

High Rates of Inappropriate Referrals for Lumbar CT in Eastern Health

Choosing Wisely Canada Recommendation

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

- ◇ There are clinical reasons to suspect serious underlying pathology (ie. red flags: severe or progressive neurological deficits, suspicion of osteomyelitis, cancer or fracture).
- ◇ 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 2017, 13/1,000 people in NL had a spinal CT.
4. 83% of lumbar CT scans are ordered by Family Physicians (FPs).

Methods (Dr. A. Hall)

1. A retrospective audit of administrative electronic health records (Meditech and PACS) was performed for all adults (≥18 years) referred for lumbar spine CT by all FPs in Eastern Health in 2016.
2. Indications were categorized as appropriate (red flag present), unclear appropriateness (Radicular Syndrome) and inappropriate (nonspecific low back pain).

Results

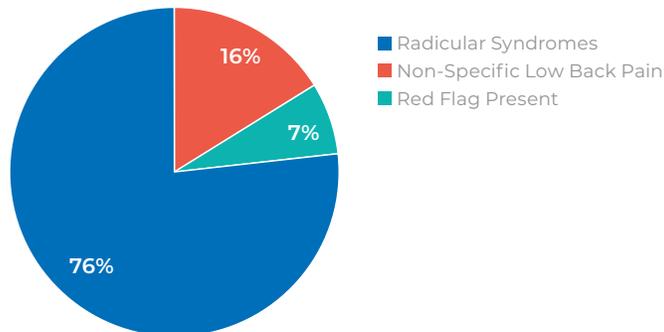


Fig. 1. Lumbar CTs in Adults Ordered by FPs (N=3,609)

- It is unknown the proportion of patients with radicular syndromes in which an epidural or surgery was being considered, which would enhance the degree of appropriateness.

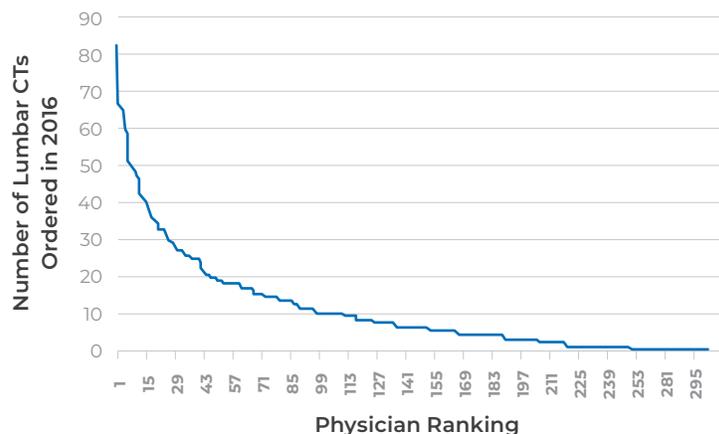


Fig. 2. CT Ordering Volume Ranked by FP

- 80% of lumbar CTs were ordered by a small number of FPs.
- 13% of FPs ordered ≥20 lumbar CTs in 2016.

Conclusions

1. The rate of inappropriate or questionable referrals for lumbar CT was high.
2. A small proportion of FPs order 80% of lumbar CTs.
3. The harm associated with radiation needs to be balanced against the likely benefits from CT imaging.