MISSION Children's Hospital | MISSION HEALTH PARTNERS

REFERRAL GUIDELINE

Pediatric Surgery	Undescended testicle (cryptorchidism)

Background	Testicular descent is multifactorial, affected by androgen stimulation, somatic fetal growth, gubernacular development and intra-abdominal pressure, and can also be a result of abnormal testicular development. The incidence is 3-5% in full-term male newborns (bilateral in 2%), and as high as 30% in premature neonates. Postnatal testicular descent usually occurs by 6 months of age, with only a prevalence of 1% by one year of age. The testis can be found anywhere from the retroperitoneum to the top of the scrotum, but is usually classified as palpable or non-palpable. Undescended testes have abnormal germ cell morphology and varying degrees of gonadal dysgenesis even as young as 18 months of age. The relative risk of testicular cancer is 14 times higher for boys with a history of undescended testis, and though orchiopexy does not reduce the risk of cancer later in life, it allows for easier detection and manual self-examination.
Initial Evaluation	History should include a thorough maternal and gestational history, any surgical or medical history, as well as a family history to assess for potential genetic predisposition. Certain syndromes or congenital anomalies are associated with undescended testicle, including disorders of sexual differentiation, prune belly syndrome, Prader-Willi, and gastroschisis. Physical exam is critically important in the recognition of an undescended testicle as well as characterization of its location (i.e. whether it is palpable or non-palpable or ectopic). *If the patient has bilateral undescended testicles, recommend obtaining a serum FSH, LH, testosterone to rule out anorchia. Also important to promptly rule out the diagnosis of congenital adrenal hyperplasia with electrolyte panel, 17 hydroxy-progesterone level and karyotype in addition to the above hormone levels. Alternatively, can refer to endocrinologist.
Initial Management	History, physical exam, and for bilateral undescended testicles complete associated hormonal workup as described above. If < 6 months old: Continue observation until age 6mo If =/> 6-month-old: Referral to pediatric general surgery
Pre-Visit Work Up	Documentation of history and physical exam. No radiographic studies are necessary, as they have an overall accuracy of 44% with a high false-negative rate.
When to Refer	The ideal age for referral, and orchiopexy, is between 6 months to one year of age. The primary care physician can observe the patient until age 6 months, as testicular descent may occur in that time period. If an older patient presents with an undescended or retractile testicle, referral to pediatric surgeon is still appropriate, as they will most likely need either orchiopexy or orchiectomy, depending on their age and the appearance of the testicle intra-operatively.

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Co-management Strategy (as appropriate)	**Specialist scope of care** Confirmation and orchiopexy	**Primary care scope of care** Appropriate recognition and referral
Return to Primary Care Endpoint	In the post-operative period, after follow up by the surgeon to confirm wound healing.	
Guidelines Referenced	https://www.auanet.org/guidelines/cryptorchidism-(published-2014) **Evaluation and Treatment of Cryptorchidism**