Drug cost projection 2016-2018
Impact of drug pipeline

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Notes on the 2016-2018 projection

- Data is from TELUS Health and takes into account:
  - Aging of plan members in the groups administered by TELUS Health;
  - Evolution of the therapeutic mix in each age group;
  - Significant pipeline drug launches;
  - Loss of exclusivity (generics);
  - Analysis conducted on ages 0-64;

- Costs are presented in terms of total eligible cost and include both the portion paid by the plan and the portion paid by the plan member;

Projections are based on aggregate data representing all lives covered in the TELUS Health Book of Business. They cannot be extrapolated to specific groups.

- Figures are presented in terms of cost per life covered (per capita) and do not take into account the variation in the number of lives covered in a group;
- Individual groups have their own characteristics and demographics that may vary from the general results;
- Carriers have different methodologies for projecting plan costs.
Isolating impact of new drugs pipeline

Cost increase broken down across four drivers.

1. Impact of aging
3. Impact of drug pipeline 2016-2018
4. Other factors*

* Impact of older drugs, increasing consumption, claiming rate, price increases, pharmacy upcharges
Summary of cost drivers

Variation of eligible cost per life covered, Ontario

- Recent launches 2013-2015
- Drug pipeline 2016-2018
- Aging
- Other*

* Other includes: Impact of older drugs, increasing consumption, claiming rate, price increases, pharmacy upcharges

- Increasing use of new Hep-C drugs
- Major generics Cipralex, Celebrex, Ezetrol
- Full impact of generic Cymbalta
- Decreasing use of new Hep-C drugs
Ontario cost drivers
- comparable to TELUS block of business

Variation of eligible cost per life covered, Ontario

Variation of eligible cost per life covered, TELUS BOB
Impact of recent drug launches 2013-2015

**Contribution to cost per life covered of recent drug launches (2013-2015)**

- 2013: 0.2%
- 2014: 1.9%
- 2015: 2.1%
- 2016: -0.8%
- 2017: 0.0%
- 2018: 1.0%

**Impact of recent drug launches on cost per life covered, 2016**

- Janumet (Diabetes): 0.10%
- Kalydeco (Cystic fibrosis): 0.04%
- Abilify Maintena…: 0.02%
- Spiriva (Asthma): 0.02%
- Sovaldi (Hep-C): -0.11%
- Harvoni (Hep-C): 0.88%
- Other: -0.01%

Mostly impact of new Hep-C drugs
Major pipeline drug:
- PCSK9 Inhibitors

**PCSK9 Inhibitors (biologics)**
- Evolocumab (Repatha) launched Oct 2015 but full private listings expected Q3 2016
- Alirocumab (Praluent) (expected)

**Indication:** High cholesterol (primary hyperlipidemia, familial hypercholesterolemia)

Potential use also for rhabdomyolysis, myalgia, uncontrolled cholesterol.

**Cost:** Based on actual claims data (approx. $9,000 per year including pharmacy upcharges/fees).

**Projected penetration**
- Progressive market uptake over 6-7 years.
- Regular prior-auth.: Up to 14% of statin users;
- Prior-auth. + pharmacogenetic test: 5-7% of statin users;
- From 0.5 to 8 users per 1,000 lives covered over 2016-2018.

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**Annual impact of PCSK9 inhibitors on cost per life covered**

- Regular prior-auth (14% statin users)
- Prior-auth + pharmacogenetic (5-7% statin users)

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**2016 impact on cost per life covered, by age (scenario regular prior-auth)**

- 0.5% in 55-64 age group
- 0.3% in 45-54 age group
- 0.1% in 35-44 age group
- 0.0% in 25-34 age group
- 0.0% in 15-24 age group
- 0.0% in 0-14 age group
Major pipeline drug:
- Monoclonal antibodies for severe eosinophilic asthma

MABs for severe eosinophilic asthma (biologics)
- Mepolizumab (Nucala) approved Dec 2015
- Reslumab expected late 2016

**Indication**: Severe eosinophilic asthma
- Severe asthma represents approximately 5% of patients.
- Eosinophilic asthma accounts for 36-79% of severe asthma patients.

**Cost**: Assumed at similar cost to omalizumab (Xolair)
- ($28,000-$30,000 per year).

**Projected penetration**
- Launch Q1 2016;
- To be prescribed to half of potential patient population;
- Progressive market uptake over 6-7 years.

Impact of MABs for severe eosinophilic asthma, cost per life covered

- **2016**: 0.28%
- **2017**: 0.43%
- **2018**: 0.41%
Major pipeline drug:
- Entresto for heart failure

**Entresto for heart failure**
- Sacubitril/valsartan approved Q4 2015

**Indication:** Heart failure
- Reduces mortality by 20% compared to gold standard.
- Potential for use in hypertension driven by prescribers (important to use prior-authorization).

**Cost:** Based on claims data from Dec 2015, approx. $2,900 annually including pharmacy upcharges/fees.

**Projected penetration**
- Launch Q1 2016;
- Progressive market uptake over six years.

**Impact of Entresto for heart failure, cost per life covered**
Summary of impact:
- Top-10 pipeline drugs 2016-2018

Impact of top-10 pipeline drugs on cost per life covered, Ontario

* Next 7 drugs include: Obeticholic acid (primary biliary cirrhosis), MABs for migraine, Tafinlar & Menikist (melanoma), Orkambi (cystic fibrosis), Carbaglu (hyperammomenia), Opdivo (melanoma), new Hep-C drugs (genotypes 5 & 11)
Concluding remarks

- Private drug plan utilization of new hepatitis-C drugs has peaked and will decline in 2016. Overall cumulative impact on cost per life covered still remains at around +2.5%;

- Major pipeline drugs in 2016 in terms of cost impact:
  - PCSK9 inhibitors (Expected +0.3% on cost per life covered in baseline scenario);
  - MABs for asthma (Expected +0.3% on cost per life covered);
  - Entresto for heart failure (Expected +0.1% on cost per life covered);

- Evolving trend of biologics being developed for more common conditions (cholesterol, migraine).
  - Pricing more expensive than current treatments;
  - Pricing lower than rare disease specialty drugs while still high cost.
Questions?
Information for Life.

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