Trends in Medication Management

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#HealthBenefitsTrends

TELUS | Health

Content Outline

I. Therapy class review 2017
II. Legislative updates
III. Biosimilars
IV. Drug pipeline highlights

Therapy class review 2017

Top 10 classes by adjudicated amounts
Canada 2017

Therapy Classes	2016	2017			
	rank	rank	% adjudicated amount	% Rxs	% claimants
Rheumatoid Arthritis	1	**1**	11.7%	0.3%	0.5%
Diabetes	2	**2**	9.1%	6.6%	6.3%
Asthma	4	**3**	5.7%	5.7%	18.4%
Skin Disorders	5	**4**	5.3%	4.1%	21.2%
Depression	3	**5**	5.3%	8.8%	15.0%
Blood Pressure	6	**6**	4.3%	8.6%	14.3%
Cancer	12	**7**	3.6%	0.5%	1.3%
Antibiotics/Anti-Infectives	7	**8**	3.6%	8.0%	44.3%
Multiple Sclerosis	9	**9**	3.3%	0.1%	0.1%
Ulcers	8	**10**	3.2%	4.6%	13.6%

Top 10 classes by adjudicated amounts
Canada 2014-2017

Therapy Classes	2014		2015		2016		2017		Trend 2014-2017
	Rank	Adj Amt	Rank	Adj Amt	Rank	Adj Amt	Rank	Adj Amt	
Rheumatoid Arthritis	1	10.6%	1	11.0%	1	11.7%	1	11.7%	+1.1%
Diabetes	**2**	**8.1%**	**2**	**8.3%**	**2**	**8.8%**	**2**	**9.1%**	**+1.0%**
Asthma	4	5.6%	4	5.5%	4	5.6%	3	5.7%	+0.1%
Skin Disorders	8	4.0%	7	4.2%	5	4.7%	4	5.3%	+1.3%
Depression	**3**	**6.9%**	**3**	**6.0%**	**3**	**5.7%**	**5**	**5.3%**	**-1.6%**
Blood Pressure	5	4.7%	5	4.5%	6	4.5%	6	4.3%	-0.4%
Cancer	**13**	**2.8%**	**14**	**2.8%**	**12**	**3.0%**	**7**	**3.6%**	**+0.8%**
Antibiotics/Anti-Infectives	6	4.3%	6	4.4%	7	3.8%	8	3.6%	-0.7%
Multiple Sclerosis	**11**	**3.0%**	**11**	**3.1%**	**9**	**3.3%**	**9**	**3.3%**	**+0.3%**
Ulcers	7	4.3%	8	4.1%	8	3.6%	10	3.2%	-1.1%
Hepatitis	**18**	**1.9%**	**9**	**3.2%**	**18**	**1.8%**	**22**	**1.4%**	**-0.5%**

Therapy Class Review

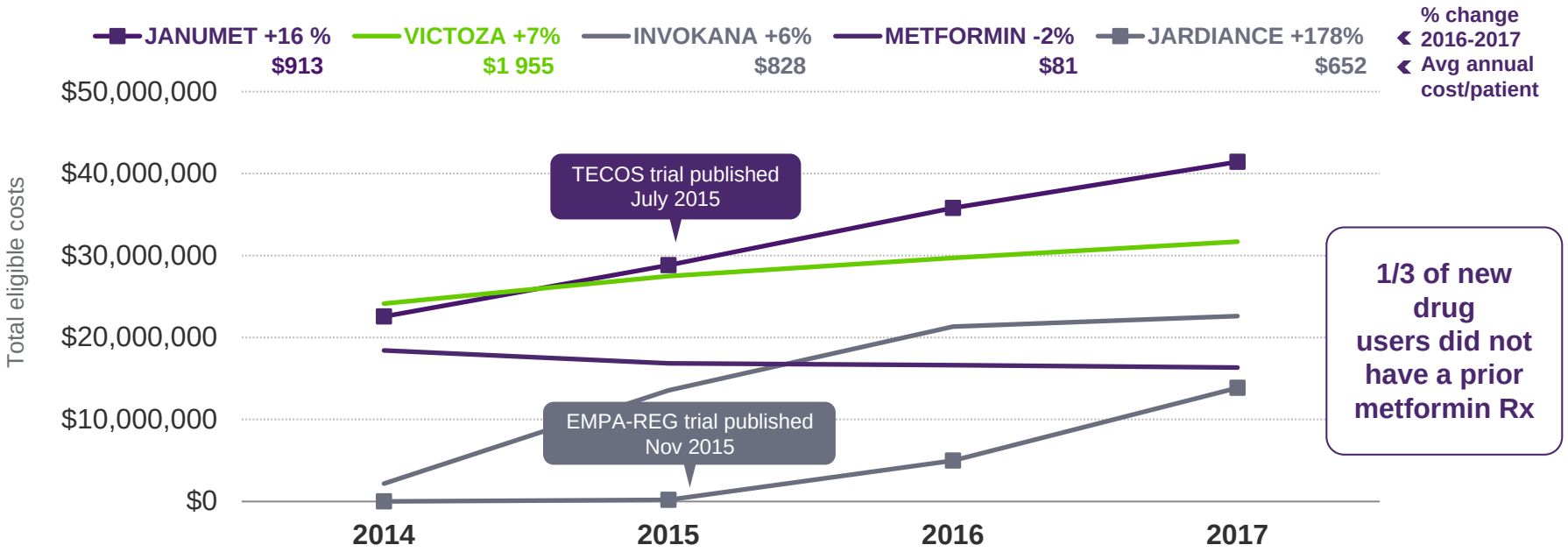
Highlight the most important therapy class changes 2014-2017

Within each class 3 primary objectives:

- Review the most significant changes by drug 2016-2017
- Identify the **key** driver of the change
  - new drugs, clinical data [efficacy/safety], generic entrants, population, etc.
- Suggest possible management strategies

Most important variations of drugs 2016-2017
Diabetes

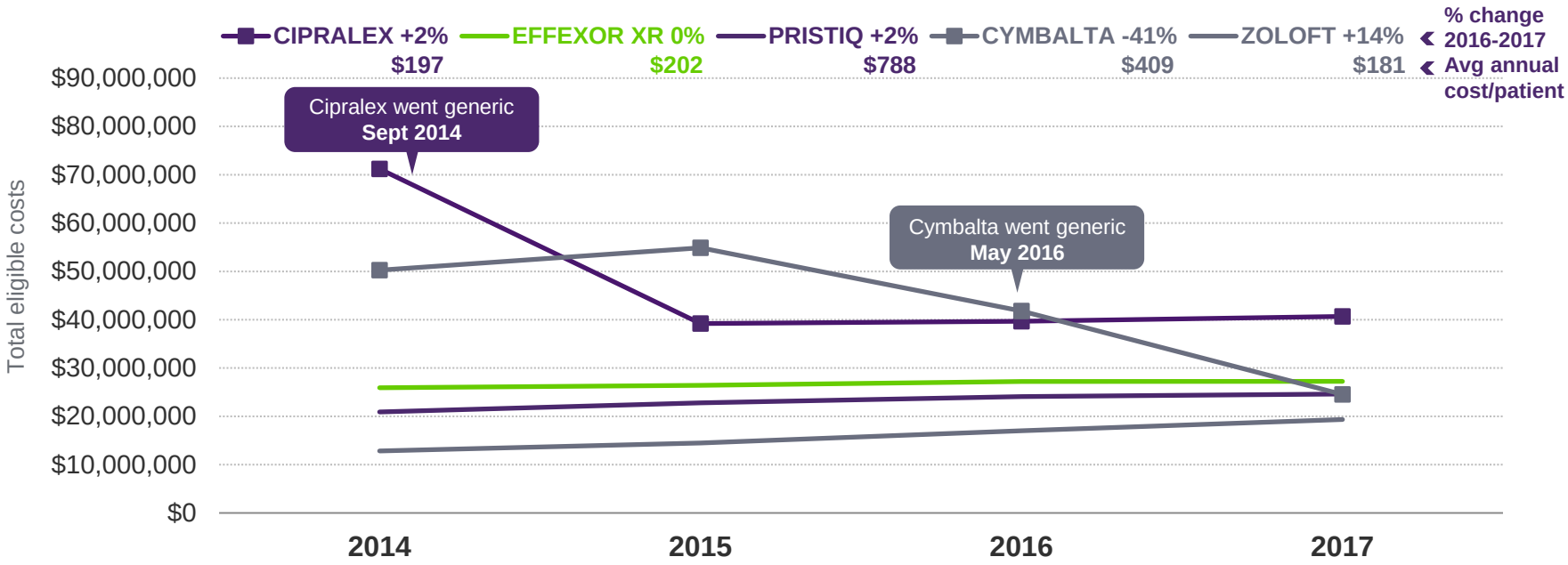
2014-2017 Trend: +1.0%



Suggested Management: Managed Formulary, Step Therapy

Most important variations of drugs 2016-2017
Depression

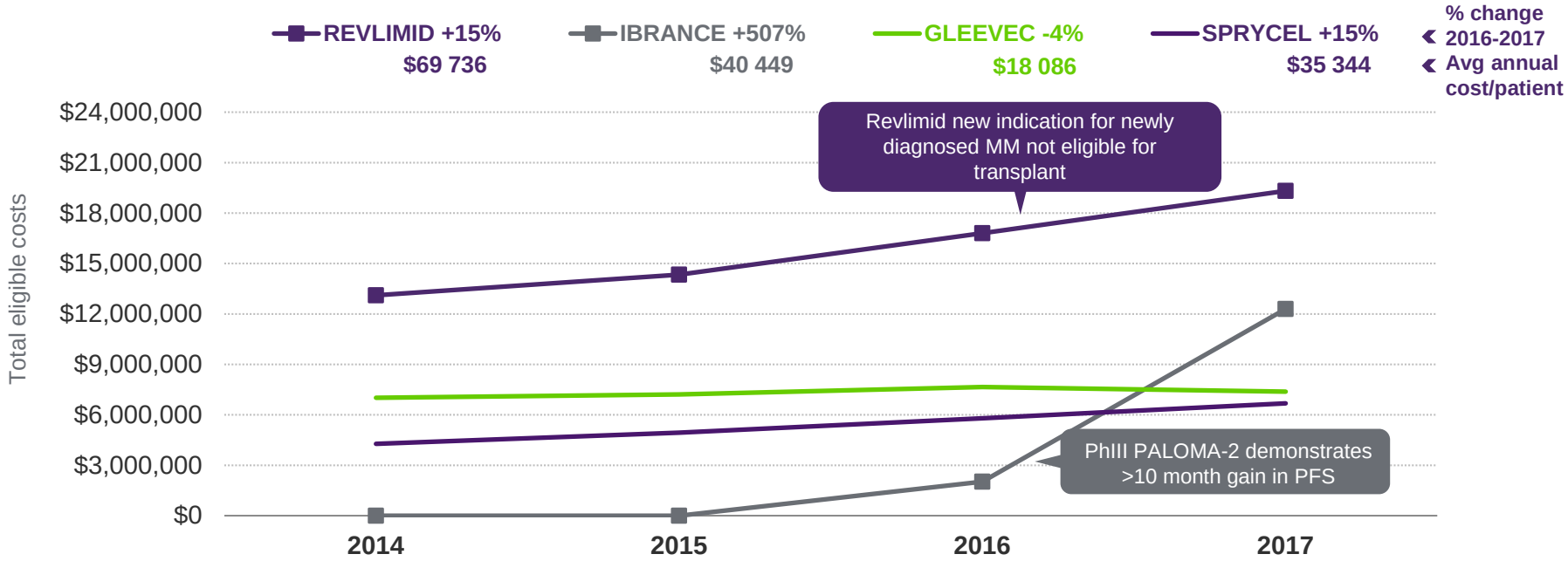
2014-2017 Trend: -1.6%



Suggested Management: Generic Substitution

Most important variations of drugs 2016-2017
Cancer

2014-2017 Trend: +0.8%

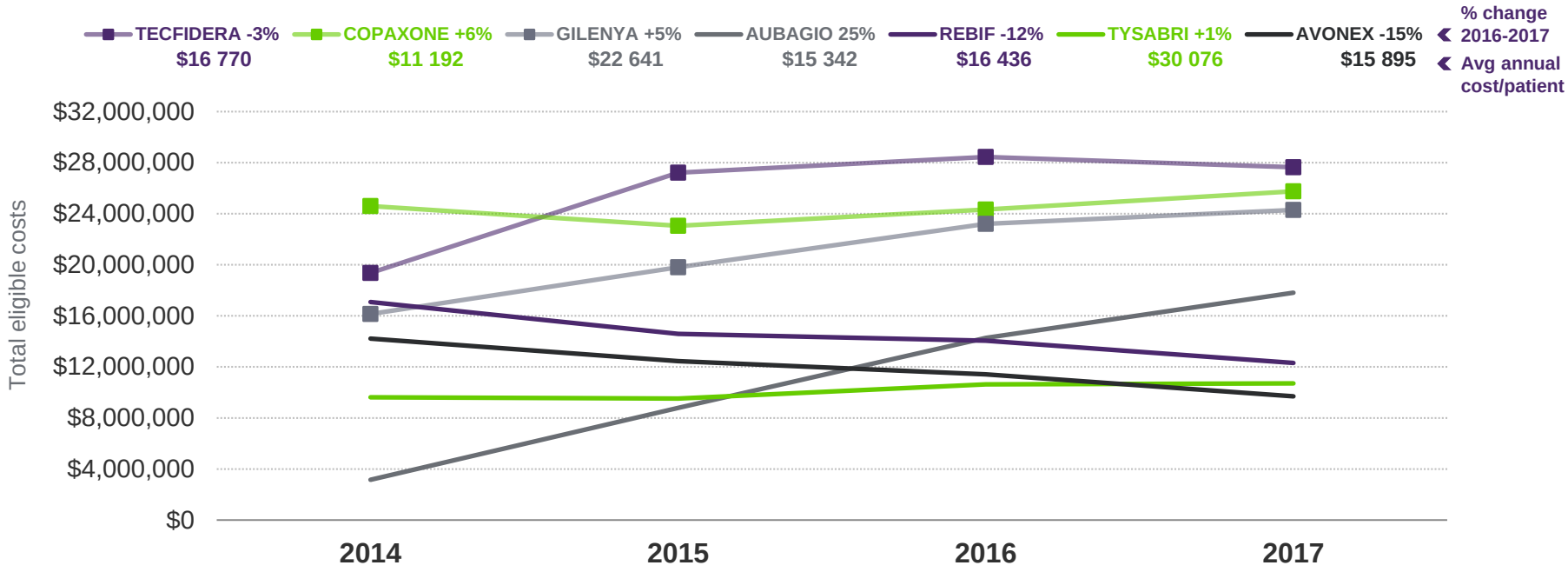


Suggested Management: Prior Authorization, Case Management

Most important variations of drugs 2016-2017

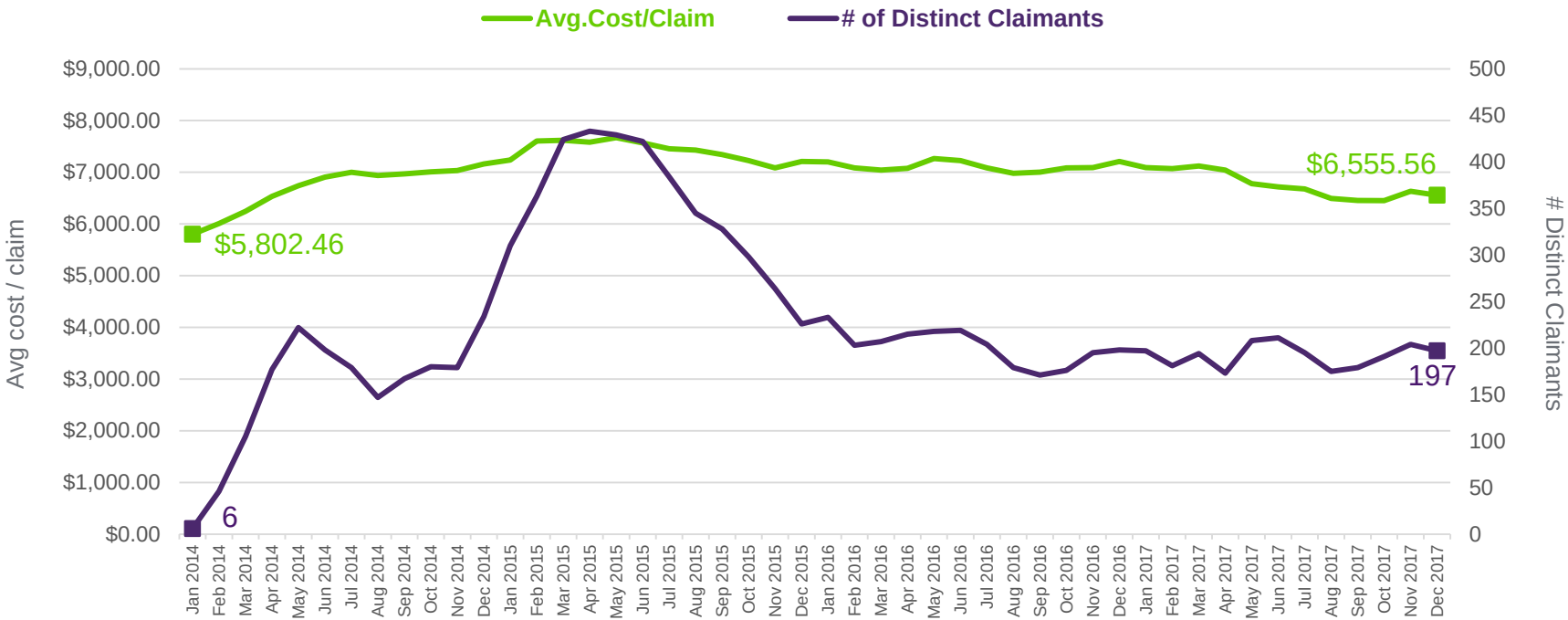
Multiple Sclerosis

2014-2017 Trend: +0.3%



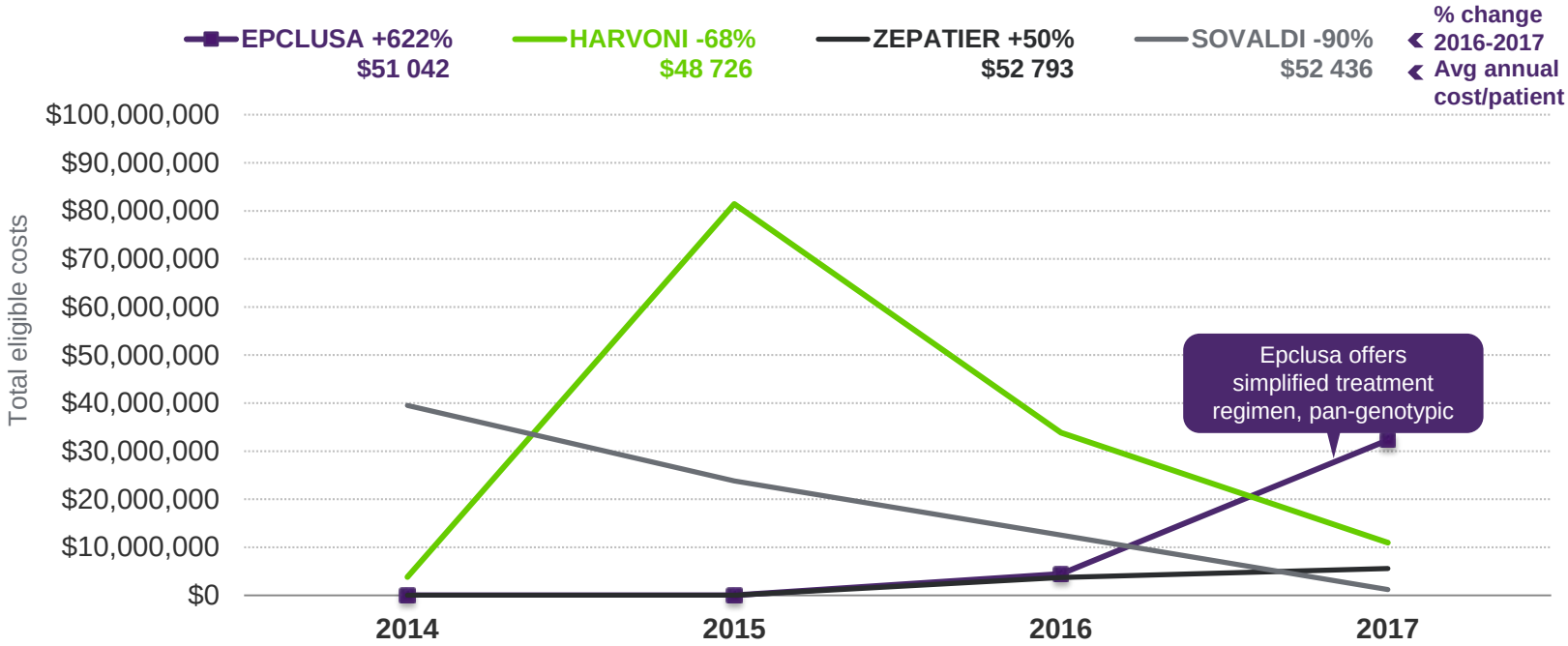
Suggested Management: Prior Authorization

Hepatitis C experience 2014-2017



Most important variations of drugs 2016-2017
Hepatitis C

2014-2017 Trend: -0.5%



Suggested Management: Prior Authorization, Case Management

Hepatitis C retreatment

Objective

- To determine if products are achieving similar results in real world as in clinical trials

Approach/methods

- Looked at continuously eligible claimants from 2013-2017
- 2nd regimen identified as >=12 week lag from completion of first regimen

Findings

- Retreatment rates higher in 2013-14 (~15%) but for last 2 years <5% and continuing to decline; newest agents <1% (however, may be due to less follow-up)

Conclusions

- Appears SVR rates have been sustained long-term in clinical practice
- Confirmed benefit for patients and payers

Hepatitis C ongoing surveillance

Potential **UPWARD** pressure

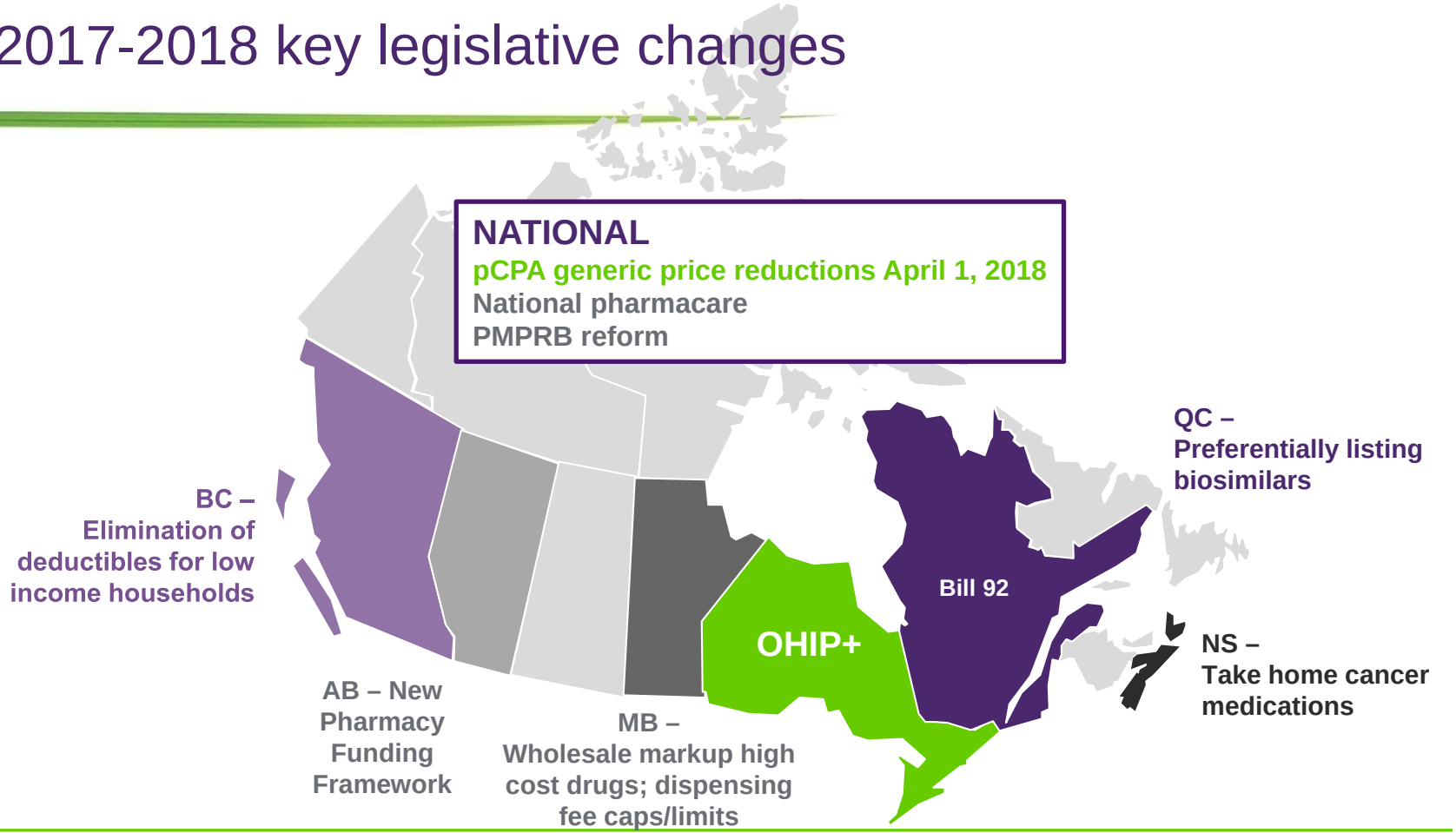
- **Pan-genotypic agents (Epclusa)**
- **Removal of fibrosis score criterion**
- **Long-term retreatment potential (Vosevi)**
- **Expansion to other patient populations (HIV)**
- **New Focus on Hepatitis B?**

- **Lower cost entrants (Maviret)**
- **Declining pool of eligible patients**
- **High SVR rates approaching 100%; low potential for retreatment**
- **Shorter durations of treatment**

Potential **DOWNWARD** pressure

Legislative updates

2017-2018 key legislative changes



pCPA generic price reductions April 1st

- Reduction in price of ~70 generic molecules to 10% or 18% of the equivalent brand price
- Limited to products that are interchangeable and covered under provincial drug plans
  - BC – does not extend to non BC PharmaCare benefits (e.g. montelukast, ezetimibe)
  - ON – does not extend to OFI products (e.g. triptans, Strattera, Imovane)
- Analysis does not account for reduced generic pricing cutbacks so savings could be marginally higher
- Plans with generic substitution will immediately benefit

2.6%

Estimated savings for TELUS BoB on total drug spend

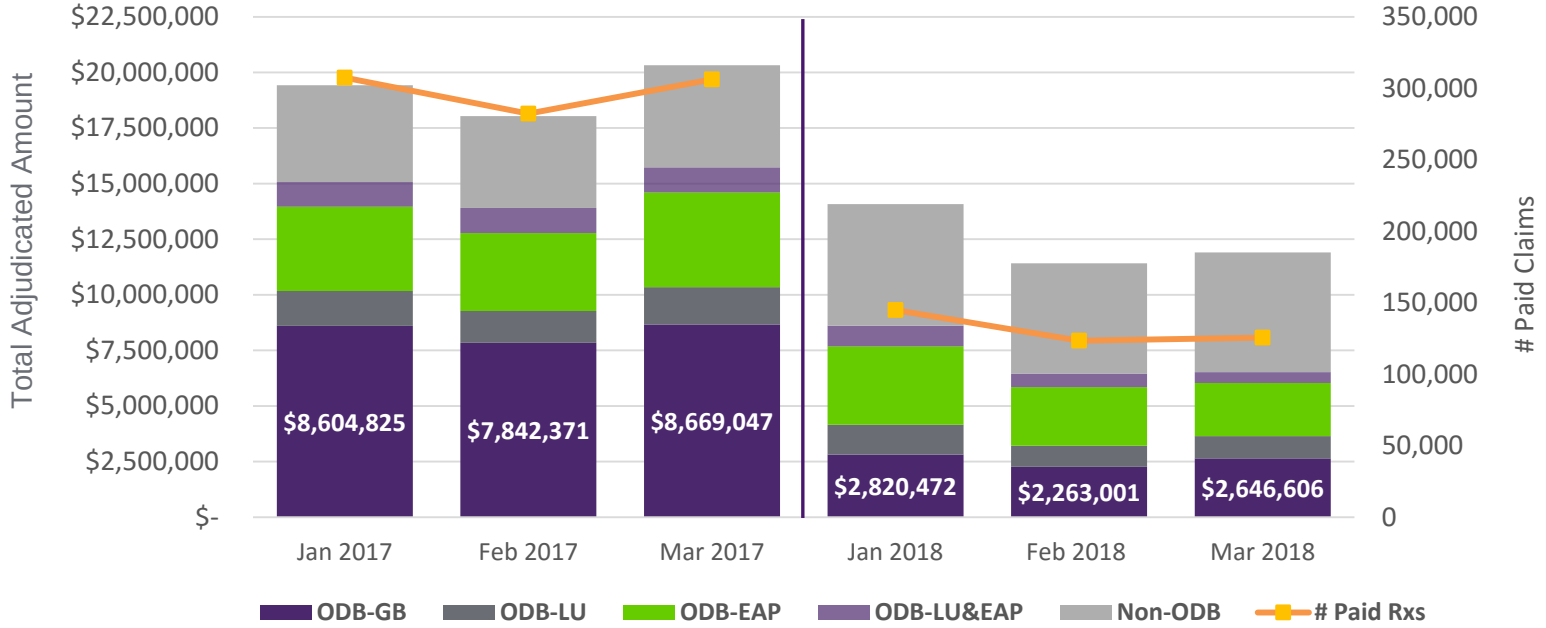
OFI = Off-formulary interchangeability

OHIP+: Children & Youth Pharmacare

- As of Jan 1, 2018, universal drug coverage for children and youth 24 yrs of age and younger
- Estimated over 4 million children & youth in Ontario would be eligible
- Includes access to over 4,400 drugs listed as general benefits or LU on the ODB formulary; additional coverage via EAP
- Automatic enrolment and no out of pocket costs for eligible benefits

Q1 2018 experience with OHIP+

Total drug costs for Ontario residents <25 yrs of age Q1 2017 vs. Q1 2018



OHIP+ observations + future expansion?

Current savings approx. 3.5% on Ontario drug spend

Limitations:

- Residual amounts on brand drug claims (private plan paying difference in cost)
- LU & EAP transition drugs

News Release

Making prescription drugs free for people 65 and over

Expanding OHIP+ will make prescriptions drugs free for nearly one in two Ontarians

March 20, 2018 11:09 A.M. I
Office of the Premier

Biosimilars

Currently available biosimilars

Biosimilar	Reference product	Indication(s)	Availability	Biosimilar vs. reference price
Omnitrope (somatropin)	Genotropin	Growth hormone deficiency	2009	**Equivalent**
Inflectra (infliximab)	Remicade	Rheumatoid arthritis / ankylosing spondylitis Plaque psoriasis / psoriatic arthritis Crohn's disease / ulcerative colitis ** Not indicated in pediatric patients (< 18 yrs)*	September 2014	**-46%**
Basaglar (insulin glargine)	Lantus	Type 1 or type 2 diabetes mellitus	December 2015	**-25%**
Grastofil (filgrastim)	Neupogen	Neutropenia	March 2016	**-17%**
Brenzys (etanercept)	Enbrel	Rheumatoid arthritis / ankylosing spondylitis ** Not indicated for Plaque psoriasis / psoriatic arthritis* ***Not indicated in pediatric patients (< 18 yrs)*	September 2016	**-37%**

Pricing based on Ontario product pricing, TELUS Health pricing database, March 2018.

Recent biosimilar approvals

Biosimilar	Reference product	Indication(s)	Availability	Biosimilar vs. reference price
Erelzi (etanercept)	Enbrel	Ankylosing spondylitis / rheumatoid arthritis Polyarticular juvenile idiopathic arthritis (4-17 yrs) ** not indicated for plaque psoriasis / psoriatic arthritis*	August 2017	**-37%**
Renflexis (infliximab)	Remicade	Rheumatoid arthritis / ankylosing spondylitis Plaque psoriasis / psoriatic arthritis Crohn's / ulcerative colitis	March 2018	**TBD**

Pricing based on Ontario product pricing, TELUS Health pricing database, March 2018.

Provincial management of biosimilars

Pricing

- April 2016 - pCPA issued the First Principles for Subsequent Entry Biologics (SEBs)
- Biosimilar must provide a reduction in the drug's transparent price to benefit **all** Canadians
- As of October 31, 2017, pCPA has completed negotiations on:
  - Inflectra (infliximab)
  - Grastofil (filgrastim)
  - Basaglar (insulin glargine)
  - Brenzys and Erelzi (etanercept)

Reimbursement

- Most provinces guide treatment-naïve patients to start on treatment with a biosimilar, but patients stable on reference product do not have to switch
  - BC – Inflectra & Brenzys/Erelzi funded for initial treatment of RA & AS; reference brands (Remicade & Enbrel) only funded for renewals
  - ON – biosimilars generally available via LU; reference brands only available via EAP in most cases
  - QC – delisted reference brands (Remicade & Enbrel) from RAMQ formulary for new patients in most indications; only biosimilars funded moving forward

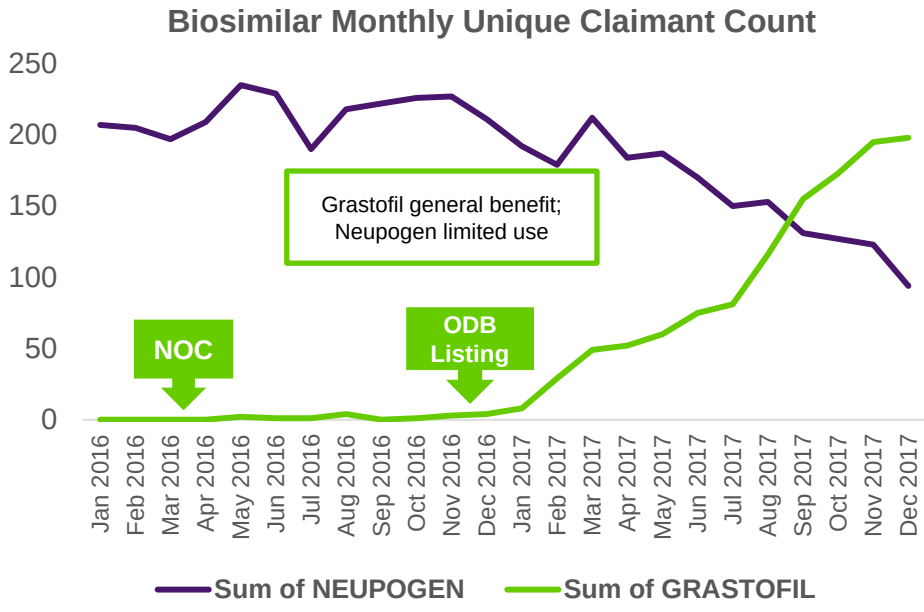
http://canadaspremiers.ca/wp-content/uploads/2013/12/seb_first_principles_20160401.pdf
http://www.ramq.gouv.qc.ca/SiteCollectionDocuments/professionnels/infolettres/2017/info284-6.pdf
http://www.ramq.gouv.qc.ca/SiteCollectionDocuments/professionnels/infolettres/2018/info319-7.pdf

National biosimilar uptake – **TELUS BoB experience**

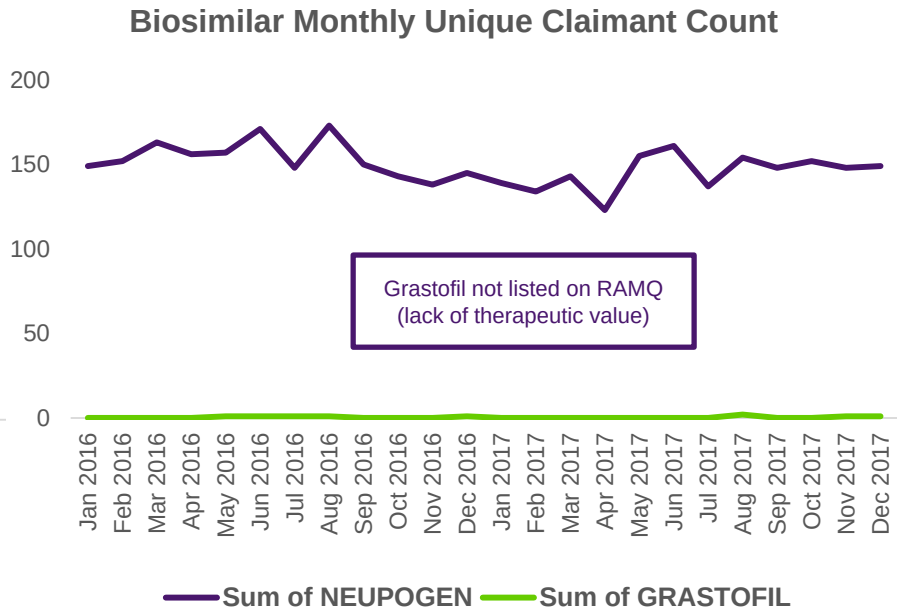
Biosimilar brand name (chemical entity; reference brand)	% of new claimants		% of eligible costs	
	2016	2017	2016	2017
Brenzys & Erelzi (etanercept; Enbrel)	0.09%	2.70%	0.01%	0.99%
Inflectra (infliximab; Remicade)	0.84%	3.83%	0.36%	1.48%
Grastofil (filgrastim; Neupogen)	0.96%	31.34%	0.40%	23.66%
Basaglar (insulin glargine; Lantus)	0.56%	1.66%	0.22%	0.76%

Grastofil (filgrastim) uptake by region

ONTARIO

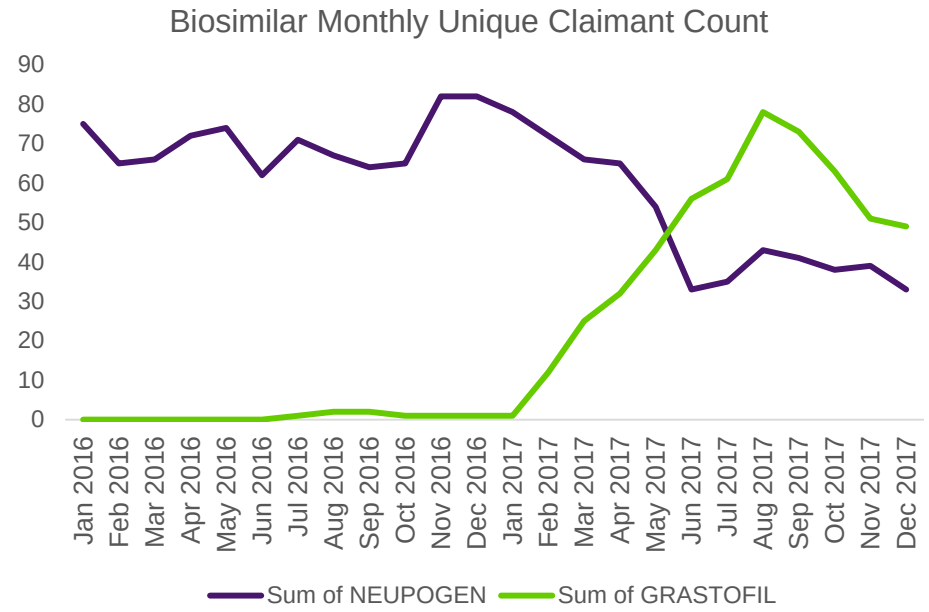


QUEBEC

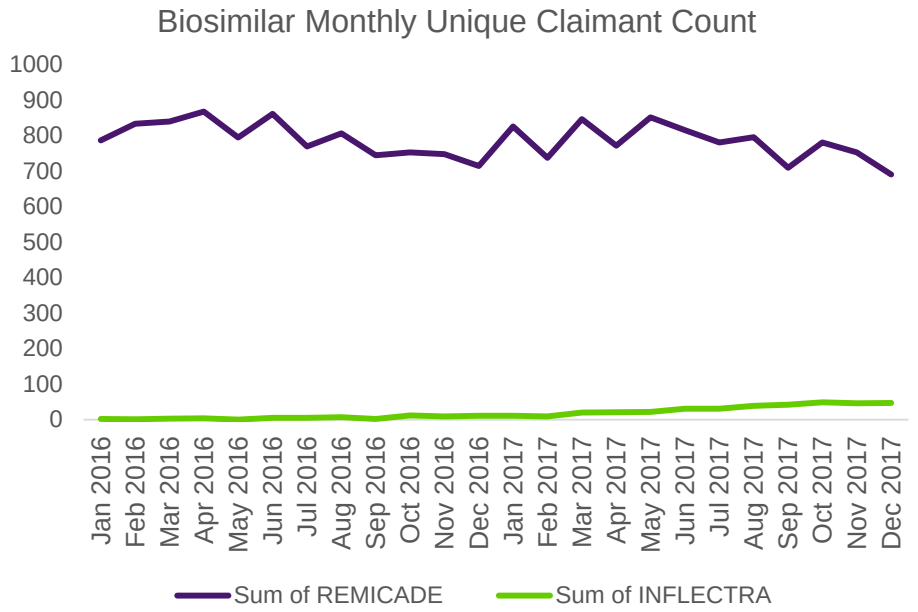


Biosimilar Uptake – Western Canada

filgrastim



infliximab



Data includes BC, AB, MB, SK

Update: biosimilars in development
Expected launches within the next 3 years

Reference medication	Indication(s)	Health Canada regulatory status	Eligible Amount TELUS BoB 2017
Humira (adalimumab)	Rheumatoid arthritis/ inflammatory conditions	Currently under review 2 added to SUR list april 2017	$176.1 m
Neulasta (pegfilgrastim)	Neutropenia	Currently under review 2 added to SUR list feb/june 2017	$19.4 m
Avastin (bevacizumab)	Cancer (multiple indications)	Currently under review Added to SUR list feb 2017	$2.8 m
Lucentis (ranibizumab)	Macular degeneration	Not submitted	$9.5 m
Herceptin (trastuzumab)	Breast cancer / gastric cancer	Currently under review 5 added to SUR list june/oct/nov 2017	$80k
Rituxan (rituximab)	Lymphoma / leukemia / rheumatoid arthritis / GPA & MPA	Currently under review 3 added to SUR list sept 2017	$7.9 m
Xolair (omalizumab)	Severe allergic asthma	Not submitted	$33.9 m
Eprex (epoetin alfa)	Anemia	Not submitted	$1.2 m
Tysabri (natalizumab)	Multiple sclerosis	Not submitted	$10.7 m
Gonal-f (follitropin alfa)	Infertility	Not submitted	$11.7 m

>$270 M

References:
- Drug and Health Product Submissions Under Review (SUR), Health Canada. Available at: https://www.canada.ca/en/health-canada/services/drug-health-product-review-approval/submissions-under-review.html Last Accessed March 30, 2018
- Biosimilars — regulatory, health technology assessment, reimbursement trends, and market outlook. Ottawa: CADTH; 2018 Jan. (Environmental scan; no.68).

Drug pipeline

Health Canada submissions under review

Currently 76 products under review

1/3 concentrated in these 3 areas:

- Cancer
  - 12 molecules; 3 are biosimilars
- HIV/AIDS & related conditions
  - 6 molecules
- Diabetes
  - 6 molecules/combinations
- + Biologics for migraine, hemophilia A, plaque psoriasis

https://www.canada.ca/en/health-canada/services/drug-health-product-review-approval/submissions-under-review.html

Pipeline update – short-term

Drug	Indication	Potential impact	Cost
Ocaliva (obeticholic acid) *Intercept*	A farnesoid X receptor agonist indicated for primary biliary cholangitis (PBC, approx. 10,000 patients in Canada) ▪ Approved by Health Canada in May 2017. ▪ Expected indication in nonacloholic steatohepatitis (NASH) was expected in 2019, but may be delayed.	Non alcoholic steatohepatitis (NASH) is a much more prevalent condition than PBC, affecting 2 to 5 % of the general population.	Cost expected to be $75,000 or more per year
CGRP Inhibitors *Many manufacturers*	Monoclonal antibodies (biologic drugs) targeting CGRP indicated for the prevention of chronic and episodic migraines. ▪ **Erenumab (Novartis) submitted to Health Canada in October 2017, suggesting approval in late 2018**	Highly anticipated new drug class targeting a highly prevalent medical condition (approx. 8% of Canadians).	Expected annual cost up to $9,000.
Eucrisa (crisaborole) *Anacor / Pfizer*	Indicated for atopic dermatitis and potentially psoriasis ▪ Approved by the FDA for mild to moderate atopic dermatitis in December 2016. ▪ **Submitted to Health Canada in August 2017**	This is considerably more expensive that other therapies for atopic dermatitis such as topical steroids or immunomodulators.	U.S. pricing has been set at $580 for a 60-gram tube

Pipeline update – short-term

Drug	Indication	Potential impact	Cost
Contrave (naltrexone/ bupropion) *Valeant*	First oral anti-obesity drug since Meridia was taken off the market in 2010. Alternative to Xenical and Saxenda ▪ Approved by the FDA in 2014. ▪ **Health Canada approval on Feb 13 2018**	By June 2015, Contrave was the most prescribed anti-obesity brand drug in the US	Cost expected to be $8.72 per day of therapy (versus $4.72 for Xenical and $11.81 for Saxenda)
Volanesorsen *Akcea Therapeutics*	For two rare diseases: familial chylomicronemia syndrome (FCS) and familial partial lipodystrophy (FPL) **Submitted to Health Canada in November 2017**	New drug for a rare disease. Uses antisense technology to prevent the formation of proteins associated with disease. FCS is an ultra rare disease, although it is known to be more prevalent in certain populations (including French Canadians) where the prevalence can be as high as 19 to 20 per 1 million individuals. Usual prevalence is 1 in 1 million	Cost not yet announced but expected to be similar to other drugs for ultra-rare conditions at $350,000 per year or more

Pipeline update – long-term

Drug	Indication	Potential impact	Cost
Luxturna (voretigene neparvovec) *Spark Therapeutics*	Gene therapy approved for the treatment of patients with confirmed biallelic RPE65 mutation-associated retinal dystrophy that leads to vision loss and may cause complete blindness in certain patients. Approved in the US on Dec 19 2017. Not known to have been submitted to Health Canada	This genetic mutation affects 1,000 to 2,000 patients in the US.	US price has been set at $425,000 per eye.
AR-101 *Aimmune Therapeutics*	Uses consistent amounts of peanut protein with well-defined concentrations of peanut allergens, indicated for the treatment of peanut allergy by using oral desensitization immunotherapy	Peanut allergies are estimated to affect 168,703 Canadian children and 196,857 adults	Unknown at this time. Not expected until approx. 2020.

Summary

1. New + specialty drugs are having the most impact on drug trend
2. Key legislative changes to shape future trends in select provinces
3. Generic price reductions helpful but not sufficient
4. Biosimilar use still remains low despite increasing evidence for use
5. Specialty drugs/disease areas dominate new drug pipeline

Questions