

## Hälsokontroll Mammografi 70-74 år

Isabelita C. Berlin  
Mammografi  
Unilabs



ICBerlin, Örebro, Rtg, vecka 2010 09 23

### Hälsokontroll Mammografi 70-74 år

Innan införandet av Hälsokontroll Mammografi i Sverige sökte kvinnor läkarvård när bröstsymptomen var uppenbara:

- oftast som en kännbar knöl
- och oftast med diagnos av bröstcancer i senare stadium
- och med sämre prognos.

ICBerlin, Örebro, Rtg, vecka 2010 09 23

### Hälsokontroll Mammografi 70-74 år



ICBerlin, Örebro, Rtg, vecka 2010 09 23

### Hälsokontroll Mammografi 70-74 år

SYFTET

- Att upptäcka bröstcancer tidigt

ICBerlin, Örebro, Rtg, vecka 2010 09 23

### Hälsokontroll Mammografi 70-74 år

SYFTET

- Att upptäcka bröstcancer tidigt
- Att förbättra prognosen

ICBerlin, Örebro, Rtg, vecka 2010 09 23

### Hälsokontroll Mammografi 70-74 år

SYFTET

- Att upptäcka bröstcancer tidigt
- Att förbättra prognosen
- Att sänka dödligheten

ICBerlin, Örebro, Rtg, vecka 2010 09 23

**Hälsokontroll Mammografi  
70-74 år**



**Hur?**

ICBerlin, Örebro, Rtg vecka 2010 09 23

**Hälsokontroll Mammografi  
70-74 år**

Socialstyrelsen  
*rekommenderar*  
**Hälsokontroll med Mammografi**  
Till kvinnor i 40 - 74 årsåldern  
utan symptom

ICBerlin, Örebro, Rtg vecka 2010 09 23

**Hälsokontroll Mammografi  
70-74 år**

**Med intervall:**

18 månader	40 - 54 år
24 månader	55 - 74 år


ICBerlin, Örebro, Rtg vecka 2010 09 23

**Hälsokontroll Mammografi  
70-74 år**

**varför just mammografi?**

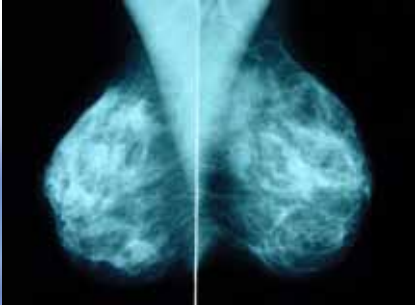
ICBerlin, Örebro, Rtg vecka 2010 09 23

**Hälsokontroll Mammografi  
70-74 år**

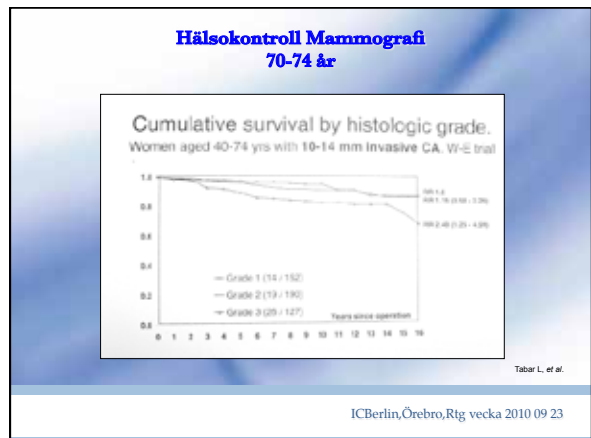
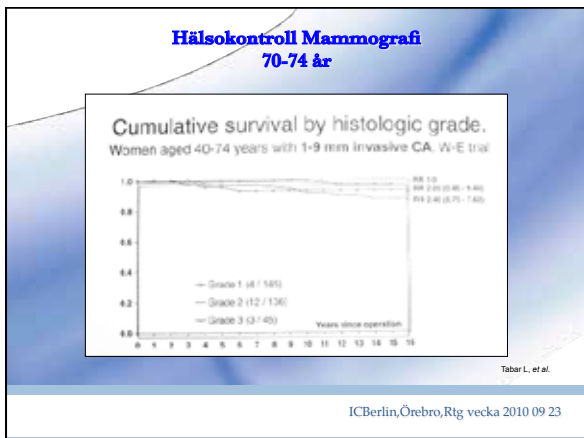
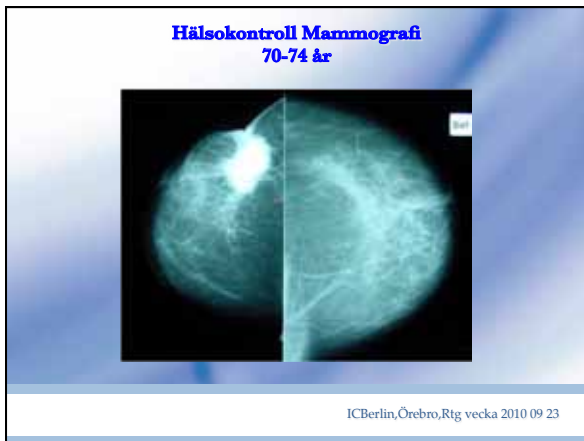
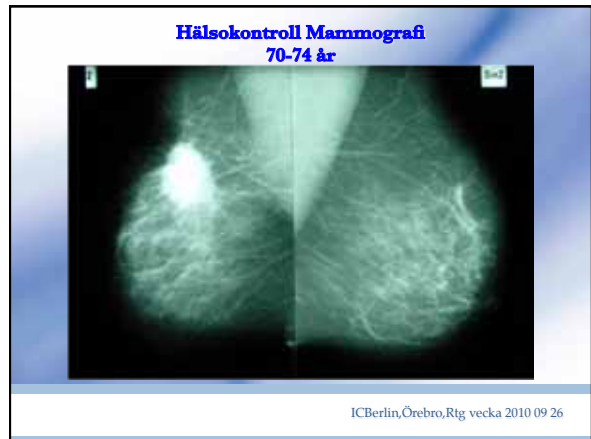
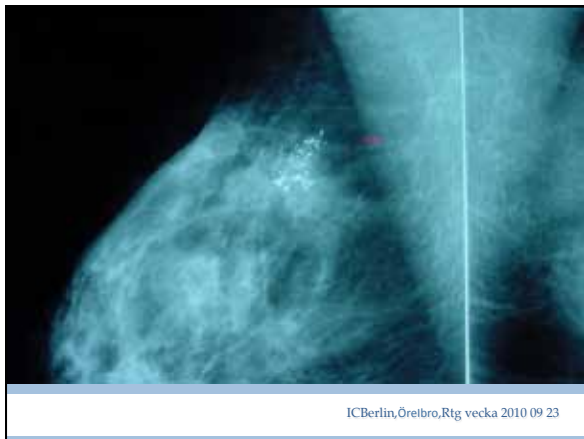


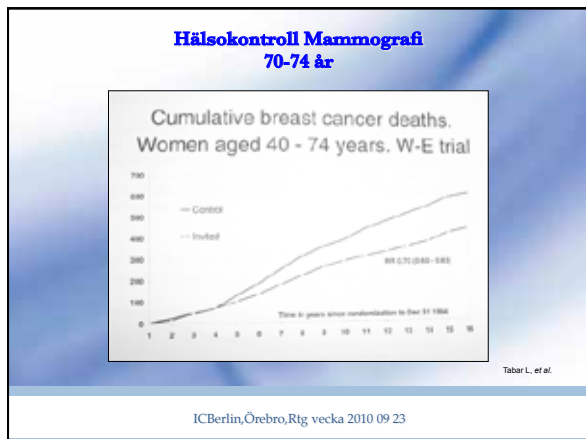
ICBerlin, Örebro, Rtg vecka 2010 09 23

**Hälsokontroll Mammografi  
70-74 år**



ICBerlin, Örebro, Rtg vecka 2010 09 23





- ### Hälsokontroll Mammografi 70-74 år
- #### Västra Götalands Region
- Göteborg (SU)
  - Södra Älvsborg (Borås Sjukhus)
  - Norra Älvsborg (NÄL)
  - Skaraborg (KSS)
- ICBerlin, Örebro, Rtg vecka 2010 09 23

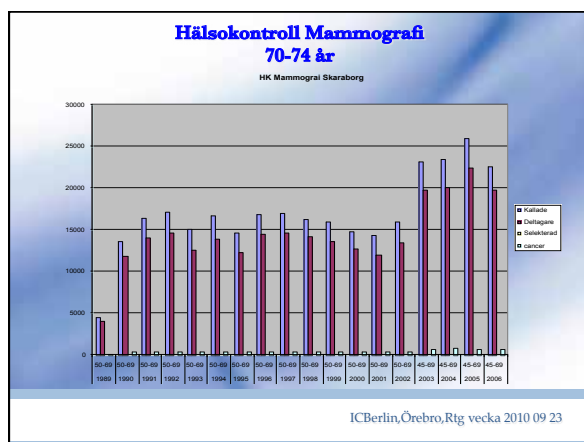


### Hälsokontroll Mammografi 70-74 år

#### Hälsokontroll Mammografi i Skaraborg

1989-2002	50-69	24 mån intervall
2002-2003	48-69	24 mån intervall
2003-2006	45-69	24-21 mån intervall
2007/08	40-69	21 mån intervall
2009/02	40-74	21 mån intervall

ICBerlin, Örebro, Rtg vecka 2010 09 23



**Hälsokontroll Mammografi  
70-74 år**

Deltagarfrekvens:

**85%**

alla åldrar

ICBerlin, Örebro, Rtg vecka 2010 09 23

**Hälsokontroll Mammografi  
70-74 år**

februari 2009

Västra Götalands Region  
beslutar att inkludera

**70-74 år**

ICBerlin, Örebro, Rtg vecka 2010 09 23

**Hälsokontroll Mammografi  
70-74 år**

2009-02 - 2009-07-31  
fick kvinnor i 70-74 åa  
(Skövde, Lidköping, Vara,  
Falköping o Tidaholm)  
åter

Inbjudan till HK Mammografi : 2600

Deltagande: **2213**

Deltagarfrekvens: **85%**

ICBerlin, Örebro, Rtg vecka 2010 09 23

**Hälsokontroll Mammografi  
70-74 år**

**För vissa kvinnor som har fyllt 69 år före februari 2009**

- 70-71 år har fortsatt att få inbjudan (ej missade någon omgång)
- 72-74 år har ej fått inbjudan i 1 eller 2 omgångar
- fyllda 74 år har inte längre fått inbjudan till hälsokontroll mammografi\*

*\*får råd att söka själv om de vill*

ICBerlin, Örebro, Rtg vecka 2010 09 23

**Hälsokontroll Mammografi  
70-74 år**

2009-02 - 2009-07-31  
(6 mån)

Av **2213** (70-74 år) som deltog

Konstaterades **14** stycken bröstcancer

som betyder **6,3** cancer per 1000 kvinnor (70-74 år)

jämfört med **4,0** cancer per 1000 kvinnor (40-74 år)

ICBerlin, Örebro, Rtg vecka 2010 09 23

**Hälsokontroll Mammografi  
70-74 år**

2009-02 - 2009-07-31

Av de 14 kvinnorna med cancer diagnos  
fanns 11 som missade 1-2 kallelser

ICBerlin, Örebro, Rtg vecka 2010 09 23

**Hälsokontroll Mammografi  
70-74 år**

2009-02 - 2009-07-31

Under samma period sökte 4 kvinnor (70-74 år) med remiss för symptom i bröstet.....

Och hos dessa påvisades bröstcancer med större storlek och högre avancerade grad än de som upptäcktes vid hälsokontroll.

ICBerlin, Örebro, Rtg vecka 2010 09 23

**Hälsokontroll Mammografi  
70-74 år**

I Södra Älvsborg (Borås)

Började man kalla kvinnor 70-74 år från 2008-10-01 fram till 2009-07-31

Kallade kvinnor: 3087  
Deltagande: 2586  
Deltagarfrekvens: 84%

ICBerlin, Örebro, Rtg vecka 2010 09 23

**Hälsokontroll Mammografi  
70-74 år**

Södra Älvsborgs Sjukhus  
70-74 år

2008 10 08 - 2009 07 31  
(9 mån)

Deltagande: 2586

Antal cancer: **24**

Som betyder : **9,2** per 1000 kvinnor bland 70-74 år

Jämfört med : **4,0** per 1000 kvinnor bland 40-74 år

ICBerlin, Örebro, Rtg vecka 2010 09 23

**Hälsokontroll Mammografi  
70-74 år**

*vad betyder det?*

ICBerlin, Örebro, Rtg vecka 2010 09 23

**Hälsokontroll Mammografi  
70-74 år**

Om inte för inbjudan för hälsokontroll mammografi.....

*Skulle 14 kvinnor i Skaraborg och 24 kvinnor i Södra Älvsborg 70-74 år gått vidare i livet ovetande att De har bröstcancer.*

ICBerlin, Örebro, Rtg vecka 2010 09 23

**Hälsokontroll Mammografi  
70-74 år**

**Hur klarar sig 70-74 års kvinnor jämfört med andra åldersgrupper?**

ICBerlin, Örebro, Rtg vecka 2010 09 23

### Hälsokontroll Mammografi 70-74 år

Cumulative survival by tumor size  
Women aged 70 - 74 years. W-E trial

Tabar L, et al.

ICBerlin, Örebro, Rtg vecka 2010 09 23

### Hälsokontroll Mammografi 70-74 år

Cumulative survival by tumor size  
Women aged 70 - 74 years. W-E trial

Tabar L, et al.

ICBerlin, Örebro, Rtg vecka 2010 09 23

### Hälsokontroll Mammografi 70-74 år

Cumulative survival by tumor size  
Women aged 70 - 74 years. W-E trial

Tabar L, et al.

ICBerlin, Örebro, Rtg vecka 2010 09 23

### Hälsokontroll Mammografi 70-74 år

Cumulative survival by tumor size  
Women aged 70 - 74 years. W-E trial

Tabar L, et al.

ICBerlin, Örebro, Rtg vecka 2010 09 23

### Hälsokontroll Mammografi 70-74 år

**Konklusion**

Och med den kunskapen vi fått fram i denna studie

Är det fullkomligt orimligt att

**Äldre kvinnor (70-74 år) fortfarande väntar på att få vara med i fortsatt hälsokontroll med mammografi!**

ICBerlin, Örebro, Rtg vecka 2010 09 23

### Hälsokontroll Mammografi 70-74 år

**Tack!**

ICBerlin, Örebro, Rtg vecka 2010 09 23

**Hälsokontroll Mammografi  
70-74 år**

ICBerlin, Örebro, Rtg vecka 2010 09 23

**Hälsokontroll Mammografi  
70-74 år**

Cumulative survival by tumor size.  
Women aged 40-74 yrs with invasive breast CA. W-E trial

Tabar L, et al.

ICBerlin, Örebro, Rtg vecka 2010 09 23

**Hälsokontroll Mammografi  
70-74 år**

Cumulative survival by tumor size.  
Women aged 40 - 74 years. W-E trial

Additional 109 DCIS cases, and 5 cases with undetermined size.

Tabar L, et al.

ICBerlin, Örebro, Rtg vecka 2010 09 23



BSGI

Breast Specific  
Gamma Imaging

A study  
Result

Isabelita C. Berlin  
Mammografi, KSS

ICBerlin, Örebro, Rtg vecka 2010 09 23

BSGI

Introduction

Mammography : the best method for screening against breast cancer

ICBerlin, Örebro, Rtg vecka 2010 09 23

BSGI

*Introduction*  
Mammography : the best method for screening against breast cancer

BSGI : novel physiologic approach to breast imaging in which radio-isotope is taken up by cells with high metabolic activity such as rapidly dividing cells in breast cancers.

ICBerlin, Örebro, Rtg vecka 2010 09 23

**BSGI**

*Introduction*  
*Mammography : the best method for screening against breast cancer*  
*BSGI : novel physiologic approach to breast imaging in which radio-isotope is taken up by cells with high metabolic activity such as rapidly dividing cells in breast cancers.*

Purpose: to evaluate BSGI as an adjunct imaging modality in a comparative analysis to mammography and breast ultrasound using tissue biopsy as the gold standard.

ICBerlin, Örebro, Rtg vecka 2010 09 23

**BSGI**

Study period: 2009 05 - 2009 12  
 minus summer months

Criteria for inclusion:  
 \*Women from Screening Mammography Program in West Sweden, Skaraborg (ages 40-74)

ICBerlin, Örebro, Rtg vecka 2010 09 23

**BSGI**

Study period: 2009 05 - 2009 12  
 minus summer months

Criteria for inclusion:  
 \*Women from Screening Mammography Program in West Sweden, Skaraborg (ages 40-74)  
 \* Recalled for further examination of uncertain mammography findings that shall be subjected to cyto/histopath studies

ICBerlin, Örebro, Rtg vecka 2010 09 23

**BSGI**

Study period: 2009 05 - 2009 12  
 minus summer months

Criteria for inclusion:  
 \*Women from Screening Mammography Program in West Sweden, Skaraborg (ages 40-74)  
 \* Recalled for further examination of uncertain mammography findings that shall be subjected to cyto/histopath studies  
 \*Who agreed to join the study after proper information

ICBerlin, Örebro, Rtg vecka 2010 09 23

**BSGI**

Information  
 Selected women were informed .....  
 \*\* that the study procedure result shall not interfere with the "routine" program for Breast Cancer Care (National and Regional)

ICBerlin, Örebro, Rtg vecka 2010 09 23

**BSGI**

Information  
 Selected women were informed .....  
 \*\* that the study procedure result shall not interfere with the "routine" program for Breast Cancer Care (National and Regional)

Addendum  
 \*\* In cases with wide discrepancy of results, Mammography department shall initiate an earlier (than normal screening interval of 21 months) control with Mammography / Ultrasound and repeat Cyto/path

ICBerlin, Örebro, Rtg vecka 2010 09 23

**BSGI**

Study Flow

- \* Recall from screening mammography for diagnostic procedures (mammo +/- ultrasound)
- \*\* BSGI
- \*\*\* Needle Biopsy

ICBerlin, Örebro, Rtg vecka 2010 09 23

**BSGI**

Procedure

After extra work-up with mammography +/- ultrasound and patient agreement, she is escorted to the Nuclear Medicine Dept for injection of Isotope Tc 99 m Sestamibi Intravenously, with effective dose 7,65 - 8,5 mSv per examination

ICBerlin, Örebro, Rtg vecka 2010 09 23

**BSGI**

Procedure

The patient returns to the Mammography Dept for Imaging with the Gamma camera

- Cranio-caudal images, DX & SIN

ICBerlin, Örebro, Rtg vecka 2010 09 23

**BSGI**



ICBerlin, Örebro, Rtg vecka 2010 09 23

**BSGI**

Procedure

The patient returns to the Mammography Dept for Imaging with the Gamma camera

- Cranio-caudal images, DX & SIN
- Medio-Lateral images, DX & SIN

ICBerlin, Örebro, Rtg vecka 2010 09 23

**BSGI**



ICBerlin, Örebro, Rtg vecka 2010 09 23

**BSGI**

**Procedure**

Appropriate needle biopsy procedure on the mammographic finding/s, FN or Core

by ultrasound ( on most densities)  
by stereotactic method ( on microcalcifications)

ICBerlin, Örebro, Rtg vecka 2010 09 23

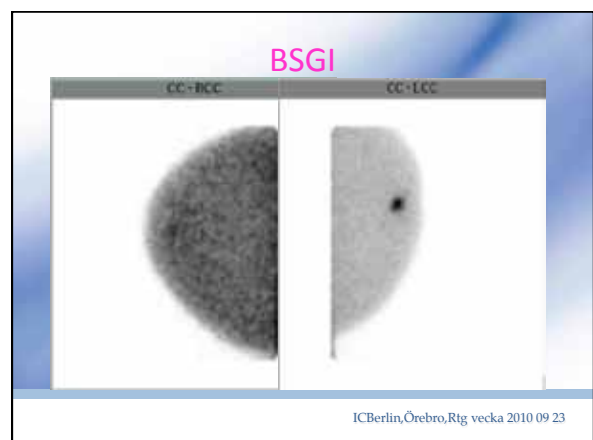
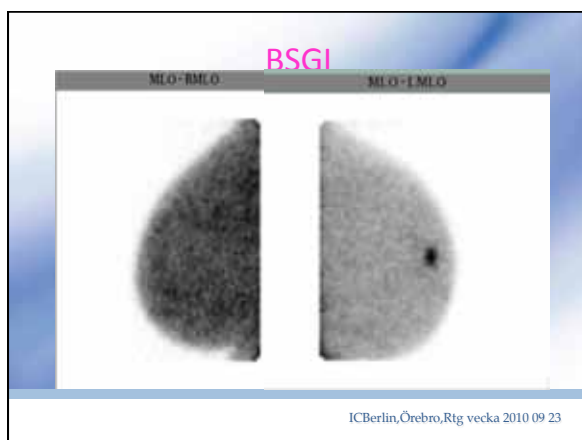
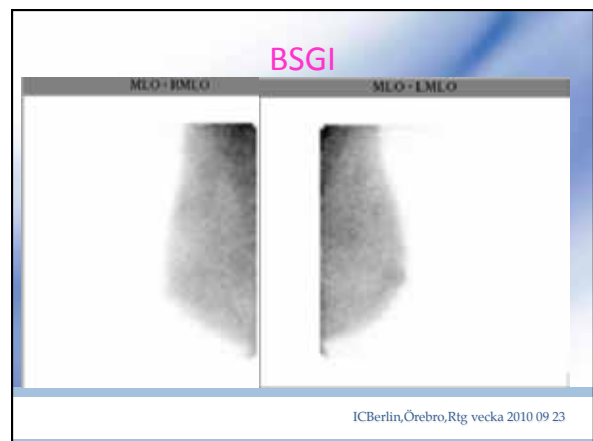
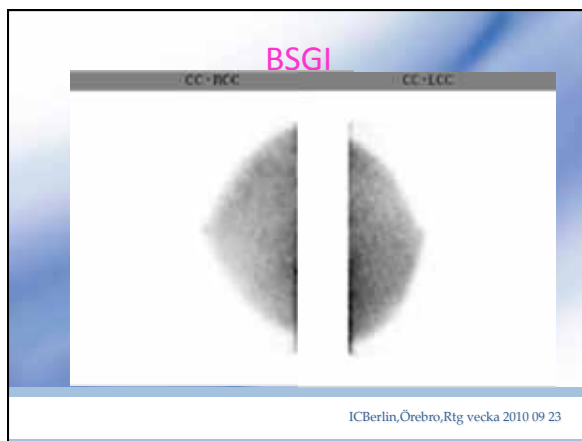
**BSGI**

**Analysis**

All 40 cases were collected before BSGI images were read by a Nuclear Medicine Specialist (Dr Sören Sandström, KSS) categorically as,

- Positive
- Negative
- With no information of mammographic findings

ICBerlin, Örebro, Rtg vecka 2010 09 23



**BSGI**

Mammography screening results

42 findings/ 40 women  
Mammography(Sw code:3-5/Birads 3-6)

Clear cancer: 16	PAD: ver cancers: 16
Suspicious: 26	PAD: ver cancers: 10
	PAD: ver benign :16

ICBerlin, Örebro, Rtg vecka 2010 09 23

**BSGI**

BSGI read.....

19 positive readings  
17 true positive: cancer PAD(17/26) = 65%  
9 false negatives ( missed cancers)= 35%  
2 false positives (shall be called back for earlier control).

ICBerlin, Örebro, Rtg vecka 2010 09 23

**BSGI**

Impression:

The correlation of PAD cancers 26  
17/26 pos BSGI = cancers were mostly densities (24/42)  
9/26 neg BSGI with PAD cancers were mostly microcalcifications (18/42) , 5-35 mm in size.

ICBerlin, Örebro, Rtg vecka 2010 09 23

**BSGI**

Impression

\*Positive BSGI results had a high correlation for cancer. ( The 2 false positive readings shall be offered control earlier than 21 months  
\*Possible future use: with positive BSGI, and problems with cyto/path to consider this adequate as pre-op diagnosis.

ICBerlin, Örebro, Rtg vecka 2010 09 23

**BSGI**

\*\* Study material is rather small

ICBerlin, Örebro, Rtg vecka 2010 09 23

**BSGI**

\*\* Study material is rather small  
\*\* the readings only allowed POS and NEG

ICBerlin, Örebro, Rtg vecka 2010 09 23

**BSGI**

- \*\* Study material is rather small
- \*\* the readings only allowed POS and NEG
- \*\* if intermediate classification was allowed as we consider code 3 in mammography, we might have fished up more cancers.

ICBerlin, Örebro, Rtg vecka 2010 09 23

**BSGI**

- \*\* Study material is rather small
- \*\* the readings only allowed POS and NEG
- \*\* if intermediate classification was allowed as we consider code 3 in mammography, we might have fished up more cancers.
- \*\* we need to do more to learn more

ICBerlin, Örebro, Rtg vecka 2010 09 23

**BSGI**

- \*\* Study material is rather small
- \*\* the readings only allowed POS and NEG
- \*\* if intermediate classification was allowed as we consider code 3 in mammography, we might have fished up more cancers.
- \*\* we need to do more to learn more
- \*\* BSGI can have a place in the diagnostic work up of breast cancer at fitting set up.

ICBerlin, Örebro, Rtg vecka 2010 09 23

**BSGI**

Thank you for your attention

ICBerlin, Örebro, Rtg vecka 2010 09 23

