December 17, 2017

Thank you for the opportunity to respond to the questions in the **PMPRB Guidelines Scoping Paper**.

Before I address the seven questions in the paper, I want to comment on the choice of the 12 PMPRB comparator countries. According to *Canada Gazette* (*Vol. 151, No. 48 – December 2, 2017*) these countries were chosen on the basis of the following criteria:

- countries must have medicine pricing policies that are well aligned with the consumer protection mandate of the PMPRB, such as a country having national pricing containment measures to protect consumers from high medicine prices;
- countries must possess reasonably comparable economic wealth as Canada, such as a country having a similar economic standing to Canada, as measured by GDP per capita;
- countries are required to have a similar medicine market size characteristics as Canada, such as population, consumption, revenues and market entry of new products.

The following table does not cover all of these factors but as can be seen there is little to distinguish three of the current PMPRB12 countries (Germany, Japan, Sweden) from three other possible countries (Austria, Finland, Ireland) that all have lower price ratios.

The PMPRB needs to provide a detail explanation for its choice of countries rather than just listing the criteria.

Country	Average foreign-to- Canadian price ratio (Figure 13 in PMPRB Annual Report 2016)	GDP per capita, 2016 (US \$) (http://stats.oecd.org/ index.aspx?Data SetCode=PDB_LV#)	Growth in retail pharmaceutical expenditure per capita, 2009-2015	Percent of expenditure covered by public insurance (OECD Health At A Glance 2017)	Annual per capita expenditure on medicines (OECD Health At A Glance 2017)
Canada	1.00	42,376	-0.2	36	756
Germany	1.00	43,076	0.7	84	766
Japan	0.92	37,504	3.1	72	798
Sweden	0.89	45,216	0.0	51	479
Austria	0.89	43,069	0.7	68	621
Finland	0.85	38,494	-0.8	55	484
Ireland	0.87	63,192	-4.4	75	684

### 1. What considerations should PMPRB use in screening drugs for high priority?

The criteria for identifying high priority drugs should be significant therapeutic advancement, price above a certain benchmark (possibly \$10,000/year) and anticipated widespread use which would translate into large expenditures.

Approval of drugs through either the priority review process or the Notice of Compliance with conditions policy does not reliably predict significant therapeutic advancement. (*Lexchin J. Health Canada's use of its priority review process for new drugs: a cohort* 

study. BMJ Open 2015;5:e006816; Lexchin J. Post-market safety warnings for drugs approved in Canada under the Notice of Compliance with conditions policy. British Journal of Clinical Pharmacology 2015;79:847-859.) Similarly, just being first in class does not mean major therapeutic improvement. (Lexchin J. How safe and innovative are first-in-class drugs approved by Health Canada: a cohort study. Healthcare Policy 2016;12:65-75.)

In some cases, the first drug to treat a medical condition can be a major therapeutic improvement but not in others. For instance, tacrine (Cognex) was the first product approved for the treatment of Alzheimer's disease in the United States but it was not regarded as a significant therapeutic improvement (<a href="https://www.ncbi.nlm.nih.gov/pubmed/7919566">https://www.ncbi.nlm.nih.gov/pubmed/7919566</a>) and was removed from the US market in 2013 because of safety concerns.

One example of how widespread use of relatively low-cost drugs can lead to large expenditure is atorvastatin (Lipitor). In 2009/2010, the publicly listed price of Lipitor 20 mg in Ontario was \$2.08. There were 524,000 thousand people in Ontario who received this medication through the Ontario Drug Benefit Plan leading to overall spending of \$316 million.

### 2. To what extent should low priority drugs be scrutinized?

Drugs that are not significant therapeutic advances can still generate large expenditures. One of the reasons for this is the amount of money that companies spend on promoting these products. Almost all of the money spent on journal ads and expenses related to sales representatives is for drugs with little to no therapeutic gain. (*Lexchin J. The relationship between promotional spending on drugs and their therapeutic gain: a cohort analysis. CMAJ Open 2017;5:E724-728.*) The PMPRB should not solely rely on a complaint-based mechanism to monitor the price of these products but instead should establish an upper dollar limit of sales above which the price of these products would be reviewed on an annual basis.

#### 3. How should a cost effectiveness threshold be established?

The PMPRB should use a number of different approaches to establish a cost effectiveness threshold. One approach would be to calculate the cost effectiveness for a number of widely accepted procedures as a benchmark, e.g., percutaneous coronary intervention, hemodialysis for renal failure, organ transplantation. The PMPRB should also undertake a survey of the formal or informal cost effectiveness thresholds used by other countries similar to Canada, e.g., Australia, New Zealand, the United Kingdom.

# 4. Should the application of a threshold be subject to further adjustment depending on market size considerations?

As I pointed out in my reply to question 2 above, a large market for even a low-cost drug can lead to significant spending and therefore market size needs to be taken into consideration. The PMPRB should establish an estimate of the appropriate population size for new patented medicines and should base the price on that population estimate.

## 5. How should re-benching work and when should it occur (and to what drugs)?

Companies should be required to report the total number of prescriptions (as a proxy for market size) for new patented medicines on an annual basis for the first 5 years the product is

on the market. If the market size exceeds the PMPRB's initial estimate of the appropriate market size then re-benching should occur, unless the increase in market size was due to a new indication for the product which would lead to an increase in the number of people appropriately using the product.

The identification of a new serious safety warning about a drug changes its benefit to harm ratio and the size of the appropriate population for the product. Therefore, new safety warnings should trigger rebenching. Similarly, new information about the effectiveness of a drug should also trigger rebenching. Information about safety warnings and effectiveness can be obtained from the Periodic Safety Updates that companies are required to provide to Health Canada, from independent drug safety bulletins (e.g., The Medical Letter, Prescrire International) and from Cochrane Systematic Reviews.

The PMPRB should also maintain a rolling calculation of the median time that patented medicines have been on the market without generic competition. When a medicine exceeds that median its price should be re-evaluated.

### 6. What price tests should the PMPRB apply to the new PMPRB12?

This policy that Canadian prices should be at international median was established when the PMPRB was created in 1987 but there was no rationale given at that time for the policy and the new pricing proposals from the PMPRB continue to accept this policy without questioning its rational. The PMPRB needs to lay out a clear and compelling case why it should continue to price drugs in Canada at the median of the PMPRB12. The PMPRB needs to make the case based on the issue of affordability to third party public and private insurers but especially to the roughly 10% of Canadians who lack insurance coverage and typically pay the highest prices.

In this regard, the PMPRB should be looking not just at the list prices in the PMPRB12 but also the average prescription cost to individuals in those countries and ensure that the out-of-pocket price paid by individual Canadians is no greater than the median out-of-pocket price in the PMPRB12.

## 7. How should the PMPRB make use of confidential third party pricing information

In line with my comments under question 6, the PMPRB needs to use the confidential third party pricing information to ensure that uninsured Canadians do not pay a price higher than that given to third parties through confidential discounts. The people who lack insurance are typically also at the lower end of the income scale and therefore the ones most likely to forgo buying medications due to price. (Law MR et al. The effect of cost on adherence to prescription medications in Canada. CMAJ 2012;184:297-302.)

Sincerely

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