E.09

Cost-minimization analysis comparing intravenous immunoglobulin (IVIg) with plasma exchange (PLEX) in the management of patients with myasthenia gravis: different perspectives for different payers

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doi: 10.1017/cjn.2015.100

Introduction: A cost-minimization analysis (CMA) was performed comparing IVIg and PLEX in the management of patients with exacerbation of myasthenia gravis (MG). *Methods:* This study combines Ontario-based health costing data with clinical data from a randomized clinical trial where patients with moderate/severe MG received either IVIg or PLEX. The CMA was undertaken under the perspective of a public health care insurer and under the perspective of a tertiary hospital payer. *Results:* The IVIg group (n=32) was comparable with the PLEX group (n=38) regarding demographics, disease characteristics and severity. PLEX was less costly than IVIg among patients with body mass index (BMI) ≤15.7 Kg/m2, under the perspective of a public health care insurer (CAN$6,271.18 versus CAN$8,309.72, p<0.0001). However, PLEX was more costly than IVIg under the perspective of the hospital payer when the costs of blood products were excluded (CAN$4,815.36 versus CAN$1,486.12, p<0.0001). *Conclusions:* PLEX may be a short-term cost-minimizing therapy when compared with IVIg for treatment of MG exacerbation among patients with BMI ≤15.7 Kg/m2, under the perspective of a public health care insurer. However, when the costs of blood products are absorbed by a third party, the hospital administration may see IVIg as a more attractive therapeutic alternative.

E.10

Neuroimaging for Disorders of Consciousness: Ethical Priorities in Research, Policy, and Translation

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doi: 10.1017/cjn.2015.101

Background: Acquired brain injury is a critical health problem in Canada, placing greater demands on health resources as improvements in intensive care lead to more patients in long-term care. Clinical diagnosis of patients with disorders of consciousness remains difficult, but advances in neuroimaging research have the potential to reshape clinical management of such patients or provide unprecedented ways to communicate with them. Building on our earlier work, this study identifies ethically salient priorities for research and policy before translation of this promising technology. *Methods:* We interviewed 27 Canadian researchers, ethicists, lawyers, practitioners, allied health care professionals, and patient advocacy leaders, with expertise in neuroimaging or disorders of consciousness. Interviews were semi-structured and data were analyzed for emergent themes. *Results:* Participants were optimistic that neuroimaging could lead to improved clinical care. They discussed mitigating the risks of misinterpreting results and communication, creating guidelines for clinical use, and defining legal competence in this neuroimaging context as key ethical priorities for translation. *Conclusions:* The transition of neuroimaging techniques for disorders of consciousness from research to clinical care may yield substantial benefits to these patients, but first requires resolution of research, policy, and translational issues.

CNSS
Platform Presentations

F.01

Recurrence pattern of surgically-resected skull base versus superficial meningiomas, signs of divergent pattern

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doi: 10.1017/cjn.2015.102

Background: To identify differences in the recurrence pattern of surgically-resected skull base meningiomas compared with superficial intra-cranial meningiomas *Methods:* A retrospective hospital-based study of all patients referred to our institution from 1990 to 2014 for surgical resection of meningiomas was conducted (both primary and recurrent cases). Survival analysis was performed using IBM SPSS v22.0. *Results:* Overal, 398 intra-cranial meningiomas –129 (32%) skull base - were reviewed. Skull base tumors had a lower MIB-1 index (p = 0.001) and were more likely to be WHO I (p = 0.003). Meningiomas in all locations demonstrated a recurrence rate of 30% at 100 months of follow-up. Afterwards, the recurrence of skull base meningiomas plateaued (longest follow-up: 250 months) whereas superficial lesions had a recurrence rate of 80% at 230 months (p = 0.02). In multivariable analysis, patients with a first-time diagnosis (p = 0.02), those with WHO I or II tumors (p= 0.02 and 0.05), and those with a total resection (p < 0.01) were less likely to experience a recurrence. *Conclusions:* Skull base meningiomas are less aggressive than superficial lesions and may not need to be followed beyond 100 months. The WHO grade, complete resection, and prior recurrence are predictive factors of recurrence.

F.02

Recent Canadian neurosurgery graduate employment outcomes

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doi: 10.1017/cjn.2015.103

Background: The American Board of Neurological Surgeons (ABNS) made persons beginning neurosurgical training in Canada after 1997 ineligible for ABNS board exams and certification in the United States (US). We set out to track employment outcomes for graduates who are "ABNS ineligible." *Methods:* Graduates from Canadian neurosurgical programs who began training from 1998 to 2008 (ABNS ineligible) were followed regarding their employment status (n=143). Data was obtained from public-domain websites and direct connections though Canadian Neurosurgical Society (CNSS) members. Association between pursuit of research during residency

https://doi.org/10.1017/cjn.2015.102 Published online by Cambridge University Press