



TITLE

FLANK PAIN

SCOPE

Provincial: Emergency Departments and Urgent Care Centres

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NOTE: The first appearance of terms in bold in the body of this document (except titles) are defined terms – please refer to the Definitions section.

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OBJECTIVES

- This protocol is intended for **adult patients** who present to the Emergency Department (ED) / Urgent Care Centre (UCC) with flank pain related to suspected renal colic.
- To assist **health care professionals** when implementing specific diagnostics, therapeutics, and interventions for patients, prior to the initial Physician or Nurse Practitioner (NP) assessment.

APPLICABILITY

Compliance with this document is required by all Alberta Health Services employees, members of the medical and midwifery staffs, students, volunteers, and other persons acting on behalf of Alberta Health Services (including contracted service providers as necessary).

ELEMENTS

1. Points of Emphasis

- 1.1 Prior to administering any medications within the protocol (refer to Section 6 below) a patient-specific **order** from an **authorized prescriber** is required.
- 1.2 Renal colic pain:
 - a) Is primarily caused by ureteral distension and spasm from the passage of the renal stone or blood clots.

- b) typically pain radiates from the flank to the ipsilateral (same side) lower quadrant and the groin.
 - c) patients often present with the following signs and symptoms:
 - (i) Restlessness;
 - (ii) sudden onset of severe, spasmodic, radiating flank pain;
 - (iii) urinary urgency, frequency, dysuria;
 - (iv) nausea, vomiting, diaphoresis;
 - (v) hematuria: and/or
 - (vi) history of renal calculi (kidney stones).
- 1.3 Notify the Physician / NP of any patient that is unstable or in obvious distress.
- 1.4 This protocol can be started when the patient is in an appropriate location to manage ongoing assessment and reassessment.
- 1.5 Notify an ED / UCC Physician / NP if the patient who has had this protocol implemented leaves prior to Physician / NP assessment.

2. Inclusion Criteria

- 2.1 This protocol applies to an adult patient who presents with flank pain from suspected renal colic.

3. Exclusion Criteria

- 3.1 Any of the following are exclusion criteria:
- a) Altered vital signs suggestive of a more serious presentation (e.g., hypotension, tachycardia, increased respiratory rate);
 - b) temperature greater than or equal to 38 degrees Celsius or less than 36 degrees Celsius;
 - c) possibility of pregnancy;
 - d) any recent abdominal, renal, or back trauma;
 - e) known or suspected abdominal aortic aneurysm; and/or
 - f) alteration of mental status.
- 3.2 Patients presenting with any of the above exclusion criteria should be triaged a high priority and assessed by an ED / UCC Physician / NP.

4. Assessment and Treatment

- 4.1 A complete nursing assessment is required including Provocation, Quality, Radiation, Severity, and Time (PQRST) assessment of the pain and associated symptoms. Obtain a full set of vital signs including blood pressure, temperature, pulse, respiratory rate and oxygen saturation (refer to the Alberta Health Services (AHS) *Assessment and Reassessment of Patients* Guideline).
- 4.2 Advise all patients and family members of nothing per oral (NPO) status until Physician / NP has an opportunity to assess.
- 4.3 Perform a Urine Dip/ Point-of-Care Testing (POCT).
- If POCT is positive for blood, leukocytes and/or nitrites send specimen for urinalysis.
 - For any patient with a uterus of childbearing age (excluding patients who have a current confirmed pregnancy), obtain urine for POCT or serum for Beta-Human Chorionic Gonadotropin (β -HCG).
- Note: a delay in obtaining pregnancy test results (e.g., serum results) disqualifies the patient from meeting the requirements of this protocol.
- 4.4 Where possible, advise patient to use strainer for all subsequent voids and inform Healthcare Professional if urine positive for strained matter. Strained matter should be placed into a sterile container, labeled, and held in anticipation of pathology testing.
- 4.5 Start an intravenous (IV) and infuse 0.9% sodium chloride (Normal Saline) at 30 mL/hr or Saline lock.

5. Laboratory Studies

- 5.1 The following blood tests should be drawn and sent:
- Complete blood count;
 - electrolytes (sodium, potassium, chloride, carbon dioxide);
 - creatinine; and
 - glucose.

Note: Local practice guidelines may determine the laboratory tests that are included as part of this protocol.

6. Pain Management

- 6.1 If the patient requires pain control and meets the criteria for the administration of ketorolac, the health care professional shall obtain an order for an analgesic. The recommendation is:
- a) An initial dose of ketorolac 10 mg IV once; and
 - b) if the patient continues to require pain control after the initial dose, a supplemental dose may be administered after 30 minutes for a total dose of 20 mg.
 - (i) Notify the Physician and/or NP if the patient continues to require pain control after the interventions 6.1 (a) and (b) above.
- 6.2 Exclusion criteria includes but is not limited to:
- a) First time presentation;
 - b) allergy to ketorolac or other nonsteroidal anti-inflammatory drugs (NSAIDs);
 - c) renal impairment;
 - d) congestive heart failure;
 - e) history of bleeding ulcers;
 - f) bleeding disorder or on anticoagulants;
 - g) pregnancy; and/or
 - h) age greater than 65 years.
- 6.3 If the patient is nauseated or vomiting, the health care professional should consider obtaining an order to administer an antiemetic.
- 6.4 If the patient's pain is unrelieved with ketorolac IV administration, notify Physician / NP.

7. Documentation

- 7.1 The health care professional shall document initiation of this protocol, all assessments, reassessments, interventions and patient responses to interventions on the patient's **health record**.

DEFINITIONS

Adult means a person aged 18 years and older.

Authorized prescriber means a health care professional who is permitted by Federal and Provincial legislation, their regulatory college, Alberta Health Services, and practice setting (where applicable) to prescribe medications.

Health care professional means an individual who is a member of a regulated health discipline, as defined by the *Health Disciplines Act* or the *Health Professions Act*, and who practices within scope or role.

Health record means the Alberta Health Services legal record of the patient's diagnostic, treatment and care information.

Order means a direction given by a regulated health care professional to carry out specific activity(-ies) as part of the diagnostic and/or therapeutic care and treatment to the benefit of a patient. An Order may be written (including handwritten and or electronic), verbal, by telephone or facsimile.

Patient means an adult or child who receives or has requested health care or services from Alberta Health Services and its health care providers or individuals authorized to act on behalf of Alberta Health Services. This term is inclusive of residents, clients and outpatients.

REFERENCES

- Alberta Health Services Governance Documents:
 - *Assessment and Reassessment of Patients* Guideline (#HCS-181- 01)

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