Pediatric Potpourri
Case-Based Session

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The speaker has no conflicts of interest to disclose.

- No commercial support
- No discussion of off-label usage of drugs or devices/equipment

\[\text{CS} = \text{Content specification}\]
The effective practice of general pediatrics requires an immense knowledge base that covers the recognition, evaluation, and management of multiple medical conditions.

As new information emerges, the knowledge and skills needed to practice pediatrics in a way that optimizes patient care and professional satisfaction should also evolve.
Objectives

- Appraise common male urologic issues encountered in a nursery setting
- Summarize treatment strategies for common teen urologic infections
- Review congenital and acquired abnormalities in the female genitourinary system
- Recognize common pediatric orthopaedic conditions and describe appropriate treatment options
Urologic Issues
For General Pediatrics
Case #1

- Rounding in newborn nursery
- Term newborn male
- SVD, normal pregnancy and delivery
- 6 hours old
- No significant birth/delivery history
- No stool yet
- Not acutely ill
- P = 150, RR = 40, BP = 70/45, T =37.2 °C
- R sided inguinal mass
What’s Your Differential Diagnosis?
Inguinal Masses in Infants
Differential Diagnosis

- Hydrocele
- Inguinal hernia
  - Reducible
  - Incarcerated
- Torsion of undescended testis
- Suppurative inguinal lymphadenitis
  - Staphylococcus aureus
  - Streptococcus pyogenes
- Trauma
- Tumor
- Dermoid cyst (rare)
What would be a reasonable next step?
Fullness extends up to the external inguinal ring

Unsure about ability to palpate the internal ring (done through rectal exam)

Consider
- Ultrasound
- Laparoscopy – last resort

NO ROLE FOR ASPIRATION!
# Differentiation of Hydrocele v. Incarcerated Inguinal Hernia

**Incarcerated Inguinal Hernia**
- Signs of obstruction
  - Colicky abdominal pain
  - Abdominal distention
  - Vomiting
  - Cessation of stooling
  - May appear ill
- Mass typically “fixed”
- Plain radiographs may demonstrated multiple air-fluid levels

**Hydrocele**
- Uncomfortable, but consolable
- Tolerates feeds
- Mass may be somewhat mobile
- Transillumination*
- Area of “swelling” does not typically involve the internal ring

*May be misleading because an inguinal hernia may also be transilluminated.

Aspiration is CONTRAINDICATED!
### Differentiation of Hydrocele v. Incarcerated Inguinal Hernia

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Inguinal Hernias

- Incarcerated: not reducible
- 12-15% of inguinal hernias are incarcerated
  - 2/3 of incarcerated inguinal hernias occur in persons < 1 y.o.
  - Incidence of incarcerated inguinal hernias = 30% if < 6 m.o.
- Incarcerated inguinal hernias may be tolerated in adults for years
- In children, if untreated, may progress to “strangulation”
- Compromise of testicular blood supply is possible
- If ovary involved - may be associated with ovarian torsion/strangulation
Case #2

- 13 year old boy comes in complaining of swelling and a “dull ache” in his scrotum
- Not sudden onset
- Pain described as mild in intensity
- Located on left side of scrotum
- No trauma
- Less noticeable when he lies down to sleep
What’s Your Differential Diagnosis?
Case #2 Exam

- SMR (formerly known as “Tanner” stage) stage 3 pubic hair
- SMR stage 3 phallus with no discharge
- Testicular size = 10 mL (= SMR stage 3)
- Cremasteric reflex is present bilaterally
- No “blue dot” sign
- No testicular or epididymal tenderness
- Left sided “bag of worms”
Scrotal Masses in Boys and Adolescents

- **Painful**
  - Testicular torsion
  - Torsion of appendix testis
  - Epididymitis
  - Trauma
  - Inguinal hernia (incarcerated)
  - Mumps orchitis

- **Painless**
  - Hydrocele
  - Inguinal hernia*
  - Varicocele*
  - Spermatocele*
  - Testicular Tumor*
  - Henoch-Schönlein purpura*
  - Idiopathic scrotal edema

*May be associated with discomfort

Blue Dot Sign
Varicocele

- Dilation of pampiniform plexus (incompetent valve of internal spermatic vein – congenital)
- Typically painless but may cause a “dull ache”
- “Bag of worms” – most always on the left side
  - 2% bilateral; **rare on right side** (requires imaging)
- May not be obvious when supine
- Prevalence:
  - 15% of men
  - 5-15% of adolescent boys (rare in boys < 10 y.o.)
Varicocele

- Graded on 1-3 scale
  - Grade 1 – present only with Valsalva
  - Grade 2 – present without Valsalva, but not visible
  - Grade 3 – visible with inspection
- Grade 3 carries greatest risk of arrested testicular growth
- Cause of “subfertility”
- May be surgically corrected
Case #3

- Rounding in nursery
- “New” colleague asks for your opinion about circumcision on a newborn boy whose brother had hypospadias
- Can’t retract the prepuce to be sure
- Asks “When should the prepuce become retractable?”
- You answer, “For most uncircumcised males, the prepuce becomes retractable by:
  A) 3 days; B) 3 weeks; C) 3 months; D) 3 years
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Local anesthesia (WITHOUT EPI)

- Dorsal nerve block
- Ring block
- EMLA cream
Case #3

- Dorsal slit is made and urethral meatus is clearly identified at the tip of the glans
- However, there is a “foul smelling, white, pasty” accumulation underneath the foreskin
- What is it?

- Is it pathologic?
Circumcision

- Controversial
- Reported reduction in:
  - UTIs (UTIs are 10-15x more common in uncircumcised males)
  - STIs, including HIV

Contraindications:
- Hypospadias
- Chordee w/o hypospadias
- Dorsal hood deformity
- Small penis
- Wandering raphe – relative contraindication
Hypospadias

- 2nd most common congenital defect of male genitalia (#1 = cryptorchidism)
- Congenital defect in which the opening of the urethra is on the underside of the penis, rather than at the end
- Incidence = 1/150-300 newborn boys
- Mostly sporadic (father also affected = 7%)
- Chance of 2nd son w/ hypospadias = 12%

American Urological Association, January 2011
Hypospadias
Clues to Hypospadias

- Dorsal hood
- 15% will be associated with downward curvature of the penis
Dorsal hood

15% will be associated with downward curvature of the penis

First Degree (or distal) Hypospadias ~ 50% (Approximately 15% w/ Megameatus Variant)
Clues to Hypospadias

- Dorsal hood
- 15% will be associated with downward curvature of the penis

2nd Degree (midpenile) Hypospadias
~ 20%
Dorsal hood
15% will be associated with downward curvature of the penis

3rd Degree (proximal) Hypospadias ~ 30%
Hypospadias

- 1st degree hypospadias - rarely associated with renal anomalies
- Delay circumcision
- Surgical repair should be done within the first year of life for 1st degree hypospadias
- If accompanied by bilateral cryptorchidism – evaluate for intersex disorder with a karyotype
Hypospadias

- 10% may have cryptorchidism
- Midpenile or proximal may indicate disorder of sexual differentiation
- With 3\textsuperscript{rd} degree consider voiding cystourethrogram because 5-10\% will have dilated prostatic utricle (remnant of müllerian system)
Complications of Untreated Hypospadias

- Deformity of urinary stream
- Sexual dysfunction secondary to penile curvature
- Infertility
- Meatal stenosis (congenital)
- Cosmetic appearance
Surgical Correction of Hypospadias

- Goal of surgery (recommended for all w/ midpenile and proximal hypospadias) is to correct functional and cosmetic deformities
- Some boys with distal hypospadias have no functional abnormality and do not need surgery
Case #4

- Rounding in the newborn nursery
- Term male neonate
- Normal pregnancy and delivery (no gestational diabetes and no infections)
- BW = 3500 g (7.7 lbs)
- Normal appearance (no dysmorphic features)
- Nursery course notable for persistent hypoglycemia
- Parents desire circumcision
- Penis is small – stretched penile length = 2.0 cm
### Mean Stretched Penile Length (cm)

<table>
<thead>
<tr>
<th>Age</th>
<th>Mean +/- SD</th>
<th>-2.5 SD</th>
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<tbody>
<tr>
<td>30 wk gestation</td>
<td>2.5 +/- 0.4</td>
<td>1.5</td>
</tr>
<tr>
<td>34 wk gestation</td>
<td>3.0 +/- 0.4</td>
<td>2.0</td>
</tr>
<tr>
<td>Term</td>
<td>3.5 +/- 0.4</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Note: Measured from pubic ramus to tip of glans while traction is applied along the length of the phallus to the point of increased resistance.

Micropenis

- Result of primary or secondary testicular failure during fetal life after morphogenesis is complete (after 14 weeks gestation)
- Suprapubic fat pad – “hidden or buried” penis
- Secondary congenital failure associated with anencephaly, hypopituitarism or pituitary agenesis, Kallmann, Noonan, Prader-Willi, Laurence-Moon-Biedl and other syndromes
- Primary testicular failure, including Robinow syndrome
- Hypoglycemia – common in neonates, but when persistent – consider other hormones (pituitary/adrenal)
- Hypoglycemia + micropenis *consider:* congenital hypopituitarism
Micropenis – What Next?

- Pediatric endocrinology consultation
- Evaluation
  - Karyotype
  - Assessment of anterior pituitary function
  - Assessment of testicular function
  - MRI to assess pituitary, hypothalamus and other midline CNS structures
- Most will have satisfactory sexual function
- Gender reassignment – rarely necessary
- Adrogen Rx? – may limit growth potential in prepubertal boys
The Empty Scrotum

- Differential diagnosis?
Failure to find the testis in the scrotum:

- Undescended
- Absent
- Retractile

Retractile testes – often due to brisk cremasteric reflex in boys > 1 year old

- Monitor q 6-12 months
- 1/3 of boys with retractile testes can develop an acquired (or ascending) undescended testes (typically b/t ages 4-10 y.o.)
Cryptorchidism

- Most common disorder of sexual differentiation in boys
- Testicular descent typically occurs at 7-8 months gestation
- Overall prevalence of 4.5% at birth
  - 30% in premature male infants
  - 3.4% in term male infants
- Most descend spontaneously within the first 3 months of life
- If still undescended by 4 months – likely permanent
Consequences of Cryptorchidism

- Infertility
- Testicular malignancy
  - 2-4x increase over general population
  - 1/80 if unilateral cryptorchidism
  - 1/40-50 if bilateral
  - Seminoma (65%)
- Associated hernia (usually indirect)
- Torsion of the cryptorchid testis
- Psychological effects
Management of Cryptorchidism

- Routine imaging is not recommended
- Surgery
  - At 6 months may be appropriate
  - No later than 9-15 months of age
  - 98% successful
  - Improves fertility (85% v. 90% in general population)
  - Decreases transformation into germ cell malignancies
- Hormonal treatment – used infrequently
Phimosis/Paraphimosis

- “φιμοσ” – muzzle
- Inability to retract the prepuce at an age with is should normally be retractable
- Physiologic phimosis – natural in newborns
- Prepuce typically becomes retractable by age 3 years (90%)
- Pathologic phimosis – if previously retractable or after puberty
Case #5

- 17 year old boy presents to your office with acute onset right sided testicular pain that started 2 hours ago
- No trauma
- PE: notable for scrotal swelling and severe testicular tenderness
- No swelling in the inguinal area
- Cremasteric reflex is absent on the right
- What do you think he has?
- What is your next step?
Twisting of the spermatic cord, which cuts off the blood supply to the testicle and surrounding intrascrotal structures

Most common during infancy and at the onset of puberty

“Bell-clapper deformity” of the processus vaginalis
Testicular Torsion

Diagnostic evaluation: testicular ultrasound looking for blood flow – nearly 100% accurate

“Time is testicle” – most testes can be saved if surgery is performed within 6 hours; need for orchiectomy increases after 6 hours\(^1\)

\(^1\)www.ncbi.nlm.nih.gov
**Testicular Torsion**

**Physical Diagnosis**

- More common on the right side
- Affected testicle is higher
- Testis may have a “horizontal” lie
- Prehn’s sign lifting the testicle to see if the pain lessens (to help distinguish from epididimitis) where lifting the affected testis may help to relieve the pain (likely not that reliable)
- Cremasteric reflex is *often* absent
Testicular Torsion Presentation

- **Common signs/symptoms**
  - Sudden severe pain in one testicle with or without a predisposing event
  - Swelling on one side of the scrotum
  - Nausea/vomiting
  - Lightheadedness
- **Additional (less common) signs/symptoms**
  - Palpable lump
  - Blood in semen
Case #6

- 16 y.o. boy comes in complaining of a penile discharge
- Sexually active with several partners
- No condom use
- Other than discharge, denies any fever, malaise, weight loss, or other systemic symptoms
What’s Your Differential Diagnosis?

- (Let’s include organisms)
GU Inflammation/Infection
Urethritis

- Mucoid/purulent discharge
- Urinary urgency/frequency
- Dysuria
- Irritation of urethral meatus
- May be asymptomatic
  - *Chlamydia trachomatis*
  - *N. gonorrhoeae*
  - *Mycoplasma genitalium*
  - *Ureaplasma urealyticum*
  - *Trichomonas vaginalis*
  - HSV

50% of patients w/ GC urethritis or cervicitis are co-infected w/ *C. trachomatis*
Chlamydia Screening Tests
Non-culture Tests

- Culture (NOT RECOMMENDED)
  - 42-100% sensitivity; 100% specificity (but typically the Gold Standard)
- Nucleic Acid Amplification Test (NAAT)
  - 70-80% sensitivity; 96-100% specificity
- PCR swab and urine specimens
  - 82-100% sensitivity; 98-100% specificity
- Ligase CR (LCR) swab specimens
  - 81-98% sensitivity; 96-100% specificity
- LCR urine specimens
  - 70-96% sensitivity; 99-100% specificity
Gonorrhea Screening Tests

- Culture, DNA amplification, DNA probes - all acceptable for screening
- Culture
  - 62-93% sensitivity; 100% specificity (if cx’s differentiate N. gonorrhoeae)
- DNA amplification (swabs or urine – but lower sensitivity w/ urine)
  - 67-100% sensitivity; 94-100% specificity
- Nucleic Acid Amplification Test (NAAT)
  - 54-100% sensitivity; 97-100% specificity
Urethritis Treatment

- Target both GC and Chlamydia

- For GC
  - Ceftriaxone 250 mg IM (or Cefixime 400 mg orally) - single dose
  - NB: Quinolone resistance is HERE

- For Chlamydia
  - Azithromycin 1 g orally – single dose
  - OR
  - Doxycycline 100 mg twice daily x 7 days
GU Inflammation/Infection

- Orchitis
  - Mumps
    - Orchitis is relatively rare in prepubescent boys
    - Orchitis in 30-40% of pubescent males w/ mumps
  - Coxsackie B – 2nd only to mumps
Unilateral scrotal swelling and tenderness
Tender epididymis
Causes:
- Chlamydia trachomatis
- N. gonorrhoeae
- Escherichia coli
Genital Trauma

- Usually from blunt trauma
  - Falls
  - MVA
  - Athletic activities
  - Straddle injuries and pelvic fractures
- Children are more susceptible than adults
  - Less body fat
  - Kidneys not up under ribs
Urinalysis
- Bladder should be catheterized unless urethral trauma is suspected
- If urethral damage is suspected – retrograde urethrogram
- 3-phase spiral CT of the kidneys, urethra, and bladder
Female Genital System: Congenital and Acquired Abnormalities

- Imperforate hymen
- Labial adhesions
- Ovarian torsion
- Ovarian cysts
Imperforate Hymen

- Most common obstructive anomaly
- 1:1000

Presentations:
- Mucocolpos - newborns and early infants
- Most commonly – found around menarche - primary amenorrhea with normal secondary sexual characteristics, bulging blue membrane, and cyclic abdominal pain or pelvic mass
Labial Adhesions (AKA Synechiae vulvae or Labial Agglutination)

- Affects about 2% of young girls
- Peak incidence is 2 years of life

Clinical findings

- Fusion of the labia minora
- Often no symptoms
- Can interfere with voiding urine
- Recurrent UTIs
Often – resolve spontaneously
Gentle traction to separate the labia – typically followed by 3-5 days of topical estrogen cream
Hormonal cream – occasionally used once or twice daily for several weeks (90% reported effectiveness)
Occasionally surgery by a pediatric urologist
Presentation

- Lower abdominal pain (episodic or constant)
- Imaging may show unilateral enlargement of the adnexa
- Sonographic evidence of blood flow DOES NOT exclude the diagnosis

Management

- If index of suspicion is high, laparoscopic surgical intervention is needed urgently to detorse the ovary
Ovarian Cysts

- Seen in nearly all prepubescent girls as a normal finding
  - Typically < 1 mm
- Bimodal age distribution of larger cysts
  - Neonates
  - Puberty
- Presentation
  - Mass
  - Abdominal pain
  - Nausea
  - Vomiting
  - Risk of torsion
Ovarian Cysts

- Ultrasound is the imaging modality of choice
- Urgent evaluation recommended for:
  - Large cysts (> 4-5 cm)
  - Complex cysts
  - Cysts in premenarchal girls with signs of hormone stimulation
- Management
  - Antenatal aspiration
  - Postnatal Laparoscopic treatment
  - Monophaslic OCPs for hemorrhagic functional cyst
Orthopaedic Issues
For General Pediatrics
Case #7

- Called to newborn nursery to see a new baby with several dysmorphic features
- Short limbs (especially proximal segments)
- Long narrow trunk
- Prominent forehead and mid-face hypoplasia
- Trident hand
- Father is 49 years old
Achondroplasia

- Most common condition characterized by disproportionate short stature
- Approximately 75-80% cases arise from new mutation (associated w/ advanced paternal age)
- AD inheritance pattern
- Mutation of FGFR3
Achondroplasia

Clinical features

- Short stature with short limbs (proximal segment)
- Long, narrow trunk
- Large calvarium, prominent forehead
- Midface hypoplasia
- Trident configuration of digits
- Thoracolumbar gibbus
- Bowed legs
- Hypotonia
Complications

- Spinal stenosis (estimated 30-50% will have some neurologic impairment)
- Restrictive lung disease (< 5%)
- Sleep apnea (~38%)\(^1\) – think upper airway obstruction
  - Adenotonsillar hypertrophy
  - Muscular upper airway obstruction
- Recurrent OM – possible hearing loss

Achondroplasia

Apnea, pain, ataxia, and incontinence may be due to spinal cord compression (Foramen magnum and lumbar spine)

- Respiratory arrest
- Progressive quadriparesis
- May need surgery to release the compression (especially if brisk DTRs or central hypopnea)
Achondroplasia

- Natural History – most affected patients live into adulthood (lifespan shortened by only about 10 yrs)
  - Able to reproduce
  - Normal intelligence
  - May develop hearing problems
Case #8

- 7 month old girl presents with fussiness and a head tilt
- Similar episode about a month ago that lasted for 2 days and resolved spontaneously
- No known trauma
- Able to straighten up head, but it goes back
- Normal eye alignment and tracking
- ?
Torticollis (AKA Wryneck)

- Tilt and rotation of the head to one side and restricted rotation to the other side
- Congenital or acquired
- Congenital torticollis most commonly due to a stretch injury of one SCM muscle during delivery
- Treatments
  - PT (stretching) may help, especially if started within the first 3 months
  - Botulinum toxin
  - Surgery
Differential Diagnosis of Torticollis

- **Congenital** – present early in infancy; consistent; does not come and go (SCM)
  - Up to 8% of affected infants also have hip dysplasia

- **Paroxysmal** – comes and goes - idiopathic
  - Trauma
  - Inflammatory
  - Neurologic (e.g. IVth cranial nerve lesion)
  - Drugs
  - Other

See table in handouts for a more extensive differential diagnosis.
Klippel-Feil Syndrome

- Congenital fusion of one or more cervical motion segments
  - 75% of cases involve upper 3 cervical vertebrae
  - 50% involve < 3 vertebrae
  - Most common level: C2-C3
- Clinical triad (seen in only about 50%)
  - Short neck
  - Low hairline
  - Restricted neck motion
Klippel-Feil Syndrome

Type I: Massive fusion of cervical spine

Type II: Fusion of one or two cervical interspaces

Type III: Thoracic or Lumbar vertebrae involved
Associated abnormalities

- GU (30-40%)
  - Unilateral renal agenesis
  - Duplicated collecting systems
  - Horseshoe kidney
- Auditory
- Cardiac defects
- Neural axis defects
- Musculoskeletal
  - Sprengel deformity (in 1/3)
  - Scoliosis

Talipes equinovarus
- Depicted in Egyptian hieroglyphs and described by Hippocrates around 400 B.C. and
- Incidence is 1/1000
- Estimated 50% bilateral involvement
- Male:Female = 2:1
- Idiopathic or syndromic
- Treatment is casting/splinting of the affected foot
- Surgery may be required

Assorted Orthopaedic Issues

- **Coxa vara (< 120°)**
  - Congenital – abnormal ossification of femoral neck
  - Acquired - ischemia (e.g., rickets, fibrous dysplasia, proximal physeal injury, premature closure, mucopolysaccharidosis type IV [Morquio disease])

- **Coxa valga (> 135°)**
  - Associated with congenital hip dysplasia and with spasticity of hip adductors (e.g., cerebral palsy)
Clinical Presentation

- Coxa vera
  - Waddling gait
  - May have leg length discrepancy
  - May have limited internal rotation and abduction of affected hip
  - Can cause osteoarthritis of the hip
- Coxa valga
  - Can cause osteoarthritis of the hip
Pes Planovalgus

- Lack of the longitudinal arch of the foot
- Typical in infants
- Common in childhood – arch is not evident in most children until age 6 y.o.
- Affects 15% of adults
- No treatment required in childhood
- Longitudinal arch support may be helpful in adolescent with pain from planovalgus
Polydactyly

- 2nd most common hand anomaly (M > F)
- More common in blacks (1:300 – typically involving the little finger [postaxial]) than whites (1:3000 – typically involving the thumb)
- In blacks – isolated, autosomal dominant
- In whites – may be associated w/ other anomalies and syndromes
- Preaxial = thumb-type
- Postaxial = little finger-type
- 3 types/management
  - Type I – soft tissue only – ligation or electrocautery
  - Type II – duplicate finger (including bones/joints) - surgery
  - Type III – duplication of finger and metacarpal - surgery
Mystery Case
For General Pediatrics
Case #9

- 6 month old girl
- Multiple hospitalizations for seizures
- Negative repeated evaluations
- Child looks well between spells; with (-) w/u, discharge planned for tomorrow
- Mother very attentive, constantly by child’s side
- Seizure tonight
- Glucose = 18 mg/dL
- Increased insulin level
- Negligible C-peptide
Factitious Disorders by Proxy

- Munchausen syndrome – the patient falsifies his/her own symptoms – Richard Asher Lancet 1951
- Baron von Münchausen (1720–1797)
  
  *The Surprising Adventures of Baron von Münchausen*
  
  by Rudolf Erich Raspe
- Munchausen syndrome (now called Factitious Disorder)
- Factitious disorder by proxy (FDP)
Factious Disorders by Proxy

- Parent or caregiver falsely presents a child for medical attention
  - History
  - Exposure to toxin, medication, or infectious agent
- Consider FDP when:
  - Reported symptoms are repeatedly noted by only one parent
  - Appropriate testing fails to confirm a diagnosis
  - Seemingly appropriate treatment is ineffective
### Factious Disorders by Proxy

<table>
<thead>
<tr>
<th>Common FDP Symptoms</th>
<th>Examples of Mechanism(s)</th>
</tr>
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<tbody>
<tr>
<td><strong>Bleeding</strong></td>
<td>Add dye or blood to clinical samples; give the child an anticoagulant (e.g., Coumadin)</td>
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<tr>
<td><strong>Seizures</strong></td>
<td>Fabricated history (hard to exclude); insulin, water, salts</td>
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<tr>
<td><strong>Apnea</strong></td>
<td>Partial suffocation</td>
</tr>
<tr>
<td><strong>GI symptoms</strong></td>
<td>Cathartics (e.g., Ipecac); laxatives</td>
</tr>
<tr>
<td><strong>Skin symptoms</strong></td>
<td>Trauma to skin (e.g., rubbing, burns, lacerations, punctures); dyes, tattoos</td>
</tr>
<tr>
<td><strong>Sepsis</strong></td>
<td>Contamination of IV lines/ports; contamination of urine/blood samples</td>
</tr>
<tr>
<td><strong>Fever</strong></td>
<td>Heating thermometer</td>
</tr>
<tr>
<td><strong>GU symptoms</strong></td>
<td>Pebbles in urine; blood in urine; “sugar” in urine</td>
</tr>
</tbody>
</table>
Parental Features Often Seen with FDP

- Mother/female caregiver > 90%
- Highly attentive; reluctant to leave the child’s bedside
- Unusually calm despite serious concerns/encouraging OR very demanding/angry seeking to escalate w/u
- May form close relationships with members of health care team
- Interested in the child’s condition, yet is relatively distant emotionally (including spousal relationship)
- May have background/interest in health care
- Signs/symptoms do not occur in caregiver’s absence
- May have a history of unexplained medical illness/symptoms (possibly undiagnosed Factitious Disorder)
Child abuse
- Treatment plan worked out by the medical team and CPS
- May require out-of-home placement

Mental health care
- Affected child – may exhibit significant ongoing psychological problems
- Offending care giver
- Older/other affected children

Further medical care organized and coordinated by 1 PCP
Practice Changes You May Wish to Make

- Consider posting clinical decision-making guidelines in the nursery to help direct efficient evidence-based care for conditions that may be encountered to decrease unnecessary variation in care.
- Since medical knowledge is currently doubling every two years, invite pediatric sub-specialists to give periodic updates related to their field of expertise.
- Educate all members of your medical team regarding the recognition of factitious disorders by proxy.
“The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn.”
- Alvin Toffler

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