



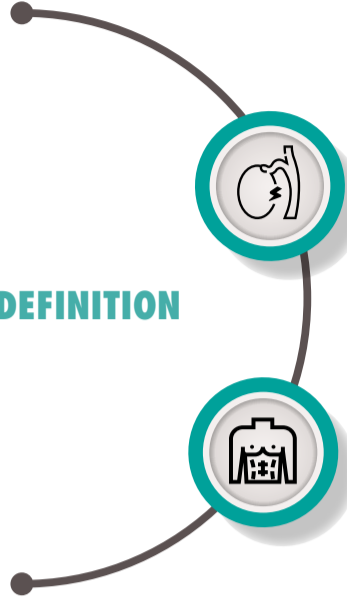
# Standard Treatment Workflow (STW) ACUTE SCROTUM IN CHILDREN

## ICD-10-N50.8

### DIFFERENTIAL DIAGNOSIS OF ACUTE SCROTUM

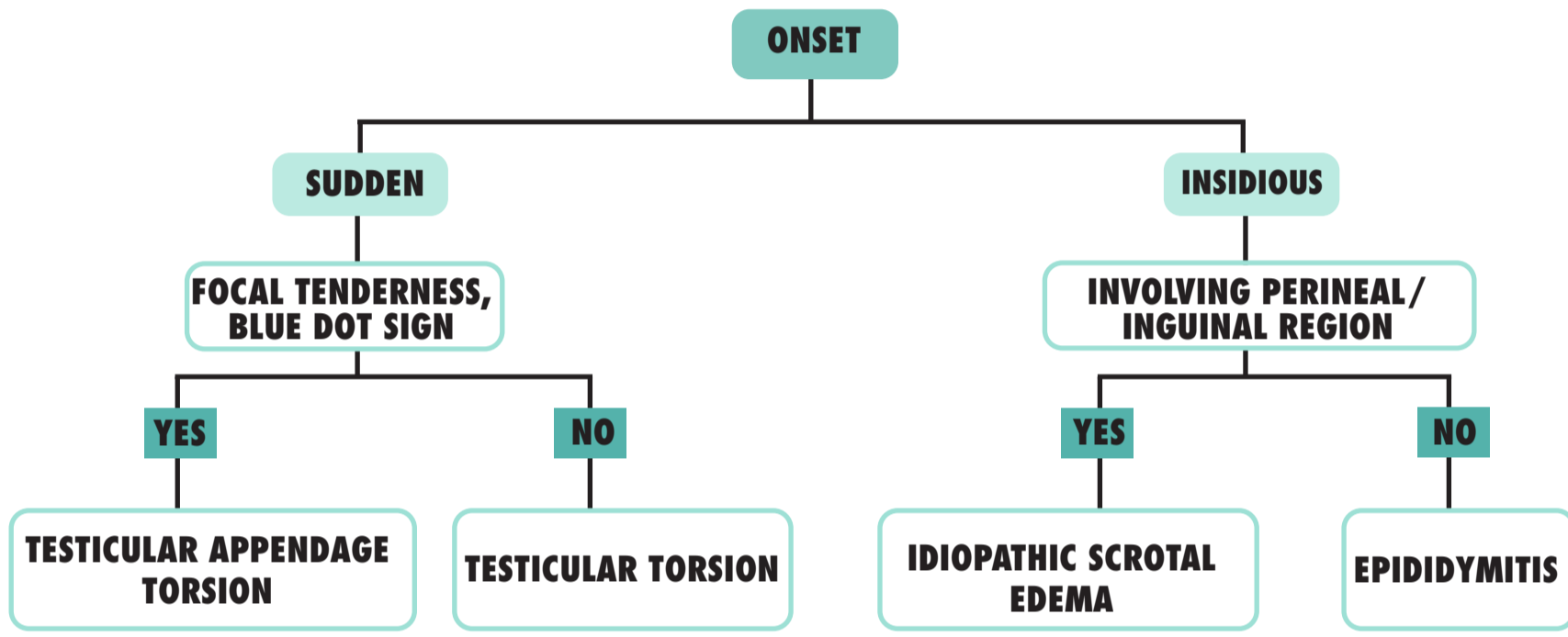
PATHOLOGY	FREQUENCY	AGE AT REPRESENTATION
Extravaginal torsion of testis	Uncommon	Perinatal period
Intravaginal torsion of testis	Common	Anytime, peak at 13-16 yrs
Testicular appendage torsion	Very Common	Anytime, peak at 11 yrs
Epididymitis/ Epididymo-orchitis	Rare	0-6 months
Mumps orchitis	Uncommon	Only after puberty
Idiopathic scrotal edema	Uncommon	0-5 yrs
Fat necrosis of scrotum	Rare	5-15 yrs
Henoch Schonlein Purpura	Rare	4-10 yrs
Testicular Trauma	Uncommon	Anytime, common in 5-15 yrs

### DEFINITION



Acute painful swelling of the scrotum or its contents. Accompanied by local signs and general symptoms

### PAINFUL SCROTAL SWELLING - DECISION TREE

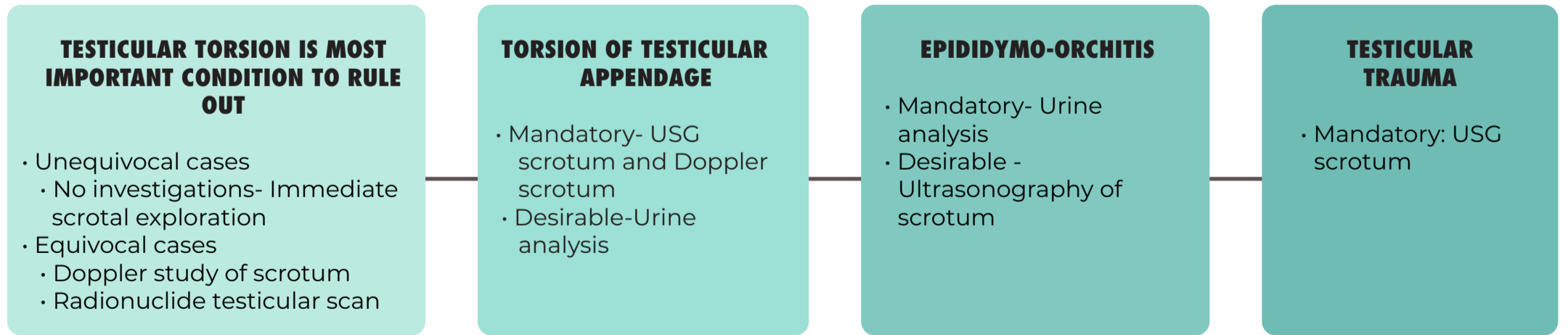


Acute scrotum

### DIFFERENTIATING CLINICAL FEATURES

<b>TORSION TESTIS</b> <ul style="list-style-type: none"> <li>Sudden onset of pain in testis, lower abdomen or groin</li> <li>Associated with nausea and vomiting</li> <li>Local palpation – Very painful</li> <li>Hemiscrotum - Red and edematous, bluish discoloration (Infarction of testis)</li> <li>Transverse lie of testis</li> <li>Absent cremasteric reflex</li> </ul>	<b>TORSION OF TESTICULAR APPENDAGE</b> <ul style="list-style-type: none"> <li>Sudden onset pain but of less severe degree.</li> <li>A bluish black spot (blue-dot) seen at the upper pole of the testis through the skin</li> <li>Palpation of the testis less painful</li> </ul>	<b>EPIDIDYMITIS/EPIDIDYMO-ORCHITIS</b> <ul style="list-style-type: none"> <li>Inflammatory condition of the scrotum</li> <li>Epididymis alone is usually affected before puberty (0-6 months)</li> <li>Epididymo-orchitis is more common after puberty</li> <li>History suggestive of -Urinary tract abnormalities or urethral instrumentation</li> <li>Infecting organism - Usually <i>Escherichia coli</i></li> </ul>	
<b>MUMPS ORCHITIS</b> <ul style="list-style-type: none"> <li>Affects post-pubertal testis</li> </ul>	<b>IDIOPATHIC SCROTAL EDEMA</b> <ul style="list-style-type: none"> <li>Confused with torsion of testis or its appendages</li> <li>Edema of scrotum with spread to or from inguinal region, penis, or perineum</li> <li>Cause of edema - may be bacterial cellulitis or a topical allergy</li> </ul>	<b>FAT NECROSIS</b> <ul style="list-style-type: none"> <li>Sudden appearance of tender bilateral lumps in scrotal skin</li> <li>Affected boys are often obese</li> <li>History of swimming in cold water</li> </ul>	<b>HENOCH SCHONLEIN PURPURA</b> <ul style="list-style-type: none"> <li>Present with signs of acute scrotal swelling</li> <li>Before or after other systemic signs and symptoms</li> <li>Most commonly bilateral and rarely painful</li> </ul>

### INVESTIGATIONS



### TREATMENT

<b>TORSION TESTIS</b> <ul style="list-style-type: none"> <li>Immediate scrotal exploration in golden window of 4-8 hours if investigative facilities not available</li> <li>Clinical exploration if bell clapper deformity seen</li> <li>Contralateral orchiopexy if bell clapper anomaly on affected side</li> <li>Orchidectomy preferable in older children if other testis is normal</li> <li>Refer if no surgical facility available</li> <li>Testicular prosthesis at a later date</li> </ul>	<b>TORSION OF TESTICULAR APPENDAGE</b> <ul style="list-style-type: none"> <li>Restricted activity</li> <li>Warm compression</li> <li>Anti-inflammatory drugs</li> <li>If not differentiable from torsion testis- Exploration and excision of necrotic appendage</li> </ul>	<b>IDIOPATHIC SCROTAL EDEMA</b> <ul style="list-style-type: none"> <li>Anti-histaminics</li> <li>Topical corticosteroids</li> </ul>	<b>HENOCH-SCHONLEIN PURPURA</b> <ul style="list-style-type: none"> <li>Supportive treatment</li> <li>Rarely systemic corticosteroids</li> </ul>	<b>TESTICULAR INJURY</b> <ul style="list-style-type: none"> <li>Mostly supportive</li> <li>Surgery if large hematoma/tunica albuginea rupture on USG</li> </ul>
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### REFERENCES

- Cavusoglu YH, et al. Acute scrotum - etiology and management. *Ind J Pediatr* 2005;72:201.
- McAndrew HF et al. The incidence and investigation of acute scrotal problems in children. *Pediatr Surg Int* 2002;18:435.
- Tekgul S, Dogan HS, Hoebeke P et al. EAU guidelines on Pediatric Urol. 2016;3.4:19-21.

### KEEP A HIGH THRESHOLD FOR INVASIVE PROCEDURES