



# Fast-track anesthesia: faut-il encore une salle de réveil?

Dr Jean-Luc Demeere  
Congrès AFISO  
22 mars 2013

## Agenda

- **1. Introduction**
- 2. Définition
- 3. Fast track anesthesia
- 4. Salle de réveil ou PACU-SI?
- 5. Conclusion

## FAST TRACK

- Pubmed:
  - Fast Track anesthesia : 340 articles
  - Fast Track PACU: 22 articles
  - Fast Track surgery: 971 articles
  - Fast Track: 2420 articles

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- 1. Introduction
- **2. Définition**
- 3. Fast track anesthesia
- 4. Salle de réveil ou PACU?
- 5. Conclusion

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## Définition

- **Fast Track** is an informal English phrase meaning "the quickest and most direct route to achievement of a goal", as in competing for professional advancement. By definition, it implies that a less direct, slower route also exists.(wikipédia)

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[Ann Fr Anesth Reanim](#), 2010 Oct;29(10):716-9. ...

[Fast-tracking and regional anaesthesia: preliminary feasibility study].

[Bloc S](#), [Mercadal L](#), [Cuny P](#), [Renault F](#), [Dessieux T](#), [Garnier T](#), [Komly B](#), [Leclerc P](#), [Morel B](#), [Dhonneur G](#), [Ecoffey C](#).

- The monitoring in the post-anaesthesia care unit (PACU) improves the safety, the comfort and the analgesia of patients. **At present, studies suggest the possibility to bypass the PACU according to the principle of fast-tracking (FT).** The aim of this study was to evaluate the feasibility and the safety of a simulated protocol of FT after a regional anaesthesia.
- Regional anaesthesia seems to be an appropriate principle to fast-track the PACU. **It could be a way to reduce health care costs, and can offer solution for the PACU congestion problem.** In France, the fast-tracking is a marginal concept without any support regulatory. An evolution to such a practice could be considered

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[Rev Med Suisse](#), 2012 Oct 24;8(359):2011-2, 2014.  
[Fast track in gynecological surgery].  
[Brossard P](#), [Jaton C](#), [Petignat P](#), [Rehberg-Klug B](#)

- The concept of **fast track surgery (FT) is a multimodal strategy** aiming to decrease postoperative pains and chirurgical stress-induced organ dysfunction. The key elements of this program are: information and preoperative education, perioperative hydric balance, optimized analgesia, early oral nutrition and early mobilization of the patients. A multidisciplinary teamwork is essential. **FT program is applicable in open surgery and in laparoscopy** and has proven its effectiveness in colorectal surgery.

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[J Perianesth Nurs](#), 2003 Aug;18(4):247-53.  
PACU fast-tracking: an alternative to "bypassing" the PACU for facilitating the recovery process after ambulatory surgery.  
[White PF](#), [Rawal S](#), [Nguyen J](#), [Watkins A](#).

- This retrospective evaluation **assessed the impact of discharging outpatients home directly from the PACU as an alternative to "PACU bypassing."** A total of 1,380 outpatients who had undergone minor ambulatory procedures were evaluated.
- We conclude that this pilot program demonstrates the feasibility of discharging patients home from the PACU. **Only 12% of the outpatients who were admitted to the PACU fast-track area failed to be discharged within 60 minutes.** The overall times to discharge from the PACU fast-track area compared favorably to discharge times for outpatients bypassing the PACU. This program provides nurses with an alternative recovery pathway for fast-tracking patients after ambulatory surgery

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[Expert Opin Pharmacother](#). 2008 Jun;9(9):1541-64. doi: 10.1517/14656566.9.9.1541 .

**Pharmacological interventions and concepts of fast-track perioperative medical care for enhanced recovery programs.**

[Kranke P](#), [Redel A](#), [Schuster F](#), [Muellenbach B](#), [Eberhart LH](#)

- **METHODS:**
- A literature review of about 160 peer-reviewed publications provides the basis for this review of pharmacological interventions for optimizing recovery following anesthesia.
- **RESULTS:**
- The choice of anesthetic technique and pharmacological agents should be tailored to the needs of the patient as well as the type of procedure being performed as fast-track surgery. The universally applicable goals valid for every class of intervention are that they should be easy to use, have minimal side effects, maintain homeostasis, allow for a predictable on- and offset, and give minimal impairment of recovery and function.
- **CONCLUSIONS:**
- **The pivotal role played by the anesthesiologist in facilitating the recovery process** following surgical procedures has assumed increased importance in the concept of enhanced recovery programs. **Although the interdisciplinary approach common to all parties involved (surgeons, anesthesiologists, nurses, physiotherapists) is the true enabler of fast-track surgery**, the choice of anesthetic drugs and concomitant medication can all influence the ability to fast-track patients after surgery and should therefore be considered mandatory in fast-track programs.

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## Résumé

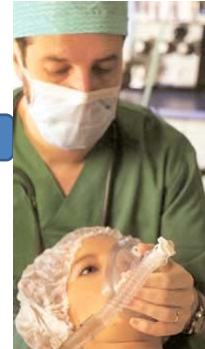
- 1. Fast track: voie rapide
- 2. Fast track anaesthesia: bypass de la salle de réveil
- 3. Fast track anaesthesia en chirurgie de jour, séjour de maximum 60 min en salle de réveil puis retour à domicile.
- 4. Phénomène marginal en France mais à implémenter avec des avantages économiques.
- 5. Applicable à la chirurgie de jour, aux hospitalisés, pour les AG, les laparoscopies - et tomes et pour les ALR
- 6. Rôle pivot de l'anesthésiste, mais travail d'équipe

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[Curr Opin Anaesthesiol.](#) 2007 Dec;20(6):545-57.  
Fast-track anesthetic techniques for ambulatory surgery.  
[White PF, Eng M.](#)

- A literature review of more than 200 peer-reviewed publications was used to develop evidence-based recommendations for optimizing recovery following ambulatory anesthesia. The choice of anesthetic technique should be tailored to the needs of the patient as well as the type of surgical procedure being performed in the ambulatory setting. The anesthetic decisions made by the anesthesiologist, as a key perioperative physician, are of critical importance in developing a successful fast-track ambulatory surgery program.
- **SUMMARY:**
- The pivotal role played by **the anesthesiologist as the key perioperative physician in facilitating the recovery process** has assumed increased importance in the current outpatient fast-track recovery environment. **The choice of premedication, anesthetic, analgesic and antiemetic drugs, as well as cardiovascular, hormonal and fluid therapies, can all influence the ability to fast-track outpatients after ambulatory surgery**

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The Role of the Anesthesiologist in Fast-Track Surgery: From Multimodal Analgesia to Perioperative Medical Care  
[Paul F. White](#), PhD, MD\*, [Henrik Kehlet](#), MD, PhD†, [Joseph M. Neal](#), MD‡, [Thomas Schrickler](#), MD, PhD§, [Daniel B. Carr](#), MD||¶,  
[Franco Carli](#), MD, MPhil§ and the Fast-Track Surgery Study Group. Anesth Analg 2007

- **PREOPERATIVE ISSUES:**

- Benzodiazepines: midazolam 20 µg/kg
  - Preanesthetic medication is given primarily to provide sedation, reduce anxiety, optimize intraoperative hemodynamic stability, and decrease postoperative side effects (5). Benzodiazepines remain the most commonly used premedications because even small doses of these compounds (e.g., midazolam 20 µg/kg IV) can improve the perioperative fast-tracking process by reducing anxiety and anxiety-related complications, as well as improving patient comfort and satisfaction
- α<sub>2</sub> agonists

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[Franco Carli](#), MD, MPhil§ and the Fast-Track Surgery Study Group. Anesth Analg 2007

- **PREOPERATIVE ISSUES:**

- α<sub>2</sub>: Premedication with the α<sub>2</sub>-agonist clonidine or dexmedetomidine has been associated with a reduction in the use of opioid analgesics, postoperative nausea and vomiting (PONV), and intraoperative blood loss (10–12). IV clonidine combined with epidural clonidine improves analgesia and shortens the duration of paralytic ileus after colorectal procedures (13). The inhibitory effects of these α<sub>2</sub>-agonists on the sympathoadrenergic and hypothalamo-pituitary stress response (14) facilitate glycemic control in type-2 diabetic patients (15) and reduce myocardial ischemia after surgery (16).

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- **β-blockers** (e.g., atenolol) suppress surgery-induced increases in circulating catecholamines, and prevent untoward perioperative cardiovascular events in elderly patients undergoing noncardiac surgery (7). Evidence suggests that β-blockers are most effective in reducing cardiac events in surgical patients with preexisting coronary artery disease (17,18). Perioperative β-blockade improved hemodynamic stability during emergence from anesthesia and in the early postoperative period. The anesthetic and analgesic-sparing effects of β-blockers also lead to a faster emergence from anesthesia and reduce postoperative side effects (e.g., PONV). The anticatabolic properties of β-blockers may also facilitate the resumption of normal activities after major surgery procedures. In critically ill patients, β-blocker therapy combined with total parenteral nutrition can establish a positive protein balance (19)

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- **Hydration Status**
  - Elective surgery has traditionally been performed after an overnight fast to ensure an empty stomach and minimize the risk of aspiration during the perioperative period. However, many studies have demonstrated that avoiding fasting-induced dehydration (e.g., allowing oral intake of clear liquids up to 2–3 h before surgery and IV hydration before induction of anesthesia) is both safe and effective in reducing postoperative side effects (20–23). Liberal (versus restrictive) fluid administration during laparoscopic surgery also leads to improved patient outcomes (24,25). One study recommended that even obese patients without comorbid conditions should be allowed to drink clear liquids until 2 h before elective surgery procedures (21).

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## • Hydration Status

- Perioperative hydration includes correction of preoperative dehydration due to fasting, bowel preparation, and underlying disease, replacement of blood loss, and administration of maintenance fluids ([30,31](#))
- Four aspects of perioperative fluid resuscitation appear to be relevant for improving surgical outcome: 1) fluid volume, 2) fluid composition, 3) type of surgery, and 4) hemodynamic goals
- **strategies, which avoid both hypovolemia and excessive intravascular volume postoperatively, are important in facilitating the fast-track recovery process** ([31](#)).

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[Franco Carli](#), MD, MPhil§ and the Fast-Track Surgery Study Group. Anesth Analg 2007

## • Glycemic Control

- Recent evidence suggests that even moderate increases in blood glucose are associated with adverse outcomes, particularly in patients with cardiovascular, infectious, and neurological diseases
- Use of glucocorticoid steroids as part of a fast-track anesthetic technique may lead to transient postoperative hyperglycemia in at-risk surgery populations

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## • Temperature Control

- Perioperative **hypothermia** can have a wide range of detrimental effects, which may include **increased rates of wound infection, morbid cardiac events, blood loss, and even prolong the hospital stay (51–54)**.
- Studies suggest that maintaining normothermia during surgery may provide significant benefits for surgical patients by reducing postoperative morbidity (55).
- Hypothermia can be reduced by using forced-air warming blankets, and warming irrigation and IV fluids. In addition, **warmed and humidified** insufflation gases may **decrease postoperative pain and the need for opioid analgesics and antiemetic therapy after laparoscopic surgery (56)**.

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## • Local Anesthesia

- Infiltration of local anesthetics around a surgical incision should be **a component of all “balanced” fast-track anesthetic techniques (57,58)**.
- Local infiltration anesthesia alone provides adequate analgesia for superficial procedures (e.g., inguinal herniorrhaphy, breast and anorectal surgery, shoulder and knee arthroscopy), and is probably vastly under-utilized

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[Franco Carli](#), MD, MPhil§ and the Fast-Track Surgery Study Group. Anesth Analg 2007

- **Local Anesthesia**

- When used as the primary anesthetic technique, local anesthesia facilitates postanesthesia care unit bypass, thereby reducing recovery costs

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[Rev Med Liege](#). 2012 Feb;67(2):81-4.

[Proven and expected benefits of intravenous lidocaine administered during the perioperative period]

[Giudice V](#), [Lauwick S](#), [Kaba A](#), [Joris J](#) •

- Local anesthetics which inhibit sodium channels are used for neural blockade during infiltration and locoregional anesthesia. Furthermore **lidocaine given intravenously** acts on other cellular systems and produces multiple properties, some of which are beneficial during the perioperative period. Indeed, intravenous **lidocaine is analgesic, antihyperalgesic, antiinflammatory, and improves the recovery of bowel function after abdominal surgery**. As a consequence, lidocaine has been added to postoperative analgesic strategies. This article reviews clinically relevant properties of intravenous lidocaine. Its future perspectives for the prevention of chronicisation of postoperative pain, facilitation of postoperative fast track programs, and prevention of tumoral recurrence are also discussed

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- **Regional Anesthesia**

- IV regional anesthesia, peripheral nerve blocks, and “mini-dose” neuraxial blocks are the most **popular regional anesthetic techniques used for fast-track surgery**
- However, use of **continuous perineural** catheters to administer local anesthetics can improve pain control and expedite hospital discharge after painful upper (82) and lower extremity (83) surgical procedures. In addition, the local analgesia can be continued at home after discharge (84). These beneficial findings were confirmed in a recent multicenter trial which used patient-controlled perineural local analgesia as an alternative to IV patient-controlled analgesia (PCA) with morphine (85). **A recent metaanalysis confirmed the advantages of a peripheral catheter surgtechnique over a parenteral opioid-based analgesic technique for extremity ery (86).**

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- **Regional Anesthesia (spinal-peri)**

- When central neuroaxis block techniques as a part of a fast-track regimen, it is important to select the **most appropriate local anesthetic and adjuvant combination to avoid prolonged anesthetic effects** that negatively impact on readiness for **discharge...the prolonged time to micturition ...pruritus, nausea**

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[Franco Carli](#), MD, MPhil§ and the Fast-Track Surgery Study Group. Anesth Analg 2007

- **Regional Anesthesia**
  - **Thoracic epidural analgesia** with a local anesthetic can **reduce ileus and lead to a faster discharge after colonic surgery** when combined with multimodal analgesic techniques
  - **Although epidural analgesia *per se* minimally impacts fast-track surgery**, as a component of multimodal management strategy it can provide superior analgesia and physiologic advantages that facilitate attainment of clinical pathway goals after major surgery

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- **Monitored Anesthesia Care (sédation)**
  - MAC techniques commonly involve the use of **local anesthetic infiltration and/or peripheral nerve blocks** using a mixture of lidocaine (2%) and bupivacaine (0.5%) or ropivacaine (0.5%) in combination with small doses of midazolam (1–3 mg IV) and a variable-rate propofol infusion (25–100  $\mu\text{g} \cdot \text{kg}^{-1} \cdot \text{min}^{-1}$ ) ([115](#)). Increasingly, dexmedetomidine (0.5–1  $\mu\text{g}/\text{kg}$ ) ([116](#)) and ketamine (75–150  $\mu\text{g}/\text{kg}$ ) ([117](#)) are being used as alternatives to opioid analgesics like fentanyl (0.5–1  $\mu\text{g}/\text{kg}$ ) ([118](#)) or remifentanyl (0.25–0.5  $\mu\text{g}/\text{kg}$  boluses or 0.025–0.05  $\mu\text{g} \cdot \text{kg}^{-1} \cdot \text{min}^{-1}$  infusion)
  - **Respiratory depression due to over sedation and a lack of vigilance is the leading cause of serious patient injuries during MAC ([64](#)).**

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## • General Anesthesia

- **Propofol**, 1.5–2.5 mg/kg, is clearly the IV induction drug of choice for fast-track anesthesia ([120](#)).
- The less-soluble volatile anesthetics, **desflurane (3%–6%) and sevoflurane (0.75%–1.5%)**, appear to offer advantages over propofol and isoflurane for maintenance of general anesthesia with respect to facilitating the early recovery process ([121–124](#)).
- **Nitrous oxide (50%–70%)** remains a popular adjuvant during the maintenance period because of its anesthetic and analgesic-sparing effects, low cost, and favorable pharmacokinetic profile ([125](#)).
- However, **remifentanyl infusion** ( $0.05\text{--}0.20\ \mu\text{g} \cdot \text{kg}^{-1} \cdot \text{min}^{-1}$ ) is an increasingly popular alternative to nitrous oxide as an adjuvant to the less-soluble volatile anesthetics ([126,127](#)).

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## • General Anesthesia

- **Whenever possible, a laryngeal mask** airway should be used as an alternative to a tracheal tube ([131](#)).
- If tracheal intubation is required, short (e.g., succinylcholine, mivacurium) ([132](#)) or intermediate-acting (e.g., cisatracurium, vecuronium, rocuronium) neuromuscular blocking drugs should be used ([133](#)).

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- [Anesth Analg](#). 2013 Mar;116(3):541-8. 2013 Feb 11.
- **The impact of bispectral index versus end-tidal anesthetic concentration-guided anesthesia on time to tracheal extubation in fast-track cardiac surgery**
- Compared with management based on **ETAC**, **anesthetic management based on BIS guidance** does not strongly increase the probability of earlier tracheal extubation in patients undergoing fast-track cardiac surgery. The decision to extubate the trachea is more influenced by patient characteristics and perioperative course than the assignment to BIS or ETAC monitoring.

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- **General Anesthesia**
  - For patients receiving volatile anesthetics, the **most cost-effective antiemetic prophylaxis** technique consists of a combination
    - of low-dose **droperidol** (0.625–1.25 mg IV)
    - **dexamethasone** (4–8 mg IV) ([137,138](#)), methylprednisolone (125 mg IV) ([139](#)).
    - If the patient is at increased risk for developing PONV, a **5-HT<sub>3</sub> antagonist** should also be added as part of a multimodal antiemetic regimen ([140](#)).

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The NEW ENGLAND  
JOURNAL of MEDICINE

ESTABLISHED IN 1812 JUNE 10, 2004 VOL. 350 NO. 24

A Factorial Trial of Six Interventions for the Prevention of Postoperative Nausea and Vomiting

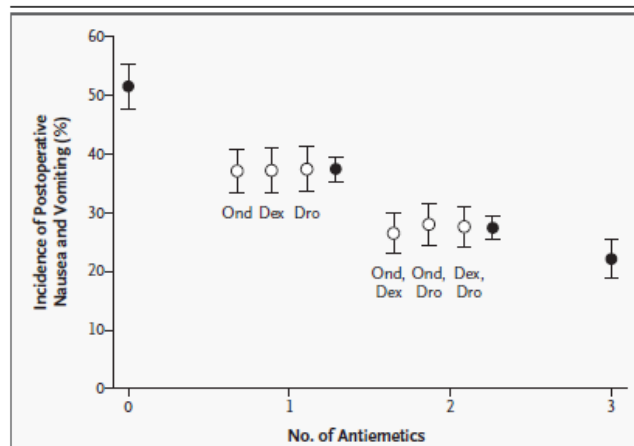
Christian C. Apfel, M.D., Kari Korttila, F.R.C.A., Ph.D., Mona Abdalla, Ph.D., Heinz Kerger, M.D., Alparslan Turan, M.D., Ina Vedder, M.D., Carmen Zernak, M.D., Klaus Danner, M.D., Ritva Jokela, M.D., Ph.D., Stuart J. Pocock, Ph.D., Stefan Trenkler, M.D., Markus Kredel, M.D., Andreas Biedler, M.D., Daniel I. Sessler, M.D., and Norbert Roewer, M.D., for the IMPACT Investigators\*

Ondansetron, dexamethasone, and droperidol each reduced the risk of postoperative nausea and vomiting by about 26 percent. Propofol reduced the risk by 19 percent, and nitrogren by 12 percent; the risk reduction with both of these agents (i.e., total intravenous anesthesia) was thus similar to that observed with each of the antiemetics. All the interventions acted independently of one another and independently of the patients' baseline risk. Consequently, the relative risks associated with the combined interventions could be estimated by multiplying the relative risks associated with each intervention. Absolute risk reduction, though, was a critical function of patients' baseline risk.

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**Figure 2. Incidence of Postoperative Nausea and Vomiting Associated with the Various Combinations of Antiemetic Drugs.**

The data shown represent outcomes in 5161 patients. Solid circles represent the average value for each number of prophylactic antiemetics, and open symbols the incidence for each antiemetic or combination of antiemetics. Ond denotes ondansetron, Dex dexamethasone, and Dro droperidol. I bars represent 95 percent confidence intervals.

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- **Pain Management**

- opioids for perioperative analgesia contributes to **acute opioid tolerance and hyperalgesia (155)**, as well as dose-related side effects (e.g., hypoventilation, sedation, nausea and vomiting, urinary retention, ileus) that delay hospital discharge and add to the cost of surgical care
- **an opioid-sparing** effect can be achieved postoperatively using a pharmacologically diverse variety of non-opioid adjuvants (i.e., **ketamine, clonidine, dexmedetomidine, adenosine, gabapentin, pregabalin, glucocorticoids, esmolol, neostigmine, magnesium** )

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## Résumé (1)

- 1. L'anesthésiste s'occupe du périopératoire (vision holistique)
- 2. Prémédication: médicaments de courte durée d'action, qui diminuent les opioïdes, les NVPO
- 3. Hydratation correcte du patient: liquide clair 2h. avant l'anesthésie
- 4. L'anesthésie locale soit au niveau des plaies soit en continu I.V.
- 5. L'anesthésie loco-régionale ou les blocs diminuent les douleurs et les NVPO.
- 6. La rachi et péri peuvent poser problème par leur durée d'action et le risque de rétention urinaire.

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## Résumé (2)

- 7. Anesthésie générale: fast in – fast out.
- 8. Propofol, remifentanil, sevoflurane, desflurane
- 9. Monitoring de la profondeur: ET (MAC) ou BIS: idem
- 10. Masque laryngé et éviter les curares
- 11. Assurer la prévention des NVPO
- 12. Prise en charge la douleur post-OP
- 13. Eviter les opioïdes
- 14. Assurer la prise en charge des NVPO

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[Crit Care Med](#), 2013 Feb 5.  
 Fast-Track Failure After Cardiac Surgery: External Model Validation and Implications to ICU Bed Utilization.  
[Lee A](#), [Zhu F](#), [Underwood MJ](#), [Gomersall CD](#)

- As the performance of the final updated fast-track failure model was very good, it can be used to estimate the predicted probability of fast-track failure on individual patients. The clinical consequence of applying the final model appears substantial with regard to the **potential increase in effective ICU bed utilization.**


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Etudes - Programmes



Spécialisation en anesthésie

Spécialisation en anesthésie

L'infirmier(ère) spécialisé(e) en anesthésie participe

- à la prise en charge des patients avant, pendant et après une anesthésie,
- à la réalisation des techniques d'anesthésie générale et loco-régionale,
- à la surveillance et la réanimation pré-, per- et post-anesthésie
- à la prise en charge de la douleur
- à la consultation de pré-anesthésie

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- **Quelles sont les fonctions de l'infirmier(ère) spécialisé(e) en anesthésie?**
- Collecter les données préopératoires indispensables à la prise en charge anesthésique du patient;
- Participer à l'élaboration du plan d'anesthésie pour un patient déterminé;
- Dispenser, dans le domaine de l'anesthésie et de la réanimation, des soins infirmiers de qualité, adaptés à l'état du patient, au matériel disponible, et à la spécialité concernée;
- Aider à la réalisation des techniques courantes d'anesthésie générale et loco-régionale;
- **Assumer la prise en charge des patients en salle de post-anesthésie;**
- Aider à l'évaluation et à la prise en charge de la douleur postopératoire;
- Aider à la maintenance du matériel d'anesthésie et à la gestion logistique du service d'anesthésie;
- Maîtriser les outils informatiques indispensables à l'exercice de la profession;
- Utiliser une démarche éthique et déontologique dans les interventions professionnelles;
- Prendre en compte dans sa pratique, les compétences spécifiques de chaque membre de l'équipe.

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**Editorial**

**Nursing Aid Specialized in Anesthesia and Resuscitation (NASAR) : why should we promote the involvement of anesthesia helping nurses within the current and future Belgian anesthesia field ?**

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The anesthesia profession goes on moving and is still extending to the optimization of the perioperative care of surgical and sometimes non-surgical patients, requiring more and more investment from anesthesia practitioners. Numerous tasks progressively add to the anesthesiologist workload. Time has come to think about means of making our functioning mode more efficient, while preserving quality of care and safety.

Postoperative care starts with the preoperative assessment. This intellectual action is time consuming and is still not reimbursed in Belgium, despite allowing adaptation of the patient preoperative treatment, explanation of the anesthesia technique, more patient confidence in the anesthesia management, and, overall, optimal preparation to surgery. The cardiologist, the internist or the generalist can help us in this field, but we are the only one expert knowing what exactly happens during and after surgery. There is some place here to get help in the initial disentangling of patient medical history and basic assessment.

The tools available to the anesthesiologist have greatly improved. There is no more limitation to the duration of surgery. Our loco-regional and general techniques are increasingly safe, thanks to progress in anesthesia drugs safety, and improvement in anesthesia workstation and monitoring quality, which encompass new technologies such as non-invasive cardiac output measurement, target-controlled infusion, electroencephalogram-derived parameters, and nociception indexes. The modern hypnotic and anti-nociception medications have

very short duration of action, and hence have high flexibility of use. Side effects have been reduced, such as with the new antagonist of skeletal muscle relaxants. This may let us think that we may need the help of a specialized nurse in anesthesia care in preparing patients for their anesthesia or in monitoring patients during this preparation.

Perfect postoperative pain control is absolutely mandatory in 2012. Help can also be gathered here for a direct bedside pain management according to pre-established protocols, since we are not able to visit all painful patients every day during their hospital stay. We also have to look forward to the long term outcome of our patients, manage transitional pain, and be attentive to the long term consequences of anesthesia. Nurses can be involved in this process.

There is increasing pressure on our shoulders. Work practices change, with increasing emphasis on efficiency. Working time is progressively restricted, safety requirements are more and more severe, tolerance for medical error decreases, patients are reluctant to accept risks associated with being managed by novices, and the hospital managers insist on cost savings. This has led to a decline in the opportunities for anesthesiologist trainees to learn technical procedures under adequate supervision. Training of anesthetist residents and helping nurses requires increased attention and investment. There are no more places for the "look how the supervisor is doing, use one, and then do one". We need more time to train our young residents in a safe environment. Other means must also

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2. *La période pré-anesthésie*

L' AISAR prépare et vérifie tous les produits et équipements anesthésiques nécessaires tels que respirateur, le circuit de ventilation, les perfusions... conformément aux ordres écrits du SAR. Le SAR supervise et assume la responsabilité de tous les actes réalisés par l' AISAR.

L' AISAR participe à la réception et à l' installation du patient en salle d' opération ou salle de procédure. Il/ elle vérifie l' identité du patient, le dossier pré-anesthésie, le type, le site et le côté de l' intervention, la compatibilité avec les instructions préopératoires (information, disponibilité des unités de sang commandées ...). Ces interventions complètent mais ne remplacent jamais le contact direct entre le patient et le SAR.

3. *Pendant l' anesthésie*

Pendant l' anesthésie générale dans les limites ou à l' extérieur du quartier opératoire :

Pendant l' induction de l' anesthésie, l' AISAR exécute toutes les actions requises par le SAR responsable du patient, sous la supervision directe et la responsabilité du SAR qui doit être présent dans la pièce. Pendant l' entretien de l' anesthésie, la surveillance du patient ne peut être déléguée à l' AISAR que pour des périodes limitées et aux conditions suivantes :

- Déroulement stable de l' anesthésie, c' est-à-dire que la profondeur de l' anesthésie, les variables hémodynamiques et respiratoires sont stables, comme en témoigne l' enregistrement complet des variables surveillées.
- Déroulement stable de la chirurgie, c' est-à-dire périodes pendant lesquelles le patient ne courra pas de risque d' instabilité induite par la chirurgie, comme le placement d' une prothèse, le relâchement d' un tourniquet, le déclampage vasculaire etc.
- L' activité de l' AISAR se limitera exclusivement à la surveillance du patient sous anesthésie. Cela exclut donc toute autre tâche dans la salle d' opération ou d' examen.
- Le SAR doit être immédiatement disponible.
- L' AISAR peut ajuster les conditions d' anesthésie (profondeur, myorelaxation...), le statut ventilatoire et volémique conformément aux valeurs des paramètres surveillés et aux ordres écrits qui lui ont été préalablement donnés par le SAR. L' AISAR doit immédiatement informer le SAR de toutes les modifications à réaliser et réalisées en cours d' anesthésie.

4. *La période post-anesthésie*

a) *La période post-anesthésie immédiate :*

Les techniques d' anesthésie et d' analgésie postopératoire sont variées et souvent complexes. En salle de réveil, les patients doivent être étroitement surveillés par un personnel infirmier spécialement formé aux techniques d' anesthésie et au couvrent des problèmes postopératoires. De ce point de vue, l' utilité et la nécessité de l' AISAR en salle de réveil doivent être soulignées.

b) *Le patient postopératoire en salle périphérique :*

L' AISAR peut, du fait de sa formation, faire partie d' une équipe de ' prise en charge de la douleur aiguë ' sous la responsabilité d' un SAR. L' AISAR évalue dès lors les techniques anal-

En cas de situation critique imprévue et après avoir alerté le SAR, l' AISAR peut cependant commencer toute mesure thérapeutique nécessaire à condition que sa réalisation soit prévue par un algorithme clairement défini en accord avec le SAR.

Pendant la phase de réveil, l' AISAR effectue toutes les tâches prescrites par le SAR et ce, sous la supervision directe et la responsabilité du SAR qui doit être présent en salle d' opération.

Pendant une anesthésie régionale :

Durant la réalisation de techniques loco-régionales, l' AISAR réalise toutes les tâches jugées nécessaires par le SAR et ce sous la supervision directe et la responsabilité de ce dernier. Les périodes allant de l' installation du bloc à l' incision chirurgicale ne peuvent pas être considérées comme une situation stable et requièrent dès lors la présence du SAR.

La surveillance peropératoire du patient peut être déléguée à l' AISAR dans des conditions similaires à celles définies pour l' anesthésie générale. En cas d' inconfort du patient ou de bloc insatisfaisant, l' AISAR ne peut jamais administrer de sédatif ou d' analgésique de sa propre initiative. Une évaluation préalable par le SAR est obligatoire. Un patient opéré sous anesthésie loco-régionale qui requiert un complément pour garantir un confort suffisant ne peut pas être considéré comme étant dans une situation d' anesthésie stable. Dès lors, le SAR doit être présent dans la salle.

En cas de situation critique imprévue, les mêmes principes sont d' application que ceux décrits pour l' anesthésie générale.

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Les techniques d'anesthésie et d'analgésies sont variées et souvent complexes. En salle de réveil, ...surveillés par un personnel infirmier spécialement formé aux techniques d'anesthésie...l'utilité et la nécessité de l' AISAR en salle de réveil doivent être soulignées.

- 1. Introduction
- 2. Définition
- 3. Fast track anesthesia
- 4. Salle de réveil ou PACU?
- 5. Conclusion

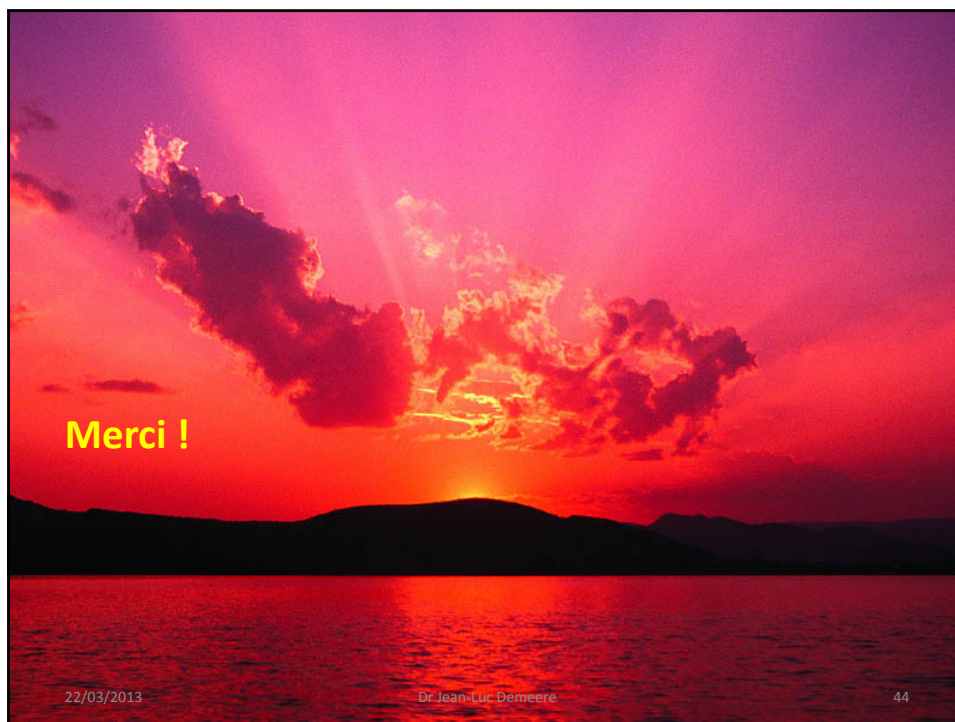
## Conclusions

- Fast Track est le nouveau modèle
- Fast Track est une prise en charge globale
- Fast Track est un bypass de la salle de réveil
  
- La salle de réveil comme USI?
- Infirmière de salle d'opération?
- Infirmière (en) anesthésie?

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