

Combined Procedures During Pediatric Dental General Anesthesia

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BACKGROUND

Children and young adults with special healthcare needs often have complex medical, developmental, or behavioral conditions that make routine dental care unsafe in an outpatient setting, leading to frequent reliance on comprehensive treatment under general anesthesia.

To improve efficiency and limit repeated anesthetic exposures, dental care is commonly combined with other medical or surgical procedures during a single anesthetic event. Although this approach offers clear benefits, it increases procedural complexity, operative time, and the need for close multidisciplinary coordination. Despite its growing use, little is known about how patient complexity and procedural factors influence perioperative outcomes, and the operational challenges, particularly for dental teams, remain poorly characterized.



PROCESS FOR COMBINATION

Dental Evaluation

Patient is assessed and determined to require comprehensive dental care under general anesthesia. Need for additional specialty procedures is identified.

Initial OR Planning

LDA initiates OR scheduling for dental procedure. Identifies required specialty involvement.

Multispecialty Communication

LDA contacts relevant specialty teams (e.g., ENT, imaging, surgery). Ongoing communication to assess availability and procedural needs. Multiple message exchanges to align schedules and confirm participation

Case Coordination & Scheduling

Teams' agreement reached on a shared OR date and time. Coordination with surgical schedulers and OR staff. LDA formally books case.

Family Communication & Preoperative Preparation

LDA contacts family with procedure date and instructions. Preoperative requirements and clearances are confirmed. Final coordination across teams to ensure readiness.

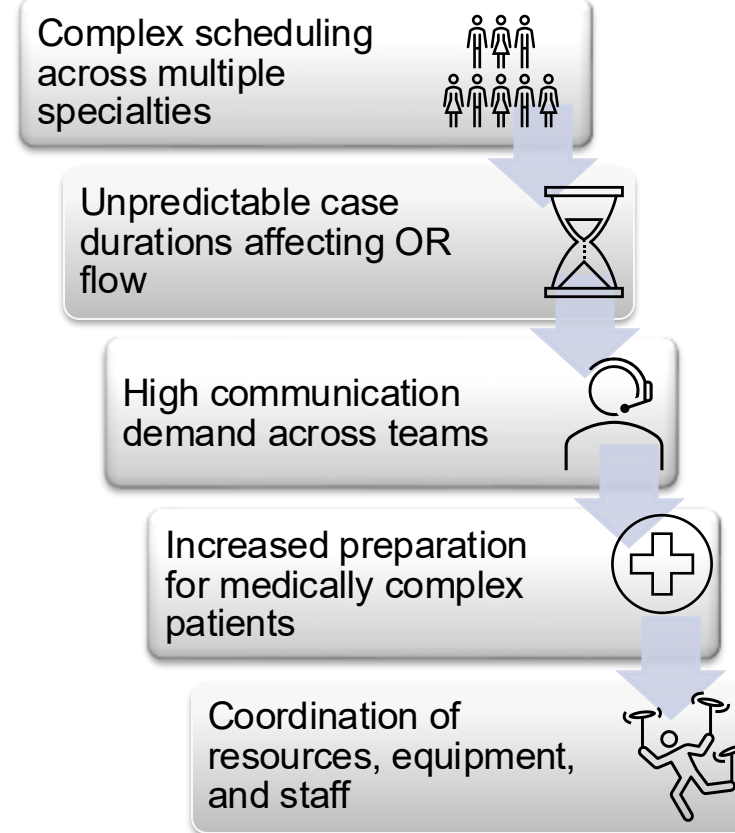
Day of Surgery (OR Execution)

LDA supports case flow and ensures all teams are aligned. Procedures performed in coordinated sequence under one anesthetic

METHODS

A retrospective review of electronic health records was conducted for pediatric and young adult patients with special health care needs who underwent comprehensive dental treatment under general anesthesia between September 2022 and July 2025. Data collected included demographics, medical comorbidities, ASA classification, and procedural details such as type of dental treatment, presence and type of combined procedures, and operative and anesthesia times. Cases were categorized as dental-only or combined procedures involving coordination with additional specialties such as labs, other dental, otolaryngology (including ABR), imaging, or other medical surgical services.

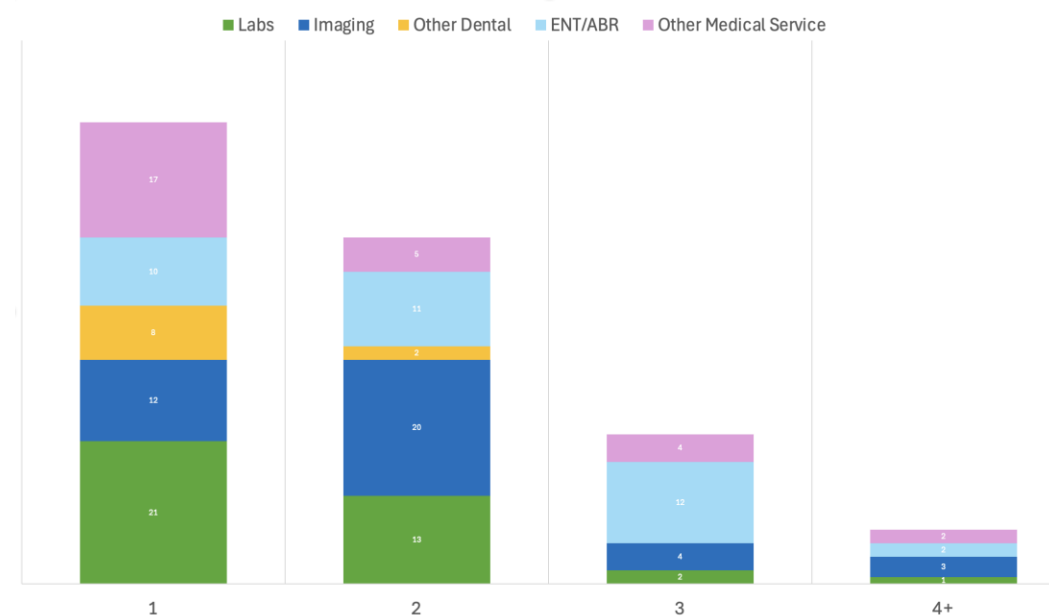
KEY CHALLENGES



DISCUSSION

From the LDA perspective, combined procedures significantly increase coordination demands, requiring communication with multiple specialties, careful scheduling, and close collaboration with OR staff. These cases introduce variability in procedure length and workflow complexity, particularly for medically complex patients. Despite these challenges, coordinated care under a single anesthetic provides substantial benefit, emphasizing the importance of strong interdisciplinary teamwork and efficient workflow planning.

SERVICES TYPES BY NUMBER OF COMBINATIONS



CONCLUSIONS

From the LDA and dental team perspective, successful execution of combined procedures relies heavily on proactive coordination with multiple specialties and close collaboration with OR staff. While these cases increase scheduling complexity and procedural demands, they ultimately improve patient care by minimizing repeated anesthetic events. Our findings support the importance of structured, team-based workflows to safely manage these high-complexity cases.

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