Enough for Everyone – Obliged to Cooperate?

Challenges and Opportunities in Pediatric Surgical Training

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Aim of the study

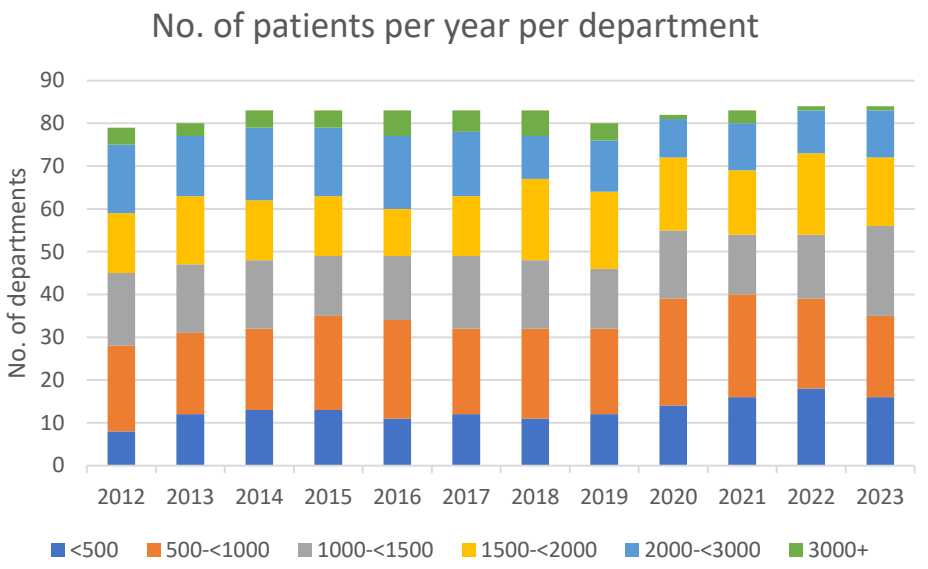
Pediatric surgery is the most diverse surgical specialty in Germany, encompassing general, abdominal, thoracic and plastic surgery, traumatology, urology, and knowledge of neurosurgery and vascular surgery. This study analyzes available structural data to examine how the number of cases and surgical procedures per institution correlates with the number of trainees across different hospital types.

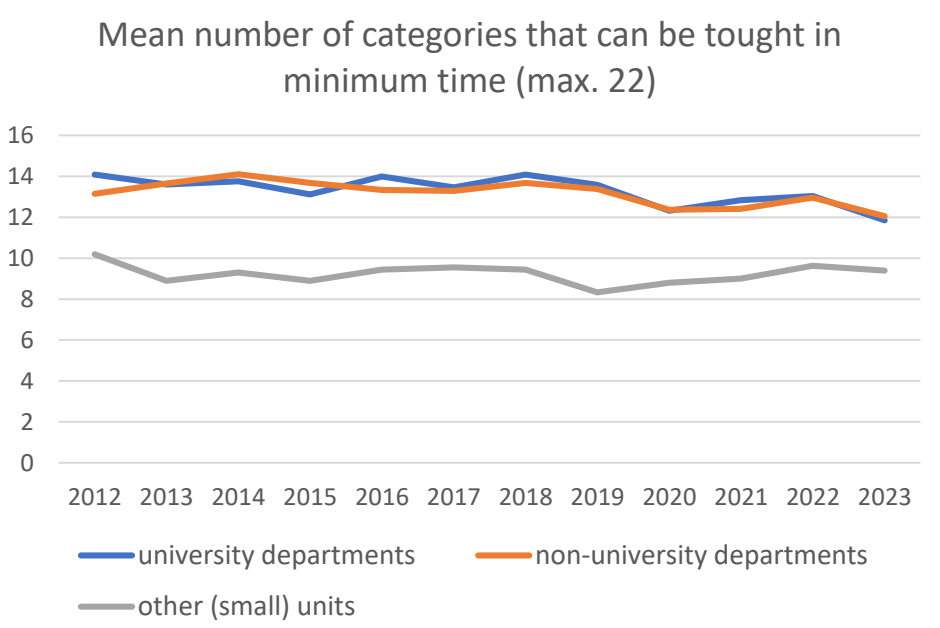
Materials

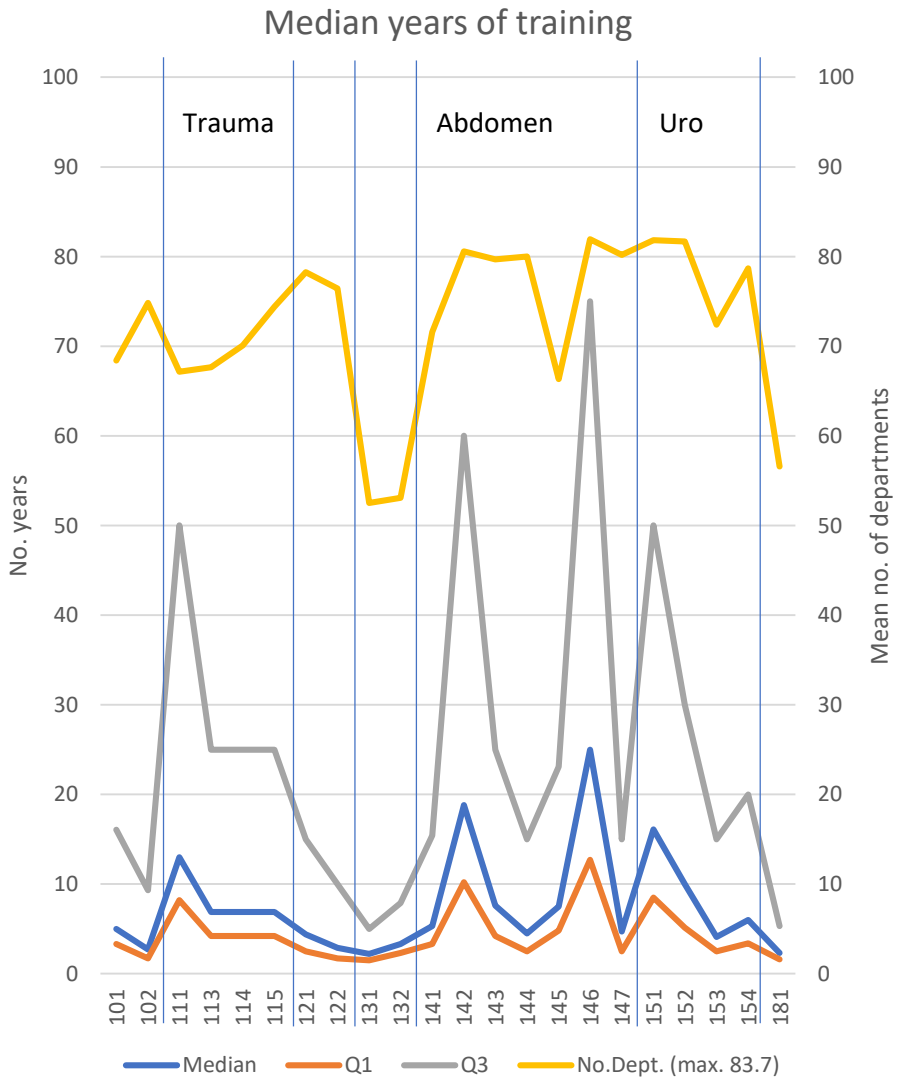
The curriculum defined by the German Medical Association lists 22 procedural categories with target case numbers, which were matched to corresponding OPS codes. Annual hospital quality reports from 2012-2023 were used to analyze the structure of training. Based on the reported case numbers, it was calculated how many years the existing trainees would theoretically need to complete their training if procedures were evenly distributed.

Results

- Mean no. of departments per year: 83.7
- Mean no. of full-time trainees: 4.4 university, 3.9 non univ. dept, 0.6 other units.







No.	Content	Req. No.
101	Esophago-gastro-duodenoscopy	20
102	Rectosigmoidosscopy	10
111	Reduction of fractures	50
113	Osteosynthesis of fractures diaphyseal	25
114	Osteosynthesis of fractures meta/epiphyseal	25
115	Metal implant removal	25
121	Excision of benign tumors, dermoids, ear tags	15
122	Excison of branchial cleft cysts/fistulas, lymph nodes (neck)	10
131	Thoracotomy	10
132	Lung resection, Chest wall	15
141	First assistance cong. Malformations	20
142	Abdominal procedures	60
143	Appendectomy	25
144	Laparotomy as surgical access route	15
145	First assistance in complex laparotomies	30
146	Inguinal hernia	75
147	Hernia of abdominal wall	15
151	Pediatric general urological procedures	50
152	Orchidopexy and funicolysis	30
153	Cystoscopy	15
154	First assistance complex urology	20
181	Insertion of central venous access systems	10

Conclusion

Many training institutions currently lack sufficient procedural volume to provide comprehensive training to all residents within the designated timeframe. Extended training durations due to limited surgical exposure represent a major obstacle and reduce the attractiveness of pediatric surgery as a specialty.