

An audit of non-contrast CT KUB scan length in the detection of ureteric stones: are we over radiating our patients?

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Introduction

Non-contrast CT KUB is the gold standard investigation for ureteric colic. As clinicians, we have a responsibility to minimise patient exposure to ionising radiation.

The Royal College of Radiologists (RCR) recommend the scan should not exceed more than 10% of scan length above the upper pole of the kidneys, which is documented anatomically as the superior endplate of T12 vertebra.

Our audit aims to evaluate current practice against these guidelines.

Methods

Retrospective analysis of 100 non-contrast CT KUB between July and August 2017 for patients with ureteric colic.

Results

- 24% of CT KUBs were compliant with RCR guidelines = 76% over-scan rate.
- median vertebral level of scan commencement was upper border of T10 (range: T5 lower to L1).
- median level of the upper pole of the highest kidney was the mid-pole of T12 (range: T10 lower to L2 upper).
- 57.9% (n=44) preventable over-scan and 42% (n=32) potentially preventable over-scan.

Conclusion

Potentially, 76% of all CT KUB patients are over-scanned, with no significant diagnostic benefit. As such, we have altered practice so that CT KUB scans commence between T10 - T12 and scans to the level of the pubic symphysis.

We will re-audit in 6 months.