Using Health Technology Assessment in Policy and Program Development

- The Royal Canadian Dental Corps Experience -

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Introduction

Evidenced Based Dentistry (EBD)

- Patient centered approach to treatment decisions
- Provides personalized dental care based on current scientific knowledge
Introduction

**EBD in RCDC Policy Development**

RCDC is already practicing an EBD focus as seen by the development of documents and programs such as:

- Canadian Forces Dental Care Program (CFDCP)
- Canadian Forces Dental Orders (CFDOs) on clinical topics such as sedation, osseointegrated implants, dental management of pregnant CAF members
- RCDC Position Statement on Use of Amalgam in CAF dental clinics

However, all three areas in the EBD triad are not always considered
An Example – Use of Botox™ for Myofascial Pain Syndrome (MPS) Patients in Dentistry

• MPS is a distinct type of regional musculoskeletal pain complaint caused by trigger points within the muscles or their fascia

• This is a chronic pain condition which often affects the head and neck area and may present along with other sub-diagnoses as TMD (Temporal Mandibular Disorders)

• Severe, non-responsive cases are typically managed by Oral Maxillofacial Surgeons or General Dentists who have taken advanced training in oral facial pain

• Treatment involves addressing the trigger points and removing causative or perpetuating factors

• Trigger point injection, acupuncture, ultrasound, drug therapy are current therapies; Botox™ (Botulinum Toxin A (BoNTA) or anesthetic has been used for TrP injections, however BoNTA is used off label
An Example – Use of Botox™ for Myofascial Pain Syndrome (MPS) Patients in Dentistry

• Botulinum Toxin A (BoNTA) has not been on the CAF Drug Benefit (DBL) to be used for facial MPS by CAF dental care providers due to lack of adequate evidence.

• Many CAF OMFS specialists were trained in its use and have used it successfully during their training as well as on select CAF patients with severe chronic pain.

• A previous CADTH Rapid Response report published in Oct 2008 on the clinical effectiveness of BoNTA in MPS was insufficient evidence to support inclusion on the DBL by the CAF Pharmacy and Therapeutics Cte (P&T Cte).

• In 2014, The RCDC requested an update of the 2008 report in order to support a request to the P&T Cte.
An Example – Use of Botox™ for Myofascial Pain Syndrome (MPS) Patients in Dentistry

Botulinum Toxin A for Myofascial Pain Syndrome: A Review of the Clinical Effectiveness

- 16 potentially relevant studies, 7 met criteria for study inclusion (3 systematic reviews/meta-analyses and 4 RCTs)

- Key message: “It is uncertain whether botulinum A is effective for reducing pain and improving functioning in patients with myofascial pain syndrome”

HOWEVER……

Dentist expertise + Patient’s need/preferences + some evidence of clinical effectiveness (albeit limited) was sufficient to justify approval of the P&T Cte to list Botulinum A as a special authorization drug for treatment of facial MPS by select RCDC dental care providers.
For dental myofascial pain of the head and neck area, must be prescribed by an Oral Maxillofacial Surgeon or a dentist with a practice limited to the diagnosis and management of patients with orofacial pain and who is approved by the Royal Canadian Dental Corps. The patient must be re-evaluated at 6 months intervals to ensure effectiveness of treatment and continued need for this treatment. (note - initial coverage will be a maximum of 6 months).
What Drives Change in Policy?

• Institutional requirements

• External standards (e.g. Accreditation, regulatory requirements etc.)

• Harmful or near harm incidents in clinical practice from reported Patient Safety Incidents

• Patient experience
The Case for Change

Adam’s story – A tale of many Health Care Providers

Key questions:

• reasons for seeking care
• interventions received
• information sharing
• coordination of care
• respect for patient preferences
• involvement of patient and family
• continuity of care and transition
• overall impression
• patient recommendations for change
Current Project

CF H Svcs Gp Clinical Practice Guideline - Obstructive Sleep Apnea -

- 3% prevalence in Canadians (Canadian Community Health Survey 2009)

- associated with significant costs to society due to its significant morbidities mostly due to CVD and impact of motor vehicle collisions (damages and health related costs)

- impacts on quality of life and increased CVDs such as HTN, heart failure and metabolic morbidities such oxidative stress

- wide range of treatment interventions: changes in diet and lifestyle to reduce OSA risk factors, pharmacotherapy, CPAP (continuous airway pressure), various oral appliances and upper airway surgery
The Problem:

• increasingly sleep disorders are being identified by both medical and dental clinicians in the CAF
• increasingly the CAF population and general population are more aware of these conditions and the overall importance of good sleep hygiene
• seems to be more prevalent in the CAF with significant impact on the health of the CAF population as well as operational effectiveness and ability of CAF members with an OSA diagnosis to deploy
• Clinical guidelines exist as do CAF specific policies (example CFDO 22-19 Dental Management of Snoring and Obstructive Sleep Apnea) but do not address:
  > what is the best intervention from a scientific and cost effectiveness perspective
  > the multidisciplinary aspect of managing the condition
  > how to integrate dental and medical sleep medicine care providers
  > how to best include the patient’s preferences and needs as well as family
  > coordination and access to care
Development of a Common CAF Health Services OSA Clinical Practice Guideline (CPG)

- scientific evidence - clinical and cost effectiveness
- clinician preference and expertise
- patient preference and needs

**Methodology:**

1. Define CPG and its purpose for CFHS providers
2. Collect and assess the available evidence, including the CAF patient/family experience
3. Development the optimal clinical pathway for CFHS providers and specific CAF population given the CAF mission and the CF H Svcs delivery system
4. Validate the optimal pathway and make necessary changes
5. Continuous monitoring and improvement
CADTH Optimal Use Product

Includes:

• systematic review of the clinical evidence
• cost effectiveness analysis
• review of the legal, social, and ethical issues
• development of recommendations, guidance, and tools
• input from stakeholders, including clinicians, patients, manufacturers, and policy-makers
• topics of pan-Canadian interest

Does not include:

• broad health system issues, such as information technology, program delivery, staffing, and finance.
CADTH Optimal Use Product

Will be used to develop the CF H Svcs OSA CPG:

- help to determine which OSA intervention to use when with the best outcome
- decide whether OSA interventions should be prioritized for CAF populations and assist in developing criteria
- effective and efficient use of oral appliances, CPAP and surgical interventions

Progress to Date:

- developing the CADTH Optimal Use protocol including soliciting patient input
- RCDC Clinical Practice Advisor in Sleep Medicine and the RCDC Senior Clinical Practice Leader in OMFS are both engaged in protocol development; other RCDC Sleep Medicine SME input as draft reviewers
- concurrent development of a CPG definition and template
Conclusion

Gaps in Evidenced Based Dentistry
- Challenges for CAF -

- the unique CAF patient population
- patient’s perspective
- provider’s perspective
- families’ perspective
- industry, provider and patients basis’
Thank you!