



Evaluating the Appropriateness of Inpatient MRI Orders at TBRHSC (a Choosing Wisely Initiative)

PRESENTING AUTHOR:

Jacqueline Larizza (1,2)

AUTHOR(S):

Alaref, A (2,3), McKnight, S (3), Willson, S (3), Kisselgoff, D (2,3)

AFFILIATIONS:

(1) Lakehead University, Thunder Bay, ON, (2) Northern Ontario School of Medicine, Thunder Bay, ON, (3) Thunder Bay Regional Health Sciences Centre, Thunder Bay, ON

ABSTRACT:

Background: The use of magnetic resonance imaging (MRI) in Canada has been consistently increasing in past years. Few Canadian studies have been conducted to evaluate the inappropriateness of MR imaging and of those conducted, the proportion of inappropriateness ranges from 2-28% (1).

Objectives: The purpose of this study was to evaluate the appropriateness of inpatient MRI requisitions at Thunder Bay Regional Health Sciences Centre (TBRHSC).

Methods: Data was obtained through a retrospective chart review of medical records at TBRHSC spanning a one-month period. A total of 157 inpatient MRI requisitions were made during this period which included both adult and pediatric populations. The appropriateness of the MRI requisition was determined based on Choosing Wisely Canada and Canadian Association of Radiologists guidelines.

Results: Of the total number of MRI orders, approximately 94% were necessary, 4% were not necessary, and 2.5% were query necessary. Of the MRI orders, 77% were used to make a diagnosis, and of those, 45% resulted in a positive test finding. Secondary outcomes measured included the indications for MRI orders which demonstrated that stroke/TIA and neoplasm were the two most common indications (42% of total) and priority status of MRI which indicated 67% as urgent, 24% as routine, and 9% as stat. Of these, 5% could have been modified to urgent or routine and 4% could have been done as an outpatient.

Conclusions: This study demonstrated that more than 94% of studies were necessary according to guidelines. Overall, our impression is that the TBRHSC uses MRI resources wisely, according to available guidelines, and accounting for restrictions related to MRI service hours allocated by the Ministry of Health.