considering the possibility of a small number of existing drugs being assessed under VBP on a case-by-case basis. We have not yet reached a conclusion on whether it would be helpful to set out some criteria to limit which drugs might be considered. Potential candidates might include: major new indications for existing drugs; drugs considered but not recommended by NICE; some drugs funded through the Cancer Drugs Fund (this is discussed in more detail in responses to question 15) and drugs recommended by NICE where current guidance is due for review.

Source: A new value-based approach to the pricing of branded medicines a consultation, December 2010. www.dh.gov.uk

Cancer Drugs Fund

- As set out earlier in this response, our aim is to design the value-based pricing system in a way that minimises the need for parallel mechanisms. In line with this, we are considering whether it would be sensible to assess some CDF drugs under the value-based pricing arrangements, with the aim of identifying a price level at which they could be made available on a continuing basis to NHS patients who may benefit from them when the Fund comes to an end in 2014. Whether these drugs are assessed under VBP or covered under the successor arrangements to the PPRS (which will cover the vast majority of drugs already on the market before 2014), our preference would be to agree appropriate arrangements with the relevant manufacturers. We also agree that it may be beneficial to defer a final decision on this issue in order to allow consideration of experiences from the Fund.

Source: A new value-based approach to the pricing of branded medicines a consultation, December 2010. www.dh.gov.uk