

## Urgent update: Testicular torsion

### Background

Testicular torsion is the occlusion of blood supply to the testes caused by twisting of the spermatic cord<sup>1</sup>.

Testicular torsion occurs in approximately 1 in 4000 males under the age of 25<sup>2</sup>. The condition mostly occurs in neonates or post-pubertal males but can occur in males of any age<sup>1</sup>.

In NSW, there were 528 patients under 21 years of age admitted with a diagnosis of testicular torsion in 2018<sup>3</sup>.

### Data

Since the release of the *Paediatric Watch 2/18 – Testicular Torsion: “Twist & Shout” for advice* in February 2018, there has been an increase in the number of missed diagnoses of testicular torsion resulting in orchiectomy. From 2013-2017 there were 6 missed diagnoses of testicular torsion reported in IIMS which resulted in the loss of a testis. This is an average of 1.2 per year. There have been 7 cases of missed testicular torsion in the last 18 months (January 2018 – July 2019), which is an increase in the yearly average to 5.3 incidents per year. An emerging theme from the recorded incidents is the use of ultrasound as a diagnostic tool for testicular torsion and the delay to diagnosis waiting for imaging. **Ultrasound is not a useful test** in confirming or excluding testicular torsion.

**Using ultrasound for diagnosing testicular torsion could result in a critical delay in diagnosing testicular torsion.**

Patients should be taken to theatre as soon as possible for exploration where there is a high suspicion of testicular torsion<sup>4</sup>.

### Points to remember

- Males presenting to the ED with nausea/vomiting and abdominal pain should have an **assessment** of the groin and testes
- Be specific in **asking** the patient whether he has pain in his testes
- **Ultrasound is not a useful test** in confirming or excluding testicular torsion
- **Escalate** patients with possible torsion to a senior doctor urgently
- Testicular torsion is a **surgical emergency** and urgent surgical exploration should occur within 2 hours of presentation to maximize the chances of testicular salvage<sup>5</sup>.

### Clinical Resources

#### Emergency Care Institute (ECI)

ECI Clinical Tools: Testicular Torsion<sup>4</sup>  
<https://www.aci.health.nsw.gov.au/networks/eci/clinical/clinical-resources/clinical-tools/urology/acute-scrotum/testicular-torsion>

#### The Royal Australasian College of Surgeons (RACS)

RACS guideline: Acute scrotal pain and suspected testicular torsion<sup>5</sup>  
[https://umbraco.surgeons.org/media/1627/2018-02-06\\_gdl\\_fes-pst-002\\_acute\\_scrotal\\_pain\\_and\\_suspected\\_testicular\\_torsion.pdf](https://umbraco.surgeons.org/media/1627/2018-02-06_gdl_fes-pst-002_acute_scrotal_pain_and_suspected_testicular_torsion.pdf)

### Local Guidelines

LHDs should have local guidelines for the management of testicular torsion.

## References

1. O'Brien, M. & Chandran, H. 2008, 'The acute scrotum in childhood', *Surgery*, vol.22, pp. 255-7.
2. Jefferies, M.T., Cox, A.C., Gupta, A. & Proctor, A. 2015, 'The management of acute testicular pain in children and adolescents', *British Medical Journal*, 350, H1563.
3. Admitted Patient Data Collection, accessed through the NSW Ministry of Health Secure Analytics for Population Health Research and Intelligence (SAPHaRI) system, Centre for Epidemiology and Evidence, NSW Ministry of Health. Data downloaded 23-07-2019.
4. Emergency Care Institute New South Wales 2017, *Testicular Torsion*, Agency for Clinical Innovation, viewed 19 July 2019, <https://www.aci.health.nsw.gov.au/networks/eci/clinical/clinical-resources/clinical-tools/urology/acute-scrotum/testicular-torsion>
5. Royal Australasian College of Surgeons 2018, Acute scrotal pain and suspected testicular torsion, RACS, viewed 19 July 2019, [https://umbraco.surgeons.org/media/1627/2018-02-06\\_gdl\\_fes-pst-002\\_acute\\_scrotal\\_pain\\_and\\_suspected\\_testicular\\_torsion.pdf](https://umbraco.surgeons.org/media/1627/2018-02-06_gdl_fes-pst-002_acute_scrotal_pain_and_suspected_testicular_torsion.pdf)

### For more paediatric resources visit:

<http://www.cec.health.nsw.gov.au/patient-safety-programs/paediatric-patient-safety/paediatric-quality-program>