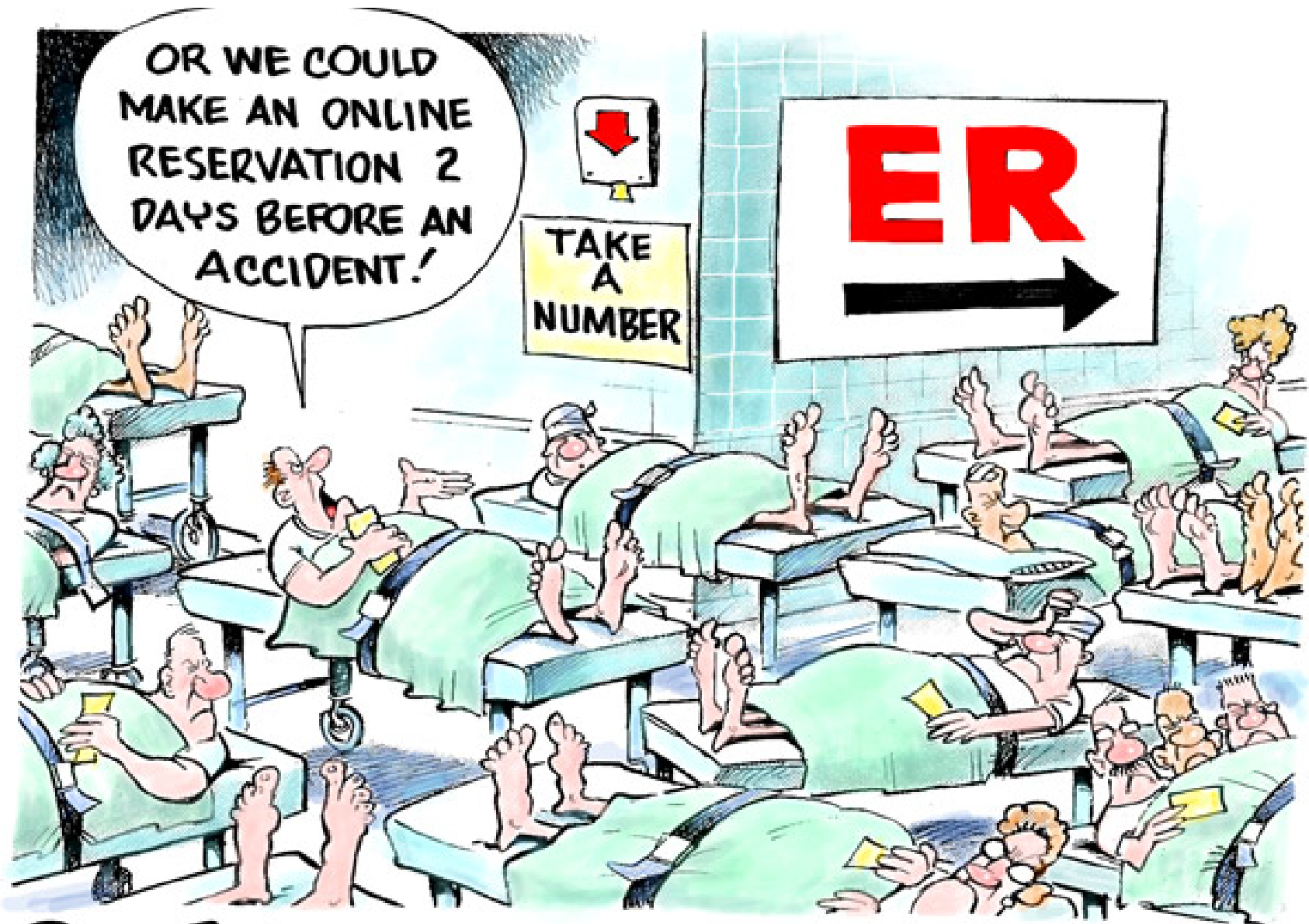


Speed-Update Kinderschmerz Schmerzhafte Eingriffe



Dr. Jörg Thomas und Dr. Georg Staubli
Kinderspital Zürich





Selbstverständlich schon vorgängig erledigt:

- Basisanalgesie + ev. zusätzliche Schmerzmittel
- Ruhigstellung mit Schiene

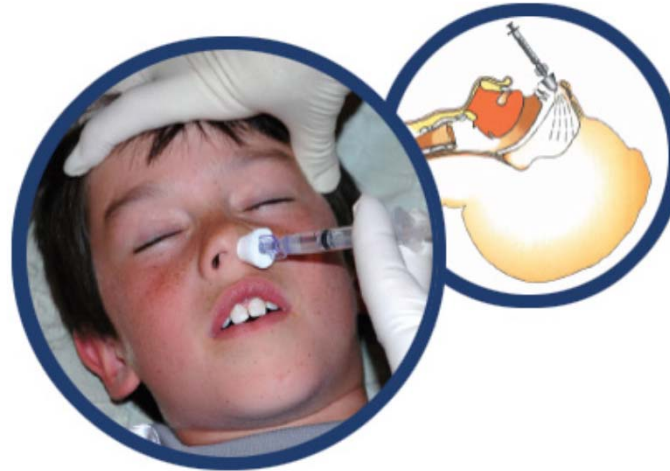
- 1) Indikation stellen
- 2) Priorisierung
- 3) Optionen abwägen
- 4) Patient und Eltern miteinbeziehen

Combining nitrous oxide 70% with intranasal fentanyl for procedural analgesation in children: a prospective, randomised, double-blind, placebo-controlled trial.

Emerg Med J. 2019 Jan 10. Seiler M, Staubli G, Landolt MA

- Combining nitrous oxide 70% with intranasal fentanyl results in no difference with regard to the Face, Leg, Activity, Cry and Consolability scale score.
- This combination does not lead to a lower self-reported pain or lower Modified Behavioural Pain Scale score

Fentanyl intranasal



Fentanyl 1,5 ug/kg KG intranasal
(i.v. Lösung)

Combinend nitrous oxide 70% with intranasal fentanyl for procedural analgesedation in children: a prospective, randomised, double-blind, placebo-controlled trial.

Emerg Med J. 2019 Jan 10. Seiler M, Staubli G, Landolt MA

- 402 Kinder in der Studie
- 3 Kinder tolerierten das Lachgas nicht!
- Es braucht immer einen Plan B!

Effect of Intranasal Ketamine vs Fentanyl on Pain Reduction for Extremity Injuries in Children

Theresa M. Frey, MD; Todd A. Florin, MD, MSCE; Michelle Caruso, PharmD, BCPS; Nanhua Zhang, PhD; Yin Zhang, MS; Matthew R. Mittiga, MD

JAMA Pediatrics February 2019 Volume 173, Number 2

CONCLUSIONS AND RELEVANCE: Ketamine provides effective analgesia that is noninferior to fentanyl, although participants who received **ketamine had an increase in adverse events** that were minor and transient.....

Ketamine should be considered for pediatric pain management in the emergency setting, especially when opioids are associated with increased risk.

Ketamine procedural analgosedation before and after introducing nitrous oxide 70% in a paediatric emergency department

M. Seiler, G. Staubli. Swiss Med Wkly. 2019;149:w20027

The rate of ketamine procedural analgosedation use shifted to N₂O , especially in children older than three years and in the patient group with displaced upper extremity fractures. **However, in children younger than three years** and for interventions like wound suturing and debridement, ketamine PAS was chosen most frequently.

Analgesie/Analgo-sedation



Lokalanästhesie

- Wundgel
- (Injektion Lokalanästhesie)



Regionalanästhesie



Inhalative Analgo-sedation



Vollnarkose

- Ketamin
- Intubationsnarkose

