(FINAL – July 31, 2012)

For: Drug Discovery Today

Authors: Sarah Rickwood and Carolyn Gauntlett European Thought Leadership Group IMS Health

Launch Excellence for Diabetes Medicines Lessons from History

The market for non-insulin diabetes treatments has experienced strong growth over the last decade, averaging 9.5 percent over the past five years. Epidemiology and unmet need have combined to generate demand for new product classes. The first of these, the DPP-IV class, is dominated by Merck & Co's Januvia[®], but further launches are lining up in another major new class, the SGLT-2s. Given the similarities in the competitive characteristics of this new class compared to the DPP-IVs, IMS believes there may be significant learning opportunities from the successes and failures of recent oral diabetes agent launches.

Type II diabetes is a disease which is paradoxically dominated by old and off-patent drugs in the early stages of treatment, but remains a significant growth opportunity for new, patented products because of the progressive nature of the disease, and considerable remaining unmet need. DPP-IVs offered a new alternative in the treatment pathway, post metformin alone and prior to the later stages of treatment with insulins, or, latterly, GLP-1s pre-insulin. These diabetes medicines have been the primary success story over the last five years, capturing 33 percent of worldwide value sales of non-insulin, anti-diabetic products.

First to Market

The first DPP-IV inhibitor was Januvia (sitagliptin), introduced in 2006 in the U.S. by Merck. Today, Januvia dominates sales of DPP-IV products in developed markets, with the brand accounting for about 80 percent of worldwide sales for single compound products. Januvia's success can be attributed to both an excellent commercialization plan from Merck and a strong element of serendipity. Januvia could have launched in direct competition to Novartis' Galvus[®] (vildagliptin) in the U.S., but shortly before launch, Galvus was delayed, a consequence of side effect concerns. This left the field open to Januvia, allowing it to enjoy three years of U.S. exclusivity in its class before AstraZeneca/BMS introduced Onglyza[®] (saxagliptin). Similar market dynamics occurred in Europe, where Januvia was launched in 2007. Galvus hit the European market in 2008, but has managed sales of just nine percent compared to Januvia.

A Second Chance to be First

While it's been standard for single compound oral agents to be followed by combinations of those agents, most frequently with metformin, these products have been second brands – with less importance and potential than the original single agent. However, with the DPP-IVs, combination products have posed an opportunity to gain competitive advantage. In major European markets, Novartis launched its combination product, Eucreas[®] (vildagliptin/metformin), concurrently with Galvus. While Galvus was the second-to-market single compound product, Eucreas was the first launched combination product. After two years on the market in France, Germany and Spain, Eucreas represents 85-90 percent of vildagliptin family sales.

Pharmerging Markets

Pharmerging markets account for the vast majority of the volume potential of the diabetes market, driven by growing and aging populations acquiring Western habits. However, they have, until now, accounted for very little diabetes market value. This is starting to change with the battle between the DPP-IVs. In Brazil, Russia and India, Merck's Januvia was launched before Novartis's Galvus. Nonetheless, Novartis' family of products accounted for more than 50 percent of the DPP-IV market in 2011. Most of this success is attributable to Eucreas, which has outperformed Janumet[®] (sitagliptin/metformin) considerably. Meanwhile, Galvus has held its own against Januvia.



Figure 1: DPP-IV Sales in Pharmerging Markets

ims

Pharmerging markets offer the opportunity to overturn the competitive dynamics seen in the established markets. In 2011, combined sales for non-insulin anti-diabetics across BRIC were higher than sales in Germany, France and the UK. Pharmerging markets experienced average annual growth of 26 percent for diabetes products from 2007-2011.

Further, winning in pharmerging markets is driven by adaptation to the local environment, not by mature market success. In Brazil, Novartis heavily promoted Galvus and launched both plain and combination products together. This helped Novartis achieve sales for its DPP-IVs that were 40 percent higher than Merck's Januvia family in 2011. Additionally, the importance of local knowledge means that "going at it alone" may not be an effective strategy. In late 2008, Novartis joined forces with a local partner, USV, to co-promote Galvus in India. Local branding of the product as Jalra[®] and a large sales force resulted in fast market penetration.

Differentiation

IMS's research program of interviews with key opinion leaders (KOLs), providers and payers suggests that recent DPP-IV launches have lacked clear points of differentiation in these stakeholders' eyes. Boehringer Ingelheim targeted a niche patient population – those with renal impairment – with Tradjenta[®] (linagliptin), because the product is not excreted via the kidneys. The product is experiencing slow uptake in Europe due to differentiation not being achieved. For example, the German Institute for Quality and Efficiency in Health Care (IQWiG) failed to find that Tradjenta provided an added benefit, resulting in Boehringer Ingelheim choosing not to launch in Germany.

Several combination products that have recently launched have delivered lesser initial performance because their main differentiation, convenience and compliance, were simply not a strong enough sell. For example, Merck's Juvasync[®] (sitagliptin and simvastatin) has struggled because patients still have to take metformin with it.

The SGLT-2s

The next major class of drugs – SGLT-2s – are likely to experience market dynamics that mirror those of the DPP-IV inhibitors. A large number of these molecules are in late-stage development and are expected to launch around the same time. Like the DPP-IV inhibitors, IMS KOL interviews suggest the SGLT-2s may not be clearly differentiated from one another in the eyes of prescribers in terms of safety, efficacy or convenience. The first-to-market product will therefore have a significant advantage. European approval for AstraZeneca/BMS's dapagliflozin suggests that this agent will be the beneficiary here; however it may still be possible for late-to-market products to succeed if they learn the lessons of the DPP-IVs.

#