

## Chapter 27

# Saskatchewan Health Authority—Efficient Use of MRIs in Regina

### 1.0 MAIN POINTS

Effective MRI services involve patients receiving quality scans within an appropriate timeframe, and physicians appropriately using MRIs as diagnostic tools after obtaining reliable interpretations of the scans within a reasonable timeframe.

By September 2024, the Saskatchewan Health Authority implemented the three remaining recommendations we originally made in 2017 about the efficient use of MRIs in Regina.

The Authority implemented a peer review IT system to formally and systematically assess the quality of MRI services that its radiologists provide. It will also require contracted private MRI operators to participate in the peer reviews. The Authority expects to have all radiologists, including private operators, using the peer review IT system by the end of 2024. It will report results from peer reviews to senior management to support monitoring of the quality of MRI services.

Having quality MRI services help to facilitate appropriate diagnosis, treatment plans, and help to improve patient outcomes.

### 2.0 INTRODUCTION

#### 2.1 Background

Under *The Provincial Health Authority Act*, the Saskatchewan Health Authority is responsible for the planning, organization, delivery, and evaluation of the health services that it provides. This includes provision of magnetic resonance imaging (MRI) services.

The Authority has eight MRI scanners in six Saskatchewan hospitals located in:

- Moose Jaw Dr. F.H. Wigmore Regional Hospital
- Regina General Hospital (two)
- Saskatoon City Hospital
- Royal University Hospital (two)
- St. Paul's Hospital in Saskatoon
- Lloydminster Hospital<sup>1</sup>

In 2023–24, the six hospitals provided almost 39,000 MRI scans.<sup>2</sup> In addition, the Authority contracted with two licensed private-imaging operators to supplement hospital-based MRI services in Regina and Saskatoon. The contracts require the private operators to conduct a total of 10,000 MRI scans each year. In July 2024, the Saskatchewan Health Authority contracted a third licensed private-imaging operator in Regina to provide an additional 5,500 MRI scans each fiscal year.

<sup>1</sup> Patients in Lloydminster can receive MRI services at the community-based scanner provided through a contract between the Saskatchewan Health Authority, Alberta Health Services, and Lloydminster Medical Imaging.

<sup>2</sup> [www.saskatchewan.ca/residents/health/accessing-health-care-services/medical-imaging/medical-imaging-wait-times#supply-and-demand](https://www.saskatchewan.ca/residents/health/accessing-health-care-services/medical-imaging/medical-imaging-wait-times#supply-and-demand) (15 July 2024).



At June 30, 2024, Regina had 5,412 patients waiting for MRI scans (compared to 2,610 patients at the time of our 2017 audit).

Since 2016, *The Patient Choice Medical Imaging Act* gives Saskatchewan residents the option of personally paying for MRI services through a licensed private operator. The Act requires private operators to provide a free MRI scan to an individual on the public MRI waitlist for each scan personally paid for by residents (i.e., one-for-one model). In 2023–24, the Authority received 1,858 MRI scans through the one-for-one model.

## 2.2 Focus of Follow-Up Audit

This chapter describes our third follow-up audit of management's actions on the recommendations we first made in 2017.

In 2017, we assessed the Saskatchewan Health Authority's processes for efficient use of MRIs in Regina. We concluded the Authority had effective processes other than the areas identified in our seven recommendations.<sup>3</sup> By February 2022, the Authority implemented four of the seven recommendations.<sup>4</sup>

To conduct this audit engagement, we followed the standards for assurance engagements published in the *CPA Canada Handbook—Assurance* (CSAE 3001). To evaluate the Authority's progress toward meeting our recommendations, we used the relevant criteria from the original audit. Authority management agreed with the criteria in the original audit.

To complete this follow-up audit, we interviewed key staff at the Authority and examined the Authority's IT systems, MRI reports, and other relevant documents related to MRI services.

## 3.0 STATUS OF RECOMMENDATIONS

This section sets out each recommendation including the date on which the Standing Committee on Public Accounts agreed to the recommendation, the status of the recommendation at September 30, 2024, and the Saskatchewan Health Authority's actions up to that date.

### 3.1 Quality of MRI Services Being Assessed and Will Be Reported to Senior Management

***We recommended the Saskatchewan Health Authority formally and systematically assess the quality of MRI services that radiologists provide.***

(2017 Report – Volume 1, p. 143, Recommendation 4; Public Accounts Committee agreement June 13, 2018)

**Status**—Implemented

<sup>3</sup> 2017 Report – Volume 1, Chapter 10, pp. 133–146.

<sup>4</sup> 2020 Report – Volume 1, Chapter 25, pp. 247–255 and 2022 Report – Volume 1, Chapter 19, pp. 201–206.

***We recommended the Saskatchewan Health Authority regularly monitor the quality and timeliness of MRI services that contracted private MRI operators provide.*** (2017 Report – Volume 1, p. 144, Recommendation 6; Public Accounts Committee agreement June 13, 2018)

**Status—Implemented**

***We recommended the Board of the Saskatchewan Health Authority receive periodic reports on the timeliness and quality of MRI services, including actions taken to address identified deficiencies.*** (2017 Report – Volume 1, p. 146, Recommendation 7; Public Accounts Committee agreement June 13, 2018)

**Status—Implemented**

The Saskatchewan Health Authority formally and systematically assesses the quality of MRI services provided by its radiologists using its new peer review IT system. It will require contracted private MRI operators to participate in peer reviews by the end of 2024. Results of all peer reviews will also be reported to senior management by the end of 2024.

In June 2024, the Authority implemented a peer review IT system for diagnostic services (e.g., MRI scans, CT scans). We found the system requires radiologists to peer review and assess diagnostic reports based on quality aspects (e.g., issues with scan quality, interpretations of scans) and clinical significance, as well as to propose actions to address identified deficiencies. Radiologist assessments are based on a standardized rating scale (see **Figure 1**). We found the rating scale aligned with good practice.

**Figure 1—Standardized Rating Scale for Radiologist Peer Reviews of Diagnostic Reports**

**Rating Scale**

1. Concur with interpretation
2. Discrepancy in interpretation—correct interpretation not ordinarily expected to be made (understandable miss)
3. Discrepancy in interpretation—correct interpretation should be made most of the time

**Clinical Significance**

When assigning scores of 2 or 3, radiologists will choose one of the following:

- a) Unlikely to be clinically significant
- b) Likely to be clinically significant

Source: Adapted from information provided by the Saskatchewan Health Authority.

As of September 2024, about 10 of the Authority’s radiologists across the province used the IT system to conduct peer reviews. The Authority plans to have new service agreements with private operators by the end of 2024. We found the draft service agreement includes the requirement for each radiologist to participate in peer reviews. The Authority expects to have all radiologists (about 130 total), including private operators, using the system by the end of 2024.

The Authority also hired a coordinator in May 2024 to review adjudication issues and cases requiring arbitration. Authority management indicated that although the coordinator uses information from the peer review IT system for education/feedback purposes to radiologists, they do so informally as of September 2024. The Authority expects to formalize the education/feedback process by the end of 2024.



The Authority continues to use detailed reports, also provided to senior management, to help staff analyze data about timeliness of MRI services provided by the Authority and contracted private MRI operators.<sup>5</sup> In 2023–24, the Authority contracted the private MRI operator in Regina for 5,500 MRI scans—it delivered 5,792 scans.

The reports to senior management do not yet include information on the quality aspects of the MRI services provided by the Authority and contracted private MRI operators. However, we observed a report provided to the Executive Director of Diagnostic Imaging outlining the number of radiologist peer reviews and their associated ratings. For example, in July 2024, radiologists conducted 91 peer reviews, with almost 95% concurring with the interpretation. The Authority expects to report on MRI service quality (i.e., peer review results) to senior management by the end of 2024.

By formally and systematically assessing the quality of MRI services that radiologists provide, the Authority can assess whether it provides reliable MRI services. Accurate interpretation of MRI scans can be crucial to proper diagnosis and treatment for patients.

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<sup>5</sup> The Saskatchewan Health Authority revised its reporting in 2022, so its Board no longer receives and reviews periodic reports on MRI services. Rather, this is now the responsibility of Authority senior management, which is reasonable.