



Expanding Diagnostic Imaging Access in British Columbia: How Physiotherapists Can Support Timely, Cost-Effective, and Integrated Care

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Executive Summary

- British Columbia's (B.C.) health care system faces unprecedented pressure with emergency department (ED) closures, long specialist wait times, and one in four residents without access to a primary care provider. At the same time, health care expenditures are rising exponentially annually.
- Expanding the scope of physiotherapy (PT) practice to include diagnostic imaging access offers a practical, evidence-supported way to improve patient flow and reduce duplication—complementing, not replacing, the work of physicians, nurse practitioners, and other providers.
- PTs are university-trained, regulated professionals who already diagnose and manage diseases, disorders and conditions. Other provinces (e.g., Alberta, Nova Scotia) and countries (e.g., United Kingdom, Australia) have effectively integrated diagnostic imaging into PT practice.
- A scoping review found the following major themes: a) PTs order imaging judiciously and in-line with best practices, b) PTs have high diagnostic agreement with specialists and radiologists, c) Integrating PTs into team-based care models (e.g., EDs, primary care, surgical triage) improves access, costs, and enhances patient outcomes, and d) Patients, other health care professionals and interest holders support granting PTs the ability to order diagnostic imaging.
- The scoping review also identified that advanced training improves diagnostic imaging accuracy and appropriateness. Despite limited professional competency standardization there are existing national and international regulatory frameworks that could guide the expansion of B.C.'s Physical Therapists Regulation to include diagnostic imaging.
- Regionally, there is physician support for PTs with advanced training to order diagnostic imaging, including—but not limited to—the BC Children's Hospital Orthopaedic Clinic and the Brenda and David McLean Integrated Spine Clinic ([Appendix A](#)).
- The University of British Columbia's Department of Physical Therapy has confirmed its commitment to designing and implementing post-graduate diagnostic imaging training.
- The College of Health and Care Professionals of British Columbia has confirmed its preparedness to regulate this activity once the legislation is amended.

PABC makes the following key recommendations:

1. **Legislative alignment:** Amend B.C.'s *Physical Therapists Regulation* to authorize PTs to order diagnostic imaging. To ensure the highest standards of care, it is PABC's position that ordering diagnostic imaging should be a restricted activity if authorized.
2. **Public coverage:** Ensure imaging ordered by PTs is eligible under MSP.
3. **Certification and oversight:** Allow reasonable time for the College of Health and Care Professionals of British Columbia (CHCPBC) to develop appropriate education pathways and competency standards.
4. **Program Evaluation:** Evaluate the program two years after implementation.



I. Purpose

The Physiotherapy Association of British Columbia (PABC) advocates for PTs with advanced training to be granted the authority to order diagnostic imaging as part of their full scope of practice. Empowering PTs in this way would contribute meaningfully to addressing several pressing challenges in B.C.'s health care system, including ED closures, funding constraints, long wait times for specialist consultations, and limited access to primary care providers.

II. Background

The Challenges: The Health Care Crisis & Economy

Emergency department closures, long waitlists for specialist consultation and a lack of access to primary health care providers are persistent challenges frequently highlighted by national and provincial media outlets.^{1,2,3} There is a widely held belief among experts, forecasters, researchers and the public that we are in a crisis. A 2023 international survey of 10 high-income countries revealed that Canada had the lowest proportion of adults (86%) who reported having a regular doctor or place to receive medical care—well below the average of 93%, and significantly lower than comparable countries such as the Netherlands, which reported 99%.⁴ In B.C., the proportion of individuals attached to a primary care provider ranges from 73% to 82%.⁴⁻⁶

Health care spending remains one of the largest government expenditures.⁷ As noted in the 2025 B.C. Budget,⁸ the province faces an uncertain economic environment. In response, the B.C. government issued mandate letters in January 2025 directing ministries to review expenditures and improve efficiency,⁹ and a comprehensive review of all health authorities is currently underway.¹⁰ With the provincial government recently announcing a record \$11.6 billion deficit in September 2025,¹¹ optimizing health care delivery is more critical than ever.

PTs are key members of the medical system in B.C., providing expert knowledge and skills in the assessment, treatment and management of physical injuries and illness. Despite their expertise, PTs remain an underutilized resource in this province. Greater integration of PTs into the health care system could help reduce costs, alleviate pressure on other providers, and improve patient outcomes.

Table 1. PABC Member Front-Line Experience: Red Flag Screening

Situation	A 60-year-old woman with diabetes presented with shoulder stiffness typical of a frozen shoulder.
Action	The PT noted an atypical finding—normal internal rotation—and suspected another cause. Without authority to order imaging, the PT advised the patient to check in with their physician to get a requisition. The patient couldn't get in to see their doctor for a few weeks, but eventually had the image taken. Five weeks after her initial PT appointment, the X-ray revealed an osteosarcoma.
Impact	Critical diagnosis was delayed, extending suffering, diagnostic uncertainty, and increasing downstream costs. PT ability to order diagnostic imaging could have detected the malignancy earlier.
Lesson	PTs often identify red-flag patterns early. Imaging authority enables faster detection of serious conditions.



III. Analysis

Diagnostic Imaging

Diagnostic or medical imaging encompasses a broad range of modalities—such as Computed Tomography (CT), Magnetic Resonance Imaging (MRI), Ultrasound, and Radiography—that enable visualization of the internal structures and functions of the body.¹² These tools support accurate diagnosis, treatment planning, and monitoring of various health conditions.¹² Diagnostic imaging is essential for timely diagnosis and care planning and without timely access, patients face delays in accessing treatment, unnecessary referrals, and higher costs.

Diagnostic imaging is widely recognized in the literature as a key enabler for PTs to work to their full scope of practice. In British Columbia, PTs have had direct access legislation since 1999, allowing individuals to seek PT services without a physician referral. Notably, a survey of the World Confederation for Physical Therapy Nations found that countries with direct access to PT are 7.4 times more likely to authorize PTs to order musculoskeletal imaging.¹³ This correlation underscores the importance of aligning diagnostic imaging authority with existing direct access legislation to fully leverage the capabilities of PTs in B.C.'s system

Table 2. PABC Member Front-Line Experience: Acute Ankle Injury

Situation	A 35-year-old soccer player twisted her ankle. The PT applied the Ottawa Ankle Rules and determined imaging was required.
Action	Without PT diagnostic imaging ordering authority, the patient faced two options because there was no walk-in clinic in her community: wait about two weeks to see her doctor, get an X-ray, have the report sent back to the doctor, and then book another follow-up for results—or spend 6–8 hours in the ED to get imaging the same day.
Impact	Granting PTs access to imaging would eliminate two unnecessary physician visits, accelerate diagnosis from weeks to days, reduce health care costs, minimize lost work time, and significantly lessen patient distress.
Lesson	PT imaging access turns a two-week cycle of uncertainty into a two-day path of clarity, faster recovery, and lower system cost.

Regional, National, & International Context

The above noted survey of World Confederation for Physical Therapy Nations found that 38% of member nations reported having some level of PT musculoskeletal imaging authority.¹³ Notably, United States military PTs and New Zealand PTs have had diagnostic imaging privileges since 1972 and 1999 respectively.^{14,15} Countries such as Australia, the United Kingdom, Norway and South Africa have integrated diagnostic and procedural imaging into PT practice.¹⁶

In Canada, Alberta became the first province to authorize PTs to refer for diagnostic imaging in 2011.¹⁷ Currently, ordering diagnostic tests is within the PT scope of practice in Alberta, Quebec, New Brunswick, Nova Scotia, Yukon,¹⁸ and Prince Edward Island.¹⁹ Regulatory changes are also currently under review in Ontario.²⁰ The Canadian Physiotherapy Association has recommended that the federal government actively encourage all provinces and territories to adopt policies that allow PTs to order diagnostic imaging nationwide.²¹

Despite progress elsewhere, and substantive changes to the *Physical Therapists Regulation* already planned for April 1, 2026, diagnostic imaging is not part of these changes. This omission will continue to limit PTs in B.C. from practicing to their full scope of practice. Compared to other health professions in B.C., PTs have not seen the same level of advancement or innovation in scope expansion. For instance, in 2023, nurse practitioners were granted extended scope



to conduct mental health and capacity assessments,²² and pharmacists gained authority to diagnose and prescribe for minor ailments and contraception.²³ Expanding PTs' scope to include the ability to order diagnostic imaging is a logical and necessary step, particularly given that BC regulations already authorize PTs to diagnose diseases, disorders, and conditions.²⁴ For PTs working in settings such as primary care or surgical triage, access to diagnostic imaging can significantly enhance clinical decision-making by refining differential diagnoses and ruling out serious pathologies.^{25,26}

Table 3. PABC Member Front-Line Experience: A Missed Hip Fracture

Situation	A 25-year-old man fell from height at work and was treated for a soft-tissue injury.
Action	Despite persistent pain and limited motion, two PT requests for imaging were declined. Three weeks later, ED X-rays confirmed a displaced femoral-neck fracture requiring urgent surgery.
Impact	Weeks of ineffective rehabilitation and surgical delay increased cost and risk.
Lesson	PTs monitor recovery longitudinally and recognize when progress deviates from anticipated timelines. Imaging authority would prevent prolonged disability.

Expert Opinion & Scoping Review Themes

Expert consultation and a scoping review were conducted. For detailed methodology see [Appendix B](#). Ninety-seven articles and resources were found pertaining to PTs and diagnostic imaging. See [Appendix C](#) for a full summary of findings. The following themes emerged:

- 1. Judicious PT Imaging Rates**
Evidence consistently shows that PTs order imaging judiciously and in-line with best practice.^{17,27-47}
- 2. High Levels of Diagnostic Accuracy and Appropriateness**
PT diagnostic imaging referrals are commonly cited as being appropriate and align with established guidelines such as the American College of Radiology Appropriateness Criteria.^{27,28,48,49}
- 3. Treatment Plan Changes**
PTs consistently demonstrate a conservative threshold for ordering diagnostic imaging; however, when imaging is deemed necessary, it frequently reveals clinically significant findings (e.g., a fracture) that lead to appropriate changes in patient management.^{32,50-56}
- 4. Strong Interprofessional Concordance**
Interprofessional diagnostic imaging concordance studies demonstrate that PTs' clinical decision-making aligns closely with that of physicians.^{29,30,32,53,57-63}
- 5. Reduced Health Care Costs**
Consistent and growing evidence demonstrates that integrating PTs into team-based care models—particularly in EDs, orthopaedic triage, and primary care—reduces overall health care costs.^{32-38,44,48,64-69}
- 6. Increased Physician Capacity and Decreased Waitlists**
There is consistent evidence that shows that PTs in advanced practice roles manage the majority of their cases independently.^{56,70-72,82} and increase access to care by decreasing waitlists and increasing physician capacity.^{32,33,39,42,48,67,68,72-87}



7. Lack of Professional Competency Standardization

Despite the growing integration of diagnostic imaging into PT practice, there remains no clear standardization of training or competency assessment across educational and professional settings.⁸⁸⁻⁹²

8. Advanced Training Improves Competence

Evidence consistently shows that advanced training significantly improves PTs' diagnostic and management competencies.^{80,93-96}

9. Existing Regulatory Frameworks

Although professional competencies in diagnostic imaging for PTs are not standardized, the literature outlines some diagnostic imaging competencies⁸⁸ and frameworks.⁹⁷

10. Key Safeguards for Implementation

Key safeguards have been identified to support the safe and evidence-based integration of diagnostic imaging into PT practice: a) interpretation of results, b) responsibility of results, c) medical imaging catastrophizing, d) unregulated use, e) radiation exposure, and f) patient responses to medical imaging.

11. Team-based Models of Care: Evidence, Interest-holder Support & Future Directions

There is a consistent and growing body of evidence that both patients and health care professionals report favorable experiences when PTs are integrated into team-based models of care across various clinical settings, including when PTs can order diagnostic imaging. High patient satisfaction has been reported in multiple studies, particularly in musculoskeletal care,^{29,32,38,42,48,56,59,68,98-104} rheumatology²⁹ and women's health.⁸⁰ Health care staff, physicians, and system stakeholders consistently report high satisfaction, strong appreciation, confidence in clinical competence, and significant system benefits when PTs are integrated into team-based care models.^{72,100,101,105-107}

Regionally, there is physician support from the BC Children's Hospital Orthopaedic clinic and the Brenda and David McLean Integrated Spine Clinic for PTs with advanced training to order diagnostic imaging.

The University of British Columbia's Department of Physical Therapy has confirmed its commitment to designing and implementing post-graduate diagnostic imaging training.

The College of Health and Care Professionals of British Columbia has confirmed its preparedness to regulate this activity once the legislation is amended.

Table 4. PABC Member Front-Line Experience: A Motor-Vehicle Accident with No Primary Care Provider

Situation	A 62-year-old man presented one day after a motor-vehicle collision with thumb swelling and severe mid-back pain. He did not have a primary care provider and was unable to access urgent care, so he sought PT directly.
Action	The PT identified probable fractures and advised urgent imaging but could only recommend—not requisition—it.
Impact	Diagnostic delay and uncertainty increased patient stress and ED use.
Lesson	Allowing PTs to order imaging would streamline post-trauma care, reduce unnecessary ED visits, and improve coordination between clinicians.



IV. Position and Recommendations

It is the position of PABC that PTs with advanced training should be authorized to order diagnostic imaging in order to fully utilize their scope of practice and contribute meaningfully to BC's health care challenges.

Recommendations

- I. The *Physical Therapists Regulation* should be updated to include ordering diagnostic imaging within the scope of practice for PTs in British Columbia. It is PABC's position that it is not within the scope of authorized PTs to interpret diagnostic imaging. This responsibility lies with the radiologist who provides a report to the referring therapist.
- II. To ensure the highest standards of care, it is PABC's position that ordering diagnostic imaging should be a restricted activity if authorized.
- III. Diagnostic imaging ordered by PTs should be a publicly funded service and as such PTs will need MSP billing codes.
- IV. Once regulatory changes are in place, PABC acknowledges that the College of Health and Care Professionals of British Columbia (CHCPBC) would require a reasonable period of time to establish the diagnostic imaging regulatory program and set standards for B.C. PABC recommends three clear education pathways:
 - a) The University of British Columbia's Physical Therapy department could develop post graduate courses similar to the University of Alberta's Diagnostic Imaging for Physical Therapists Course (REHAB 570) or Diagnostic Imaging for MSK Disorders in Primary Care I, II and III Courses (EXFRM 2700, 2701, 2702).
 - b) Other approved professional development options assessed and authorized by CHCPBC.
 - c) Recognition of equivalent training completed in other jurisdictions.
- V. Evaluate the program two years after implementation.

V. Acknowledgments

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Appendix A. Regional Interest-holder Support

British Columbia Children's Hospital Orthopaedic Clinic

<https://www.bcchildrens.ca/clinics-services/orthopedics>

In the Orthopaedic clinic at BC Children's Hospital, there is physician support for expansion of scope to include referral to diagnostic imaging by PTs in order to improve delivery of care. This would be accomplished within existing infrastructure by enabling PTs to support referral triage, reduce delays in diagnosis, and off-load the management of non-surgical patients from surgeons. It is anticipated that this would also lead to a reduction in pain and disability duration, reduce the number unnecessary or duplicate visits, faster implementation of treatment, and improved experience for patient and families.

Brenda and David McLean Integrated Spine Clinic

<https://www.vch.ca/en/service/brenda-and-david-mclean-integrated-spine-clinic>

At the Brenda & David McLean Integrated Spine Clinic, Advanced Practice Physiotherapists are responsible for triaging and assessing referrals from primary care providers—including family physicians, emergency department clinicians, neurologists, and physiatrists—to determine the appropriateness of surgical consultation. APPs must complete a minimum of three months of specialized training in addition to five years of clinical PT experience to perform triage on behalf of spine surgeons. The PTs have the support of the physician group for the ability to independently order imaging within the context of the advanced training process.

This advanced training now incorporates diagnostic imaging coursework through the Rapid Access Clinic for Low Back Pain program (formerly ISAEC). Our PTs have also completed recognized imaging education such as the Essentials of Musculoskeletal Imaging course by Evidence in Motion and the University of Alberta's REHAB 570: Diagnostic Imaging for Physiotherapy Practice. Despite their qualifications and role as primary care providers, PTs are currently not authorized to independently order diagnostic imaging before or after the initial intake assessment. This limitation persists even though they possess the clinical expertise to make informed imaging decisions within the scope of their responsibilities.

Expanding the scope of practice to permit PTs with appropriate imaging training to independently order diagnostic imaging would enhance operational efficiency and improve patient care pathways. Presently, PTs must defer imaging requests to spine surgeons or orthopedic consultants solely for procedural purposes, even when surgical decision-making is not involved. Granting PTs the authority to order and receive imaging results directly would reduce the volume of non-surgical cases requiring specialist review, streamline case management, and optimize resource utilization across the continuum of care



Appendix B. Methodology

Activity	Date
Fireside Chat to consult with PABC members was hosted by the Knowledge Lead. Eblasts requesting member engagement were also sent.	May 1, 2025
Knowledge Lead individually consulted with 28 experts (PABC members, UBC faculty & professional associations)	May - June 2025
PABC Diagnostic Imaging Task Force was formed	June 2025
A scoping review of CINAHL and PubMed was conducted by the Knowledge Lead. Gray literature and reference lists were also searched.	June - August 2025
Position Statement drafted by the Knowledge Lead	September 2025
Position Statement edited by CEO, Physical Therapy Knowledge Broker & Task Force	September - October 2025
Draft Position Statement sent to UBC Department of Physical Therapy and the College of Health and Care Professionals of British Columbia	October 2025
Position Statement approved by PABC Board	November 2025

Scoping Review Strategy

Inclusion criteria:

- English language
- Systematic reviews published within the preceding 5 years
- Non-systematic reviews published within the preceding 2 years

Exclusion criteria:

- Editorials, expert opinions, narrative reviews

Search terms used:

("diagnostic agreement" OR "diagnostic concordance" OR "diagnostic imaging modality" OR "medical imaging" OR "musculoskeletal imaging" OR "advanced imaging" OR "imaging") AND ("physical therapy" OR "physiotherapy")



Appendix C. Expert Opinion and Scoping Review Themes

1. Judicious PT Imaging Rates

Evidence consistently shows that PTs order imaging judiciously and in line with best practice. In Alberta, between 2012–2016, PTs referred for publicly funded imaging an average of just 31 times per year — fewer than three per month.⁴⁷ At a U.S. medical center, PTs ordered X-rays in only 9% of cases and advanced imaging in just 4%.⁴⁷ Comparative studies confirm that PTs order imaging at equal ^{29,30-32} or lower rates than family doctors and orthopedic surgeons.³³⁻⁴⁷ This evidence reflects how PTs are trained: to perform skillful physical examination and functional assessment, check for red flags, and prioritize conservative management, before ordering additional investigations.

2. High Levels of Diagnostic Accuracy and Appropriateness

PT diagnostic imaging referrals are commonly cited as being appropriate⁴⁸ and align with established guidelines such as the American College of Radiology Appropriateness Criteria.^{27,28,49}

3. Treatment Plan Changes

PTs consistently demonstrate a conservative threshold for ordering diagnostic imaging; however, when imaging is deemed necessary, it frequently reveals clinically significant findings that lead to changes in patient management.⁵⁰⁻⁵² For instance, Crowell and colleagues⁵² reported that U.S. military direct-access PTs identified fractures in 16% of foot/ankle radiographs and 24% of wrist/hand radiographs. In other words, in nearly one-quarter of cases, the imaging revealed fractures that required immediate changes in care, such as immobilization.

Further evidence supports the effectiveness of PT-led screening services in surgical pathways. Studies have shown a significant increase in surgical conversion rates—defined as the proportion of patients who ultimately undergo surgery—when patients are assessed by PTs.³²⁻⁵³⁻⁵⁶ A high surgical conversion rate is often indicative of an efficient and appropriate referral process.⁵⁴

Overall, the evidence suggests that PTs' appropriate and targeted use of imaging not only enhances diagnostic accuracy but also positively influences the trajectory of patient care and recovery.

4. Strong Interprofessional Concordance

Interprofessional diagnostic imaging concordance studies further validate PTs' clinical decision-making. These studies show strong agreement between PTs and ENT specialists⁵⁷, radiologists,^{58-60,61} and orthopedic surgeons^{59,62-63} in imaging requests, interpretation and treatment planning. For example, a retrospective study comparing clinical diagnoses with MRI findings found PTs had a diagnostic agreement rate of 74.5%, closely matching orthopedic surgeons (80.8%) and significantly outperforming non-orthopedic providers (e.g. family physicians) (35.4%).⁶³

5. Reduced Healthcare Costs

Consistent and growing evidence demonstrates that integrating PTs into team-based care models—particularly in EDs, orthopaedic triage, and primary care—reduces overall health care costs. These savings are attributed to more judicious use of diagnostic imaging, fewer physician visits, lower salary costs, and improved work-related outcomes.^{32-36,38,48,64-69}

6. Increased Physician Capacity and Decreased Waitlists

Evidence also shows that PTs in advanced practice roles are capable of independently managing the majority of their primary care cases.^{56,70-72} These models have been associated with reduced waitlists and increased physician capacity.^{32,33,42,67,73-84}

Emerging research further supports the integration of PTs into EDs, showing benefits such as lower rates of imaging ⁴⁵⁻⁴⁷ and shorter lengths of stay.^{45-47,68,85-87}



7. A Lack of Professional Competency Standardization

Despite the growing integration of diagnostic imaging into PT practice, there remains no clear standardization of training or competency assessment across educational and professional setting.⁸⁸⁻⁹⁰ International reviews and surveys reveal significant variability in diagnostic imaging education.^{89,91, 92} In the U.S., most DPT programs include diagnostic ultrasound education, though typically with limited instructional hours.⁸⁹

Great variability in diagnostic imaging and rehabilitative ultrasound imaging educational content was found in a 2017 Canadian survey of University Programs, Provincial Colleges and Canadian Armed Forces.⁹⁰ The survey identified the following:

- Both modalities were identified as essential competencies for PT graduates.
- 60% of entry level university programs reported offering at least 3 hours of diagnostic material whereas 13% offered rehabilitative ultrasound imaging content
- Most respondents noted new course development was expected within the next 5 years.
- It was projected that 58.3 % of the provinces/territories would have the possibility of PTs prescribing diagnostic imaging within 5 years.

The University of British Columbia's Master of Physical Therapy program currently provides approximately eight hours of instruction on diagnostic imaging. (e.g., diagnostic imaging in musculoskeletal practice, chest X-ray interpretation).

8. Advanced Training Improves Competence

Evidence consistently shows that advanced training significantly improves PTs' diagnostic and management competencies. One study found that PTs with additional musculoskeletal imaging education, board certification, or residency/fellowship training scored notably higher on the Burley Readiness Examination than those with only entry-level education.⁹³ A large U.S. survey confirmed that board-certified PTs perform imaging tasks more effectively,⁹⁴ while studies from the Netherlands⁶⁰ and Nigeria⁹⁵ found strong correlations between training level and diagnostic accuracy. Swiss data further supports that academic and continuing education as well as professional experience, are key predictors of diagnostic and management accuracy.⁹⁶

9. Existing regulatory frameworks

Although professional competencies in diagnostic imaging for PTs are not standardized, the literature does outline some diagnostic imaging competencies⁸⁸ and frameworks.⁹⁷

Guidance from other jurisdictions also provides useful context:

- **Alberta:** The College of Physiotherapists of Alberta classifies ordering diagnostic imaging as a restricted activity requiring additional authorization. To qualify, PTs must have at least 5 years of clinical experience in Canada and complete specific coursework.¹⁰⁸ Of note, there was a period of time that public funding of diagnostic imaging ordered by PTs was eliminated causing unnecessary red tape and negative impacts.¹⁰⁹ Fortunately, public funding was re-instated in 2022.¹¹⁰
- **Nova Scotia:** This province uses a competency attestation model.¹¹¹ Any PT can opt-in to become an authorized prescriber by declaring their knowledge and practical skills in ordering plain-view radiographs. While the regulator does not mandate specific education, the Nova Scotia Health Authority requires a course for PTs working within its system.

Beyond provincial requirements, there are also advanced training programs that incorporate diagnostic imaging into their curricula. Notable examples include:

- The Advanced Clinical Practitioner in Arthritis Care at the University of Toronto¹¹²
- The Advanced Health Care Practice program at Western University¹¹³



10. Key Safeguards for Implementation

The following safeguards need to be addressed for safe, evidence-based implementation of diagnostic imaging into PT practice.

- a) **Interpretation of results:** While PABC maintains that ordering diagnostic imaging falls within a PTs scope of practice, the interpretation of those results remains the responsibility of a radiologist. The radiologist provides a formal report to the referring therapist, ensuring clinical accuracy and safety.
- b) **Responsibility of results:** As primary care providers, referring therapists must have a clear process for promptly reviewing imaging results with patients. There must also be a mechanism to urgently flag the patient and system if incidental findings or serious pathologies are detected. Notably one systematic review found that incidental findings occur in 23.6% of diagnostic tests.¹¹⁴
- c) **Medical imaging catastrophizing:** Research suggests a link between diagnostic imaging and catastrophic thinking.¹¹⁵ Diagnostic imaging training needs to incorporate the importance of effective and timely communication with patients regarding results to reduce anxiety, catastrophizing and misinterpretation.
- d) **Unregulated use poses safety risk:** Clear regulatory pathways and restricted activity designation will ensure only authorized PTs order imaging.
- e) **Radiation exposure:** While ultrasound and MRI imaging do not involve ionizing radiation, CT scans and X-rays do. Radiation exposure by medical X-ray applications can increase health risks such as brain tumours.¹¹⁶ Excessive or inappropriate use could therefore potentially increase cumulative radiation exposure. Quality assurance, professional competency, and adherence to guidelines such as the American College of Radiology Appropriateness Criteria¹¹⁷ are critical to minimizing these risks.
- f) **Patient Responses to Medical Imaging:** A systemic review¹¹⁸ found the following patient responses to MRI imaging: a) unexpected behavior: 11.4% of cases b) unwillingness to undergo MRI again: 3.9% c) failed scans: 2.1%, d) no-shows: 11.5%, e) sedation required: 3.3%, and f) motion artifacts: 12.2%. As such, clinicians need to be aware of the potential negative patient responses as they pertain to both healthcare utilization and a patient's healthcare journey.

11. Team-based Models of Care: Evidence, Interest-holder Support & Future Directions

There is a consistent and growing body of evidence that both patients and health care professionals report favorable experiences when PTs are integrated into team-based models of care across various clinical settings, including when PTs can order diagnostic imaging. High patient satisfaction has been reported in multiple studies, particularly in musculoskeletal care,^{29,32,38,42,48,58,59,68,98-104} rheumatology²⁹ and women's health.⁸⁰ Health care staff, physicians, and system stakeholders consistently report high satisfaction, strong appreciation, confidence in clinical competence, and significant system benefits when PTs are integrated into team-based care models.^{72,100,101,105-107}

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