

FNIHB- OR Nursing Policy and Procedure

Section: **Diagnostics**

Policy Number: **IV - 09**

Subject: **NP Initiated X-Rays**

Issued: **March 31, 2015**

Revised:

Distribution: **All Nursing Facilities**

1. POLICY:

1.1 Nurse Practitioners (NP) may initiate a request for a limited number of x-ray procedures in the nursing station without a direct physician's order, under the authority of the *Healing Arts Radiation Protection Act*.

1.1.1 These x-rays include: chest, ribs, arm (includes shoulder and elbow), wrist, hand, leg (includes hip and knee), ankle and foot.

1.1.2 All other x-ray tests require physician consultation.

2. PRINCIPLES:

2.1 Certain populations are at higher risk from radiation (e.g. children and pregnant women/ unborn child) and thus require a high level of discretion when ordering diagnostic tests.

2.2 X-rays provide valuable information to help to differentiate a client's diagnosis, to assess the clinical response to treatment, or to rule out a potential diagnosis that would require physician consultation.

2.3 NPs participate in annual performance reviews to ensure ongoing competencies are being met.

2.4 X-rays are to be performed only by qualified staff as outlined in FNIHB-OR Policy: *X-Rays*.

3. PROCEDURE:

Note: Physician Consult must be obtained prior to any radiological examinations of all women who are known or suspected to be pregnant.

3.1 A complete assessment must be performed as indicated by the client's presenting complaint, past medical / surgical history, other laboratory and diagnostic test results, and focused physical exam.

3.2 If the findings of the initial history and assessment suggest an x-ray is warranted for further investigation and diagnosis verification, then the NP may initiate a request for an x-ray, without a physician's order, as outlined in policy statement 1.1.

3.3 If the x-ray procedure required is not authorized under the *Healing Arts Radiation Protection Act* (as stated in statement 1.1.1), then the NP must consult the physician.

3.4 The decision to initiate the x-ray must comply with current clinical practice guidelines and best practice evidence.

3.4.1 The appendices in this policy are suggested references to assist nurses in the decision making process for acute injuries requiring an x-ray.

3.4.2 The Ottawa Ankle and Foot Rules (Appendix A);
The Ottawa Knee Rules (Appendix B); and
The Canadian C-Spine Rules (Appendix C).

3.5 The RN will explain the procedure, including any potential adverse outcomes with the client and/or family. Verbal consent must be obtained.

3.6 *Requisitioning an X-Ray*

3.6.1 Ensure all required information is clearly stated on the x-ray requisition. This should include:

- i. Patient identifiers (e.g. DOB, health care number)
- ii. Reasons for requesting the x-ray (e.g. presenting signs and symptoms and initial differential diagnoses)

3.7 *X-Ray Interpretation and Acknowledgement of Results*

3.7.1 The NP ordering the x-ray test is accountable for:

- i. Ensuring timely review of results
- ii. Providing appropriate follow up
- iii. Promoting informed client decision-making (CNO)

3.7.2 The NP will acknowledge the diagnostic test result in accordance with FNIHB-OR Policy: *Acknowledging Diagnostic Test Results*.

3.7.3 If there is an urgent need for the x-ray to be read, the NP shall consult the community physician or physician on call to advise on the status of the x-ray and to review the client's condition.

3.8 *Documentation:*

3.4.1 Complete the x-ray requisition with

- i. The required clinical and client information,
- ii. The name of the responsible physician for the care of that client,
- iii. A reference to this medical directive,
- iv. Signature and professional designation.

3.4.2 Document the client assessment data and care plan, as per FNIHB-OR and CNO's documentation standards.

3.4.3 The progress note entry must also include the specific test ordered (e.g. PA / LAT chest x-ray) and the indication for ordering the test (e.g. to rule out pneumonia).

4. RELATED POLICIES:

Appendix A: Ottawa Ankle and Foot Rules

Appendix B: The Ottawa Knee

Appendix C: The Canadian C-Spine Rules

FNIHB-OR Policy: *Acknowledging Diagnostic Tests*

FNIHB-OR Policy: *Documentation Standards*

FNIHB-OR Policy: *X-Rays*

5. REFERENCES:

CMRTO (1995). Policy on Medical Directives for X-Rays

CNO (2007). Practice Standard: Registered Nurses in the Extended Class.

CNO (2014). Reference Document: Legislation and Regulation. RHPA: Scope of Practice, Controlled Acts Model.

CNO (2014). Practice Guideline: Authorizing Mechanisms.

CNO (2011). Practice Standard: Nurse Practitioner. CNO (2011). Practice Standard: Nurse Practitioner.

Healing Arts Radiation Protection Act

Stiell, I.G., Wells, G. A., Hoag, R. H., Sivilotti, M. L., Cacciotti, T. F., Verbeek, P. R., et al. (1997). Implementation of the Ottawa Knee Rule for the use of radiography in acute knee injuries. JAMA 278(23), 2075-2079.

Stiell, I., Wells, G., Laupacis, A., Brison, R., Verbeek, P., Vandernheer, K. et al. (1995). Multicentre trial to introduce the Ottawa ankle rules for use of radiography in acute ankle injuries. BMJ 311, 594-597.

Approved by:	Effective Date: March 31, 2015
Director of Nursing, Ontario Region Date:	
Regional Executive, Ontario Region Date:	

APPENDIX A: Ottawa Ankle and Foot Rules

PRINCIPLES

- Ottawa Ankle and Foot Rules are applied to acute ankle injuries with the intention of reducing the excessive use of ankle x-rays.
- Fractures are diagnosed in only 7% to 36% of ankle injuries, even though most clients undergo a radiographic evaluation. Decreasing excessive radiographs would decrease client exposure to radiation and health care costs.
- Rules can only be applied to clients who are alert and are able to appropriately communicate their pain.

OTTAWA ANKLE RULES

A series of ankle x-ray films is required only if there is any pain in the malleolar zone **and** any of these findings:

The client has pain near the malleoli, **and** if any of the following are true:

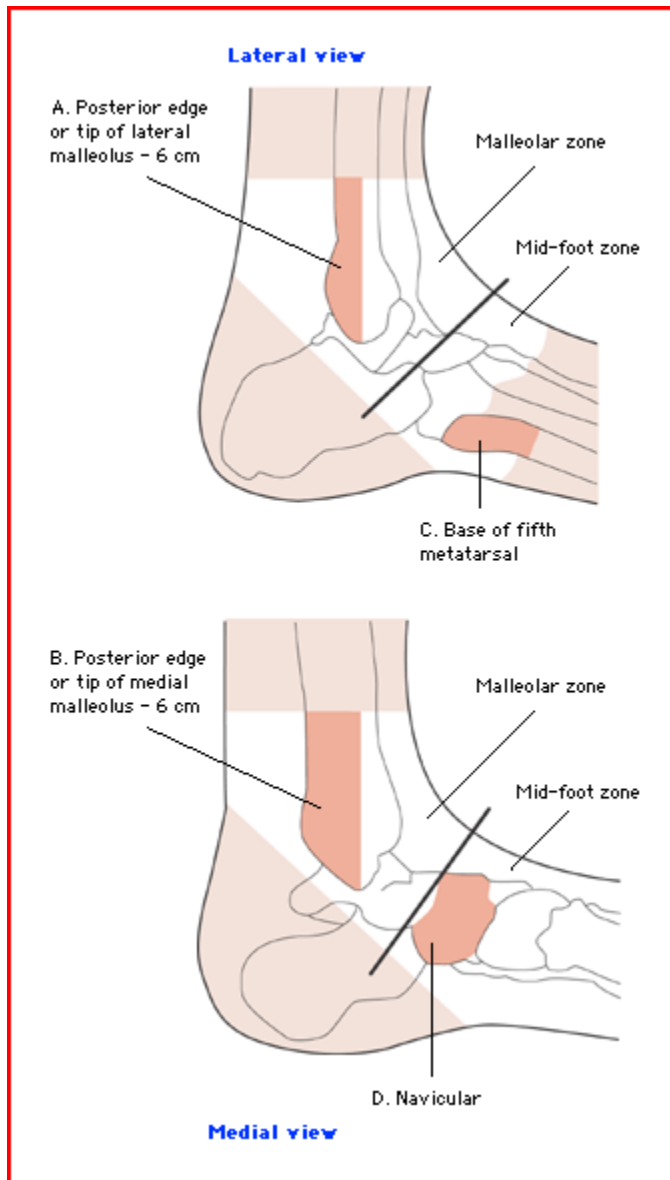
1. Bone tenderness at posterior edge or tip of lateral malleolus (identified as **A** on the figure below)
2. Bone tenderness at Posterior edge or tip of medial malleolus (identified as **B** on the figure below)
3. Inability to bear weight both immediately and in the emergency department.

OTTAWA FOOT RULES

A series of foot x-ray films is required only if there is any pain in mid-foot zone **and** any of these findings:

1. Bone tenderness at the base of the fifth metatarsal (identified as **C** on the figure below)
2. Bone tenderness on the navicular bone (identified as **D** on the figure below)
3. Inability to bear weight both immediately and in the emergency department.

APPENDIX A: Ottawa Ankle and Foot Rules



Ottawa ankle rules[†]

Ankle films:

A series of ankle x ray films is required only if there is any pain in malleolar zone and any of these findings:

- Bone tenderness at A
- Bone tenderness at B
- Inability to bear weight both immediately and in the emergency department

Foot films:

A series of foot x ray films is required only if there is any pain in mid-foot zone and any of these findings:

- Bone tenderness at C
- Bone tenderness at D
- Inability to bear weight both immediately and in the emergency department

[†]Modified from Stiell, IG, McKnight, RD, Greenberg, GH, et al, JAMA 1994; 271:827.

APPENDIX B: Ottawa Knee Rules

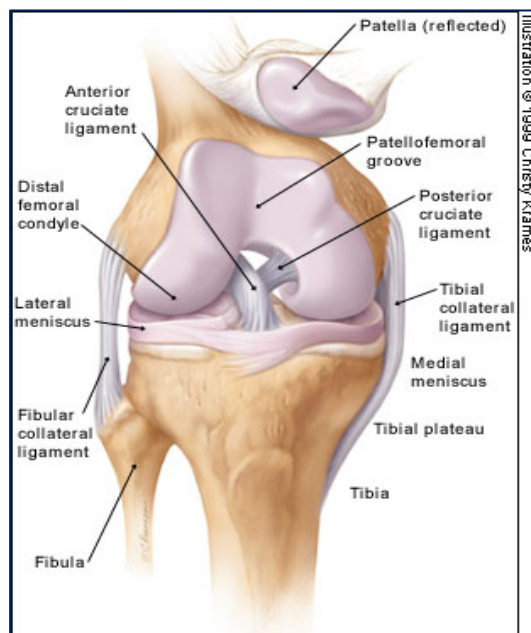
PRINCIPLES

- Ottawa Knee Rules are applied to acute knee injuries with the intention of reducing the excessive use of knee x-rays, by assisting the nurse or physician in the decision to use radiography.
- Decreasing excessive radiographs would decrease client exposure to radiation and health care costs.
- Rules can only be applied to clients who are alert and are able to appropriately communicate their pain.

OTTAWA KNEE RULES

A knee x-ray series is only required for knee injury patients with **any** of these findings:

1. Age 55 or older; **OR**
2. Isolated tenderness of patella (no bone tenderness of knee other than patella); **OR**
3. Tenderness of the head of fibula; **OR**
4. Inability to flex to 90°; **OR**
5. Inability to bear weight both immediately and in the emergency department for 4 steps (unable to transfer weight twice onto each lower limb regardless of limping)



APPENDIX A: Ottawa Ankle and Foot Rules

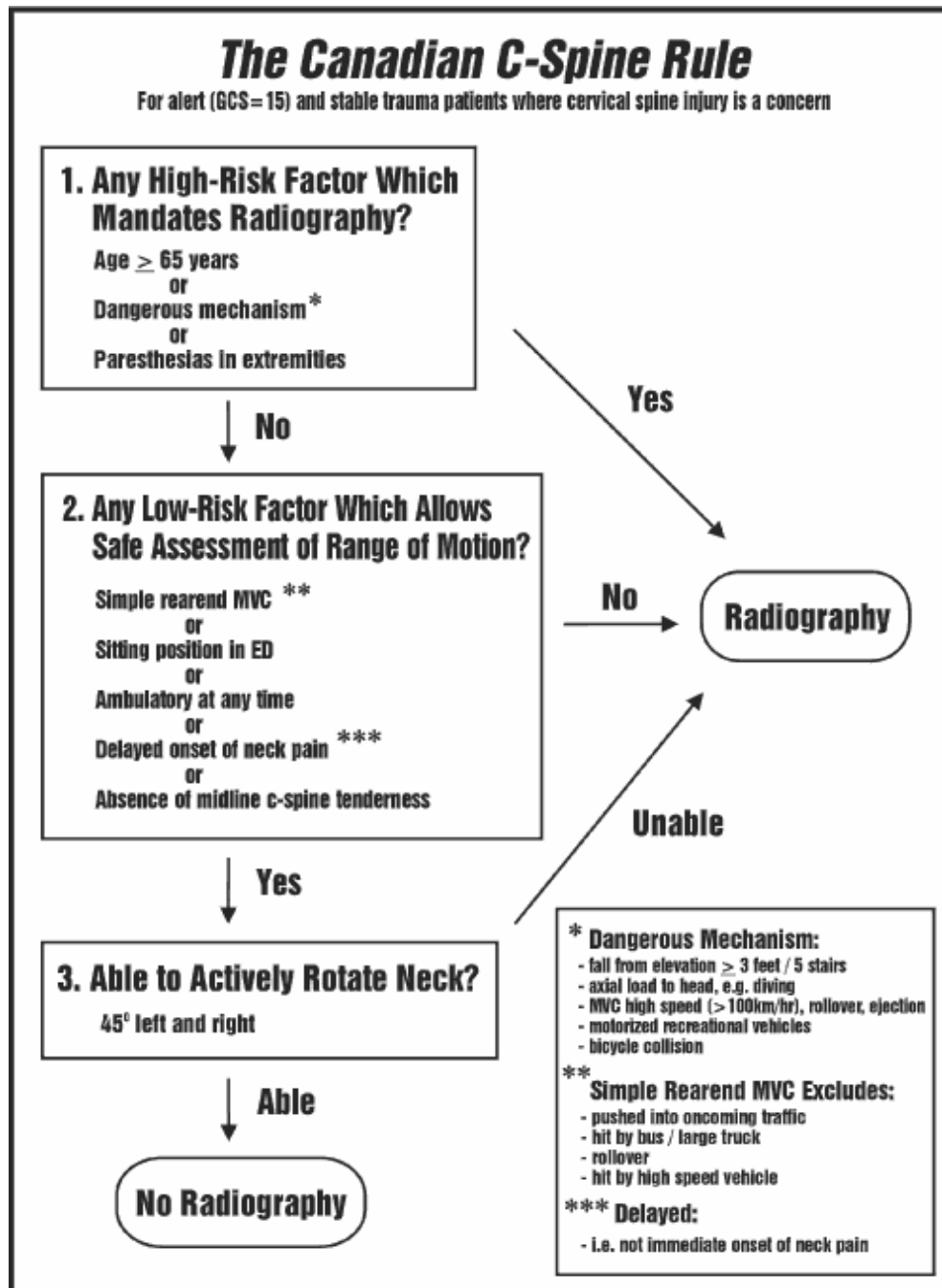


Fig. 1. The Canadian C-Spine Rule for alert (Glasgow Coma Scale score = 15) and stable trauma patients where cervical spine injury is a concern