

AMBULATORY SURGERY UNIT UZ GENT

Day Care Surgery
what the patient wants !!!

Dr. M. COPPENS



Patient satisfaction following day surgery

- Postoperative pain control
- Waiting time for surgery
- Patient changing room conditions
- Clinical outcome
- Clinical information
- Postdischarge pain control

Waiting times

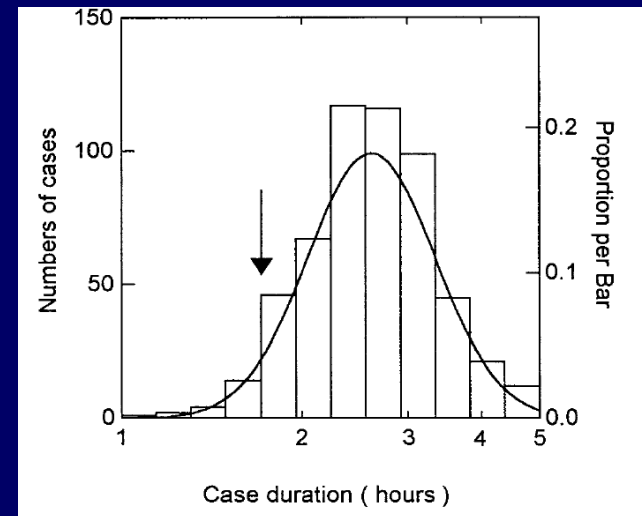
- Access time: as short as possible
- Waiting time: time between scheduled start of operation and actual start
- Minimal throughput time

Patient focused

Competition between care facilities

When should the ambulatory patient be admitted ?

- Traditional view: 'day' surgery: all patients are admitted at 7 AM
- Patient centered view: patient arrives a fixed number of hours before the scheduled end of the preceding case
- Statistical methods



Fixed operating list

- Well planned in advance: minimal changes !!!
- When mixed: ambulatory surgery patients first
 - No forced/premature discharge
 - Minimal postop complications
 - Minimal unanticipated admission

Transport of patients

- Longer 'throughput times'
- Longer discharge times
 - Surgeon not available
 - Day Surgery Center \neq Ward

Factors delaying discharge from ambulatory surgery unit

- Preoperative: female gender, increasing age, CHF
- Intraoperative: Long duration of surgery (>90 min = 10% severe pain, >120 min = 20% severe pain) , general, spinal anesthesia
- Postoperative: pain, PONV, drowsiness, no escort, phase 2 nurse, availability of surgeon

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Unanticipated hospital admission rate

- Monitor quality control
- Feedback for determining the appropriate blend of procedures or patient types

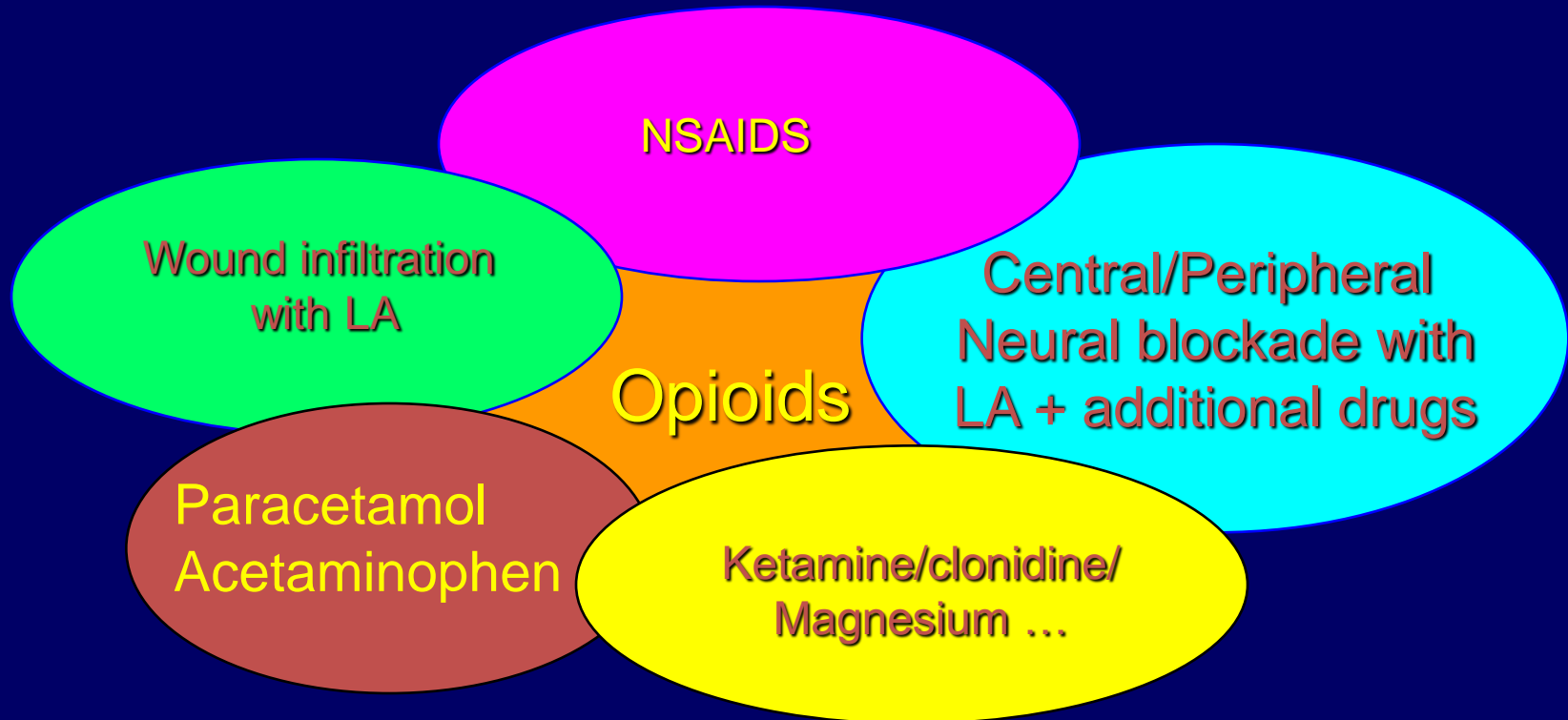
0.1 % - 9.5 %

Preoperative anesthetic visit. Send your patient to the anesthesiologist !!!!

Perioperative medicine

- The anaesthetist is more engaging in perioperative medicine
- Preoperative assessment
 - Medical and social criteria
- During surgery: prevention pain, PONV
- Postoperative analgesia
 - Pharmacology
 - Medical history

Multimodal analgesia for postoperative pain control



„Multimodal analgesia for postoperative pain control“

Jin F: J Clin Anaesth 2001, 13, 524-539

„Anaesthesia, surgery, and challenges in postoperative recovery“

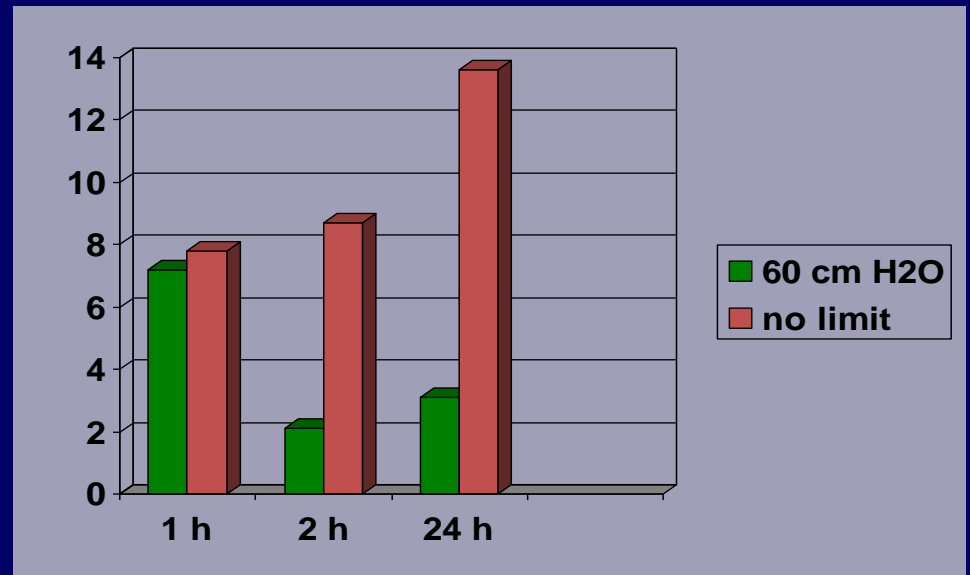
Kehlet H et al. Lancet 2003, 362, 1921-28

Perioperative dexamethasone: impact on postoperative analgesia

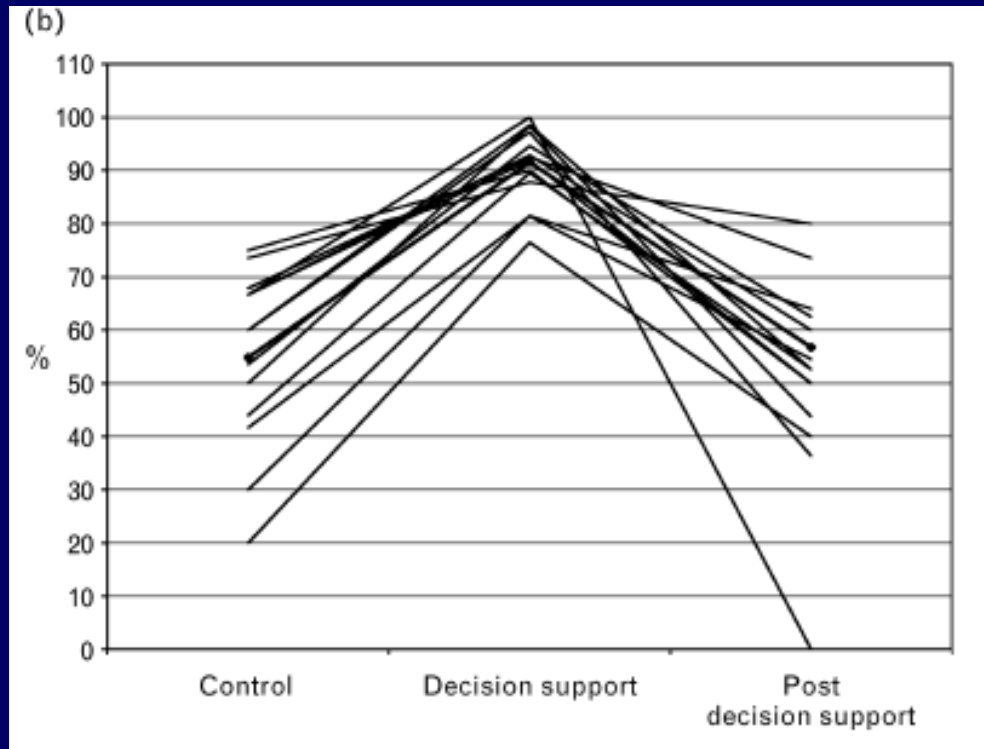
- Lower pain scores at 2h and 24 h
- Less opioid use at 2h and 24h
- Longer time to first analgesic dose
- Shorter stay in PACU
- No increase in infection, delayed wound healing
- Higher glucose levels
- More perineal pruritus when pre-induction

Measuring cuff pressure in LMA

- Reduced incidence of sore throat 13.4 % vs 45.6%
 - Sore throat
 - Swallowing problem
 - Dysfonia
- Relative risk reduction 70.6%
- NNT 3



Reminder: granisetron for high risk PONV



Kooij. Automated reminders increase adherence to guidelines.
Eur J Anaesth 2010

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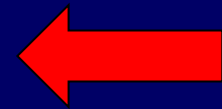
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Be flexible to reschedule patients between days of the week.

Fasting recommendations for healthy patients undergoing elective procedures.

<u>Ingested material</u>	<u>Minimal Fasting Period</u> (applied to all ages)
Clear liquids (water, fruit juices without pulp, carbonated beverages, clear tea, black coffee)	2 hours
Breast milk	4 hours
Infant formula	6 hours
Non-human milk	6 hours
Light meal (toast and clear liquids)	6 hours

- Adults and children should be encouraged to drink clear fluids up to 2h before surgery (including caesarean section)
 - Water, pulp-free juice, tea, coffee without milk
 - Milk added up to about one fifth of total V = clear
- Patients should not have their operation delayed just because they are chewing gum, sucking a boiled sweet, smoking prior to induction
- Obesity, gastro-oesophageal reflux, diabetes, pregnant women not in labour: same guidelines



Overnight fasting

- Dehydration: - 1 liter: thirst, drowsiness, dizziness
- Compensation: less dizziness, reduction in PONV, more patients discharged same day
- Allowing fluids up to 2 hrs before surgery
- Postoperative insulin resistance: preoperative fluid and carbohydrates !

Clear fluids preoperatively

No differences in gastric volume or lower gastric pH values in children permitted clear fluids vs fasted children

Cochrane, 2009

Fast track criteria for Pacu bypass

White, J. Clin. Anesth.,11,1998

- Level of consciousness 0-1-2
- Physical activity 0-1-2
- Hemodynamic stability 0-1-2
- Oxygen saturation status 0-1-2
- Postoperative pain assessment 0-1-2
- Postoperative emetic symptoms 0-1-2
- Respiratory stability 0-1-2

Score \geq 12 required for bypass (or transport)

Post Anesthesia Discharge Scoring System

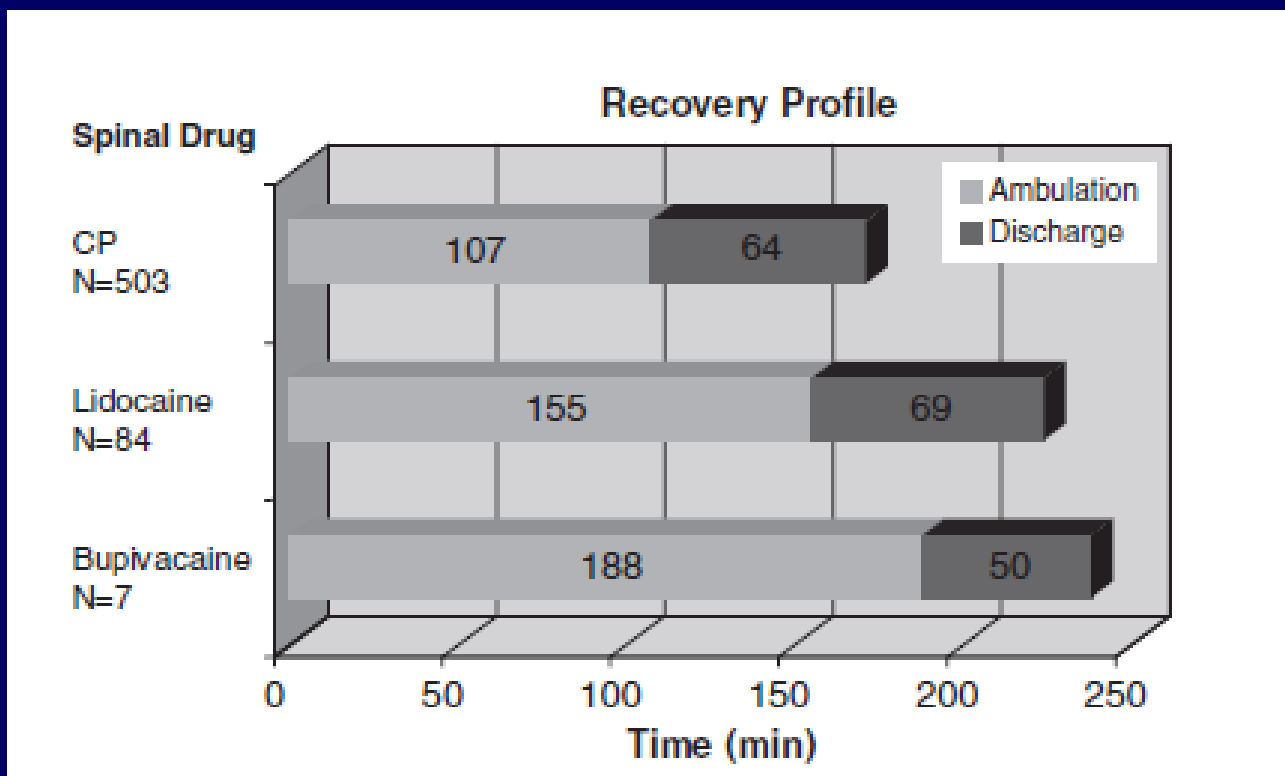
- Vital signs 0-1-2
- Ambulation and mental status 0-1-2
- Nausea and vomiting 0-1-2
- Pain 0-1-2
- Surgical bleeding 0-1-2

Patients scoring 9 or 10 are considered fit for discharge with escort

Mandatory oral intake

- Oral intake of fluids is no longer a prerequisite prior to discharge home
- Schreiner et al; children
 - Mandatory ‘drinkers’: more vomiting
 - Elective ‘drinkers’
- Kearny et al;
 - Drinking
 - No drinking for 6 hours: less vomiting
 - > no drinking and no fluids: less vomiting

Chloroprocaine



Outpatient surgery performed in an ASC versus hospital: shorter perioperative time intervals

Table 2 Perioperative time intervals

Time interval	ASC (n = 92)	Hospital (n = 92)	Mean change, ASC vs hospital (min)	P
Preoperative time (min)*	75 ± 34.3 (14-186)	130 ± 56.9 (35-293)	-55	<.001
OR entry to incision time (min)	26 ± 5.7 (16-41)	32 ± 9.1 (11-92)	-7	<.001
Incision to closure time (min)†	120 ± 33.8 (52-248)	117 ± 32.7 (53-194)	+3	.42
Closure to OR exit time (min)	6 ± 2.8 (1-10)	6 ± 4.3 (1-15)	0	.17
PACU time (min)	112 ± 36.1 (62-258)	121 ± 49.9 (25-280)	-9	.16
Total time, holding area entrance to exit from PACU (min)‡	343 ± 63.9 (209-596)	412 ± 87.2 (251-658)	-69	<.001

Data are expressed as mean ± SD (range).

*Time from entrance into the holding area to entrance into the operating room.

†Surgical time or time to perform the operation.

‡Total time also includes time for transport from operating room to PACU, typically about 1 minute.

Outpatient treatment suite: a safe and cost-effective venue to perform myringotomy and tubes placement in children

Table 3 A comparison of three different operating venues for myringotomy and tubes (time is represented in minutes)

	Outpatient treatment suite	Surgery center	Main OR
Patient attire	Street clothes and shoes	Hospital gown	Hospital gown
Arrival times before procedure	15–30	60	90–120
Time between cases	6–8	15–20	30–40
Time until reunited with family after procedure	1–2	15–20	15–20
Time in recovery room	5–6	90–120	90–120
Time from procedure to discharge	20–30	120	120
Total time spent at the hospital	90–120	240–300	300–360

Dedicated facilities

- Day care center
- Preoperative anesthetic clinic
- Operating room facilities
- Ambulatory surgery unit as a 'service-company'
 - Optimal medical treatment
 - High quality service for doctor and patient

Service management becomes more important

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Happy patient

Reduced overtime cost

Increased staff morale