BioSpectrum the business of Bio & Health Sciences ASIA EDITION

Invincible Diabetes Turns APAC Into Pharma Goldmine

31 October 2022 | Analysis | By Ayesha Siddiqui

There are over 235 million diabetic patients in Asia. China and India account for almost half of the world's diabetic population. By 2030, without intervention, both China and India combined will have nearly half a billion diabetics. These are grim figures but for pharma firms, they represent a huge opportunity, and big pharma firms are spending billions in search of the next blockbuster drug for diabetes, according to the estimates from Singapore-based Asian Diabetes Prevention Initiative (ADPI). The diabetes care drugs market is highly fragmented in Asia Pacific (APAC) region with a few major manufacturers gaining presence in major countries of the APAC market, while the remaining market comprises other local or region-specific manufacturers. Mergers and acquisitions that happened between players in the recent past helped companies strengthen their market presence, as well as drive innovations, helping the diabetes drugs market to increase in the APAC region. Let's look at who owns the more significant piece of the pie and the competitive landscape of diabetes treatment in the region.

On October 10, 2022, Chinese firm Hua Medicines snagged the first-in-class nod in China for a diabetes drug Dorzagliatin, a glucokinase activator (GKA). This ends a 10 year drought in type 2 diabetes in terms of lack of 'medicines with new mechanisms of action' entering the market. This is welcome news for the region which has 60 per cent of diabetics in the world. It is no wonder then that the largest number of ongoing clinical trials for type 2 diabetes are conducted in the region, with 665 ongoing clinical trials.

Over the past few decades, Asian countries have witnessed a rapid increase in diabetes patients, especially those with type 2 diabetes. The APAC is anticipated to experience considerable growth due to a more geriatric population and rising prevalence of diabetes mainly due to the enhanced stress level, sedentary lifestyles, smoking, and excessive consumption of alcohol that elevates the body's sugar levels have led to the growth of the market, according to a Mordor Intelligence report.

Moreover, the production basis of certain antidiabetic drug companies in the region also boosted the market growth. However, the increasingly high cost of drugs is considered one of the major restraining factors for the market. According to the Organisation for Economic Co-operation and Development (OECD) iLibrary in APAC, about 227 million people live with type 2 diabetes and about half of them are undiagnosed and unaware of developing long-term complications. Also, according to the International Diabetes Federation (IDF) data, 90 million adults in the age group of 20-79 are living with diabetes in the SouthEast Asia (SEA) Region in 2021 which is projected to increase to 113 million by 2030 and 152 million by 2045.

Asia represents a golden pot for diabetes drugmakers. The South Asian diabetes drugs market alone is worth $2.73 billion in 2022 and is projected to reach $3.57 billion by 2027, according to a report from Statista, a German company specialising in market and consumer data.

The current global diabetes market is mainly dominated by four giants namely- Novo Nordisk (Denmark), Sanofi (France), Eli Lilly (USA), and Merck (USA). Combined, they account for about 80 per cent of the market. In Asia also these behemoths reign supreme in the diabetes landscape. Lets see how these big players are making their presence felt in the countries such as China, India, Japan, Korea and Australia amidst competition from the local players who are investing in this huge market opportunity and launching new products catering to the local population.

China

In 2021, it was estimated that China had about 141 million diabetics aged from 20 to 79 years, the highest number in any country. The figure would very likely climb to 174 million by 2045, according to Statista. It’s no wonder that the country ranks second in the world in diabetes-related medical spending, at $165.3 billion. That year, there were about 1.4 million deaths due to diabetes in China, about one-third of which occurred in people aged below 60 years. In 2021, China spent about $165 billion on diabetes - approximately $1,173.5 per person.

Diabetes is a major growth driver for China’s pharmaceutical industry. With the gradual increase of diabetes prevalence, the oral diabetic drug market sales from public hospitals in China were up to more than 20 billion yuan in 2021, according to a report from Daxue Consulting, a market research and management consulting firm focusing on the Chinese market.

Global multinationals dominate the Chinese diabetes market. In 2021, the top performers were AstraZeneca (UK), Bristol Meyers Squibb (US) and Merck (US). Domestic players like Nanjing Hailing Pharmaceutical Hangzhou Zhonghuadong Pharmaceutical and Sichuan Luye Pharmaceutical also performed well.

Unlike in the global market, insulin and oral hypoglycemic agents comprise most of the Chinese diabetes market. Glucagon-like peptide-1 (GLP-1) agonists accounted for 18.8 per cent of global diabetic drugs in 2020, with a market share of more than $13.1 billion. In comparison, the GLP-1 receptor agonist market in China is 1.6 billion yuan, accounting for 2.6 per cent of the total diabetes market in China, says a report from Daxue Consulting. The promotion of GLP-1 products' inclusion in the ‘Guidelines for the Diagnosis and Treatment of Type 2 Diabetes in China’ has given the GLP-1 medicine market in China a sizable development window and room for expansion.

Although global firms roost the town when it comes to diabetes, Chinese firms are catching up. Recently, the Chinese regulator approved Hua Medicine's innovative first-in-class Glucokinase Activator (GKA) HuaTangNing. HuaTangNing is the first approved GKA worldwide. Going forward, Hua Medicine will partner with Bayer (Germany) to commercialise HuaTangNing in China, benefiting diabetic patients and their families. Various other firms developing different treatments for the disease are in phase III trials. The most prominent is Retagliptin developed by Jiangsu HengRui Medicine for type 2 diabetes. The firm started a phase III trial in October 2021.

The Chinese government is also ramping up its fight against diabetes. In November 2021, China's centralised drug procurement agency selected 42 insulin products, resulting in an average price cut of 48 per cent. The products, from 11 domestic and foreign-invested companies, cover 16 varieties of second and third-generation insulin commonly used in clinical treatment.

In 2019, the government launched The Healthy China Initiative (2019–2030), a roadmap to a healthy China and an innovative public policy system project. The Diabetes Prevention and Control Action is one of the four chronic and noncommunicable diseases prevention and control actions in the Healthy China Initiative.

India

India is home to 74 million diabetics, the second highest in the world, and is expected to increase to 125 million by 2045, according to the International Diabetes Federation (IDF).

The competition is fierce in the diabetes market in the country. While it's largely dominated by Danish diabetes major Novo Nordisk, French firm Sanofi and domestic player Biocon. 2022 saw the launch of the generic and cheaper versions of the popular diabetes drugs in the country. On October 6, 2022, Alkem Labs, the country's 5th largest drugmaker launched for the first time in India, a triple-drug fixed-dose combination (FDC) of dapagliflozin, sitagliptin and metformin under the brand name of dapanorm trio at an affordable price for adults with type 2 diabetes. On the same day, Glenmark, the country's top generic drugmaker launched thiazolidinedione Lobeglitazone (Lobeglitazone) for the treatment of type 2 diabetes in adults.

Glenmark and Cadila both launched the generic version of Merck's blockbuster drug sitagliptin in the country. On August 2, 2022, Cadila Pharmaceuticals, a pioneer in vitamin D3 supplements and a legacy of 50 years in offering an affordable range of cardiovascular medicines, made a foray into the diabetes care segment with the launch of generic versions of sitagliptin in India under the brand names Jankey and Sitenali to address type 2 diabetes.

A month earlier on July 7, 2022, Glenmark, launched the sitagliptin for adults with type 2 diabetes. In April, the company also launched a novel fixed-dose combination (FDC) of a widely used DPP4 inhibitor (Dipeptidyl Peptidase 4 Inhibitor), teneligliptin, with pioglitazone. This is the only available DPP4 and glitazone combination brand in India for adults with uncontrolled type 2 diabetes.

Earlier this year, in January 2022, Novo Nordisk launched an oral formulation for an anti-diabetes drug that was available only as injections and claimed the new drug can help better control blood sugar levels in diabetic patients.

The Indian government is also taking steps to make diabetes therapies accessible for all. In September 2022, the Union Health Ministry launched the new National List of Essential Medicines (NLEM), expanding the list to include newer therapies for diabetes, such as the medicine teneligliptin and insulin glargine.

According to IQVIA sales data for the 12 months ending August 2022, the market for oral anti?diabetic drugs in India is estimated to be Rs 11,725 crore. with an annual growth of 7 per cent against the corresponding period last year (MAT August 2021). The number is set to further increase. The diabetes care market in India is expected to reach about $60 billion in the next 10 years, from approximately $17 billion, according to Redcore, the research arm of Bengaluru-based research firm Redseer consulting.

Japan

There has been a flurry of activities in the diabetes sector in Japan. On July 7, 2022, Eli Lilly Japan K.K. and Mitsubishi Tanabe Pharma Corporation (MTPC) signed a sales collaboration agreement in Japan for tirzepatide, which is under development by Eli Lilly Japan.

Tirzepatide (injection) belongs to the GLP-1 class of drugs which has seen remarkable growth in the country. In 2021, French firm POXEL SA along with its partner, Sumitomo Dainippon Pharma, launched TWYMEEG (Imeglimin hydrochloride), another GLP-1 drug for the treatment of type 2 diabetes in Japan.

Sodium-glucose Cotransporter-2 (SGLT2) is another class of drugs that is gaining traction. In 2021, AstraZeneca's Farxiga was approved in Japan. The drug is an instant blockbuster in the country and became the top-selling diabetes drug in Japan, displacing Merck's DPP-4 inhibitor Januvia (sitagliptin) for the first time in 11 years, according to a report from IQVIA.

DPP-4 inhibitors, while gaining traction in other parts of Asia, are on the decline in Japan. According to IQVIA, the Japanese diabetes market was valued at 635.5 billion yen in 2021, making it the second-largest therapeutic category after cancer drugs.

South Korea

The South Korean diabetes treatment market is forecasted to be worth approximately $16 million by 2023, according to Statista. The market is mostly dominated by global multinationals like Sanofi, Merck and AstraZeneca.

On May 3, 2022, Korea approved Novo Nordisk's Rybelsus, the world's first oral GLP-1 analog treatment for type 2 diabetes. DPP-4 inhibitors account for more than half of the Korean diabetes drug market, but GLP-1 and SGLT-2 are gaining traction as well. In January 2022, Daewoong Pharmaceutical released positive phase III results for enavogliflozin monotherapy and combination therapy with metformin. Enavogliflozin is the first SGLT-2 inhibitor being developed in Korea. The firm aims to launch the drug in 2023.

Demand for new diabetes drugs is growing worldwide, and Korean firms are scrambling to develop novel treatments for the disease.

LG Chem, one of the largest pharma companies in the country LG Chem is developing a new diabetes drug that improves desensitised insulin reactions. In January 2022, the firm began phase I clinical trials in the US. GSK has also been researching insulin resistance.

In July 2021, Ildong Pharmaceutical, a Korean major pharma firm started the phase I trial of IDG16177 in Germany. IDG16177 is a new drug candidate of the GPR40 (G-protein-coupled receptor 40) GPR40 agonist class.

Australia

In 2021, the Australian government released a new 10-year plan to better support Australians living with all forms of diabetes. The Australian National Diabetes Strategy 2021–2030 will drive real improvements in the prevention, early detection, management, and care of people with diabetes. With approximately one in 20 Australians affected by diabetes, the new strategy will bring together the latest research and evidence to ensure health response continues to adapt to the changing health environment.

Can diabetes be cured?

2022 marks 100 years since the discovery of insulin and this remains one of the standard treatments for the disease. Diabetes cannot be cured, and the medication available helps with keeping the blood sugar under control. But that hasn't deterred pharma firms from chasing the holy grail- the cure for the diseases. Pharma firms are deploying various strategies in this search:

Promising developments

Peptides: On July 20, 2022, in a new study coordinated by Inserm researcher Vincent Marion in collaboration with Monash University (Australia), the University of Birmingham (UK), and Alexander Fleming, a former senior endocrinologist at the US Food and Drug Administration (USFDA), the scientists have developed PATAS, a peptide that is part of a new class of anti-diabetic drugs. PATAS can correct the metabolic abnormalities leading to type 2 diabetes and its associated comorbidities, which include insulin resistance.

Microbiome therapeutics: Gut microbiomes as therapeutics are gaining traction. The French biotech company Valbiotis, is currently conducting phase II/III trials for a drug aimed at increasing the microbiome diversity for early-stage type 2 diabetes. On August 5, 2022, scientists at the University of California, San Diego found that engineered native gut bacteria show promise to treat diabetes.

Stem cell transplantation: Injections of insulin may become obsolete if research from the University of Alberta, Canada is successful. In January 2022, diabetes researchers from the University of Alberta reported early success in a first-in-human clinical trial to test whether pancreatic cells grown from stem cells can be safely implanted and begin to produce insulin.

Dietary supplements: Valbiotis has developed a dietary supplement comprising a combination of extracts from five plants. In July 2019, they announced positive results from a phase IIA study of their compound which sought to evaluate its efficacy in pre-diabetic populations compared to a placebo.

Evolving potential

The APAC region has witnessed an alarming increase in the prevalence of diabetes in recent years. In developing countries, such as China and India, the rate of diabetes is at an all-time high. Patients with diabetes require many corrections throughout the day for maintaining normal blood glucose levels, such as oral anti-diabetic medication or ingestion of additional carbohydrates by monitoring their blood glucose levels. Leading manufacturers are focusing on technological innovations and the development of advanced products to gain a substantial share of the market.

The future of diabetes treatment is evolving, from lowering glucose levels to finding the cure at the grass-root level. The global diabetes drug market is projected to reach $68 billion by 2026, with everyone aiming to get the bigger piece of the pie.

Ayesha Siddiqui

ayesha.siddiqui@mmactiv.com