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Reimbursement policies and the use of drug-eluting stents in France

Isabelle Durand-Zaleski provides a view of the the reimbursement system in France…

Pricing (reimbursement) policies and financial incentives are used by policy makers and payers to facilitate or hinder the dissemination of selected practices. In the case of expensive drugs or devices, the usual policy is to start with direct payment (e.g., in addition to the Diagnosis Related Group [DRG]), followed by indirect payment (creation of a new DRG), and to end with no payment when the drug or device has become generic. This policy favours the early dissemination of expensive innovations and has been used both in France and in Germany over the past years. However, it is worth noting that DRG systems differ in their structure between countries and may be updated at different intervals, making a direct comparison of DRG tariffs between countries difficult. Another policy, however, is possible when payers are sceptical about the available evidence or fear uncontrolled dissemination. This policy consists of not providing any additional payment while additional evidence is being gathered. This policy has the effect of limiting the use of new technologies, such as drug-eluting stents (DES), to centres such as university hospitals which can self-finance these devices.

The history of reimbursement for DES for elective percutaneous angioplasty in France illustrates the role of pricing financial incentives, as outlined by Professor Silber and his co-authors in the previous article. We analyzed data from the national database of hospital claims from 2003–2011, in the light of the following events:

1. The introduction of DES after the initial publication of the SIRIUS trial showing a reduced rate of revascularization in patients treated with DES.[1]
2. There was initially no direct additional payment for the device, which cost on average €1,000–1,500 more than the bare-metal stent.
3. The decision from the Ministry of Health to establish a price for the DES. In effect, this allowed private for-profit centres to bill the payer for use of the device and public hospitals to benefit from direct payment in addition to the DRG.
4. Creation of a specific DRG for percutaneous revascularization using stents.

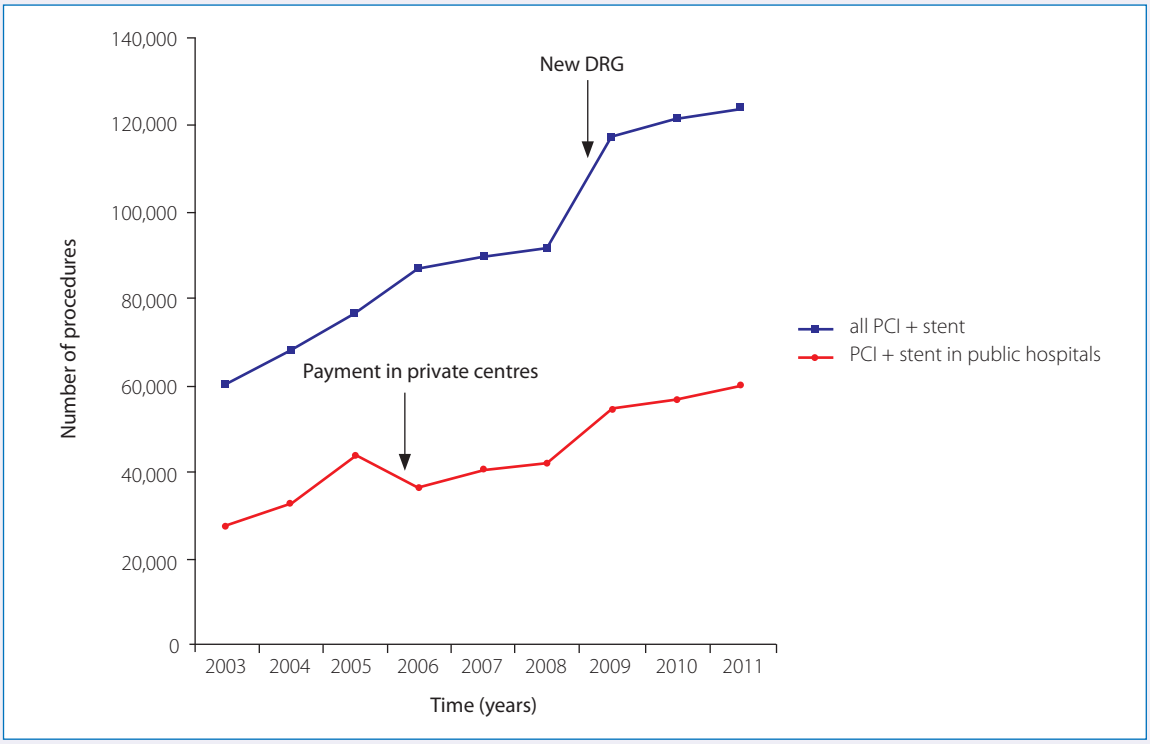

fig. 1

Trends in the use of stenting for elective percutaneous coronary intervention.

table 1

Direct payment to hospitals for DES in addition to the DRG tariff.

Year	Stent price € (additional payment to hospitals)
2005	841–2,110
2006	1,250–1,850
2007	550–1,550
2008	1,220
2009	1,220
2010	1,220
2011	1,220

The national claims database provides information on the type of institution where patients are treated (public and not-for-profit hospitals versus private for-profit clinics), as well as diagnostic and procedural codes.

The price paid for DES in addition to the DRG by the French payer has decreased over time in France as in Germany, reflecting the increasing availability of devices from different manufacturers.

Percutaneous coronary intervention (PCI) in France has followed a steadily increasing trend (as in other countries)[2] with, however, some changes in the gradient of the increase over time (fig. 1). While the underlying trend can be explained by epidemiology and the level of healthcare spending, changes within the overall trend may be related to sudden policy changes.

The share of public and not-for-profit hospitals in elective PCI was a stable 45% until DES were introduced, initially without reimbursement. In the following year, the share of public and not-for-profit hospitals increased to 48%, somewhat to the dismay of private for-profit clinics. The direct payment for DES was made official in 2005 (for several months prior to this, public hospitals had used their own funds to pay for the stents). This was followed by a decline in the share of public and not-for-profit hospitals. However, in this context, it is also worth remembering that a degree of caution may have arisen from the controversial reports about DES and mortality that were presented at the European Society of Cardiology in 2006[3,4] and presentation of data from the COURAGE trial.[5] Specific DRGs for elective PCI were introduced in 2008, with a flat payment for all DES (table 1). Furthermore, reimbursed indications for DES changed during this period of time to include, for example, in-stent restenosis, multivessel disease, and left main disease. This may have supported a shift from coronary artery bypass surgery to PCI with DES. Together, these factors may go some way to explain the steep increase in the uptake of PCI and stenting, and the relative decrease in the share of the public and not-for-profit hospitals (fig. 1). Subsequent to this, a technical assessment was completed by the Haute Autorité de Santé (HAS) in 2009, which may have further affected uptake of PCI and stenting since that time.

While the trend in PCI and stenting observed from analysis of the national claims database does not allow us to draw conclusions on causal relationships, they show some degree of coincidence between pricing and reimbursement decisions and use of procedures. The payers' ability to offer direct payment in addition to DRG is a powerful tool, used with restraint and discretion about the criteria in order to prevent manipulation of the system. Criteria for additional direct payment are the high price of the innovation relative to the DRG reimbursement and the selective use of the innovation (for example, not all patients within a given DRG require the innovation). The direct payment removes the incentive to not use the innovative device in patients who require it. It is, however, a labour-intensive task to monitor the appropriate use of an innovation and link the reimbursement of an innovation to evidence of adherence to guidelines. Information systems do not necessarily contain the data required to verify that only those patients who should receive the innovation in fact receive it. This may be one of the reasons why payers tend to prefer creating new DRGs and limiting the direct payment to occur for a short time period only.

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REFERENCES:
1. Morice MC, et al. *N Engl J Med* 2002;346(23):1773-80.
2. Widimsky P, et al. *Eur Heart J* 2010;31(8):943-57.
3. Camenzind E and Wijns W. European Society of Cardiology Annual Congress; 2006; Barcelona, Spain.
4. Nordmann AJ, et al. *Eur Heart J* 2006;27(23):2784-814.
5. Shaw LJ, et al. *Circulation* 2008;117(10):1283-91.