Value Based Pricing of new pharmaceuticals in the United Kingdom National Health Service

Discussion notes

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### Glossary and abbreviations

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<tr>
<td>CCG</td>
<td>Clinical Commissioning Groups</td>
<td>Local health-care purchasers created in reforms of 2014 to replace PCTs</td>
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<td>DH</td>
<td>Department of Health</td>
<td>The Government health ministry</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
<td>The value of national production in one year</td>
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<td>GP</td>
<td>General Practitioner</td>
<td>Primary Care doctor, with discretion for referral of patients to hospital and some responsibility and control over hospital funding and community pharmaceutical budgets</td>
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<tr>
<td>ICER</td>
<td>Incremental cost-effectiveness ratio</td>
<td>The result of an economic evaluation, calculated as the average difference in costs divided by the average difference in outcome measure between two treatments. If the outcome measure is QALYs, then this can be compared against the cost-per-QALY threshold (the maximum amount that NICE is willing to pay to obtain one additional QALY)</td>
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<tr>
<td>NHS</td>
<td>National Health Service</td>
<td>The public health system in the United Kingdom</td>
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<td>NICE</td>
<td>National Institute of Health and Care Excellence</td>
<td>A semi-independent agency of the NHS responsible for the evaluation of new medicines and development of clinical guidelines in England and Wales</td>
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<td>PAS</td>
<td>Patient Access Scheme</td>
<td>An agreement between a manufacturer and the Government to reduce the price of a pharmaceutical without changing the official or list price</td>
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<tr>
<td>PCT</td>
<td>Primary Care Trusts</td>
<td>Local health-care purchasers. Disbanded in 2012 and replaced with CCGs</td>
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<tr>
<td>PPRS</td>
<td>Pharmaceutical Pricing and Reimbursement Scheme</td>
<td>A voluntary rebate agreed between the pharmaceutical industry and the Government to ensure overall industry profit margins are “reasonable” to both parties</td>
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<tr>
<td>PSS</td>
<td>Personal Social Services</td>
<td>Social welfare programs provided by the public sector (nursing homes, home care, day services etc)</td>
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<td>QALY</td>
<td>Quality Adjusted Life Year</td>
<td>A measure of health encompassing both quantity and quality of life</td>
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<td>R+D+i</td>
<td>Research, Development and Innovation</td>
<td></td>
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<tr>
<td>SMC</td>
<td>Scottish Medicines Consortium</td>
<td>A semi-independent agency of the NHS responsible for the evaluation of new medicines and development of clinical guidelines in Scotland</td>
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<td>TTO</td>
<td>Time trade-off approach</td>
<td>A method for eliciting patient or population preferences for different health states</td>
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<tr>
<td>VBP</td>
<td>Value Based Pricing</td>
<td>A system of evaluating new pharmaceuticals and establishing a maximum price based on clinical effectiveness and other factors</td>
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Introduction

In the health sector, “value-based” means that activities of the health sector should be oriented, organized or funded so that the ultimate objective is to maximize health benefits for patients and for society as a whole (Paris and Belloni 2013). The “novelty” of VBP is that it proposes to link payments for pharmaceuticals or health care services to evidence-based assessments of the value for patients, relatives or society.

In the short run, VBP is expected to ensure that only cost-effective technologies are accepted and hence improve value for money in existing resource allocation. In the long run, VBP is expected to provide clearer signals and incentives for manufacturers to invest in development of technologies which are more likely to be cost-effective.

In the UK NHS, VBP is seen as an attempt to sharpen incentives to

- Ensure patients have access to effective medicines
- Stimulate innovation in new medicines
- Allow broader criteria for assessment of new medicines

This document discusses the recent proposals to implement value based pricing in the UK, and explain the background and aims of these proposals within the context of broader changes to health policy in the UK NHS.

Health policy in the UK

Value-based pricing in the UK has been introduced as part of the Health and Social Care Act 2012. Alongside VBP, the Act makes some fundamental changes to the way the NHS is organized and managed. Three areas of UK Health Policy are discussed in this paper:

- Purchasing health-care
- Evaluation and appraisal of new medicines
- Pricing medicines

Health care purchasing

All residents are covered by the NHS for basic health needs and pharmaceutical care, with administration devolved to national governments (England and Wales, Scotland and Northern Ireland). The purchaser-provider split was set up in the 1990’s. The “providers” are the hospitals and primary care organizations; the “purchasers” were known as Primary Care Trusts (PCT) up to 2012. These were local health purchasing authorities that manage the budgets for primary care, secondary care and prescribed pharmaceuticals, and contract with providers to supply a given quantity of health services. The Health and Social Care Act 2012 transformed PCTs into Clinical Commissioning Groups (CCG), with more involvement for primary care doctors in managing integrated health care budgets and purchasing hospital care for their patients.

Most countries define the pharmaceutical benefit package through positive lists. The United Kingdom, along with Germany, are the only major health systems where every product marketed is covered by default, unless it belongs to one of the categories excluded from
reimbursement by Law or regulations (Paris and Belloni 2013). Before 1999, individual NHS purchasers chose whether or not to prescribe. This led to variation across the UK in access to new medicines. The National Institute for Health and Care Excellence (NICE) was created to inform decision making at the local level and to avoid arbitrary decision-making. Patients are legally entitled to receive drugs that have received a positive evaluation by NICE (the “Funding Direction”). For drugs that have not been evaluated by NICE, or evaluated negatively by NICE, NHS purchasers are still free to decide whether or not to prescribe. In practice, NHS organizations tend to wait until NICE has decided before implementing new products.

Evaluation (assessment) and appraisal (decision making) of new medicines
NICE is the body responsible both for assessment and for the decision on reimbursement status in England and Wales. A separate but similar body exists for Scotland (Scottish Medicines Consortium). There is no systematic assessment of new medicines in the England and Wales, although Scotland does evaluate all new products. NICE assesses technologies and strategies on request from the Department of Health, mainly those with high prices or uncertain effectiveness, generally after their market entry, and makes a recommendation based on available evidence. In practice, the assessments performed by NICE rely to a large extent on clinical and economic analyses provided by the applicant (the manufacturer). This information is verified by an independent review team, usually drawn from an academic University department. Of 407 decisions made on individual drugs between 2000 and 2011, the drug was recommended in 83% of cases and rejected in 11% (NICE 2011). It appears that NICE will continue after 2012 in much as its present form.

Pricing Medicines
The NHS does not exploit its potential monopsony power to set the price. Manufacturer has complete freedom to set any price it chooses (known as the list price). There is a voluntary rebate scheme to ensure overall profit margins are “reasonable” (the PPRS), which is renegotiated every 5 years. Local NHS organizations can negotiate discounts on the list price with the manufacturer (Claxton 2011).

NICE evaluates new drugs on request by the Department of Health. NICE accept or reject the product for a given clinical indication based on the manufacturer’s official price (list price). A positive evaluation of a new medicine by NICE leads to a “Funding Direction”, that is, patients automatically have legal right to new medicines recommended by NICE. If rejected, the manufacturer can in some cases try and negotiate a product-specific agreement with Government. These take one of 3 types:

- Agreements to cover the medicine only in research (eg those entered in clinical trials)
- Agreements to link the price to the performance of the product (Risk sharing). For example, multiple sclerosis drugs in 2002, or the agreement with Janssen Cilag to refund treatment of multiple myelomia for patients who do not respond positively after 4 cycles.
- Financial agreements to control budget impact or ensure value-based funding

Under the latter, the manufacturer may propose a “Patient Access Scheme” (PAS), that is, a lower price or dose capping. The Government considers the proposal, e.g. to ensure that the proposed scheme does not require expensive monitoring costs by the NHS (Towse 2010). The
PAS price is usually commercially confidential, allowing the manufacturer to maintain the “official” UK list price for reference pricing (Gimenez 2013). If the PAS is accepted by the Government, NICE then re-review the product based on the lower price to ensure that the overall cost-per-QALY is within the acceptable threshold.

Beyond 2014, the UK government proposes VBP for evaluating and pricing new medicines. The PPRS will probably continue in some revised form. NICE only evaluates a selection of new products and rarely evaluates existing products that were already on the market before NICE was formed (Department of Health 2011). So the NHS will need some way of retaining reasonable overall profit levels in the pharmaceutical industry.

**Measuring value in the NHS**

VBP is a system that links payments for pharmaceuticals or health care services to evidence-based assessments of the value for patients, relatives or society. The key question is how to measure “value”.

The current system used by NICE uses the QALY as a measure of the benefit of a drug (or “added therapeutic value”)

\[
\text{QALY} = \text{length of life} \times \text{quality of life}
\]

NICE and Scottish guidelines express a preference for the Euro Qol 5D instrument to collect health states from patients, with utility weights applied using the time trade-off approach (TTO) derived from general population surveys.

NICE set the “threshold” willingness to pay for a QALY at approx 20.000-30.000£. Implicitly, it is assumed there is an overall fixed NHS budget, so paying for one new programme implies displacement of other activity (opportunity cost). If a new drug has a cost-per-QALY of 20.000£, then the QALYs gained by implementing the new drug will be approximately equal to the QALYs displaced elsewhere in the NHS ie there will be no net health benefit from using the new drug. If a new drug has a cost-per-QALY of less than 20.000£, then the QALYs gained by implementing the new drug will exceed the QALYs displaced elsewhere in the NHS ie a positive net health benefit arises from using the new drug (Sculpher 2012).

Currently, special consideration is given to some oncology products by NICE. Oncology drugs are accepted with much higher ICERS than other medicines by NICE and by SCM in Scotland (Paris & Belloni 2013). Devlin (2010) estimates the difference in the acceptable cost-per-QALY is about 10.000£. NICE originally excluded the “rule of rescue” principal, but recently gives special consideration to end of life treatment. These have the following characteristics:

- Short life expectancy without treatment (<24 months)
- Treatment extends median lifetime by at least 3 months
- Treatment is licensed for a small patient population

Under these end of life rules, treatment with a very high ICER might be funded if there is no alternative and a clinical need, although there is no pre-specified threshold. Of 10 decisions on cancer drugs taken after the introduction of EOL rules, 7 were negative and 3 were positive, of which 2 were considered under EOL framework (Devlin 2010).
The current (pre-2014) system is already a form of value-based pricing, in the sense that it permits manufacturers to charge a higher price for effective drugs. If a drug only results in an expected gain of 0.1 QALYs, compared with current practice, then the maximum additional price premium the manufacturer can charge (compared with existing best practice therapies) is 2.000€ and NICE will accept its use in the NHS. If the drug carries a list price premium of more than 2.000€ then NICE will reject the drug because it does not offer value for money. If another drug results in a gain of 0.5 QALYs for patients (on average), then the manufacturer can charge a premium of up to 10.000€ for that drug.

**Outcomes and costs considered by NICE**

As the opportunity cost is being assessed assuming a fixed NHS budget, by default NICE only took into account NHS and Personal Social Services costs. Furthermore, as the objective of the NHS is considered to be to maximize health benefits, the QALYs is orientated towards measuring health benefits. Other non-health costs and benefits (to patient, carers, and productivity) were considered only in exceptional circumstances.

The preferred outcome measure used by NICE is the QALY because it reflects both mortality and health-related quality of life effects over the long term, and allows comparability between treatments and disease areas for priority setting. Other health measures commonly used in clinical studies (such as adverse events, response rate, time to disease progression, or number needed to treat) are considered partial, short-term, surrogate or intermediate outcomes and modeling is recommended to translate these into QALY (NICE 2013).

**VBP proposals**

The VBP proposals were first outlined in a discussion document from the government in 2011 (Department of Health 2011). The new VBP scheme starts in 2014 but will probably be implemented as a pilot programme initially (Financial Times, 13 April 2013). The proposals broadly maintain the current system (Financial Times, 13 April 2013) but take a wider view of value, taking account of three new components:

1. Wider economic benefit
2. Unmet need
3. Therapeutic innovation and improvement

Under the new VBP proposals, NICE will initially evaluate the new drug priced at the list price, as before. NICE will also determine the level of unmet need associated with this illness and the degree of therapeutic innovation associated with the drug.

Under the new arrangements, the Government proposed that:

*There would be a basic threshold, reflecting the benefits displaced elsewhere in the NHS when funds are allocated to new medicines. There would be higher thresholds for medicines that tackle diseases where there is greater “burden of illness; there would be higher thresholds for medicines that can demonstrate greater therapeutic innovation and improvements compared with other products, and there would be higher thresholds for medicines that can demonstrate wider societal benefits* (Department of Health 2011, page 13, Paragraph 4.10).
The initial reaction to the consultation document from NICE was that adjusting the cost-per-QALY threshold in this way would be infeasible.

*The individual factors that determine the intrinsic value of new technologies are not easily considered in isolation, since many of them overlap. The current NICE appraisal process uses the quality adjusted life year and a means of establishing the cost effectiveness of new drugs against a standard threshold. This enables the NHS to understand the opportunity cost of investing in new treatments. Although the threshold range could conceivably be set for each disease and condition, once set, it cannot be weighted in the way the consultation document suggests. A better approach would be to weight the QALY in circumstances where it is felt that its use in calculating the incremental cost effectiveness ratio fails to adequately take account of the value a new drug brings. This could be combined with the use of multi-criteria decision making to more explicitly demonstrate how each component of value has been taken into account (NICE 2011, Page 5, Paragraph 12).*

However, subsequent work done by academic groups, NICE and the Government seems to suggest that the QALYs will be adjusted for VBP attributes specific to the drug (such as wider social benefits) and that the cost-per-QALY threshold will be adjusted (both up and down) for VBP attributes specific to the disease or condition (such as burden of illness) (Boyson 2013).

If the cost-per-(weighted)-QALY for a drug is less than the (adjusted) threshold the drug will be accepted at this price. If the cost-per-QALY exceeds the threshold, the drug will not be accepted but the manufacturer will be allowed to enter negotiations with the government about a revised price and resubmit the proposal (Raferty 2013).

Under the new VBP proposals, the NHS would be signaling to manufacturers that (a) it is willing to pay for new drugs in proportion to their effectiveness (measured in QALYs) and (b) the NHS is willing to pay a higher price for a given health gain for drugs in priority areas (unmet need, therapeutic innovation, wider economic benefits) than in drugs which provide the same health gain but do not meet these criterion.

**Wider economic benefit**

Wider economic benefit (Claxton 2011) of new medicines might include the impact on

- Direct costs and benefits of care that impact on patients but do not fall on the NHS budget, eg, unpaid carers time, patients out of pocket expenses, quicker return to work, lost leisure time in accessing care.
- Indirect external effects (costs and benefits) on the rest of the economy eg productivity gains

Under VBP, a manufacturer will be allowed to charge a higher price for a drug that increases labour productivity in the wider economy than one which has a similar health gain but does not improve labour productivity. The economic justification for taking account of values of wider economic benefit in the price of drugs is to incentivize innovation in these areas (Claxton 2011). Over the (very) long term, this policy should benefit economic growth, both in the UK and worldwide (as I+D+I becomes a public good after patent protection runs out). Greater
economic growth (in theory) provides the fiscal capacity to increase taxation to pay for the higher priced drugs.

Although many health economists are supportive of the principle of taking account of wider economic benefits, in practice implementation is difficult. Firstly, wider economic benefits should not be double-counted. On average, productivity gains are already included in the QALY calculation, to the extent that a healthier population is on average a more productive population. Second, it must be made clear that if the NHS is asked to pay more for certain drugs that produce wider economic benefits, it must pay less for drugs that target all the other areas (Claxton 2011). Otherwise the overall amount spend on healthcare must increase. This is important because although a new drug might provide some wider economic benefits (through improving health), paying a high price for this drug will displace other NHS activity that also has an indirect economic benefit. “Including as assessment of external effects in a VBP scheme provides a strong incentive for manufacturers to search assiduously for evidence of wider benefits associated with new technologies, but offers little incentive to identify those external benefits which may be forgone. The problem may be more manageable if the consideration was restricted to those exceptional cases where an NHS perspective is more likely to be inadequate, i.e., where the external economic benefits are likely to be substantially greater or less than current NHS activities which may be displaced.” (Claxton 2011) An example of such an “exceptional case” might be to give higher priority to a therapy especially directed at enabling disabled working-age people to return to work. However, such targeting may be socially divisive.

Unmet need / burden of disease
The current appraisal process considers a QALY unit of health improvement to be equally weighted no matter what the characteristics of the recipient - sometimes known as ‘a QALY is a QALY is a QALY’. It may be judged that other aspects of social value are not fully reflected in the measure of health gain used in NICE appraisal and that some additional weighting of different types of QALYs gained might be deemed appropriate. For example, QALY gains in areas where the burden of the disease is regarded as more severe (which might be defined in terms of current health, or past health experience, or the length and quality of life expected to be lost as a consequence of the condition) or rare (orphan drugs) might be regarded as more socially valuable and carry greater weight. This would allow medicines with these characteristics to be accepted with higher prices.

However, as with “wider economic benefits”, it must be made clear that if the NHS is asked to pay more for certain drugs that target priority areas, it must pay less for drugs that target all the other areas (Claxton 2011). Therefore if special weights are applied to some patient groups and not others, the thresholds must be adjusted so that overall spending on healthcare remains the same.

Therapeutic innovation and improvement
The VBP system gives clearer incentives to invest in new products that give value to NHS & its patients (and not to invest in products that do not). There is a proposal in the Government consultation document to give an extra weight to products that offer “therapeutic innovation and improvement”, on the grounds that some innovations of today will offer the basis for subsequent innovations in the future that may be even more valuable (Claxton 2011). However, the VBP scheme offers a higher price to drugs that provide greater benefit and
hence rewards innovation. Offering a further weight for particular innovative products risks paying twice for the same benefit.

UK represents 3% of global drugs market. Therefore the UK price is unlikely to influence innovation decisions directly. The UK price might have more of an indirect influence via reference pricing. The 2007 Office of Fair Trading (OFT) calculated that through international reference pricing, UK prices impact around 25% of global sales and noted that ‘UK prices, and the assessments of expert bodies such as NICE, are often used informally in price negotiations around the world.’ (Towse 2010). The Government proposals appear to allow companies to maintain the VBP commercial in confidence, in the same way as the PAS scheme (Gimenez 2013).

There may be other senses in which a new product is considered “innovative” in ways that do not translate into improved health. First, innovation may refer to patient comfort or carer satisfaction. Second, one might recognize that an innovative product may not in itself improve health but may open the way for future innovations and developments that may improve health. A higher price in the UK may incentivize companies to launch their product earlier in that country. Finally, the government may wish to incentivize the location of R&D or industrial facilities in that country as part of a wider macroeconomic policy (Towse 2010).

These wider senses of innovation have been criticized. If a new product is currently ineffective but promising then the existing VBP framework offers manufactures sufficient incentives to continue developing. VBP is unlikely to have effect on employment / location decisions by pharmaceutical companies, who in a global sales market locate where the research / production climate is most favourable, not where the list price of the product is necessarily highest (Claxton 2011). Currently, only Italy takes account of technological innovation “that is not a therapeutic advantage over existing products” (Paris and Belloni 2013). The UK does sometimes take account that a drug offers improved process of care (eg oral treatment).
How value based pricing might be implemented

There is a ‘basic’ NHS cost per QALY threshold. Up to 2014 this has been at approx 20.000-30.000£ per QALY. This means that if a NICE decision costs 20.000-30.000£ then approximately one QALY will be displaced elsewhere in the NHS. However, this definition of the QALY is fairly narrow. It does not, for example, take into account the additional benefits of getting people back to work or of saving the time and cost of people providing unpaid care. Under the new VBP scheme, costs and QALYs (through weighting) can take into account burden of illness, wider social benefits and therapeautic innovation and improvement. The basic threshold will be adjusted to reflect the opportunity cost of displaced activities weighted using same methods. The threshold will be lower than the average in diseases with lower burden of illness and higher in high priority diseases. The VBP price can then be negotiated on the basis of the cost per weighted QALY compared to the new threshold (example: Table 1).

Table 1. Example of how a VBP might be set

<table>
<thead>
<tr>
<th></th>
<th>Drug Y in “ordinary” patient group</th>
<th>Drug X in “priority” patient group with WSB and BOI</th>
</tr>
</thead>
<tbody>
<tr>
<td>QALY gain (compared to current practice)</td>
<td>0,5 QALYs</td>
<td>0,5 QALYs</td>
</tr>
<tr>
<td>Threshold (adjusting for BOI and WSB in the patient group compared to displaced activity)</td>
<td><strong>25.000 per QALY</strong></td>
<td><strong>35.000 per QALY</strong></td>
</tr>
<tr>
<td>Maximum VBP price (compared to current practice)</td>
<td><strong>25.000x0,5 = 12.500</strong></td>
<td><strong>35.000x0,5= 17.500</strong></td>
</tr>
</tbody>
</table>

*Source: Authors own.*
QALY weights
Empirical research is being carried out to understand the preferences of the general public for health improvement in different types of patients. For example, Shah et al (2014)

“We find some evidence of support for giving priority to the patient with shorter remaining life expectancy, but note that a nontrivial minority of respondents expressed the opposite preference. Substantial preference for quality-of-life improvement over life extension was observed”

Brazier (2013) has carried out empirical work using Discrete Choice Experiments (DCE) to understand the preferences of the general public for prioritizing treatment by Burden of Illness (BOI), defined as the QALY loss per patient from a condition due to both premature mortality measured against normal life expectancy and health related quality of life (HRQOL) below one. The results indicate modest support for BOI as a consideration when weighting QALYs.

Adjusted cost-per-QALY thresholds for each patient group
The Government has used the Brazier (2013) research to calculate examples of the QALY weights and resulting thresholds, shown in Table 2 (Boyson 2013). This methodology may be used to set VBP prices. The calculation of the adjusted cost per QALY threshold in population “X” is as follows:

\[
\text{Adjusted cost /QALY threshold in population } \text{“X”} = \text{basic threshold } \times \left(1 + \frac{\text{BOI}_X}{\text{average BOI}}\right)
\]

For example, if the BOI weight for kidney cancer is 19%, and the average BOI weight for displaced activity is 7%, then the Cost-per-QALY threshold for kidney cancer is 25.000x1,19/1,07 = 27.794£ / QALY (Boyson 2013). The formula could also include Wider Social Benefits gained by the treatment and lost from displaced activity.

Table 2: DH Model. Impact of Burden of Illness (BOI) on Threshold (Examples)

<table>
<thead>
<tr>
<th>Disease (cancer in blue)</th>
<th>QALY loss per patient</th>
<th>BOI weight</th>
<th>Adjusted cost per QALY threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liver Cancer</td>
<td>10,70</td>
<td>54%</td>
<td>35.926</td>
</tr>
<tr>
<td>Lung cancer</td>
<td>9,88</td>
<td>48%</td>
<td>34.952</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>7,62</td>
<td>37%</td>
<td>32.317</td>
</tr>
<tr>
<td>Kidney cancer</td>
<td>3,75</td>
<td>19%</td>
<td>27.794</td>
</tr>
<tr>
<td>Basic threshold (average displaced QALY)</td>
<td>1,36</td>
<td>7%</td>
<td>25.000£ per QALY</td>
</tr>
<tr>
<td>Stroke</td>
<td>0,83</td>
<td>4%</td>
<td>24.371</td>
</tr>
<tr>
<td>Cervical cancer</td>
<td>0,66</td>
<td>3%</td>
<td>24.102</td>
</tr>
<tr>
<td>Breast cancer</td>
<td>0,50</td>
<td>3%</td>
<td>24.050</td>
</tr>
</tbody>
</table>

Source: Boyson (2013). Note. Figures for whole ICD population. Actual populations for e.g. NICE cancer drugs likely to have much higher BoI – maybe 10-30 lost QALYs

VBP for drugs with multiple indications
Some drugs may be indicated for several patient groups, but their effectiveness may differ depending on the indication. Claxton (2011) suggests that ideally the manufacturer would be
free to set a single price across all indications, and the NHS would indicate which patient
groups would be allowed to receive the drug at that price. This avoids the need for a complex
monitoring system required if different indications were priced differently.

**VBP in the Devolved Administrations (Scotland, Northern Ireland and Wales)**

It is important that there is a common medicines pricing policy across the UK and, like the
PPRS, the Government expects value-based pricing to be a UK-wide system. However, the
Devolved Administrations (especially Scotland) determine many aspects of health policies,
including those affecting the use and availability of medicines within their health systems. This
could mean that the SMC in Scotland are able to choose a different VBP to that chosen by NICE
in England and Wales. Price discrimination across different national boundaries may also be
contrary to European competition rules (Lewis 2011). This apparent contradiction has yet to be
resolved.

**Empirical work on the value of the basic threshold**

The basic threshold of 20-30k has been criticized as too high. Empirical work suggests the NHS
currently spends around 7.000-26.000£ per QALY, depending on the disease area (Claxton
2011) and on average a decrease in other NHS spending of 13.000£, as a result of NICE
approving a new medicine, will lead to the loss of one QALY (Claxton 2013).

**Conclusions**

VBP is only one of many important changes to UK health policy in recent years. Details are yet
to be worked out, but VBP is likely to represent only an incremental change in the UK
compared with the previous system of appraisal, reimbursement and pricing. Higher priority
(and higher prices) have been proposed for medicines that deliver wider economic benefit,
unmet need, or offer therapeutic innovation. However, higher weights to these areas must not
double-count benefits and must take account of the healthcare displaced elsewhere and
adjust the threshold accordingly. Furthermore, as the new proposals give greater priority to
some patients than others, and may be implemented differently across the UK, careful
communication of the VBP project will be required to maintain support with the medical
community and the general public.
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