Postoperativ smärtlindring vid stor/bukkirurgi

SFAI möte Karlstad 20-24/9
SPOV möte 20/9

Peter Dahm
Överläkare, Med Dr
Verksamhetschef
An-Op-IVA, Område 3
Sahlgrenska Universitetssjukhuset/Mölndal

11000 operationer: Ort, Ögon, Handkir, CARE, ÖNH, Käk, Tand, Kir,
Sjukhus för ”Rörelseorganens sjukdomar”
Rikssjukvård Ögonkirurgi barn
4000 förlossningar
5 IVA platser, 18 Postop platser, 10 UVA platser
Universitetslektor, doktorrander
Centre of Excellence ST-läkarutbildning

ANNALS OF SURGERY
A Monthly Review of Surg
Link to Publisher's site
885

Hur definieras stor kirurgi?

CORRESPONDENCE

DEFINITION OF MAJOR AND MINOR SURGERY

A QUESTION AND AN ANSWER

ST. PAUL, MINN., April 12, 1917.

ANNALS OF SURGERY,
Philadelphia, Penn.

DEAR SIRS:

By law the State of Minnesota permits osteopaths to practise minor surgery and prohibits them from practising major surgery. The Ramsey County Medical Society has been requested to define just what is meant by minor surgery and what is meant by major surgery. Our Society referred the question to a committee of which I am chairman.

On behalf of the Society and its committee, I wish to thank you in advance for any information which you can furnish us on the subject.

Fraternally yours,
ROBERT EARL.

April 17, 1917.

DR. ROBERT EARL,
1014 Lowry Building,
St. Paul, Minn.

MY DEAR DOCTOR:

Answering your letter of April 12 to the ANNALS OF SURGERY.

As its Editor, I would say that major surgery includes all work requiring a general anæsthetic; all operations which involve openings into the great cavities of the body; all operations in the course of which hazards of severe hemorrhage are possible; all conditions in which the life of the patient is at stake; all conditions which require for their relief manipulations, for the proper performance of which special anatomical knowledge and manipulative skill are essential.

I think these general statements cover pretty generally what is meant by major surgery. You will see that there is still left an abundant field for the practitioner of minor surgery.

Very truly yours,
LEWIS S. PILCHER.

799

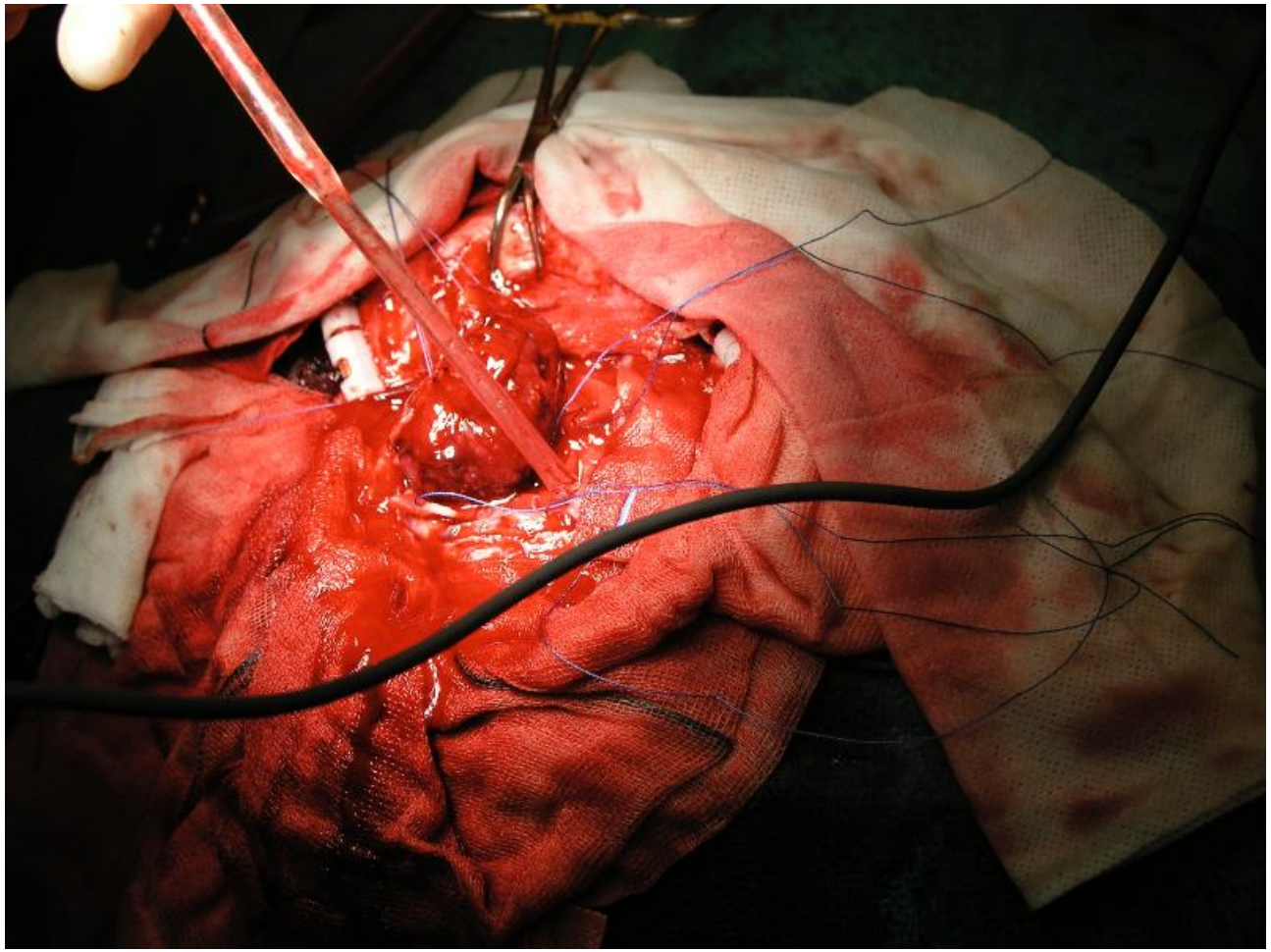
Merriam Webster - Medical Dictionary

- Medical Definition of major surgery:

surgery involving a risk to the life of the patient; *specifically : an operation upon an organ within the cranium, chest, abdomen, or pelvic cavity*

50 år
Leverresektion
Cancer

Malignt hjärnödem vid craniotomi och ICH



Bäcken-fx

Knäprotes

f-85
Suicidhopp 15 m juni-16

Mandibel-fx
Yttre hörselgång fx
C7 fx
Costa fx 1-9 hö
Clavikel fx hö
Radius fx hö
Bäcken fx
Bäckenring fx
Pertroch. femur fx
Leverkontusion
Bilat hemothorax
Bilat pneumothorax

f-94
Fall från balkong 6 m juli -16

Bilat Calcaneus fx

Vilka mål har vi?

- Bra smärtlindring, minska mänskligt lidande
- Förhindra långvarig smärtutveckling
- Optimera fysiologisvar: stress, resp & cirk, G-I, immunsvar
- Optimera psykologisvar: oro, förlorad autonomitet, minne
- Reducera läkemedels mängd, minska opioid användning
- Möjlighet till tidig rehabilitering
- Snabb återhämtning, återgång normalt liv
- Kort vårdtid

Samarbete: APS, ASRA, ASA

American Pain Society

RESEARCH
EDUCATION
TREATMENT
ADVOCACY

PUBLISHED BY ELSEVIER

The Journal of Pain, Vol 17, No 2 (February), 2016: pp 131-157
Available online at www.jpain.org and www.sciencedirect.com

Guidelines on the Management of Postoperative Pain

Management of Postoperative Pain: A Clinical Practice Guideline From the American Pain Society, the American Society of Regional Anesthesia and Pain Medicine, and the American Society of Anesthesiologists' Committee on Regional Anesthesia, Executive Committee, and Administrative Council

Roger Chou,* Debra B. Gordon,† Oscar A. de Leon-Casasola,‡ Jack M. Rosenberg,§ Stephen Bickler,¶ Tim Brennan,‖ Todd Carter,** Carla L. Cassidy,†† Eva Hall Chittenden,‡‡ Ernest Degenhardt,§§ Scott Griffith,¶¶ Renee Manworren,‖‖ Bill McCarberg,*** Robert Montgomery,††† Jamie Murphy,‡‡‡ Melissa F. Perkal,§§§ Santhanam Suresh,¶¶¶ Kathleen Sluka,‖‖‖ Scott Strassels,**** Richard Thirlby,†††† Eugene Viscusi,‡‡‡‡ Gary A. Walco,§§§§ Lisa Warner,¶¶¶¶ Steven J. Weisman,‖‖‖‖ and Christopher L. Wu‡‡‡

Samarbete: APS, ASRA, ASA

Citat = ”80 % har postop smärta, varav 75 % med moderat till svår smärta”

- Första möte 2009 och 2011
- Färdig rapport hösten 2015
- Planeras uppdateras 2021

- Baseras på genomgång av:
  - 107 review artiklar
  - 858 original artiklar
- **32** rekommendationer
  - 4 är med **hög evidens + starka**
  - 17 är med moderat evidens
  - 11 är med svag evidens + svaga
- Rekommendationer av författare är ”personliga”:
  - Starka eller Svaga

1-2. Patient + Anhörig utbildning i postop smärta Låg evidens

3. Preop utvärdering co-morbiditeter: smärtbeh, psykiatri, beroende m.m. Låg evidens

4. Justera smärtbehandling postop till tidigare smärtbeh och BIV Låg evidens

5. Använd validerade smärtskattningar, NRS, VRS, VAS, Smärttermmeter, Ansiktsskalor Låg evidens

6. Använd Multimodal modell: **Stark rekom. och Hög evidens**

7-8. Använd v.b. TENS. Akupunktur osäkert

9. Överväg Kognitiv terapi i samband med Multimodal modell

10. Administrera opioider oral istället för i.v. postop

11. Använd inte i.m. Administrering: smärtsamt och osäkert absorption

12. Använd i.v. PCA teknik när parenteral väg behövs

13. Använd INTE kontinuerlig infusion vid i.v. PCA teknik

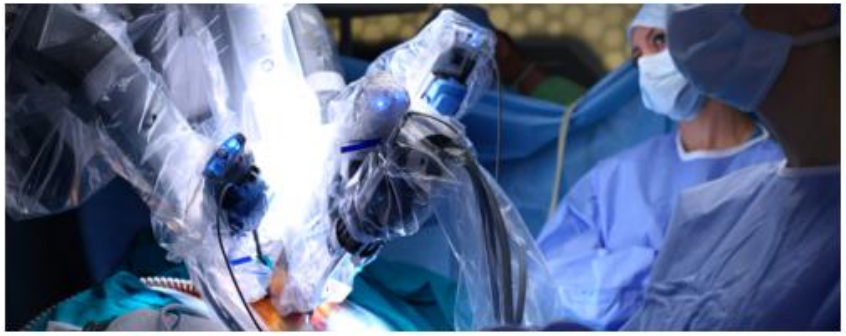
14. Monitorera alltid patienter som får opioider: ffa sedation, respiration och BIV Låg evidens

15. Ge Paracetamol och/eller COX-hämmare **Stark rekom. och Hög evidens**

16. Överväg Celecoxib preoperativt om inga kontraindikationer

17. Överväg Gabapentin eller Pregabalin preoperativt

18. Överväg i.v. infusion Ketamine infusion per+postoperativt 10ug/kg/min
19. Överväg i.v. infusion Lidocain på Laprascopik abdominal kirurgi 2 mg/kg/h
20. L.A. Infiltration i kirurgisk område. Överväg Liposomalt Bupivacaine
21. Topikalt L.A. + nervblockad vid Circumcision
22. Rekom. INTE intrapleural L.A. efter Thoraxkirurgi
23. Perifera blockader som täcker op-område. **Stark rekom. och Hög evidens**
24. Kontinuerlig blockad om förväntad smärta efter ”singel-shot” duration
25. Klonidin tillsammans med L.A. i perifera blockader
26. Neuroaxial blockad vid Thx+Abd kirurgi. **Stark rekom. och Hög evidens**
27. Undvik Mg, Benzo, Neostigmin, Tramadol, Ketamin vid Neuroaxial blockad
28. Monotorera Neuroaxial blockad: Sedation, resp, hypotension, sens/ motorik
    Låg evidens
29. God organisation för postop smärtbehandling Låg evidens
30. Smärtspecialist på verksamheten för svåra fall Låg evidens
31. Riktlinjer för neuroaxiala och kontinuerliga perifera blockader Låg evidens
32. Information till patient samt Primärvård om postop smärtbehandlings plan
    Låg evidens



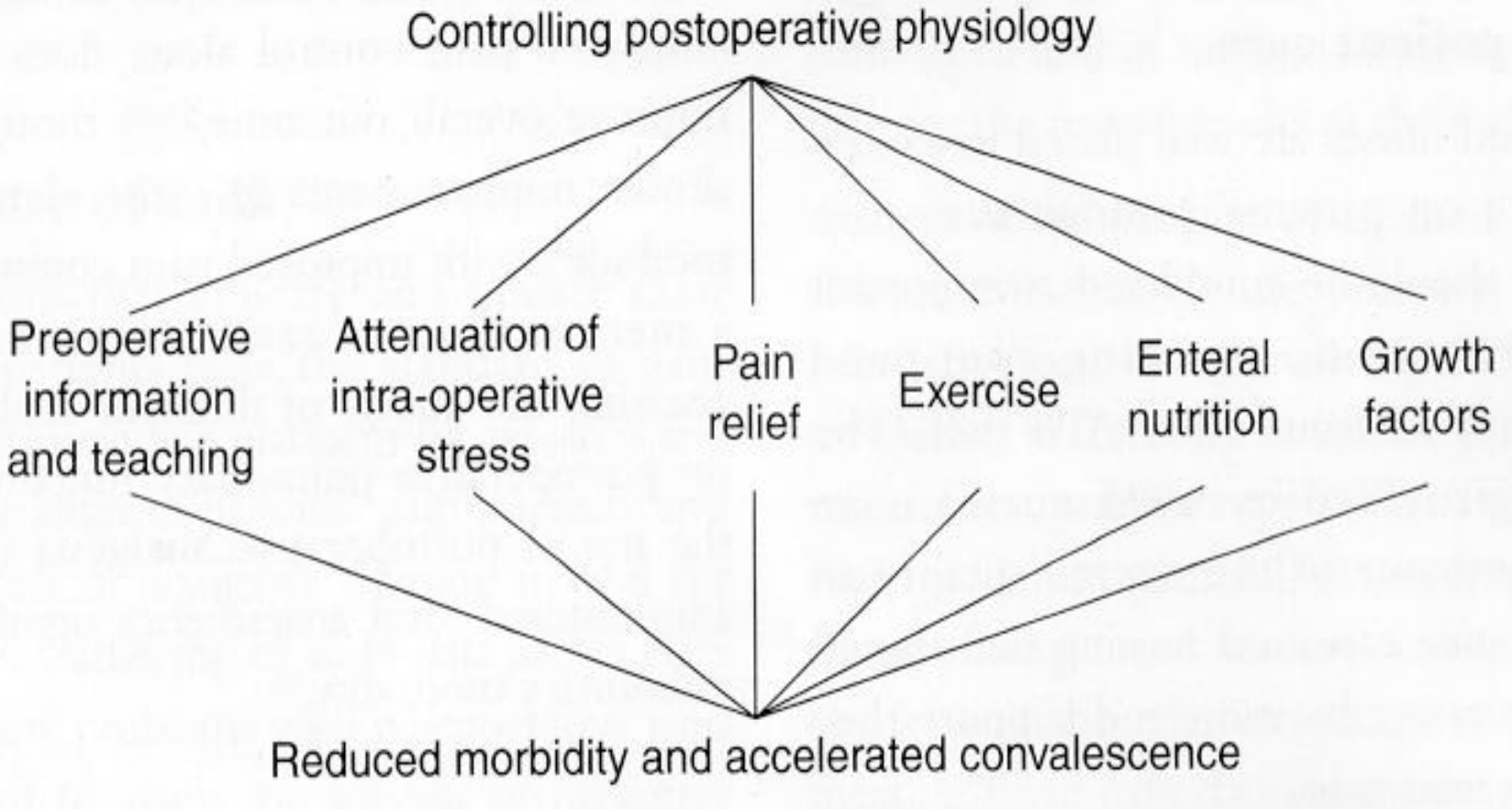
ERAS® Society – Improving Perioperative Care Worldwide

"The immediate challenge to improving the quality of surgical care is not discovering new knowledge, but rather how to integrate what we already know into practice."

Urbach DR, Baxter NN. BMJ 2005

Kehlet: Fast track, enhanced recovery

The perioperative multi-modal approach



Melnyk et al.

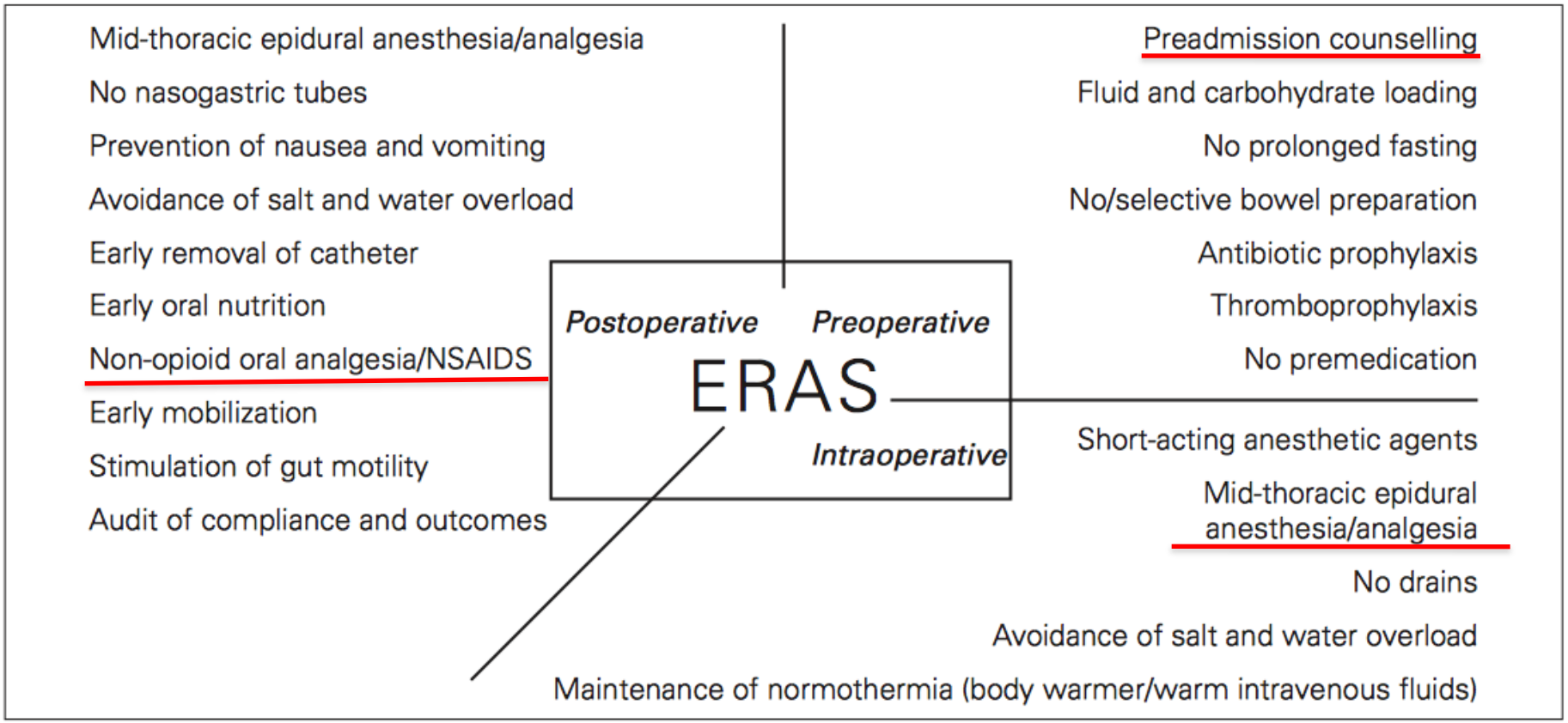


Fig. 1. Key aspects of ERAS protocols. Adapted from Donat et al. Early nasogastric tube removal combined with metoclopramide after radical cystectomy and urinary diversion. *J Urol* 1999;162:1599-602.[70]

http://erassociety.org/guidelines/list-of-guidelines/

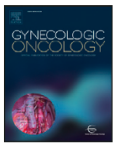
1. Gynekologisk/Onkologisk kirurgi
2. Gastrointestinal kirurgi
3. Gastrectomy
4. Radikal cystectomy & Blåscancer
5. Pancreaticoduodenalectomy
6. Colon kirurgi
7. Rektal/bäcken kirurgi

Gynecologic Oncology 140 (2016) 323–332

Contents lists available at ScienceDirect

Gynecologic Oncology

journal homepage: www.elsevier.com/locate/ygyno



Society position statements/white papers

Guidelines for postoperative care in gynecologic/oncology surgery: Enhanced Recovery After Surgery (ERAS®) Society recommendations — Part II

G. Nelson [a,*], A.D. Altman [b], A. Nick [c], L.A. Meyer [c], P.T. Ramirez [c], C. Achtari [d], J. Antrobus [e], J. Huang [f], M. Scott [g,h], L. Wijk [i], N. Acheson [j], O. Ljungqvist [k], S.C. Dowdy [l]

		Evidensgrad	Rekommendation
Postoperative analgesia	A multimodal approach to analgesia should be adopted including use of NSAIDS/acetaminophen, gabapentin and dexamethasone (unless contraindications exist)	Multimodal: high NSAIDS/aceta: high Gabapentin: moderate Dexamethasone: low	Strong
	Vaginal hysterectomy		
	Paracervical nerve block or intrathecal morphine can be used to reduce pain and opioid consumption	Low	Weak
	Open general gynecologic surgery		
	Spinal anesthesia with intrathecal morphine is recommended	Moderate	Strong
	Alternatively, thoracic epidural analgesia (TEA) with low concentration local anesthetic solutions with the addition of opiates for 24–48 h can be considered	High	Strong
	Truncal nerve blocks (TAP or ilioinguinal) can be recommended where patients have undergone general anesthesia without neuraxial blockade	Moderate	Strong
	Continuous wound infiltration (CWI) of local anesthetic can be considered	Moderate	Strong
	Major oncologic surgery		
	TEA may be considered but patients frequently require additional IV opioids in addition to TEA to achieve adequate analgesia	Low	Weak
	Laparoscopic gynecologic/oncology surgery		
	Lack of evidence makes it difficult to recommend one analgesic intervention over another, however a multimodal approach should be employed	Low	Weak

Clinical Nutrition 32 (2013) 879–887

Contents lists available at ScienceDirect

Clinical Nutrition

journal homepage: http://www.elsevier.com/locate/clnu

Guidelines for perioperative care after radical cystectomy for bladder cancer: Enhanced Recovery After Surgery (ERAS®) society recommendations

Yannick Cerantola [a], Massimo Valerio [a], Beata Persson [b], Patrice Jichlinski [a], Olle Ljungqvist [c], Martin Hubner [d], Wassim Kassouf [e], Stig Muller [f], Gabriele Baldini [g], Francesco Carli [g], Torvind Naesheimh [h], Lars Ytrebo [h], Arthur Revhaug [i], Kristoffer Lassen [i], Tore Knutsen [k], Erling Aarsether [k], Peter Wiklund [j], Hitendra R.H. Patel [k,*]

			Evidensgrad	Rekommendation
8. Epidural analgesia	Thoracic epidural analgesia is superior to systemic opioids in relieving pain. It should be continued for 72 h	/	Na/High	Strong
19. Postoperative analgesia	A multimodal postoperative analgesia should include thoracic epidural analgesia	/	Na/High	Strong

World J Surg (2013) 37:240–258
DOI 10.1007/s00268-012-1771-1

World Journal of Surgery

Guidelines for Perioperative Care for Pancreaticoduodenectomy: Enhanced Recovery After Surgery (ERAS®) Society Recommendations

Kristoffer Lassen · Marielle M. E. Coolsen · Karem Slim · Francesco Carli · José E. de Aguilar-Nascimento · Markus Schäfer · Rowan W. Parks · Kenneth C. H. Fearon · Dileep N. Lobo · Nicolas Demartines · Marco Braga · Olle Ljungqvist · Cornelis H. C. Dejong

		Evidensgrad	Rekommendation
Epidural analgesia	Mid-thoracic epidurals are recommended based on data from studies on major open abdominal surgery showing superior pain relief and fewer respiratory complications compared with intravenous opioids	Pain: high Reduced respiratory complications: moderate Overall morbidity: low	Weak
Intravenous analgesia	Some evidence supports the use of PCA or intravenous lidocaine analgesic methods. There is insufficient information on outcome after PD	PCA: very low I.V. Lidocaine: moderate	Weak
Wound catheters and transversus abdominis plane block	Some evidence supports the use of wound catheters or TAP blocks in abdominal surgery. Results are conflicting and variable, and mostly from studies on lower gastrointestinal surgery	Wound catheters: moderate TAP blocks: moderate	Weak

Review

Consensus guidelines for enhanced recovery after gastrectomy

Enhanced Recovery After Surgery (ERAS®) Society recommendations

K. Mortensen[1], M. Nilsson[2], K. Slim[3], M. Schäfer[4], C. Mariette[5], M. Braga[6], F. Carli[7], N. Demartines[4], S. M. Griffin[8] and K. Lassen[1] on behalf of the Enhanced Recovery After Surgery (ERAS®) Group

[1]Department of Gastrointestinal and Hepatobiliary Surgery, University Hospital of Northern Norway, Tromsø, Norway, [2]Department of Surgical Gastroenterology, Karolinska University Hospital, Stockholm, Sweden, [3]Department of Digestive Surgery, Centre Hospitalier Universitaire Estaing, Clermont-Ferrand, France, [4]Department of Visceral Surgery, University Hospital of Lausanne (Centre Hospitalier Universitaire Vaudois), Lausanne, Switzerland, [5]Department of Digestive and Oncological Surgery, University Hospital C. Huriez, Lille, France, [6]Department of Surgery, San Raffaele University, Milan, Italy, [7]Department of Anesthesia, McGill University Health Centre, Montreal, Quebec, Canada, and [8]Northern Oesophagogastric Cancer Unit, Royal Victoria Infirmary, Newcastle Upon Tyne, UK

Correspondence to: Dr K. Mortensen., Department of Gastrointestinal and Hepatobiliary Surgery, University Hospital of Northern Norway, 9038 Breivika, Norway (e-mail: kim.mortensen@unn.no)

View issue TOC
Volume 101, Issue 10
September 2014
Pages 1209–1229

		Evidensgrad	Rekommendation
Epidural analgesia	Mid-thoracic epidurals are recommended based on data from studies on major open abdominal surgery showing superior pain relief and fewer respiratory complications compared with use of intravenous opioids	Pain: High Reduced respiratory complications: Moderate Overall morbidity: Low	Weak
Intravenous analgesia	Some evidence supports the use of PCA or intravenous lidocaine analgesic methods	PCA: Moderate Intravenous lidocaine: Moderate	Weak
Wound catheters and TAP block	Evidence is conflicting regarding wound catheters in abdominal surgery	Wound catheters: Low to moderate	Weak
	Evidence is strong in support of TAP block in abdominal surgery in general, although the effect is evident only during the first 48 h after surgery and none of the evidence is from gastrectomies	TAP blocks: Low	Weak

World J Surg (2013) 37:259–284
DOI 10.1007/s00268-012-1772-0

World Journal of Surgery

Guidelines for Perioperative Care in Elective Colonic Surgery: Enhanced Recovery After Surgery (ERAS®) Society Recommendations

U. O. Gustafsson · M. J. Scott · W. Schwenk · N. Demartines · D. Roulin · N. Francis · C. E. McNaught · J. MacFie · A. S. Liberman · M. Soop · A. Hill · R. H. Kennedy · D. N. Lobo · K. Fearon · O. Ljungqvist

		Evidensgrad	Rekommendation
Postoperative analgesia	Open surgery: TEA using low-dose local anaesthetic and opioids.	TEA, open surgery: High Local anaesthetic and opioid: Moderate	Strong
	Laparoscopic surgery: an alternative to TEA is a carefully administered spinal analgesia with a low-dose, long-acting opioid	TEA not mandatory in laparoscopic surgery: Moderate	

World J Surg (2013) 37:285–305
DOI 10.1007/s00268-012-1787-6

World Journal of Surgery

Guidelines for Perioperative Care in Elective Rectal/Pelvic Surgery: Enhanced Recovery After Surgery (ERAS®) Society Recommendations

J. Nygren · J. Thacker · F. Carli · K. C. H. Fearon · S. Norderval · D. N. Lobo · O. Ljungqvist · M. Soop · J. Ramirez

		Evidensgrad	Rekommendation
Postoperative analgesia	*TEA is recommended for open rectal surgery for 48–72 h in view of the superior quality of pain relief compared with systemic opioids. Intravenous administration of lidocaine has also been shown to provide satisfactory analgesia, but the evidence in rectal surgery is lacking. If a laparoscopic approach is used, epidural or intravenous lidocaine, in the context of ERAS, provides adequate pain relief and no difference in the duration of LOSH and return of bowel function. Rectal pain can be of neuropathic origin, and needs to be treated with multimodal analgesic methods. There is limited evidence for the routine use of wound catheters and continuous TAP blocks in rectal surgery*	Epidural for open surgery: High Epidural for laparoscopy: Low Intravenous lidocaine: Moderate Wound infiltration and TAP blocks: Low	Epidural for open surgery: Strong Epidural for laparoscopy: Weak Intraveous lidocaine: Weak Wound infiltration and TAP blocks: Weak

Acta Anaesthesiologica Scandinavica
AN INTERNATIONAL JOURNAL OF ANAESTHESIOLOGY AND INTENSIVE CARE, PAIN AND EMERGENCY MEDICINE
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Review Article

Enhanced Recovery After Surgery (ERAS) for gastrointestinal surgery, part 2: consensus statement for anaesthesia practice

A. Feldheiser, O. Aziz, G. Baldini, B. P. B. W. Cox, K. C. H. Fearon, L. S. Feldman, T. J. Gan, R. H. Kennedy, O. Ljungqvist, D. N. Lobo, T. Miller, F. F. Radtke, T. Ruiz Garces, T. Schricker, M. J. Scott, J. K. Thacker, L. M. Ytrebø, F. Carli

First published: 30 October 2015 Full publication history
DOI: 10.1111/aas.12651 View/save citation
Cited by: 6 articles Citation tools

View issue TOC
Volume 60, Issue 3
March 2016
Pages 289–334

MMA = Multimodal analgesi
TEA = Thoracal EDA
IVLI = I.v. Lidocaine
TAP = Transversus abdominis blockad
CWI = Conituous wound infusion

Recommendation grade : MMA: strong

Open abdominal surgery

TEA: strong for using it

IVLI: moderate for using it

CWI: weak for using it

TAP blocks: moderate for using it

Laparoscopic abdominal surgery

TEA: weak for using it

IVLI: moderate for using it

Intrathecal morphine: moderate for using it

TAP blocks: moderate for using it

PROCEDURES:

- Abdominal Hysterectomy
- C-Section
- Colonic Resection
- Haemorrhoid Surgery
- Herniorraphy
- Laparoscopic Cholecystectomy Update
- Non-cosmetic Breast Surgery
- Radical Prostatectomy
- Thoracotomy
- Total Hip Arthroplasty
- Total Knee Arthroplasty
- A Detailed Methodology 2006

AFFILIATES:

State of the Art Safety Standards in RA
THE EUROPEAN SOCIETY OF REGIONAL ANAESTHESIA & PAIN THERAPY

There is growing evidence that the efficacy of analgesic agents differs between surgical procedures[1]

Current analgesic information is often derived by pooling data from a variety of surgical procedures (e.g. numbers needed to treat or harm: NNT or NNH[1]

Evidence shows that current postoperative pain management is not optimal – See Evidence

Therefore, postoperative pain management protocols may be optimised by examining procedure-specific outcomes[1]

1. Gray A, Kehlet H, Bonnet F, Rawal N. Predicting postoperative analgesic outcomes: NNT league tables or procedure-specific evidence? Br J Anaesth 2005; 94 (6): 710–14. Abstract

WHY PROCEDURE-SPECIFIC RECOMMENDATIONS?

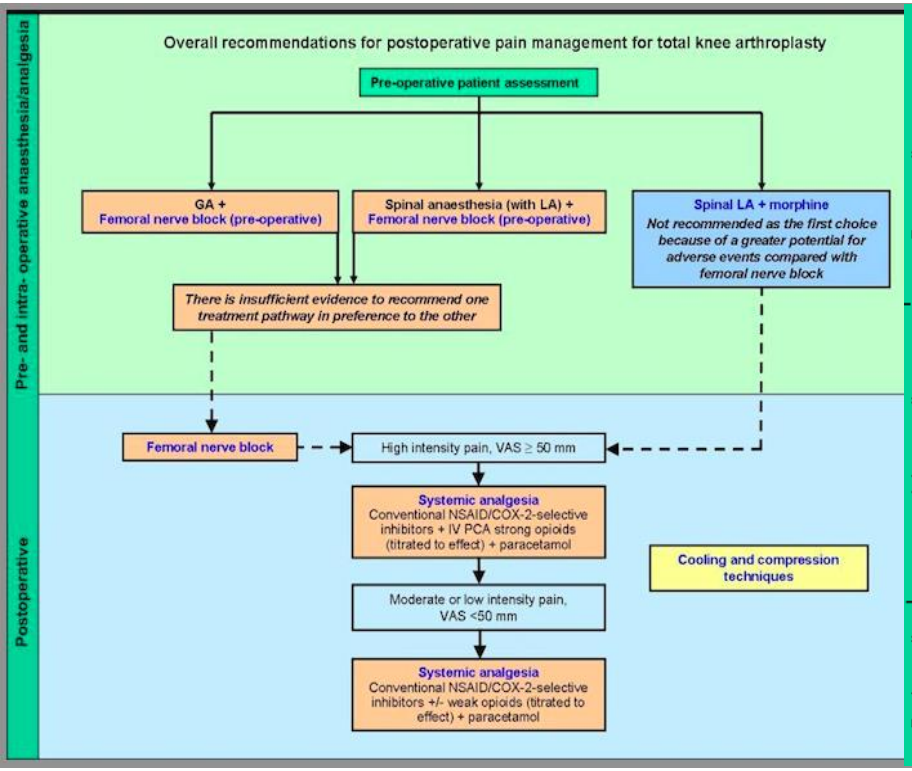
The type, level and duration of pain may vary depending on the type of surgery e.g. thoracic vs. abdominal vs. minimally invasive surgery

Some analgesics are only relevant for specific operations e.g. intraperitoneal local anaesthetics, peripheral nerve blocks

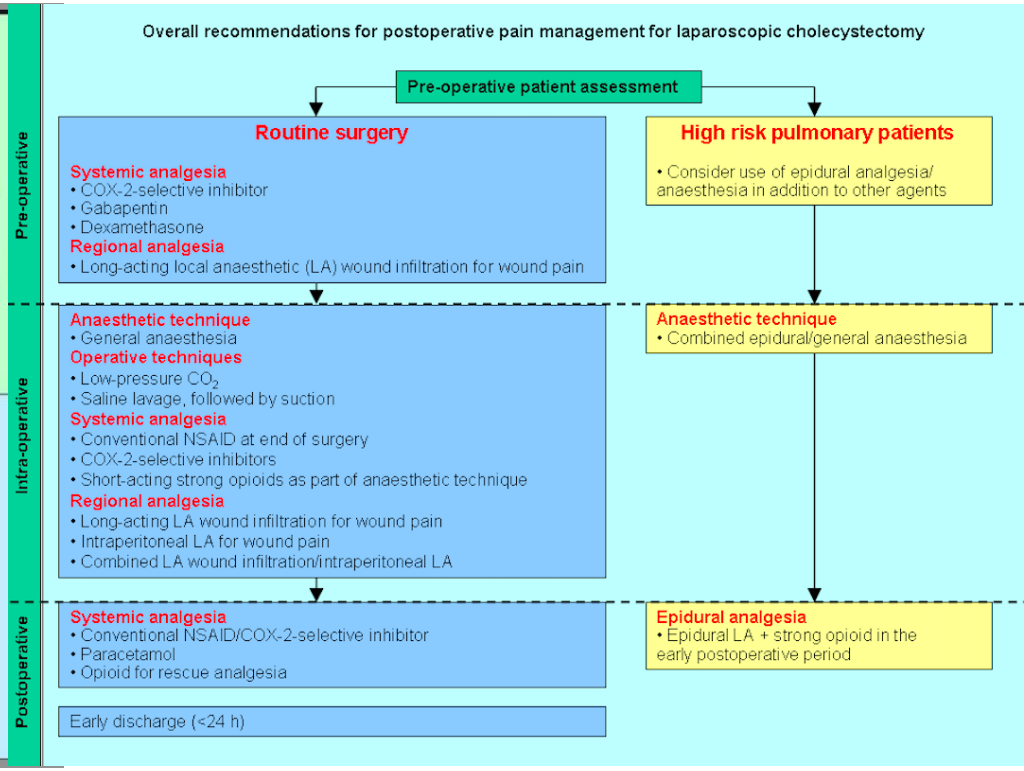
The risks and benefits of different analgesics differ between procedures e.g. general vs. neuraxial anaesthesia

Exempel algoritm postop smärtlindring Prospect

Knäprotes



Laparoskopisk cholecystektomi



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- → About PAIN OUT
- → How to join
- → Links
- → Additional projects
- → Knowledge library

Application

- → Data entry
- → Benchmarkserver
- → E-Learning
- → EUCPSP
- → PAIN OUT infant

For participants

- → Website Login

Welcome to the PAIN OUT website

PAIN OUT is an international quality improvement and registry project that provides a unique and user-friendly web-based information system to improve treatment of patients with post-operative pain. Participating hospitals collect patient-reported outcome data as well as clinical data in a highly standardized way, using a questionnaire available in more than 20 languages. After input of data, hospitals receive online feedback and can compare their results with other participating hospitals (benchmarking). Evaluation of these results helps identify deficits so that improvements can be implemented. From 2009-2012, PAIN OUT was funded by European Commission's 7th Framework Programme (Grant Agreement no. 223590).

Since 2013, PAIN OUT is being continued in cooperation with professional societies, e.g. the International Association for the Study of Pain (IASP). Participating hospitals have to pay a moderate annual fee for the services provided by PAIN OUT.

ClinicalTrials.gov Identifier: NCT02083835

PAIN OUT News

→ 2016-08-24	New Features in the PAIN OUT Data Base
	A - Project Phase Variable
	more...
→ 2016-08-23	PAIN OUT on the 16th World Congress on Pain in Yokohama

Göransson *et al. Patient Safety in Surgery* (2016) 10:2
DOI 10.1186/s13037-015-0089-y

Patient Safety in Surgery

RESEARCH Open Access

Safety hazards in abdominal surgery related to communication between surgical and anesthesia unit personnel found in a Swedish nationwide survey

Katarina Göransson[1], Johan Lundberg[1], Olle Ljungqvist[2], Elisabet Ohlsson[3] and Gabriel Sandblom[4*]

Abstract

Background: Many adverse events occur due to poor communication between surgical and anesthesia unit personnel. The aim of this study was to identify strategies to reduce risks unveiled by a national survey on patient safety.

Methods: During 2011–2015, specially trained survey teams visited the surgery departments at Swedish hospitals and documented routines concerning safety in abdominal surgery. The reports from the first seventeen visits were reviewed by an independent group in order to extract findings related to routines in communication between anesthesia and surgical unit personnel.

Results: In general, routines regarding preoperative risk assessment were safe and well- coordinated. On the other hand, routines regarding medication prior to surgery, reporting between the different units, and systems for reporting and providing feedback on adverse events were poor or missing. Strategies with highest priority include: 1. a uniform national health declaration form; 2. consistent use of admission notes; 3. systems for documenting all important medical information, that is accessible to everyone; 4. a multidisciplinary forum for the evaluation of high-risk patients; 5. weekly and daily scheduling of surgical programs; 6. application of the WHO check list; 7. open dialog during surgery; 8. reporting based on SBAR; 9. oral and written reports from the surgeon to the postoperative unit; and 10. combined mortality and morbidity conferences.

Conclusion: One repeatedly occurring hazard endangering patient safety was related to communication between surgical and anesthesia unit personnel. Strategies to reduce this hazard are suggested, but further research is required to test their effectiveness.

SÄKER BUKKIRURGI
LÖF, SFAI, VF m.fl.

Resultat från 17 enheter 2011-2013 presenteras i denna studie

Fram till 2015 har 43 enheter granskats

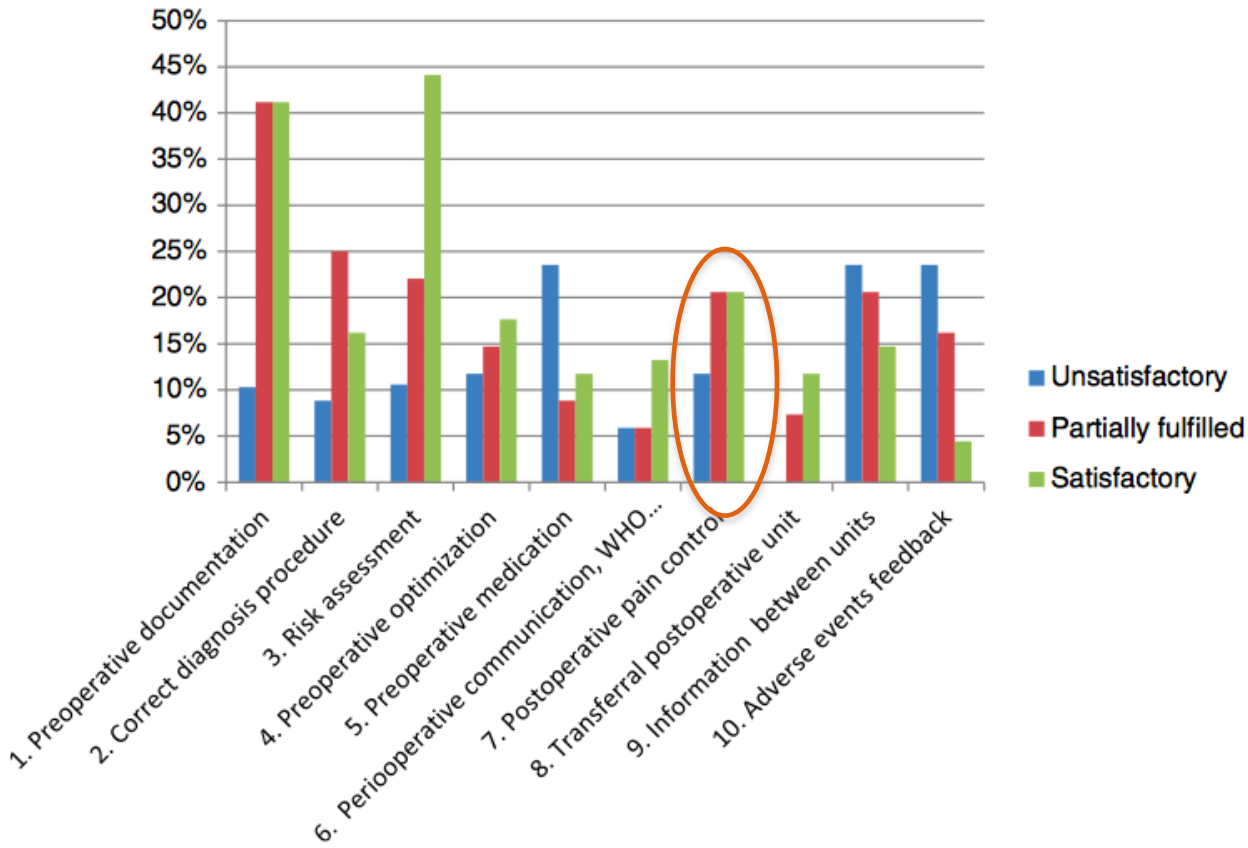
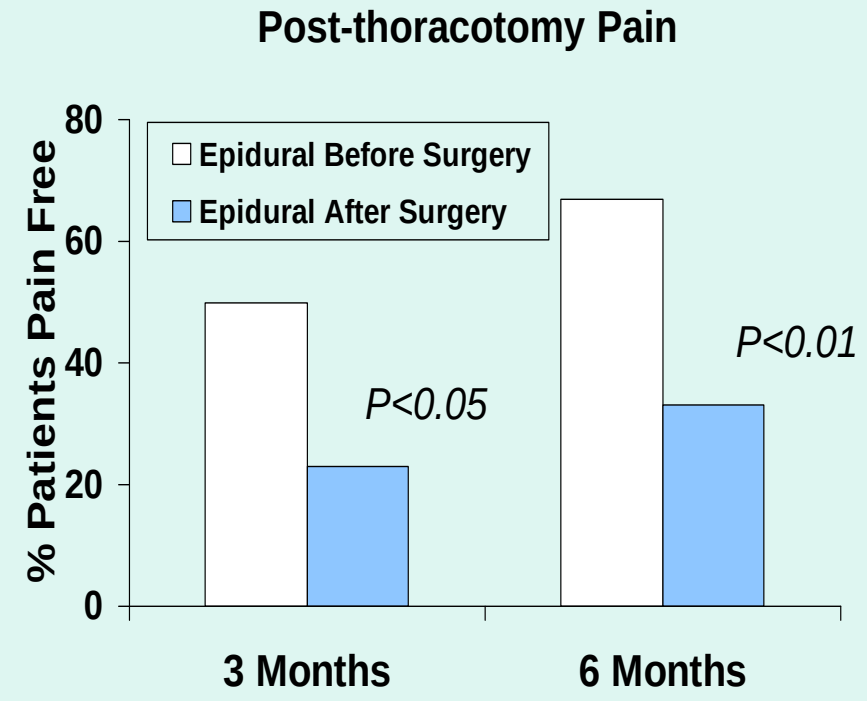
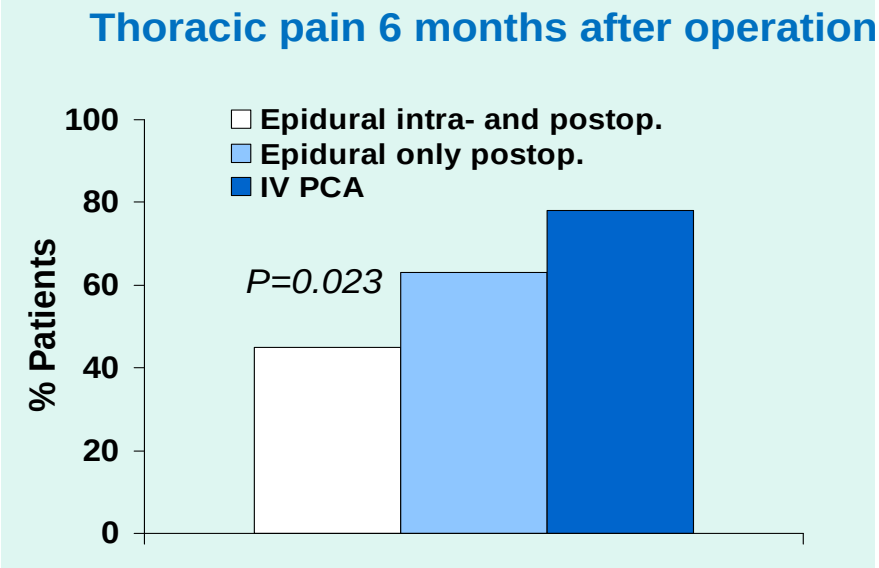


Fig. 2 Assessment ratings from 17 survey reports. The figure shows the distributions of all subscales for each issue related to communications between surgical personnel and anaesthesia personnel. Because data were missing for some subscales, the total does not add up to 100 % for each scale. When the outcome was not assessable from the reports, the unit was excluded from the analysis

EDA & Post Thoracotomy Pain





Senturk 2002, Obata 1999

Lungkomplikation pneumoni + resp failure %

Smärtlindringsmetod	EDA	Systemisk
Stor abd kirurgi	10,4	16,7
Stor abd kirurgi ThEDA	10,9	16,7
Thx kirurgi	14,6	31,1

British Journal of Anaesthesia **87** (1): 62–72 (2001)

Effect of postoperative analgesia on surgical outcome

H. Kehlet* and K. Holte

Department of Surgical Gastroenterology, Hvidovre University Hospital, DK-2650 Hvidovre, Denmark
**Corresponding author*

Br J Anaesth 2001; **87**: 62–72

Keywords: anaesthesia, regional; pain, postoperative; analgesia, patient-controlled NSAIDs; postoperative morbidity

Kardiell komplikation %

Smärtlindringsmetod	EDA	Systemisk
Abdominal kirurgi	16,4	24,5
Abdominal kir ThEDA	13,4	23,2

British Journal of Anaesthesia **87** (1): 62–72 (2001)

Effect of postoperative analgesia on surgical outcome

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Br J Anaesth 2001; **87**: 62–72

Keywords: anaesthesia, regional; pain, postoperative; analgesia, patient-controlled NSAIDs; postoperative morbidity

Tromboembolisk komplikation %

Smärtlindringsmetod	EDA	Systemisk
Nedre extr kirurgi	28,7	62,0
Abdominal kirurgi	15,7	22,4
Thx kirurgi	1,3	5,7

British Journal of Anaesthesia **87** (1): 62–72 (2001)

Effect of postoperative analgesia on surgical outcome

H. Kehlet* and K. Holte

Department of Surgical Gastroenterology, Hvidovre University Hospital, DK-2650 Hvidovre, Denmark
**Corresponding author*

Br J Anaesth 2001; **87**: 62–72

Keywords: anaesthesia, regional; pain, postoperative; analgesia, patient-controlled NSAIDs; postoperative morbidity

Duration Postop ileus

British Journal of Anaesthesia 87 (1): 62–72 (2001)

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Br J Anaesth 2001; 87: 62–72
Keywords: anaesthesia, regional; pain, postoperative; analgesia, patient-controlled NSAIDs; postoperative morbidity

Kehlet and Holte

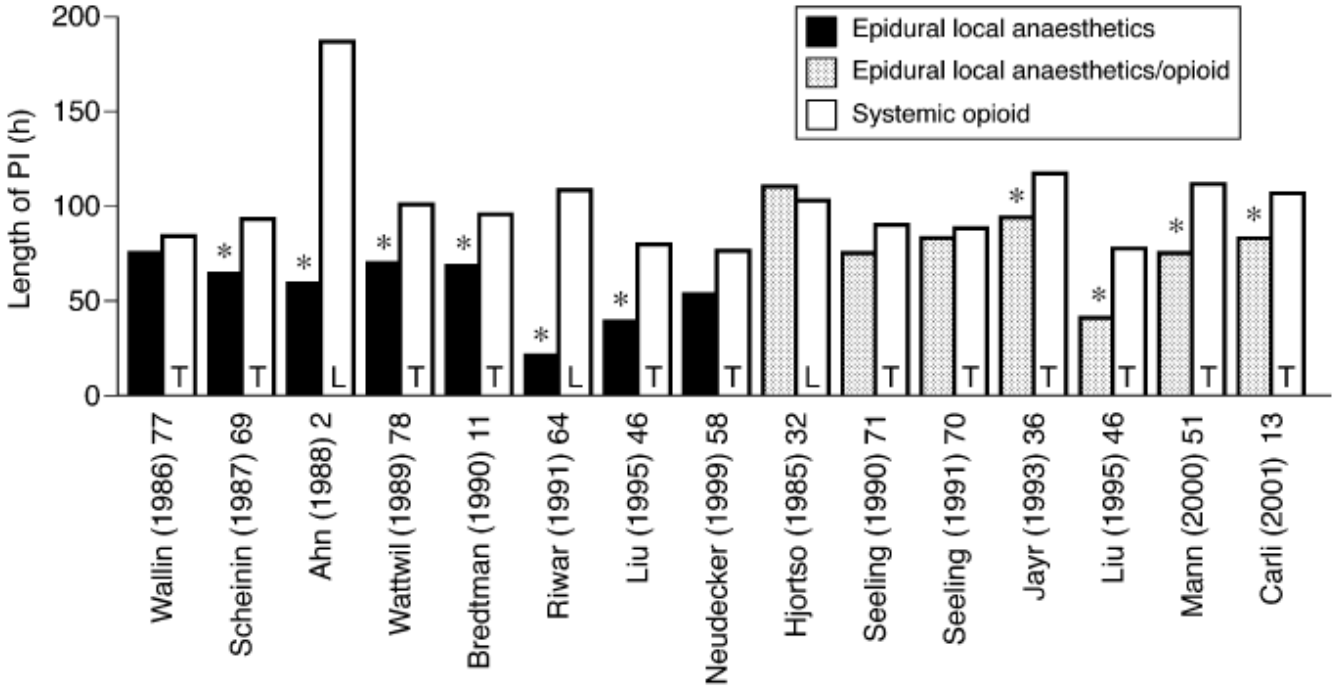


Fig 1 Effects of postoperative epidural local anaesthetic or local anaesthetic–opioid mixtures on duration of postoperative ileus (PI) in abdominal procedures. Indicators of PI are ranked in descending order (bowel movements>flatus) if more than one indicator was assessed in a study. T= thoracic epidural; L=lumbar epidural.

Sjukhusvistelse postop, dagar

Smärtlindringsmetod	EDA	Systemisk
Abdominal kirurgi	12,4	12,4
Thx kirurgi	15,5	17,1

British Journal of Anaesthesia 87 (1): 62–72 (2001)

Effect of postoperative analgesia on surgical outcome

H. Kehlet* and K. Holte

Department of Surgical Gastroenterology, Hvidovre University Hospital, DK-2650 Hvidovre, Denmark
**Corresponding author*

Br J Anaesth 2001; **87**: 62–72

Keywords: anaesthesia, regional; pain, postoperative; analgesia, patient-controlled NSAIDs; postoperative morbidity

Kirurgisk teknik- vad betyder det?

t.ex. Inguinal Hernia

- Öppen kirurgi ökar risken för PPP (n = 464), PPP= persistant postop pain
- Kirurgi är - Elektiv nervlesion!
- Typ av mesh av betydelse vid öppen men ej vid laparoskopisk kir
- Fibrin bättre än suturer
- Laparoskopi är att föredra framför öppen kirurgi särskilt vid högrisk-pat

Aasvang 2010, Curie 2012, Fortelny 2012, Kehlet 2010

Local anaesthetics and regional anaesthesia for preventing chronic pain after surgery (Review)

Andreae MH, Andreae DA

THE COCHRANE COLLABORATION®

This is a reprint of a Cochrane review, prepared and maintained by The Cochrane Collaboration and published in *The Cochrane Library* 2012, Issue 10

http://www.thecochranelibrary.com

WILEY

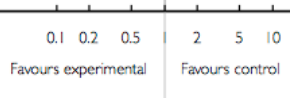
Analysis 1.1. Comparison 1 Local anaesthetics and regional anaesthesia for persistent pain after surgery (pooled), Outcome 1 Dichotomous pain outcomes at six months.

Review: Local anaesthetics and regional anaesthesia for preventing chronic pain after surgery

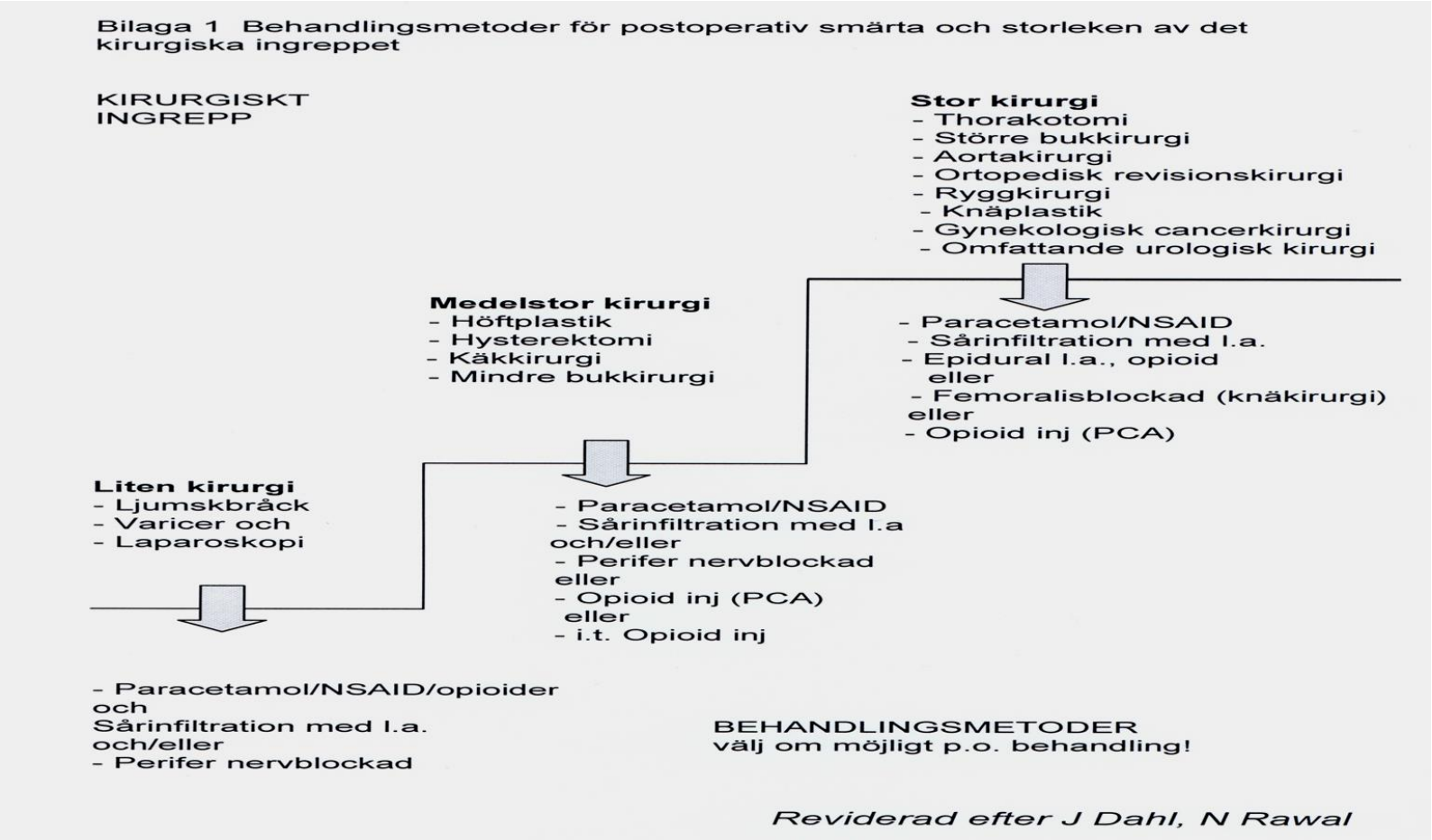
Comparison: 1 Local anaesthetics and regional anaesthesia for persistent pain after surgery (pooled)

Outcome: 1 Dichotomous pain outcomes at six months

Study or subgroup	Favours regional n/N	Conventional Pain Control n/N	Odds Ratio IV,Random,95% CI	Weight	Odds Ratio IV,Random,95% CI
1 Thoracotomy (epidural analgesia))					
Ju 2008	26/48	31/43		43.4 %	0.46 [0.19, 1.10]
Lu 2008	9/62	12/28		31.4 %	0.23 [0.08, 0.63]
Senturk 2002	25/46	18/23		25.2 %	0.33 [0.10, 1.04]
Subtotal (95% CI)	**156**	**94**		**100.0 %**	**0.34 [0.19, 0.60]**
Total events: 60 (Favours regional), 61 (Conventional Pain Control)					
Heterogeneity: $Tau^2 = 0.0$; $Chi^2 = 1.04$, df = 2 (P = 0.59); $I^2 = 0.0\%$					
Test for overall effect: Z = 3.69 (P = 0.00023)					
2 Breast cancer surgery (paravertebral block)					
Ibarra 2011	5/15	7/14		39.3 %	0.50 [0.11, 2.24]
Kairaluoma 2006	5/30	12/30		60.7 %	0.30 [0.09, 1.00]
Subtotal (95% CI)	**45**	**44**		**100.0 %**	**0.37 [0.14, 0.94]**
Total events: 10 (Favours regional), 19 (Conventional Pain Control)					
Heterogeneity: $Tau^2 = 0.0$; $Chi^2 = 0.27$, df = 1 (P = 0.60); $I^2 = 0.0\%$					
Test for overall effect: Z = 2.09 (P = 0.036)					



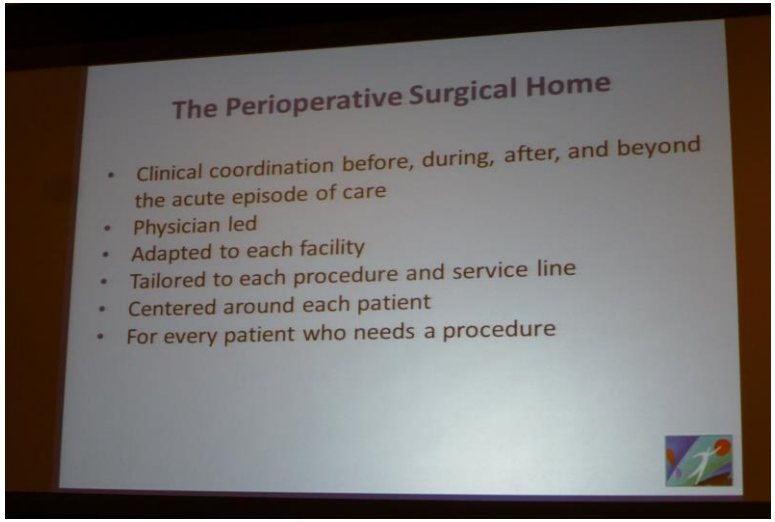
Smärttrappa vid kirurgisk smärta

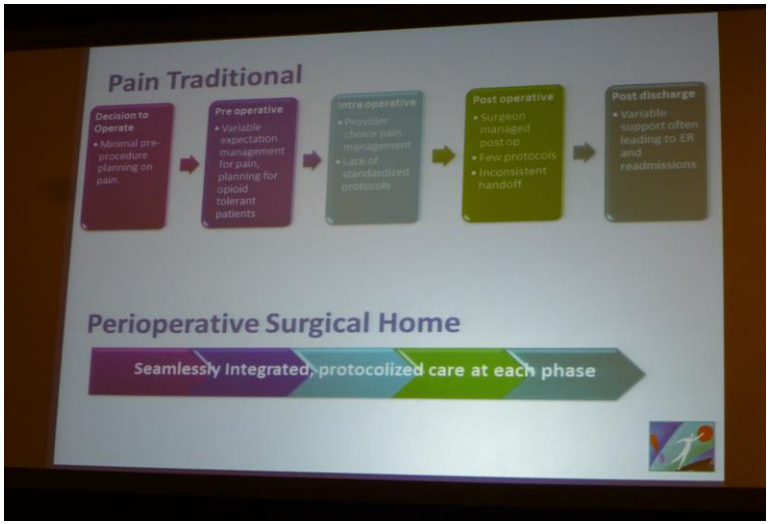


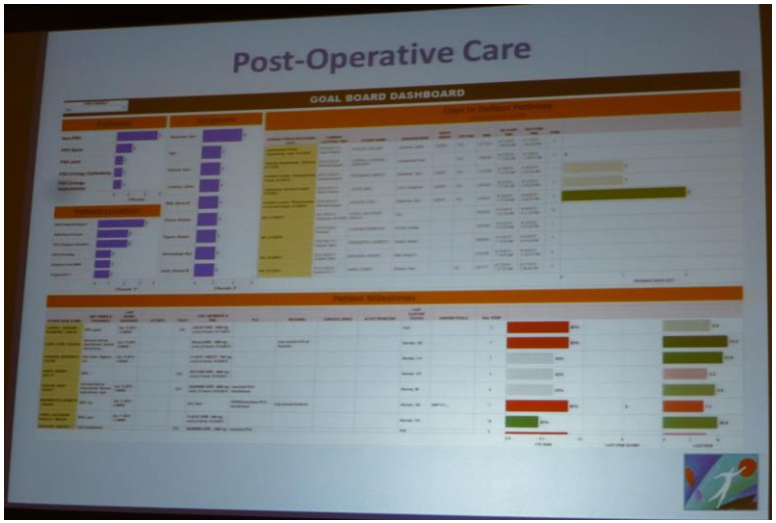
Läkartidningen ❙ Nr 14 ❙ 2001 ❙ Volym 98
Smärttrappa för postoperativ smärta (modifierad efter Rawal och Dahl: European minimum standards for the management of postoperative pain, ESRA EuroPain Congress, Geneva, 1998).

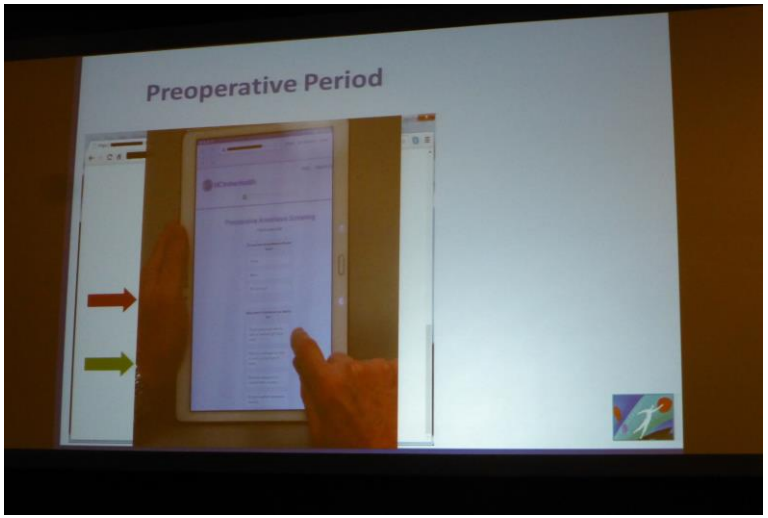
Organisations aspekter

Perioperative Surgical Home = PSH

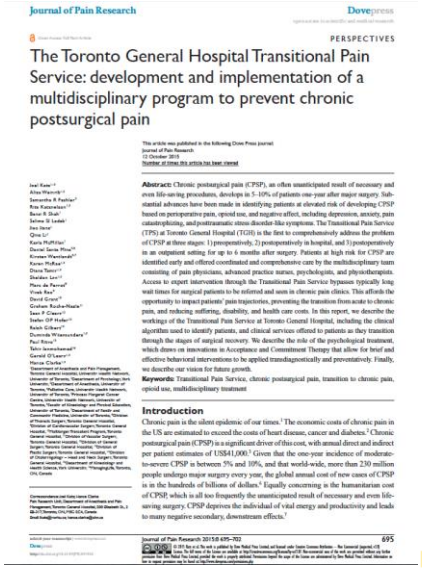








TPS: Transitional Pain Service



Journal of Pain Research — Dovepress

PERSPECTIVES

The Toronto General Hospital Transitional Pain Service: development and implementation of a multidisciplinary program to prevent chronic postsurgical pain

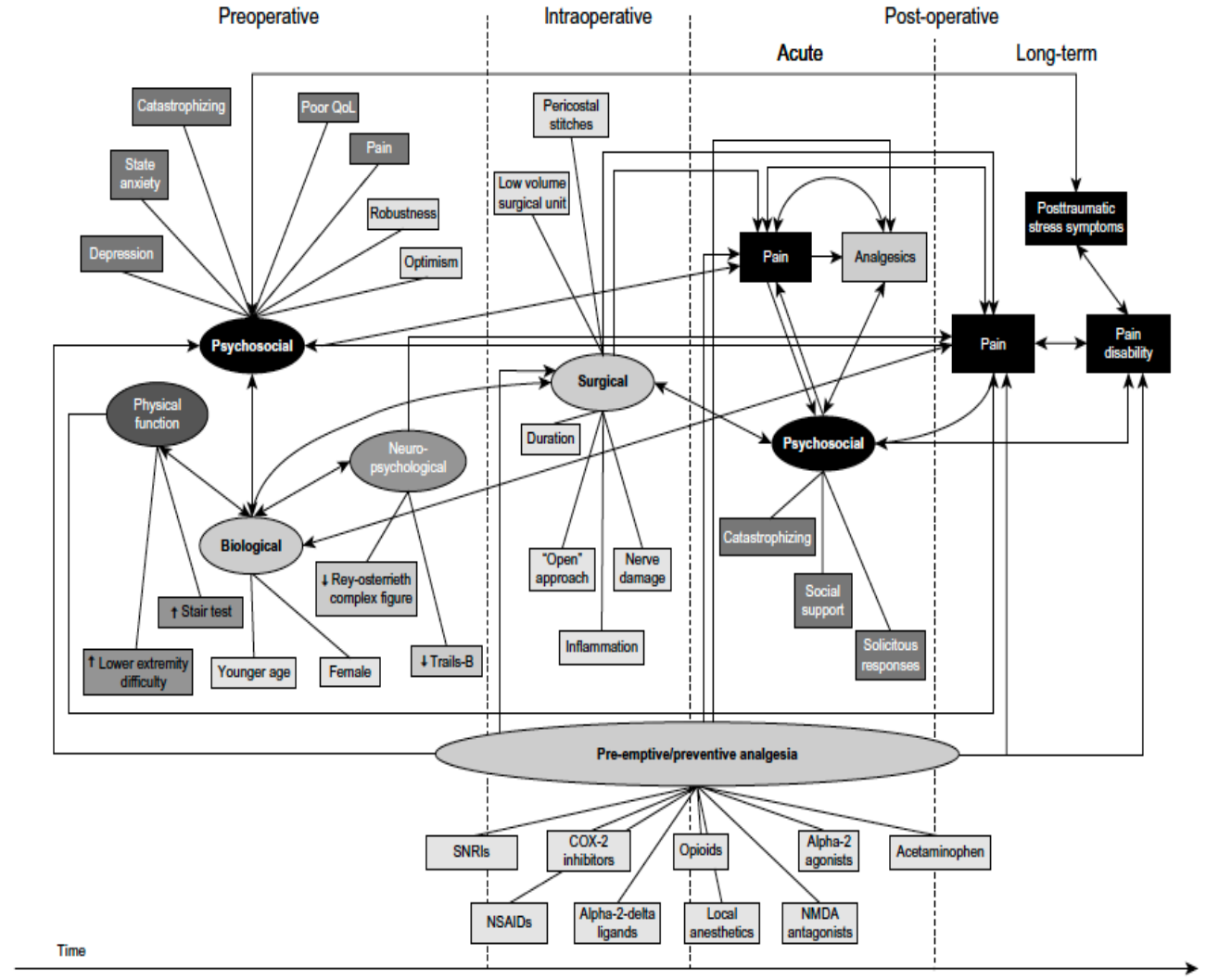


Figure 1 Schematic illustration of the processes involved in the development of chronic postsurgical pain and pain disability showing relationships among preoperative, intraoperative, and postoperative risk/protective factors. Copyright © 2009 Katz and Seltzer. Adapted with permission from Katz J, Seltzer Z. Transition from acute to chronic postsurgical pain: risk factors and protective factors. *Expert Rev Neurother*. 2009;9(5): 723–744.[3]

Abbreviations: QoL, quality of life; SNRIs, serotonin–norepinephrine reuptake inhibitors; NSAIDs, nonsteroidal anti-inflammatory drugs; NMDA, N-Methyl-D-aspartic acid.

Effective Pain Management and Improvements in Patients' Outcomes and Satisfaction

CriticalCareNurse Vol 35, No. 3, JUNE 2015 33

Diane Glowacki, RN, MSN, CNS, CNRN-CMC

Effekt av införande av smärtrond på avdelning

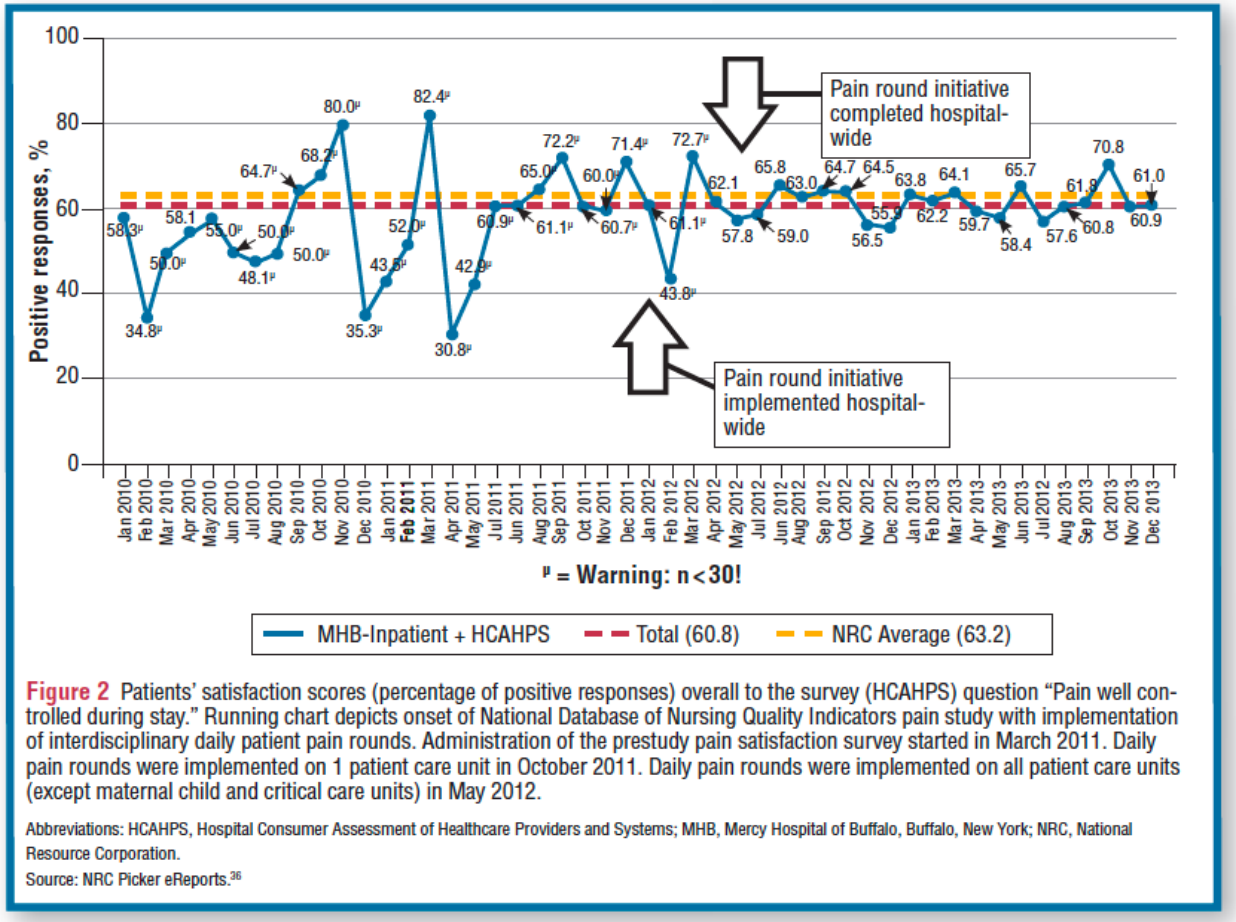


Figure 2 Patients' satisfaction scores (percentage of positive responses) overall to the survey (HCAHPS) question "Pain well controlled during stay." Running chart depicts onset of National Database of Nursing Quality Indicators pain study with implementation of interdisciplinary daily patient pain rounds. Administration of the prestudy pain satisfaction survey started in March 2011. Daily pain rounds were implemented on 1 patient care unit in October 2011. Daily pain rounds were implemented on all patient care units (except maternal child and critical care units) in May 2012.

Abbreviations: HCAHPS, Hospital Consumer Assessment of Healthcare Providers and Systems; MHB, Mercy Hospital of Buffalo, Buffalo, New York; NRC, National Resource Corporation.

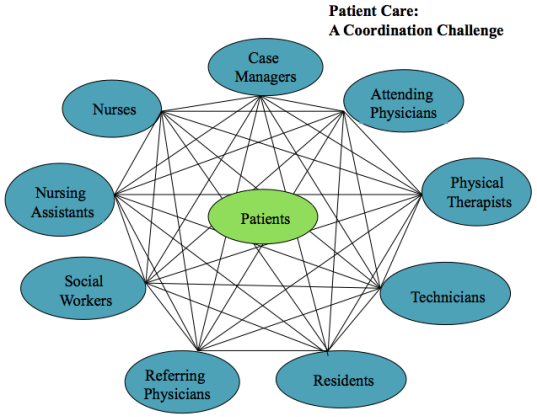
Source: NRC Picker eReports.[36]

Relational Coordination

Medical Care:
August 2000 - Volume 38 - Issue 8 - pp 807-819
Original Articles

Impact of Relational Coordination on Quality of Care, Postoperative Pain and Functioning, and Length of Stay: A Nine-Hospital Study of Surgical Patients

Gittell, Jody Hoffer PhD*; Fairfield, Kathleen M. MD, MPH†; Bierbaum, Benjamin MD‡; Head, William MD§; Jackson, Robert MD‖; Kelly, Michael MD¶; Laskin, Richard MD#; Lipson, Stephen MD†; Siliski, John MD**; Thornhill, Thomas MD††; Zuckerman, Joseph MD‡‡



68 % kortare sjukhusvistelse
53 % högre patientnöjdhet
18 % mindre postoperativ smärta

1. Gemensamma mål
2. Delad kunskap
3. Ömsesidig respekt

Fortsatt utveckling av dagkirurgi

ELSEVIER

The Journal of Arthroplasty

Volume 30, Issue 2, February 2015, Pages 330–334

Safety and Efficacy of Continuous Femoral Nerve Catheter with Single Shot Sciatic Nerve Block vs Epidural Catheter Anesthesia for Same-Day Bilateral Total Knee Arthroplasty

Nimit Patel, MD[b], Olga Solovyova, MD[c], Greg Matthews, MS[d], Sivasenthil Arumugam, MD[e], Sanjay K. Sinha, MD[e], Courtland G. Lewis, MD[a].

Show more

In a retrospective analysis, we evaluated the safety and efficacy of peripheral nerve blocks (PNB) compared to epidural anesthesia in 221 consecutive patients undergoing same-day bilateral total knee arthroplasty (TKA). Primary outcome measures included: hypotension requiring physician intervention, number of blood transfusions, perioperative hespan and crystalloid consumption, incidences of respiratory desaturation, pruritis, urinary retention, and nausea/vomiting. The incidences of hypotension, urinary retention, and pruritis were all higher in the epidural group, compared to PNB. Epidural patients also required more blood transfusions and greater volumes of hespan and crystalloid. PNB are safe and efficacious modality of analgesia for same day bilateral TKA and provide adequate pain relief with a significant decrease in postoperative complications compared to epidural anesthesia.

Keywords

bilateral total knee; same-day; peripheral nerve block; epidural; safety

Dagkirurgi vid total knäprotes?

Citat:

”The **anesthesiologists should be skilled at multimodal pain management techniques to ensure your safety, pain management and quick recovery**”

AAHKS
AMERICAN ASSOCIATION OF HIP AND KNEE SURGEONS

Nya läkemedel

Några nyheter…..

Sufentanil sublingual t

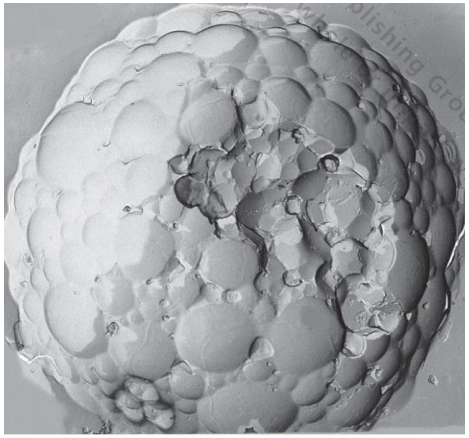
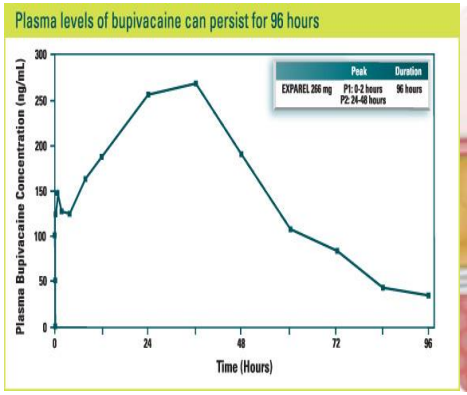
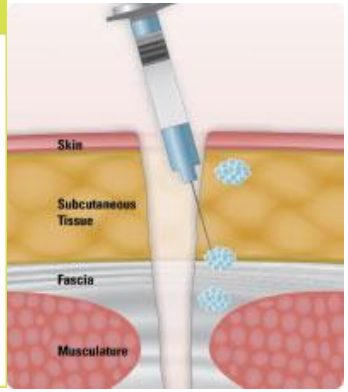


Figure 1. Electron micrograph of a DepoFoam particle.

Extended Release Epidural Morphine





Liposomalt Bupivacaine

”Antidot opioid”
autoinjektor Naloxon 0,4 mg

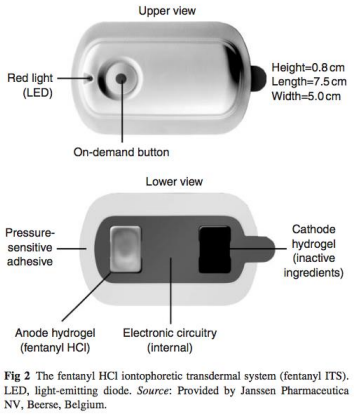


Fig 2 The fentanyl HCl iontophoretic transdermal system (fentanyl ITS). LED, light-emitting diode. *Source*: Provided by Janssen Pharmaceutica NV, Beerse, Belgium.

Fentanyl PCA plåster

Sammanfattning strategier

- Enligt ERAS, APS
  - Plan för typingrepp
  - Kirurgisk teknik
  - Multimodal analgesi
  - EDA
  - PCA
  - Opioider
  - Paracetamol
  - Coxiber
  - Lokalbedövning
  - Perifera blockader
- Övrigt…
  - Preop mottagning
    - Identifiera riskpatient
  - Gabapentinoider
  - Ketamin
  - Organisation
  - Dexametason
  - Alfa-2-agonister
  - Capsaicin
  - Tricyklika Antidepr.
  - Nya LKM & Teknik


Tack!