

	Clinical Protocol: Scope of Primary Care		SUBDEPARTMENT: N/A	
	POLICY NO.	ORIGINAL EFFECTIVE DATE: 12/01/2019	REVIEWED/REVISED DATE(S): 11/15/2023, 03/6/2024	
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TITLE OF POLICY: Referral to Pediatric Surgical Specialists				

PROTOCOL OVERVIEW

Routine follow up is a pediatric primary care responsibility. In cases where referral is appropriate, following diagnosis and initiation of any necessary treatment by the consultant, the pediatric primary care giver will again resume responsibility for routine follow up of the patient.

The Surgical Advisory Panel of the American Academy of Pediatrics (AAP) has created referral guidelines intended to serve as practice parameters to assist general pediatricians in determining when and where to refer their patients to pediatric surgical specialists. The optimal management of the child with complex problems, chronic illness, or disabilities requires coordination, communication, and cooperation of the pediatric surgical specialist with the child's primary care pediatrician or physician.

INDICATIONS

Pediatric General Surgery Referral

- Infants and children with perforated appendicitis should be cared for by a pediatric surgeon.
- Seriously injured infants and children may be stabilized at a local hospital and then should be transferred to a pediatric trauma center.
- Infants, children, and adolescents with solid malignancies should be cared for by a pediatric surgeon.
- Minimally invasive procedures (e.g., laparoscopy, thoracoscopy) in infants and children should be performed by a pediatric surgeon trained in these techniques.

Pediatric Otolaryngology Referral

The following patients should be referred to a pediatric otolaryngologist:

- Children with congenital malformations of head and neck structures, including the ear, nasal passages, oral cavity, and laryngotracheal airway.
- Children with sensory impairments, including conductive or sensorineural hearing loss, vertiginous disorders, unilateral and bilateral true vocal fold paralysis, facial nerve paralysis, and oromotor dysfunction as evidenced by speech, swallowing, or drooling problems.

- Children with acquired otolaryngologic disorders involving the ear (e.g., cholesteatoma), the pharynx (e.g., obstructive adenotonsillar hypertrophy), the laryngotracheal airway (e.g., postintubation laryngotracheal stenosis), the aerodigestive tract (e.g., foreign body aspirations), and the facial skeleton (e.g., maxillofacial trauma).
- Children with neoplasms or vascular malformations of the head and neck structures, including the laryngotracheal airway.
- Children with medical conditions that increase operative risk (e.g., congenital heart disease) who must undergo a common otolaryngologic procedure (e.g., adenotonsillectomy).
- Children require operative airway endoscopy for the evaluation of stridor.
- Children with complicated infections that may require surgery involving the ear (e.g., otitis media with effusion and hearing change), the nose and paranasal sinuses (e.g., chronic rhinosinusitis), the pharynx (e.g., recurrent adenotonsillitis), the airway (e.g., epiglottitis), and the neck (e.g., retropharyngeal abscess).

Endoscopy Referral

- Endoscopy of the airways (e.g., bronchoscopy, laryngoscopy) in children should be performed by a pediatric surgeon or a pediatric otolaryngologist or a pediatric intensivist.
- Esophagoscopy
- Endoscopy of the gastrointestinal tract distal to the esophagus in infants and children should be performed by a pediatric surgeon or a pediatric gastroenterologist.

Pediatric Ophthalmology Referral

Pediatric patients with the following conditions should be referred to a pediatric ophthalmologist:

- Children who are nonverbal or unable to read letters and in whom there is reason to suspect eye disease.
- Children with retinoblastoma or other tumors of the eye and orbital area.
- Children with known or suspected cataracts, glaucoma, or blindness.
- Children diagnosed with, or at risk of, retinopathy of prematurity.
- Children with congenital or genetic ocular anomalies or infections (e.g., aniridia, toxoplasmosis).
- Children with systemic syndromes, metabolic disorders, or chromosomal abnormalities with possible ocular involvement (e.g., juvenile rheumatoid arthritis, galactosemia, diabetes mellitus, Marfan syndrome, Down syndrome).
- Children suspected of being abused and in whom there is a possibility of eye injury.
- Infants with congenital nystagmus and children with early onset nystagmus.

- Children with strabismus or amblyopia.
- Children with a family history of congenital or genetic ocular anomalies (e.g., aniridia), infections (e.g., toxoplasmosis), tumors (e.g., retinoblastoma), or a family history of systemic or metabolic syndromes (e.g., juvenile rheumatoid arthritis, galactosemia, diabetes mellitus), chromosomal abnormalities (e.g., Down syndrome), or other disorders with possible ocular involvement.
- Children with exposure during gestation to drugs or other substances (including alcohol) that may cause congenital anomalies of the eyes.
- Children with poor vision or delayed attainment of vision-related developmental milestones.
- Children with ocular or periocular inflammation not responding to initial topical and/or systemic antibiotic therapy or not clearing within 3 weeks of treatment and children with suspected herpes simplex or zoster infections involving the eye.

Pediatric Urology Referral

- Undescended testicles and elective congenital hydrocele-hernia are optimally corrected in infancy or early childhood.
- Hypospadias is usually repaired in infancy or early childhood.
- Complex congenital urologic problems (e.g., duplex systems, ureterocele, bladder exstrophy, moderate or severe vesicoureteral reflux, posterior urethral valves).
- Solid malignancies of the kidney, bladder, and testicle
- Ambiguous genitalia
- Cystoscopic procedures
- A pediatric urology consultation should be considered when a child has prolonged, severe day-time voiding difficulty.
- Children with spinal cord disorders (e.g., myelomeningocele, spinal cord injuries).
- Infants or children with major urologic injuries should be stabilized at the nearest medical center and then transported to a pediatric trauma center.
- Children with testicular torsion should be evaluated at the nearest medical center and operated on promptly.

Pediatric Orthopedic Surgery Referral

- Malignant bone tumors should be managed by an orthopedic tumor surgeon, in conjunction with a pediatric medical cancer specialist.
- Benign bone tumors should be managed by a pediatric orthopedic surgeon.

- Congenital deformities of the upper extremity should be managed by a pediatric orthopedic surgeon or a pediatric hand surgeon.
- The following patients may be best cared for by a pediatric orthopedic surgeon:
 - Infants with serious malformations of the limbs (e.g., idiopathic clubfoot, congenital limb deficiency).
 - Children with significant limb deformity secondary to metabolic bone disease or other types of growth arrest.
 - Children with developmental dysplasia of the hip. (Screening for developmental dysplasia of the hip is performed by the primary care pediatrician.)
 - Children with bone or joint infection (e.g., osteomyelitis, septic arthritis), in conjunction with the primary care pediatrician and infectious disease specialist.
 - Children with Perthes disease (i.e., osteochondritis of the femoral head).
 - Children with slipped capital femoral epiphysis.
 - Children with severe scoliosis or limb length discrepancy.
 - Children with deformity or gait abnormality secondary to neuromuscular conditions (e.g., cerebral palsy).
 - Children with complex fractures and dislocations.

Pediatric Neurological Surgery Referral

- Patients 5 years or younger who may need neuro-surgical care for congenital anomalies or neoplasms of the brain or spinal cord should be cared for by a pediatric neurosurgeon.
- Children with injuries to the head, spinal cord, or peripheral nerves may be stabilized at a local hospital and should then be transferred to a pediatric trauma center.
- Children with brain tumors should be cared for by pediatric neurosurgical and pediatric medical cancer specialists.
- Children with tumors of the spinal cord or peripheral nerves should be cared for by pediatric neurosurgical and pediatric medical cancer specialists.
- Children with deformities of the cranium (e.g., craniosynostosis) or spine (e.g., spina bifida).
- Children with hematomas/hygromas of the brain.
- Children with abscesses of the brain or spinal cord should be cared for by a pediatric neurosurgeon, in conjunction with the primary pediatrician and infectious disease specialist.
- Infants with myelomeningocele.
- Infants with hydrocephalus.

- Children with medical conditions that increase operative risk (e.g., congenital heart disease) who must undergo a common neurosurgical procedure (e.g., shunt for hydrocephalus) should be cared for by a pediatric neurosurgeon.
- Neuroendoscopy procedures should be performed by a pediatric neurosurgical endoscopist.

Pediatric Plastic Surgery Referral

- Children with congenital malformations of the head and neck structures including the face and skull (e.g., cleft lip and palate, craniosynostosis).
- Children with congenital malformations of the limbs (e.g., syndactyly).
- Children who are seriously burned or injured should be stabilized at a local hospital and then transferred to a pediatric burn/trauma center.
- Children with large cutaneous pigmented or vascular lesions (e.g., nevi, port wine stains, arteriovenous malformations).
- Children with large soft tissue tumors that, when excised, leave defects requiring tissue transfer or reconstruction.
- The pediatric plastic surgeon is optimally part of a multispecialty team (with pediatricians and other pediatric surgical specialists) in management of conditions such as myelomeningocele or complex problems requiring tissue expansion or microsurgical procedures.

RECOMMENDED RECORDS

Medical records, available imaging, labs

CITATION

American Academy of Pediatrics (2014). Referral to Pediatric Surgical Specialists.
<https://publications.aap.org/pediatrics/article/133/2/350/30794/Referral-to-Pediatric-SurgicalSpecialists?autologincheck=redirected>