International reference pricing of pharmaceuticals: 
Apply liberally or use sparingly?

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Objective
As part of an emerging literature on best practice in the design and application of international reference pricing (IRP), different groups have issued divergent recommendations on the frequency with which this pricing policy ought to be applied. Some stakeholders call for prices to be revised regularly under IRP, while others recommend price revisions be kept to a minimum. In order to understand which of these recommendations is in sync with how IRP is currently utilized, an analysis of international IRP policy was conducted.

Methodology
Between January 2017 and May 2018, a review of past and present pharmaceutical pricing legislation and rule-making was conducted across 64 countries known to be practicing IRP. In certain countries where information gaps or ambiguities were identified, in-depth interviews were completed with payers, policymakers and pharmaceutical industry members. Qualitative and semi-quantitative analyses were conducted to characterize frequency of IRP application, including examination of recent reforms to this aspect of the policy framework.

Results
When segmenting countries by frequency of IRP application, there is no clear majority. The largest segment (31.1%) applies IRP annually, a share only marginally larger than that which applies IRP exclusively at launch (28.7%). Smaller segments apply IRP at longer (21.9%) or shorter (17.2%) intervals than once per year (Figure 1). No clear trend emerges in terms of correlation between frequency of IRP application and other country characteristics, such as level of gross domestic product or length of experience with IRP.

Conclusions
In light of policy debates surrounding the regularity with which IRP ought to be applied, the lack of a clear majority in terms of segmentation by actual frequency of application suggests that establishing alignment on what constitutes an appropriate frequency may be difficult. At the same time, frequency of IRP application appears to be a not infrequent area of reform. Moreover, a relatively large share of countries reserves IRP-based price revisions occurred at the two and four-year marks.

Table 1: Select countries having recently reformed frequency of IRP application

<table>
<thead>
<tr>
<th>Country</th>
<th>Description</th>
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<tbody>
<tr>
<td>Austria</td>
<td>As a result of 2017 amendments, for medicines falling under certain categories of the reimbursement code, the price is determined six months from time of application. Following that, new averages are again taken after 18 months, a further 24 months, and finally an additional 18 months. This differs from the previous scheme, where as long as an average was not established, IRP had to be performed every six months at the latest.</td>
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<tr>
<td>Denmark</td>
<td>Under the current price cap agreement relevant to the hospital sector, a minimum of three countries is needed for a provisional price cap; each time the product is marketed in an additional three countries, the prices are added to calculate a new provisional price cap, up until such time as the product has been launched in all nine reference countries.</td>
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<tr>
<td>Ireland</td>
<td>Under the latest Framework Agreement, IRP is conducted annually, whereas under the terms of the previous Agreement, IRP-based price revisions occurred at the two and four-year marks.</td>
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Source: IHS Markit

A number of countries characterized as having mature policy frameworks were found to be actively debating, or have recently completed, changes to the time points at which IRP is applied (Table 1). In a number of these cases, IRP is reserved for application at launch, but formal amendments have changed the frequency with which it may be applied in order to derive final prices (assuming initial application results in a provisional price).