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# How to reform the prosthesis market: Grattan Institute's submission to the Department of Health's consultation on options for reforms and improvements to the Prostheses List

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# 1 The prosthesis market needs major reform

Private hospital insurance pays out more than $2 billion each year in benefit payments for prostheses, accounting for more than 12 per cent of all benefit payments. There is scope for major reform of prosthesis payments, despite recent changes.

The current prosthesis pricing arrangements are part Soviet-era price control and part Monty Python sketch.[1] Prosthesis prices are not set by the market, but rather by an opaque bureaucratic committee. The Prosthesis List Advisory Committee is a case-book example of regulatory capture – it consists of 21 members, seven of whom are explicitly 'representatives' of device importers/manufacturers, hospitals, and private health insurers, all with inherent conflicts of interest.[2]

The committee sets prices for more than 10,000 individual items – including staples and glues – in a performance worthy of Soviet-era price setting at its finest. There is no formal tender process, nor any serious assessment of quality.

The approved price schedule is just one proof of the failure of the existing arrangements: the private hospital prosthesis prices are 130 per cent higher than the public hospital prices.[3]

Private health insurers, responsible for paying for prostheses, are effectively price-takers, with no power to ensure the supply chain is efficient. A system which has no incentives for efficiency is bound to be inefficient, and this one is.

The whole structure of centralised pricing inhibits efficiency and quality in the use of prostheses. It should be dismantled. Price regulation should be a last resort, used only when there is demonstrable evidence of market failure. Bizarrely, an attempt by one entrepreneurial supplier to introduce an element of market competition by offering discounted prices was thwarted by government for fear that the cosy anti-competitive industry relationships might be harmed (see Box 1 on the following page).

Manufacturers and importers should compete in an open marketplace, rather than being protected from the chill winds of competition by an insider-negotiated protection racket. Business success should be based on the price and quality of the product, not skills in navigating a bureaucratic labyrinth and gaining access to influence.[4]

The objective of any regulation should be explicit. In prosthesis pricing, this is not the case. The key objectives of policy should be ensuring efficiency and quality of care.

There are four main players in the prosthesis supply and payment chain (see Table 1.1).

**Table 1.1: Interests in the prosthesis supply chain**

| Stakeholder | Role | Incentives |
|---|---|---|
| Surgeon | Chooses prosthesis | Weak incentives for quality |
| Private hospital | Supplies to surgeon | - |
| M'facturer / importer | Supplies to hospital | Maximise revenue |
| Private insurer | Pays | - |

*Source: Grattan analysis.*

The key player is the surgeon who chooses the prosthesis to be used in a procedure. Surgeons are exposed to pressure from salespeople,

1. We have discussed the problems of prosthesis pricing before: Duckett (2019) and Duckett and Nemet (2019).
2. Department of Health (2019).
3. Independent Hospital Pricing Authority (2019).
4. Wood et al (2018).

**Box 1: Preventing competition has been ruled okay**

In 2016, the case *Applied Medical Australia Pty Ltd v Minister for Health* [2016] FCA 35 (5 February 2016) was brought before the Federal Court after the government refused a request from Applied Medical, a prosthesis manufacturer and supplier, to lower the minimum benefit price for a group of prostheses on the Prosthesis List from $412 to $99. Applied Medical had argued that $412 was too high, and that the prostheses in question could be provided at a significantly lower price. The inflated figure, the company claimed, was the result of a poorly designed mechanism for selecting the minimum benefit.

The mechanism in question (the 25 per cent utilisation policy) designated a group's minimum benefit based on the lowest price of one of its products with at least 25 per cent market share. Applied Medical showed that this policy was restricting competitive corporate behaviour: it protected incumbents, and did not allow smaller, more innovative firms to gain market share in the usual way via lower pricing.

Ultimately, the Court held that the Health Minister's representative had acted acceptably. However, the judge made several noteworthy comments about policy change. Firstly, he said that even if Applied Medical had presented a compelling case, changing the policy for identifying the minimum benefit was a big undertaking. In his view, despite the evident shortcomings of the present system, the fact that it would be administratively difficult to introduce a different mechanism meant the government was entitled to do nothing.

The judge then discussed additional challenges of changing the 25 per cent utilisation policy saying it was 'not a prohibited consideration' to take the views of other product sponsors into account when deciding whether to introduce a new minimum benefit mechanism. He said there was 'no evidence that the proposed change advocated by the applicant would be supported by the vast majority of other product sponsors', and that this was sufficient justification for the government not changing the minimum benefit.

Of course, other manufacturers are unlikely to support changes to a system that currently protects them, so the Court's decision prevented an opportunity for competition which might have reduced health insurance premiums.

and their choice may be influenced by familiarity with the prosthesis and a host of other factors.[5] There is no evidence that consumers are involved in the choice of a prosthesis. And evidence from analysis of joint prostheses choices shows that surgeons have only weak incentives for quality, at least as measured in terms of revision rates.[6]

The private hospital's role is to supply the prosthesis to the surgeon. To the extent that private hospitals are able to purchase prostheses below the nationally regulated price, the hospitals recoup the benefit themselves, and charge the private health insurance the full regulated price.

The manufacturer or importer supplies the prosthesis to the hospital. Their incentive is the standard market one: to maximise revenue as measured in terms of prices and sales.

The private insurer is responsible for paying the private hospital for supply of the prosthesis.

What is obvious from this description of the market is that no player has an incentive for efficiency, and at least one player has an incentive to maximise spending. There is no market to ensure the best price. The private health insurer, responsible for paying for the prosthesis and wearing the long-term costs in the event of poor quality, has no control over the choice of the prosthesis, no control over whether the surgeon chooses one with the lowest revision rate, and no control over price. This market is completely and utterly broken.

Government should introduce incentives to improve the efficiency of the market.

5. Burns et al (2018).
6. Australian Orthopaedic Association National Joint Replacement Registry (2020).

## 2 Reform options

The Commonwealth Department of Health's consultation paper on new prosthesis pricing arrangements proposed two reform options:[7]

> OPTION 1: Consolidate the Prostheses List using the Diagnosis Related Groups (DRGs) model and set benefits with reference to the prostheses price components of relevant DRGs, with administration moved to the Independent Hospital Pricing Authority (IHPA).
>
> OPTION 2: Consolidate and redesign the Prostheses List with extensive changes to pre- and post-listing assessment and benefit-setting processes, with administration of benefit-setting supported by the Department.

We prefer Option 1, because it will ensure that at least one stakeholder has an incentive for efficiency. Option 2 should be rejected, because it will keep a centralised, insider-driven approach and does not offer the fundamental reform needed.

There should be a standard prosthesis payment for each relevant DRG.[8] The DRG-specific payment should not necessarily be at the average price, which reflects the excess payments incorporated in the current payment model, but rather it may be appropriate for the new price to reflect the price of the median prosthesis set in a DRG or the bottom quartile, subject to that price being for prostheses of appropriate quality, of for public hospital prices to be used as the basis for the new private hospital prices.

Further pressure for efficiency should be incorporated into the new pricing system by implementing a system of price disclosure whereby hospitals are required to disclose the prices they pay for prostheses. This information can then be used to set 'normative' prices based on the actual prices paid by hospitals which are good negotiators.[9]

A DRG pricing approach has a number of benefits. Firstly, the DRG classification was designed to be clinically meaningful and to be used for payments, so it would be appropriate to use it for payments for prostheses. The new prosthesis payment would be based on what peers do, or, preferably, what the most efficient peers do for like patients.

Secondly, there would now be an incentive for efficiency. Surgeons could still choose more expensive prostheses, but there would be no obligation on insurers to pay for more expensive products, so hospitals would be required to absorb those excess costs. This would put pressure on importers and manufacturers to reduce their prices, and would not involve additional nasty 'surprises' for patients when they receive their bill.

Thirdly, the unbundling of prostheses descriptors with separate prices for the main prosthesis set and for screws, staples, and glues would be reversed. There would be a single bundled price for all constituent elements, reducing the potential for gaming and addressing the recent increase in costs that has been associated with this unbundling.

7. Department of Health (2020).
8. More accurately, for each relevant Adjacent DRG. The existing DRG classification was developed so that the DRGs are coherent bundles in terms of resource use, across all aspects of care such as days of stay, theatre time use, and prostheses. Establishing a separate price for prostheses may require some revision to the overall DRG classification system to ensure homogeneity of prosthesis costs, although whether this is necessary should be an empirical question. An alternative would be for there to be a specific, Adjacent-DRG prosthesis price list. The Independent Hospital Pricing Authority could do this relatively quickly using existing data.
9. Prosthesis price disclosure can build on lessons from existing policies about pharmaceutical price disclosure.

What is proposed is not novel, experimental, or risky. Public hospitals already face an incentive for efficiency in terms of prosthesis choice. There is no separate payment for prostheses, but rather the prosthesis cost is bundled into the total hospital payment, set using DRGs. Bundled payment initiatives in the United States are already showing promising results.[10]

The prosthesis market is an international one, with innovations occurring in many different countries. Innovation in this market is unlikely to be affected by changes in prosthesis pricing in Australia.

We are not proposing in this submission that there should be a single bundled payment covering all aspects of private hospital care as there is for public hospitals,[11] but rather that there be a standard prosthesis price established by the IHPA for each DRG and that the private health insurer be required to pay that price.

10. McLawhorn and Buller (2017).
11. However, a single bundle is appropriate as we have suggested previously: see Duckett and Nemet (2019).

## 3 Additional policies are also required to support reform

Three additional policies should be introduced in parallel alongside a new DRG pricing mechanism. These do not need to be introduced at the same time, but their interaction should be foreshadowed to help ensure that the new system works effectively.

The first such policy should encourage *information and transparency*:

- Private health insurers should be encouraged to provide information to their contributors/members about the cost of prostheses, and policies about surgeon choices, how the payment policy works, and that additional payments are made for prostheses of superior quality. Insurers should ensure in their contracts with hospitals that excess costs of prostheses are not passed on to patients.
- Private hospitals should be required to identify in their bills the standard price payable under this new arrangement, and any moiety paid for superior quality.
- Surgeons should be required to notify patients, in advance of the procedure, what prosthesis will be used and any information about its relative quality.

A potential criticism of a DRG pricing policy is that it inhibits choice. In fact it doesn't – the policy simply makes the choice trade-offs transparent: consumers or their surgeons can still select any prosthesis, but under the DRG pricing policy, the costs of that choice will fall on those that make the choice rather than on the entire insured population.

The second parallel policy should strengthen *incentives for quality*.

Not all sub-specialties have developed mechanisms to collect and report measures of quality. But there is good Australian information in some specialties – the Australian Orthopaedic Association National Joint Replacement Registry is a case in point – and in other specialties it may be possible to draw on international experience. Commonwealth-funded quality registries in other specialties should be required to make similar information available publicly.

Good information about quality does not always get translated into good choices by surgeons. Our proposal on information and transparency should help.

Private health insurers should also disseminate information about relative quality of prostheses, where that information is available.

Financial incentives may also have a role to play in boosting quality.

A restructured Prosthesis List Advisory Committee should identify those prostheses which perform better than others on objective quality metrics such as revision rates. Private health insurers should have no obligation to provide any reimbursement for a prosthesis identified as poorly performing. If a prosthesis performs significantly better than the average, the restructured committee should identify an appropriate supplement the private insurer would be required to pay.

The third parallel policy should be to mandate *better collection of prosthesis data*.

Private hospitals collect extensive information on prosthesis use because of the atomised billing encouraged by the existing prosthesis payment arrangements. Public hospitals generally do not include information on which specific prostheses has been implanted in their routine data collection.

Over-time, the minimum data set specifications should be changed to require more detailed information on use of prostheses. All devices

should be bar coded. The bar code should be scanned and added to the procedure (or a new) field in the computerised routine data. As we have argued previously,[12] in addition to improved costing of procedures, there are a number of wider benefits from incorporating device information in the routine collection:

- It facilitates recall: centrally held computer records are easy to scan if and when required.
- The cost of additional data collection is minimised. No new registry needs to be established for each new type of prosthesis and the only additional cost is that of setting up scanning facilities at relevant locations. These facilities should ideally be where the devices are inserted, but they could be located centrally in patient records departments.
- Any researcher or analyst who needs to track particular types of devices as a special research or quality improvement project, on a regular basis, or as part of other research, could gain access to the data easily and cheaply.

12. Duckett (2013).

## 4 The benefit to consumers needs to be passed on

The new prosthesis payment policy outlined in this submission would significantly reduce payments for prostheses. It would shift revenue away from device importers/manufacturers and private hospitals. Private health insurers would gain from such a shift, and their outlays would be reduced. As part of their proposals for premium increases in 2022, each insurer should be required to estimate the savings the new policy is likely to yield, and demonstrate that they have passed these savings on to consumers. Consumers should benefit further by policies to ensure that any excess costs of prostheses are not passed on to them through increased co-payments.

If Option 1 or a similar model is adopted, the new prosthesis payment policy should improve efficiency in the sector, help to improve the average quality of prostheses used, moderate health insurance premium increases – and thus help make private health insurance more sustainable.

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