



Recently Introduced Products

Drug Name	Indication	Potential Impact	Expected Avg. Annual Cost
Multaq	Treatment of atrial fibrillation	\$	\$1,483.20
Atacand Plus 32/12.5 mg and 32/25 mg	Treatment of essential hypertension	\$	\$416.00

\$: Est. drug plan expenditure increase of <1%* \$\$: Est. drug plan expenditure increase of 1-5%* \$\$\$: Est. drug plan expenditure increase of >5%*

DPP-4 Inhibitors- an expanding new drug class to treat Type II Diabetes Mellitus

Type 2 Diabetes Mellitus (T2DM) is projected to increase to 2.4 million diagnosed Canadians by 2016¹. It is a leading cause of blindness, amputation, end-stage renal failure and cardiovascular disease. T2DM is characterized by high levels of glucose in the blood (hyperglycemia) due to inadequate secretion and/or resistance to insulin. Insulin is the hormone which directs cells in the body to absorb sugar from the blood, and is produced in the pancreas. Risk factors for developing T2DM include age, lifestyle, diet, physical activity levels, ethnicity and genetics².

Current therapies target the multiple causes of T2DM. Metformin, the gold-standard, reduces the liver's production of glucose and increases the body's response to insulin. It is often combined with oral hypoglycemic agents such as sulfonylureas (e.g. glyburide) or glitazones (e.g. pioglitazone), which stimulate the release of insulin from the pancreas and sensitize muscle and fat cells to insulin. The side-effects of sulfonylureas and glitazones include weight gain and hypoglycemia (low blood sugar), leading to decreased compliance^{1,2}.

In 2007, a new drug class called the DPP-4 inhibitors emerged with the commercialization of Januvia[®] (sitagliptin), and more recently, Janumet[®], a combination of sitagliptin and metformin. Onglyza[®] (saxagliptin), available as of November 2009, has been demonstrated to be as effective as Januvia[®]. DPP-4 inhibitors reduce the breakdown of incretins, gastrointestinal hormones that increase insulin levels and lower blood glucose levels after meals. They are indicated as second-line therapy in combination with metformin or oral hypoglycemic agents. Due to their mechanism of action, DPP-4 inhibitors are not associated with an increased risk of hypoglycemia, nor do they cause weight gain².

The annual cost of treatment with Januvia[®], Janumet[®] and Onglyza[®] is \$1,080, \$1,110 and \$1,208, respectively. ClaimSecure clients fully cover DPP-4 inhibitors under their existing open drug formularies. However, for clients who subscribe to ClaimSecure Managed Formularies, these drugs are placed under Special Authorization. The Special Authorization program ensures that plan members have tried and failed first-line therapy (maximal doses of metformin). In addition, Special Authorization will allow for coordination of benefits with available provincial healthcare plans.

If you require additional information about Januvia[®], Janumet[®] or Onglyza[®], please contact Genevieve Coutu, Clinical Pharmacist, Clinical Services Department, at (905) 949-3031 or 1-888-479-7587 ext.3031.

Recommendation: Special Authorization

ClaimSecure reserves the right to amend in part or in its entirety stated special authorization clinical guidelines

References:

- 1) Canadian Diabetes Association 2008 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada. *Canadian Journal of Diabetes*. Sept 2008; Vol. 32 (1).
- 2) Onglyza[™] Private Payer Submission Binder. Bristol-Myers Squibb & AstraZeneca Inc., October, 2009.

