


# The nation's drug overdose epidemic: Helping children and families, patients with pain

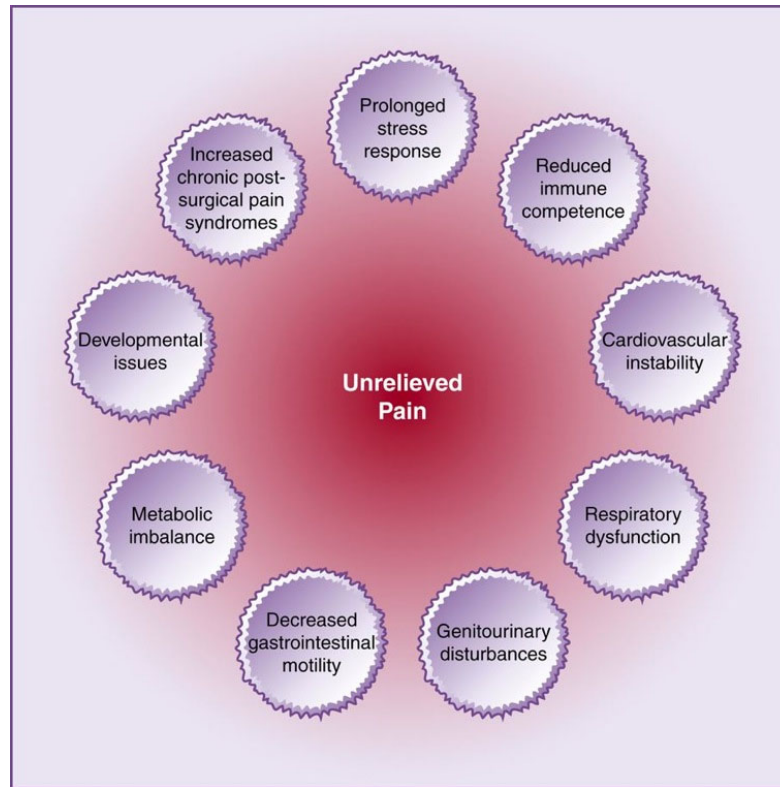
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# Disclosures

- No financial
- Immediate past president of the Society for Pediatric Pain Medicine @pedspainmed., [www.pedspainmed.org](http://www.pedspainmed.org)
- Past Chair: AAP Section on Anesthesiology and Pain Medicine
- AAP Committee on Substance Use Prevention



# Consequences of Untreated Pain

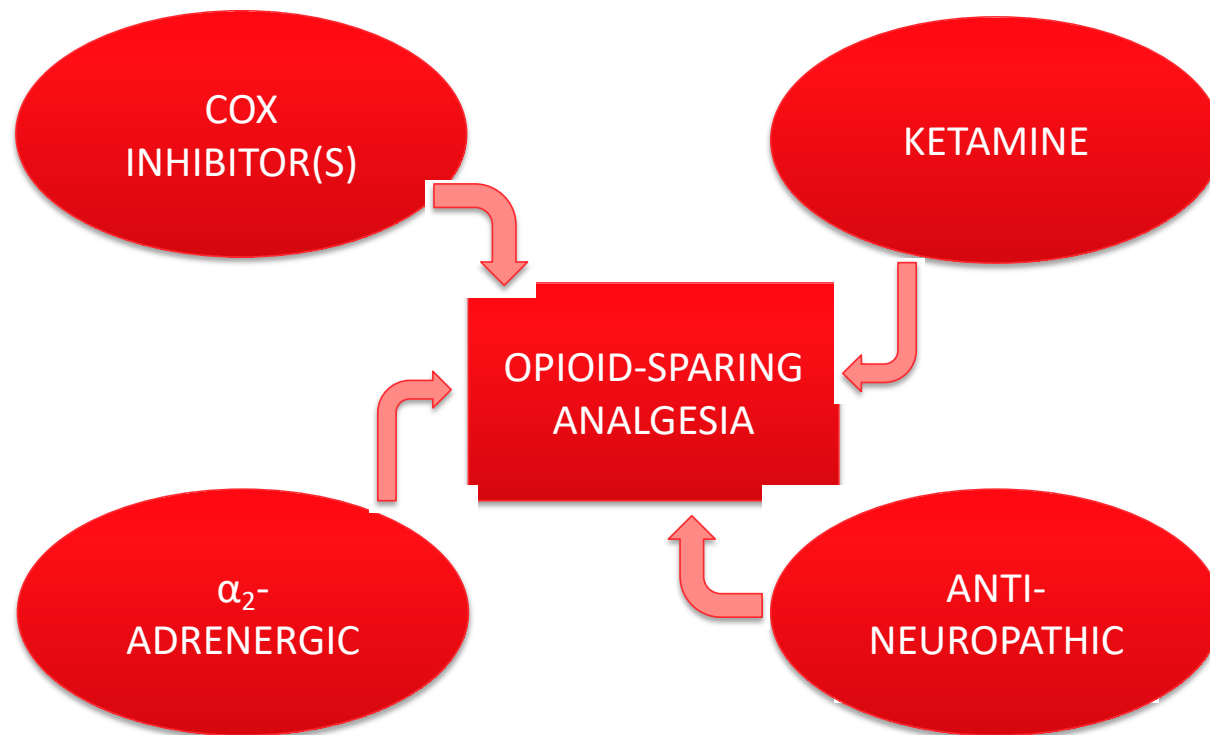


# Opioids

- The mainstay of pain medications
- A variety of routes are available
- A variety of modalities

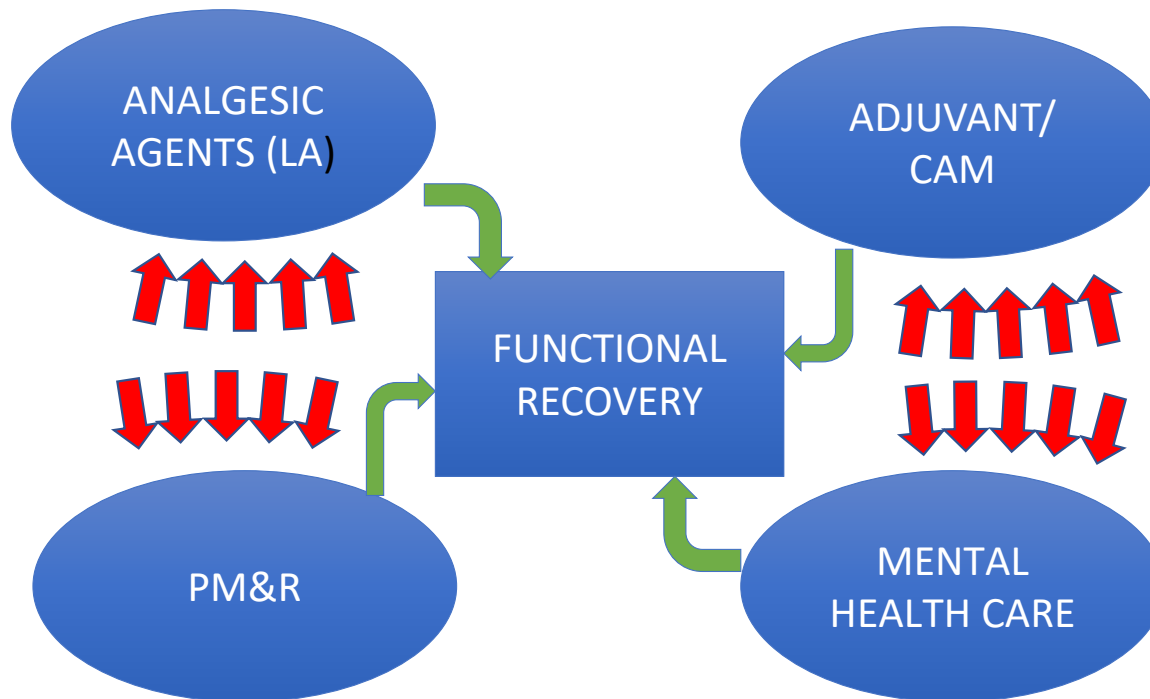


# Multimodal Analgesics



Courtesy of: Stephen Robert Hays, MS, MD, FAAP  
Clinical Professor, Anesthesia & Pediatrics  
University of Iowa Carver College of Medicine

# Multimodal ANALGESIA



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# Non-Opioid Approaches

- NSAIDs COX 2 inhibitors and Acetaminophen
- Clonidine –multiple routes
- Gabapentoids
- Ketamine
- Lidocaine/Local anesthesia
- Distraction-  
VR/storytelling/bubbles/video games
- Biofeedback, self hypnosis, breathing



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# Adjuvant Medications: Ketamine

- NMDA Antagonist
- Dissociate anesthetic
- Multiple routes
- Bolus or continuous infusion
- Potent analgesic and sedative
- Common drug of misuse

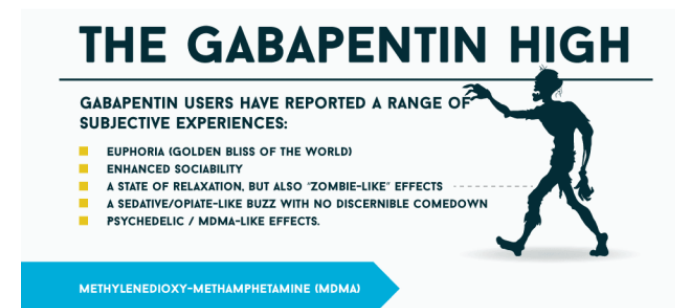


Anesthesiology 9 2010, Vol.113, 678-684.



# Adjuvant Medications: Gabapentin/Pregabalin

- Anticonvulsants
- Calcium channel blocker/influx
- Perioperative-ERAS, multimodal analgesia
- Duration, efficacy ??
- Respiratory Depression
- Can be Abused



# Opioid Prescriptions

- 185 ambulatory surgery patients
- Mean age 9 ( range 0-17)
- Median doses prescribed 12.9 (range 9-20)
- Median 2 doses consumed
- 90% had leftover opioids
- 42% disposed of leftovers



Anesth Analg. 2022 Jan  
1;134(1):133-140

## Opioid Prescribing for the Treatment of Acute Pain in Children on Hospital Discharge.

Monitto, Constance; et.al

Anesthesia & Analgesia. 125(6):2113-2122, December 2017.

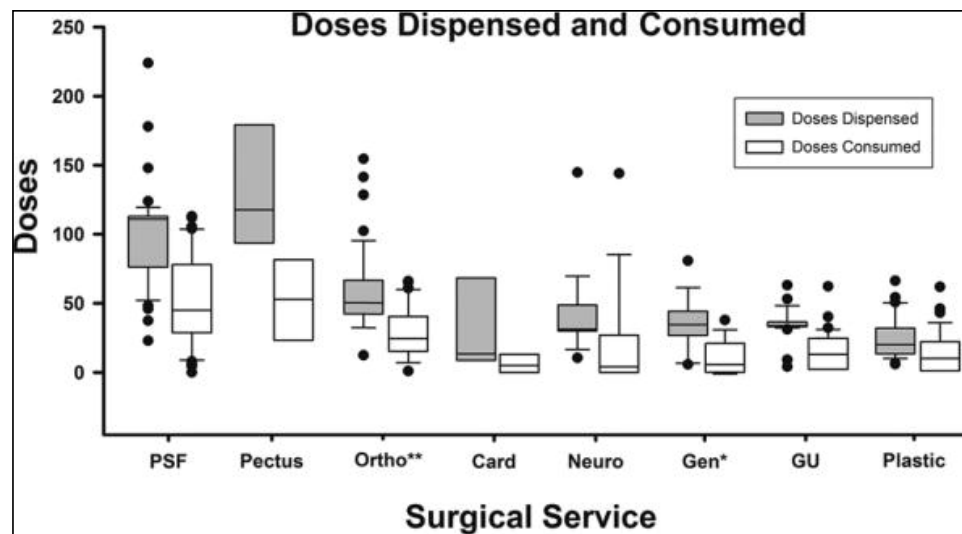
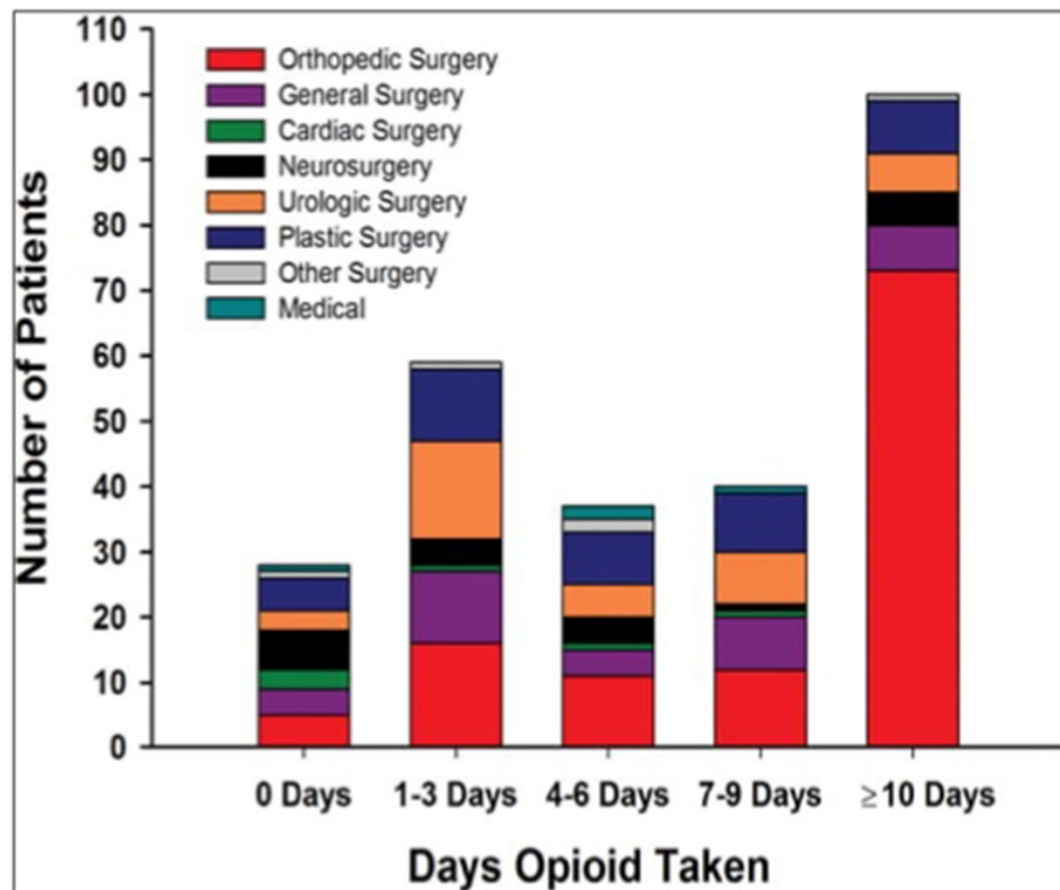


Figure 1 . Doses dispensed and consumed by surgical specialty..

\*General pediatric surgery excluding Nuss procedure. \*\*Orthopedic surgery excluding posterior spinal fusion. Card indicates cardiothoracic surgery; GU, genitourologic surgery; Neuro, neurosurgery; Pectus, Nuss procedure; Plastic, plastic surgery; PSF, posterior spinal fusion.



**Opioid Prescribing for the Treatment of Acute Pain in Children on Hospital Discharge.**

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125(6):2113-2122,  
December 2017.

Figure 2 . Duration of opioid use by specialty. Duration of opioid therapy reported by families after hospital discharge. Data are stratified by primary service.

March 27, 2020

# Association of Opioids Prescribed to Family Members With Opioid Overdose Among Adolescents and Young Adults

Anh P. Nguyen, PhD<sup>1</sup>; Jason M. Glanz, PhD<sup>1,2</sup>; Komal J. Narwaney, PhD<sup>1</sup>; [et al](#)

» [Author Affiliations](#) | [Article Information](#)

*JAMA Netw Open.* 2020;3(3):e201018. doi:10.1001/jamanetworkopen.2020.1018

Association of Opioid Prescriptions and Pharmaceutical Opioid Overdose During Past 3-Month, 6-Month, and 12-Month Exposures

	Past 3 Months aHR (95% CI) <sup>a</sup>	Past 6 Months aHR (95% CI) <sup>a</sup>	Past 12 Months aHR (95% CI) <sup>a</sup>
<b>Opioid Prescriptions</b>			
No Prescription	[Reference]	[Reference]	[Reference]
Prescriptions to Family Members	1.85 (1.11 – 3.11)	1.93 (1.19 – 3.13)	1.74 (1.02 – 2.98)
Prescriptions to Youth	5.86 (3.33 – 10.30)	4.65 (2.69 – 8.04)	3.93 (2.23 – 6.92)
Prescriptions to Youth and Family Members	6.56 (2.87 – 14.99)	3.68 (1.71 – 7.89)	4.46 (2.36 – 8.43)

Abbreviations: aHR = adjusted hazard ratio; CI = confidence interval

## Medicine Safety for Children and Teens: We All Play a Role

**DO NOT** share prescribed medicines with anyone, including family members.

**DO NOT** save prescribed medicines, unless told to do so by your doctor.

**DO** secure all medicines up and out of reach of children and teens.

**DO** make sure children and teens take their medicines correctly.

**DO** follow all the instructions from your doctor or pharmacist.

**DO** talk with your child's doctor if you have any questions.

**DO** get rid of all old or unused medicines.

- Follow the instructions on the medicine label or package insert. Only flush medicines if the label says it is okay to do so.
- If the label doesn't give instructions, look for a "take back program" in your community.
- If instructions and "take back programs" are not available, take the medicine out of the original container and mix it with used coffee grounds, dirt, or kitty litter, and throw in the trash.
- Visit [www.healthychildren.org/medicinesafety](http://www.healthychildren.org/medicinesafety) for details



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Funding for this initiative was made possible in part by grant no. 5U79CE000443-05 from SAMHSA. The views expressed in written or printed educational materials do not necessarily reflect the official policies of the Department of Health and Human Services, nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.

# Conclusion

Children deserve excellent pain management

Multimodal analgesia

Consider local anesthesia or regional anesthesia

Decrease mismatch between prescription and need



# Questions

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