



Congratulations to Network members **Dr. Simon French** who has recently been awarded CIHR Project Grants in the most recent round of awards.

Title: A clinical decision support tool for diagnostic imaging use for low back pain

Team: Hayden JA, Stiell I, French S, McGrath PJ, Curran J, Wells G, Campbell S, Magee K, Slipp P, Ogilvie R, Smith A & the LBP Advisory Group

Funding Body and Scheme: Canadian Institutes of Health Research, Project Scheme, October 2016

Duration: 2017-2022

Amount: \$784,124

Abstract:

Objective: To develop a tool to help doctors make appropriate decisions about the need for diagnostic imaging for patients with low back pain.

Rationale: Low back pain is one of the most common and disabling health problems in Canada and the world. In most cases, low back pain resolves without requiring diagnostic imaging (x-ray) and with little treatment. Yet, diagnostic imaging is frequently used for low back pain contrary to recommendations from clinical guidelines. This is despite evidence that diagnostic imaging is of limited value in most cases - exposing patients to unnecessary radiation, increasing health services use and worsening patient outcomes. Currently, no clinical decision support tool is available. Clinical guidelines describe 'red flags' - characteristics of serious cause low back pain such as fracture, or cancer - where diagnostic imaging may be appropriate. However, few studies have evaluated these red flags, contributing to inconsistent recommendations across guidelines. A clinical decision support tool will improve the delivery of appropriate clinical care, and create opportunities for improved patient outcomes and reduced healthcare costs.

Methods: Our study population will be patients presenting to five Canadian emergency departments with low back pain, assessed at their emergency department visit, then 3 and 12-months afterwards. We will develop a statistical model to determine which low back pain patients should or should not receive diagnostic imaging. We will then work with clinicians and hospital administrators to convert the statistical model into an easy to use clinical decision support tool. The tool will enable quick and accurate assessment of the need for diagnostic imaging for low back pain.

Team: Our team brings extensive expertise in clinical tool development, low back pain research, the clinical management of back pain patients, and implementation science. We regularly consult with a diverse group of Low Back Pain Advisors.