

RGH Pharmacy E-Bulletin

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A joint initiative of the Patient Services Section and the Drug and Therapeutics Information Service of the Pharmacy Department, Repatriation General Hospital, Daw Park, South Australia. The RGH Pharmacy E-Bulletin is distributed in electronic format on a weekly basis, and aims to present concise, factual information on issues of current interest in therapeutics, drug safety and cost-effective use of medications.

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Renal colic

Renal colic typically presents as a sudden onset of acute, intermittent colicky flank pain (on the side of the body, between last rib and hip) that may radiate towards the lower abdomen or groin. It is often associated with nausea and vomiting. It has an annual incidence of approximately 16 in 10,000 people and a lifetime incidence of 2-5%.

Renal colic, along with haematuria, is a classic symptom of urolithiasis, which should be considered as a differential diagnosis. However there are other conditions that have symptoms that could mimic renal colic due to urolithiasis. One example is bleeding within the kidney that can produce clots, which lodge temporarily in the ureter. Another is ectopic pregnancy, but this can usually be clarified by ultrasound imaging. Patients with abdominal aortic aneurysm could also have symptoms that resemble renal colic due to urolithiasis. Patients with acute intestinal obstruction may also present with pain resembling renal colic, but unlike with urolithiasis it is not in association with haematuria. Besides that, individuals seeking attention or narcotics may pretend to have renal colic. Overall, however, misdiagnosis is actually very rare.

Diagnosis of the cause of renal colic involves a thorough medical history and physical examination followed by laboratory and imaging tests. History taking includes history of similar symptoms, other associated symptoms, drug history and onset and duration of symptoms. Women should be asked if they are pregnant or undergo a urine pregnancy test if unsure. Physical examination of the patient includes evaluation of general appearance of the patient, blood pressure and pulse, and examination of the abdomen (inspection and auscultation, palpation and percussion). Laboratory tests, such as urinalysis, complete blood count and chemistries are also conducted. After a provisional diagnosis is made, imaging tests are conducted confirm a final diagnosis. These can include ultrasound, non-contrast helical CT, intravenous urography and/or abdominal X-ray.

The management of renal colic involves treating the underlying cause, as well as the administration of analgesia. Early use of analgesia is essential to relieve discomfort, thereby making examination easier. Both non-steroidal antiinflammatory drugs (NSAIDs) and opioids are effective analgesia for renal colic. NSAIDs have the advantage of acting on the main cause of pain (prostaglandin release) and being less emetogenic. However, opioids are a more suitable option in patients with renal impairment or gastrointestinal bleeds.

Any one of the following are recommended analgesia options (doses vary with age and will need to be tailored to individual response):

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- Morphine 2.5 – 5 mg IV, initially and then titrated to effect
- Fentanyl 50 – 100 microgram IV, initially and then titrated to effect
- Any NSAID administered rectally at the recommended dose (e.g. indomethacin suppositories 100 mg once or twice daily)
- Ketorolac 10 – 30 mg IM, every 4 to 6 hours, up to 90 mg daily (for patients over 65 years, use 10-15 mg IM every 4 to 6 hours, up to 60 mg). Ketarolac should not be prescribed for longer than 5 days.

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FOR FURTHER INFORMATION – CONTACT THE PHARMACY DEPARTMENT ON 82751763 or email: chris.alderman@rgh.sa.gov.au
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