Patient Safety Communiqué No. 6/2017

“A Patient Safety Communiqué disseminates safety and quality information to ensure lessons learned are shared across hospital and health services”

For Internal Use Only

Subject: Testicular Torsion

Issued by: Patient Safety and Quality Improvement Service (PSQIS) & Queensland Paediatric Quality Council (QPQC)

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Approved by: Kirstine Sketcher-Baker, Executive Director, Patient Safety and Quality Improvement Service

Signature: SIGNED

Dr Julie McEniery, Chair, Queensland Paediatric Quality Council

Signature: SIGNED

Purpose
The purpose of this Patient Safety Communiqué is to:

1) notify Hospital and Health Services (HHSs) of a review conducted by the QPQC into eight SAC 1 paediatric testicular torsion incidents that occurred between 2010-2015.

2) share state-wide lessons learnt from an examination of Root Cause Analyses (RCAs) undertaken by local HHSs in relation to these incidents.

3) recommend actions be taken by HHSs to reduce the likelihood of permanent harm.

Background
Testicular torsion is a surgical emergency. Prompt diagnosis and surgical intervention are essential as testis viability can diminish considerably, six hours after symptoms commence.

The QPQC and PSQIS recently identified a cluster of eight SAC 1 paediatric testicular torsion incidents that occurred across Queensland between 2010 and 2015. The majority of these cases involved boys between 11 and 15 years of age.

The QPQC reviewed RCAs in response to these incidents, with a focus on identifying ways to reduce the likelihood of preventable patient harm. The key lessons learnt from this review include:

Lesson Learnt 1: The symptoms of testicular torsion can be vague, including abdominal pain. Not all torsion of the testis presents as testicular pain. Boys may not wish to have the area examined and may not disclose testicular symptoms. The scrotum needs to be examined as part of any abdominal examination and re-examined if patient symptoms deteriorate.

Lesson Learnt 2: In male paediatric patients presenting with abdominal pain and or scrotal pain/swelling, the diagnosis of testicular torsion must be...
considered. Given the time-critical nature of this condition, a process to actively exclude torsion must be followed, including scrotal examination and urgent consultation with the local urology or surgical team if suspected.

**Lesson Learnt 3:** Ultrasound imaging of paediatric patients with scrotal pain swelling is generally **NOT** indicated. Despite high resolution scanners and an experienced operator, there is still an unacceptable false negative rate (as was evidenced in the current review) and therefore is not reliable. It can also lead to unnecessary delays in diagnosis and surgery. Ultrasound should only be undertaken on request from a consultant surgeon.

**Lesson Learnt 4:** Pre-pubescent boys (8-12 years) and post pubertal boys (over 12 years of age) presenting with acute scrotum do **NOT** require treatment at a paediatric facility unless there are paediatric specific concerns. The local general surgical or urology team should be the first point of contact, particularly if transfer would result in time-critical delays in surgery and a detrimental outcome for the patient. This is reinforced in the Position Paper, “Surgery in Children” published by the Royal Australasian College of Surgeons. [http://www.surgeons.org/media/24156592/2016-03-23_pos_fes-pst-055_surgery_in_children.pdf](http://www.surgeons.org/media/24156592/2016-03-23_pos_fes-pst-055_surgery_in_children.pdf)

**Lesson Learnt 5:** Testicular torsion can be misdiagnosed as epididymo-orchitis, leading to time critical delays in diagnosis and surgical intervention. Epididymo-orchitis is rare in children who are older than three years of age until they are sexually active. Excluding testicular torsion should always be given priority for children in this age group.

**Recommendations**

**It is recommended that Hospital and Health Services:**

1. Distribute this communique widely to all relevant clinical staff.
2. Note the key lessons learnt from the state-wide review.
3. Develop and implement local guidelines on the management of paediatric scrotal pain and swelling/abdominal pain, incorporating the lessons learnt.

**Useful Resources**


**Acknowledgments**


The Patient Safety and Quality Improvement Service and Queensland Paediatric Quality Council wish to acknowledge the endorsement from the Royal Australasian College of Surgeons (RACS), in that the lessons learnt are aligned with the principles of the RACS Position Paper, March 2016.