Follow-up data on patent expiry and atorvastatin price: experiences in Brunei Darussalam, Malaysia, the Philippines and Thailand

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We wish to follow up on our paper “Pricing policies for generic medicines in Australia, New Zealand, the Republic of Korea and Singapore: patent expiry and influence on atorvastatin price”, published in the September 2018 edition of this journal.¹ This paper examined the price per defined daily dose (DDD) of atorvastatin supplied in four countries of the World Health Organization (WHO) Western Pacific Region (Australia, New Zealand, Republic of Korea and Singapore) in the years before and after atorvastatin’s patent expired in each country. It reported that atorvastatin prices, converted to international dollars, fell in all of these countries in the years after patent expiry; however, there was a large variation in prices throughout the study period. At the end of the study (2014/2015), New Zealand’s tendering system and use of preferred medicines had resulted in the lowest price per DDD for atorvastatin ($0.03). By contrast, mandatory price cuts as the sole measure in the Republic of Korea resulted in a price of $1.15 per DDD.

Since publication of that paper, data have been received from an additional four countries: Brunei Darussalam, Malaysia, the Philippines and Thailand. Atorvastatin’s patent expired in the Philippines in 2008; however, no pricing data were available for the years before that. Generic atorvastatin became available in Thailand in 2010. No patent was ever in place for atorvastatin in Brunei Darussalam, and no patent data were available for Malaysia. However, it was possible to compare the price per DDD of atorvastatin, converted to international dollars,¹ for the period 2006–2015 (see Fig. 1).

Fig. 1. Annual price of atorvastatin (international dollars) per defined daily dose supplied or sold in Brunei Darussalam, Malaysia, the Philippines and Thailand

Data were not available for Thailand for the years 2008–2010. The year of generic entry was 2008 in the Philippines and 2010 in Thailand. For Brunei Darussalam, no patent was ever in place; for Malaysia, no patent data were available.
Pricing policies differ across the countries. In Brunei Darussalam, free pricing is used, and manufacturers are able to set their own prices.\(^5\) Competitive tender procurement is used in Malaysia.\(^3\) A variety of price regulations are employed in the Philippines and Thailand. In 2008 and 2009, the Government of the Philippines subjected five medicines (including atorvastatin) to mandatory price control (i.e., a maximum drug retail price, or MDRP), which cut the retail prices of those medicines by half. A voluntary drug price-reduction scheme was also introduced for 24 drugs from several manufacturers (i.e., a government-mediated access price, or GMAP). Both the MDRP and the GMAP are implemented across the market to control the retail prices of medicines sold to patients. The wholesale procurement prices of all essential medicines procured through government tenders and public hospitals is controlled through the Drug Price Reference Index.\(^4,5\) For government tenders, drug prices are negotiated when products are from a single source and/or patented. The prices of other medicines are currently negotiated between suppliers and manufacturers, although new price reviews are currently under way.\(^4\) In the Thai public sector, price ceilings are in place and medicines are currently negotiated between suppliers and manufacturers.\(^5\) Although all price regulations are currently ongoing, the trend is towards increased competition between pharmaceutical companies and increased manufacture and import of generic medicines. The prices of private sector medicines are not regulated in Malaysia or Thailand.\(^2,3\)

At the end of the study period, the price per DDD for atorvastatin was $0.24 in Brunei Darussalam, $0.66 in Malaysia, $1.07 in the Philippines and $0.84 in Thailand. All have decreased substantially in price since data first became available: 95% in Brunei Darussalam, 80% in Malaysia, 68% in the Philippines and 79% in Thailand. While prices fell substantially in the four countries over the study period, there remained a wide price variation at the end of the study, with the Philippines paying a little over four times more than Brunei Darussalam in 2015.

It is not clear why recent atorvastatin prices were lower in Brunei Darussalam than in the other countries. It might be expected that Brunei Darussalam's small population and free pricing policy would lead to higher prices, although the historical absence of an atorvastatin patent might be expected to have the opposite effect. One possible explanation for the low prices is the combination of public sector dominance and free pricing. The public sector in Brunei Darussalam pays for 90% of pharmaceutical expenditure, compared with only 15% in the Philippines.\(^2\) Although manufacturers are free to set their own prices, there is likely to be strong price competition to supply the public sector.

When compared with the prices in the higher-income countries reported in the previous paper, the prices in the four countries reported here were also high (see Table 1). Prices were compared for 2014, which was the last year of comparable data for all countries. The price in the Philippines was 30-fold higher than in New Zealand, 3-fold higher than in Australia and 2-fold higher than in Singapore. Malaysia's price was 20-fold higher than New Zealand's, double that of Australia and 1.4-fold higher than Singapore's price. The lower-income countries in this study are paying a higher price per DDD of atorvastatin than the higher-income countries, suggesting that there is still room for improvement in pricing policy in these countries.

Ethics approval was not deemed necessary for this study.

| Table 1. Price of atorvastatin per defined daily dose supplied, by country |
|------------------|------------------|
| Country          | 2014 price (international dollars) |
| Australia        | 0.28             |
| Brunei Darussalam| 0.24             |
| Malaysia         | 0.66             |
| New Zealand      | 0.03             |
| Philippines      | 1.07             |
| Republic of Korea| 1.15             |
| Singapore        | 0.47             |
| Thailand         | 0.84             |

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