CANCER SERVICES ANNUAL REPORT 2012

HEALTHCARE *at a Higher Level*

Glendale Adventist Medical Center
Cancer Services
Adventist Health

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Special Focus **Ovarian Cancer**

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2012 CANCER SERVICES ANNUAL REPORT
Including 2010 Cancer Registry Data

Relentless Pursuit of Excellence

Boris Bagdasarian, DO, Hematology & Oncology—Chairman, Cancer Committee

The discovery of new knowledge and the relentless pursuit of excellence through outstanding patient care, research and education are what define the mission of the Glendale Adventist Medical Center's Cancer program. We remain a leader in the battle against cancer that fully addresses the health-care needs of cancer patients and their families.

Our Cancer program continues its commitment to provide comprehensive, quality, multidisciplinary, safe and patient oriented care to patients diagnosed with cancer. The program offers clinical services adept in the prevention, education, early diagnosis, and pretreatment evaluation. Our Nurse Navigator system plays a vital role in determining and accessing services needed through the journey with cancer. The Glendale Adventist Medical Center has brought together state-of-the-art diagnostic and therapeutic technologies with a personal touch in a warm environment that responds to their emotional and physical needs.

The GAMC cancer program has been able to reach out and help thousands of cancer patients from all walks of life, and promote common interests of the nation's leading academic/tertiary and free standing cancer centers that are focused on the eradication of cancer. Our dedication to delivering the very best has been recognized by the American College of Surgeons-Commission on Cancer, during our survey in April of 2011. We were awarded the Accreditation Award for 3 years with commendation, and was recognized for commendation on eight standards which qualified Glendale Adventist Medical Center for the Outstanding Achievement Award that will be announced in 2012. Every year only a handful of hospitals in the State of California are recipients of this prestigious award, which is predominantly given to large tertiary and University-based cancer centers. This acknowledgement places our comprehensive community -based cancer program on a pedestal, not only among the very best in the Los Angeles County, but throughout the State and the Nation.

We are uplifted by the efforts made by so many members of the Cancer Care Team. We thank GAMC's cancer committee, medical staff, program director, oncology serviceline staff, hospital administration and a special thanks to the tumor registry. We look forward to greater achievements in the years to come.

Survivorship

National Perspective

There's some good news related to cancer survival across America. According to the latest figures released by the National Cancer Institute (NCI), the five-year relative survival rate for all cancers diagnosed between 1999 and 2006 is 68%, up from 50% in 1975-77. The improvement in survival reflects progress in diagnosing certain cancers at an earlier stage and advances in treatment. Survival statistics vary greatly by cancer type and stage at diagnosis.

The NCI estimates that approximately 11.7 million Americans with a history of cancer were alive in 2007. Some of these individuals were cancer-free, while others still had evidence of cancer and may have been undergoing treatment.

While survivorship is gaining in some cancers, more than 1.6 million new cases were expected to be diagnosed in 2011, and an estimated 571,950 Americans were expected to die of cancer. Exceeded only by heart disease, cancer is the second most common cause of death among Americans.

GAMC's Survivorship Program

The GAMC Survivorship Program strives to meet patients where they are emotionally and physically to help them achieve a more hopeful state of mind and self-image before, during and after cancer treatment. We offer a warm and inviting place to facilitate healing of the body, mind and spirit for cancer survivors and their families. The ultimate goal is reducing stress for our patients related to cancer diagnosis and treatment, as well as their loved ones.

Services offered include:

- **Nurse Navigator** – Helps patients find doctors, make appointments, provide guidance to patients and families throughout the cancer treatment process.
- **Ingeborg's Place** – A non-clinical environment that helps patients re-energize and feel supported as they battle cancer diagnosis and treatment. See a more detailed description on page 14 in this report.
- **Focus on Healing** – Numerous assistance programs, classes and support groups – all geared to making the cancer journey less stressful for patients and their families.
- **Patient Education and Resource Center** – With a cancer diagnosis, the search for information, answers–and hope–begins. A dedicated hotline, (818) 863-HOPE (4673), allows patients to talk personally to a GAMC oncology professional.

All GAMC survivorship services are community supported and offered free to any cancer survivor/patient in Glendale, regardless of the origin of treatment.

I Am Now Living My Life'

Kimie Cho – GAMC Patient & 10-year Cancer Survivor

I was diagnosed with breast cancer in 2001, one week before my 40th birthday. We detected the first-stage lump during my annual check up. I got a biopsy right away followed by a lumpectomy, four chemotherapy and 38 radiation treatments. The process went smoothly, and I was confident that my body was well taken care by the good doctors at GAMC.

Emotionally, however, I was in trouble. I became depressed, feeling miserable, lying in bed, vomiting many times day from chemotherapy. None of my anti-nausea medications seemed to work, and one of them gave me insomnia. I grew increasingly anxious and restless. My body was shaking all day.

I thought my problems would leave with the end with my treatment, but the depression never went away. It only got deeper. I got to the point where my body was aching all the time. I had no desire to eat, and I would stay in bed pondering if I would be better off dead. I even wrote down lists of "reason to live" and "reason to die."

I'm not one to talk about my cancer or be around other survivors. One day, my friend (a cancer survivor) invited me to a support group in another community. I thought it was too far from my home, so I went online and discovered a free cancer fitness program for survivors at the GAMC Wellness Center, just minutes away. I decided to give it a shot.

I went in July 2010 and was surprised at how many free classes were offered to cancer survivors through GAMC Cancer Services. I went to the fitness class and noticed how lively and happy all the participants were. With a warm invitation, I joined and, to my surprise, even got to dance on stage several times along the way.

Then followed the support classes: jewelry making, knitting, writing, pot luck parties for the friends receiving treatment, birthday parties, Valentine luncheons, Christmas parties, and more! I started to go to the GAMC Cancer Center almost every day. I got so busy I didn't have time to lie down in bed depressed.

Among the classes, "Write to Heal" by Patricia Varga, gave me not only healing but personal growth. Patricia's class was not about proper grammar and correct spelling, but rather putting down your emotions on paper. Receiving compassion and encouragement, it became easy to pour out my feelings. The result brought a new branch to my life. I am going to start teaching an art and writing class for Korean seniors to help detect and combat senior depression.

Looking back, I wouldn't have been able to get out of my depression without the survivor's program and wonderful friends at the GAMC Cancer Center. I have more energy, I have better health physically and emotionally, and I gained skills to help others.

I am so grateful to GAMC Cancer Services. Thanks to their programs, I am now LIVING MY LIFE. I wish that I had found out about these programs earlier so I wouldn't have suffered so long. I want all other cancer survivors to know about these amazing programs and to utilize them so they also can learn to enjoy their survivorship.

Thank you, GAMC, for supporting the cancer survivors.

Foundation

Dr. Norick Bogossian—Cancer Care Guild

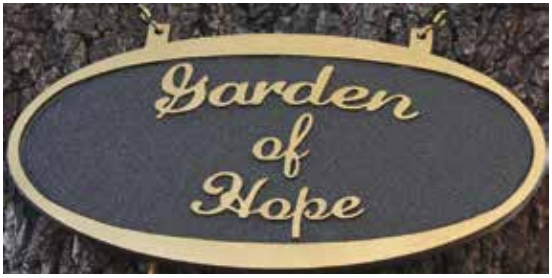
In 2011 a new associate guild linked to GAMC's Healthcare Foundation was formed as an ongoing fundraising partner to the Cancer Center. The Dr. Norick Bogossian Cancer Care Guild, named in memory and honor of Dr. Bogossian who died of colon cancer in 2009, celebrated its first event by welcoming more than 150 attendees and raising more than $50,000.

"The response was overwhelming," Guild President Karine Bagdasarian said, following the inaugural event at the home of Hilda Bogossian, GAMC auxiliary services manager and wife of the late Dr. Bogossian. Looking to the future, Karine added, "I'm excited to see what will happen as we pursue funding to ensure that GAMC can continue to offer free services to the community, including support groups, fitness programs and a wonderful image enhancement service that provides wigs, hats and scarves to patients."

As with GAMC's Healthcare Foundation, the new associate guild is made possible through the support of generous donors, volunteers and dedicated healthcare professionals.

Garden of Hope

A place to relax and reflect – a peaceful refuge – a Garden of Hope.



Just outside the entrance to the Cancer Center is GAMC's Garden of Hope, dedicated in November 2011. The original idea came from Melina Thorpe, director of Cancer Services, who envisioned a setting for "rest and reflection in a Zen-type garden." Then came along Kristine Seuylemezian, a junior at La Canada High School, who tackled the project in her quest for a Girl Scout Gold Award and as a tribute to her grandmother, a cancer survivor.

"Kristine approached me after seeing the new space created for Ingeborg's Place Apart," recalls Teryl MacDougall, guest relations manager of GAMC's Healthcare Foundation. "We talked about creating a garden, and I was thrilled to see someone of her age ready to take ownership of a project like this. The foundation offered Kristine guidance in leadership and organizational skills, and recommended a timeline."

With Kristine as a motivating force, other people came aboard to donate their services and materials, including garden and home designer Kelly Mack (Kelly Mack Home & Interior Design) and local landscape designer Armando Garcia. The project was completed in eight months.

On dedication day an appreciative (and reflective) crowd gathered to "christen" the garden, which included naming a bench in honor of Glendale Mayor Laura Friedman, a cancer survivor treated at GAMC.

"Today, every time I see someone sitting in the garden, I have a magical feeling," MacDougall adds.

Cancer Registry Report

Denise Cleveland, Data Manager

Glendale Adventist Medical Center is an American College of Surgeons (ACOS) Commission on Cancer – approved program and holds the Certificate of Approval with Commendation as a Community Hospital Comprehensive Cancer Program.

During our recent survey with the ACOS, GAMC again achieved commendation! Eight commendations were earned, which exceeds the necessary requirement of seven in specified areas to qualify for the "Outstanding Achievement Award."

This high level of approval ensures that patients will receive quality care, the use of state-of-the-art services/equipment, multidisciplinary team approach to coordinate the best cancer treatment options available, information about clinical trails and new treatment options, and access to cancer related information, education, and support.

The registry staff includes: Denise Cleveland, RHIT, Certified Tumor Registrar (CTR); Kathleen Morgan, CTR (part-time), and Anita Theis, Follow-up (part-time).

Multidisciplinary Tumor Board Conferences

Kathie Morgan, Cancer Registry

A forum, providing our cancer specialists opportunity for frank discussion relating to the treatment of cancer on an individual patient basis in order to provide excellence in cancer patient care.

Glendale Adventist Medical Center Tumor Board Conferences are held weekly at 7:00 a.m. in Committee Rooms A/B. Surgical Tumor Boards are held three times a month and a dedicated Breast Tumor Board is held once a month.

The cancer registry staff gathers the information required for discussion including: medical history, pertinent pathology and radiology material for review. Multi-disciplinary tumor boards are moderated by a surgeon, medical oncology or radiation oncologist. Both prospective and retrospective cases are discussed.

Tumor boards provide the presenting physicians with the opportunity to obtain treatment information from the multi-disciplinary perspective. Physicians take with them the treatment recommendations to advise their patients accordingly of their treatment options.

The American College of Surgeons requires that the number of cases presented annually is proportional to 10% of the analytic caseload and represents the institutions case mix. Our 2010 analytic caseload was 624, 22% of this caseload was presented at the Tumor Board Conferences.

Total cases presented at tumor board, both analytic and non-analytic. Some of these cases are analytic from neighboring hospitals, that may not have tumor boards.

2010 PRIMARY SITES DISCUSSED	CASES
ANUS	3
BILIARY	3
BLADDER	7
BREAST	19
CARCINOID	2
COLON	16
ESOPHAGUS	5
GALLBLADDER	2
KIDNEY	2
LARYNX	1
LIVER	2
LUNG	6
LYMPHOMA	6
MESOTHELIOMA	1
NASAL CAVITY/NASOPHARYNX	3
NEUROENDOCRINE	1
OTHER (may not be cancer)	6
OVARY	2
PANCREAS	8
PAROTID	1
PROSTATE	10
RECTUM	5
SKIN/(MELANOMA)	3
SPERMATIC CORD	1
STOMACH	7
SOFT TISSUE	4
TESTIS	1
THYROID	3
UNKNOWN PRIMARY	9
TOTAL: This total reflects total cases presented.	139

Continuing Medical Education 2011

3/23/11 **Genito-Urinary Carcinoma: Case Studies on Bladder and Prostate Cancer**
Kamyar Ebrahimi, MD, Urologist, Glendale Adventist Medical Center
Sara Kim, MD, Radiation Oncologist, Glendale Adventist Medical Center

5/11/11 **Evaluation and Management of Hereditary Breast Cancer**
Dennis Holmes, MD, Assistant Professor of Clinical Surgery
USC Keck School of Medicine and Breast Surgeon

9/8/11 **Prostate Cancer – Diagnosing Prostate Cancer & Understanding Treatment Options**
Ben Shenassa, MD, Urologist, Glendale Adventist Medical Center
Kamyar Ebrahimi, MD, Urologist, Glendale Adventist Medical Center

10/12/11 **Skin Cancer**
Gary W. Cole, MD, Staff Dermatologist
Kaiser Permanente – Retired Adjunct Professor of Dermatology,
UCI School of Medicine

11/16/11 **Cell Phones and Brain Cancer**
Anne Tournay, MRCP, Assistant Clinical Professor,
Child Neurology, CHOC

Community Outreach Programs

Daffodils to 'Movember'

Glendale Adventist's Cancer Services program continued to reach out to our community in 2011 by hosting and participating in a number of health-related activities. Highlights included:

- **Daffodils Day, March 16, 2011**—Sponsored by the American Cancer Society, 250 patients received vases or bouquets of daffodils to symbolize hope and renewal. These patients were seen in the hospital's oncology unit, radiation therapy department, infusion center, and oncologists' offices.

- **Bras for a Cause, April 9, 2011**—This Soroptimist International event raises money and awareness for breast cancer. Sponsored by Cancer Services, a group of cancer survivors submitted an entry entitled "Phantom of the OpBRA" and attended the fundraiser dinner where they received two awards.

- **Cancer Survivors' Day, June 3, 2011**—Themed "Heroes Among Us," more than 200 cancer survivors and their caregivers attended this free luncheon and celebrated with key note speaker and prostate cancer survivor Dallas Raines, chief meteorologist for KABC-TV in Los Angeles. The Flame of Hope awards were also presented during this luncheon to Glendale Police Chief Ron DePompa, community volunteer Katherine Hickman and Glendale's Gregory Zarian, co-host of GAMC's Healthline weekly TV show. Special feature of this event also included a performance by members of the cancer survivors' dance class named Can-Dancers.

- **Skin Cancer Screening, August 11, 2011**—A skin cancer screening was held at the Cancer Center from 5:30 to 8:30pm. Fifty participants were screened. Participating physicians were Martin Kay, MD, Han Lee, MD, Donny Mehrabi, MD, Thomas Su, MD, and Family Practice Residents.

- **Prostate Screening & Lecture, September 8, 2011**—A prostate cancer screening & lecture was held at the hospital from 4:00 to 8:30pm. More than 90 participants were screened for prostate cancer and were encouraged to attend physician presentations during the event. Participating physicians were Sze-Ching Lee, MD, Sara Kim, MD, Ben Shenassa, MD, and Kamyar Ebrahimi, MD.

- **"Stop and Think PINK!" Month, October 2011**—The City of Glendale partnered with Glendale Adventist and proclaimed October as "Stop and Think PINK!" Month to raise awareness of breast cancer. The hospital was decorated in pink, provided information about breast cancer and offered 50 low-cost mammograms to the community.

- **Beauty Bus Event, October 10, 2011**—For people receiving or have received treatment for cancer and their caregivers, a day of beauty was offered to them free of charge, sponsored by the Beauty Bus Foundation. Virtual salon services included manicures, facials, hair styling and makeup application.

- **Relay for Life, Glendale, October 22, 2011**—A 24-hour walk/run relay-style event that is held to benefit the great works of the American Cancer Society. GAMC rallied together our team of about 100 employees and family members to help fight back against cancer. Dawn Haerle-Crow was captain of our team. Our booth was brightly decorated for a grand birthday party because "when we fight back against cancer, we help to create more birthdays." Our booth featured 13 raffle baskets, many silent auction items, cotton candy, cupcakes, and face painting. The raffle baskets and silent auction items were donated by some of our hospital departments and patients. We raised almost $3,000 for the American Cancer Society to help fund research, as well as for programs to care for and support cancer patients. We can imagine a world with more birthdays!

- **"Movember," November 2011**—Mustache November (or "Movember") is a national campaign similar to wearing pink in October, the latter which raises awareness for breast cancer. Men growing mustaches in November raises awareness for men's health issues – especially prostate and testicular cancer. More then 25 men at GAMC grew mustaches and several prominent women in the Glendale community wore mustache buttons and even fake mustaches to help raise awareness. "Movember" concluded with a fun event in the hospital auditorium where hospital employees voted for the men with the "best mustaches."

- **Community Health Fair and Prostate Screening, November 5, 2011**—A prostate screening was held at the Community Health Fair, with a total of 35 participants screened.

- **Christmas Party, December 9, 2011**—This annual Christmas Party featured wonderful music, food, and the chance to celebrate the season with staff and fellow patients and cancer survivors. Santa Claus dropped in to pose with guests for photos to take home – always a hit with everyone. The Cancer Center staff hosted this event, always mindful of the joy of giving and helping our patients at Christmas and throughout the year.

AMERICAN CANCER SOCIETY

By Chrissy Kim, Director, Healthcare Corporate Initiatives

Everyone knows how special a simple thing like a birthday can be. It's a celebration of life and a marker of progress. Caregivers, family members, friends and co-workers who cancer survivors often rely upon to get through their journey, are all part of a larger movement to create a world with less cancer and more birthdays. It is a movement of health professionals and volunteers working in collaboration to eliminate cancer as a major health concern.

Armed with the knowledge and the tools to reduce cancer incidence and mortality, those of us at the American Cancer Society believe we can make a tremendous difference in the lives of countless people. The Society couldn't accomplish its lifesaving mission without the dedication of committed partners like Glendale Adventist Medical Center.

The evolving role of our partnership is an important one as we help create ways we can all stay well, get well, find cures and fight back against cancer. Together, our organizations provide a framework for progress in the movement to end cancer by fostering interaction between the community and health systems.

The Society has aggressive goals to measurably reduce the impact of cancer, decrease the cancer mortality percentage, reduce cancer incidence rates and improve quality of life for people with the disease. Globally, nationally, across California and right here in the Glendale area, we have made significant progress toward those goals. However, we know we can do even better.

We are at a critical point in our fight against cancer. There has perhaps never been a more exciting, or challenging time to be involved, because we know how to bring cancer under control as a major public health problem. Science has made significant progress in unraveling the mystery of cancer, but our world is not doing enough with what it knows. That is why it is critical to us – and to you – that we continue to do the right things with the resources provided us.

The Society is embracing a bold vision to save even more lives from this disease. We currently help avert 350 cancer deaths each day. We want to change that to saving 1,000 lives per day. Yes, 1,000 in the US and thousands more per day worldwide – because our mission and those who support it deserve relentless action. Thank you for your support and partnership!

Together we will save more lives. Together we will eliminate cancer as a major health concern.

Ingeborg's Place Apart

Here at Ingeborg's Place Apart, our mission is to meet each patient where they are, both physically and emotionally. Our main focus is to help them achieve a greater, more hopeful state of mind and improve their self-image during this challenging time.

Our program helps facilitate our patients' healing of the mind, body and spirit, which is continually challenged during treatment. Patients come to Ingeborg's Place Apart with a diverse range of emotional readiness, from scared and apprehensive to courageous and hopeful. We work diligently to be sure each patient who comes through Ingeborg's Place Apart leaves feeling more confident and smiling. Thanks to grants, donations and fundraising, all services are completely free of charge to cancer patients, regardless of where they are receiving treatment.

Ingeborg's Place Apart was established in honor of Ingeborg Genevieve Nord Zerne, a Glendale Adventist nurse who succumbed to pancreatic cancer in 2000. Her hope was to provide a warm atmosphere where patients would not only receive tangible items such as wigs and scarves, but an environment that patients could rebuild their spirit, confidence and self-image. In her honor and through the generosity of the Zerne family and friends, Ingeborg's dream became a reality in 2004.

To realize our objective, we provide for those who suffer from hair loss, personal appointments to fit wigs, head coverings and offer haircuts to suit each one's taste. We educate on the proper use of cleaning and caring for the wig and finish their appointment up with a mini-makeover, so they leave feeling beautiful.

We have several programs at Ingeborg's Place Apart to assist in the following services: "Look Good, Feel Better" (program sponsored by the American Cancer Society). Participants receive a free make-up kit matching their skin tone. A licensed cosmetologist who instructs patients on proper skin care and many make-up tricks of the trade provides make-up application guidance. Susan Boyd with "Arbonne International" comes quarterly and gives each one of the participants products and suggestions for skin care. Susan offers several modalities proven to be very successful to many patients. The Beauty Bus Foundation comes twice a year and offers full makeovers to all participants, including facials, manicures, pedicures, hair styling and make-up application.

Our patients have the opportunity to engage their creative spirit through many artistic outlets as well! There are monthly jewelry making classes, weekly cartooning classes, weekly knitting classes, bi-weekly creative writing classes, piano and voice lessons offered. With the assistance provided, patients are able to lose themselves in the freedom of creativity.

Through our Wellness Center, we offer fitness, yoga and dance classes multiple times a week

to help improve balance, strength, and agility. At Ingeborg's Place Apart we are inspired to heal the whole person: mind, body and spirit. Nothing is more basic than the human touch through the art of massage therapy. We offer personal attention with the focus of helping the individual achieve a state of balance and relaxation conducive with healing.

We offer an array of educational resources available at the Ingeborg's Place Apart to help individuals gather information, inspiration and gain a better understanding of the challenges to which they are confronted.

Through 2010, Ingeborg's dream remained strong and thriving, seeing 661 patients who received a total of $55,000 of in-kind gifts consisting of wigs, hair and wig cuts, hats and head coverings, makeovers, facials, massages, handmade blankets and a myriad of bracelets, earrings and necklaces.

Ingeborg's Place Apart is located in Cancer Services at 381 Merrill Avenue, #A, Glendale, CA 91206. The center is open to serve the patients Monday thru Friday from 9:00am – 2:00pm. We can be reached at 818-409-8218.

New Oncology Nurse

'The Team Is Awesome' – Kelly Sinise, RN

When Kelly Sinise, RN, received a call from GAMC confirming her position on 2-East as an oncology nurse, she was beyond ecstatic. She was given a chance to work in a specialty near and dear to her heart – an opportunity to pursue her dream job! As a new nursing grad, being considered right away for a specialty position can be difficult.

Kelly graduated in August 2010 from the College of the Canyons in Santa Clarita. While in nursing school she completed two rotations on an oncology floor. That experience hooked her immediately – oncology nursing was where she wanted to be. Kelly is the only RN in her class of 64 graduates who pursued a career in oncology. She "officially" joined the GAMC family in March 2011.

Asked why she pursued a career in oncology nursing, Kelly said that cancer patients "need extra care and love," – aspects which fit her nurturing personality perfectly. She appreciates that oncology is a specialty that closely interacts with patients – getting to know them during frequent hospitalizations as they battle the disease.

"I love getting to talk to patients, understanding their hopes and, most of all, their fears," she said.

Cancer has intimately touched Kelly's family. She lost her paternal grandmother to colon cancer and maternal grandfather to gastric cancer. Both were hospitalized not knowing their diagnosis before succumbing to the disease. This makes Kelly more aware of the importance that reinforces the need for diligent screening and follow-up.

With an appreciation for the nurturing environment of 2-East and the friendship and assistance of her seasoned colleagues, Kelly emphasized, "The team is awesome…always willing to answer questions. No question is considered unimportant." She is especially thankful for head nurse, Agnes Pagdilao's mentoring and guidance.

Kelly becoming chemo-certified, another step to her becoming an expert in her field. All indications point to that happening! Thank you and welcome, Kelly! We are collectively excited that you have chosen oncology as your "specialty."

–Melina Thorpe, RN MBA OCN, director,
Cancer Services

Clinical Trials

Amanda Benavides

Cancer is one of the leading causes of death in the world today. Because of this, it is necessary to commit resources toward finding solutions to the problem. Oncology, which is the medical study of cancer, is a research field that demands resources toward finding treatments that are able to assist those who suffer from this condition. We have come a long way, and an encouraging number of cancer patients have gone into remission as a result of availing themselves to the studies.

It's natural for a cancer patient to be concerned. The thought in general for all of us, when confronted with a dreadful diagnosis, is we want the assurance that we're going to get the best therapy and outcome possible. But in reality, many unknowns remain when it comes to cancer treatment, and often the experimental treatment is the best option for a patient. Studies have shown that if you're involved in a clinical research trial, you get at least the best treatment we have available, and the experimental arm may be better.

Many of these treatments are extremely expensive and would not be covered by medical insurance, but patients who participate in a study do not have to pay for the medication.

Participation in a clinical trial is entirely voluntary. Patients may withdraw from the study at any time. Strict monitoring committees monitor the results, and the trial is discontinued if excess toxicity or side effects are discovered.

No Cost

If you are a cancer patient, it is recommended for various reasons that you get involved in oncology clinical trials. The first is that you are going to get the drug at no cost, and you will also be among the first to benefit from the same. Cancer treatment is generally very expensive and has proven to be very problematic to the family and friends of those who suffer from it. However, with a clinical trial, you get to have treatment without having to pay for it.

Safety

One of the reasons that many a patient will shy away from treatment is the risk involved. What if the drug does not work? What if something goes wrong? The truth is that though it may not work, not getting any treatment at all will not work in your favor either. If you are worried about the safety of the drugs, you should understand that the drugs have been tested beforehand to ensure that they are safe for the human body. What is being tested is the effect that the drug has on cancer cells. You are not the guinea pig.

Qualified

You are also assured that the most qualified

healthcare professionals are involved in the trials. No matter who the sponsor is, there are always reputable oncology organizations or groups involved in carrying out the study. These professionals have the kind of resources necessary to carry out clinical trials that meet quality standard of health regulatory bodies.

Take a chance

Participating in oncology clinical research is not a guarantee that your condition will disappear. However, when it comes to cancer, nothing is set in stone. You could just be the one patient who benefits tremendously from the treatment. It is also an indication that you are willing to fight the condition, and this is necessary as a form of survival.

In addition to the personal benefits, a clinical trial helps others. Everything we have today when we go to the doctor is because somebody else was participating in a trial or a study before them.

PRIMARY SITES COMPARISON

Primary Site	2005	2006	2007	2008	2009	2010
All Sites	494	541	547	567	578	624
Oral Cavity/Pharynx	7	11	9	12	15	20
Esophagus	3	3	3	5	2	8
Stomach	15	14	19	11	23	18
Colon	47	68	46	51	55	57
Rectum & Rectosigmoid	13	25	21	23	23	21
Pancreas	12	14	15	11	16	21
Lung	38	51	45	53	65	82
Leukemia, Myeloma, & Hematopoietic	23	20	22	24	22	26
Soft Tissue	7	2	4	1	3	4
Melanoma of the Skin	2	12	10	7	6	7
Breast	96	81	88	120	101	91
Corpus Uteri	7	14	17	14	21	15
Ovary	7	9	5	11	8	10
Prostate	36	29	38	30	29	43
Bladder	24	18	30	21	25	32
Kidney/Renal	14	7	8	21	7	10
Brain/Nervous System	36	39	47	49	36	55
Endocrine	30	39	32	26	41	34
Lymphatic System	27	27	28	28	32	27
Unknown Primary	14	7	9	7	8	14

Includes analytic cases only (diagnosed at GAMC and received first course of treatment).

2010 PRIMARY SITE TABLE

Sorted by Most to Least Common

Grp Code	Site Group	Total Cases	Class		Sex	
			Analytic	NonAn	M	F
	ALL SITES	734	624	110	359	375
740	BREAST	110	91	19	2	108
622	LUNG/BRONCHUS-NON SM CELL	86	60	26	48	38
530	COLON	61	57	4	31	30
850	PROSTATE	51	43	8	51	0
920	OTHER NERVOUS SYSTEM	37	34	3	9	28
880	BLADDER	34	32	0	29	5
930	THYROID	27	25	2	5	22
541	RECTUM & RECTOSIGMOID	25	21	4	14	11
962	NON-HODGKIN'S LYMPHOMA	24	23	1	16	8
621	LUNG/BROCHUS-SMALL CELL	23	22	1	18	5
570	PANCREAS	22	21	1	11	11
910	BRAIN	22	21	1	11	11
510	STOMACH	20	18	2	13	7
691	LEUKEMIA	17	13	4	12	5
820	CORPUS UTERI	17	15	2	0	17
999	UNKNOWN OR ILL-DEFINED	15	14	1	8	7
940	OTHER ENDOCRINE	14	9	5	9	5
891	KIDNEY AND RENAL PELVIS	13	10	3	11	2
830	OVARY	12	10	2	0	12
731	MELANOMA OF SKIN	10	7	3	7	3
500	ESOPHAGUS	9	8	1	8	1
610	LARYNX	9	9	0	9	0
550	LIVER	8	6	2	6	2
562	BILE DUCTS	8	6	2	2	6
692	MYELOMA	8	6	2	4	4
699	OTHER HEMATOPOIETIC	8	7	1	5	3

Table is continued on page 22 & 23

Stage						
Stage 0	Stage I	Stage II	Stage III	Stage IV	Not Applicable	Unknown
36	127	97	62	126	112	64
9	39	22	11	5	0	5
0	9	1	9	32	0	9
6	12	12	11	10	0	6
0	1	27	5	6	0	4
0	0	0	0	0	34	0
15	10	3	1	1	2	0
0	16	3	3	1	0	2
1	6	4	1	7	1	1
0	7	2	2	11	0	1
0	1	1	3	16	0	1
0	0	7	1	9	0	4
0	0	0	0	0	21	0
0	2	0	5	7	0	4
0	0	0	0	0	13	0
0	6	1	0	0	0	8
0	0	0	0	0	14	0
0	0	0	0	0	9	0
0	4	0	3	2	0	1
0	2	1	2	5	0	0
1	1	1	1	0	0	3
0	0	0	1	1	0	6
0	3	3	1	1	0	1
0	0	1	0	4	0	1
0	1	2	0	0	2	1
0	0	0	0	0	6	0
0	0	0	0	0	7	0

Table is continued on page 22 & 23

2010 PRIMARY SITE TABLE

Sorted by Most to Least Common (continued)

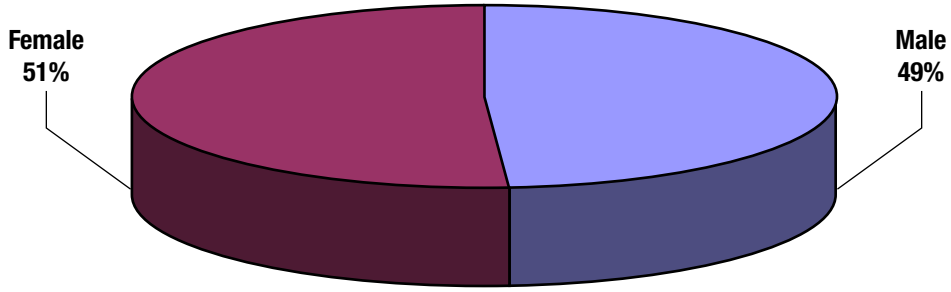
Table is continued from page 20 & 21

Grp Code	Site Group	Total Cases	Class		Sex	
			Analytic	NonAn	M	F
470	NASAL PHARYNX	5	4	1	2	3
710	SOFT TISSUE	4	4	0	3	1
842	VULVA	4	3	1	0	4
961	HODGKIN'S DISEASE	4	4	0	2	2
410	TONGUE	3	2	1	2	1
542	ANUS, ANAL CANAL, ANORECTUM	3	2	1	1	2
600	NASAL CAVITY, SINUS, EAR	3	1	2	0	3
461	TONSIL	2	2	0	1	1
520	SMALL INTESTINE	2	2	0	1	1
581	RETROPERITONEUM	2	2	0	1	1
590	OTHER DIGESTIVE	2	2	0	2	0
821	UTERUS NOS	2	1	1	0	2
860	TESTIS	2	2	0	2	0
420	SALIVARY GLANDS, MAJOR	1	1	0	0	1
462	OROPHARYNX	1	1	0	1	0
480	HYPOPHARYNX	1	1	0	1	0
801	CERVIX IN SITU CA	1	1	0	0	1
802	CERVIX UTERI	1	1	0	0	1
893	OTHER URINARY	1	0	1	1	0

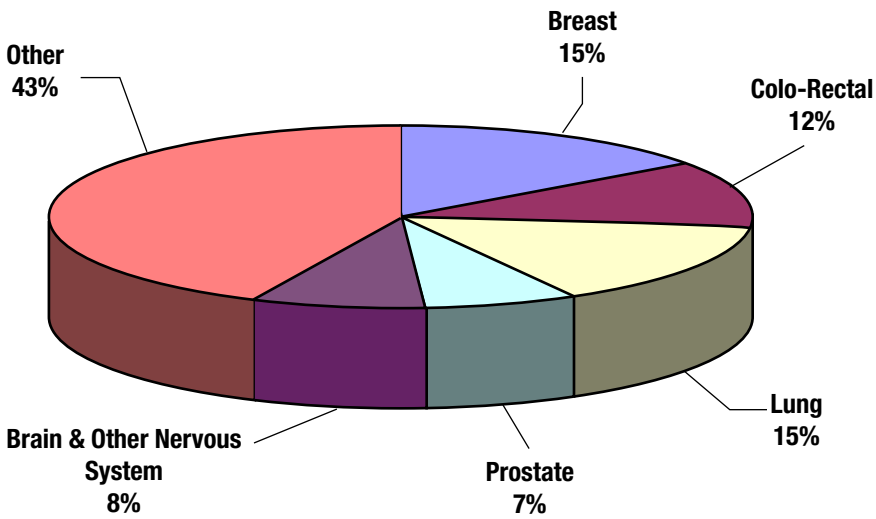
Table is continued from page 20 & 21

Stage						
Stage 0	Stage I	Stage II	Stage III	Stage IV	Not Applicable	Unknown
0	0	0	0	3	0	1
0	1	0	0	1	0	2
2	1	0	0	0	0	0
0	1	2	1	0	0	0
0	0	1	0	1	0	0
1	0	1	0	0	0	0
0	0	0	0	0	0	1
0	0	0	1	1	0	0
0	0	1	0	0	0	1
0	1	1	0	0	0	0
0	0	0	0	0	2	0
0	0	0	0	0	1	0
0	1	0	0	0	0	1
0	1	0	0	0	0	0
0	0	0	0	1	0	0
0	0	0	0	1	0	0
1	0	0	0	0	0	0
0	1	0	0	0	0	0
0	0	0	0	0	0	0

2010 MALE /FEMALE RATIO N=734



2010 TOP FIVE SITES N=734



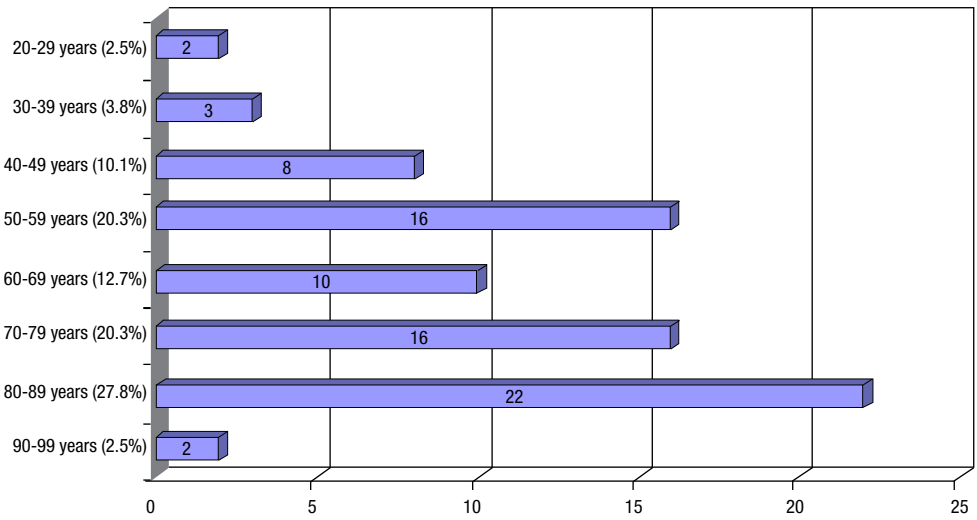
Ovarian Cancer

Boris Bagdasarian, DO, Hematology & Oncology—Chairman, Cancer Committee

Ovarian cancer is the sixth most common cancer in women in the United States comprising 4 percent of all cancers in women and 25 percent of cancers of the female genital organs. More deaths occur from ovarian cancer in the United States each year than from endometrial and cervical cancers combined. Epithelial ovarian cancer accounts for 90 percent of all cases of malignant tumors of the ovaries.

The peak age for development of ovarian cancer is 55-60 years. The age-specific risk of the disease steadily increases from ages 20 to 80 and then declines. More than 80 percent of ovarian cancers occur after age 40, with 30 percent to 40 percent of them developing in women older than 65. Conversely, less than one percent of ovarian cancers occur in women younger than age 20. For reasons not clear, patients older than age 65 with ovarian cancer present with higher-grade tumors that are more aggressive than the tumors seen in younger patients. This difference is independent of other known unfavorable risk factors.

Ovarian Cancer 2001-2010
Age at Diagnosis



GAMC N=79

Symptoms and Physical Findings

Patients with early stage ovarian cancer often have nonspecific discomfort, which includes urinary frequency, irregular menses and constipation, which are caused by an enlarging pelvic mass. With advanced disease, patients may note bloating, early satiety, abdominal pain, anorexia, and constipation. In the early stage, the major physical finding is a pelvic mass; there may be considerable ascites in patients with advanced disease. Because symptoms referable to the upper abdomen often are predominant at the time of presentation in patients with advanced ovarian cancer, this clinical feature may delay the time before a definitive diagnosis is established.

Diagnosis

In women who are premenopausal, the majority of ovarian masses are functional cysts that usually decrease in size after several menstrual cycles. For those women who are postmenopausal, palpable pelvic mass is of greater concern for the presence of malignant disease. Based on the signs and symptoms of the disease process, other diagnostic procedures may be indicated, including CT scan of the abdomen and pelvis, radiographic or endoscopic studies of either the upper or lower gastrointestinal tract, or both. In a patient with ascites, a paracentesis may be performed to enable cytologic analysis of fluid and to provide short-term symptomatic relief.

The serum cancer antigen 125 (CA-125) level is likely to be elevated in more than 80 percent of patients with advanced ovarian cancer, but it is also abnormal in other cancers and benign conditions. Additionally, 50 percent of the patients with early stage ovarian cancer will have a normal serum level of CA-125. Therefore, the absence of an elevated CA-125 should not interfere with the decision to evaluate a suspicious pelvic mass.

Screening

A variety of screening approaches for early detection of ovarian cancer have been advocated, including the routine performance of a transvaginal ultrasound or measurement of the serum CA-125 level. However, there is no clinical evidence to suggest that screening for the presence of ovarian cancer decreases mortality.

Family History and Genetic Testing

Family history of ovarian cancer is the single most important risk factor for the disease. Although 90 to 95 percent of ovarian cancers are sporadic and are not hereditary, the lifetime risk for disease increases three- to four-fold for women who have one first degree relative with ovarian cancer compared with women who do not have such a history.

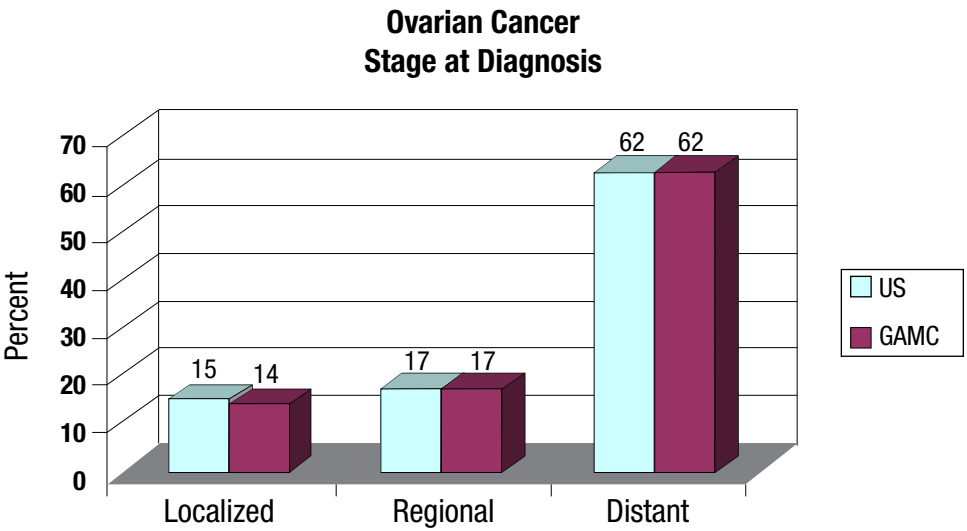
Lifetime risk is approximately 40 percent for women who have two first-degree relatives with ovarian cancer. There is solid evidence that the presence of either a BRCA-1 or BRCA-2 mutation is a

strong predictor of a heightened susceptibility to ovarian cancer. For example, studies have shown that the lifetime risk of ovarian cancer may be as high as 50 percent for women with BRCA-1 mutation. Presence of a BRCA-2 mutation appears to be a predictor of a lower cumulative lifetime risk of the disease. For a woman with more than one family member with either ovarian cancer or early onset breast cancer, it may be reasonable to consider genetic testing to determine the presence or absence of a BRCA-1 or BRCA-2 mutation.

Although the value of intensive screening programs (example, routine vaginal ultrasound) in such individuals is unclear, several studies have provided the first indication that performing a bilateral prophylactic oophorectomy in women with these genetic abnormalities may substantially reduce their risk of ovarian cancer (approximately 80 percent lower risk with followup of fewer than 10 years from the surgical procedure). Because of concern for the later development of primary peritoneal cancer, long-term followup of a large population of women who have elected to have this prophylactic procedure will be required to determine the extent of risk reduction associated with this surgery.

Prognostic Factors

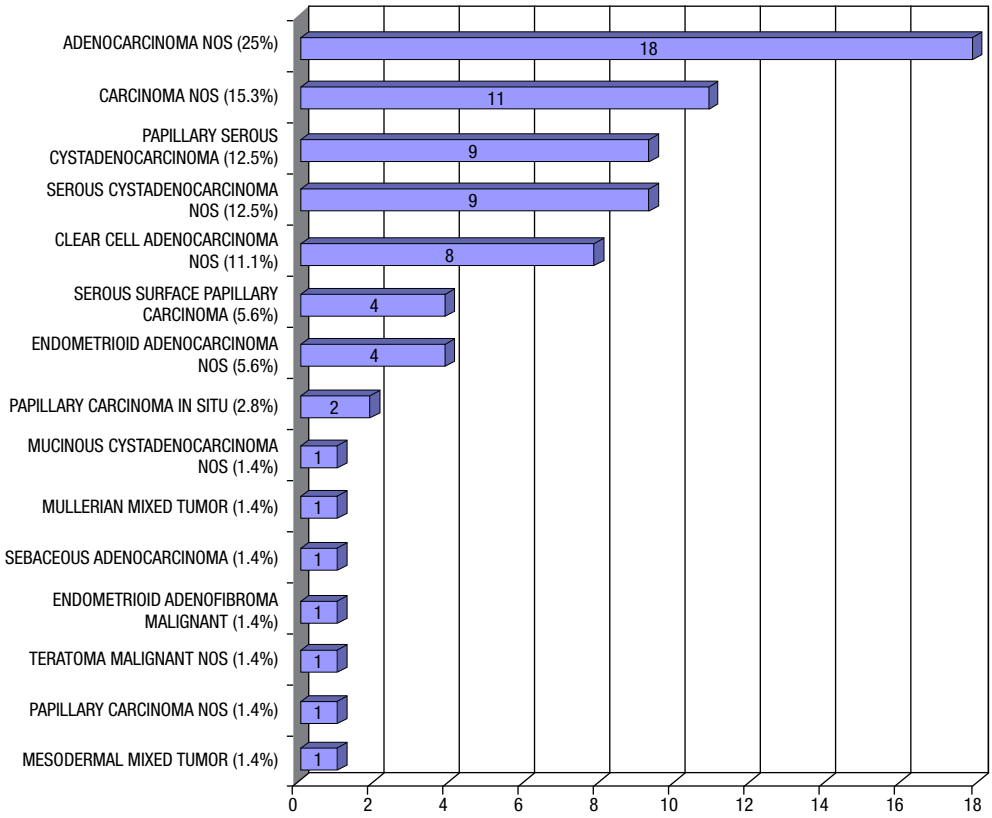
A number of important prognostic factors have been identified in patients with ovarian cancer, including stage at the time of diagnosis, extent of disease at the completion of primary surgical cytoreduction, the patient's age, performance status and tumor grade.



Surveillance, Epidemiology & End Results (SEER) Data; CA Cancer Journal for Clinicians – July/August 2011; United States 1999-2006.
GAMC - 2001-2010

Certain morphologic variants including clear cell and mucinous subtypes appear to have a particularly poor prognosis when ovarian cancer is diagnosed at an advanced age. Several studies have shown that the prognosis is more favorable for women with a BRCA-1 abnormality, which is independent of other known prognostic factors. However, the findings of other studies challenge these conclusions and their relevance in defining prognosis and treatment must be further clarified.

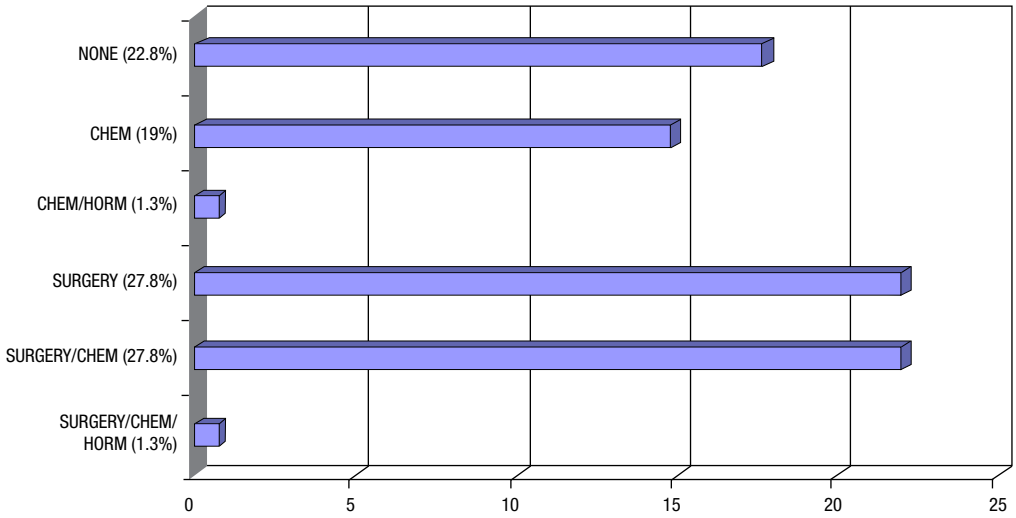
Ovarian Cancer 2001-2010
Top 15 Histology



Chemotherapy for Advanced Disease

Based on the results of several randomized phase 3 trials, standard treatment of advanced ovarian cancer includes the administration of a platinum agent (cisplatinum and carboplatin) endo taxane. Although they have comparable efficacy with respect to progression free and overall survival, carboplatin-based regimens are generally preferred to cisplatinum regimens because their toxicity profile is better (less emesis, neurotoxicity and nephrotoxicity), and they are easier to administer. In addition, when paclitaxel is given with cisplatinum to treat ovarian cancer, a long 24-hour infusion is typically required. With shorter programs (three hours) the incidence of severe Grade 3 peripheral neuropathy is unacceptably high (more than 20 percent).

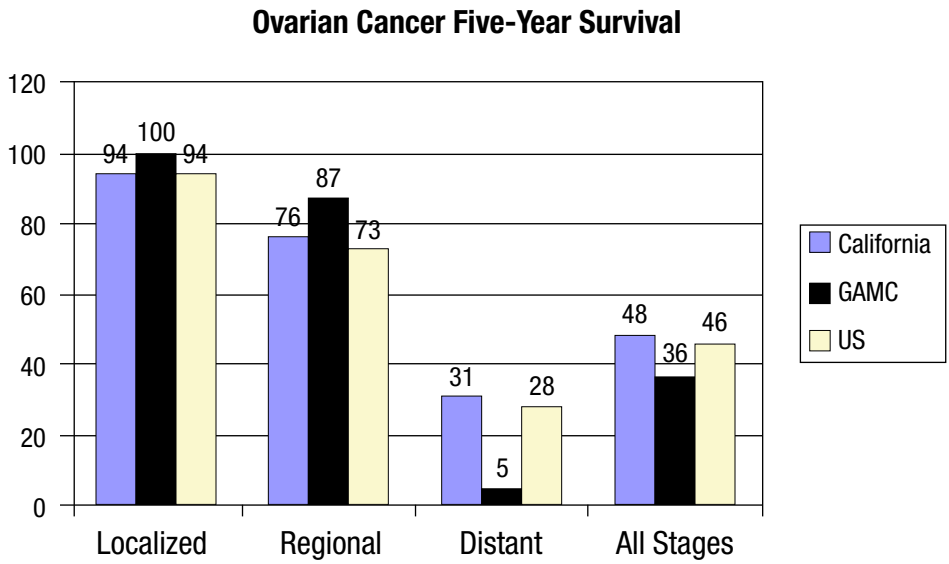
Ovarian Cancer 2001-2010
1st Course Rx Summary



GAMC N=79

An objective response to this therapy will be achieved and disease-related symptoms will be improved for approximately 60 to 80 percent of patients with advanced ovarian cancer. No data from randomized trials have supported the benefit of any systemic dose intense or high dose chemotherapy to treat the disease, nor are there data to demonstrate that adding a third drug to a standard regimen of a platin regimen and taxane results in a superior outcome.

The median progression free survival is 26 months and the overall survival is approximately 60 months for women with advanced ovarian cancer when the amount of residual tumor is optimum (the remaining tumor mass in the peritoneal cavity before the start of chemotherapy is less than 1 cm in diameter). Corresponding values are 18 months and 38 months when the amount of residual disease is suboptimal (the remaining tumor mass is more than 1 cm in diameter) or those who have Stage 4 disease.



California Cancer Facts & Figures 2011; Years presented 1988-2008
GAMC 2001-2010; N=79
United States - CA: A Journal for Clinicians, July/August 2011;United States, 1996-2006

Chemotherapy for High Risk Early Stage Disease

Although a number of randomized trials have demonstrated that adjuvant chemotherapy can prolong the time to progression for women with high risk, early stage ovarian cancer (Stage 1, Stage 2 or Stage 3 disease), no single study has definitely established the effect of this treatment strategy on overall survival. However, an analysis of data for more than 900 patients with high risk early stage disease showed that adjuvant platinum based chemotherapy administered post-operatively lead to an 11 percent improvement in five-year progression free survival and an eight percent improvement in five-year overall survival compared with a strategy of observation until evidence of disease recurrence. These data strongly support the argument that the administration of adjuvant platinum based chemotherapy after initial surgery is the standard of care for high-risk early stage ovarian cancer.

Intraperitoneal Chemotherapy

Managing ovarian cancer by delivering drugs directly into the peritoneal cavity has particular appeal for treating a disease that is largely confined to that region. Phase 1 and 2 clinical trials have demonstrated the biologic activity and safety of using this approach. The limitations include catheter malfunction, development of bacterial and chemical peritonitis, and the fact that antineoplastic effects are limited to patients with relatively small volume residual disease when the

regional treatment program is initiated. Several randomized Phase 3 clinical trials intraperitoneally and systemically delivered cisplatinum-based chemotherapy have been compared as primary therapy for small volume residual advanced ovarian cancer.

These studies have demonstrated that the regional treatment approach results in superior progression free and overall survival (approximate 20 percent reduction in risk of death) compared with intravenous treatment. Although concern has been raised about extensive local toxicities, the requirement for catheter placement and use of cisplatinum rather than carboplatin for the standard management of ovarian cancer available data demonstrate intraperitoneal therapy can be safely administered outside the setting of the clinical trial. The use of this strategy also improves survival when employed as primary treatment of small volume residual disease.

Consolidation Chemotherapy

Disease will subsequently recur in 70 percent of women with advanced ovarian cancer who have a clinically defined complete response to standard chemotherapy with a platinum agent and a taxane. Therefore, it is reasonable to question whether using some form of consolidation therapy to treat this highly chemo-sensitive disease may improve both time to symptomatic disease progression and overall survival.

To clinically examine this issue, the Southwest Oncology Group (SWOG) and GOG conducted a Phase 3 randomized trial to compare three and 12 cycles of single agent paclitaxel given every 28 days for patients who had a clinically defined complete response to standard chemotherapy with a platinum agent and paclitaxel. The study was closed early by the SWOG when a 50 percent reduction in the risk of disease recurrence was found for patients who received the 12 months of consolidation therapy. A somewhat controversial decision to close the study early has substantially reduced any possibility that longer followup will demonstrate a survival benefit for long maintenance strategy. This is because women randomly assigned to the three-month regimen will almost certainly elect to receive additional treatment when informed of the trial results. In assessing the effect of the study on standard treatment, it is reasonable to suggest that oncologists should discuss the results of the trial with selected patients and allow them to decide for themselves whether the potential for improved progression free survival associated with the consolidation approach justifies the negative effects of continued treatment, which include peripheral neuropathy and alopecia.

Treatment of Recurrent or Resistant Disease

Approximately 20 to 40 percent of women with advanced ovarian cancer do not have a response to initial chemotherapy; for the patients who do have a response, relapse subsequently occurs. As

a result, second line treatment of ovarian cancer is common. A variety of management strategies may be associated with improved survival, but there is no evidence that any of these procedures have curative potential. Treatment of patients with recurrent or resistant ovarian cancer must be individualized. Most women who have had a long treatment-free interval (more than 6-12 months) after the completion of primary chemotherapy, the response is presumably high (more than 20 percent) for re-treatment (using the same or similar drugs that were used in the initial chemotherapy regimen). Phase 3 trial data revealed that the delivery of carboplatin based combination regimen (with paclitaxel or gemcitabine) improves outcome (either progression free or overall survival) compared with carboplatin alone.

External beam radiation may be the optimal treatment for women in whom a painful local tumor develops, particularly in the presence of resistant disease for which anticipated response to additional cytotoxin therapy is low. When a progressive tumor has caused bowel obstruction, judicious use of surgery such as colostomy, ileostomy or gastrostomy also can be an effective palliative maneuver.

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Pathology of Ovarian Cancer

Michele M. Cosgrove, MD, Pathology Department Chairperson

The pathology of ovarian cancer is complex, including over 20 different distinct tumor types. For this reason, pathologic examination is a vital part of the evaluation of clinically suspicious ovarian masses.

Tissue samples from the ovary or other parts of the pelvic or abdominal cavities are examined using both macroscopic and microscopic techniques. The pathologist can then determine if a tumor is cancerous and also determine extent of tumor spread.

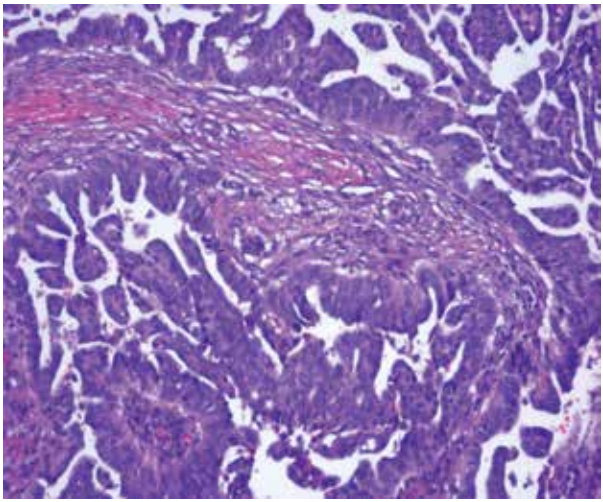
After review of the clinical findings and pathology specimens, the pathologist makes a diagnosis which includes tumor type, grade and stage for ovarian cancer cases. Stage 1 tumors are confined to one or both ovaries, while Stage 4 tumors have spread far from the ovary. Stages 2 and 3 tumors have spread in between these two extremes.

The main types of ovarian cancer include:

Epithelial Tumors

The most common type of ovarian neoplasm, these tumors are believed to arise from the surface ovarian epithelium or its inclusions within the ovary and account for 85-95 percent of ovarian neoplasms. There are three epithelial subtypes: serous, mucinous and endometrioid epithelial tumors.

Each of these subtypes can exist in a benign, "borderline"/ low malignant potential, or frankly, malignant form. Careful sampling and expert examination of removed tissue must be conducted to accurately classify these tumors, since any given tumor may contain a mixture of patterns. The prognosis and treatment is based on the highest grade, or most malignant area seen.



Ovarian Serous Carcinoma, Grade 2, 200x magnification

Less common types of epithelial tumors include clear cell carcinoma, transitional carcinoma and squamous carcinoma.

Non Epithelial Tumors

These less common tumors include stromal tumors, which arise from the ovarian connective tissue and germ cell tumors, which come from the ova.

Metastatic tumors

Metastases from tumors elsewhere in the body can also involve one or both ovaries and must not be overlooked in the differential diagnosis of ovarian masses.

Clinical Laboratory Testing in Ovarian Cancer

Several blood biomarkers may be elevated in patients with epithelial ovarian cancer, including CA-125, HE4 and inhibin. These markers may be useful in combination with other tests in the initial evaluation of ovarian masses. They can also be followed as tumor markers to assess response to therapy, detect relapse and predict prognosis. Beta HCG, Alpha Fetoprotein (AFP), Neuron specific enolase (NSE) and Lactate dehydrogenases (LD) can be useful biomarkers for patients with germ cell tumors.

Several molecular genetic mutations are associated with different ovarian cancers:
BRCA1 or BRCA2 - High grade serous carcinoma and transitional cell carcinoma
BFAF or KRAS - Low grade serous tumors
FOXL2 - Granulosa cell tumor
Beta Catenin, PTEN - Endometriod tumors

Screening for Ovarian Cancer

Much of the morbidity and mortality from ovarian cancer occurs because the disease, unfortunately, does not produce specific clinical symptoms early in its course. Therefore, detection often does not occur until a woman has advanced stage disease and is unlikely to be cured.

Despite the intense interest by both researchers and the public in finding a simple blood test that would detect ovarian cancer in its early stages, there is currently no routine screening test for ovarian cancer that performs well enough to be recommended by any professional society.

The ideal screening test would need to be sensitive enough to detect the majority of early Stage 1 ovarian cancers while, at the same time, being specific for ovarian cancer. That is, it would not produce false positive results in benign ovarian conditions or cancers of other organs. In addition,

the test would need to be routinely available for use in clinical laboratories and reasonably priced. Such a test remains to be discovered.

CA-125 is a routinely available blood test that is reasonably low cost and is often elevated in ovarian cancer patients. However, the test is not sensitive, being normal in up to 50 percent of stage 1 ovarian cancer patients. 15 to 20 percent of advanced stage ovarian cancer cases will also have false negative results. Specificity is also poor because many benign gynecologic disorders cause elevations of CA-125 as do a variety of non-gynecologic conditions like liver cirrhosis, pancreatic and other malignancies. Thus, CA-125 is not suitable as a screening test due to limitations of both sensitivity and specificity.

Other tests reported to have potential for use in screening include OVXI, LPA, and more recently blood protein panels (proteomics). However, none of these tests has yet been proven, so this will remain an area of on-going research.

Until a major breakthrough in this area occurs, the most effective available screening consists of a combination of serum biomarkers and imaging tests. Such approaches are limited mainly to use in exceptionally high risk patients, such as patients with known BRACA 1 or 2 mutations, due to the complexity and cost involved.

Meanwhile, the search for an ideal screening test for early stage ovarian cancer will remain an active area of research. Optimal patient outcomes will rely on accurate surgical and pathologic staging and appropriate oncologic care.

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Ovarian Cancer

Jennifer Lang, MD, Gynecologic Oncologist

Background

Ovarian cancer was the second most common gynecologic cancer and the most lethal in the United States in 2010, with 21,880 women newly diagnosed and 13,850 women dying of their disease [1]. The vast majority of ovarian cancers are epithelial in origin, with only 10 percent constituting tumors arising from other cell origins such as germ cell or sex-cord stromal tumors. Roughly 75% of women are found to have Stage III or IV disease at the time of their diagnosis.

The following are recognized risk and protective factors as related to the development of ovarian cancer:

Table 1

Increased Risk	Decreased Risk
Infertility and/or nulligravity	Use of oral contraceptive pills
Early menarche (before age 12) or late menopause (after age 50)	Hysterectomy
Polycystic Ovarian syndrome	Tubal ligation
Endometriosis	Multiparity
Estrogen Replacement Therapy	
Genetic Predisposition (BRCA mutation or Lynch Syndrome)	

Diagnosis and Treatment

Contrary to the popular notion that ovarian cancer is "the silent killer," most women do have symptoms of their disease. These symptoms may be vague, but they tend to be persistent, occur daily, and are more severe than expected. Such symptoms may include abdominal or pelvic pain, bloating, increasing abdominal girth, early satiety, and changes in bowel or bladder habits. These symptoms frequently lead women to present to a health care provider, though it is very common for diagnosis to be delayed due to their non-specific nature. The presence of a nodular, fixed pelvic mass on vaginal or rectovaginal exam (particularly in a post-menopausal woman) is suspicious for ovarian malignancy, and should trigger an imaging study.

Ultrasound is the most useful, cost-effective and non-invasive initial imaging study for evaluation of a pelvic mass. Findings on pelvic ultrasound that are worrisome for malignancy include: a complex mass with both cystic and solid components, particularly if the solid components appear nodular or papillary, the presence of positive Doppler flow within these solid components, thick septations, and intraperitoneal fluid/ascites[2].

Serum evaluation of glycoprotein CA-125 in women with a complex adnexal mass should be evaluated. An elevated CA-125 is more predictive of ovarian cancer in a post-menopausal than a pre-menopausal woman. Recently, a biomarker panel called OVA-1 has been FDA approved as a screening tool for women with a complex adnexal mass going for surgery which provides a more sensitive screening test for ovarian cancer[3]. Any suspicious adnexal mass should be referred to a gynecologic oncologist, as there is a clear survival benefit for women with ovarian cancer who have their primary surgery performed by a specialist.

Approximately 10-15 percent of ovarian cancers are thought to be hereditary in origin. The vast majority of these are related to the Breast and Ovarian Cancer syndrome or BRCA mutation. Others may be related to Lynch Syndrome, which includes gastrointestinal malignancies, uterine and ovarian cancers among others. Genetic testing is available for these syndromes, and should be considered if there is a strong family history of breast, ovarian, or gastrointestinal cancers. Indeed, data suggests that all patients diagnosed with an epithelial ovarian cancer should be referred for genetic counseling and possible BRCA testing, as family history alone may be insufficient to predict mutation carrier status[4].

Primary cytoreductive surgery followed by a platinum and taxane-based chemotherapy regimen has been the mainstay of treatment for ovarian cancer[5]. Surgery usually includes an exploratory laparotomy, total abdominal hysterectomy, bilateral salpingo-oophorectomy, pelvic and para-aortic lymph node dissection and tumor debulking (if necessary). The goal of primary cytoreductive surgery is to properly assess the stage of disease, and to remove all gross macroscopic evidence of tumor[6]. New data suggests that offering neoadjuvant chemotherapy, followed by interval cytoreductive surgery may be an acceptable alternative strategy for women with advanced disease. In a large international, multi-center randomized trial there was no difference in survival and in fact less overall morbidity in the patients offered neoadjuvant chemotherapy followed by surgery[7].

Advances in chemotherapy for ovarian cancer include the incorporation of "dose-dense" intravenous weekly paclitaxel in combination with intravenous carboplatin after a recent trial suggested improved survival and comparable toxicity compared to the standard 3-week IV regimen[8]. Intraperitoneal chemotherapy with cisplatin and paclitaxel has been considered the new standard of care for "optimally cytoreduced" stage III and IV epithelial ovarian cancers since the publication of a study in 2006 showed a 16 month improved overall survival when compared with standard IV

chemotherapy[9]. The targeted agent bevacizumab, which acts as an anti-angiogenesis monoclonal antibody to VEG-F, has recently been reported to improve progression free survival by 4 months when added to the standard carboplatin/paclitaxel doublet. Overall survival was not statistically different in this trial[10].

In summary, ovarian cancer remains a serious challenge for patients and health care providers alike. There is an urgent need for more research, and for improved methods of risk stratification, early detection and treatment.

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Radiation Oncology and Ovarian Cancer

Sara H. Kim, MD, Radiation Oncologist

Epithelial ovarian cancer

The role for adjuvant radiation therapy appears minimal at this time. Whole abdominal RT was removed as a treatment option from NCCN guidelines in the 2007 version. Several randomized trials generally found that WAI was less effective and/or more toxic than chemotherapy, particularly platinum-containing regimens.

As a result, adjuvant RT is no longer routinely used for patients with high-risk, early stage ovarian cancer.

Typical role for radiation in ovarian cancer is in palliative care.

Sex cord-stromal tumors

Treatment approach includes surgery, and adjuvant platinum-based chemotherapy for high risk Stage I and Stage II-IV.

Germ Cell tumors

The role for radiation is limited, due to excellent chemo responsiveness and impact of radiation on fertility.

The Radiation Oncology Department at Glendale Adventist Medical Center (GAMC) prides itself on delivering excellent patient care services in and around the Glendale community.

Radiation Oncology Department

Our hours are 8 am to 4 pm to accommodate flexible scheduling for each patient. The Department of Radiation Oncology at Glendale Adventist offers state of the art treatments including High Dose Rate Brachytherapy Radiation for breast, lung, cervical and endometrial cancer. Intensity-Modulated Radiation Therapy (IMRT) is utilized for specific cancers, such as prostate, head and neck, lung and primary brain cancers. Our approach to care is multidisciplinary, continually communicating closely with all specialties including medical oncology, surgical oncology, radiology, pathology, pain management and primary care medicine to ensure our patients receive the very best outcomes for their particular cancer diagnosis. Weekly multi-disciplinary tumor board participation, radiation oncology chart rounds, and audits are conducted to ensure compliance with national quality measures.

Every patient receives clinical education regarding radiation therapy and the possible side effects prior to the start of their treatment. On the last day of treatment, patients are asked to complete a questionnaire that provides valuable feedback on their experience and perception of our department and service. Our patient satisfaction scores consistently remain high year after year.

Dr. Sara Kim, a leader in radiation oncology in the Southern California Region, proudly serves as the Medical Director. Dr. Kim was recently chosen as a top physician by the US News report for 2011. Experienced, compassionate technical staff, including radiation therapists, physicist and registered nurses, staffs the department. Dr. Kim and the clinical team coordinate complex oncology care to ensure our patients' needs are met at every juncture. CT scans for radiation therapy planning are completed in the radiation oncology department to avoid delays and expedite seamless patient care.

The staff includes: Marianna Clarizio, RTT; Trunita Crump, RTT; Sharon Feinberg, RN BSN, OCN, Nurse Navigator; Sara Kim, MD, Medical Director; Heather Love, front office coordinator; Lyn Samuels, RTT, Lead Therapist; Susanna Tamazyan, RN BSN; Melina Thorpe, RN MBA OCN, Director; and Max Wu, physicist.

Contact us at: 818-409-8198

Cancer Committee

Back row (from left): Denise Cleveland, RHIT, CTR; Susanna Tamazyan, RN; Kerry Nelson; Pam King, Sara Kim, MD; Kelly Turner, Senior VP; Boris Bagdasarian, DO; Sam Carvajal, MD; Sze-Ching Lee, MD; Cynthia Klinger, MFT; Terri VanHouten, RN; Kathie Morgan, CTR; Al Garciliazo; Kami Ebrahimi, MD.

Front row (from left): Hilda Bogossian, Allen Molina, RN, OCN; Wende Brookshire; Anita Theis; Sharon Feinberg, RN, OCN; Melina Thorpe, RN, OCN; Michele Cosgrove, MD; Marion Watson; Julie Ji, RD; Marion Shannon, RN, OCN; Chrissy Kim; Val Emery.

Members not pictured: Dennis DeLeon, MD; John Gunnell, MD; Jennifer Lang, MD; Arlene Matsuda, LCSW; Lyn Samuel, Lead RT.

Class of Case

Analytic: Cases that are first diagnosed and/or receive all or part of their first course of treatment at Glendale Adventist Medical Center.

Non-Analytic: Cases that have been diagnosed and have received their entire first course of treatment elsewhere and are first seen at Glendale Adventist Medical Center for subsequent care.

Collaboration

In order to accomplish the wide-ranging and ambitious goals involved in designing and supporting a community hospital comprehensive cancer program, many, many people have contributed—and continue to give their energy and expertise.

The contributions and support of the medical staff, nursing staff and many other professionals who have offered their expertise for the implementation of our cancer program throughout the year are greatly appreciated.

Special appreciation is given to all members of the Cancer Committee and the Cancer Registry for their involvement in preparing this annual report.

GLENDALE ADVENTIST MEDICAL CENTER

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Infusion Center	8077
Ingeborg's Place Apart	3907
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