Provincial Non-Obstructing Kidney Stone Primary Care Clinical Pathway

1. History

Kidney stone identified based on previous investigations or found incidentally

2. Investigations

If not already completed:
- Order ultrasound and KUB X-ray. If there is a discrepancy between stone size and/or location, consider a CT scan
- Order urinalysis, serum calcium, electrolytes and creatinine

Are any of the following identified?
- Obstructing kidney stone
- Ureteral stone
- Any stone in a solitary kidney

Yes

No

3. Assessment & Management

Non-obstructing stone identified

Red Flag present

4. Red Flag

Any hematuria should be investigated. Follow the Hematuria Evaluation Pathway

No red flag present

Stone ≥ 1-5mm

Stone related signs & symptoms?

No

Yes

Non-specific symptoms (Vague abd/ flank/back pain)

Classic lateralizing flank pain or recurrent ER visits

Order non-contrast CT, if not already done. Offer analgesic as appropriate.

CT shows <3mm

Stone unlikely the source of the symptom. Exclude other possible causes for pain.

If unable to identify and resolve pain as non-stone related

CT shows >3mm

KUB X-ray and Ultrasound every 1-2 years

Stone 6-9mm

Stone related signs & symptoms?

Yes

No

Determine stone location

Stone in renal pelvis

Stone located in the kidney periphery (calyceal stone)

Annual KUB X-ray & ultrasound. Assess need for referral.

Stone ≥ 10mm

Stone growth trend?
- 1-5mm now >6mm
- 6-9mm now ≥ 10mm and/ or signs or symptoms

Yes

No

Promote ongoing stone prevention strategies:
- Encourage 2-3L of fluid intake per day to achieve an output of 2.5L of urine per day
- Encourage DASH diet and refer to dietitian if appropriate
- Encourage increase in physical activity and healthy body weight management

5. Refer to Urology

See referral guideline tab for details.

6. Consider Non-Urgent Advice. See referral guideline tab for details