Multi-incident analysis of testicular torsion clinical incidents in Queensland 2010–2015

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Profile of Testicular Torsion (TT) Clinical Incidents

Key themes

- Ultrasound either falsely reassured or wasted time delayed Rx
- Vague symptoms late presentation
- Health professional did not follow processes to actively exclude torsion
- Misdagnosis as epididymo-orchitis
- Operation should have been performed locally
- Health professional did not examine scrotum

Lessons learnt

1. Think of TT - boys, especially teenage boys, may not volunteer symptoms and symptoms may be vague.
2. Keep thinking of it – TT must be actively excluded when boys present with abdominal pain and/or scrotal pain or swelling. The scrotum must be examined.
3. No ultrasound unless requested by consultant surgeon – Ultrasound imaging of the scrotum is associated with a high false negative rate and delays in diagnosis and surgery.
4. Treatment can be undertaken locally if the boy is older than 8 years of age (unless there are paediatric-specific concerns) – Transfer time may threaten testis viability.
5. Rule out TT when diagnosing epididymo-orchitis (which is uncommon between age 3 years until sexual activity starts in teen years).

Interventions

The following strategies were implemented in response to the key lessons learnt:

- Patient Safety Communique circulated April 2017 (endorsed by the Royal Australasian College of Surgeons)
- Ongoing education provided to key stakeholders across Queensland
- Collaboration with key stakeholders to develop a TT education package for schools
- Key lessons incorporated in Statewide Acute Scrotal Pain Guidelines developed by Children’s Health Queensland clinicians.

Conclusions

- Multi-incident analysis of clinical incidents provide a rich source of learning at the statewide level. Opportunities for improving the management of TT were identified. It is anticipated this will result in a reduction in SAC 1 events relating to testis loss over time and increased clinician confidence regarding scope of practice.
- QPQC has learnt the value of developing strong action partnerships with stakeholders to translate learnings into practice. These partnerships have evolved over time. Having these in place at the initiation of the project will maximise outcomes.

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Acknowledgements

This work was funded by the University of Adelaide, Adelaide, South Australia; 2014.

An Ethics Waiver was approved by the Children’s Health Queensland Clinical Ethics Committee.

Clinical incident reports requested from Hospital and Health Services

Reviewed by expert panel with state-wide representation and clinical expertise in child health, paediatrics, paediatric specialties, nursing, patient safety, human/system factors. Expert advice from Paediatric Surgeon.

Themed analysis using multi-incident analysis tool. Two reviewers per case with group discussion, consensus and data coding.

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