

# Is Sentinel Lymph Node Biopsy Enough for Axillary Macrometastasis?

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# RCT for SLND +



- Z 0011 study (ACOSOG) ---- Micro and Macro mets
- IBCSG 23-01 ---- Micromets
- AMAROS ---- Micro and Macro mets

# RCT for SLND + Z 0011

- All BCS n=856



- T1-2 clinic N0 pts with 1-2 + sentinel lymph node(s)

[Micro (40%) ITC+ and Macro mets]



ALND vs SLNd

Med FU 6.3 years



5 y OS  
91.8 % vs 92.5 %

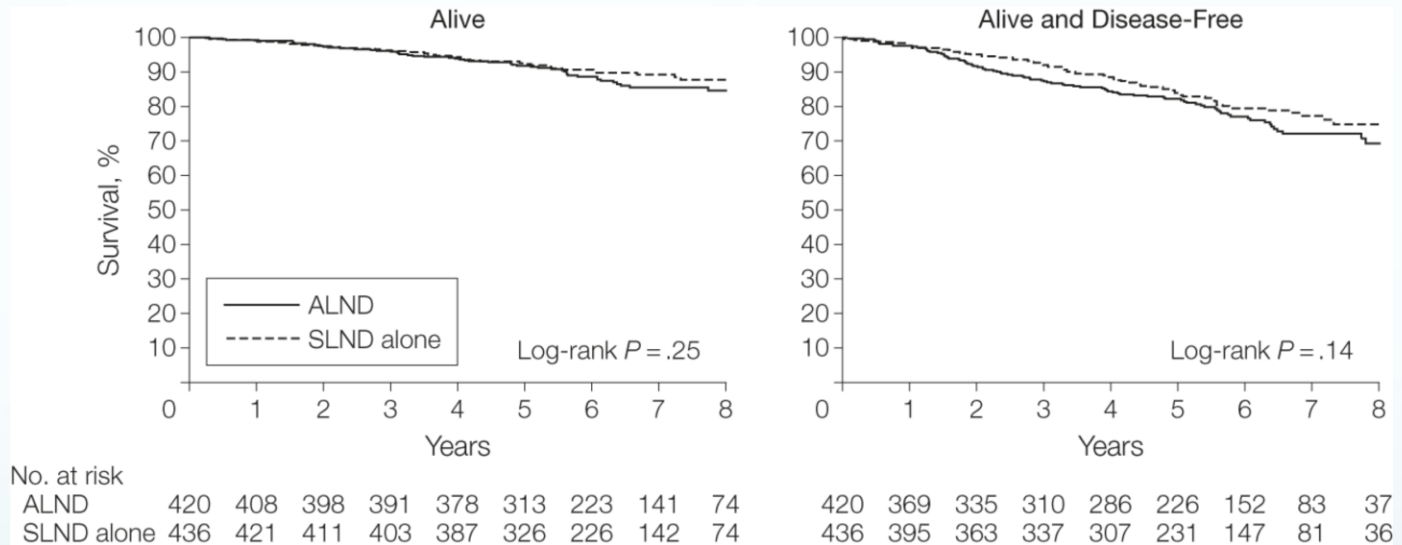
5 y DFS  
82.2 % vs 83.9 %



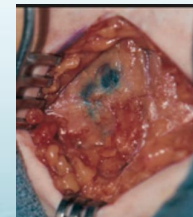
# RCT for SLND + Z 0011

T1-2 clinic N0 pts with 1-2 + sentinel lymph node(s)

[Micro (40%) ITC+ and Macro mets]



ALND  $\cong$  SLND



# RCT for SLND + Z 0011

Question from Rad onc:

what is the details radiotherapy fields?

# RCT for SLND + IBCSG 23-01

- BCS and mastectomy ( 9 % ) n=931
- T1-2 clinic N0 pts with 1-2 + sentinel lymph node(s)  
[Micro (100%) ITC]



ALND vs SLND



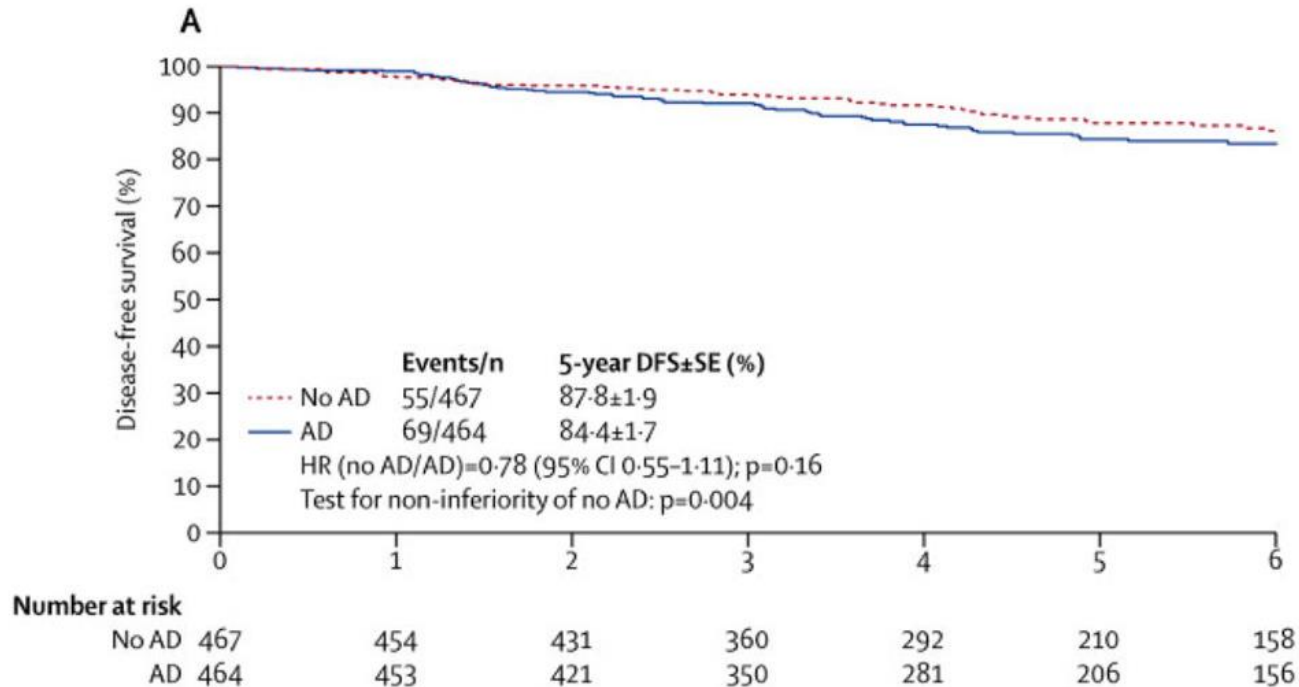
5 y DFS  
84.4 % vs 87.8 %

# RCT for SLND + IBCSG 23-01



- T1-2 clinic N0 pts with 1-2 + sentinel lymph node(s)

[Micro (100%) ITC]



ALND  $\cong$  SLND



Galimberti, Lancet Oncol, 2013

# San Gallen 2013 Consensus

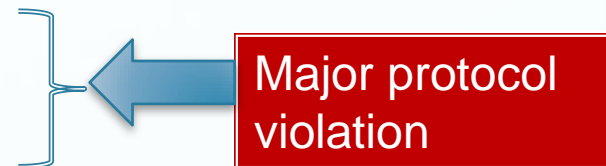
“the policy of **avoiding full axillary clearance** after **1-2 positive sentinel nodes** is endorsed in situations of **conservative surgery and radiotherapy** (73% YES, 21% NO), including several comments that the inclusion criteria of available trial results should be considered”



## 228 patients' detailed RT fields:

- 104/389 (26.7%) ALND
  - 61 of 104 (59%) received some form of lymphatic RT

- SCV n=22 (21%)
- PAB (posterior axillary boost) n=6 (6%)
- High tangents n=33 (32%)



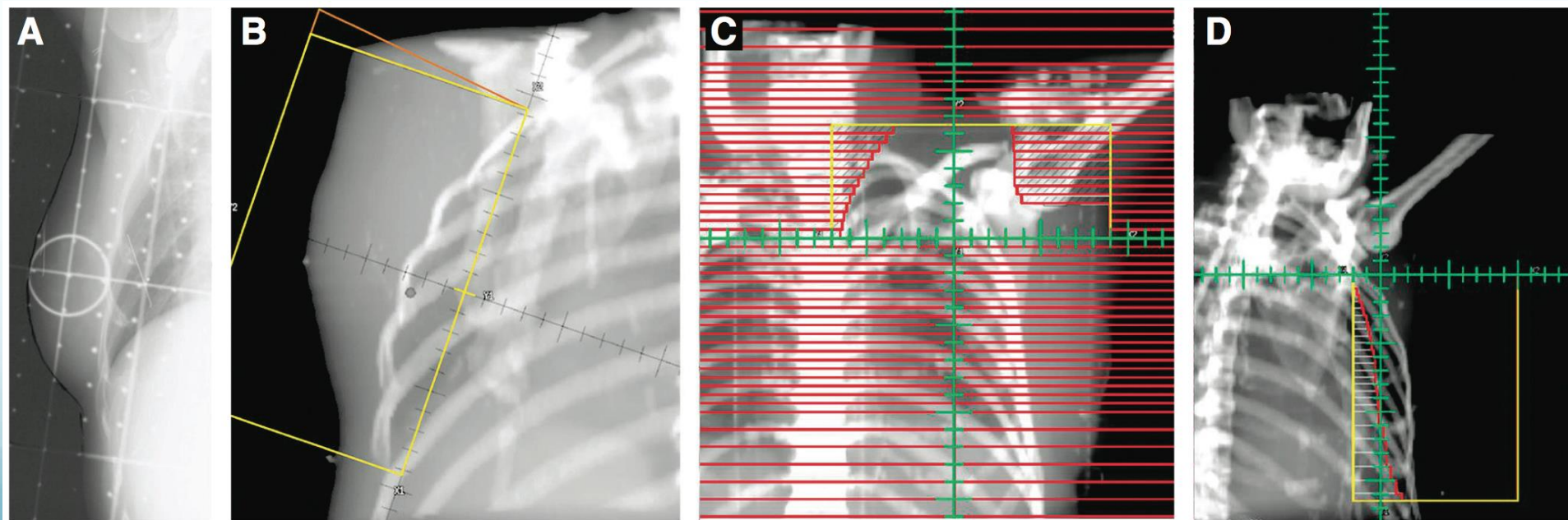
- 124/404 (30.7%) SLND
  - 73 of 124 (59%) received some form of lymphatic RT

- SCV n=21 (17%)
- PAB n=12 (10%)
- high tangents n=40 (32%)



## Radiation Field Design in the ACOSOG Z0011 (Alliance) Trial

*Reshma Jagsi, Manjeet Chadha, Janaki Moni, Karla Ballman, Fran Laurie, Thomas A. Buchholz, Armando Giuliano, and Bruce G. Haffty*



60 % of both arm recieved some form of lymphatic RT

# RCT for SLND + AMAROS

- BCS and mastectomy ( 17 % ) n= 1425
- T1-2 clinic N0 pts with 1-2 + sentinel lymph node(s)  
[Micro (29 %), ITC (12%), macro (59%)]



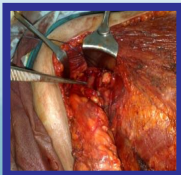
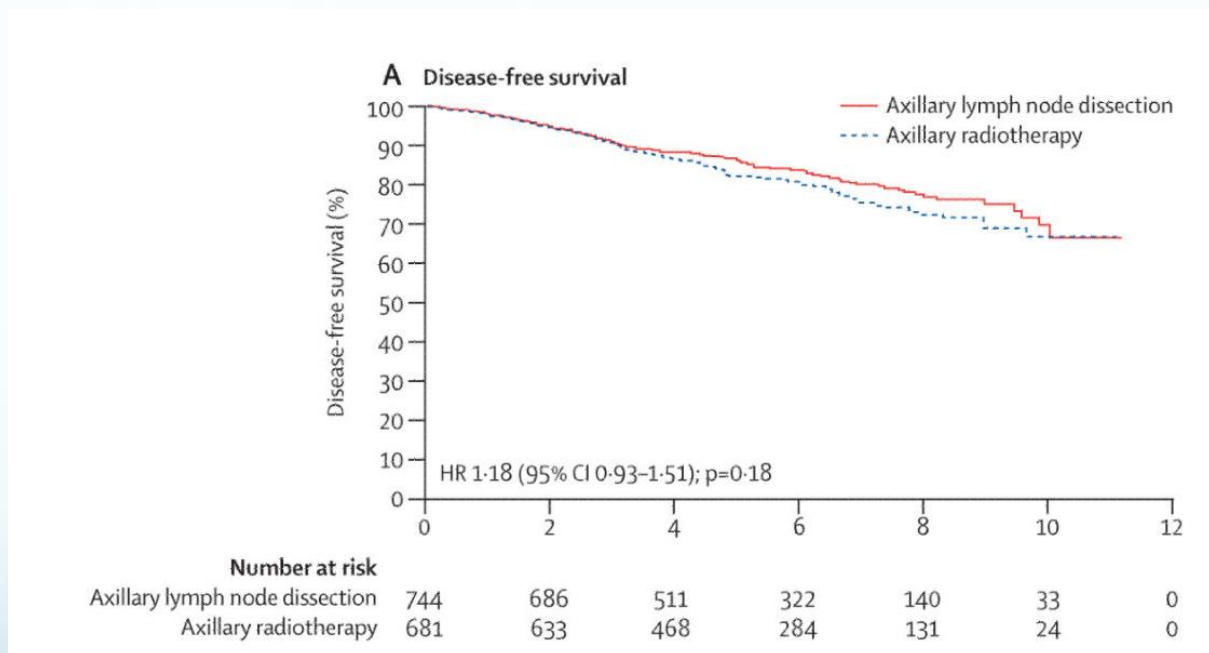
ALND vs Axillary RT



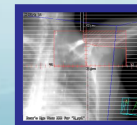
5 y axillary recurrence rates  
0.54 % vs 1.03 %

# RCT for SLND + AMAROS

- T1-2 clinic N0 pts with 1-2 + sentinel lymph node(s)  
[Micro (29 %), ITC (12%), macro (59%)]



ALND  $\cong$  Axillary RT



Donker, Lancet Oncol, 2014

# Extra capsular extension (ECE)

- Z 0011 gross ECE not included
- IBCSG 23-01 not included
- AMAROS not evaluated

Giuliano, JAMA 2011

Galimberti, Lancet Oncol, 2013

Donker, Lancet Oncol, 2014

# Extra capsular extension (ECE)

- pT1-2, cN0 with < 3 positive sentinel LN
  - With vs without
  - 20% vs 3 % had additional  $\geq 4$  positive nodes at ALND
- Pts with ECE
  - if the ECE < 2mm vs > 2mm
  - 9 % vs 33 % had additional  $\geq 4$  positive nodes at ALND



# Mastectomy pts SLND +

- IBCSG 23-01 ---- 9 % of pts
  - Post mastectomy RT details is not reported
  
- AMAROS ---- 17 % of pts
  - 26% in ALND arm
  - 42% in axillary RT arm received Chest wall RT

Galimberti, Lancet Oncol, 2013

Donker, Lancet Oncol, 2014

# RCT for SLND + Toxicity

- IBCSG 23-01 ALND vs SLND
  - Less sensory motor neuropathy and lymphedema with SLND
- AMAROS ALND vs axillary RT
  - Less lymphedema and more shoulder impairment w/ RT

Galimberti, Lancet Oncol, 2013

Donker, Lancet Oncol, 2014



cT1-2cN0 pT1-2pN1(sn)							
<i>Trial</i>	<i>Micromet. SN</i>	<i>Macromet. SN</i>	<i>Extracapsular Extension</i>	<i>Randomization</i>	<i>Radiotherapy</i>	<i>Results (regional control)</i>	<i>Comment</i>
Z0011	≈40% [ITC included].	≈60%	Gross ECE not included	ALND vs. SLND	Mastectomy (0%) Breast only RT. But at least 70% of both arms received some form of lymphatic RT	ALND≅SLND.	Regional radiotherapy may contribute to both arms
IBCSG 23-01	Yes [ITC included]	None	Not included	ALND vs. SLND	Mastectomy (9%). Breast only RT. PMRT details were not clear.	ALND≅SLND.	Less sensory-motor neuropathy and lymphedema with SLND
AMAROS	29% micromet; 12% ITC	59%	Not evaluated	ALND vs. Axillary RT	Mastectomy (17%). Breast only RT or PMRT [ 34 of 127 (26%) in ALND arm and 51 of 121 (42%) patients in axillary RT arm received CWRT].	ALND≅Axillary RT	Less lymphedema with axillary RT

RT: radiotherapy; ALND: axillary lymph node dissection; SLND: sentinel lymph node dissection; SN: sentinel node; PMRT: postmastectomy radiotherapy; CWRT: chest wall Radiotherapy; ITC: isolated tumour cells

# Is Sentinel Lymph Node Biopsy Enough for Axillary Micrometastasis?

- The answer is yes for BCS
- Individual decision making for cases with mastectomy.

# Is SLNB Enough for Axillary Macrometastasis?

- The answer is NO
- During SLND Do not use frozen for cN0 (avoiding unneces. ALND)
- ALND and Axillary RT have equal results but less lymphedema with RT
- RT fields:
  - If gross ECE (i.e. > 2mm ) discuss ALND
  - Luminal A pts with 1-2 + SN ---- breast + high tangents (level I-II)
  - None luminal A patients with 1-2 + SN
    - Breast + supra+level1-3 RT
    - MI RT could be considered.
- Mastectomy pts: individual decision

# Surgery of the Axilla

In patients with macro-metastases in 1-2 sentinel nodes, completion axillary dissection can safely be omitted following:

- Mastectomy (no radiotherapy planned) 0/100%/0 1Y/  
2N/9A
- Mastectomy (radiotherapy planned) 52%/48%/0 1Y/ 2N/  
9A
- Conservative resection with radiotherapy using standard tangents 67/33/0 1Y/ 2N/ 9A
- Conservative resection with radiotherapy using high tangents to include the lower axilla 94%/3%2%  
1Y/ 2N/ 9A



Thank you