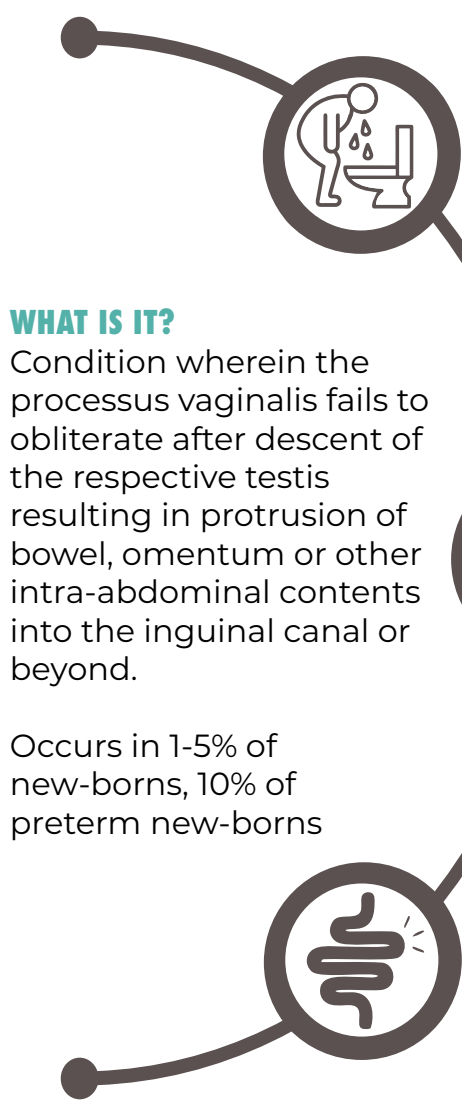




Standard Treatment Workflow (STW) CONGENITAL INGUINAL HERNIAS

ICD-10-K46



PRESENTATION

SWELLING: Located in groin, labia, scrotum or inguino-scrotal, intermittent, reducible or irreducible, more prominent upon straining or crying

ABDOMINAL DISTENTION, OBSTIPATION OR VOMITING (BILIOUS OR NON-BILIOUS): When the hernia is obstructed or incarcerated

CONSTITUTIONAL SYMPTOMS: When the hernia is incarcerated, and the bowel perforated



Obstructive inguinal hernia

EXAMINATION

SWELLING: Inguinal or inguinoscrotal (inguinolabial), reducible (with or without gurgling sound) or irreducible, cough impulse

SILK GLOVE SIGN: Palpable silky thickening of cord

CONTRALATERAL INGUINAL HERNIA: Upto 20% of patients may have synchronous contralateral inguinal hernia

AGGRAVATING FACTORS: In males with bilateral inguinal hernia (especially if associated with umbilical hernia), lower urinary tract outflow obstruction must be ruled out; connective tissue disorders, etc

CONTENT OF SWELLING: Usually only bowel and omentum, ovary (and/ or fallopian tube) in females and testis in boys with associated cryptorchidism; torsion of gonad to be ruled out

LOOK FOR DANGER SIGNS

DANGER SIGNS
Irreducibility of swelling in isolation or associated with:

- Irritable, inconsolable child
- Distention of abdomen and obstipation
- Bilious vomiting
- Unilateral, swollen and erythematous labia: may suggest torsion of ovary
- Peritonitis

INVESTIGATION

PRE-ANAESTHESIA ASSESSMENT

ESSENTIAL: Hemogram, serum electrolytes, other blood investigations depending upon general condition of patient and co-morbidities as per anaesthetist

DESIRABLE: Ultrasonography & Karyotype (in all female inguinal hernias) to rule out complete androgen insensitivity syndrome

TREATMENT (SURGERY)

TREATMENT OF CHOICE: Inguinal herniotomy or laparoscopic repair under general anaesthesia

- Complicated hernias may need additional manoeuvres: simple reduction or laposcopic reduction for irreducible hernias, bowel repair/ resection-anastomosis for vascular compromise of bowel
- In female hernia, the sac should be opened and inspected for presence of fallopian tube which must be preserved.
- It is recommended that the surgery be carried out by a paediatric surgeon and that anaesthetist should be experienced in paediatric and neonatal anaesthesia

MANDATORY FACILITIES IN THE CENTER

- Term neonate or pre-term neonate (less than 60 weeks post-conception age): dedicated Surgical NICU managed by pediatric surgeon or NICU managed by neonatologist
- Older kids: round-the-clock paediatrician or paediatric surgeon for post-operative monitoring
- The primary/ community/ district health centre should make the diagnosis, explain the danger signs to the parents and refer the patient to a higher centre with defined infrastructure
- Children with complicated hernia without peritonitis: Should attempt reduction without sedation. With peritonitis: Insert NG and initiate reduction and refer to higher facility immediately

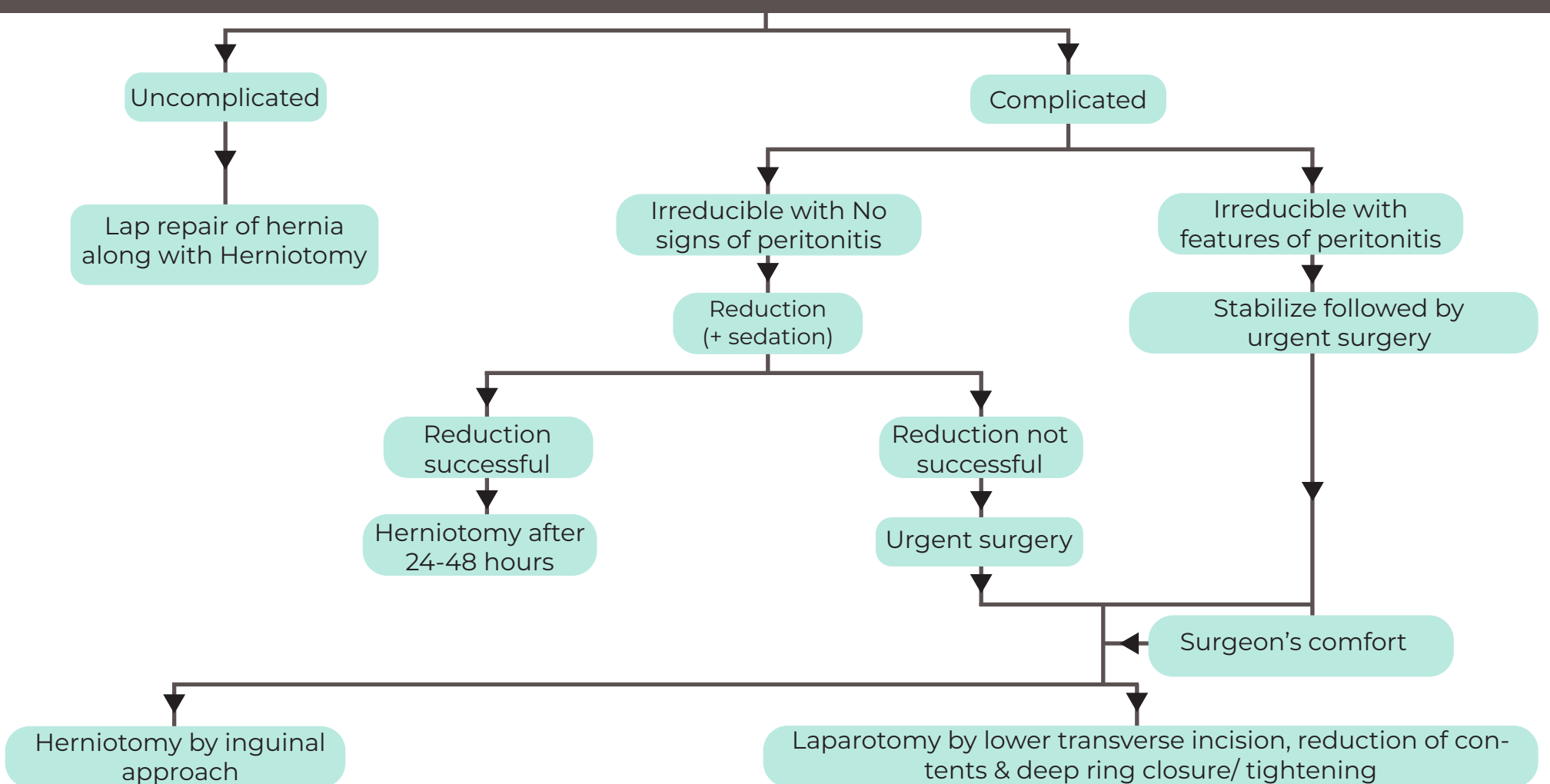
TIMING AND PLACE OF SURGERY

As early as possible but not a dire emergency. Danger signs should be explained to the parents at the time of making the diagnosis itself. Surgical NICU managed by Pediatric Surgeon or NICU managed by neonatologist. In inborn neonates who are diagnosed with inguinal hernia, surgery should preferably be performed prior to discharge

FOLLOW-UP: WITH WHOM?

- The first follow-up after discharge should be with the operating surgeon.
- Subsequent follow-up may be with the primary health centre close to the residence of the patient subject to approval by the operative surgeon

INGUINAL HERNIA DECISION TREE



Note: Few scenarios like doubtful contralateral hernia, patients with conditions like exstrophic bladder may require bilateral exploration

KEEP A HIGH THRESHOLD FOR INVASIVE PROCEDURES