
ORDERING, TAKING AND INTERPRETING RADIOGRAPHS

Standard of Practice S-006

Quality Assurance Committee

Approved by Council: February 18, 1998

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(Previously titled “Technical and Interpretative Components for X-ray”)



INTENT

This standard of practice advises members of the practices and procedures for ordering, taking and interpreting radiographs.

Chiropractors are primary health care practitioners, are authorized to use the “doctor” title, and have been granted the legislative authority under the *Chiropractic Act, 1991* to:

- communicate a diagnosis identifying, as the cause of a person’s symptoms,
- i. a disorder arising from the structures or functions of the spine and their effects on the nervous system,
 - ii. or a disorder arising from the structures or functions of the joints of the extremities.

A member is authorized under the *Regulated Health Professions Act, 1991 (RHPA)* and the *Healing Arts Radiation Protection Act, 1990 (HARP)* to order radiographs and operate an x-ray machine for the irradiation of a human.

OBJECTIVES

- To enhance the effectiveness and quality of chiropractic diagnosis and care provided to the patient by the member.
- To identify when it is appropriate for a member to order or take a radiograph for a patient.
- To ensure the safety of both patient and the member during the taking of a radiograph.
- To advise members of the practices and procedures in interpreting, documenting and organizing radiographic films, notes, logs, reports and other records.

DESCRIPTION OF STANDARD

Members Who Order Radiographs

Procedures for Patient Selection

A member shall only order radiographs as a component of an examination of a patient when the history, examination or diagnostic tests clinically indicate a finding which would be better identified, confirmed or eliminated by the ordering or taking of radiographs.

In ordering a radiograph for a patient, a member shall:

- perform a history and examination of the patient, as described in Standard of Practice S-001: Chiropractic Scope of Practice and Standard of Practice S-002: Record Keeping;
- consider whether the radiograph is required to reach an appropriate diagnosis, clinical impression and/or plan of care;
- make reasonable attempts to avoid unnecessary duplication;
- consider the benefits, limitations, contraindications, including pregnancy, and risks; and
- communicate effectively to the patient the reason and process for ordering or taking the radiograph, and record this rationale in the patient health record.

A member shall use proper patient selection protocols with reference to age, child-bearing status and clinical indications of need, such as testing the structure and alignment of the spine. In the acquisition of radiological studies, a member shall consider the risk/benefit ratio and the “as low as reasonably achievable” (A.L.A.R.A.) principle of dosage. The number of views and when they are taken shall be based upon clinical indications. The minimum number of views to reach a diagnostic conclusion shall be the prime objective. Generally, two views at right angles are the minimum number of projections for diagnosis of osseous structures.

Follow-up

A member is required to conduct appropriate follow-up with a patient following the ordering of a radiograph. In performing such follow up, a member shall:

- analyze the results of the radiograph based on the results and/or interpretive reports. If no report is included with the radiograph, a member shall create a radiological report consistent with this standard of practice;
- record in the patient health record any additional observations or conclusions made after reviewing the radiograph and accompanying report, if a radiological report accompanies the radiographic study;

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- ensure that an appropriate and timely follow-up occurs based on the results of the radiographic study and clinical investigation;
- select care options within the chiropractic scope of practice, based on the results of the history, examination and diagnostic results, including the radiographic study;
- report the radiographic findings to the patient in a manner understandable to the patient;
- advise the patient to consult with the appropriate health care professional, if the results of a radiograph reveal a diagnosis, clinical impression or findings that may fall outside the chiropractic scope of practice; and
- when appropriate, advise a patient to consult with an appropriate health professional.

Radiological Report

A member shall ensure that a narrative report accompanies all radiographs ordered or taken by the member, which shall contain the following information¹:

- patient information (demographic information as necessary to identify, assess and treat patients, which may include, but not limited to a patient's name, address, birth date, and pregnancy status)
- date radiograph taken
- examination (series and views)
- description (radiographic features, usually in order of importance or anatomical sequence)
- radiological impressions (list radiological diagnosis in order of importance)
- recommendations (suggestions for further studies, additional specific views or other imaging modalities).

Billing Guidelines

Billing procedures with respect to radiographs must comply with Guideline G-008: Business Practices. Billing procedures relate to the technical and professional components, whether rendered separately or as full service. A member may establish a fee schedule and divide the fee structure into technical (production) and professional (interpretative) components.

¹ Please see Standard of Practice S-002: Record Keeping, for requirements on maintaining reports and records for all diagnostic images.

Members Who Take Their Own Radiographs

A member who takes their own radiographs shall comply with the procedures for patient selection, follow up and billing guidelines section as described above in this standard of practice.

Additionally, a member who takes their own radiographs is required to:

- ensure that the member's equipment is properly registered and compliant with *HARP* and its regulations;
- ensure the member's use of x-ray equipment is compliant with the safety protocols of *HARP* and its regulations;
- obtain informed consent for the taking of the radiograph;
- maintain radiological records;
- produce a radiological report; and
- maintain a radiological log, as follows:

Equipment Registration

A member shall ensure that all x-ray installations are registered with the X-ray Inspection Service, Ministry of Health and Long-Term Care. This applies to all x-ray installations - whether new or used equipment, recently installed or relocated.

Compliance with *HARP*

Members must keep records of compliance with the procedures and tests of the *HARP* and its regulations, which may be accessed at www.canlii.org/en/on/laws/stat/rso-1990-c-h2/latest/rso-1990-c-h2.html.

Consent

The responsibility for obtaining consent from the patient is on the member or other regulated health professional who is taking the radiograph at the time the radiograph is taken.

A member who is taking a radiograph of a patient is required to obtain patient consent, consistent with Standard of Practice S-013: Consent, that is:

- fully informed;
- voluntarily given;
- related to the patient's condition and circumstances;
- not obtained through fraud or misrepresentation; and
- evidenced in a written form signed by the patient or otherwise documented in the patient health record.

X-Ray Safety and Quality Assurance

A member shall ensure compliance with the safety and quality assurance protocols for operating an x-ray machine of *HARP*, its regulations, and Health Canada's Technical Reports and Publications, including but not limited to:

- positioning the patient as required to provide optimum image quality while using minimum radiation;
- using radiation protection devices and other patient protection devices as required;
- ensuring the intended area will be displayed optimally on the radiograph; and
- ensuring the radiograph taken creates an image and data that are sufficiently accurate and clear for the indicated diagnostic or therapeutic purpose

Radiological Records

A member shall ensure that a radiological record accompanies every radiograph, which shall include:

- recent radiographs, when appropriate and available;
- the specific reason for which the radiodiagnostic examination is being conducted (e.g., differential diagnosis, treatment planning indicators);
- the results and conclusions (diagnosis or clinical impression) of the reading of the radiograph; and
- the recommendation and plan or care based on the radiograph.

Radiological Log

The radiological log shall be part of the patient health record and shall contain the following:

- patient's identification
- date of study
- projection or view
- part thickness in centimeter
- kilo Voltage/peak (k.V.p.)
- milli Amperage x seconds (m.A.s)
- comments

Continuing Education

It is strongly recommended that a member who orders, takes and/or interprets radiographs as part of their practice participate in ongoing continuing education relevant to the ordering, taking and /or interpreting of radiographs.

A member who orders, takes and/or interprets radiographs as part of their practice shall:

- maintain current knowledge of all applicable legislation, regulations, standards of practice, policies and guidelines;
- apply the member's relevant knowledge, skills and professional judgment to the process of ordering, taking and interpreting radiographs; and

- maintain up-to-date knowledge of new and emerging trends, practices and advances in technology

LEGISLATIVE CONTEXT

Chiropractic Act, 1991

The scope of practice is defined in the *Chiropractic Act, 1991* as follows:

The practice of chiropractic is the assessment of conditions related to the spine, nervous system and joints and the diagnosis, prevention and treatment, primarily by adjustment, of,

- (a) dysfunctions and disorders arising from the structures or functions of the spine and the effects of those dysfunctions or disorders on the nervous system; and
- (b) dysfunctions or disorders arising from the structures or functions of the joints.

Healing Arts Radiation Protection Act, 1990

The following sections are excerpts from *HARP* authorizing members of CCO to operate x-ray machines for the irradiation of a human being. Please see the *HARP* and its regulation at <http://canlii.org/en/on/laws/stat/rso-1990-c-h2/latest/rso-1990-c-h2.html> for further detail.

Section 5

- (1) No person shall operate an X-ray machine for the irradiation of a human being unless the person meets the qualifications and requirements prescribed by the regulations.
- (2) The following persons shall be deemed to meet the qualifications prescribed by the regulations:
 1. A legally qualified medical practitioner.
 2. A member of the Royal College of Dental Surgeons of Ontario.
 3. A member of the College of Chiropodists of Ontario who has been continuously registered as a chiropodist under the *Chiropody Act* and the *Chiropody Act, 1991* since before November 1, 1980 or who is a graduate of a four-year course of instruction in chiropody.
 4. A member of the College of Chiropractors of Ontario.
 5. Repealed: 1998, c. 18, Sched. G, s. 51 (2).
 6. Repealed: 2011, c. 1, Sched. 6, s. 2 (1).
 7. A member of the College of Medical Radiation Technologists of Ontario.
 8. A member of the College of Dental Hygienists of Ontario.

Section 6

(1) No person shall operate an X-ray machine for the irradiation of a human being unless the irradiation has been prescribed by,

- (a) a legally qualified medical practitioner;
- (b) a member of the Royal College of Dental Surgeons of Ontario;
- (c) a member of the College of Chiropodists of Ontario who has been continuously registered as a chiropodist under the *Chiropody Act* and the *Chiropody Act, 1991* since before November 1, 1980 or who is a graduate of a four-year course of instruction in chiropody; or
- (d) a member of the College of Chiropractors of Ontario.
- (e) Repealed: 1998, c. 18, Sched. G, s. 51 (4).
- (f) Repealed: 2011, c. 1, Sched. 6, s. 2 (2).

This standard of practice should be read in conjunction with:

- *Healing Arts Radiation Protection Act, 1990 (HARP)*
- Standard of Practice S-001: Chiropractic Scope of Practice
- Standard of Practice S-002: Record Keeping
- Standard of Practice S-013: Consent
- Guideline G-008: Business Practices