Payment by Results in England

Seán Boyle

Summary: Payment by Results (PbR) was introduced into the English NHS in 2003/04. The introduction of a system of regulated national tariff prices was a major change in the financial regime for public health care in England. In this article progress since 2005/06 is examined and some of the key features of the scheme as it currently exists are discussed.

Keywords: payment by results, health resource groups, efficiency, quality, England

Payment by Results (PbR) was introduced into the English NHS in 2003/04. The introduction of a system of regulated national tariff prices was a major change in the financial regime for public health care in England. In an earlier article in EuroObserver the implementation of PbR up to 2005/06 was discussed and some of its key features outlined. In this article progress since then is examined, and some of the key features of the scheme as it currently exists are discussed. It concludes with some remarks on issues concerning PbR that have emerged.

How Payment by Results operates

In introducing the concept of Payment by Results in 2002, the Secretary of State for Health was clear that the policy was intended to address the need to introduce stronger incentives to ensure improved performance. Primary care trusts (PCTs) – the commissioning agencies in the English NHS – would be free to purchase care from the most appropriate provider whether in the public, private or voluntary sectors. The driving force behind these changes, at least explicitly, was to give providers incentives that would reward better performance. This in turn required incentives for those making choices about where patients would be treated (the PCTs that commission services) to send patients to hospitals that performed better. At the same time the Government was looking to hand over more choice directly to the patient. Eventually patients would go to their hospital of choice and 'money would follow the patient'.

Instead of block contracts for activity (which are insensitive to the volume and nature of activity), providers are paid for the activity they undertake. This is done using national average NHS provider costs to establish a standard tariff for the same treatment regardless of provider. It is intended that over time the NHS will move to a system where all activity is commissioned against a standard tariff, using either Health Resource Group (HRG) benchmarks (an English version of Diagnosis Related Group – DRG) or other appropriate measures that differentiate activity according to casemix.

Local commissioning will focus on volume, appropriateness and quality not price, as this will be fixed using regional tariffs to reflect unavoidable differences in costs in different parts of the country. Thus the market created by PbR differs from that of the previous Conservative Government reforms of the early 1990s when providers were able to quote local prices based on their own local costs. Under PbR the intention is that competition on price is excluded.

Implementation

The introduction of PbR has been slower than originally intended. Although by 2005/06 the national tariff was supposed to apply to around 80% of activity in acute and specialist hospitals, and almost all activity was to be commissioned using cost-and-volume contracts, this did not prove possible. Instead, it was agreed that for most providers the mandatory national tariff would only apply to elective care. Non-elective cases, outpatients and accident and emergency (A&E) cases remained outside the scope of the scheme for most providers, although these were included for Foundation Trusts, a form of organisation introduced in April 2004 where existing, selected NHS trusts were given more financial freedoms and a different accountability regime.

In 2006/07 the tariff was extended across all NHS providers to cover admitted patient care, outpatient and A&E attendances. However errors in the 2006/07 tariff published by the Department of Health on 31 January 2006 resulted in a greater overall average increase in the tariff than had been intended. The Department’s intention was an overall increase of 1.5% but some PCTs reported increases of 4% or more in the cost of activity. As a result the tariff was withdrawn and reissued on 17 March 2006. This gave the NHS very little time to plan for 2006/07 on the basis of the new tariff.

The structure of PbR remained essentially the same in 2007/08. The Department of Health has always recognised it would take time for providers to adjust to a set of national tariffs which would result, initially at least, in many of them receiving less income than their actual costs. Similarly, PCTs might find themselves paying a higher price than they had previously. Transitional arrangements – known as purchaser parity adjustments (PPA) in the case of PCTs – were introduced so that gains and losses would not be immediate
but would be achieved over a four-year period. In line with the aim to phase out these transitional arrangements by 2008/09, the level of purchaser parity adjustment (PPA) was reduced in 2007/08 to 25%. Moreover, it is intended that from December 2006 all practice-based commissioning would be based on PbR.

PbR, as it stands, has tended to reinforce the delivery of care in acute hospital settings. To enable the unbundling of the care pathways which equate to acute hospital spells, so that care can be delivered in a multitude of different settings, the Department of Health has issued a set of indicative unbundled tariffs relating to both care pathways and the use of diagnostics, and guidance in support of the unbundling of services. However unbundling is not a mandatory part of the system so far.

**Key features of the new system**

In 2007/08 the mandatory PbR tariff is payable for a large proportion of the activity carried out by NHS trusts, NHS foundation trusts, PCTs as providers and Independent Sector Extended Care Network (ISECN) providers. Some key features of the system: coverage, calculating prices, the role of the independent sector and quality are now discussed here, while other points are highlighted in the accompanying table.

**Coverage**

The Government intends that almost all health care activity purchased by NHS commissioners will be covered by the PbR system. As already indicated, in 2007/08 the national tariff will cover almost all patients admitted for care – elective and non-elective, outpatient attendances, and A&E attendances. However a wide range of activity remains excluded (see other services). Hence in 2006/07 over £22 billion of services were delivered under PbR, representing around 35% of PCT revenue allocations, or over 60% of acute hospital income (source: personal communication, Department of Health).

The focus has been on getting it right for the existing tariff structure and hence over the last two years there have been a series of adjustments to the way in which tariffs are calculated.

**Admitted patient care.** Tariffs have been set for patients who are admitted electively and non-electively. These are based on HRG spells, and there are now 548 separate HRG tariffs in use. For 2007/08, for elective care, these range in price from £200 to £2,165 with a mean price of £1,920 and a median of £1,255. For non-elective care the range is from £350 to £19,365 with a mean of £2,730 and a median of £2,180.

**Outpatient care.** Outpatient tariffs are set at specialty level for first and follow-up attendances. There are 39 specialty tariffs and these are based on the specialty of consultant responsible for the outpatient clinic. For 2007/08 these range in price from £155 to £288 for first attendance, and from £76 to £161 for follow-up attendance. The tariff has been structured to load the payment towards the first attendance so as to provide a financial incentive to minimise follow-ups. The tariff for children under the age of seventeen years is usually greater than that for an adult.

There are also tariffs for a small number of procedures that may be carried out in an outpatient clinic. Where these occur they replace the outpatient tariff. Currently there are just nine of these: colposcopy; hysteroscopy; flexible sigmoidoscopy; rigid sigmoidoscopy; epidural injections (for pain services); fine needle biopsy of breast; needle biopsy of prostate; and laser destruction of lesions of the skin. For 2007/08 these range in price from £180 to £408.

**A&E attendances.** A&E tariffs are set at three levels: high-cost, standard-cost and minor A&E /minor injury unit (MIU). Prior to 2006/07, the lowest level applied only to MIUs, but in that year a combined minor A&E and MIU tariff was introduced that reflected the average cost of minor attendances at A&E departments and attendances at MIUs. Attendances are costed at the same rate whether a patient is admitted or not. In 2007/08 the A&E tariff ranges in price from £55 to £101. Although the Department of Health has stated its intention to also include attendances at Walk-in Centres, these are currently excluded from the PbR scheme.

**Other services.** As indicated earlier there remain a considerable number of services that are outside the scope of the PbR scheme in 2007/08. In these cases the price paid is subject to local negotiation. These

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**Table: Key features of PbR system in England**

<table>
<thead>
<tr>
<th>Issue</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>Purpose</td>
<td>To improve efficiency, quality, choice</td>
</tr>
<tr>
<td>Start date</td>
<td>Apr 2003</td>
</tr>
<tr>
<td>Coverage – activity</td>
<td>Covers admitted patient, outpatient and A&amp;E activity</td>
</tr>
<tr>
<td>Critical care</td>
<td>Currently treated outside the PbR system but work is ongoing to include</td>
</tr>
<tr>
<td>Mental health</td>
<td>Currently treated outside the PbR system but work is ongoing to include</td>
</tr>
<tr>
<td>Coverage – providers</td>
<td>Includes public, private and voluntary providers but differences in how</td>
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<td></td>
<td>PbR is applied</td>
</tr>
<tr>
<td>Tariff system</td>
<td>Uses national average NHS provider costs to produce cost per HRG spell,</td>
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<tr>
<td>Academic centres</td>
<td>Some funds dealt within PbR but education and R&amp;D funds excluded</td>
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<tr>
<td>Quality of care</td>
<td>There is no evidence so far</td>
</tr>
<tr>
<td>Increased productivity</td>
<td>There is no evidence so far</td>
</tr>
<tr>
<td>Cream-skimming, up-coding</td>
<td>There is some evidence of overcoding and optimising coding but no evidence of fraudulent activity.</td>
</tr>
</tbody>
</table>
include:
- Community services
- Mental health services
- Ambulance services (other than patient transport services)
- Well babies
- Private patients in NHS hospitals
- Chemotherapy
- Learning disabilities
- Critical care
- Continuing/intermediate care
- Respite care
- Regular attenders
- Radiotherapy
- Direct access radiology and pathology
- Renal dialysis
- Rehabilitation in discrete rehabilitation ward/unit
- Primary Care Services
- Walk-in Centres

Also a number of specific HRGs and outpatient specialties are outside the current scope of the PbR scheme, either because they have low volumes, volatile costs and/or are of a highly specialised nature, for example, heart, liver, lung transplant, and cystic fibrosis HRGs; neurosurgery and cardiac surgery outpatients.

The Department of Health intends to include critical care in the PbR scheme. However, the Department is not yet in a position to produce representative prices owing to the lack of appropriate data collection. Data are currently being collected but a considerable amount of work remains to be done. Critical care includes high dependency units, intensive care units and burns intensive care units; coronary care units are now included as overheads in tariffs for cardiac activity.

Similarly it is still not clear how mental health services will be treated. There are no obvious examples from other countries that easily translate to the NHS. So currently mental health services are commissioned as before. The Department of Health has undertaken a project to attempt to define mental health currencies that can be used to describe and cost mental health activity across inpatients, outpatients and community services for adults of working age and older people. This has required a special data collection. The Department hopes that a mental health tariff can be published in late 2008, with its use beginning in 2009/10.

Calculating prices

The pricing system for PbR has become more complicated as each year more activity is added to the scheme. In this section the way in which prices are derived for the three principle types of care – admitted patients; outpatients and A&E attendances – is considered, as are any special considerations or exceptions that may affect the price paid.

There is a separate national tariff for admitted patients who are elective or non-elective. This tariff is derived from a weighted average cost of inpatient spells. These include all clinical costs, e.g., costs of diagnostics and monitoring interventions, and all non-clinical costs, for example, capital charges, food, cleaning and maintenance.

Admitted patients national tariffs for 2007/08 is based on a simple uplift of the 2006/07 tariff of 2.5%. This reflects changes in pay, prices and government policies that have been calculated to impact on costs, e.g., Agenda for Change, National Institute of Health and Clinical Excellence (NICE) appraisals and guidelines. The 2006/07 tariffs were based on reference costs for 2004/05 (which represented the average cost of an admitted patient spell) with uplifts to reflect the expected increase in the cost of NHS provision over the two intervening years, specific HRG adjustments to take account of NICE technology appraisals, and long-stay outlier payments (patients staying longer in hospital than a pre-determined cut-off point). Similarly outpatient tariffs, the nine outpatient procedure tariffs, and the three A&E tariffs for 2007/08 are a simple uplift of 2.5% of 2006/07 tariffs.

There are adjustments made to the tariff for emergency admissions. In 2005/06 Foundation Trusts had been paid the full tariff price for all activity undertaken. This placed all the financial risk of increased levels of emergency admissions on PCTs. When the tariff was extended to all providers in 2006/07, the Department of Health decided the risk should be shared and so introduced a reduced rate tariff of 50% for all emergency spells above a set threshold: 3.2% above the level in 2004/05. This was the Department’s best estimate of the emergency activity level in 2005/06. If activity fell below the threshold, then 50% of the tariff would be withheld from the provider. This differential tariff for emergency admissions above a set threshold has been retained in 2007/08, although the threshold will be based on the level of activity in 2005/06. Some emergency tariffs are also reduced where the actual length of stay in hospital is less than two days, and this is less than the average length of stay for that HRG.

There are top-up payments for some specific procedure and diagnosis codes in some specialist and children’s activities, for example, in spinal surgery and orthopaedics. These codes are based on the second edition of the Specialised Services National Definition Set. There are also a number of exclusions from the calculation of tariffs: for example heart, liver, lung, and kidney transplant HRGs; and some high-cost drugs and devices, for example primary pulmonary hypertension drugs and implantable defibrillators.

There are adjustments made to the A&E tariff to take account of variations from planned activity. Providers are funded at tariff for their planned activity level. If actual activity is less than planned, their income is reduced by just 20% of the tariff; on the other hand if actual activity is greater than planned this will be paid for at the full tariff price.

Regional adjustments to the national tariffs: HRGs are intended to take account of all legitimate differences in costs between trusts. To take account of geographically-determined unavoidable differences in local cost due to different costs of resources, tariffs for each provider are adjusted by the application of the market forces factor (MFF). The MFF has been used for many years to weight allocations of funds to commissioners. Over time its calculation has come to depend more on the specific circumstances of individual PCTs.

It comprises a weighted index of three separate cost indices: a staff index based on variations in wages in the private sector, and calculated at the PCT level; a buildings index based on a moving average of tender prices for all public and private building contracts, and calculated on a London Borough and county basis; and a land index based on the land value per hectare (10,000 square metres) for each individual provider or PCT location. Where a provider operates over many sites in different areas, this is taken into account by producing an index for this provider based on activity weights, where these relate to bed numbers in each location.
The MFF is rebased so that the provider with the lowest MFF has an MFF value of 1. All other providers receive a proportional increase in tariff relating to the value of their MFF. In 2007/08 the value of the MFF weighting ranged from 1.00 to 1.45, so the price received by one provider could be 45% more than another for what is essentially the same spell of care, but delivered in a different location. When PbR was first implemented MFF passed directly from PCT to provider but the potential for price competition that this introduced has now been eliminated. Each provider receives the same tariff price from its commissioning PCT, and the MFF uplift is paid to providers by the Department of Health from funds top-sliced from PCT budgets for this purpose.

Treatment of capital. Changes to forecast capital charges at a national level are reflected in the inflation uplift applied to the national tariff. Account is taken of local changes to capital and land costs through the MFF. However, the Department of Health has recognised that a tariff based on national average costs may not always reflect fully the local costs of a newly built facility. This is particularly true where there have been policy changes, for example, changes in the accounting rules that impact on the assumptions underlying some of the early PFI schemes. The Department of Health also acknowledges that new hospitals can be more costly, citing quality improvements such as a higher proportion of single rooms, more sophisticated equipment, as well as one-off procurement and double-running costs. The Department believes that “if funding is not provided outside of the tariff there is a risk that PbR would significantly disincentivise capital investment.”

Hence, until 2006/07 the NHS Bank distributed a centrally-held budget to support a number of major NHS capital investments. The Bank contributed to the costs of procurement for major PFI projects and also made some contribution in the first few years of operation of all major projects. These funds were provided directly to providers, though routed through the PCT where their primary site was located. From 2006/07 this central budget has been managed by the Strategic Health Authorities (SHAs).

Research and Development (R&D) and teaching adjustments. There are subsidies currently provided by the allocation of education/R&D monies to some trusts. Moreover, some work is undertaken as research trials. These may lead to regional variations in the cost of service delivery. The Department of Health has considered both the amount and distribution of existing education and R&D levies with a view to eliminating any significant cross-subsidies between the patient care and levy funding streams. However, it has decided not to attempt to rebase these levies; at least until the end of the transition period for PbR.

Independent sector
Detailed policies on how the national PbR tariff will apply to new independent sector providers are not fully developed. The Department of Health intends to ensure new providers’ costs converge with the tariff by the end of the PbR transition period. In August 2006 the Department stated that, “further work is needed before PbR can be extended to other sectors, including the voluntary sector and the independent sector... to assess the different economic factors affecting each of the different sectors to inform the development of the national tariff in a way that is consistent with achieving a level playing field.”

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However, in 2006 a number of private providers came under the scope of PbR with the introduction of the Extended Choice Network (ECN) offering choices to patients from NHS Foundation Trusts, Wave 1 Independent Sector Treatment Centres (ISTCs) and Wave 2 ISTCs that had bid specifically to be ECN providers. There have also been contracts with Wave 1 ISTCs and Wave 2 ISTCs, where PCTs pay for activity commissioned from the independent sector up to the level of tariff prices, with a central budget used to cover any differences.

Quality
The national tariff includes the cost consequences of general quality improvements, for example, NICE recommendations or National Service Framework requirements, that have occurred after reference cost data were collected. But in general, quality standards are set by mechanisms outside the financial system and underpinned by appropriate clinical governance arrangements and regulation of quality standards. However it is expected that contracts or service level agreements will eventually include appropriate quality provisions agreed between trusts and commissioners.

Concluding remarks
The Government may see the PbR scheme as the solution for all the problems of the NHS. However it will be some time before PbR is properly bedded into the NHS. Meanwhile questions remain around the extent of coverage; costs, prices and efficiency, as well as the operation of the market.

Extent of coverage
PbR still applies to only a limited number of activities, and these are mainly in the acute hospital sector. This can cause distortions in provider behaviour. While the Government is committed to the ‘unbundling’ of care, so that eventually the care pathway for any particular patient’s condition can be delivered by a wide range of providers, either individually or in combination, in practice this has proved difficult to deliver. This is seen as key to encouraging the introduction of new ways of delivering health care. However, the Department of Health’s guidance on contracting for acute hospital services serves as an illustration of how difficult this will be even in the acute hospital sector. Although the aim is to extend PbR so that national tariffs are set independently of the setting in which care is provided – hospital or community – difficulties experienced in setting acute sector prices suggest that this may prove an insurmountable task. Nevertheless, the introduction of some ‘indicative’ unbundling of activities is a move in the right direction.

Costs, prices and efficiency
The Government has argued PbR will provide incentives for levelling-up quality because prices will be fixed. Under a fixed national tariff providers will have to compete on quality. However anomalies remain in the system. Geographical variations in costs are recognised by the PbR scheme, and hence there are variations in prices paid. The NHS may be paying up to 45% more to deliver the same treatment to one set of patients, in inner London say, compared with the price for an equivalent
set of patients in rural Cornwall. A straightforward hip replacement may be priced at a level £2,500 higher if done in inner London. Competition on the basis of price is ruled out however, even though in theory an inner London PCT could save considerable sums of money if its patients could be persuaded, through incentives for example, to travel for their elective treatment.

There is also a wide variation in the costs of individual HRGs across different providers. The Government has argued that PbR provides an incentive to reduce these costs and also to improve quality. Cost differences may be due to inefficiencies but they may equally well be due to differences in quality. The effect of PbR could be to reduce quality in those providers that are better than average but which cost more. Providers end up competing on cost. There is evidence from other countries that where prices are fixed, quality is reduced in order to keep costs down.

The Audit Commission found little evidence of improvements in efficiency or increases in activity resulting from the introduction of PbR. But there is evidence from other countries that the introduction of similar funding systems was accompanied by ‘HRG-drift’ where patients are ‘up-coded’ to more expensive procedures, or by better counting resulting in apparent increases in activity, or higher rates of intervention and higher levels of admission, all of which may push up total costs. It has also been argued that some providers may cream-skim patients (choosing the easier ones within a particular casemix category). The consistency and quality of the activity and coding data on which national tariffs are based are therefore of fundamental importance.

There have been several disputes between PCTs and providers about the accuracy of coding data on which national tariffs are based. This was due to the higher costs of negotiation, data collection, monitoring and enforcement. The complexity of the tariff system will require significant improvements in the production and use of detailed finance and activity information. However, this could be a good thing if it contributes to a better understanding of the health care business from the perspective of both providers and commissioners. It has been reported that individuals felt the higher administrative costs of PbR were justified by benefits such as greater clarity of payment rules and sharper incentives.

In its report in 2005 the Audit Commission found the costs of implementing PbR were greater than anticipated. Another report in 2006 confirmed that costs increased by between £90,000 and £190,000 in organisations as a result of the introduction of PbR. This was due to higher costs of negotiation, data collection, monitoring and enforcement.

**References**