Demystifying the HTA process in a local setting

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UETMIS – CHU de Québec

Hospital/Regional HTA Symposium, Ottawa
Novembre 19th, 2013
Plan

• CHU de Québec at a glance
• HTA process at the CHU de Québec
• Summary of HTA activities
• How it supports decision-making (exemples)
• Conclusion
CHU de Québec at a glance

Centre hospitalier de l’Université Laval (CHUL)

Hôpital Saint-François d’Assise (HSFA)

L’Hôtel-Dieu de Québec (HDQ)

Hôpital de l’Enfant-Jésus (HEJ)

Hôpital du Saint-Sacrement (HSS)
CHU de Québec at a glance

- 1755 beds
- 236 000 emergency department visits/y
- 580 000 ambulatory visits/y
- 67 000 surgeries/y
- 8400 deliveries/y
- 279 400 days-training/y
CHU de Québec at a glance

- 14,000 nurses and hospital staff
- 1,700 physicians, dentists and pharmacists
- 500 researchers
- 1,000 graduate and post-doctoral students
HTA process at the CHU de Québec

- HTA unit implemented in 2006 as a transversal function

- To support evidence based decision-making
  - Introduction or reappraisal of medical technology
  - Introduction or reappraisal of clinical practice
HTA process at the CHU de Québec

- **Scientific staff**
  - Medical coordinator (1)
  - Assistant director (1)
  - Research officer (5)
  - Administrative assistant (1)
HTA process at the CHU de Québec

CEO

Evaluation, quality and strategic planning branch

HTA unit

Internal

- Committee on education, research and evaluation (Board of Directors)
- Cost driver committee
- Medical director of hospital services (imaging and laboratories)
- Research team in HTA

External

- Regional HTA network (Laval University)
- Community of practice for hospital HTA
- INESSS
HTA process at the CHU de Québec

- Two governance committees
  - Executive committee (prioritizing)
  - Advisory scientific committee (approval)
Executive committee

Members:

- CEO
- Deputy general manager of the university & medical affairs
- Deputy general manager of the clinical organization
- Multidisciplinary Council
- Council of PDP
- Council of nurses
- Director of research
- Director of evaluation, quality & strategic planification
- Central patients committee

To select requests from managers, clinicians and professionnal
Advisory scientific committee

**Members:**

- Director of evaluation, quality and strategic planification
- Director of professional services
- Director of nursing
- Deputy general manager of clinical organization
- Council PDP
- Director of multidisciplinary services
- Director of biomedical services
- Multidisplinary Council
- Council of nursing
- Research branch in HTA
- Central patients committee
- Pharmacy department (TDMP)

**Approval of HTA methods, reports and recommendations**
Interdisciplinary working group:

- Specific to each HTA project
- Involve from the beginning and throughout the HTA process
- Clarify the decisional and evaluation questions
- Highlight relevant literature and issues to assess
- Take part to the discussion:
  - Synthesis of studies
  - Appraisal
  - Recommendations (validation)
HTA approach for evidence-based decision making

Decisional question and interdisciplinary group (IG)

Scientific review and contextualization

HTA and critical appraisal with IG

Making recommendations based on scientific evidences

Validation, approval and dissemination of the HTA report

Expertise of the interdisciplinary group:
- Gastroenterology,
- Nutrition,
- Infectiology,
- Nursing,
- Pediatrics,
- Pharmacy,
- Management

Scientific evidence review:
- Effectiveness and safety based on SRs and RCTs from multiple databases (Jan.1995 to Sept. 2009)

Contextualization:
- Legal,
- Ethical,
- Cost,
- Health service organization,
- Patient impacts

Making recommendations based on scientific evidences:
- AAD/CDAD prevention and treatment and use of probiotics: no evidence
- Acute infectious diarrhea treatment and use of probiotics:
  - AAD/CDAD prevention and treatment: not recommended
  - Acute infectious diarrhea treatment: LGG recommended to be used in children with specific criteria

Validation, approval and dissemination of the HTA report:
- AAD/CDAD prevention and treatment: not recommended
- Acute infectious diarrhea treatment: LGG recommended to be used in children with specific criteria
**Dissemination:**

- Requesters and directors
- Website
- Community of practice in HTA
- Regional HTA network
- Scientific meetings and conferences
Summary of HTA activities

HTA report

- Full report (8 to 12 months)
- Informative note (4 to 6 months)
- Rapide review (2 to 4 months)
L’Unité d’évaluation des technologies et des modes d’intervention en santé

L’Unité d’évaluation des technologies et des modes d’intervention en santé (UETMIS) a été mise en place en 2006 sous l’égide de la Direction de l’évaluation, de la qualité, de l’ingénierie, de la performance et de la prévention des infections, elle constitue un des moyens privilégiés mis à la disposition des gestionnaires, des cliniciens et des professionnels pour soutenir l’émergence de la culture d’évaluation et la prise de décision basée sur les meilleures données disponibles.

Elle s’appuie sur l’expertise d’une équipe dédiée afin de réaliser la mission qui lui est dévolue.

Évaluations en cours

- Évaluation des mesures alternatives à la contention et à l’isolement chez les patients hospitalisés ou en centre d’hébergement.
- Optimisation de la trajectoire de soins pour les patients ayant un microadénome de la prostate.
### Summary of HTA activities

<table>
<thead>
<tr>
<th>Year of publication</th>
<th>Main Topics</th>
<th>n</th>
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</table>
| 2007                | Image guided in radiotherapy (cone-beam CT)  
Computer equipment and pathogens dissemination  
Preoperative hair removal  
Contrast media administration and CT scan  
Gynecare versapoint and outpatient clinical setting | 5  |
| 2008                | Cryotherapy and facet joint  
Fiducial markers in postate cancer  
Reusable gowns and drapes in operating theater  
External gynecological applicator | 4  |
| 2009                | Nosocomial infections and neonatal ICU  
Magnetic resonance imaging in cardiology  
Surgical site infections in operating theater | 3  |
| 2010                | Immunocyt/uCyt+ TM in bladder cancer follow-up  
Prevention and treatment of AAD/CDAD and probiotics  
Wound negative pressure therapy | 3  |
## Summary of HTA activities

<table>
<thead>
<tr>
<th>Year of publication</th>
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<th>n</th>
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| 2011               | PET-CT and radiotherapy planning  
Magnetic resonance imaging guided neurosurgery  
Point of care INR testing  
Surgical smokes in surgery and portable filtration system  
Sympathetic blockade with Bier’s block and CRPS treatment  
Plastic adhesive drapes and surgical site infections | 9  |
| 2012               | Bed alarm use and falls prevention in hospital setting  
Bowel preparation and antibiotics prophylaxis in bladder cancer  
Filtered needle and glass particles  
Restraint and seclusion in hospital and use of constant observation  
Wound negative pressure therapy (update) | 9  |
| 2013               | Container safety to store expressed breast milk in neonatal ICU  
Postoperative use of ICU in patients with obstructive sleep apnea  
NSAID in colorectal surgery and anastomotic leakage  
Barriers and facilitators to promote alternative interventions  
Chest physiotherapy and acute bronchitis in children  
Bier’s block and CRPS (update)  
Prolonged thromboprophylaxis for abdominal or pelvic surgery | 9  |
Summary of HTA activities

- Training environment (Laval University)
  - Postgraduate medical students
  - Occupational therapist (2014)

- Research collaboration
  - Research chair in HTA (Dr François Rousseau)
  - Patient perspective patient in HTA (Dre Marie-Pierre Gagnon)
## How local HTA support decision making

<table>
<thead>
<tr>
<th>Topic</th>
<th>Year</th>
<th>Initial applicant</th>
<th>Conclusion</th>
<th>Status</th>
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<tbody>
<tr>
<td><strong>INTRODUCTION OF HEALTH TECHNOLOGY</strong></td>
<td></td>
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<tr>
<td>PET/CT in radiotherapy planning</td>
<td>2011</td>
<td>Radio-oncologists</td>
<td>Oesophageal, rectum, cervical • Insufficient evidence</td>
<td>No field eval.</td>
</tr>
<tr>
<td></td>
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<td>Lung (NSCLC), head &amp; neck • limited evidence</td>
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<tr>
<td>Probiotics in prevention/treatment of AAD/CDAD in adults</td>
<td>2010</td>
<td>Council of PDP</td>
<td>Insufficient evidence</td>
<td>No</td>
</tr>
<tr>
<td>Filtered needles to prevent IV glass particles contamination</td>
<td>2012</td>
<td>Department of nursing</td>
<td>No clear benefit compared with 21G regular needles</td>
<td>No</td>
</tr>
</tbody>
</table>
How local HTA support decision making

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<tr>
<td><strong>REAPPRAISAL OF CURRENT PRACTICE</strong></td>
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</table>
| Microbiological risk with multiple dose injection of contrast media (CM) in CT scan | 2007 | Quality & risk management committee   | • Reinforce rules of asepsis  
• Maintain multidose CM  
• Maintain replacement schedule of two check valves connecting tubing  
• Stop multiple withdrawals and punctures from CM containers                                                                                       | Cont’d.       |
| MRI guided cryotherapy for facet joint treatment in LBP               | 2008 | Orthopedic surgeon                    | Insufficient evidence                                                                                                                                                                                   | withdrawal   |
| Bowel preparation in radical cystectomy                               | 2012 | Uro-oncologists                       | Strong evidence of no benefit to prevent infections                                                                                                                                                     | withdrawal   |
Conclusion

• HTA at the local level contributes to the development of an evaluation culture

• Credibility is an essential factor:
  * rigor, transparency and scientific independance

• Partnership throughout the process (knowledge transfer)

• Strong link with both the top management and on the field
Conclusion

- Positive impact on quality of care
- HTA at local setting involves save & additionnal costs
- Futur at the CHU de Québec:
  
  Evidence-based disinvestment/strategic allocation lifecycle
Thank you!

QUESTIONS?
HTA approach for the evidence-based decision making

Decisional question

Interdisciplinary group (IG)

Scientific evidence review

Contextualization

HTA and critical appraisal shared with IG

Making recommendations

Validation and approval scientific advisory committee

Decision-making (CHUQ’s Board of directors)

YES

Final HTA report + dissemination

NO

Should the CHUQ has to change the current clinical practice regarding the use of probiotics in the prevention and treatment of diarrhea?

Expertises: gastroenterology, nutrition, infectiology, nursing, pediatrics, pharmacy, and management

Effectiveness and safety based on SRs and RCTs from multiple databases (Jan. 1995 to Sep. 2009)

Legal, ethical, cost, health service, and patient impacts

- AAD/CDAD prevention and treatment: no evidence
- Acute infectious diarrhea treatment: moderate evidence in children
- AAD/CDAD prevention and treatment: not recommended
- Acute infectious diarrhea treatment: LGG recommended to be used in children with specific criteria