1.0 Introduction

This clinical practice guideline (CPG) has been adapted from the American Urology Association Guideline: Evaluation and Treatment of Cryptorchidism (2014) and the European Association of Urology Guidelines on Paerdiatric Urology (2013).

Purpose

This CPG provides recommendations for the management of a unilateral undescended testicle. Testicles are considered undescended when they fail to spontaneously migrate down into the scrotum after birth. Boys with bilateral, non-palpable testes, associated or not with hypospadias, require immediate consult of appropriate specialists, including Endocrinology, Urology, Gynecology and/or Genetics for evaluation of a possible disorder of sex development.

Target Users

Include, but not limited to:
- Nurses, Nurse Practitioners
- Staff Physicians, Residents, Fellows
- Primary Care Physicians

Target Patient Population

- **Inclusion:** Intended for boys 2 months of age or older who present with one testicle that is not palpable within the scrotum.
- **Exclusion:** Not intended for use in boys with bilateral undescended testicles.

2.0 Definitions

- **Retractile testes:** Hypermobile testes; are descended testes that easily move back and forth between the scrotum and the abdomen. Retractile testes are normal testes that have been pulled into a suprascrotal position by the cremasteric reflex. These testes can be brought into a dependent scrotal position and will remain there if the cremasteric reflex is overcome.
3.0 Clinical Practice Recommendations

3.1 Clinical Pathway for Management of Undescended Testes (Unilateral)

- **Recommendation:** annual exam with community MD to ensure position

- **Patient referred to Urology Clinic via ARMS**
  - **Patient referral screened**
  - **Patient meets criteria?**
    - **YES**
      - **Book Urology clinic appointment**
      - **Clinic Appointment:** Patient examined and reviewed by staff
      - **Exam under anesthesia:** Surgery to occur before 1 year of age.
        - If >1 year old, surgery to occur within 12 weeks
      - **Testicle palpable in groin?**
        - **YES**
          - **Patient booked for surgery (surgey to occur before 1 year of age)**
        - **NO**
          - **>6 months and <1 year**
            - **Patient booked for surgery (surgery to occur before 1 year of age)**
          - **≤6 months**
            - **Patient put on regular wait list (surgery to occur before 1 year of age) and book clinic follow-up as required**

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- **Exam under anesthesia:** Surgery to occur before 1 year of age.
  - If >1 year old, surgery to occur within 12 weeks
  - **Testicle palpable in groin?**
    - **YES**
      - **Testicle found?**
        - **YES**
          - **Testicle Atrophic?**
            - **YES**
              - **Testicle Ipsilateral?**
                - **YES**
                  - **Stage 1 of surgery. Discharge from PACU.**
                - **NO**
                  - **Stage 2 of surgery. 6 months post 1st surgery. Discharge from PACU.**
            - **NO**
              - **Laparoscopy**
                - **YES**
                  - **Testicle Ipsilateral?**
                    - **YES**
                      - **Stage 1 of surgery. Discharge from PACU.**
                    - **NO**
                      - **Stage 2 of surgery. 6 months post 1st surgery. Discharge from PACU.**
          - **NO**
            - **Patient booked for surgery (surgery to occur before 1 year of age)**
    - **NO**
      - **If High Risk Patient:** Pre-anesthesia consult
        - **Admit as inpatient**
      - **Same Day Surgery (1 stage orchidopexy). Discharge from PACU.**
      - **Clinic follow-up appointment 3 months post surgery.**

- **Future:** Primary MD to re-refer at puberty for prosthetic testicle

Printable Version of Clinical Pathway

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3.2 Recommendations Statements

3.2.1 Referrals

- Primary care physicians should refer boys two months of age or older who do not have spontaneous testicular descent to a surgical specialist for evaluation. (Grade C)
- Scrotal ultrasounds should not be completed prior to referral. These studies rarely have any impact on decision making. (Grade B)
- Retractile testicles do not need to be referred for surgical treatment however primary care physicians should assess the position of the testes annually to monitor for secondary ascent. (Grade B)

3.2.2 Treatment

- In the absence of spontaneous testicular descent, surgery (orchidopexy) should be performed before one year of age. (Grade B)
- Boys older than one year of age who are referred with an undescended testicle should be scheduled for surgery within twelve weeks. (Grade C)
- For a non-palpable testicle, examination under anaesthesia is recommended. If testicle still non-palpable under anaesthesia, laparoscopy is recommended. (Grade B)

4.0 Document Development

4.1 CPG Search & Selection

- A search for existing Clinical Practice Guidelines was conducted in November 2014 using the Internet and the OVID database (MEDLINE, Embase) to search for CPGs.
- Identified guidelines were screened. The American Urology Association Guideline: Evaluation and Treatment of Cryptorchidism (2014) and the European Association of Urology Guidelines on Paediatric Urology (2013) were selected and assessed using the AGREE tool.
- To capture more recently published literature, an additional supplementary search of MEDLINE and Embase was conducted for relevant articles between January 2013 and December 2014.

4.2 Adaptation Process

- The process was mapped out with the core guideline group (physician, nurse practitioner, guideline developers). The CPG & process map were reviewed by an interdisciplinary group from the Urology Department. Comments from the interdisciplinary group were integrated within the document and the final CPG was agreed upon by consensus.
4.3 Guideline Group and Reviewers

Guideline Group Membership:

1. Dr. Joana Dos Santos, Clinical Fellow, Urology
2. Abby Varghese, Nurse Practitioner, Urology

Internal Reviewers:

1. Dr. Martin Koyle, Head, Division of Urology
2. Dr. Walid Farhat, Staff Urologist

5.0 References


Appendix A

Grades of Recommendation

A
Recommendation supported by at least one randomized controlled trial, systematic review or meta-analysis.

B
Recommendation supported by at least one cohort comparison, case study or other experimental study.

C
Recommendation supported by expert opinion or experience of a consensus panel.

Attachments:

Clinical Pathway for Management of Undescended Testes (Unilateral).pdf

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### Management of Undescended Testicles

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<tr>
<td>Document Type: Clinical Practice Guideline</td>
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<tr>
<td>Approved on 2017-04-13</td>
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<tr>
<td>Next Review Date: 2019-04-13</td>
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**Version: 1**

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