Annotated Bibliography:
Benefits of Pediatric v. Adult Subspecialty Care


*Pediatric neurosurgeons are more likely than general neurosurgeons to extensively remove malignant pediatric brain tumors. In these tumors, extent of removal has been demonstrated to influence survival.*


*Lower complication rates and shorter lengths of stay for children with significantly perforated appendicitis when treated by pediatric surgeons.*


*After adjusting for patient characteristics, injury severity, and hospital characteristics, splenectomy was more likely among children treated at general hospitals than among children treated at children’s hospitals. There are significantly lower rates of splenectomy at designated children’s hospitals.*


*High surgeon volume and specialization are associated with improved patient outcome, while high hospital volume is of limited benefit.*


*Pediatric emergency medicine physicians provided better care than family medicine physicians and those in the “other” category. The quality of care provided to children is associated with age, hospital setting, and physician training.*


*Pediatric surgeons treat younger children with more severe appendicitis. There are no specialty-dependent differences in clinical outcomes for simple or complicated appendicitis. Hospital charges are lower for simple appendicitis treated by pediatric surgeons.*
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For all measures, pediatric surgeons demonstrated superior proficiency on exercises conducted in pediatric conditions. Pediatric surgeons possess unique skills compared with general surgeons that relate to the technical challenges they routinely face.


Compared with physicians with a pediatric background, rates of resource utilization were higher for EM-trained physicians who managed uncomplicated cases of croup. There was a reduced length of stay by 40 minutes when pediatric emergency medicine physicians treated croup. Also, pediatric emergency medicine physicians treating croup reduced direct costs by $90 when compared to the same treatment delivered by adult emergency medicine physicians.


Shorter time spent by young children treated for fever in the pediatric emergency department.


Younger children with appendicitis have reduced hospital days and charges when they are treated by pediatric surgeons v. general surgeons.

Nwomeh BC, Rothstein D. Evidence shows children treated by pediatric surgeons have better outcomes than those treated by adult specialists. *AAP News.* 2014;35.

The risk of bowel resection during operative intussusception reduction is 80% less when performed at hospitals employing full-time pediatric surgeons compared to hospitals providing pediatric care by non-pediatric surgeons.

Surgeons caring preferentially for children as a proportion of their overall practice generally have improved mortality outcomes in general and cardiothoracic surgery. These data suggest a benefit associated with increased referral of children to pediatric practitioners.


Shorter length of stay for closed femoral shaft fractures when treated by a pediatric orthopedic surgeon; pediatric orthopedic surgeons achieved lower hospital charges than adult orthopedic surgeons for closed femoral shaft fractures.


Each study documented better pediatric patient surgical outcomes under the care of a pediatric subspecialty trained surgeon regardless of discipline. Those studies that studied costs showed more cost effective care was delivered by pediatric subspecialized surgeons.


Hospital charges were significantly less ($1095) for patients under the care of a pediatric urologist compared to general urologists. Complication rates were also lower.

Questions:

Carrie Radabaugh, MPP  
Senior Health Policy Analyst  
Division of Workforce & Medical Education Policy  
American Academy of Pediatrics  
cradabaugh@aap.org