RAAC en Orthopédie
RAAC en Ambulatoire (Orthopédie)

Rencontres d'Anesthésie Sanofi
16, 17 juin 2018

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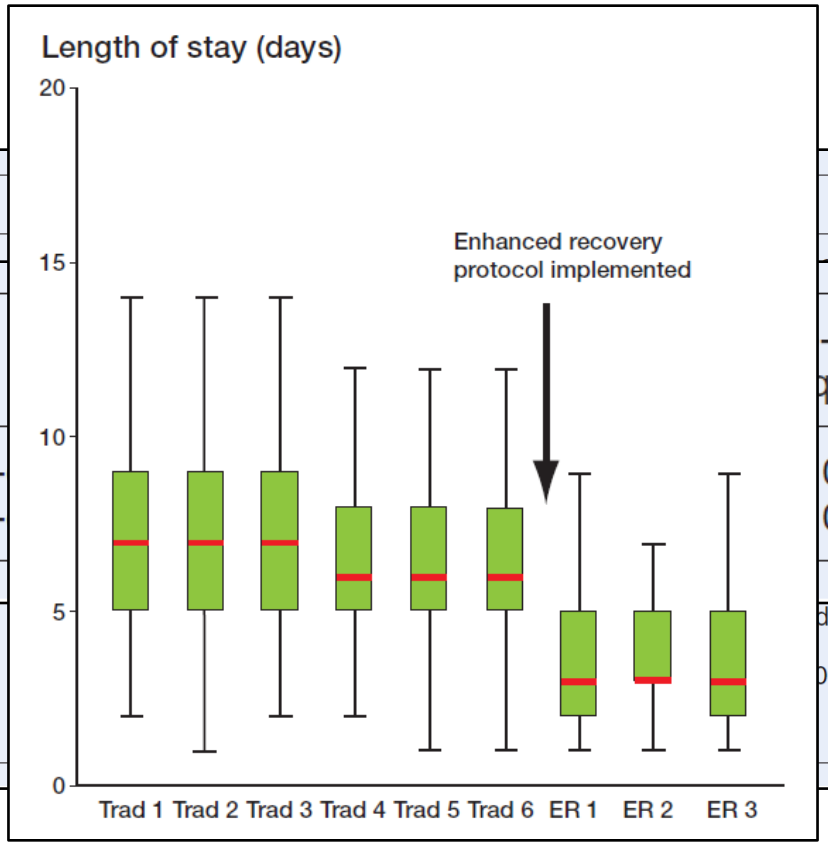
Massive
Online
MOOC
1+2=
Open
Course


MOOC
RÉHABILITATION AMÉLIORÉE
APRÈS CHIRURGIE (RAAC)
INSCRIPTION GRATUITE
ars

Lien d'intérêt

Enhanced recovery program for hip and knee replacement reduces death rate

A study of 4,500 consecutive primary hip and knee replacements



A Malviya, Acta Orthopaedica 2011

« RAAC en ambulatoire »

- Réduction DMS ➔ UCA ?
- Optimiser la réhabilitation en UCA ?

Réduction DMS ➔ UCA ?

Newer Anesthesia and Rehabilitation Protocols Enable Outpatient Hip Replacement in Selected Patients

R Berger, Clin Orthop Relat Res 2009

Total hip arthroplasty in an outpatient setting in 27 selected patients

Y Den Hartog, Acta Orthopaedica 2015

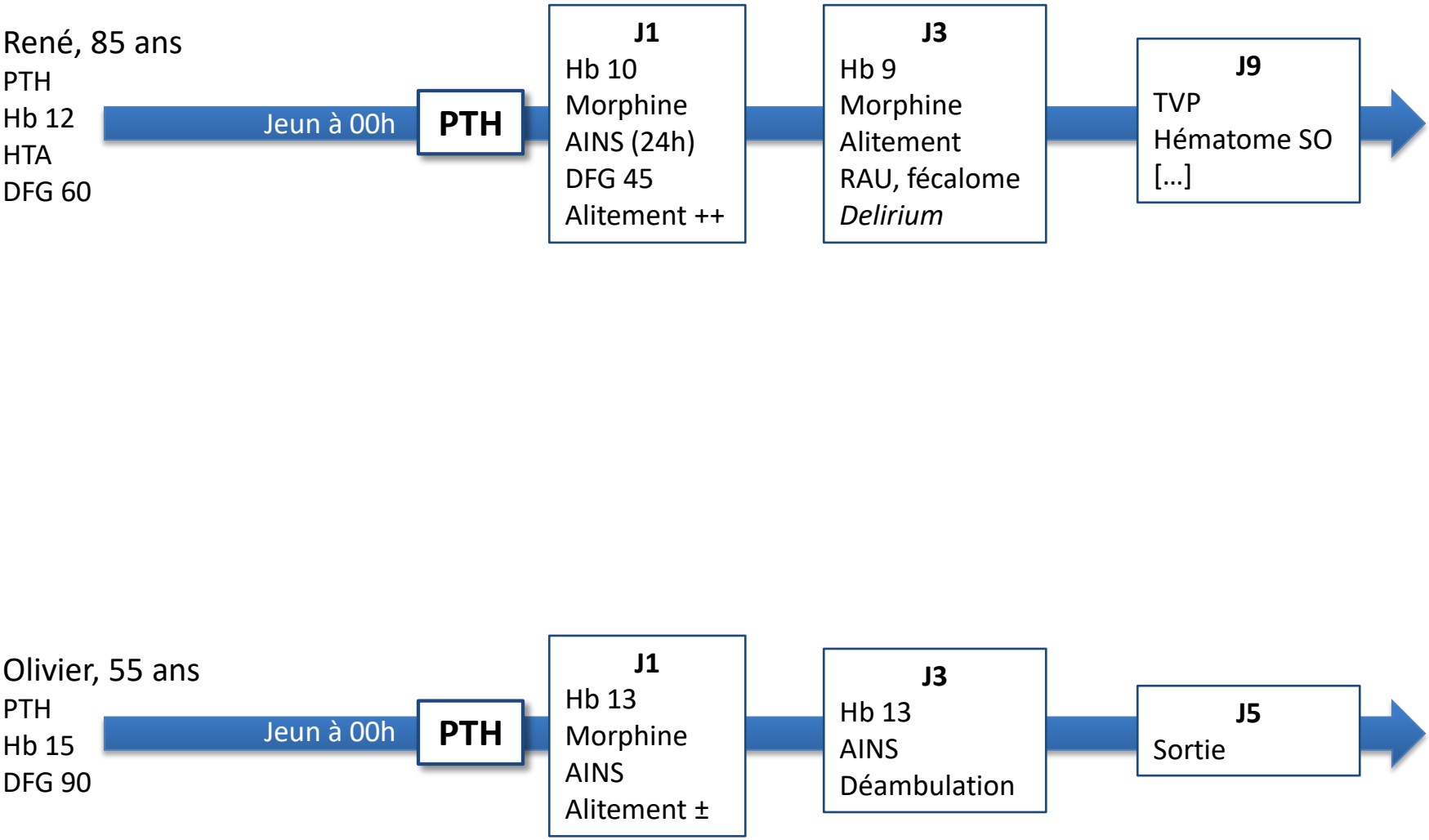
Why still in hospital after fast-track hip and knee arthroplasty?

Interpretation Future efforts to enhance recovery and reduce length of stay after THA and TKA should focus on analgesia, prevention of orthostatism, and rapid recovery of muscle function.

H Husted, Acta Orthopaedica 2011

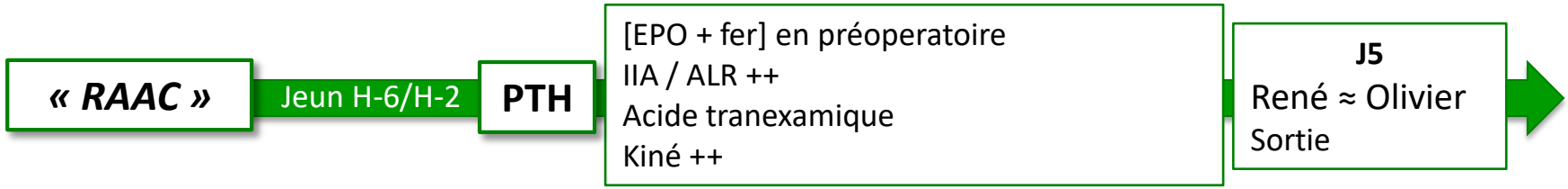
Very elderly :

« Selected patients »



Cas cliniques basés sur des patients hypothétiques

René, 85 ans
PTH
Hb 12
HTA
DFG 60



Olivier, 55 ans
PTH
Hb 15
DFG 90

Cas cliniques basés sur des patients hypothétiques

Older patients have the most to gain from orthopaedic enhanced recovery programmes

I Starks, Age and Ageing 2014

Optimiser la réhabilitation en UCA ?

UCA au CHU Purpan (2016)

- N= 7000 (+ 18% / 2015)

  ➔ Ophtalmo 42%
  ➔ Ortho 40%

- 30 patients par jour

- Taux occupation 130%

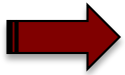
- Circuit Ultra Court 50%

Indicateurs de suivi

• Annulation avant J0: 5 à 10% (dont la moitié pour causes structurelles, en diminution / 2015)

- (H) non programmée 3% (dont ½ causes médicales)
- (H) non programmée en Ortho (n=60)

→ **Douleurs**
→ **NVPO**
→ **Dyspnée**
→ **RA non levée**
→ **RAU**



« Trucs et astuces »

« Trucs et astuces: Douleurs »

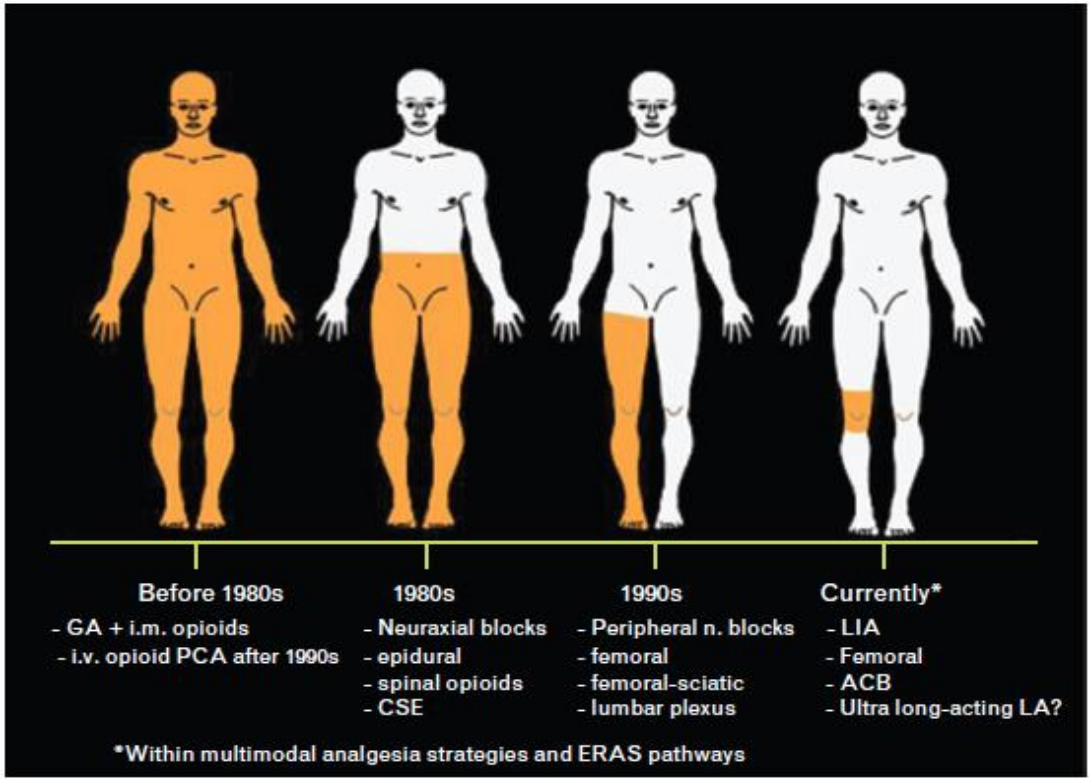
Regional anesthesia and enhanced recovery after surgery

TABLE II.—*Regional anesthesia and outcomes in total knee arthroplasty.*

Major concerns in TKA	Effects of regional anesthesia techniques	Outcome when in ERAS protocols
Pain relief	Better analgesia than placebo and systemic opioids	☒ ↓ Length of stay ☒ ↓ Transfusion requirements ☒ ↓ Death rate at postop. days: - 30 - 90 - 730
Physiotherapy	Early mobilization (1st postoperative day)	
Postoperative anemia/hemostasis	↓ Thromboembolic risk: directly and indirectly	
Cognitive dysfunctions	↓ incidence (?)	

F Carli, Minerva Anestesiol 2014

Analgésie pour PTG



N Rawal, Eur J Anaesthesiol 2016

Analgesic efficacy of local infiltration analgesia in hip and knee arthroplasty: a systematic review

efficacy. Despite the many studies of LIA, final interpretation is hindered by methodological insufficiencies in most studies, especially because of differences in use of systemic analgesia between groups. However, LIA provides effective analgesia in the initial postoperative period after TKA in most randomized clinical trials even when combined with multimodal systemic analgesia. In contrast, LIA may have limited additional analgesic efficacy in THA when combined with a multimodal analgesic regimen. Postoperative administration of local

L Andersen, Br J Anaesth 2014

The analgesic efficacy of local infiltration analgesia *vs* femoral nerve block after total knee arthroplasty: a systematic review and meta-analysis

evidence for our primary outcomes were moderate according to the GRADE system. There were no clinical differences in functional outcomes or rates of complications. Complication rates were captured by three trials or fewer with exception of knee infection, which was sought by eight trials. Local infiltration analgesia provides similar postoperative analgesia after total knee arthroplasty to femoral nerve block. Although this meta-analysis did not capture any difference in rates of complications, the low number of trials that specifically sought these outcomes dictates caution.

E Albrecht, Br J Anaesth 2016

Inpatient Falls after Total Knee Arthroplasty

The Role of Anesthesia Type and Peripheral Nerve Blocks

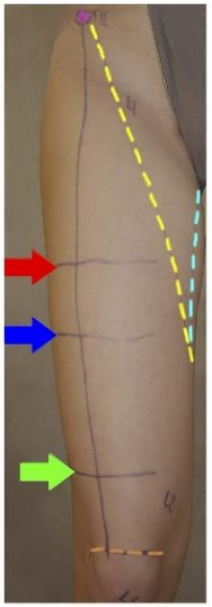
FDR de chute:

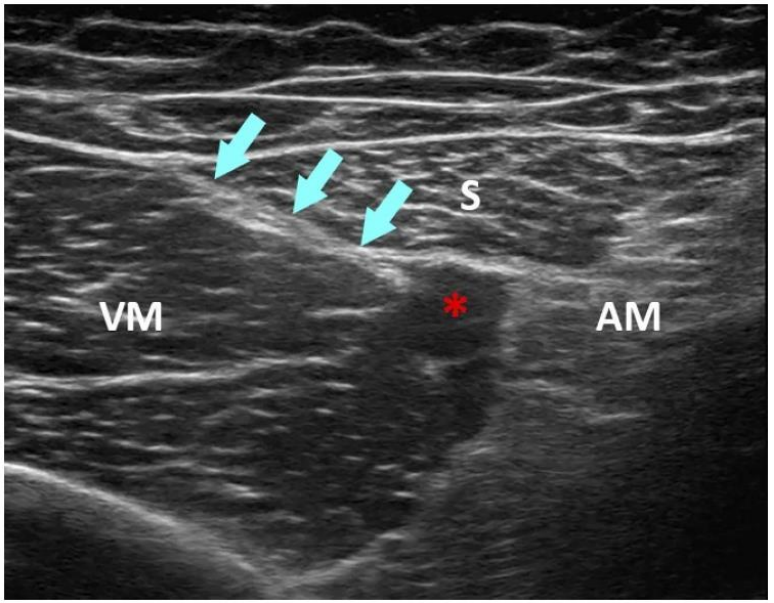
- Age
- Type de chirurgie
- Anémie
- Comorbidité

	Fall (N = 3,042)		No Fall (N = 188,528)		
	N*	%*	N*	%*	*P* Value†
Peripheral nerve block					
No block	2,666	87.6	165,669	87.9	0.693
Block	376	12.4	22,859	12.1	

G Stavros, Anesthesiology 2014

Defining the Location of the Adductor Canal Using Ultrasound



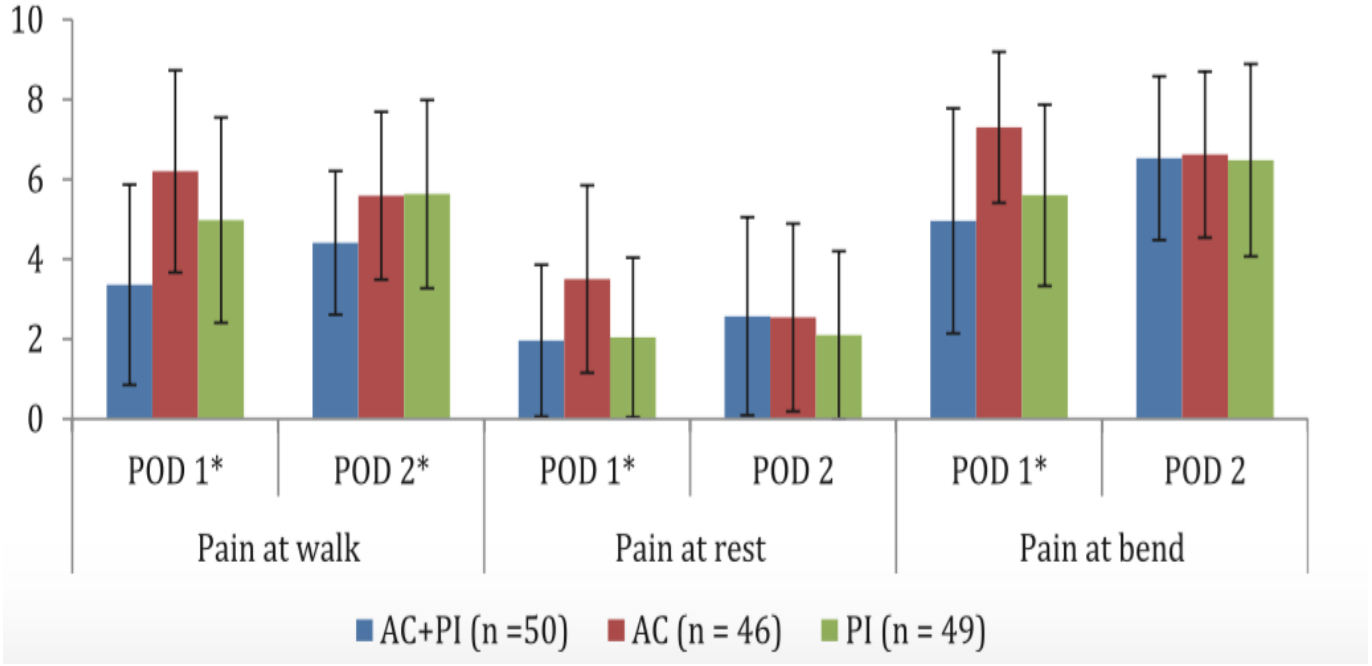


- Nerf saphène
- Nerf du vaste médial
- Nerf cutané médial de la cuisse (61%)
- Branches antérieures du nerf obturateur (21%)

A Boezaart, Reg Anesth Pain Med 2014

W Wong, Reg Anesth Pain Med 2017

BCA *versus* **IIA** *versus* **BCA + IIA**



BCA + IIA: amélioration score douleur à J1

Sawhney, Anesth Analg 2016

BCA *versus* IIA *versus* BCA + IIA

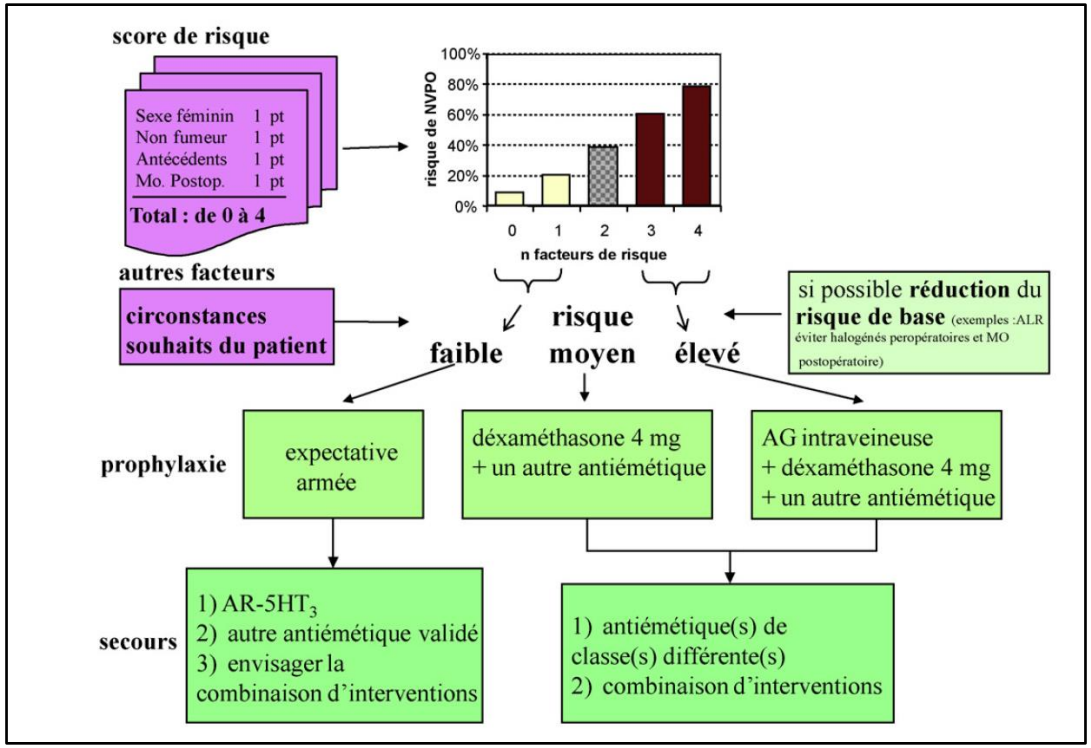
Table 3. Pain-Related Interference (Brief Pain Inventory, Interference Subscale)

	AC + PI (*n* = 50)	AC (*n* = 46)	PI (*n* = 49)	*P* value between groups
BPI total POD 1	6.71 (±7.10)	16.28 (±12.59)[a]	8.90 (±9.21)	<0.0001
BPI total POD 2	12.69 (±10.32)	13.54 (±10.64)	11.00 (±9.02)	0.46
Distance walked in meters POD 1	38 (±21.0)	20 (±15.8)[b]	34.5 (±31.5)	0.001
Distance walked in meters POD 2	61.7 (±36.8)	49.9 (±31.2)	58.7 (±32.5)	0.21

Sawhney, Anesth Analg 2016

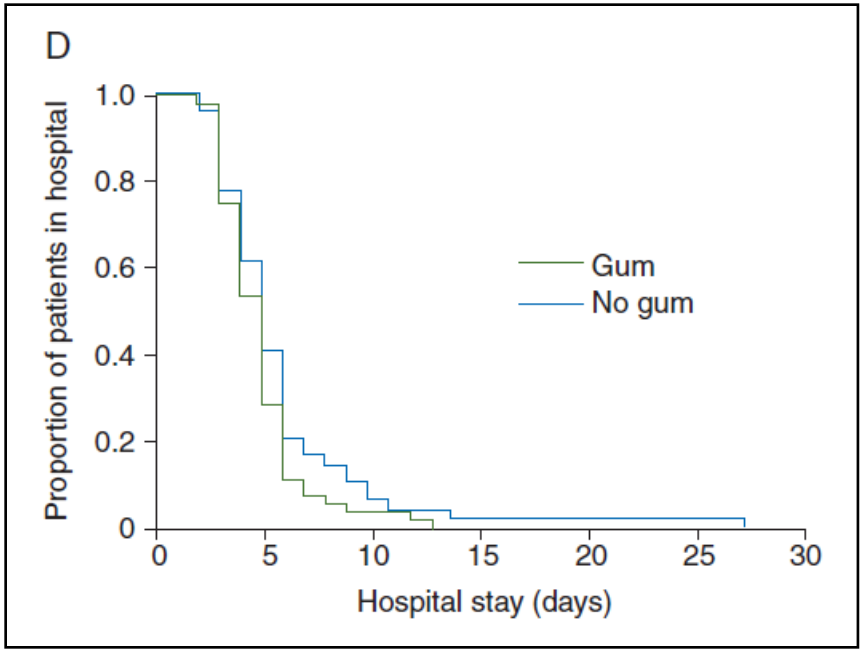
« Trucs et astuces: NVPO »

Conférence d'experts – Texte court. Prise en charge des nausées et vomissements postopératoires☆



P Diemunsch, Ann Fr Anesth Réa 2008

Randomized controlled trial of vagal modulation by sham feeding in elective non-gastrointestinal (orthopaedic) surgery



➔ Gomme à mâcher (dès SSPI)

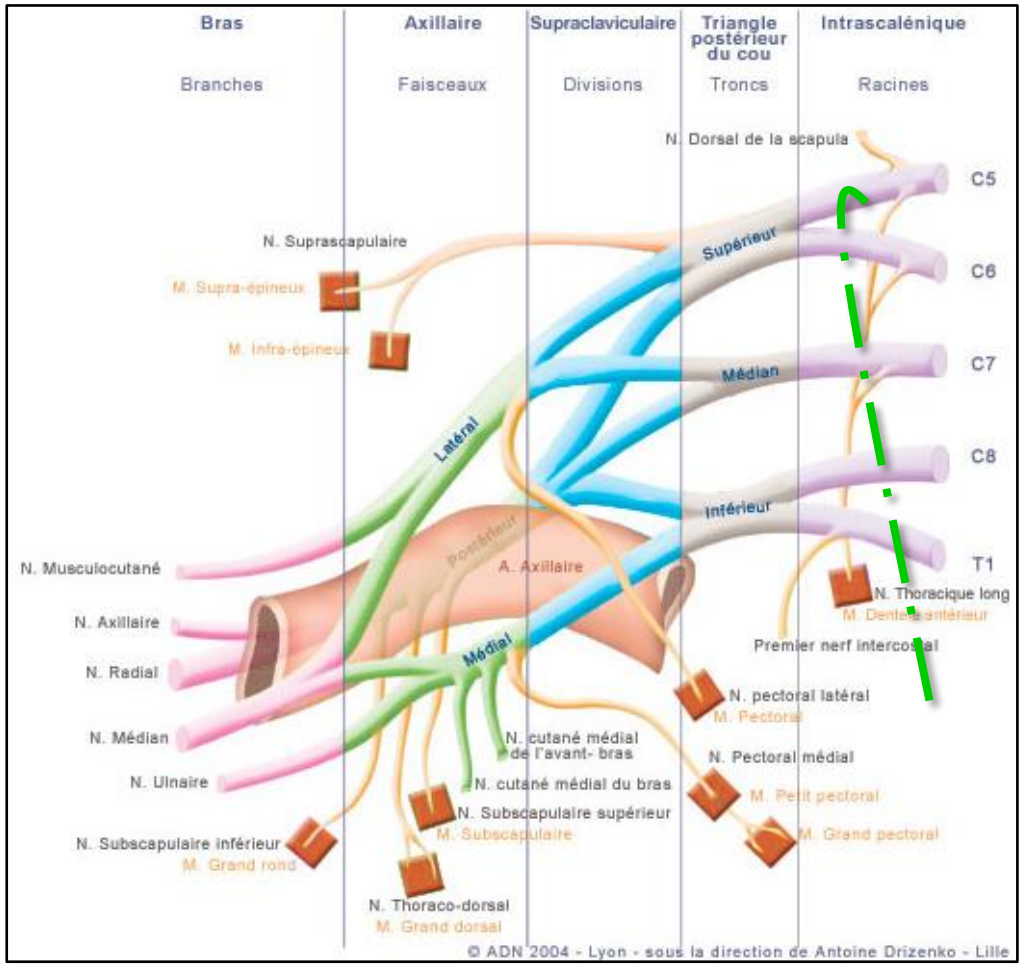
- 30 minutes
- 4 fois/jour
- 5 jours

➘ PGID

S Karmali, Br J Anaesth 2015

« Trucs et astuces: Dyspnée »

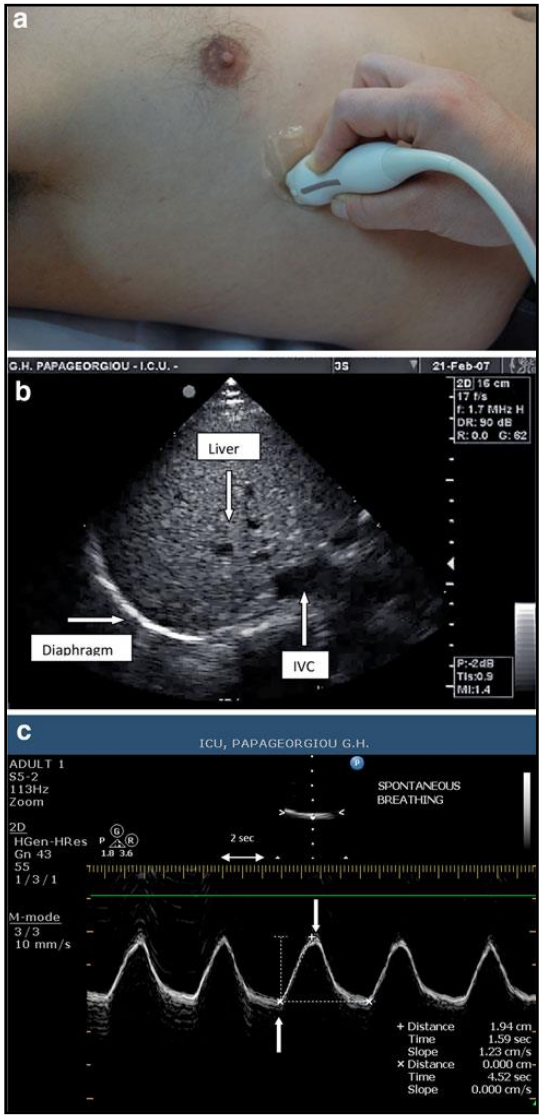
Anatomie Plexus Brachial



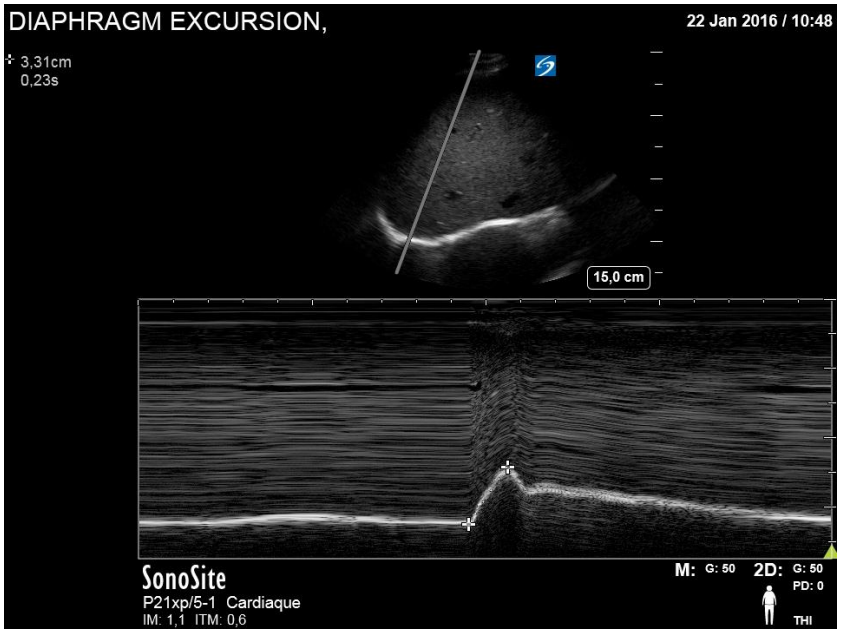
Nerf phrénique

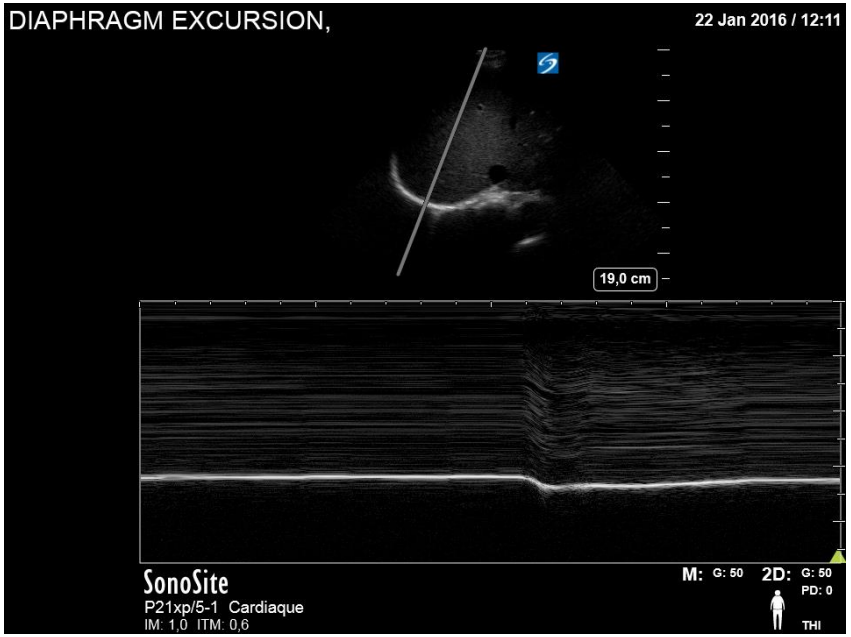
US Diaphragmatique

- Décubitus dorsal
- Excursion diaphragme (ligne axillaire antérieure sous costale) en mode TM
- « sniff test »



Matamis D, Intensive Care Med 2013





Paralysie diaphragmatique totale =
réduction excursion diaphragmatique ≥ 75%

F Ferré, Anesth Analg 2017

Diaphragm-Sparing Nerve Blocks for Shoulder Surgery

BIS:

- Faible volume (5 mL)
- Diluer concentration AL (Ropivacaïne 0,1%)
- Injection extra fascia latérale (4 mm)
- Bloc racine C7

BSC: Corner Pocket

BIC

SSAX

De Q.H. Tran, Reg Anesth Pain Med 2017

« Trucs et astuces: RA non levée »

Short-acting spinal anesthesia in the ambulatory setting

Prilocaïne

- Hyperbare > Isobare
- 40 à 60 mg
- Chirurgie 60 - 90 min

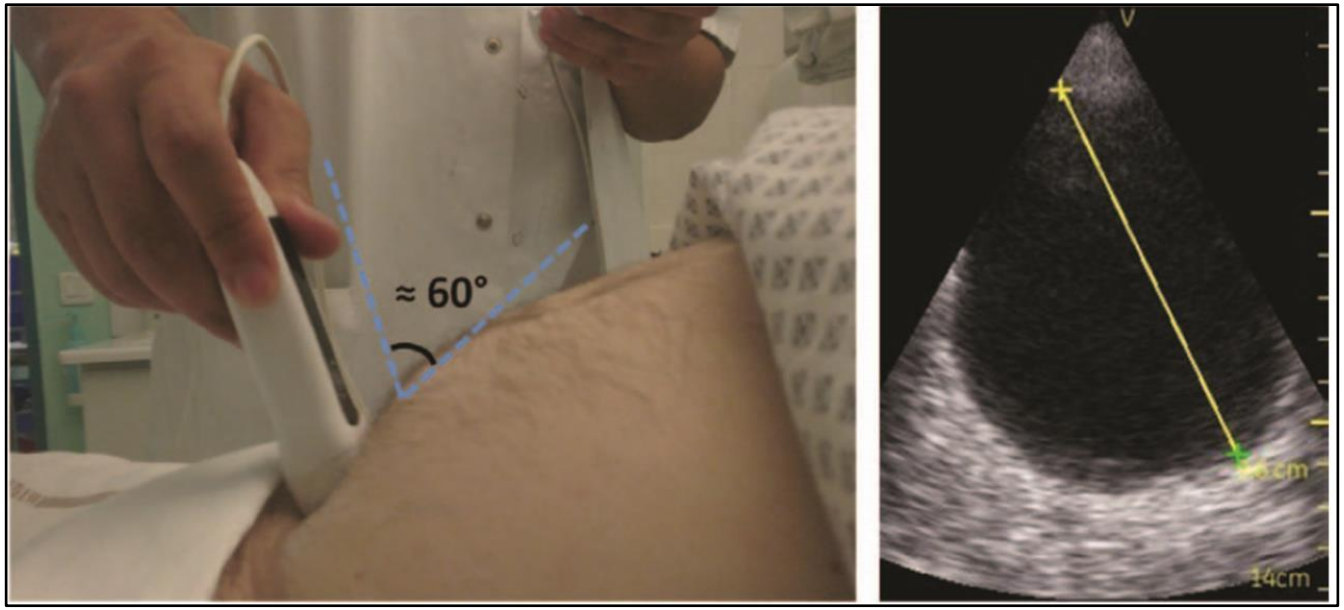
Chloroprocaïne

- Isobare
- 40 mg
- Chirurgie 45 - 60 min

J Forster, Curr Opin Anesthesiol 2014

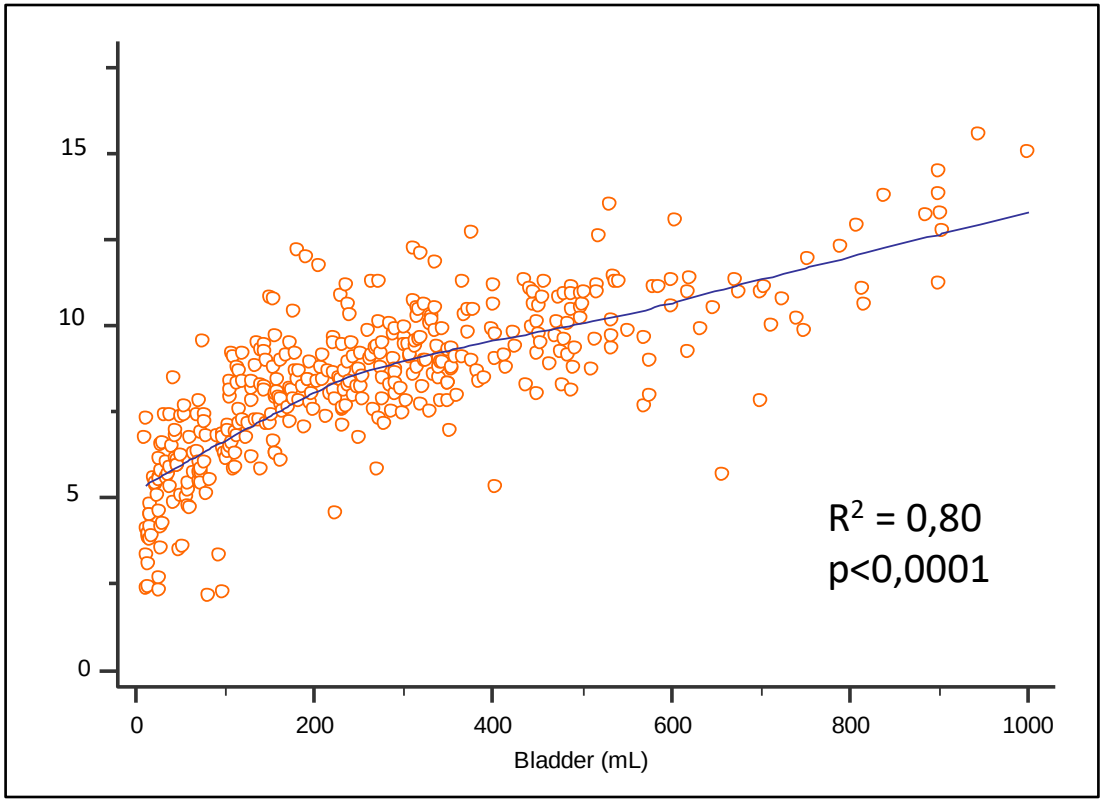
« Trucs et astuces: RAU »

Diagnosis of Postoperative Urinary Retention Using a Simplified Ultrasound Bladder Measurement



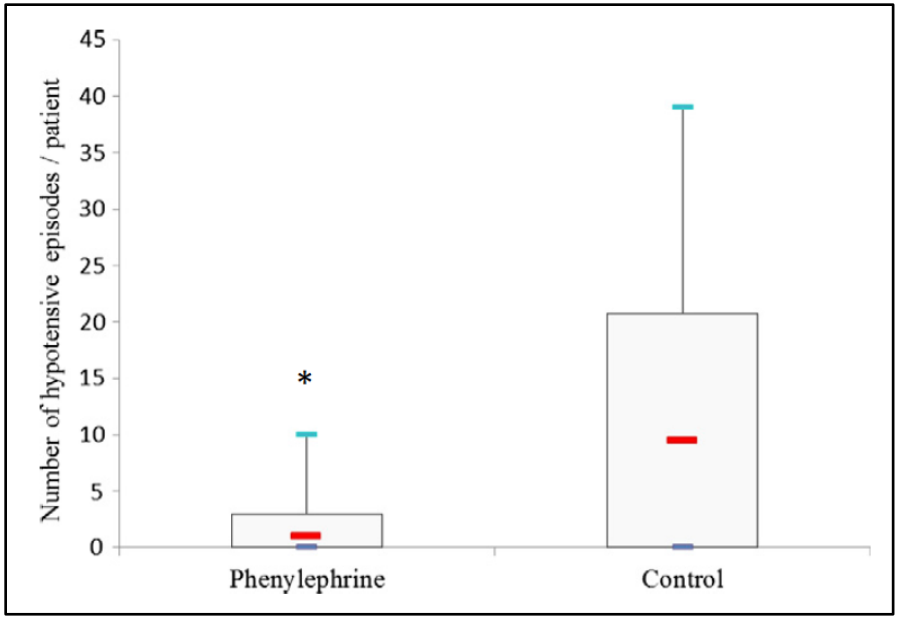
Si DTM vésical > 10,7 cm ➔ RAU > 600 mL

A Daurat, Anesth Analg 2015



Données personnelles

Prophylactic phenylephrine infusion for the prevention of hypotension after spinal anesthesia in the elderly: a randomized controlled clinical trial



➔ Eviter remplissage

➔ Favoriser vasopresseurs

➔ … Phényléphrine prophylactique

F Ferré, J Clin Anesth 2016

Conclusions

- Bénéfices RAAC *very elderly*
- ALR, IIA AL
- Gomme à mâcher
- Blocs épargnant le diaphragme, monitorage US PhD
- RA avec AL courte durée d'action pour chirurgie < 60 min
- DTM et RAU
- Phényléphrine prophylactique