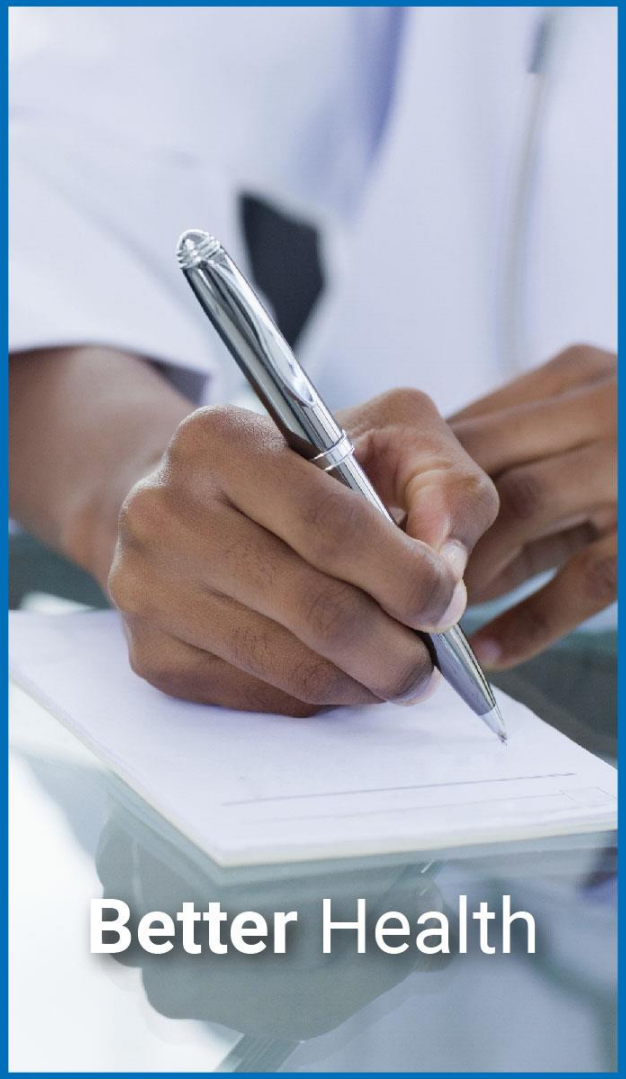
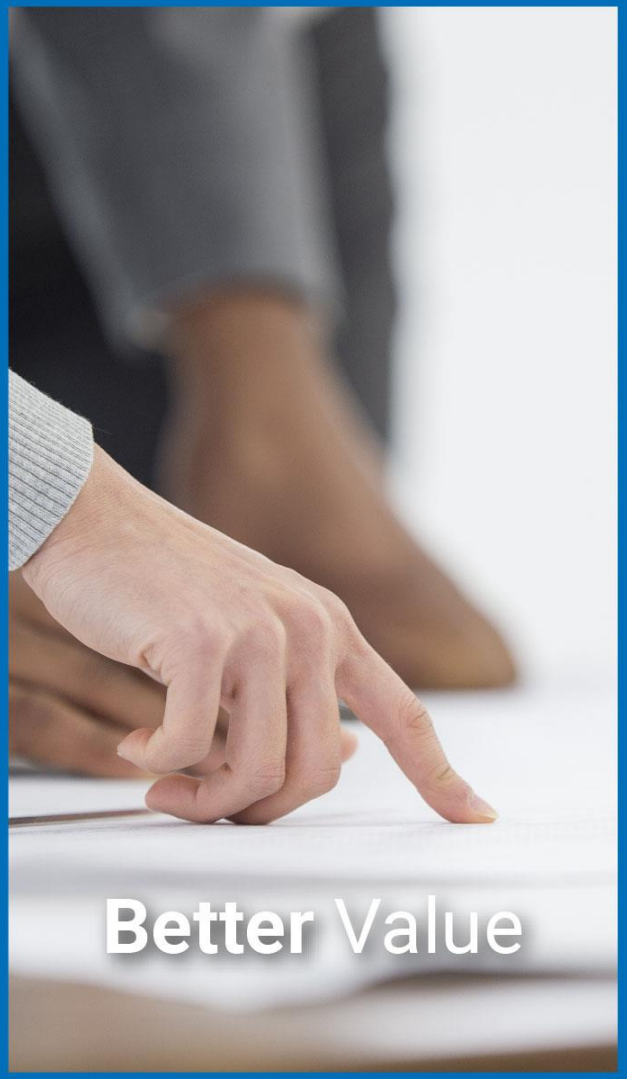
Transforming How We Manage Health Technologies in Canada

CADTH





CADTH

is an independent, not-for-profit organization responsible for providing Canada's health care decision-makers with objective evidence about the optimal use of drugs and medical devices.

PROGRAMS AND SERVICES

DRUG REIMBURSEMENT RECOMMENDATIONS

- CADTH Common Drug Review (CDR)
- CADTH pan-Canadian Oncology Drug Review (pCODR)

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CADTH Multiple Drug Review Programs

- **Drug therapeutic class reviews**
  - Biologics for rheumatoid arthritis
  - Drugs for pulmonary arterial hypertension
  - Drugs for Chronic Hepatitis C Infection
  - Anti-Vascular Endothelial Growth Factor Drugs for Retinal Conditions
- **Optimal Use projects**
  - 2nd line therapies for Type II diabetes
  - Appropriate Use of Interventions for Adults With Insomnia Disorder

PROGRAMS AND SERVICES

HEALTH TECHNOLOGY MANAGEMENT PROGRAMS

- Rapid Response Service
- Health Technology Assessment Service
- Optimal Use Service
- Environmental Scanning
- Horizon Scanning

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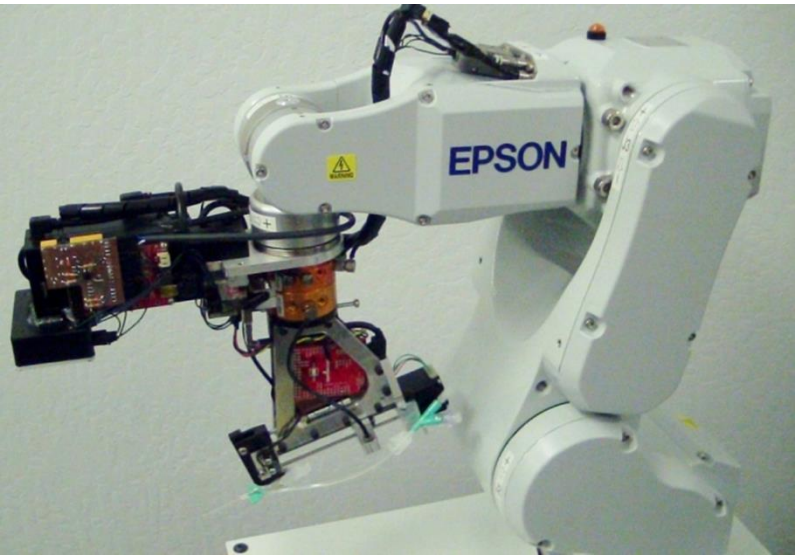
CADTH Medical Device Programs



- **HTA Program**
  - Proton Beam Therapy
  - Community Water Fluoridation
- **Optimal Use Program**
  - Minimally invasive glaucoma surgery
  - Dialysis Modalities
  - Interventions for Sleep Apnea
- **Rapid Response Program**
  - 300-400 reports each year

Other CADTH Programs

- Knowledge mobilization and implementation support
- Scientific Advice
- Education, training, capacity-building

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Some Drug Facts

- There are roughly 6500 products in clinical development
  - 74% are potential first-in-class
- Top areas of interest include (in order of magnitude):
  - Oncology, Neurology, Infectious diseases, Immunology, Cardiovascular diseases
- Global spending on medicine will reach nearly $1.5 trillion by 2021*
- Specialty medicines = 35% of the market in 2021*
- In 2017, US FDA had its busiest year since 1996

*Data from QuintilesIMS Institute

Global Best Sellers in 2017

1. Adalimumab (**Humira** by Abbvie) - $18B
2. Lenalidomide (**Revlimid** by Celgene) - $8B and growing
3. Etanercept (**Enbrel** by Amgen/Pfizer) - $7.5B
4. Rituximab (**Rituxan** by Roche) - $7.5B
5. Trastuzumab (**Herceptin** by Roche) $7B

Source: Keith Speight from the Motley Fool 18/12/2017

"The future, according to some scientists, will be exactly like the past, only far more expensive."

John Sladek

Potential Top 5 Pressure Points for Payers in 2018 and Beyond

1. Drugs with novel mechanisms of action
2. An explosion of drugs for rare diseases
3. Immuno-oncology and other cancer drugs
4. Non-alcoholic steatohepatitis (NASH)
5. Expensive drugs for common diseases

Gene Therapy

- **Extremely active area of clinical development**
  - Nine gene therapies have been approved worldwide
  - Expect approximately 40 new therapies by 2022
  - 45% cancer, 34% orphan diseases, 17% common diseases, 4% ultra-orphan diseases
- **FDA approved gene therapies**
  - Talimogene laherparepvec (Imlygic by BioVec)
  - Tisagenlecleucel (Kymriah by Novartis)
  - Axicabtagene ciloleucel (Yescarta by Gilead)
  - Voretigene neparvovec-rzyl (Luxturna by Spark)

CADTH LECTURE SERIES

Gene Therapy: A Scientific Renaissance?

Dr. Matthew Seftel

Head, Department of Medical Oncology and Hematology, CancerCare Manitoba

Associate Professor, Section of Hematology/Oncology, Department of Internal Medicine, University of Manitoba

February 27, 2018

2:00 p.m. to 3:00 p.m. EST

Dow's Lake Court Conference Centre

865 Carling Avenue, Ottawa, Ontario

cadth.ca/lectures

CADTH Evidence Driven.

https://www.youtube.com/watch?v=GV1SpTZ3Zc4

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Tisagenlecleucel (Kymriah by Novartis)

- A Chimeric Antigen Receptor T cell (CAR-T) therapy
- Approved for acute lymphoblastic leukemia (ALL) in patients up to 25.
- One-year survival rate of 80% “but” substantial adverse effects.
- Reviews for other indications underway in US and Europe.
- Potential for a parallel review process in Canada (HPFB and CADTH).
- Novartis plans to enter into outcomes-based contracts and price future indications differently.

Orphan and Ultra-Orphan Drugs

- Orphan drugs set to be 21.4% of worldwide prescription sales by 2022 (11% annual growth)**
- Weak clinical evidence + extremely high prices = uncertainty and questionable value

Orkambi

Mepsevii

Emflaza

Strensiq

Exondys-51

Spinraza

**Evaluate Pharma Orphan Drug Report 2017

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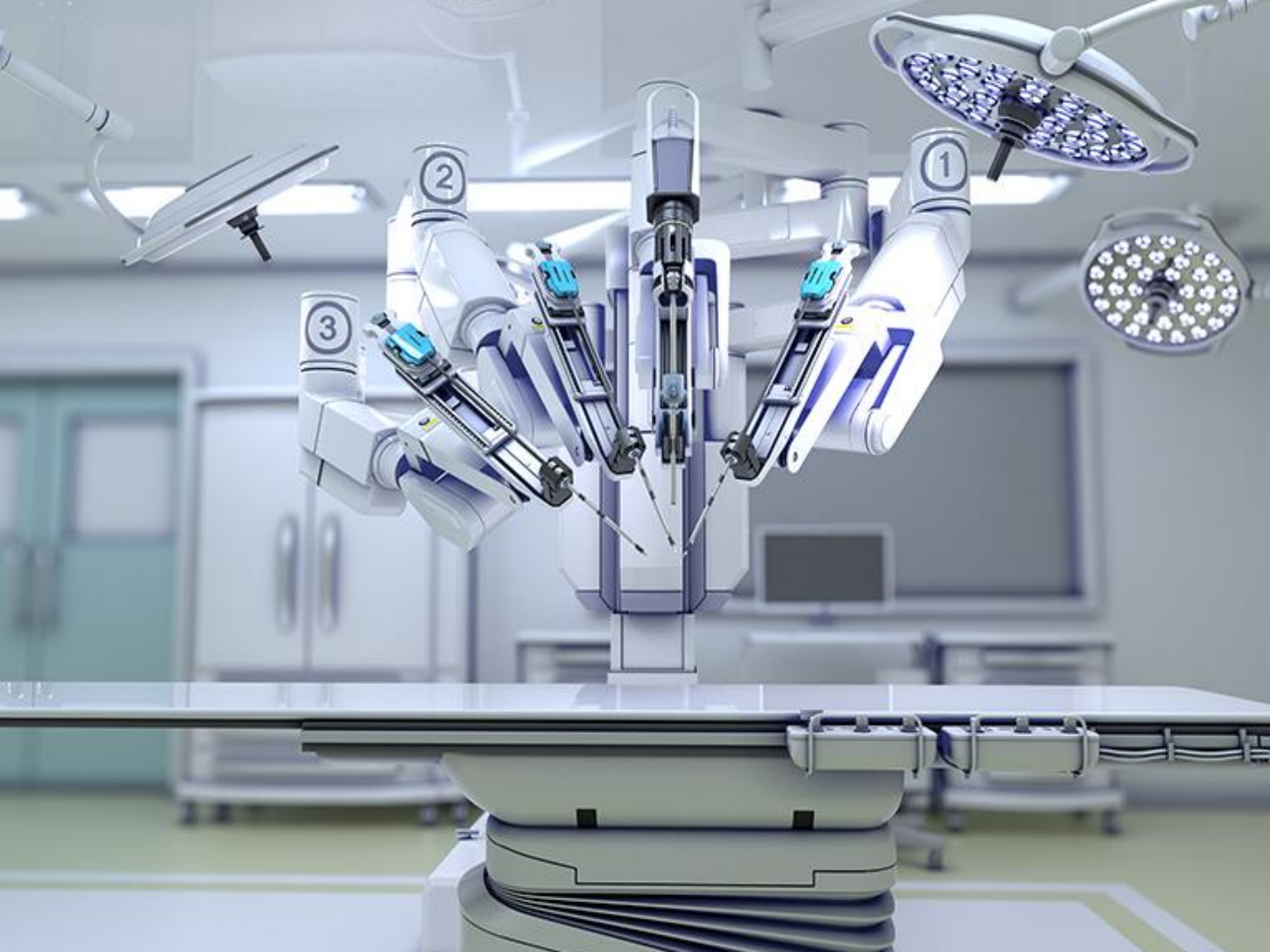
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Trends in Medical Devices

- **Disruptive technologies**
  - 3D printing, advances in prosthetics
- **Remote monitoring, smart sensors**
  - Patient empowerment, mobile devices, telehealth
  - Direct to consumer devices – Apple watch, Fit-Bit, apps, etc.
  - Greater focus on home and community care
- **Artificial intelligence**
  - Radiology, cardiology, dermatology
- **Advanced diagnostics and surgical techniques**
  - Tricorder-like devices
  - Robotic surgery, minimally-invasive surgery

Federal Budget March 22, 2017

"Improving access to prescription medications, lowering drug prices and supporting appropriate prescribing through an investment of $140.3 million over five years, starting in 2017–18, with $18.2 million per year ongoing, for Health Canada, the Patented Medicine Prices Review Board and the Canadian Agency for Drugs and Technologies in Health."

- CADTH portion of the budget increase is $36M over 5 years and then $10M per year after that.
- CADTH funding is to support implementation of a Health Technology Management strategy.

What Is HTM?

- An increased emphasis on contextualisation and implementation support.
- A shift in focus from assessment at the point of adoption to evaluation across the life cycle of a drug or health technology.
- An approach that better supports access, appropriate use, and affordability.

CADTH Strategic Plan 2018-2021**

1. Close the gap between evidence, policy, and practice.
2. Adopt a life cycle approach to health technology assessment.
3. Anticipate health system and technology trends and develop agile management strategies.

***Approved by the CADTH Board on February 21, 2018*

Strategic Goal: Close the gap between evidence, policy, and practice

- Provide customised implementation support.
  - Regional implementation support teams
  - Expand the breadth and scope of reviews
- Strengthen engagement with stakeholders.
  - Creation of a Patient Advisory Committee
  - Links to clinical societies

Strategic Goal: Adopt a life cycle approach to health technology assessment

- Align review processes with the regulator.
  - Early parallel scientific advice
  - Parallel reviews
  - System-wide prioritization
- Implement programs for reassessment and disinvestment.
- Advance initiatives that will improve access, appropriate use, and affordability.
- Distributed network of HTA producers

Strategic Goal: Anticipate health system and technology trends and develop agile management strategies

- Advance initiatives that anticipate, **influence**, and manage technological advancement and health system evolution.
  - Horizon scanning and scientific advice
- Focus on technologies that have the most potential to meet patient and health system needs.
  - Priority setting
- Align CADTH efforts and investments with federal-provincial-territorial priorities for health improvement.

Partnerships and Collaboration

- Opportunities to enhance the management of pharmaceuticals (ad hoc Steering Committee)
  - HPFB, SPB, PMPRB, pCPA, CAPCA, INESSS, CADTH
  - Provincial representatives
- Bilateral, trilateral, quadrilateral collaborations
  - HPFB-CADTH (+/- INESSS)
  - PMPRB-CADTH-pCPA
  - CAPCA-CADTH
- Pan-Canadian HTA Collaborative
  - CADTH, HQO, IHE, INESSS, BC HTR Committee

2018 is going to be a big year for HTA in Canada

Halifax, NS

2018 CADTH Symposium

April 15 to 17, 2018

cadth.ca/symposium2018

Vancouver, BC

HTAi 2018 Annual Meeting

June 1 to 5, 2018

htai.org

Two world class Health Technology Assessment conferences — one on the west coast, one on the east coast.

CADTH Evidence Driven.

HTAi

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