



Standard Treatment Workflow (STW) UNDESCENDED TESTIS (CRYPTORCHIDISM) ICD-10-Q53.9

WHAT IS CRYPTORCHIDISM?

- Absence of one or both testis in the scrotum
- Cryptorchidism can be:
 - True undescended testis arrested along normal line of descent
 - Ectopic Testis: arrested outside line of normal descent

WHAT TO ASK?

Testis are absent in scrotum since birth or present initially and later disappeared

Any history of torsion-redness/ pain or bulge in the inguinal region/ lower abdomen

WHAT TO SEE?

• Testis palpable anywhere along normal line of descent:

- Superficial inguinal ring, Inguinal canal, Deep inguinal ring

• Testis palpable outside the normal line of descent:

- Pubic tubercle, Perineum, Thigh, Opposite scrotum, Penis

• Testis not palpable (impalpable undescended testis)

• Associated anomalies: hernia, hydrocele, hypospadias, ambiguous genitalia, poorly developed ipsilateral scrotum, contralateral testicular hypertrophy

• Rule out retractile testis (which does not require surgery): If testis manoeuvrable into the scrotum and stays there by itself. Needs regular follow up to confirm continuing descended position of testis

RED FLAGS REQUIRING SPECIAL MANAGEMENT

Possibility of Disorders of Sexual Differentiation (DSD) to be considered if:

- Bilateral undescended testis with hypospadias
- Unilateral undescended testis with severe hypospadias

Undescended testis with torsion – red painful lump in the undescended testis

Undescended testis with large inguinal hernia

INVESTIGATIONS

ESSENTIAL INVESTIGATIONS

- No investigation is essential for diagnosis or localisation of testis.
- Routine blood and urine investigations required for anaesthetic fitness

OPTIONAL INVESTIGATIONS

- Hormonal test (HCG stimulation test for bilateral undescended testis)
- MRI scan in cases suspected to be DSD
- Diagnostic laparoscopy in impalpable UDT (can be combined with therapeutic procedure)

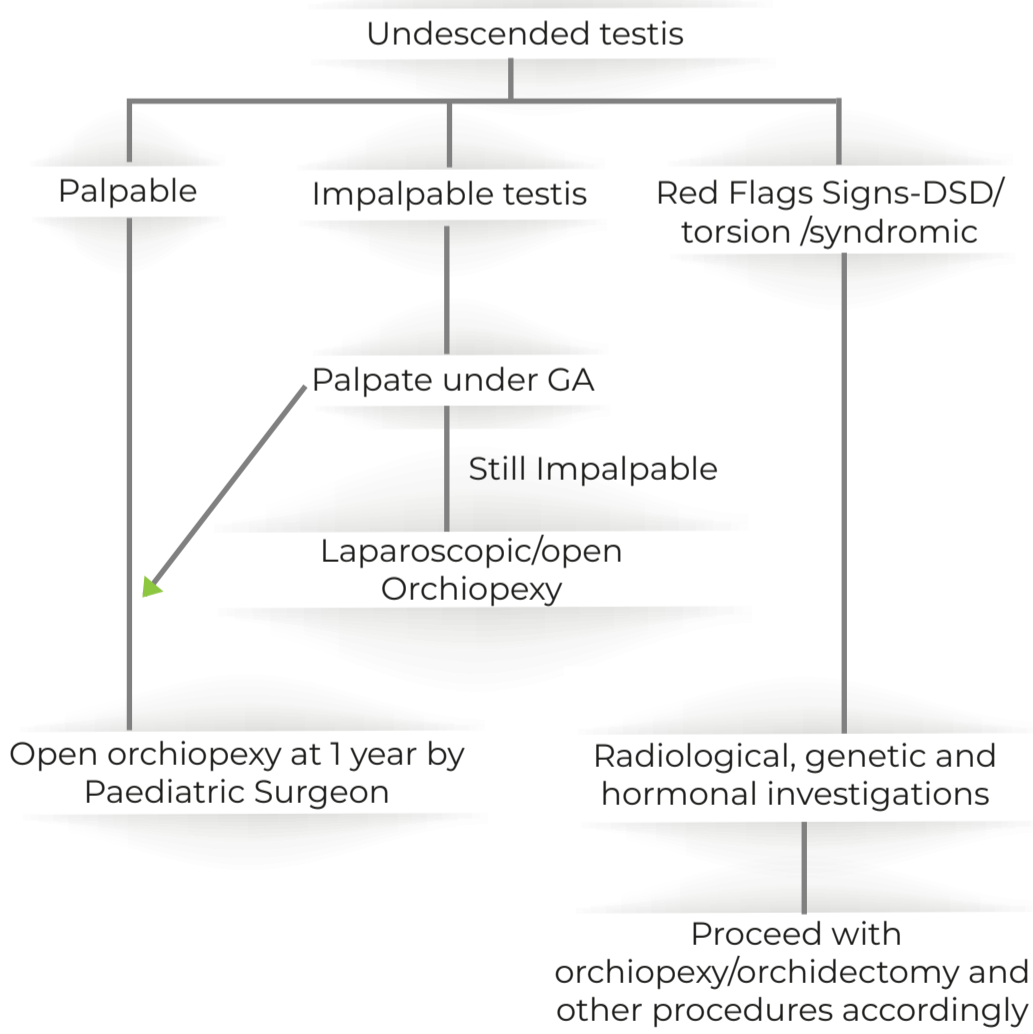
SPECIAL SITUATIONS

- DSD: hormonal assay, USG, genitogram, karyotyping
- Syndromic child: genetic assessment, karyotyping, hormonal assays
- Undescended testis with torsion: USG Doppler

MANAGEMENT

Guiding Principle: Diagnosis made at birth and reconfirmed at 3 and 6 months. Further management if descent has not occurred.

UNDESCENDED TESTIS MANAGEMENT FLOWCHART



Surgery (orchiopexy) between 6 months- 1 year (mostly at 1 year)

Palpable testis – open orchiopexy under general anaesthesia (may be done as day care procedure)

Impalpable: Diagnostic laparoscopy: Absent testis- no intervention; Atrophic testis: orchidectomy; if vas and vessels going into the deep inguinal ring: inguinal exploration; intra- abdominal tests: single or two stage orchidopexy. Inguinal exploration if access to laparoscopy is not available

MANAGEMENT AT

PHC/ DISTRICT HOSPITAL

- Diagnose in newborn and reconfirm at 3 and 6 months:
 - If uncomplicated, counsel regarding timing of surgery and red flags
 - Basic lab investigations for anaesthesia fitness
 - Refer to centre with paediatric surgeon and paediatric anaesthesia facilities for surgery between 6m-1 yr
- Assess for special situations – if present, refer immediately to centre with paediatric surgeon
- After surgery follow-up at 1 month, 3 month, 1 year and annually till puberty

TERTIARY CARE HOSPITAL

- Diagnose or confirm diagnosis (if referred) early
- Carry out open orchiopexy for palpable testis and laparoscopic exploration for impalpable testis under general anaesthesia at appropriate age
- Identify red flag situations and investigate, counsel and operate accordingly
- Follow-up- immediate and first week follow up

SPECIAL SITUATIONS

DSD- needs complete evaluation and treatment planning based on genotype, phenotype and psychological counselling

Undescended testis with torsion – needs immediate exploration and orchiopexy/orchidectomy

Undescended testis with large inguinal hernia- needs early surgery before waiting for 6 months due to the risk of obstructed hernia

FOLLOW UP

Open orchiopexy- Discharge same evening/ next day

Laparoscopic orchiopexy- Discharge within 24-48 hours

Further FU

- 1st week- local edema/ hematoma/ tenderness
- 1st, 3rd month- ensure testis position in scrotum and normal size
- Annual examination – ensure position and adequate growth till adulthood
- Adult FU for fertility status

ABBREVIATIONS

UDT: Undescended testes

DSD: Disorders of sexual differentiation

FU: Follow up

GA: General anaesthesia

KEEP A HIGH THRESHOLD FOR INVASIVE PROCEDURES