



# How long is too long for emergent CT imaging in rural communities?

## RESEARCH OVERVIEW



### Evaluating delays for emergent CT scans from a rural British Columbia hospital

Timely access to a CT scan is critical to diagnose and triage patients with life-threatening illnesses. In B.C., only 3% of rural hospitals have access to a local CT scanner, and patients in these communities must often be transferred hundreds of kilometres away for emergent imaging. The objective of this study was to investigate how many transfers from Golden and District Hospital were for CT scans over a 1-year time period, and describe the time delays to emergent CT imaging.

## COMMUNITY INFORMATION

(Golden, B.C.)

As of study year (Nov. 2017-2018)



|                              |                        |
|------------------------------|------------------------|
| Population:                  | 6,856                  |
| Emergency visits:            | 8,672                  |
| Number of transfers          | 220                    |
| Hospital services:           | lab; x-ray; ultrasound |
| Distance to nearest CT scan: | 247 km                 |
| Distance to trauma centre:   | 264 km                 |

## FINDINGS

### How many transfers from this rural hospital were for CT scans?

**61%** of all transfers (n = 135 patients) received a CT scan at a referral centre.

**38%** of total transfers (n = 85 patients) avoided if there was a local CT scanner.

19% of the transfers were designated emergent 'red'; 54% urgent 'yellow'; and, 27% non-urgent 'green'.

### How long did it take patients to receive emergent CT scans?

#### Emergent transfers

6 hrs 52 mins

#### Acute stroke

4 hrs 44 mins

#### Urgent transfers

8 hrs 52 mins

#### Non-urgent transfers

16 hrs 36 mins

## IMPLICATIONS

This is the first study to track time intervals and characterize inter-facility transfers from a rural to urban hospital in B.C. We found a large proportion of transfers received CT scans and the delays for emergent CT scans were long. These delays may cause negative outcomes. In 1997 the Canadian Association of Emergency Physicians recommended that CT scanners should be more available in rural Canada. Unfortunately, almost 25 years later we still see a rural-urban disparity in access to CT scans. Future research addressing inter-facility transfers for CT scans and patient outcomes would be helpful for further health policy and services planning.

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