



# affect emergency physician practice in a high awareness - low investigation environment?

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#### References

1. Choosing Wisely Canada emergency medicine recommendations; Available at: <http://www.choosingwiselycanada.org/recommendations/emergency-medicine>. Accessed October 12, 2015



#### Background:

We previously reported that a targeted knowledge translation intervention was associated with a trend towards increased awareness and knowledge of the Choosing Wisely Canada (CWC) emergency medicine (EM) recommendations. We wished to assess if the intervention changed physician practice, specifically looking at the imperative “do not order lumbar XRs for non-traumatic low back pain unless red flags exist”.<sup>1</sup>

#### Methods:

A Choosing Wisely Canada departmental knowledge translation initiative was implemented in April 2016 and consisted of a 1-hour seminar reviewing the EM recommendations, access to a video cast and departmental posters. Knowledge was assessed by asking respondents to identify 80% or more of the recommendations correctly.

The effectiveness of our intervention was assessed by analyzing the frequency of lumbar XR imaging conducted for back pain before and after the introduction of our intervention at the Saint John Regional Hospital emergency department. All patient visits for a CEDIS complaint of back pain were included. The rates of XR imaging from June to September 2014 for the pre-intervention period and June to September 2016 for the post-intervention period were collected and analyzed using Fisher exact tests. A sample size of 790 patients was required to detect a 10% change with an alpha of 0.05 and a power of 80%.

#### Results:

Baseline characteristics of patients were similar for the pre- and post-intervention periods.

There was a total of 781 patient visits for low back pain in June to September 2014 and 672 in June to September 2016. The XR imaging rate for low back pain increased from 12% (95% CI 9.9-14.5) in the pre-intervention group to 16.2% (95% CI 13.6-19.2) in the post-intervention group (p=0.023).

**Conclusion:** We previously demonstrated a trend towards increased knowledge of the CWC EM recommendations following a knowledge translation initiative. We observed that our intervention was associated with an increased frequency of imaging for low back pain. This may be due to a contrarian effect. We feel this calls into question the role of local knowledge translation initiatives where physician practice already closely adheres to pre-established recommendations.

Patient Demographics	Pre-intervention	Post-intervention
Age (mean+/-SD)	48 (27-68)	49 (29-70)
Male (%)	45	52
Female (%)	55	48
Total (ED visits)	781	672
Jun	189	134
Jul	183	177
Aug	212	174
Sept	197	187

