Trends in medication management.

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#HealthBenefitsTrends

TELUS® Health

Content outline

i. Therapy class insights 2018
ii. Legislative update
iii. Biosimilars & subsequent entry products
iv. Drug pipeline

Therapy class insights 2018

Top 10 drug classes by adjudicated amount
Western Canada

Therapeutic class	Rank by total adjudicated amount		Percent of total adjudicated amount	
	2018	2017	2018	2017
Diabetes	1	1	11.0%	10.0%
Rheumatoid arthritis	2	2	8.2%	8.2%
Asthma	3	3	6.8%	6.7%
Skin disorders	4	5	6.2%	5.3%
Depression	5	4	5.8%	6.2%
Blood pressure	6	6	4.3%	5.1%
Add/Narcolepsy	7	8	4.2%	3.7%
Antibiotics/Anti-Infectives	8	7	4.1%	4.4%
Birth Control	9	9	3.7%	3.6%
Ulcers	10	10	3.1%	3.4%
% of total adjudicated amount			**57.5%**	**56.6%**

Top 10 products by adjudicated amount

Western Canada

Drug name	Rank by total adjudicated amount		Percent of total adjudicated amount	
	2018	2017	2018	2017
Humira	1	1	3.4%	3.3%
Remicade	2	2	2.6%	2.8%
Insulin	3	3	2.6%	2.7%
Stelara	4	11	1.4%	1.0%
Symbicort	5	4	1.3%	1.3%
Vyvanse	6	10	1.3%	1.0%
Botox	7	6	1.3%	1.1%
Concerta	8	12	1.2%	1.0%
Advair	9	5	1.1%	1.2%
Victoza	10	7	1.0%	1.1%
% of adjudicated amount			**17.2%**	**16.5%**

Therapy class insights

Diabetes

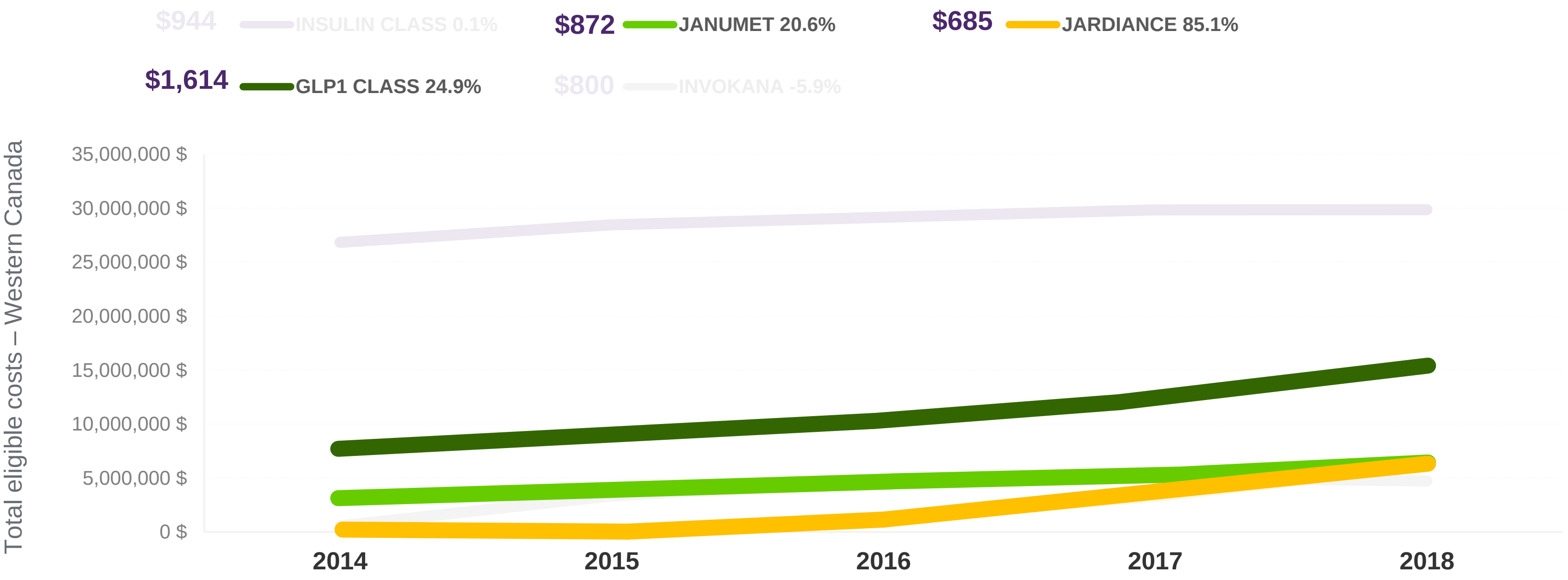
What is happening outside of the top 10?

Therapeutic class	Rank by total adjudicated amount		Percent of total adjudicated amount	
	2018	2017	2018	2017
HIV	37	34	0.4%	0.7%
Migraine	27	27	1.1%	1.1%

Impact of generic substitution type

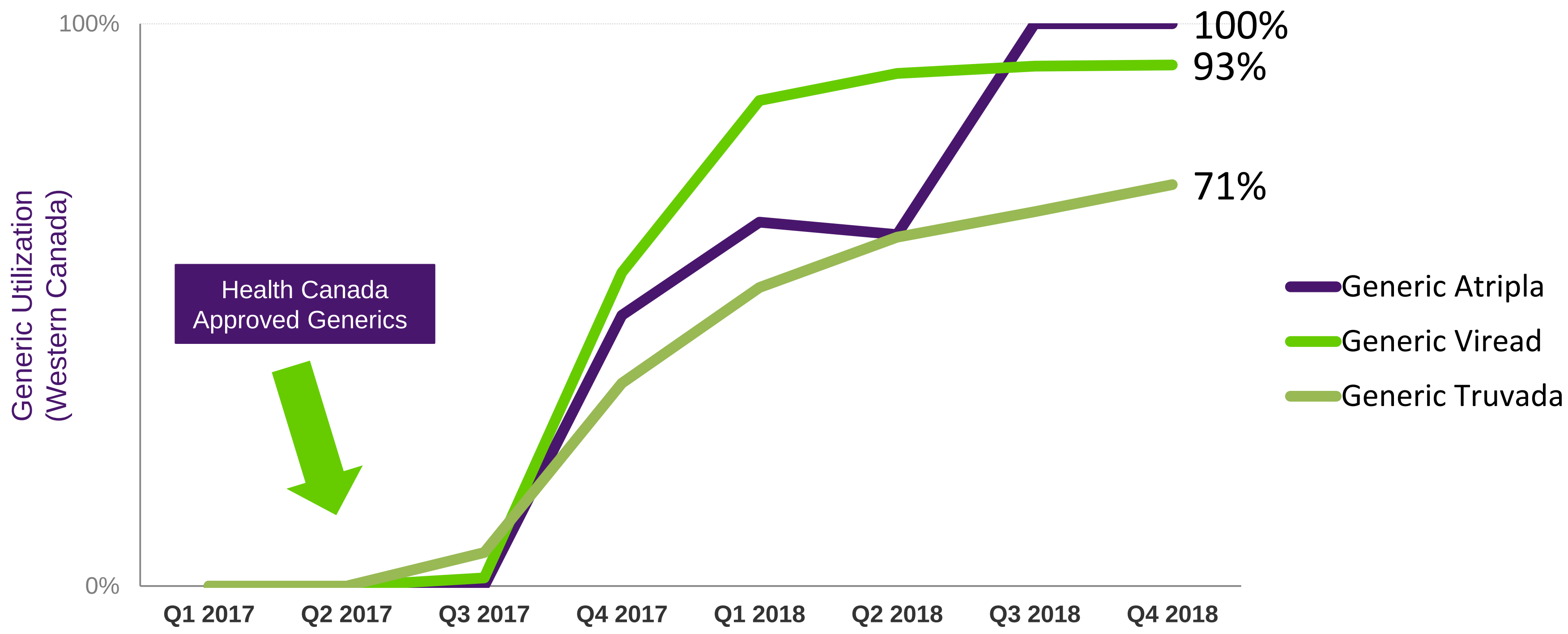
Diabetes: Trends in medication use

Total eligible cost 2018: $123 M (+13.5 %)



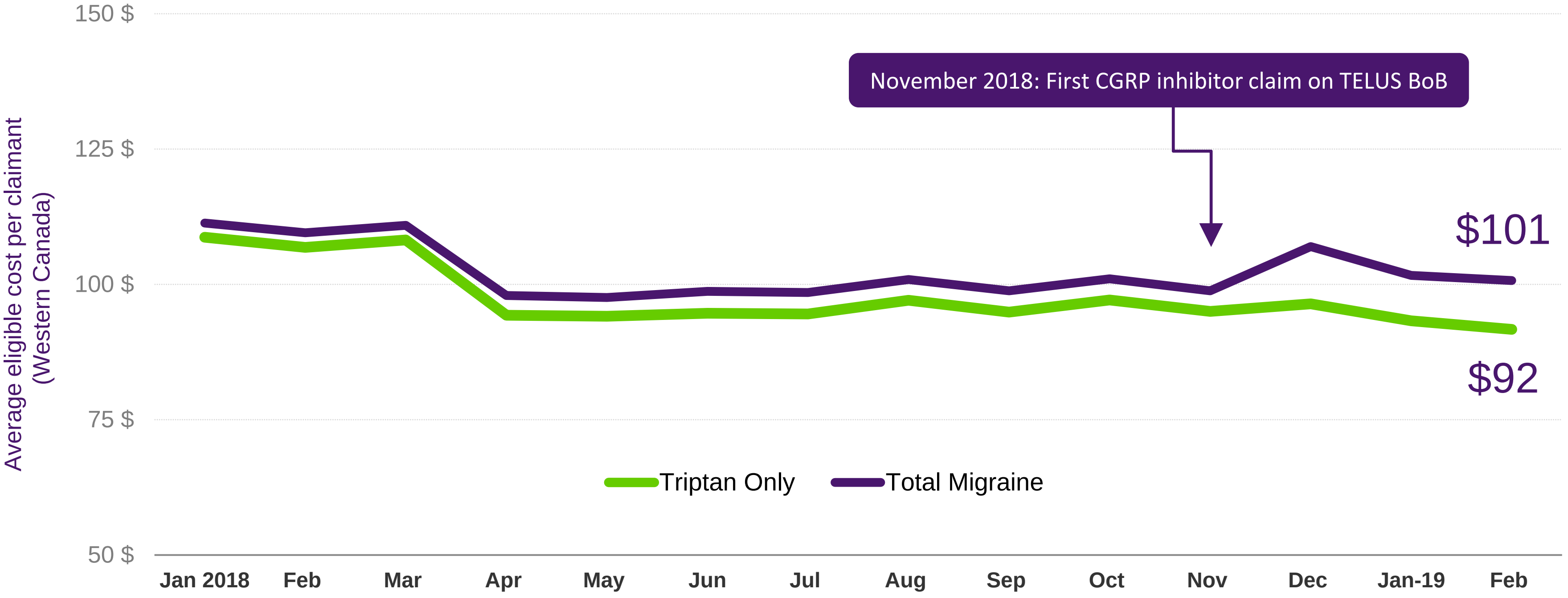
Suggested Management: Step Therapy

Outside the Top 10: New HIV Generics



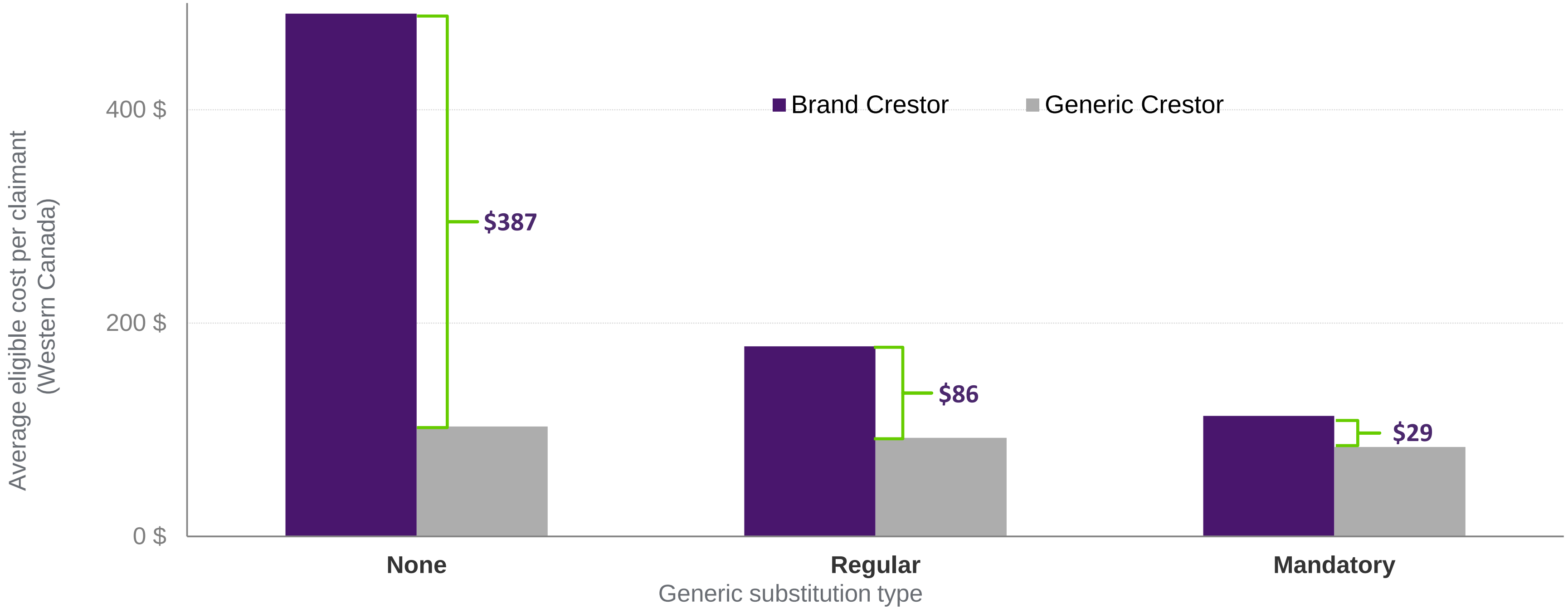
Suggested Management: Generic Substitution

Outside the top 10: Migraine – impact of new entrant



Suggested management: prior authorization / generic substitution / managed formulary

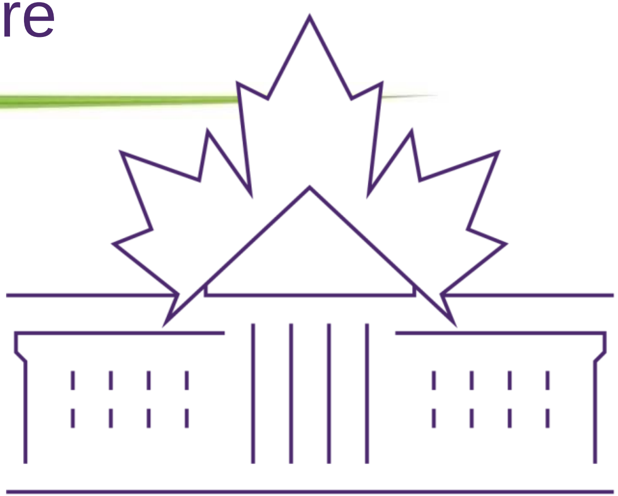
Impact of generic substitution type – Crestor



Suggested management: mandatory generic substitution

Legislative update

National pharmacare



- **February 2018**: Advisory council introduced
- **March 2018**: Finance Minister Morneau speech
- **April 2018**: House of commons report
- **July-October 2018**: Advisory council consultation sessions & townhalls
- **March 2019**: Interim report from the advisory council & federal budget released
- **Spring 2019**: Advisory council's final report anticipated

National pharmacare

Interim report & budget 2019

Foundational recommendations for national pharmacare

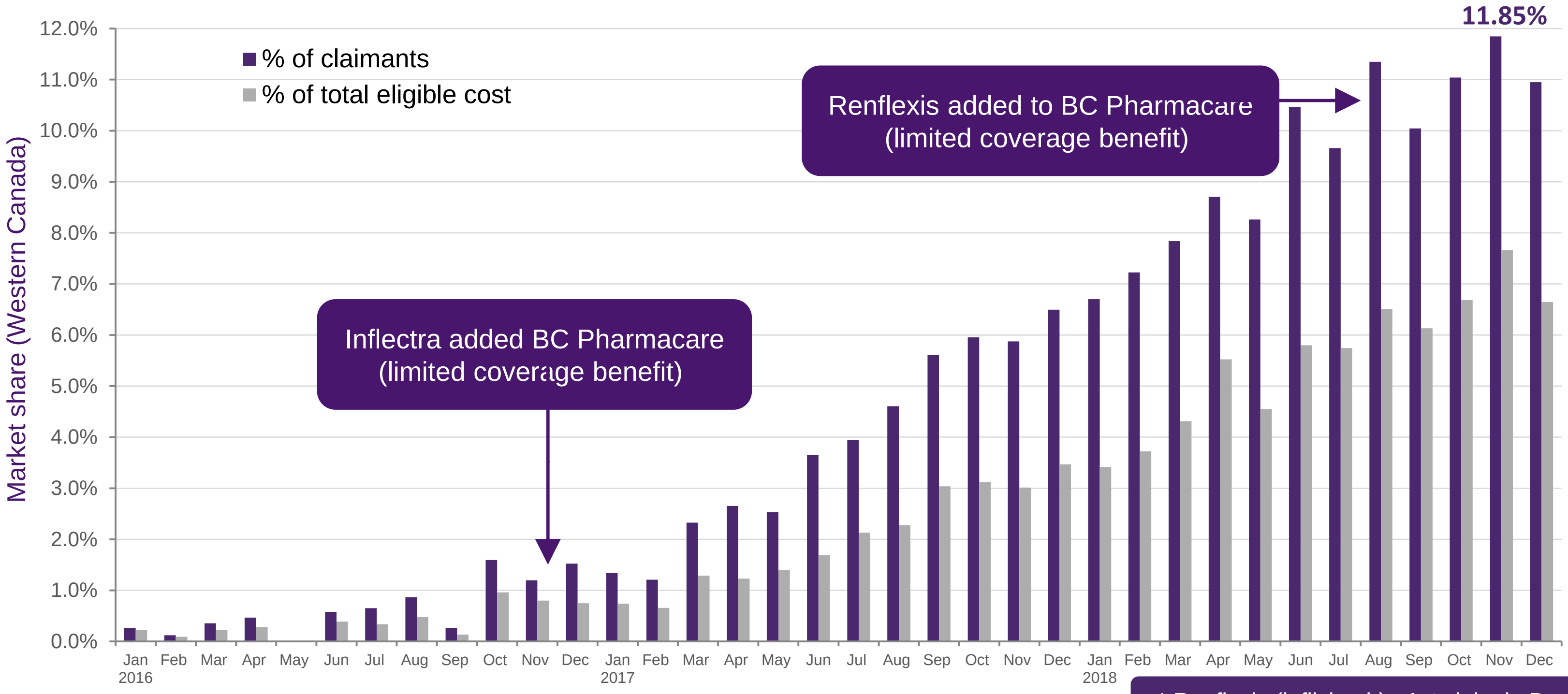
1. Creation of a national drug agency: Canadian Drug Agency
2. Comprehensive, evidence-based national formulary
3. Invest in drug data and information technology (IT) systems
4. National strategy for high cost drugs for rare diseases

Biosimilars & subsequent entry products

National uptake - TELUS BoB experience

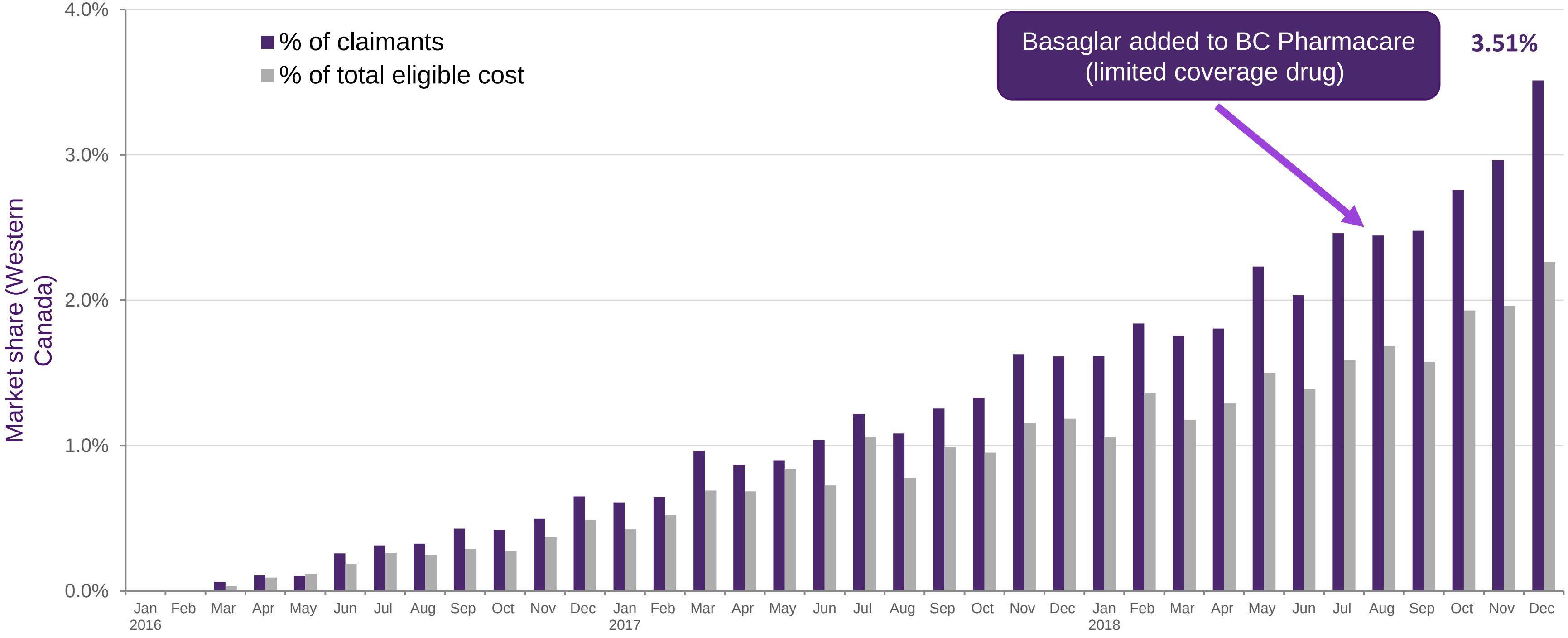
Biosimilar brand name (chemical entity; reference brand)	Price difference vs. reference drug	% of claimants			% of total eligible cost		
		2016	2017	**2018**	2016	2017	**2018**
GRASTOFIL (filgrastim; Neupogen)	**-17%**	0.96%	31.34%	**57.82%**	0.40%	23.66%	**49.27%**
INFLECTRA (infliximab; Remicade)	**-46%**	0.84%	3.83%	**8.12%**	0.36%	1.48%	**3.94%**
BRENZYS & ERELZI (etanercept; Enbrel)	**-37%**	0.09%	2.70%	**9.24%**	0.01%	1.00%	**4.53%**
BASAGLAR (insuline glargine; Lantus)	**-25%**	0.56%	1.66%	**3.97%**	0.22%	0.76%	**1.93%**
GLATECT (glatiramer; Copaxone)	**-29%**	-	-	**2.27%**	-	-	**0.69%**

Market share of infliximab
Inflectra, Renflexis – Western Canada

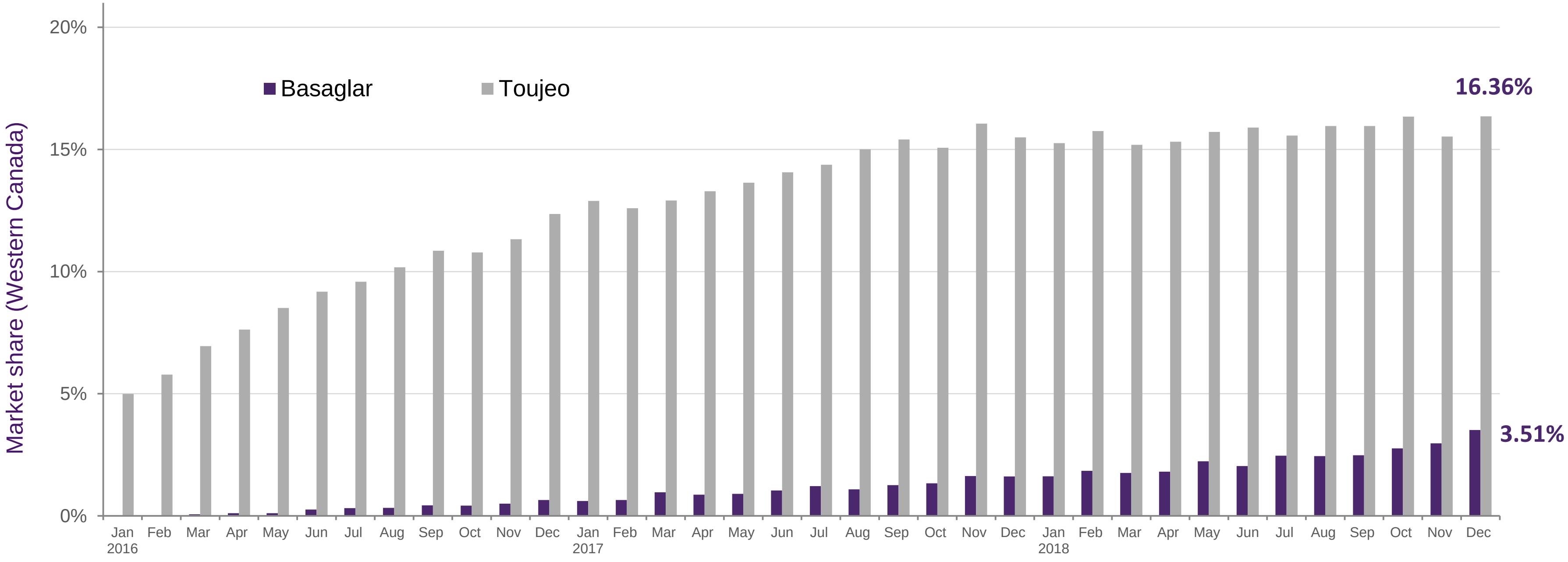


* Renflexis (infliximab) : 1st claim in December 2018

Market share of insulin glargine Basaglar – Western Canada



Market share of insulin glargine Basaglar/Toujeo – Western Canada



Update: biosimilars under review
Expected launches within the next 3 years

Reference medication	Indication(s)	Health Canada regulatory status	Eligible amount TELUS BoB 2018
Humira (adalimumab)	Rheumatoid arthritis/ inflammatory conditions	1 currently under review - November 2018	$177M
Neupogen (filgrastim)	Neutropenia	2 currently under review - April 2018	$7.8M (originator) $9.4M (biosimilar)
Avastin (bevacizumab)	Cancer (multiple indications)	2 currently under review - August 2018	$4.2M
Herceptin (trastuzumab)	Breast cancer / gastric cancer	7 currently under review - February 2018	$114K
Rituxan (rituximab)	Lymphoma / leukemia / rheumatoid arthritis / GPA & MPA	4 currently under review - April 2018	$10.9M
Forteo (teriparatide)	Osteoporosis	1 currently under review - June 2018	$2.7M

>$212M

Drug pipeline

Submissions under review – Health Canada

Cost drivers

132 submissions (new drugs & new indications)

1/3 are cancer products

New biologics (migraine, osteoporosis)

Expansion of indications

Cost relief

Biosimilar pipeline

Generic submissions (40 molecules)

Novel oral anticoagulants (Xarelto, Eliquis, Pradaxa)

Multiple sclerosis (Gilenya & Fampyra)

New drug pipeline – short-term

Drug	Indication	Potential impact	Cost
larotrectinib Bayer	A kinase inhibitor targeted against solid tumors testing positive for a mutation known as an NTRK gene fusion. ▪ FDA approval in December 2018 (Vitrakvi) as a tumor agnostic drug. ▪ **Submitted to Health Canada in November 2018**	Oral cancer treatment, therefore will impact private payers. New paradigm in approval of oncology products without a specific cancer type.	U.S. pricing set between $11,000 and $32,800 per month (pediatric and adult dosing).
ataluren PTC therapeutics (Europe)	Approved in Europe for the treatment of Duchenne muscular dystrophy caused by a nonsense mutation. ▪ **Submitted to Health Canada in September 2018** ▪ Sold as TRANSLARNA in Europe	Would be first treatment approved by Health Canada for specific subset of Duchenne muscular dystrophy.	Rare disease pricing expected.
galcanezumab Eli Lilly	Monoclonal antibody (biologic drug) targeting CGRP indicated for the prevention of chronic and episodic migraines. ▪ **Submitted to Health Canada in October 2018** ▪ Aimovig (Novartis) submitted to Health Canada in October 2017, received NOC August 2018	Highly anticipated new drug class targeting a highly prevalent medical condition (approx. 8% of Canadians).	Expected annual cost up to $7,000.

New indication pipeline – short-term

Drug	Indication	Potential impact	Cost
Dupixent (dupilumab) Sanofi-Aventis	Recombinant human IgG4 monoclonal antibody that inhibits signaling of cytokines involved in atopic disease. ▪ FDA approval for severe asthma indication granted in October 2018. ▪ **Submitted to Health Canada in November 2018**	Based on pricing for treatment of atopic dermatitis, Dupixent would be a costly alternative to exisiting biologic alternatives in severe asthma.	Annual cost approximately $30,000.
Keytruda (pembrolizumab) Merck	Currently approved in Canada for Melanoma, NSCLC, Hodgkin Lymphoma, Primary Mediastinal B-cell Lymphoma, Urothelial Carcinoma. ▪ **Submitted to Health Canada from September 2017 to October 2018** ▪ FDA approval for tumor agnostic indication based on common biomarker rather than tumor type	Traditional treatment indications based on tumor type potentially seeking tumor agnostic approval. New paradigm in approval of oncology products without a specific cancer type.	Approximately $8,800 per treatment cycle.

Summary

1. Therapy classes outside of the top 10 are evolving
2. How generic substitution is deployed can have a large impact
3. National pharmacare: advisory council final report – spring 2019
4. Use of biosimilar and subsequent entry products growing slowly
5. New drugs/indications under review both drive costs and provide relief

Questions

Thank you

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