

Lumbar Spine CT Referral Rates by Family Physicians in Eastern Health

Choosing Wisely Canada Recommendation

Don't routinely image patients with low back pain regardless of the duration of symptoms unless:

- a. There are clinical reasons to suspect serious underlying pathology (ie. red flags), or
- b. Imaging is necessary for the planning and/or execution of a particular evidence-based therapeutic intervention on a specific spinal condition.

Practice Points

1. The risk of cancer associated with radiation, particularly in younger people, needs to be balanced with the likelihood of benefit from CT imaging.
2. NL orders more CTs/1,000 people than any other province/territory, more than twice as many as Alberta, and 50% more than the overall Canadian rate (CADTH, March 2016).
3. In Eastern Health (EH), less than 3% of lumbar spine (LS) CTs were ordered because of a red flag.
4. 80% of CTs were ordered by a small proportion of family physicians.

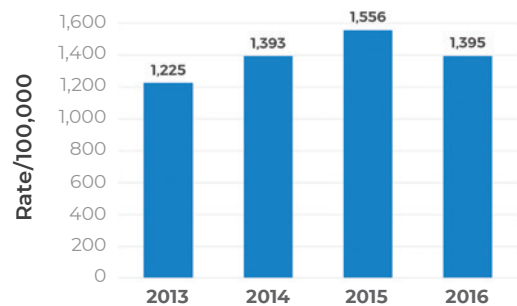
Methods (PI: Dr. A. Hall)

1. Records from 2013 to 2016 were accessed and the following variables were collected: number of Lumbar Spine (LS) CTs with or without contrast, age, sex, ordering physician specialty, and imaging service date.
2. To compare rates of LS CT ordering in EH, age-sex standardized rates were calculated and compared to other jurisdictions in Canada and other countries.

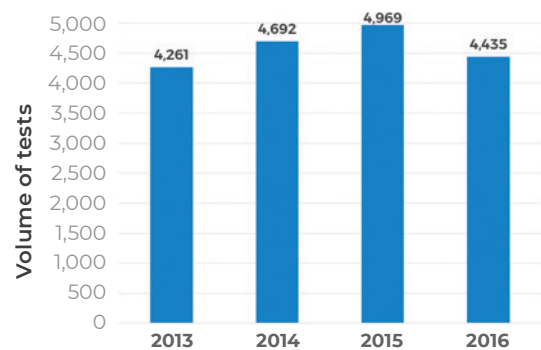
Results

- A total of 18,358 LS CTs were performed in EH between 2013 and 2016.
- 83% of CTs were ordered by family physicians.

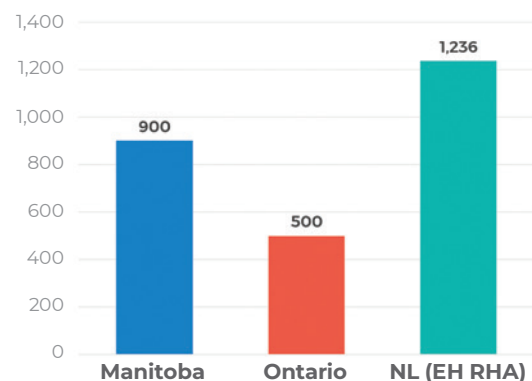
Age-Sex Standardised Rate of Adult CT Referrals per 100,000 People for LS from Family Physicians in EH from 2013–2016



Volume of CTs Ordered in EH from 2013–2016



Age-Sex Standardised Rates of all CTs Ordered (by any Health Professional) per 100,000 People by Province (2001–2011, *NL Data 2013–2016 only)



Conclusions

1. There is a high rate of LS CTs ordered in EH compared to other countries or larger Canadian provinces.
2. In view of the low rate of red flags for CT and the risk of cancer from CT radiation, fewer LS CTs should be ordered.