

Proposals for extending data protection for biologics in the TPPA:

Potential consequences for Australia

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Introduction

Several submissions to the Department of Foreign Affairs and Trade by academics and non-government organisations have raised concerns about the potential effects of the Trans Pacific Partnership Agreement (TPPA) on access to affordable medicines. Provisions under consideration in the negotiations could further delay access to affordable medicines for Australians and significantly increase the cost of the Pharmaceutical Benefits Scheme (PBS) for taxpayers. These provisions include low patent standards and extended test data protection that will prolong monopolies over new medicines, ‘transparency’ provisions affecting the operation of the PBS, and a dispute resolution mechanism that would confer new rights to both local and foreign investors, including pharmaceutical companies, to seek compensation for changes to policies and laws that affect their ‘investments’.

This submission examines the potential consequences for Australia of a particular provision under discussion in the intellectual property chapter: a proposed extension of test data protection for biologic products. We outline why this class of drugs is particularly significant and why it is important for cheaper versions (biosimilars) to become available as soon as possible. Examining the ten most expensive biologic drugs on the PBS, we use Medicare Australia expenditure data to estimate the potential costs to Australian taxpayers of the proposed extension, applying current policy settings for PBS pricing. We find that had biosimilars for each of these products entered the market prior to July 2013, over \$205 million in PBS expenditure would have been avoided in the year 2013-14 alone.

Biologics and biosimilars

Many new health technologies are now produced through biotechnological processes using living organisms. These are commonly known as “biologics”. According to the Pharmaceutical Patents Review Report 2013¹, there were 64 biologic products listed on the Pharmaceutical Benefits Scheme in 2013.

Biologics include most new cancer drugs and many medicines for other illnesses such as rheumatoid arthritis and multiple sclerosis, along with many vaccines.² Examples include Herceptin, a commonly used breast cancer treatment, and Gardasil, the human papilloma virus vaccine used to prevent cervical cancer.

These complex products tend to be very expensive, particularly during the period while still under patent. However, once the monopoly period is over, biosimilar medicines can be produced and made available at a lower cost.

Data protection: restricting access to clinical trial data for registering generics and biosimilars

When an originator company applies to the Therapeutic Goods Administration (TGA) for approval to market a drug in Australia, it is required to submit clinical trial data to demonstrate that the drug is safe

¹ Harris T, Nicol D, Gruen N. Pharmaceutical Patents Review Report 2013. Canberra.

http://www.ipaustralia.gov.au/pdfs/2013-05-27_PPR_Final_Report.pdf (accessed November 2014).

² Public Citizen. The Trans Pacific Partnership threatens access to affordable cancer treatments and other biologics. <http://www.citizen.org/documents/biologics%20final%20draft1.pdf> (accessed November 2014).

and efficacious. Subsequently manufacturers of generic or biosimilar medicines may rely on this clinical trial data to register their own products for sale, thus avoiding having to repeat the expensive and time-consuming clinical trial programs themselves, which would not only involve unnecessary cost, but would arguably be unethical. In the case of biosimilar medicines, some clinical trials are still required, but they are generally much less expensive to conduct as they are designed to demonstrate comparability of the follow-on product to the originator, not to replicate the entire evidence base. Once comparability is established, the biosimilar may rely on the evidence submitted by the originator.

Under current Australian law, the TGA is not permitted to use the clinical trial data provided by an originator to register a generic or biosimilar for a period of **5 years** from the date of marketing approval of the originator. This is referred to as the data protection or data exclusivity period. Under Australian law, biologic drugs are granted the same duration of data protection as 'small molecule' medicines.

Importantly, data protection applies automatically regardless of whether a product is under patent or not. It thus provides a guaranteed market exclusivity period for pharmaceutical companies that is distinct from that conferred by a patent. While patents last for twenty years, they are usually filed years before a drug actually comes to market, whereas the date from which data protection begins is the date of marketing approval. In most cases pharmaceutical companies can expect 14-15 years of market exclusivity for a new medicine.³ In some cases, patent and data protection terms are concurrent, but in some cases the data protection term may continue to block competition after the patent has expired.

Extensions to data protection being discussed in the TPP negotiations

The latest version of the intellectual property chapter of the TPP⁴ shows that the TPP negotiators are considering extending the period of data exclusivity that applies to biologics. The text puts forward several options for negotiators to consider: zero, five, eight or twelve years (where zero years means no special protection for biologics).⁵ These proposals are highly contentious.

Biologics have been granted twelve years of exclusivity in the US,⁶ and the pharmaceutical industry been actively pursuing a similar outcome in the TPPA. The industry claims that longer monopoly periods are warranted for biologics because of longer development times and high failure rates. The rationale is that large profits are required to recoup the development costs and enable investment in further drug development. However, this has been widely contested. The Patents Review Report¹ states that:

³The Pharmaceutical Patent Review panel in fact recommended reducing the effective term for patented medicines be reduced to between ten and 12 years (Harris et al, op cit., p. 85).

⁴Trans Pacific Partnership. Intellectual Property [Rights] Chapter: Consolidated Text. [leaked text released by Wikileaks, dated May 16, 2014]. <https://wikileaks.org/tpp-ip2/> (accessed December 2014).

⁵ Public Citizen. What's New in the 2014 WikiLeaks TPP Intellectual Property Text? Pharmaceuticals: landing zones and issues for ministerial discussion. <http://www.citizen.org/documents/pharmaceuticals-landing-zones-and-issues-for-ministerial.pdf> (accessed December 2014).

⁶ Patient Protection and Affordable Care Act (42 U.S.C. 262(k)). This specifies four years of data protection (the period in which the FDA may not consider an application relying on safety and efficacy data submitted by the originator), and twelve years of market exclusivity, the period during which the FDA may not approve a follow-on product.

In 2009 the US Federal Trade Commission (FTC) found that 12 years data protection was not necessary to spur innovation, with sufficient incentive provided through patents and market-based pricing.

The FTC concluded that data protection of *any* duration was unnecessary for biologics.

The Australian Pharmaceutical Patents Review Panel¹ concluded that no examples had been provided to indicate that current data protection systems did not afford sufficient incentives to innovate, and that “at this stage, the case has not been made to extend data protection for biologics in Australia”.

Potential consequences for Australia

Extending monopolies over biologic drugs would incur large scale costs for our health system. Because data protection is separate from the patent system, it can extend monopolies when patents expire, or create monopolies in cases where a drug is not protected by a patent. It can also act as a barrier to compulsory licensing, an important safeguard that allows patents to be bypassed when necessary for public health reasons.

Costs to Australian taxpayers associated with continuing monopolies for biologics

We estimated the costs to Australian taxpayers, through public subsidies, associated with monopolies on the ten biologic drugs that accounted for the highest cost to government in 2013-14.

Using Medicare expenditure data for the twelve months to June 2014,⁷ we identified seven biologics appearing in the top fifty Section 85 drugs to the PBS. To these we added three high cost Section 100 drugs: *rituximab* (Mabthera), *bevacizumab* (Avastin) and *trastuzumab* (Herceptin). We then generated PBS and RPBS (Repatriation Pharmaceutical Benefits Scheme) Medicare claims data⁸ for each of the drugs using the relevant item numbers obtained from the PBS website.

Table 1 shows the expenditure on these drugs from July 2013 to June 2014.

The total government expenditure over the financial year 2013-2014 on these ten biologic drugs was \$1,287,057,586.⁹

⁷Department of Health. Expenditure and prescriptions twelve months to 30 June 2014. Canberra: PBS Information Management Section, Pharmaceutical Policy Branch, Australian Government Department of Health, 2014. <http://www.pbs.gov.au/statistics/2013-2014-files/expenditure-and-prescriptions-12-months-to-30-june-2014.pdf> (accessed November 2014).

⁸ https://www.medicareaustralia.gov.au/statistics/pbs_item.shtml

⁹ This is a conservative estimate as it does not include expenditure on the Herceptin program. We note that it also excludes direct payments by patients.

Table 1: PBS and RPBS expenditure on ten biologic medicines, 2013-2014 financial year

| Drug (Brand) | Drug (INN) | Indications | Expenditure 2013-14 FY \$A |
|---------------|-------------|---|----------------------------|
| Humira | adalimumab | Rheumatoid arthritis and other auto-immune conditions | 279,391,117 |
| Enbrel | etanercept | Rheumatoid arthritis and other auto-immune conditions | 159,276,422 |
| Eylea | aflibercept | Wet macular degeneration and metastatic colorectal cancer | 173,444,968 |
| Lucentis | ranibizumab | Wet macular degeneration | 175,348,775 |
| Prolea, Xgeva | denosumab | Osteoporosis and other bone diseases | 61,676,426 |
| Simponi | golimumab | Rheumatoid arthritis and other auto-immune conditions | 57,829,452 |
| Stelara | ustekinumab | Psoriasis | 40,944,165 |
| Mabthera | rituximab | Non Hodgkin's lymphoma and chronic lymphocytic leukaemia | 164,865,590 |
| Avastin | bevacizumab | Ovarian and colorectal cancer | 77,300,861 |
| Herceptin | trastuzumab | Breast cancer | 96,979,810 |
| TOTAL | | | 1,287,057,586 |

Source: Authors' compilation using Medicare Australia Statistics (Pharmaceutical Benefits Schedule Item Reports). Seven of these drugs were selected because they involved the highest cost to the PBS among Section 85 drugs. Three high cost Section 100 drugs (rituximab, bevacizumab and trastuzumab) were also included.

In Australia, a sixteen percent price reduction is applied to all brands of a drug as soon as the first generic or biosimilar is listed on the PBS. If biosimilar versions of each of the ten drugs studied had entered the market prior to July 2013,¹⁰ this 16% price reduction would have resulted in savings of \$205,929,214 through PBS and RPBS subsidies alone in the year 2013-14.

Once a generic or biosimilar version is available, all versions of the drug also become subject to a price control mechanism known as price disclosure.¹¹ Because reference pricing ensures all versions of a medicine attract the same price for subsidy purposes, suppliers compete for market share by offering discounts to pharmacies. Price disclosure requires pharmaceutical companies to disclose the actual transaction prices to pharmacies, taking into account actual and in-kind discounts. The reimbursement price is then periodically adjusted according to the weighted average of the disclosed prices for all brands (including biosimilar versions) of a drug.

It is difficult to estimate the effect that price disclosure would have on the top ten biologic drugs we have identified, as the amount saved depends on the number of generic competitors, the degree of

¹⁰ In fact the patents underlying these drugs are due to expire at different times. However, the simplifying assumption that all expire in 2013 shows the impact on PBS outlays of the entry of biosimilars. Whatever the date of entry of the first biosimilar, the price reduction at that point will be 16%.

¹¹ <http://www.pbs.gov.au/industry/pricing/price-disclosure-spd/price-disclosure-operational-guidelines-july-2014.pdf>

price competition and the degree of discounting by pharmaceutical companies. The effects of price disclosure may not be as significant for biologic drugs as for small molecule drugs, since biologics can be more expensive and difficult to manufacture and there may well be fewer competing products.

Price reductions for the biologic *filgrastim* provide a useful indicator of the likely scale of further price reductions resulting from price disclosure. *Figrastim* is used to treat neutropenia, a condition that can result from chemotherapy or bone marrow transplantation.

The originator brand of *filgrastim* (Neupogen) was subject to a 16% statutory price reduction when the first biosimilar (Nivestim) was listed on the PBS in 2011. Two further biosimilars, TevaGrastim and Zarzio, were listed on the PBS in November 2011 and March 2013 respectively. As a result, increased competition ensued and actual transaction prices fell. The subsequent application of price disclosure resulted in a reimbursement price reduction of a further 15.2% for all brands of *filgrastim* in October 2014. So for example, the price for 300 micrograms of filgrastim fell from \$3054.42 in 2010 to \$2561.96 in 2011 (due to the 16% price reduction) and then to \$2171.94 in October 2014 (due to price disclosure).

If the assumption is made that the ten drugs in Table 1 also undergo price reductions of a similar scale arising from biosimilar competition and the application of price disclosure, the savings over time will be far greater than the \$205 million resulting from the 16% statutory price reduction alone.

Conclusion and recommendations

Extending data protection for biologic drugs – even to eight years – could cost Australian taxpayers many hundreds of million dollars each year. If biosimilars had entered the market prior to July 2013 for each of the ten biologics accounting for the highest government expenditure, this would have resulted in over \$205 million in savings through public subsidies alone in the year 2013-14. This figure illustrates the magnitude of the annual costs that would result for taxpayers from prolonging monopolies on biologic medicines. Once biosimilars have been listed on the PBS, all versions of the drug are subject to additional price reductions through price disclosure, which result in further savings over time.

Not only should the TPPA text not distinguish between biologics and other pharmaceutical products, there should be no extension to test data protection agreed for any products. In both the US and Australia independent reviewers have concluded that there is no evidence to support such a change in policy. Unnecessary costs are inconsistent with government objectives to ensure sustainability of the PBS and to moderate growth in healthcare spending, and inconsistent with National Medicines Policy.

Should the final text provide for differential treatment for biologics, it is important that parties maintain maximum flexibility to define which products are classified as biologics.

Recommendations:

- 1) The Australian Government should not agree to a longer period of data protection for any medicines, including biologics.
- 2) Any definition of 'biologics' in the TPPA text must provide as much definitional flexibility as possible.