The cost of non-funded vaccinations in New Zealand

What do New Zealand’s healthcare and aviation have in common? Much, if attending to the way non-funded vaccinations are priced. Indeed, I recently needed a two-course rotavirus vaccine for my little one, only to face the equivalent of a return trip offered as two one-way tickets, crippling overcharges and hidden costs.

I got multiple quotes, each bringing about a new piece of information; three times I opted out of vaccination because of the ever increasing costs, only to be brought back in when finding alternative quotes online and internationally.

In hindsight, however, the experience makes for an interesting case study and provides a provocative insight into the role that Healthcare may be playing in preventing more parents from taking these vaccinations.

Methods—The ‘sample’ is a convenient one: the quotes I got during a two-day’s quest for GlaxoSmithKline’s (GSK) dual-dose ‘Rotarix®’. The data are a retrospective breakdown of costs. Hidden costs were estimated as they became apparent.

Results—I got 12 quotes, 8 from vaccination centres in the North Island (see top of Table 1), 4 from the web and from an international source (bottom of Table 1). The first column lists the chronological order of each quote, the second column lists the initial quote, the last column lists the things I considered when estimating the full cost, broken down in the remaining columns. Consultation fees (free for children) are excluded.

Table 1. Breakdown of real and estimated costs quoted for Rotarix® in 2013

<table>
<thead>
<tr>
<th>Chronology</th>
<th>Vaccination provider</th>
<th>Initial quote</th>
<th>Vaccine</th>
<th>GST</th>
<th>Delivery</th>
<th>Handling</th>
<th>Total</th>
<th>Diff. with GSK VII</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Centre A</td>
<td>76</td>
<td>95</td>
<td>14</td>
<td>86</td>
<td>42</td>
<td>237</td>
<td>43</td>
<td>0, 3, 6</td>
</tr>
<tr>
<td>V</td>
<td>Centre A</td>
<td>138</td>
<td>190</td>
<td>29</td>
<td>86</td>
<td>42</td>
<td>346</td>
<td>152</td>
<td>1, 3, 5, 6, 8</td>
</tr>
<tr>
<td>VI</td>
<td>Centre A</td>
<td>152</td>
<td>304</td>
<td>46</td>
<td>86</td>
<td>42</td>
<td>478</td>
<td>284</td>
<td>1, 3, 5, 6</td>
</tr>
<tr>
<td>IV</td>
<td>Centre B</td>
<td>138</td>
<td>254</td>
<td>38</td>
<td>21</td>
<td>35</td>
<td>355</td>
<td>161</td>
<td>1, 2</td>
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<td>III</td>
<td>Centre C</td>
<td>76</td>
<td>114</td>
<td>17</td>
<td>22</td>
<td>35</td>
<td>188</td>
<td>-6</td>
<td>1, 3, 4</td>
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<tr>
<td>IX</td>
<td>Centre D</td>
<td>238</td>
<td>133</td>
<td>20</td>
<td>43</td>
<td>32</td>
<td>238</td>
<td>16</td>
<td></td>
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<tr>
<td>X</td>
<td>Centre E</td>
<td>124</td>
<td>178</td>
<td>27</td>
<td>43</td>
<td>32</td>
<td>289</td>
<td>95</td>
<td>1, 3, 5, 6</td>
</tr>
<tr>
<td>XI</td>
<td>Centre E</td>
<td>152</td>
<td>95</td>
<td>14</td>
<td>43</td>
<td>42</td>
<td>194</td>
<td>102</td>
<td>0, 3, 8, 9</td>
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<tr>
<td>II</td>
<td>Web quote</td>
<td>92</td>
<td>184</td>
<td>28</td>
<td>43</td>
<td>32</td>
<td>296</td>
<td>102</td>
<td>1, 12</td>
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<tr>
<td>VIII</td>
<td>GSK (full)²</td>
<td>218</td>
<td>45</td>
<td>23</td>
<td>42</td>
<td>194</td>
<td>260</td>
<td>66</td>
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<td>VII</td>
<td>GSK/IMAC (disc.)²</td>
<td>252</td>
<td>95</td>
<td>14</td>
<td>43</td>
<td>25</td>
<td>800</td>
<td>106</td>
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<td>XII a</td>
<td>Vademecum (full)³</td>
<td>300</td>
<td>241</td>
<td>10</td>
<td>25</td>
<td>21</td>
<td>300</td>
<td>106</td>
<td>7, 12, 13</td>
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<tr>
<td>XII b</td>
<td>Vademecum (grm.)</td>
<td>243</td>
<td>186</td>
<td>7</td>
<td>25</td>
<td>24</td>
<td>243</td>
<td>49</td>
<td>7, 12, 14</td>
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</tbody>
</table>
The costs quoted on the Web were made in different years (2009, 2011, 2012) and may not be representative of costs in 2013. Therefore, all costs are standardised to 2010 referential dollars (r$), with 2013 nominal values ($) within parentheses when appropriate.

The standard quote for comparison is number VII, the still running discounted vaccine* as described in GSK’s ‘Patient Access Programme for Rotarix®’, and intended to bring about a reduction of r$66 ($69) to the final cost of the vaccine.

**Considerations**

- This initial quote was the first “firm” quote paid for. Afterwards, and prior to ordering, the provider realised it had not charged the vaccine correctly, nor GST, delivery costs and nurse’s costs.
- The initial quote turned out to be for one dose.
- Hidden costs suspected after reading the provider’s website.
- Hidden costs not provided but clarified upon questioning.
- It does not customarily pass delivery fees as a separate cost.
- It explicitly quoted the full charge for the dual vaccine as applying to each dose separately.
- It explicitly quoted two delivery fees (yet the two-doses are delivered bundled together).
- Final price, including vaccine, delivery and service.
- It explicitly quoted the vaccine as being ‘on special’.
- Quote after asking the provider whether GSK's 2012 programme was still running.
- Rotarix®'s estimated full cost based on information from GSK.
- Rotarix®'s estimated discounted cost based on information from GSK.
- There was a chance this information was outdated.
- Final price as reflected on the Spanish Vademecum in 2011, including vaccine, delivery and service.
- Simulation of the cost of Rotarix® in Spain had it been discounted as in New Zealand.

**Discussion**—Rotavirus gastroenteritis is quite common, and most children will get infected by the age of 5 years. Of these, 3% will need hospitalisation, 6% will be seen by emergency departments, and 20% will be managed at primary care levels. The worst cases will course with severe diarrhoea, vomiting, dehydration, electrolyte disturbance, brain damage, disability, even death. Yet gastroenteritis is preventable.
and the recommended immunisation,\textsuperscript{4,8-10} although not funded,\textsuperscript{4} may protect up to 90\% of children against subsequent severe infections.\textsuperscript{6}

The number of parents opting for non-funded vaccinations is probably low, yet this number may drop further due to the mismatch between actual costs to providers and final costs to parents. Most of the quotes I got in my quest for vaccination largely surpassed the discounted costs intended by GSK by an average of r$97 ($102).

Unreasonable practices among providers were quoting the price of the two doses as applicable to each dose individually, as well as quoting two delivery fees, effectively overcharging both. All-in-all, GSK’s intention of improving patients’ access to Rotarix\textsuperscript{2} by bringing about a reduction in the final price of the vaccine to about r$194 ($204)\textsuperscript{#} seems not to be realised, with the consequent detrimental effects on children’s health and future costs to District Health Boards.

**Footnotes:**

* GSK’s ‘Patient Access Programme for Rotarix®’ will run until at least the end of 2013 (personal communication with Melissa Rich, vaccine product manager for GlaxoSmithKline NZ).

# A well-organised provider could bring the total cost down to r$173 ($182) by ordering two sets of vaccines at once and passing on the savings in delivery fees.

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**References:**


