

Mammachirurgie in dagbehandeling



- 28 januari Harderwijk
- Hester Oldenburg, chirurg
- Antoni van Leeuwenhoek ziekenhuis
- Amsterdam



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Breast conserving surgery (WLE / SN/ ALND)

in daycare

axillary drain after axillary
clearance 5 days in situ



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Ablative surgery (Ablatio/ MRM)

mean admittance 6 days
axillary drain 5 days in situ



Introduction

Trends in surgery: short stay

Breast surgery: the same

1986 Am J Surg, Cohen:
Early discharge after modified radical mastectomy

1992 Am Surg, Clark:
One-day hospitalization following
modified radical mastectomy



Fast Track Breast Surgery

2003 Ann Chir, Arnaud:

Women's preferences for early discharge after conservative breast surgery

Length of stay was related to: ASA score

education level

→ pain

→ number of wound drains

satisfaction about hospital

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Fast Track Breast Surgery

AVL/NKI breast cancer patient focus groups

Attention directed to:

1. good communication
2. peri-operative pain management
3. change in drain care

Fast Track Breast Surgery

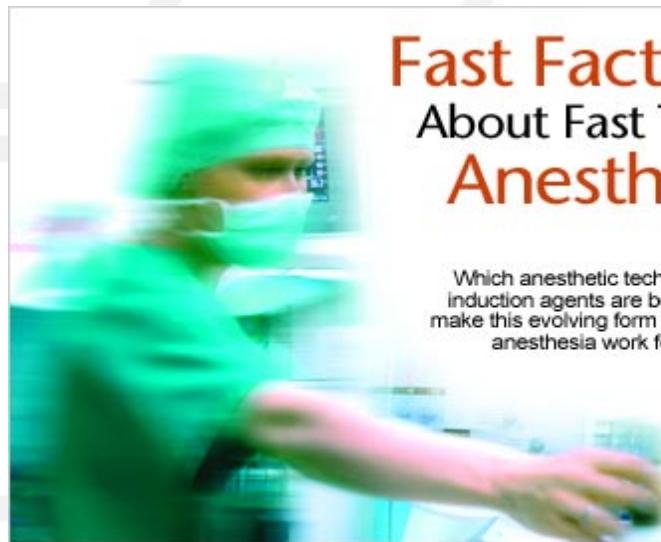
Attention directed to:

1. good communication

Fast Track Breast Surgery

Attention directed to:

1. good communication
2. peri-operative pain management



Fast Facts
About Fast Track
Anesthesia

Which anesthetic techniques and induction agents are best suited to make this evolving form of ambulatory anesthesia work for you?



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Peri-operative pain management

Apfel CC et al. Anesthesiology 1999; 91:693-700

Warcha MF et al. Anesthesiology 1992; 77:162-84

1. Direct influence on length of hospital stay
2. Postoperative nausea and vomitus (PONV) is dependent of:

- Surgery > pain > risk
> longer > risk
- Anesthesia general/ regional
damps / N₂O > iv / air-O₂
opioïds
- Patients young>old
female>male
non-smoker>smoker
carsickness>no carsickness
earlier PONV > non PONV
BMI>risk>



Perioperative pain management

Question:

Is simple regional infiltration anesthesia part of a multimodal traject to diminish PONV for surgery of primairy breast cancer ?

Eur J Anaesthesiol. 2008 Mar;25(3):253-5.

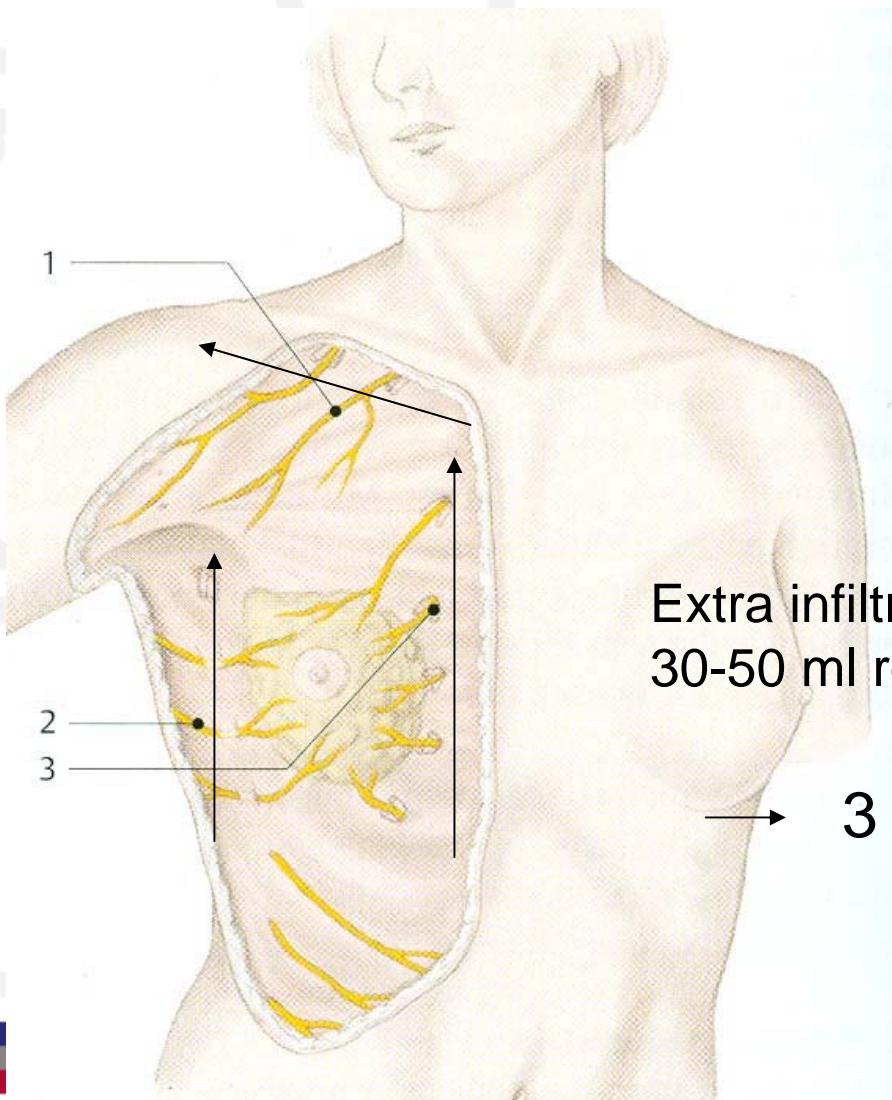
Field block: an additional technique of potential value for breast surgery under general anaesthesia. Buitelaar, Huitink, Oldenburg et al.

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Fast track breast surgery



Basic general anesthesia

Propofol +/- damp
Sufentanil
Atracurium, mivacurium or
rocuronium

Paracetamol
Diclofenac
Opioïds

Extra infiltration anesthesia
30-50 ml ropivacaïne 0,5%

→ 3 infiltration trajects

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Fast track breast surgery



Loco-regional anesthesia

Breast conserving surgery

Group 1: general anesthesia

n = 56 patiënts

Group 2: general + loco-regional anesthesia

n = 50 patiënts

Outcome parameters:

- Mean VAS-score at admittance and discharge recovery room
- use of analgetics in recovery room
- percentage of patients with rescue medication (morphine eq)
- PONV first 24 hours

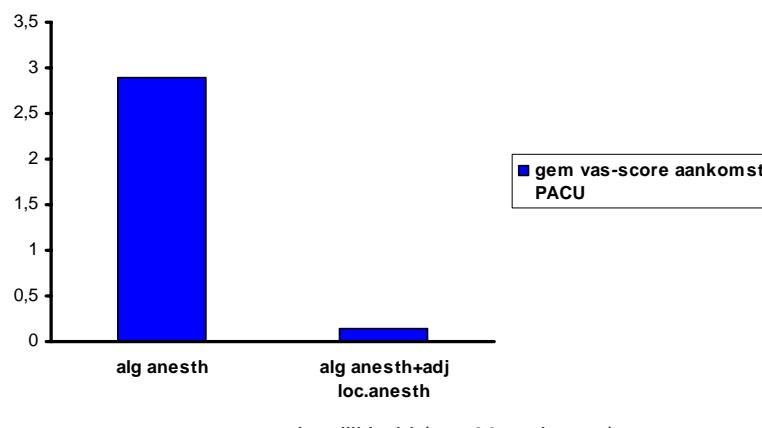
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Loco-regional anesthesia

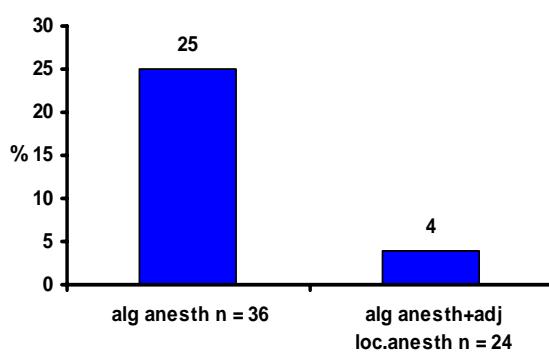
gemiddelde vas-score aankomst PACU



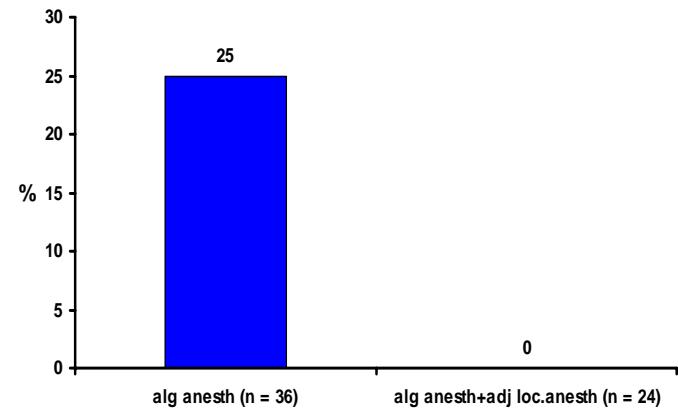
Group 1: general anesthesia n = 56

Group 2: general + loco-regional anesthesia n = 50

percentage misselijkheid (n = 60 patienten)



percentage braken (n = 60 patiënten)



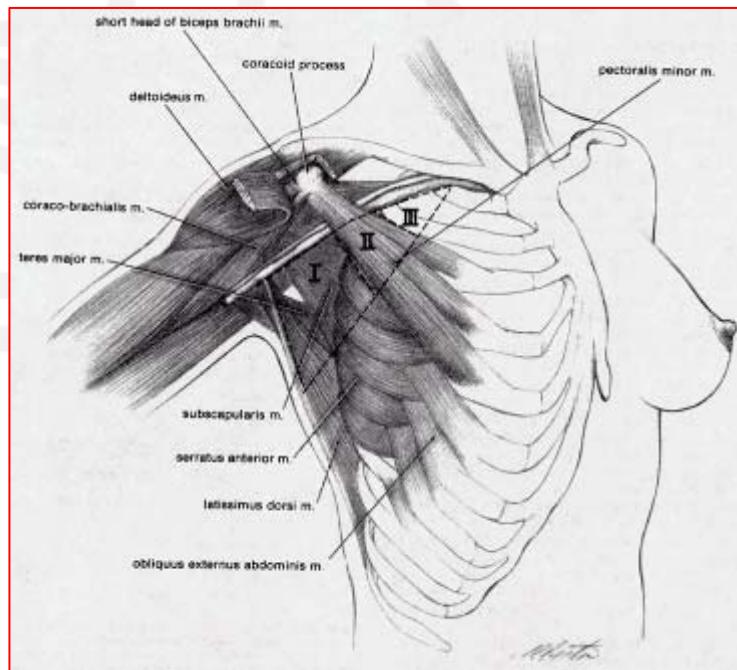
Fast Track Breast Surgery

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Why drainage after ALND?

Seroma production most common complication after axillary surgery



0 – 96 %

Definition?

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When seroma?

1990 Arch Surg, Petrek:

13 factors

- * many node positive nodes
- * earlier biopsy

1997 J Surg Oncol, Burak:

- * age
- * weight

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Axillary drainage after ALND

Advantage Drainage:

less seroma

Disadvantage Drainage:

less pain

HOW long?

1-3 days → no drain
1-2 weeks → drain

longer hospital stay

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Length of axillary drainage

1997 *Ann R Coll Surg Engl*, Barwell:

n=63, drain 1-7 days dependent of production
51 % seroma needing aspiration

2001 *Eur J Surg Oncol*, Gupta:

n=64 5 days vs n= 57 8 days
5 days: 75 seroma aspirations / 13 759 ml
8 days: 42 seroma aspirations / 6275 ml



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Length of axillary drainage

2004 *Eur J Surg Oncol*, Dalberg (Zweden)

n=99 24 hr

vs

n=99 usual practice

48 % seroma
2 aspirations
4 % infections

22 % seroma
1 aspirations
3 % infections

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Length of axillary drainage

2005 *Breast*, Soon (Edinburgh)

36 no drain vs 51 24-48 hr drain

Table 2

	Drain		No drain	
Number seromas	34	94.4%	49	96.1%
Cumulative total seroma volume (ml)	538.8		856.7	
Mean number aspirations	4.0		5.4	
Mean days seroma persisted	25		34	
Mean length of inpatient stay (days)	1.9		1.9	

= 24 hr drain

Table 3

	Drain		No drain	
Complications	12	33.3%	10	19.6%
Cellulitis, oral antibiotics	7	19.4%	6	11.8%
Cellulitis, IV antibiotics	1	2.8%	1	2.0%
Abscess, requiring drainage	1	2.8%	1	2.0%
Hematoma	1	2.8%		
Lymphoedema	1	2.8%	2	3.9%
Skin necrosis	1	2.8%		



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Length of axillary drainage

1997 Am Surg, Liu:

n=50, drain for 24 hour
just one aspiration necessary

1995 Arch Surg, Jeffrey:

n=81, no drain
42 % aspiration necessary



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RCT Axillary Drainage study

Juli 2000 – Aug 2002

Total n=100

n=50 long drainage (7 days)

n=50 short drainage (24 hour)

AUTHOR'S PROOF!

DOI 10.1007/s10549-005-5348-7

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Short versus long-term postoperative drainage of the axilla after axillary lymph node dissection. A prospective randomized study

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Key words: axillary lymph node dissection, drainage, prospective randomised trial, seroma

Summary

Background. Axillary lymph node dissection (ALND) is a standard procedure in the treatment of breast cancer. Current practice following ALND involves several days of drainage of the axilla to reduce the formation of seroma. The aim of this study is to investigate the feasibility of 24 h drainage.

Study design. A prospective randomized trial was performed comparing 24 h drainage to long-term drainage. The primary outcome measure was duration of hospital stay. Formation of seroma and wound related complications were secondary outcome measures.

Results. Fifty patients were randomised to the 24 h drainage group and 50 patients to the long-term drainage group. 24 h drainage was associated with a shorter hospital stay (2.5 versus 4.6 days, $p < 0.001$). Seroma aspiration was required in 76% of the patients after 24 h drainage and in 64% after long-term drainage ($p = 0.19$). The number of wound related complications was higher after long-term drainage (13 versus 9, $p = 0.33$). Infectious complications were seen in 11 patients after long-term drainage versus 6 after 24 h drainage ($p = 0.18$).

Conclusion. These results indicate that 24 h drainage following ALND is feasible and facilitates early hospital discharge. Furthermore, 24 h drainage is not associated with excess wound related complications compared to long-term drainage.

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Methods

Patient characteristics:

Operation parameters
Pathology

Primairy endpoint:

Length of hospital stay

Secundairy endpoints:

Seroma formation
Complications



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Results

		Long	Short
Type Operation	MRM	38	34
	BCS	12	16
Operation Parameters	Earlier Biopsy	23	20
	Length (min)	95	101
	Bloodloss (ml)	201	197
Tumor size	Tx	1	3
	T1	15	12
	T2	18	27
	T3	10	6
	T4	6	2
Type tumor	Ductal	37	41
	Lobular	7	7
	different	6	2



Results

Lymphnode status

	Long	Short
total amount removed	13.2 ± 4.9	13.3 ± 5.1
N0	18	21
N1	32	29
amount positive	5.1 ± 5.2	4.6 ± 4.3

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Primairy endpoint

	Long	Short
Hospital stay (days)	4.6 ± 1.7	2.5 ± 1.2

p < 0.01
ARR 2.1 dgn (95 % CI 1.6-2.6)
NNT 0.5 (95 % CI 0.38-0.62)



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Secundairy endpoints

		Long	Short
Aspiration necessary		64 %	76 %
amount aspirations	0	18	12
	1-2	13	14
	3-5	15	17
	> 5	4	7

Secundairy endpoints

		Long	Short
Infections	superficial	8	5
	abcess	3	1
Wound necroses		2	3
Total		26 %	18 %

ARR 8 % (95 % CI -8-24)
NNT 12 (95 % CI -4-12)

Results

Short drainage

Drain volume	70 cc	-	520 cc
Amount of aspirations	11		5



Conclusion

Or maybe no drain at all?
ALND
possible?



The diagram illustrates the anatomical region of the axilla (armpit). It shows the axillary vein running vertically. Three levels of lymph nodes are indicated: Level I nodes (superficial), Level II nodes (intermediate), and Level III nodes (deep). The pectoralis minor muscle is shown at the bottom, and the internal mammary nodes are labeled on the right side.

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1. BCS and SN procedure in day clinic
2. Ablative surgery in 24 hour admittance
3. Drainage of the axilla: 24 hour: everyone discharged without drain!

Implementation

- Implementation of a short stay programme after breast cancer surgery
- Results in 4 hospitals:
- Short stay increase from 45% to 82%
- No increase in complications, readmissions, reoperations or number of outpatient visits

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De kok et al. BJSurg 2010; 97: 189-194

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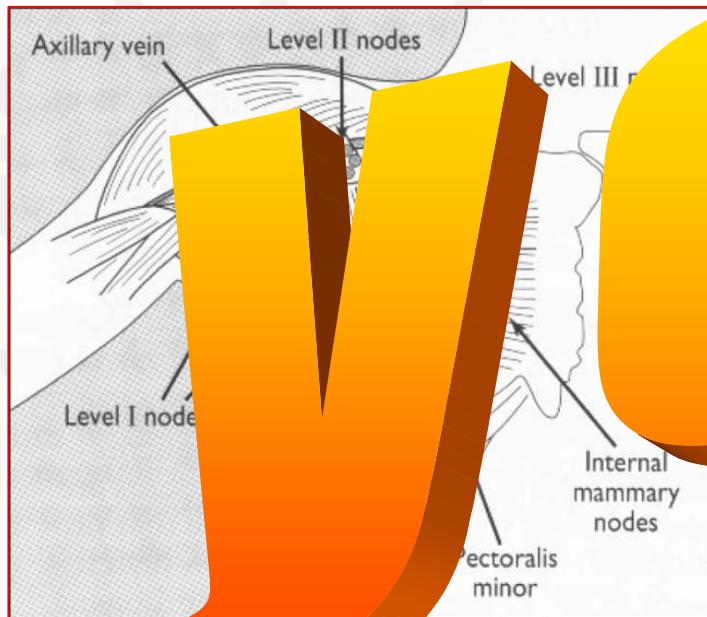
Implementation

- Increased chance of short stay were
 - breast conserving surgery,
 - having children and
 - being employed.
- Over 64 years of age showed a trend towards a decrease chance.



De kok et al. BJ Surg 2010; 97: 189-194 Het Nederlands Kanker Instituut
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Conclusion



What is
day
surgery?



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Dank voor de aandacht. Vragen?

