

Meme Kanseri Tedavisi Sonrası Hasta Takibi 'Cerrah Gözü İle Takip'

Dr. Duray ŞEKER

Local Recurrence After Mastectomy or Breast-Conserving Surgery and Radiation

ONCOLOGY

Review Article | November 01, 2000 | Oncology Journal, Breast Cancer

By Gary M. Freedman, MD and Barbara L. Fowble, MD

Table 1

Local Failure in Six Prospective Randomized Trials Comparing Breast-Conserving Surgery and Radiation to Modified Radical Mastectomy

Study	Number of Patients	Disease Stage	Type of Surgery	Local Recurrence		Type of Incidence Data
				Mastectomy	Breast-Conserving Surgery and Radiation	
Milan I[54]	701	I	Quadrantectomy, radical mastectomy	4%	7%	18-yr cumulative
Institut Gustave-Roussy[3]	179	I	Wide excision, modified radical mastectomy	18%	13%	15-yr cumulative
National Surgical Adjuvant Breast and Bowel Project[2,134]	1,262	I/II	Wide excision, modified radical mastectomy	8% ^a	10%	12-yr cumulative
National Cancer Institute[8]	237	I/II	Local excision, modified radical mastectomy	10% ^b	18%	10-yr actuarial
European Organization for Research and Treatment of Cancer[1]	879	I/II	Local excision, modified radical mastectomy	12%	20%	10-yr actuarial
Danish[135] Breast Cancer Cooperative Group	905	I-III	Quadrantectomy, wide excision, modified radical mastectomy	4%	3%	6-yr crude

^a8-year data.

^bIncludes regional recurrence.

Different Annual Recurrence Pattern Between Lumpectomy and Mastectomy: Implication for Breast Cancer Surveillance After Breast-Conserving Surgery

Ke-Da Yu,^{a,b} Shuang Li,^{a,b,c} and Zhi-Ming Shao^{✉a,b}

First recurrence events according to surgical modality and recurrence time

Table 2. First recurrence events according to surgical modality and recurrence time

	<i>n</i> of women (%) by yrs of follow-up							
Recurrence event type	≤3 yrs		>3 and ≤5 yrs		>5 yrs		Total <i>n</i>	<i>p</i> -value
IBTR								
Mastectomy	NA	NA	NA	NA	NA	NA	NA	NA
Lumpectomy	6	37.5%	7	43.8%	3	18.7%	16	
Other LRR								
Mastectomy	137	79.2%	23	13.3%	13	7.5%	173	.515
Lumpectomy	8	66.7%	3	25.0%	1	8.3%	12	
Distant metastasis								
Mastectomy	186	63.5%	68	23.2%	39	13.3%	293	.943
Lumpectomy	12	63.2%	4	21.1%	3	15.8%	19	
CBC								
Mastectomy	13	25.0%	15	28.8%	24	46.2%	52	.901
Lumpectomy	1	16.7%	2	33.3%	3	50.0%	6	

Abbreviations: CBC, contralateral breast cancer; IBTR, ipsilateral breast tumor recurrence; LRR, locoregional recurrence; NA, not applicable.

Conclusions.

Different recurrence patterns between mastectomy and lumpectomy patients imply that scheduling of surveillance visits should be more frequent during the 4–6 years after lumpectomy

Comparison of recurrence and survival rates after breast-conserving therapy and mastectomy in young women with breast cancer

J.Q. Cao , MD MBA ^{*} , R.A. Olson , MD MSc ^{† ‡} , S.K. Tyldesley , MD MPA ^{* ‡}

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Reference (study)	Period	Pts (n)	Follow-up (years)	Treatment		Age (years)	Local recurrence (%)	Overall survival by age	Subset analysis
				Type	Pts (n)				
van Dongen <i>et al.</i> , 2000 ¹ (EORTC 10801)	1980–1986	868	13.4 (median)	BCT	448	Not stated 41%<50 ^a 12%<40 ^a 4.5%<35 ^a	LRR: 19.7 at 10 years	65.2% at 10 years	Yes
				MRM	420	Not stated 41%<50 ^a 12%<40 ^a 4.5%<35 ^a	LRR: 12.2 at 10 years (<i>p</i> =0.0097)	66.1% at 10 years (<i>p</i> =0.11)	
Fisher <i>et al.</i> , 2002 ² (NSABP B-06)	1976–1984	1851	20 (mean)	BCT	628	Not stated 44%<50y 15%<40 ^{a,b}	2.7% ^c	46% at 20 years	No
				TM	589	Not stated 41.2%<50 14%<40	10.2% ^c	47% at 20 years (<i>p</i> =0.57)	
Veronesi <i>et al.</i> , 2002 ³ (National Cancer Institute of Milan)	1973–1980	701	20 (median)	BCT	352	Mean: 50 7%<35 ^{a,d} 23%<40 ^{a,d}	8.8% at 20 years	41.7% at 20 years	Yes
				RM	349	Mean: 51 7%<35 ^{a,d} 23%<40 ^{a,d}	2.3% at 20 years (<i>p</i> <0.001)	41.2% at 20 years (<i>p</i> =1.0)	
Arriagada <i>et al.</i> , 2003 ⁴ (Institut Gustave-Roussy)	1972–1979	179	22 (mean)	BCT	88	Mean: 51.8 4%<35 ^a 18%<40 ^a	Not stated, reported as RR	65% at 10 years	No
				MRM	91	Mean: 51.4 4%<35 ^a 18%<40 ^a	Not stated, reported as RR	67% at 10 years (<i>p</i> =0.16)	
Poggi <i>et al.</i> , 2003 ⁵ (U.S. National Cancer Institute)	1979–1987	237	18.4 (median)	BCT	121	Median: 50 23%<40	22% at 20 years	54% at 20 years	No
				MRM	116	Median: 50 21%<40	0% at 20 years	58% at 20 years (<i>p</i> =0.67)	
Blichert-Toft <i>et al.</i> , 2008 ⁶ (DBCG-82TM)	1983–1989	731	19.6 (median)	BCT	367	Mean: 50.9 4%<35 14%<40	4.5% at 10 years	57.8% at 20 years	Yes
				MRM	364	Mean: 51.4 3.5%<35 12%<40	6.9% at 10 years (<i>p</i> =0.16)	50.6% at 20 years (<i>p</i> =0.20)	

Primary breast cancer: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up[†]

E. Senkus¹, S. Kyriakides², S. Ohno³, F. Penault-Llorca^{4,5}, P. Poortmans⁶, E. Rutgers⁷, S. Zackrisson⁸ & F. Cardoso⁹, on behalf of the ESMO Guidelines Committee*

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Follow-up and survivorship

- The aims of follow-up are to detect early local recurrences or contralateral breast cancer, to evaluate and treat therapy-related complications, to motivate patients continuing hormonal treatments and to provide psychological support and information in order to enable a return to normal life.
- Regular visits every 3–4 months in the first 2 years, every 6 months from years 3–5 and annually thereafter are recommended [V, A].
- Annual ipsilateral (after BCT) and/or contralateral mammography with ultrasound is recommended [II, A]. In asymptomatic patients, there are no data to indicate that other laboratory or imaging tests produce a survival benefit but available data come from old studies and new trials are needed.
- Ultrasound can be considered in the follow-up of lobular invasive carcinomas [III, B].
- Routine blood tests are usually indicated to follow-up patients on ET due to the potential side-effects of these drugs, namely in the lipid profile [V, A].
- For patients on tamoxifen, an annual gynaecological examination, possibly with a gynaecological ultrasound, by an experienced gynaecologist is recommended [V, B].
- Regular bone density evaluation is recommended for patients on AIs [I, A].
- Regular exercise should be recommended to all suitable patients after treatment of breast cancer [II, B].
- Nutritional counselling should be recommended as part of the survivor care for all obese patients [III, B].
- The use of hormone replacement therapy increases the risk of recurrence and should be discouraged [I, A].

Guideline for the Follow Up of Patients Following Treatment for Breast Cancer

The NICE Clinical Guideline GC80

Date Approved by Network Governance	July 2012
Date for Review	July 2015

3 Clinical Follow-up

- 3.1 Clinical follow-up of patients undergoing primary endocrine therapy should be offered for a minimum of 12 months after initiation of treatment, to ensure a response. Further follow-up will depend on clinical fitness and patient situation.
- 3.2 Clinical follow-up after treatment for DCIS and early breast cancer (NPI of < 4.3) should be annual review for up to three years following the completion of definitive surgical treatment.
- 3.3 Patients with breast cancer (NPI ≥ 4.3) **can** be offered annual review for 5 years after completion of surgical treatment but should usually be discharged from routine clinical follow up after 3 years.
- 3.4 After discharge from hospital follow-up, the primary care is expected to manage patients' hormonal therapy, including changes in switch programmes. Pathways of care should be agreed to ensure patients having problems with hormonal therapy can be easily reviewed by the specialist team.
- 3.5 Hospital follow-up of patients with metastatic disease is individualised according to their clinical need.
- 3.6 Patients within a clinical trial should be followed up as per trial protocol, with longer term outpatient clinical follow-up only done when mandated as part of that trial.
- 3.7 Hospital follow-up should be carried out by someone who is a core member of the MDT suitably trained and supported.

4 Radiological Follow-up

- 4.1 Patients over the age of 45 with no known active disease should be offered annual mammography for five years after diagnosis, and then be discharged to the NHS national breast cancer screening programme (NHSBSP). Once they reach 70 years they should be advised that they can continue to opt into the NHS national breast cancer screening programme (NHSBSP).
- 4.2 Patients who are aged between 35 and 45 at diagnosis should be offered annual mammography until the age of 50 and then be discharged to the national screening programme (NHSBSP).
- 4.3 Patients under the age of 35 at diagnosis should be discussed by the MDT in order to agree an individualised imaging follow up plan.
- 4.4 Mechanisms should be in place within the Trust for imaging follow-up and review of the results to be organised by the breast cancer team.
- 4.5 Patients should be informed of the result of their follow up imaging within 3 weeks of the investigation being performed.
- 4.6 Patients who are over the age of 70 on completion of mandated follow up should be made aware of the availability of 3 yearly mammography through the NHSBSP and how they can access it.

S:\Cancer Network\Guidelines\Guidelines And Pathways By Speciality\Breast\Current Approved Versions (Word And PDF)\Guideline For The Follow Up Of Patients Following Treatment For Breast Cancer Version 3.0.Doc

ENDORSED BY THE GOVERNANCE COMMITTEE

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- 4.7 Patients on aromatase inhibitors should have a baseline bone density scan as defined in the non surgical treatment for breast cancer guideline – point 7.6.2 <http://www.birminghamcancer.nhs.uk/staff/clinical-guidelines/breast-cancer>

Breast Cancer Follow-Up and Management After Primary Treatment: American Society of Clinical Oncology Clinical Practice Guideline Update

James L. Khatchersian, Patricia Hurley, Elisa Bantag, Laura J. Esserman, Eva Gruenfeld, Francine Halberg, Alexander Hantel, N. Lynn Henry, Hyman B. Muss, Thomas J. Smith, Victor G. Vogel, Antonio C. Wolff, Mark R. Somerfeld, and Nancy E. Davidson

Table 1. Recommendations for Breast Cancer Follow-Up and Management in the Adjuvant Setting

Mode of Surveillance	Recommendation*
RECOMMENDED	
History/physical examination	All women should have a careful history and physical examination every 3 to 6 mo for the first 3 yr after primary therapy, then every 6 to 12 mo for the next 2 yr, and then annually. The history and physical examination should be performed by a physician† experienced in the surveillance of patients with cancer and in breast examination.
Patient education regarding symptoms of recurrence	Physicians should counsel patients about the symptoms of recurrence including new lumps, bone pain, chest pain, dyspnea, abdominal pain, or persistent headaches. Helpful Web sites for patient education include www.cancer.net and www.cancer.org .
Referral for genetic counseling	Women at high risk for familial breast cancer syndromes should be referred for genetic counseling in accordance with clinical guidelines recommended by the US Preventive Services Task Force. ¹⁹ Criteria to recommend referral include the following: Ashkenazi Jewish heritage; history of ovarian cancer at any age in the patient or any first- or second-degree relatives; any first-degree relative with a history of breast cancer diagnosed before the age of 50 yr; two or more first- or second-degree relatives diagnosed with breast cancer at any age; patient or relative with diagnosis of bilateral breast cancer; and history of breast cancer in a male relative.‡
Breast self-examination	All women should be counseled to perform monthly breast self-examination.
Mammography	Women treated with breast-conserving therapy should have their first post-treatment mammogram no earlier than 6 mo after definitive radiation therapy. Subsequent mammograms should be obtained every 6 to 12 mo for surveillance of abnormalities. Mammography should be performed yearly if stability of mammographic findings is achieved after completion of locoregional therapy.
Pelvic examination	Regular gynecologic follow-up is recommended for all women. Patients who receive tamoxifen therapy are at increased risk for developing endometrial cancer and should be advised to report any vaginal bleeding to their physicians. Longer follow-up intervals may be appropriate for women who have had a total hysterectomy and oophorectomy.
Coordination of care	The risk of breast cancer recurrence continues through 15 yr after primary treatment and beyond. Continuity of care for patients with breast cancer is recommended and should be performed by a physician experienced in the surveillance of patients with cancer and in breast examination, including the examination of irradiated breasts. Follow-up by a PCP seems to lead to the same health outcomes as specialist follow-up with good patient satisfaction. If a patient with early-stage breast cancer (tumor <5 cm and <4 positive nodes) desires follow-up exclusively by a PCP, care may be transferred to the PCP approximately 1 yr after diagnosis. If care is transferred to a PCP, both the PCP and the patient should be informed of the appropriate follow-up and management strategy. Re-referral for further oncology assessment may be considered, as needed, especially for patients who are receiving adjuvant endocrine therapy.
NOT RECOMMENDED	
Routine blood tests	CBC testing is not recommended for routine breast cancer surveillance. Automated chemistry studies are not recommended for routine breast cancer surveillance.
Imaging studies	Chest x-rays are not recommended for routine breast cancer surveillance. Bone scans are not recommended for routine breast cancer surveillance. Ultrasound of the liver is not recommended for routine breast cancer surveillance. CT scanning is not recommended for routine breast cancer surveillance. FDG-PET scanning is not recommended for routine breast cancer surveillance. Breast MRI is not recommended for routine breast cancer surveillance.
Breast cancer tumor marker testing	The use of CA 15-3 or CA 27.29 is not recommended for routine surveillance of patients with breast cancer after primary therapy. CEA testing is not recommended for routine surveillance of patients with breast cancer after primary therapy.

Abbreviations: CBC, complete blood count; CEA, carcinoembryonic antigen; FDG-PET, [¹⁸F] fluorodeoxyglucose-positron emission tomography; MRI, magnetic resonance imaging; PCP, primary care physician.

*All recommendations remain the same as those published in 2006.² The Panel concluded that there was no new evidence that warranted changing any of the recommendations. The 2006 guideline provides a detailed discussion and rationale for the recommendations.

†Although the evidence is lacking, it seems likely that history as well as physical and breast exams may also be conducted by experienced non-physician providers (eg, Nurse Practitioners, Physician Assistants) under the supervision of an experienced physician.

‡Expert consensus-based recommendations are available with criteria specific to patients with cancer (eg, from the National Comprehensive Cancer Network [www.nccn.org]). These recommendations include similar criteria as those from the USPSTF as well as other criteria such as diagnosis of triple negative breast cancer, or a combination of breast cancer and other specific cancers.



Guideline Summary NGC-9457

Guideline Title

Breast cancer follow-up and management after primary treatment: American Society of Clinical Oncology clinical practice guideline update.

Recommendations

Major Recommendations

Recommendations for Breast Cancer Follow-Up and Management in the Adjuvant Setting	
Mode of Surveillance	Recommendation*
RECOMMENDED	
History/physical examination	<p>All women should have a careful history and physical examination every 3 to 6 months for the first 3 years after primary therapy, then every 6 to 12 months for the next 2 years, and then annually.</p> <p>The history and physical examination should be performed by a physician[†] experienced in the surveillance of patients with cancer and in breast examination.</p>
Patient education regarding symptoms of	<p>Physicians should counsel patients about the symptoms of recurrence including new lumps, bone pain, chest pain, dyspnea, abdominal pain, or persistent headaches. Helpful Web sites for patient education include www.cancer.net  and www.cancer.org .</p>

recurrence	Recommendations for Breast Cancer Follow-Up and Management in the Adjuvant Setting
Mode of Referral for Surveillance for genetic counseling	Recommendation* Women at high risk for familial breast cancer syndromes should be referred for genetic counseling in accordance with clinical guidelines recommended by the US Preventive Services Task Force. Criteria to recommend referral include the following: Ashkenazi Jewish heritage; history of ovarian cancer at any age in the patient or any first- or second-degree relatives; any first-degree relative with a history of breast cancer diagnosed before the age of 50 years; two or more first- or second-degree relatives diagnosed with breast cancer at any age; patient or relative with diagnosis of bilateral breast cancer; and history of breast cancer in a male relative. [‡]
Breast self-examination	All women should be counseled to perform monthly breast self-examination.
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NOT RECOMMENDED	
Routine blood tests	<p><i>CBC testing</i> is not recommended for routine breast cancer surveillance.</p> <p><i>Automated chemistry studies</i> are not recommended for routine breast cancer surveillance.</p>
Imaging studies	<p><i>Chest x-rays</i> are not recommended for routine breast cancer surveillance.</p> <p><i>Bone scans</i> are not recommended for routine breast cancer surveillance.</p> <p><i>Ultrasound of the liver</i> is not recommended for routine breast cancer surveillance.</p> <p><i>CT scanning</i> is not recommended for routine breast cancer surveillance.</p> <p><i>FDG-PET</i> scanning is not recommended for routine breast cancer surveillance.</p> <p><i>Breast MRI</i> is not recommended for routine breast cancer surveillance.</p>
Breast cancer tumor marker testing	<p>The use of <i>CA 15-3</i> or <i>CA 27.29</i> is not recommended for routine surveillance of patients with breast cancer after primary therapy.</p> <p><i>CEA testing</i> is not recommended for routine surveillance of patients with breast cancer after primary therapy.</p>



National
Comprehensive
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NCCN Guidelines Version 3.2015 Invasive Breast Cancer

SURVEILLANCE/FOLLOW-UP

- History and physical exam 1–4 times per year as clinically appropriate for 5 y, then annually.
- Educate, monitor, and refer for lymphedema management
- Mammography every 12 mo
- In the absence of clinical signs and symptoms suggestive of recurrent disease, there is no indication for laboratory or imaging studies for metastases screening
- Women on tamoxifen: annual gynecologic assessment every 12 mo if uterus present
- Women on an aromatase inhibitor or who experience ovarian failure secondary to treatment should have monitoring of bone health with a bone mineral density determination at baseline and periodically thereafter^{oo}
- Assess and encourage adherence to adjuvant endocrine therapy
- Evidence suggests that active lifestyle and achieving and maintaining an ideal body weight (20–25 BMI) may lead to optimal breast cancer outcomes
- [See NCCN Guidelines for Survivorship](#)

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The evidence supports the fact that most of breast cancer patients requiring well follow-up care can be safely provided by primary care physicians. Therefore, Cancer Care Ontario endorses the recommendations from Canada's Steering Committee on Clinical Practice Guidelines for the Care and Treatment of Breast Cancer^{3,4}.

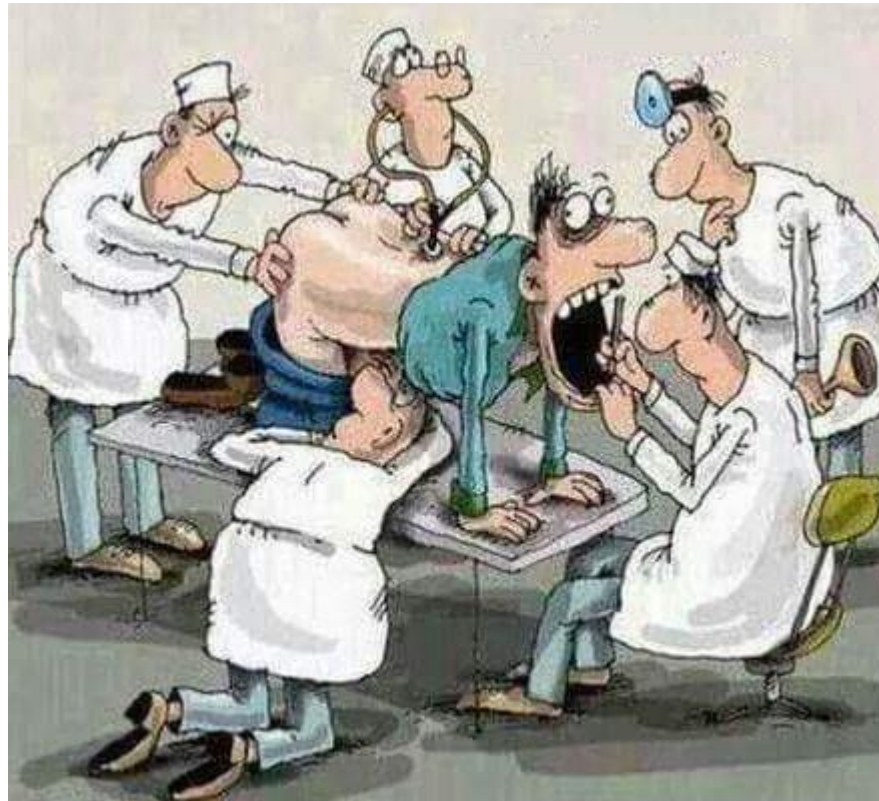
Breast cancer survivors who are thought to be at high risk should be referred to CCO's *Ontario Breast Screening Program (OBSP) High Risk Screening Program* for assessment of their eligibility to participate in the program⁵.

For individuals who have completed curative breast cancer treatment and have no symptoms of cancer recurrence, routine blood tests for certain biomarkers (e.g., CEA, CA 15-3, CA 27-29) and advanced imaging tests (PET, CT, and radionuclide bone scans) should not be routinely used to screen for cancer recurrences⁶. However, these tests may be appropriately ordered by physicians to investigate symptoms.

Takip Özeti

Guideline	FM	Mamografi*
ESMO	3-4 ay/1-2 yıl 6 ay/3-5 yıl Yılda 1 kez/6+	Yılda 1 kez
NICE	Hormonoterapi alanlar 1 yıl, sonrası hasta özellikleri DCIS ve Erken evre meme ca , 3 yıl	35-45 yaş 50 yaşına kadar yıllık >45 yaş 5 yıl boyunca yıllık
ASCO	3-6 ay/ 1-3 yıl 6-12 ay/3-5 yıl Yılda 1 kez/6+	Yılda 1 kez
AHRO	3-6 ay/1-3 yıl 6-12 ay/3-5 yıl	Yılda 1 kez
NCCN	1-4 kez/yıl 5 yıl boyunca	Yılda 1 kez

* İlk mamografi RT tamamlandıktan en az 6 ay sonra (MKC de)





RIITTA KOKKO

Effectiveness of Follow-Up for
Breast Cancer Patients

Table 22. Symptomatic and asymptomatic relapse-free vs. relapsed patients in the Tampere breast cancer follow-up study.

Patients	Relapse-free patients				Patients with relapse	
	At 0–6 months		At 7–12 months		At 0–6 months prior to the relapse	
	N	(%)	N	(%)	N	(%)
All	435	(100)	435	(100)	123	(100)
Asymptomatic	228	(52)	268	(62)	34	(28)
With somatic symptoms only*	96	(22)	56	(13)	44	(36)
With mental symptoms only**	64	(15)	61	(14)	8	(6)
With somatic and mental symptoms	47	(11)	50	(11)	37	(30)

*pain, cough-dyspnea, nausea

**fatigue, depression-anxiety, insomnia

Table 23. Sensitivity, specificity and positive and negative predictive values of CA 15-3 in detecting the first relapse.

Factor	Patient (%)	Test (%)
Sensitivity	36	13
Specificity	97	99

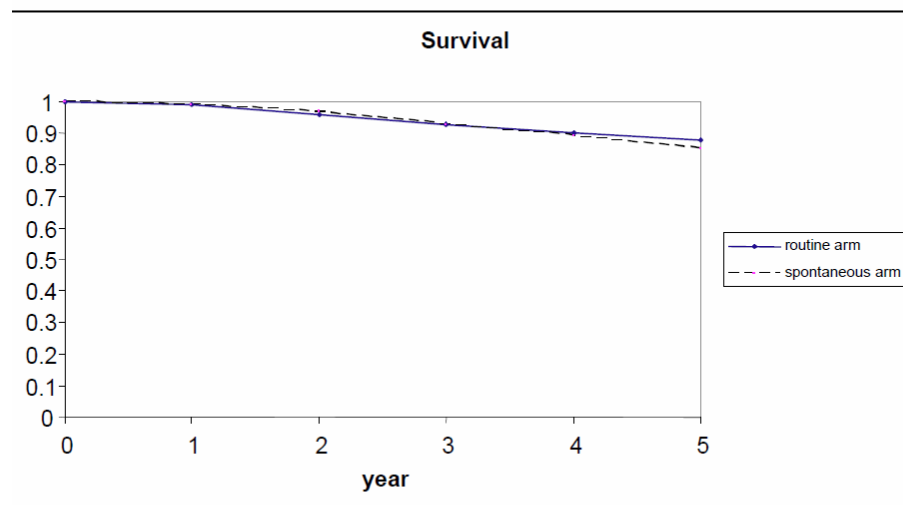
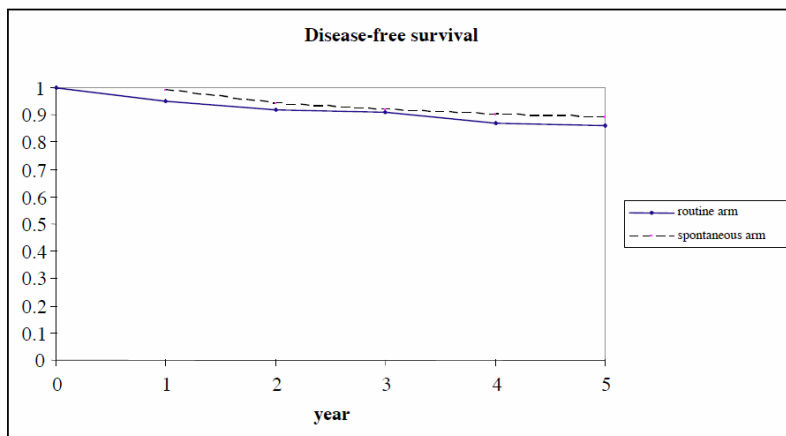
Table 25. Relapses among breast cancer patients, number of chest X-rays and findings on chest X-rays in study arms.

Event	Routine arm (%)	Spontaneous arm (%)
Number of patients	243 (100)	229 (100)
Number of chest X-rays	1429	411
Mean number of chest X-rays/patient	5.9	1.8
Mean number of chest X-rays/ patient year	1.5	0.5
Number of patients with some relapse	59 (24)	64 (28)
Number of patients with intrathoracic relapse	30 (12)	22 (10)
pleuro-pulmonary	10 (4)	6 (3)
bony	20 (8)	16 (7)
with symptoms*	27	19
visible in chest X-ray	9	8
Number of patients with false-positive chest X-ray	32	28

*symptoms: pain, cough, dyspnea

Table 26. Validity of chest X-ray in detecting intrathoracic relapse as the first relapse of breast cancer.

Chest X-ray	Arms	
	routine	spontaneous
Sensitivity		
Patient	30	36
Film	11	20
Specificity		
Patient	85	86
Film	97	90
Positive predictive value		
Patient	22	22
Film	21	22
Negative predictive value		
Patient	90	92
Film	93	89



- Sonuç:
 - İlk 4 yıl 6 ayda bir kontrol (FM ve hasta değerlendirilmesi)
 - Kan ve görüntüleme testlerine şüphe yoksa gerek yok (rutin mamografi hariç)

Follow-up of patients with early breast cancer: Is it time to rewrite the story?

Fabio Puglisi^{a,b,*}, Caterina Fontanella^a, Gianmauro Numico^c, Valentina Sini^d,
Laura Evangelista^e, Francesco Monetti^f, Stefania Gori^g, Lucia Del Mastro^h

6. Conclusions

Outside from the experimental setting there is currently no reason to perform any examination in asymptomatic patients other than annual mammography: no single imaging modality has the required characteristics of sensitivity, specificity and cost-effectiveness ratio to be considered suitable for BC follow-up. Intensive surveillance is associated with false-positive findings, induction of anxiety, risk of exposure to radiation, and unjustified costs. Information of patients and education of physicians should be pursued. However, the biological knowledge and the management improvement should be considered the basis for a renewed interest of research in the field of follow-up. Are probably definitively gone the times of a “one size fits all” strategy: BC is a heterogeneous disease and different approaches should be adapted to the different disease subtypes. The combination of the best current diagnostic tools with the best therapies may demonstrate that the anticipation of relapse detection and treatment is worth of value in specific settings. This research is eagerly awaited.

Intensive diagnostic follow-up after treatment of primary breast cancer. A randomized trial. National Research Council Project on Breast Cancer follow-up.


(PMID:7848404)

Rosselli Del Turco M, Palli D, Cariddi A, Ciatto S, Pacini P, Distanti V

Breast Unit, Centro per lo Studio e la Prevenzione Oncologica, Florence, Italy.

JAMA [1994, 271(20):1593-1597]

Type: Clinical Trial, Journal Article, Multicenter Study, Randomized Controlled Trial, Research Support, Non-U.S. Gov't

DOI: 10.1001/jama.271.20.1593 

RESULTS: Overall, 393 recurrences (104 local and 289 distant) were observed during the study. Increased detection of isolated intrathoracic and bone metastases was evident in the intensive follow-up group compared with the clinical follow-up group (112 vs 71 cases), while no difference was observed for other sites and for local and/or regional recurrences. The 5-year relapse-free survival rate was significantly higher for the clinical follow-up group, with patients in the intensive follow-up group showing earlier detection of recurrences. No difference in 5-year overall mortality (18.6% vs 19.5%) was observed between the two follow-up groups.

CONCLUSIONS: Periodic chest roentgenography and bone scan allow earlier detection of distant metastases, but anticipated diagnosis appears to be the only effect of intensive follow-up, and no impact on prognosis is evident after 5 years. Periodic intensive follow-up with chest roentgenography and bone scan should not be recommended as a routine policy.

Impact of Follow-up Testing on Survival and Health-Related Quality of Life in Breast Cancer Patients

A Multicenter Randomized Controlled Trial

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JAMA. 1994;271(20):1587-1592. doi:10.1001/jama.1994.03510440047031.

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Conclusions. —Results of this trial support the view that a protocol of frequent laboratory tests and roentgenography after primary treatment for breast cancer does not improve survival or influence health-related quality of life. Routine use of these tests should be discouraged.(JAMA. 1994;271:1587-1592)

BMJ. 1997 Jan 18;314(7075):174-7.

Popularity of less frequent follow up for breast cancer in randomised study: initial findings from the hotline study.

Gulliford T¹, Opomu M, Wilson E, Hanham J, Epstein R.

randomised to less frequent follow up by specialists.

CONCLUSIONS: Reducing the frequency of routine follow up has so far proved popular among patients with breast cancer at standard risk in this cohort. A multicentre study is needed to determine the effectiveness and cost-effectiveness of routine follow up with respect to disease outcomes.

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[J Cancer Surviv](#). 2012 Dec;6(4):359-71. doi: 10.1007/s11764-012-0232-z. Epub 2012 Jul 10.

Models of care for post-treatment follow-up of adult cancer survivors: a systematic review and quality appraisal of the evidence.

[Howell D](#)¹, [Hack TF](#), [Oliver TK](#), [Chulak T](#), [Mayo S](#), [Aubin M](#), [Chasen M](#), [Earle CC](#), [Friedman AJ](#), [Green E](#), [Jones GW](#), [Jones JM](#), [Parkinson M](#), [Payeur N](#), [Sabiston CM](#), [Sinclair S](#).

Author information

Abstract

PURPOSE: The impact of cancer and cancer treatment on the long-term health and quality of life of survivors is substantial, leading to questions about the most appropriate configuration of services and models of care for follow-up of post-primary treatment survivors.

METHODS: A systematic review and quality appraisal of the health literature for structure of services and models of follow-up care for post-treatment survivors was identified through a search of guideline sources and empirical databases including MEDLINE, EMBASE, PsycINFO, the Cochrane Library, CINAHL, and EBSCO from 1999 through December 2009.

RESULTS: Ten practice guidelines and nine randomized controlled trials comprised the evidence base for models of care for adult cancer survivors. Although the evidence base was rated as low quality, nurse-led and primary care physician models of follow-up care were equivalent for detecting recurrence. Consensus also suggests that cancer survivors may benefit from coordinated transition planning that includes the provision of survivorship care plans as part of standard care.

CONCLUSIONS: Realignment of models of care is identified as a health system priority to meet the supportive care and surveillance needs of a burgeoning survivor population. Further research is needed to evaluate the efficacy of models of care in a broader population of cancer survivors with differing needs and risks. While the evidence is limited, there is research that may be used to guide the configuration of health care services and planning.

Randomized trial of long-term follow-up for early-stage breast cancer: a comparison of family physician versus specialist care.

[Grunfeld E](#)¹, [Levine MN](#), [Julian JA](#), [Coyle D](#), [Szechtman B](#), [Mirsky D](#), [Verma S](#), [Dent S](#), [Sawka C](#), [Pritchard KI](#), [Ginsburg D](#), [Wood M](#), [Whelan T](#).

⊕ Author information

CONCLUSION: Breast cancer patients can be offered follow-up by their family physician without concern that important recurrence-related SCEs will occur more frequently or that HRQL will be negatively affected.

[BMJ](#). 1996 Sep 14;313(7058):665-9.

Routine follow up of breast cancer in primary care: randomised trial.

[Grunfeld E](#)¹, [Mant D](#), [Yudkin P](#), [Adewuyi-Dalton R](#), [Cole D](#), [Stewart J](#), [Fitzpatrick R](#), [Vessey M](#).

CONCLUSION: General practice follow up of women with breast cancer in remission is not associated with increase in time to diagnosis, increase in anxiety, or deterioration in health related quality of life. Most recurrences are detected by women as interval events and present to the general practitioner, irrespective of continuing hospital follow up.

FM

[Eur J Cancer](#). 2011 Mar;47(5):676-82. doi: 10.1016/j.ejca.2010.11.006. Epub 2010 Dec 2.

The value of routine physical examination in the follow up of women with a history of early breast cancer.

[Lu W¹](#), [de Bock GH](#), [Schaapveld M](#), [Baas PC](#), [Wiggers T](#), [Jansen L](#).

Author information

Abstract

PURPOSE: Routine physical examination is recommended in follow up guidelines for women with a history of breast cancer. The objective of this paper is to assess the contribution of routine physical examination in addition to mammography in the early diagnosis of breast cancer recurrences.

PATIENTS AND METHODS: The medical follow-up documents of 669 patients were reviewed. 127 contra-lateral breast cancers (CBCs) and 58 loco-regional recurrences (LRRs) in 163 patients were included. The additional contribution of routine physical examination over mammography was evaluated with the proportions of CBCs or LRRs detected by physical examination alone. χ^2 tests were used to compare the difference of contribution of physical examination among subgroups.

RESULTS: Seven (6%) out of 127 CBCs and 13 (22%) out of 58 LRRs were detected by routine physical examination alone. Six LRRs (17%; 6/35) were in patients after breast conserving surgery and seven LRRs (30%; 7/23) in patients after mastectomy. There was a trend that the contribution of physical examination is higher in women under 60 years of age in the detection of CBCs (9%; 5/57) and LRRs (28%, 8/29) than in women over 60 years of age (CBCs:3%; 2/70 and LRRs:17%, 5/29; $\chi^2=3.090$, $P=0.079$).

CONCLUSIONS: Twenty-two percent of loco regional breast cancer recurrences would have been detected later without physical examination. Routine physical examination may be most valuable for women with a history of breast cancer younger than 60 years at follow-up visit.

Takip Sürecinde Diğer Parametreler

Lancet. 1989 Oct 14;2(8668):888-91.

Effect of psychosocial treatment on survival of patients with metastatic breast cancer.

Spiegel D¹, Bloom JR, Kraemer HC, Gottheil E.

Author information

Abstract

The effect of psychosocial intervention on time of survival of 86 patients with metastatic breast cancer was studied prospectively. The 1 year intervention consisted of weekly supportive group therapy with self-hypnosis for pain. Both the treatment (n = 50) and control groups (n = 36) had routine oncological care. At 10 year follow-up, only 3 of the patients were alive, and death records were obtained for the other 83. Survival from time of randomisation and onset of intervention was a mean 36.6 (SD 37.6) months in the intervention group compared with 18.9 (10.8) months in the control group, a significant difference. Survival plots indicated that divergence in survival began at 20 months after entry, or 8 months after intervention ended.

J Psychosom Res. 2013 Apr;74(4):346-53. doi: 10.1016/j.jpsychores.2012.11.005. Epub 2012 Dec 6.

Long-term follow-up of a randomized study of support group intervention in women with primary breast cancer.

Björneklett HG¹, Rosenblad A, Lindemalm C, Ojutkangas ML, Letocha H, Strang P, Bergkvist L.

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Abstract

BACKGROUND: Despite a fairly good prognosis, many breast-cancer patients suffer from symptoms such as anxiety, depression and fatigue, which may affect health-related quality of life and may persist for several years. The aim of the present study was to perform a long-term follow-up of a randomized study of support group intervention in women after primary breast cancer treatment.

MATERIALS AND METHODS: Three hundred and eighty two women with primary breast cancer were randomized to support group intervention or control group, 181 in each group. Women in the intervention group participated in 1 week of intervention followed by 4 days of follow-up 2 months later. This is a long-term follow-up undertaken, in average, 6.5 years after randomization. Patients answered the questionnaires the European Organisation for Research and Treatment of Cancer, quality of life questionnaire (EORTC QLQ-C30) and the breast cancer module questionnaire (BR 23), the hospital anxiety and depression scale (HAD) and the Norwegian version of the fatigue scale (FQ).

RESULTS: After adjusting for treatment with chemotherapy, age, marriage, education and children at home, there was a significant improvement in physical, mental and total fatigue (FQ), cognitive function, body image and future perspective (EORTC QLQ C30 and BR23) in the intervention group compared with controls. The proportion of women affected by high anxiety and depression scores were not significantly different between the groups.

CONCLUSION: Support intervention significantly improved cognitive function, body image, future perspective and fatigue, compared with to the findings in the control group.

Takip Sürecinde Diğer Parametreler

[Ann Oncol](#). 2014 Oct;25(10):1901-14. doi: 10.1093/annonc/mdu042. Epub 2014 Apr 27.

Body mass index and survival in women with breast cancer-systematic literature review and meta-analysis of 82 follow-up studies.

[Chan DS](#)¹, [Vieira AR](#)², [Aune D](#)³, [Bandera EV](#)⁴, [Greenwood DC](#)⁵, [McTiernan A](#)⁶, [Navarro Rosenblatt D](#)², [Thune I](#)⁷, [Vieira R](#)⁸, [Norat T](#)².

Author information

Abstract

BACKGROUND: Positive association between obesity and survival after breast cancer was demonstrated in previous meta-analyses of published data, but only the results for the comparison of obese versus non-obese was summarised.

METHODS: We systematically searched in MEDLINE and EMBASE for follow-up studies of breast cancer survivors with body mass index (BMI) before and after diagnosis, and total and cause-specific mortality until June 2013, as part of the World Cancer Research Fund Continuous Update Project. Random-effects meta-analyses were conducted to explore the magnitude and the shape of the associations.

RESULTS: Eighty-two studies, including 213 075 breast cancer survivors with 41 477 deaths (23 182 from breast cancer) were identified. For BMI before diagnosis, compared with normal weight women, the summary relative risks (RRs) of total mortality were 1.41 [95% confidence interval (CI) 1.29-1.53] for obese (BMI >30.0), 1.07 (95 CI 1.02-1.12) for overweight (BMI 25.0-<30.0) and 1.10 (95% CI 0.92-1.31) for underweight (BMI <18.5) women. For obese women, the summary RRs were 1.75 (95% CI 1.26-2.41) for pre-menopausal and 1.34 (95% CI 1.18-1.53) for post-menopausal breast cancer. For each 5 kg/m² increment of BMI before, <12 months after, and ≥12 months after diagnosis, increased risks of 17%, 11%, and 8% for total mortality, and 18%, 14%, and 29% for breast cancer mortality were observed, respectively.

CONCLUSIONS: Obesity is associated with poorer overall and breast cancer survival in pre- and post-menopausal breast cancer, regardless of when BMI is ascertained. Being overweight is also related to a higher risk of mortality. Randomised clinical trials are needed to test interventions for weight loss and maintenance on survival in women with breast cancer.

[Cancer Epidemiol Biomarkers Prev.](#) 2008 Feb;17(2):379-86. doi: 10.1158/1055-9965.EPI-07-0771. Epub 2008 Feb 4.

Physical activity and survival after diagnosis of invasive breast cancer.

[Holick CN](#)¹, [Newcomb PA](#), [Trentham-Dietz A](#), [Titus-Ernstoff L](#), [Bersch AJ](#), [Stampfer MJ](#), [Baron JA](#), [Egan KM](#), [Willett WC](#).

⊕ Author information

Abstract

Previous studies suggest that increased physical activity may lower the risk of breast cancer incidence, but less is known about whether levels of physical activity after breast cancer diagnosis can influence survival. We prospectively examined the relation between postdiagnosis recreational physical activity and risk of breast cancer death in women who had a previous invasive breast cancer diagnosed between 1988 and 2001 (at ages 20-79 years). All women completed a questionnaire on recent postdiagnosis physical activity and other lifestyle factors. Among 4,482 women without history of recurrence at the time of completing the questionnaire, 109 died from breast cancer within 6 years of enrollment. Physical activity was expressed as metabolic equivalent task-hours per week (MET-h/wk); hazard ratios (HR) and 95% confidence intervals (95% CI) were estimated using Cox proportional hazards regression. After adjusting for age at diagnosis, stage of disease, state of residence, interval between diagnosis and physical activity assessment, body mass index, menopausal status, hormone therapy use, energy intake, education, family history of breast cancer, and treatment modality compared with women expending <2.8 MET-h/wk in physical activity, women who engaged in greater levels of activity had a significantly lower risk of dying from breast cancer (HR, 0.65; 95% CI, 0.39-1.08 for 2.8-7.9 MET-h/wk; HR, 0.59; 95% CI, 0.35-1.01 for 8.0-20.9 MET-h/wk; and HR, 0.51; 95% CI, 0.29-0.89 for > or =21.0 MET-h/wk; P for trend = 0.05). Results were similar for overall survival (HR, 0.44; 95% CI, 0.32-0.60 for > or =21.0 versus <2.8 MET-h/wk; P for trend <0.001) and were similar regardless of a woman's age, stage of disease, and body mass index. This study provides support for reduced overall mortality and mortality from breast cancer among women who engage in physical activity after breast cancer diagnosis.

Teşekkürler

HOW THE CANCER INDUSTRY CONTROLS WOMEN *

