Medical Tourism
High Stakes Gamble vs Alternate Pathway

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Faculty/Presenter Disclosure

- **Faculty: Daniel W Birch**

- **Relationships with commercial interests:**
  - **CAMIS Educational Grants: J&J/EES, Stryker, Covidien**

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Learning Objectives

1. Consider the role of the Bariatric Team in Canada when consulted for complications related to medical tourism
2. Understand the prevalence of medical tourism for Bariatric Surgery in Alberta
3. Recognize the impact and costs to the healthcare system associated with medical tourism

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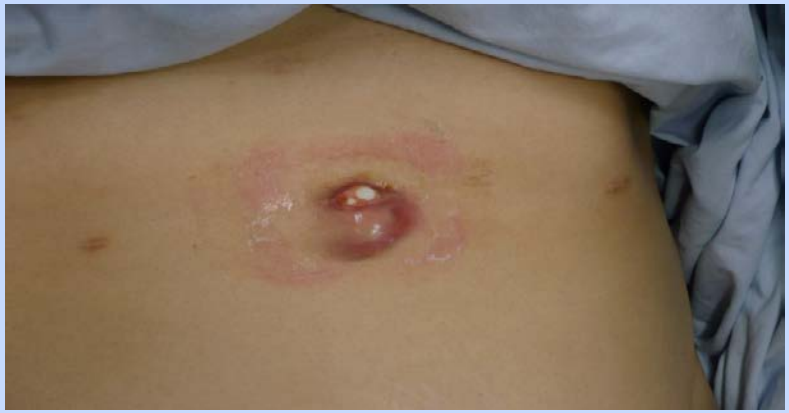
Case Studies - LAGB

Case 1:

- 40 yo female BMI ~ 35 kg/m^2 LAGB as medical tourist
- Various adjustments by assorted Health Care personnel
- Developed persisting back pain, anemia for several months
- Erythema, tenderness at port site
- F.P.: oral antibiotics, I+D of port site



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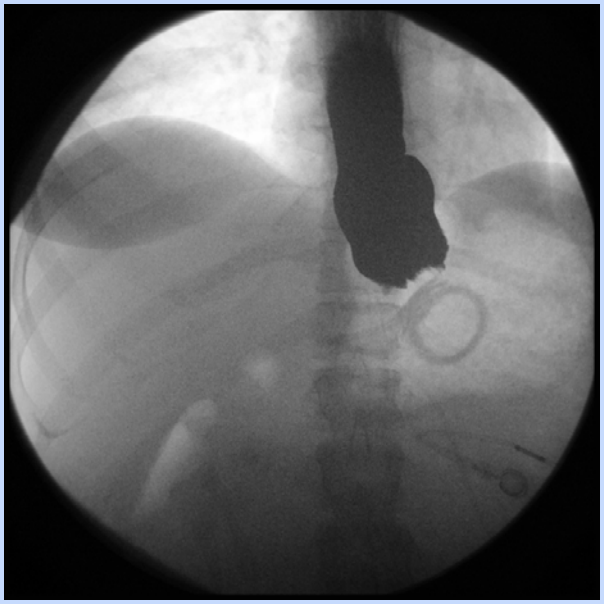
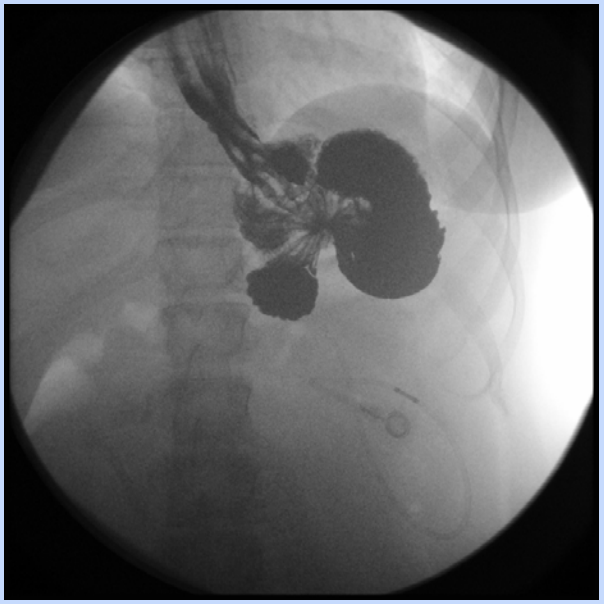
Case Studies - LAGB

Case 2:

- 24 yo 14 months post LAGB for BMI ~ 35kg/m^2
- 33 weeks pregnant; persisting nausea, vomiting
- Admitted local hospital: I.V. anti-emetics, PPN
- Bariatric Surgeon: UGI series





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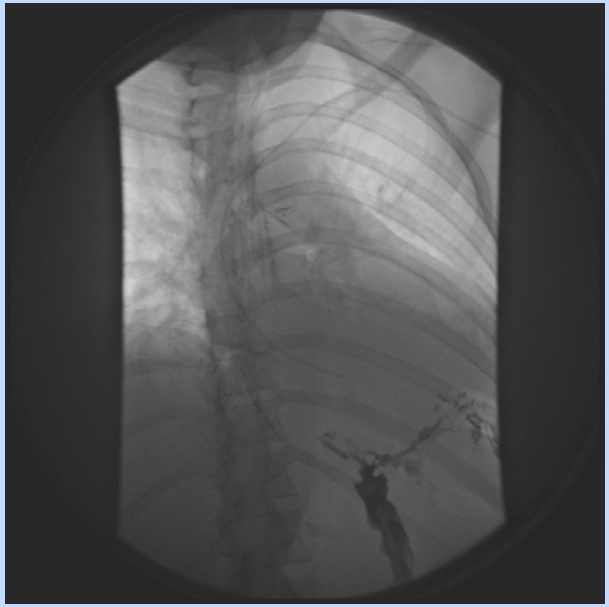
Case Studies - LSG

Case 3



- 35 yo female, pre-operative BMI <35kg/m^2, smoker
- Profound post-op weight loss, “unsupervised”
- Develops severe abdominal pain on vacation flight to US
- Hospital: perforated viscus
- Multiple procedures for perforated gastric remnant, transferred back to Canada
- 5 months hospitalization, multiple interventions, persisting gastrocutaneous fistula, stable on oral nutrition

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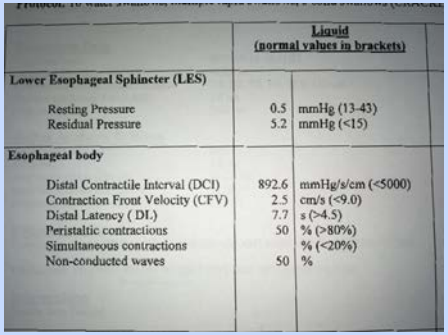
New referrals

"Thank you very much for seeing this pleasant 51 y.o. female with a history of resistant acid reflux causing heartburn, dental enamel breakdown, throat irritation, bloating and nausea. Patient is throwing up bile, wakes up at night multiple times with bile in her mouth. These symptoms have been getting worse in the last 3 months. She had a gastric sleeve operation in March 2014 which resulted in a weight reduction from 298 to 185 lbs. Her barium studies showed a significant hiatus hernia. She has a history of diabetes, iron and B12 deficiency on Victoza and iron/B12 injections."

"Please assess her for fundoplication and partial gastrectomy"

Rx: dexilant, wellbutrin, enalapril, metformin, oxycocet, domperidone, clonazepam, zantac, gabapentin, naproxen

Surgery in Tijuana, experiencing weight regain.



	Liquid (normal values in brackets)	
Lower Esophageal Sphincter (LES)		
Resting Pressure	0.5	mmHg (13-43)
Residual Pressure	5.2	mmHg (<15)
Esophageal body		
Distal Contractile Interval (DCI)	892.6	mmHg/s/cm (<5000)
Contraction Front Velocity (CFV)	2.5	cm/s (<9.0)
Distal Latency (DL)	7.7	s (>4.5)
Peristaltic contractions	50	% (>80%)
Simultaneous contractions		% (<20%)
Non-conducted waves	50	%

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Medical Tourism

- Medical tourism: travel for the primary purpose of receiving medical treatment
- Remarkable growth of this industry - increasing numbers of Canadians and Americans travelling for medical services
- In US, estimated 750,000 Americans travelled abroad for healthcare in 2007; by 2012 may represent $162 billion USD in lost spending
- Scope of problem relatively unknown in Canada
- Fate of patients returning home after surgery poorly documented
- Costs associated with treatment/management of this sub-group not established
- Clinical outcomes may not be equivalent to accepted benchmarks


NEWS

Daunted by 10-year wait in Canada, over-weight woman goes to Tijuana, Mexico for free weight-loss surgery

Postmedia News Nov 28, 2011 – 4:58 PM ET

By Amy Chung

In just one hour, Lillian Coakley says, her life changed.

The single mother of two, 44, says she had been waiting 10 years for weight-loss surgery in Nova Scotia and wasn't sure if she would live to see that day come.

In July, out of frustration, she penned her own obituary, a grim depiction of how she might die due to complications with obesity.

The Sackville, N.S., woman weighed 372 pounds and was desperate to shed the fat.

She suffered from asthma, sleep apnea and had a susceptibility to Type 2 diabetes.

"I don't want to die," she said Friday.

Halfway across the country, Debra Simons, CEO of Weight

Deloitte. Medical Tourism: Consumers in Search of Value 2008. http://wwwdeloittecom/dtt/cda/doc/content/us_chs_MedicalTourism *2008.*

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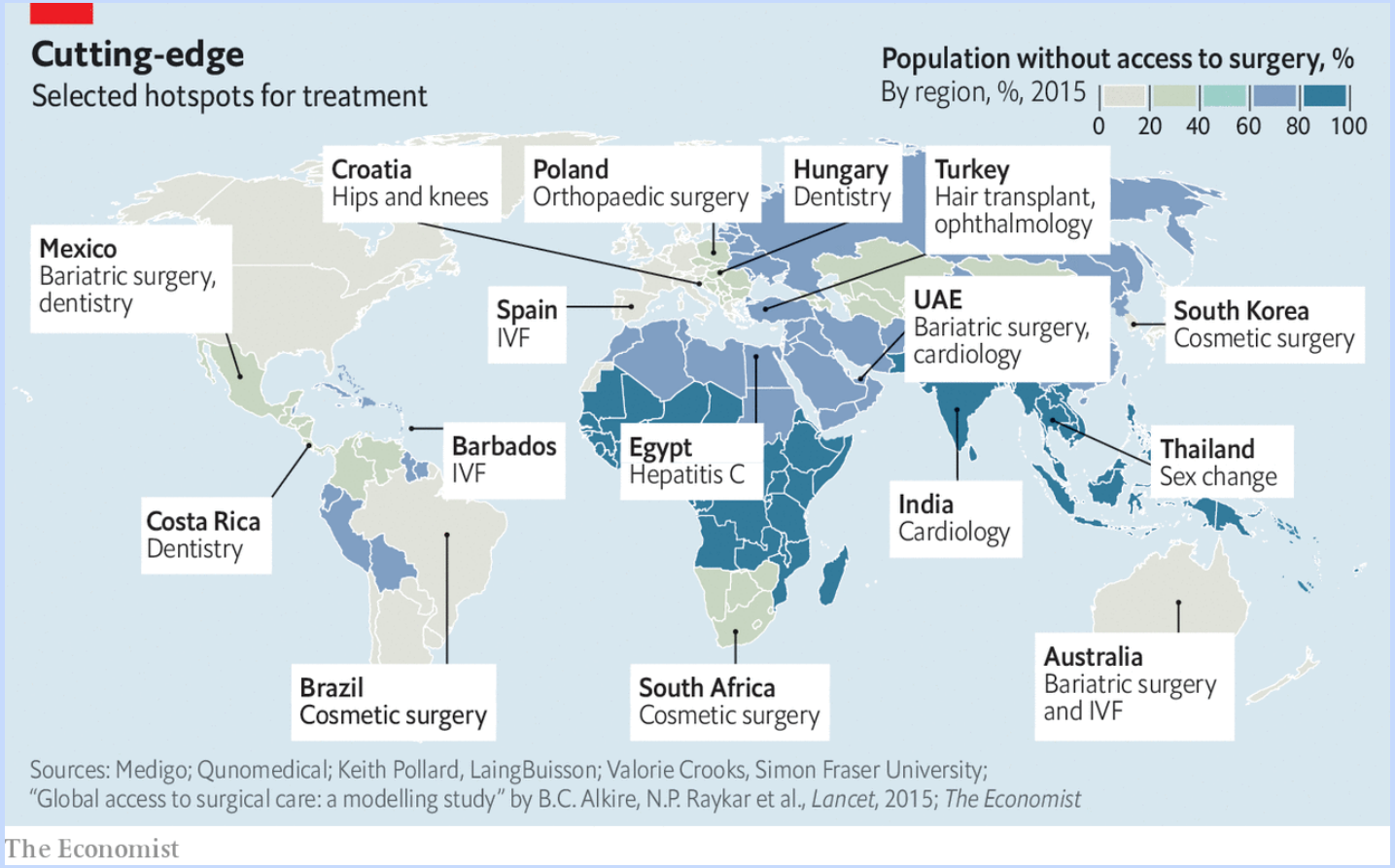
Global Options for Medical Tourism



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Patient/Physician motivation

Motivation for Medical Tourism:

1. Patients believe that they cannot access the care they need in their country of origin (ineligible)
2. Patients feel that the expected ‘wait time’ for care for a specific clinical service is unacceptable (to them) and places them at risk for additional morbidity
3. The costs of care in the patient’s own country are excessive
4. Patients believe that they will receive better medical care and improved outcomes if they travel to another country

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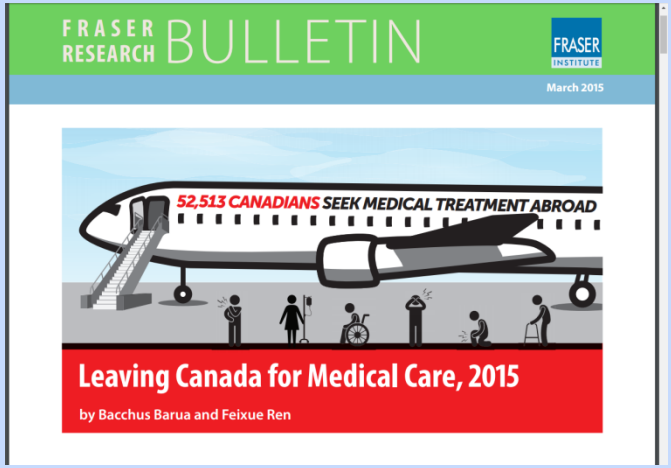
Fraser Institute Study

Fraser research bulletin

Annual survey of physicians across 12 specialties

> *"Approximately what percentage of your patients received non-emergency medical treatment in the past 12 months outside Canada?"*

Estimated >50,000 Canadians in 2014



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Conference Board of Canada

Briefing 2015: Should Canada's Hospitals Open Their Doors to Medical Tourists? Health Care in Canada: An Economic Growth Engine

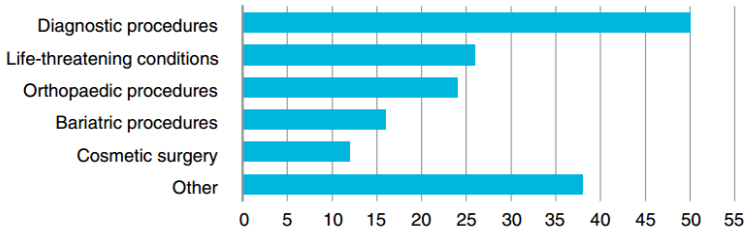
Canadian Tourism Research Institute

Estimated 80,000 Canadian medical tourists in 2012

Chart 2

Types of Treatments Sought by Canadian Outbound Medical Tourists

(per cent)



Numbers may add up to more than 100 per cent because multiple answers were allowed.
Source: Runnels and others, "Canadian Physicians' Responses to Cross-Border Health Care."

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Burden of Medical Tourism Patients in Alberta

Fraser Institute:

Approximately 6,000 Albertans (11.5% of total)

Conference Board of Canada:

Approximately 13,000 Bariatric medical tourists

11.5%: ***1,500 Albertan Bariatric medical tourists each year***

~ 10 years of travel:

15,000 Albertans with bariatric surgery as medical tourists

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National/Provincial data

No objective source of data identified for extent of medical tourism by Canadians

Provincial data identified:

- Between March 2008 and April 2009, 51 applications for assistance from patients who had LAGB outside of Canada
- Personal communication suggests ~ $1000 CDN may have been awarded to each applicant

Provincial medical records ‘flag’ for medical tourism agreed upon January 2016; first review July 2016

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Patients Return ‘Home’ with Complications

Glenn Cohen: Harvard Law School professor, leading expert on medical ethics and the law. Cohen says Canadian medical tourists often travel to the country of their birth or ethnic origin. In other cases, says Cohen, certain countries have become known for specific kinds of medical tourism. BEN NGAI GRAPHIC ILLUSTRATION / PNG

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Publications

Medical tourism in bariatric surgery. Birch DW, Vu L, Karmali S, Stoklossa CJ, Sharma AM. Am J Surg. 2010 May;199(5):604-8

The cost of bariatric medical tourism on the Canadian healthcare system.

Sheppard CE, Lester EL, Karmali S, de Gara CJ, Birch DW. Am J Surg. 2014 May;207(5):743-6

Medical tourism and bariatric surgery: who pays? Sheppard CE, Lester EL, Chuck AW, Kim DH, Karmali S, de Gara CJ, Birch DW. Surg Endosc. 2014 Dec;28(12)

Financial costs and patients' perceptions of medical tourism in bariatric surgery. Kim DH, Sheppard CE, de Gara CJ, Karmali S, Birch DW. Can J Surg. 2016 Feb;59(1):59-61.

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Cost Burden RAH 2009-2013

Table 1 Summation of postoperative care costs separated by category of complication severity

Patient type	Initial visit (n = 76)	Hospital stay (n = 657)	Surgery (n = 110)	Investigative procedures (n = 700)	Blood work (n = 357)	Total
A (n = 24)	$4,601.60	$0.00	$0.00	$7,158.51	$3,059.35	$14,819.46
B (n = 10)	$2,807.26	$48,939.00	$6,944.12	$6,973.49	$1,088.20	$66,752.07
C (n = 15)	$3,275.26	$59,320.00	$48,052.58	$12,445.60	$1,514.95	$124,608.39
D (n = 13)	$6,730.75	$1,325,414.00	$93,927.60	$187,921.46	$13,994.40	$1,627,988.21
Total (n = 62)	$17,414.87	$1,433,673.00	$148,924.30	$214,499.06	$19,656.90	$1,834,168.13

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Medical Tourism – Clinical Demands

- Surgeons need to be comfortable with management of unusual or complex scenarios, including re-operative surgery presenting in medical tourists
- Bariatric Surgeons/teams can facilitate management and follow-up of this complex group of patients
- Analysis of costs and outcomes is important

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Bariatric Surgeon/Bariatric Program

Surgical Team

Bariatric Protocols in place:

- capability of rapid return to OR for diagnostic/2nd look laparoscopy

'Mature' team with established experience LSG and RYGB

Interventional radiology

GI team

Multidisciplinary Bariatric Program

Bariatrician (ASMBS) presence in clinic

Bariatric dieticians

Mental Health Support

Multidisciplinary conferences

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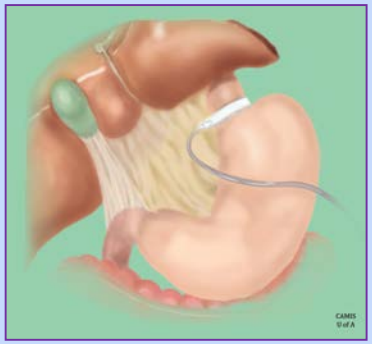
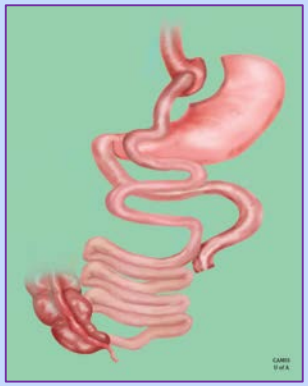
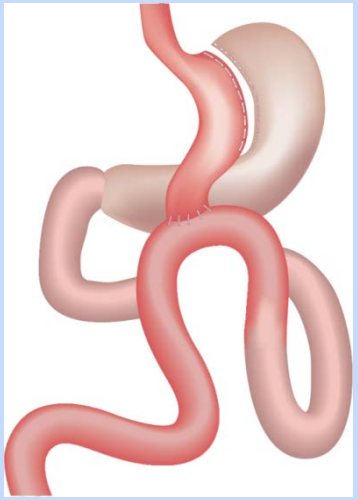
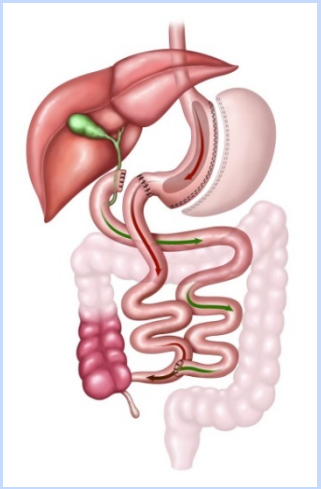
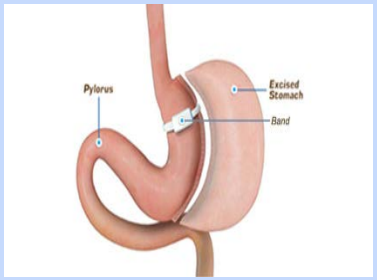
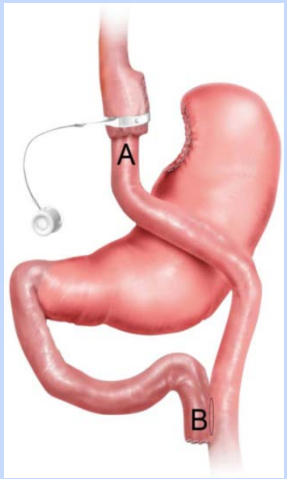
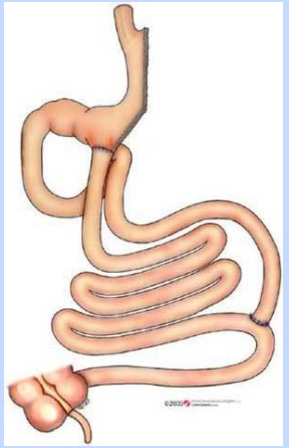
Tourist Menu of Options – Bariatric Surgery







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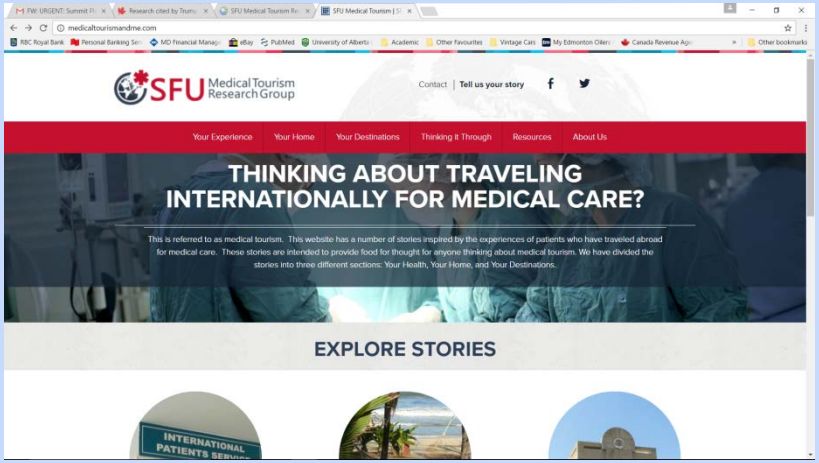
Patient Guidance

"*Medical tourism poses challenges to the traditional roles and responsibilities of Canadian physicians, and little guidance from professional bodies is available. If they feel comfortable doing so, family doctors can play an important role in providing information to Canadian patients considering medical tourism by ensuring that they have access to accurate information about the risks, benefits and costs of this practice*"

http://www.sfu.ca/medicaltourism/



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Summary

- Medical Tourists are an important aspect of practice for Bariatric Surgeons in US and Canada
- Bariatric Surgeons need to be comfortable with management of unusual / complex scenarios and re-operative surgery
- Bariatric Centres should discuss and budget for management of this group of patients
- Initiatives will need to be developed (primary care/medical) to manage medical tourists
- Further analysis of costs and outcomes is warranted

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Discussion

- Extent of medical tourism in Canada relatively unexplored; Bariatric Surgery component not readily traceable
- Costs may be substantial - deserves further analysis
- Significant demand on resources with large burden of patients in early 'honeymoon' phase post op
- Clinical outcomes, especially long term, not established
- Challenging to support this approach given current given obesity as a chronic disease / no resources
- Initiatives may need to be developed (primary care/medical) to manage medical tourists
- The trend in medical tourism will increase; ACS and AMA generally supportive in recent position papers

Committee on Perioperative Care American College of Surgeons. ST-65: Statement on Medical and Surgical Tourism. Bull Am Coll Surg 2009;94.
Council on Medical Service AMA. Medical Care Outside the United States (Resolutions 711 and 732, A-07); 2008.

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