2011
COMPREHENSIVE CANCER PROGRAM
ANNUAL CANCER REPORT

Comprehensive Cancer Program
Hennepin County Medical Center
701 Park Avenue
Minneapolis, Minnesota 55415
www.hcmc.org
As chair of the Hennepin County Cancer Committee, I am pleased to present the Annual Cancer Program Report. The 2011 Hennepin County Annual Cancer Program Report will reflect our continued efforts to meet the individual needs of our patients and their families. This report highlights some of our achievements for 2011 and provides statistical analysis of our cancer patients.

**Highlights of 2011**

- Initiating Cancer Center Orientation Program for inpatient oncology nurses. This program introduces inpatient oncology nurses to the services, protocols, and follow-up care that are offered to cancer patients after discharge. To date, 15 nurses have successfully completed this program.
- Project Homeless Connect provides an opportunity for men and women who do not have access to health care to receive a free cancer screening. This year, it was held on 5/23/11 and 12/12/11. Over 50 people were screened and 5 were referred back for extra services.
- Dr. Jeffrey Rubins hired as Palliative Care Director to initiate and start Inpatient Palliative Care Services.
- Of the 755 referrals sent to Linda Herrera, our on-site American Cancer Society Navigator, 692 referrals were eligible and fulfilled. The American Cancer Society provides services such as wigs, Hope Lodge, Road to Recovery, prosthetics, financial assistance, transportation, and other special needs.
- 50 Breast Cancer survivors along with their family and friends attended the Breast Cancer Awareness Patient Celebration hosted by the Cancer Center in October, Breast Cancer Awareness Month.
- Yoga Clinic started by Dr. Steven Hillson for pain patients.
- Dr. Barry Feig of Surgical Oncology from the University of Texas presented “Staging Update and Treatment Strategies for Colon Cancer Patients”.
- Our very own Urology Medical Director, Dr. Carl Smith presented “Prostate Cancer Screening”.
- 34 patients were successfully entered into clinical trials.
- Hope Chest assisted our patients with rent, utilities, and clothing totaling over $14,000.
- Angel Foundation assisted our patients with emergency financial assistance and education totaling over $70,200.00.
- Open Arms dispensed more than 13,004 meals to our patients and also generously dispensed many more meals to family members and caregivers of the patient not counted for.

This year, The Annual Cancer Report focuses especially on AIDS-related Lymphoma. Unfortunately, Hennepin County has BOTH the highest volume of people diagnosed with HIV/AIDS yearly, as well as those living with HIV/AIDS in Minnesota. I am proud that our Cancer Center is given the opportunity to treat and service this special population with the highest care and dignity. I give sincere appreciation to our Cancer & Tumor Data Services Department in putting together this Annual Cancer Report and Dr. Carol Grabowski in writing our AIDS-related Lymphoma article.

Kind Regards,

Douglas Rausch, MD
Hennepin County Medical Center

Hennepin County Medical Center is a 462 bed Level 1 Trauma Center and public teaching hospital located in downtown Minneapolis, Minnesota. It is the centerpiece of Hennepin County’s clinical health service system, which includes the HMO Metropolitan Health Plan, the physician group practice Hennepin Faculty Associates, and a network of community clinics.

Hennepin County Medical Center offers a full spectrum of inpatient and outpatient services, including a number of regional centers such as:
* The Comprehensive Cancer Center
* Huntington’s Disease Center
* The Burn Center
* Transplant Program
* Center for Hyperbaric Medicine
* Minnesota Poison Control Center
* Hennepin Stroke Center
* Miland E. Knapp Rehabilitation Center
* Center for Senior Care
* The Birth Center
* Traumatic Brain Injury Center
* Minnesota Regional Sleep Disorders Center
* Positive Care Center
* Bariatric Surgery/Obesity Program
* Hennepin Heart center

Hennepin County Medical Center is proud to be the safety net hospital providing care for low-income, uninsured, and vulnerable populations.

COMPREHENSIVE CANCER PROGRAM PROVIDERS

Hennepin County Medical Director
Dr. Michael Belzer

Oncology Medical Director
Dr. Douglas Rausch

Oncology/Hematology
Dr. Satya Bommakanti
Dr. Rachel Koreth
Dr. Josy Mathew

Radiation Oncology
Dr. Carol Grabowski
Dr. Natarajan Raman

Surgical Oncology
Dr. Richard Zera
Dr. Joan VanCamp

Thoracic Surgical Oncology
Dr. Mark Solfelt

Oncology Palliative Care
Dr. Carol Grabowski
Dr. Jeffrey Rubins

Oncology Nurse Practitioners
Louann Bosmans (612) 873-9853
Syndal Ortman (612) 873-3393
Cindy Steele (612) 873-3128
MISSION

We are committed:
- To provide the best possible care to every patient we serve today
- To search for new ways to improve the care we will provide tomorrow
- To educate health care providers for the future
- To ensure access to healthcare for all

VISION

We are committed to being:
- The best place to receive care
- The best place to give care
- The best place to work and learn

VALUES AND BELIEFS

Our service to our patients will be:
- Respectful
- Ethical
- Innovative
- Cost Effective

The Cancer Center is committed to reflecting the diversity of our community through our service to a multicultural population, community outreach, and employment practices.

CANCER CENTER PHONE NUMBERS

Cancer Program Administrative Director
Mary Kurvers  (612) 873-2316

Cancer Center Practice Manager
Kelly Porter  (612) 873-9763

Cancer Center Clinical Supervisor
Carole McCarthy (612) 873-5471

Breast Cancer Clinical Nurse Specialist
Jane VanDeusen-Morrison  (612) 873-9975

Cancer & Tumor Data Services
Chunny Daiker  (612) 873-3178
Kathy Lougiu  (612) 873-3188

Clinical Trials Research
Carol Sojos-Schmidt (612) 873-5911

Genetics
Annie Burrows  (612) 873-9308

Infusion Clinic
(612) 873-6369

Inpatient Nursing Manager
Betsy Grover  (612) 873-2565
Dana Pitzen  (612) 873-2452

Nancy Geltman Shiller Cancer Library
(612) 873-6369

Oncology Inpatient Units
(612) 873-2639 or  (612) 873-2626

Oncology Social Worker
Karen Holdgrafer  (612) 873-2256

Oncology Pharmacy
Katie Won  (612) 873-4734
Lynn Weber  (612) 873-4734

Radiation Manager
Jane Rogers  (612) 873-687
Cancer is a significant cause of mortality and morbidity in people infected with HIV with 30-40% developing a malignancy over a lifetime. Specifically, the risk for Kaposi sarcoma, non-Hodgkin lymphoma, and cervical cancer is so high among HIV-infected individuals that these types of cancer are included in the Centers for Disease Control and Prevention’s definitions of AIDS. Other types of cancer also appear to be more common among those infected with HIV. While not classified as “AIDS defining” these malignancies affect the HIV/AIDS community greatly, and analyses have revealed a 2-3 fold increase in overall risk of developing these cancers.  

1,2,3

AIDS-RELATED LYMPHOMA DEFINED

AIDS-related lymphoma is a disease in which malignant cancer cells form in the lymph system of patients who have acquired immunodeficiency syndrome (AIDS).

AIDS-RELATED LYMPHOMA FACTS

- Lymphoma is the 2nd most common cancer associated with HIV.
- Relative risk of developing lymphoma within 3yrs of HIV diagnosis is increased by 165-fold compared with people without HIV.
- More than 3 million children worldwide are living with HIV, and all of these children are at risk of developing AIDS-related lymphoma.
- Each day, approximately 170 Americans are diagnosed with Lymphoma.
- Each day, approximately 223 Americans are diagnosed with HIV or AIDS.
AIDS-RELATED LYMPHOMA HOST SITES

AIDS-related lymphoma can occur in three general areas of the body.

1) **Systemic**: Lymphoma cells are located in the body from the neck down, including lymph nodes, the spleen, and other organs.

2) **Central nervous system**: Lymphoma cells are in the central nervous system, including the spinal cord, brain, and lining of the brain.

3) **Effusion**: Lymphoma cells are contained within a layer of fluid spreading along body membranes.
STAGING OF AIDS-RELATED LYMPHOMA

STAGE I: AIDS-related lymphoma is divided into Stage I and Stage IE

- Stage I: Cancer is found in one lymphatic area (lymph nodes, tonsils, thymus, or spleen).
- Stage IE: Cancer is found in one organ or area outside the lymph nodes.

Stage II: AIDS-related lymphoma is divided into Stage II and Stage IIE.

- Stage II: Cancer is found in 2 or more lymph node groups either above or below the diaphragm.
- Stage IIE: Cancer is found in 1 or more lymph node groups either above or below the diaphragm and outside the lymph nodes in an organ or area on the same side of the diaphragm as the lymph nodes with cancer.

Stage III: AIDS-related lymphoma is divided into Stage III, Stage IIIE, Stage IIIS, and Stage IIIE+S.

- Stage III: Cancer is found in lymph node groups above and below the diaphragm.
- Stage IIIE: Cancer is found in lymph node groups above and below the diaphragm and outside the lymph nodes in a nearby organ or area.
- Stage IIIS: Cancer is found in lymph node groups above and below the diaphragm and in the spleen.
- Stage IIIE+S: Cancer is found in lymph node groups above and below the diaphragm, outside the lymph nodes in a nearby organ or area, and in the spleen.

Stage IV: AIDS-related lymphoma

- Cancer is found throughout 1 or more organs that are not part of a lymphatic area and may be in lymph nodes near those organs.
- Is found in 1 organ that is not part of a lymphatic area and has spread to organs or lymph nodes far away from that organ.
- Is found in the liver, bone marrow, cerebrospinal fluid, or lungs.
The introduction of “highly active antiretroviral therapy” (HAART) has resulted in decreased morbidity and mortality, and the majority of people in developed countries infected with HIV are living with only mild to moderate immune suppression with HAART.

The Acquired Immune Deficiency Syndrome, AIDS, was first described in 1981, and the first definitions included opportunistic infections, Kaposi’s sarcoma, and central nervous system (CNS) lymphomas. In 1984, a multicenter trial described the clinical spectrum of non-Hodgkin’s lymphomas (NHLs) in the population at risk for AIDS. In 1985 and 1987, the CDC revised the definition of AIDS to include human immunodeficiency virus (HIV) infected patients who had aggressive B-cell NHL.

**PATHOLOGY**

Pathologically, the AIDS related lymphomas are comprised of a narrow spectrum of histologic types consisting almost exclusively of B cell, aggressive type, tumors including:

- Diffuse large B-cell lymphoma
- B-cell immunoblastic lymphoma
- Small non-cleaved lymphoma, either Burkitt or Burkitt-like

The HIV associated lymphomas, which comprise the focus of this report, can be categorized into the following:

- Aggressive B-cell lymphoma
- Primary central nervous system lymphoma (PCNSL), which represents 20% of all NHL cases in AIDS patients
- Primary effusion lymphoma
- Plasmablastic multicentric Castleman disease
- Hodgkin’s lymphoma

**Diffuse Large B Cell Lymphoma (DLBCL)** is the most common type of HIV-associated lymphomas, accounting for about 89-90% of cases. In general, the clinical setting and response to treatment of patients with HIV related lymphoma is very different from that of non-HIV patients with lymphoma. The HIV infected individual with aggressive lymphoma usually presents with advanced stage disease that is extranodal (>50%). The most common extranodal sites include the bone marrow, liver, meninges/CNS and gastrointestinal tract, although any organ may be involved. The patients affected by HIV associated DLBCL tend to be young men with CD4 counts <200 cells/mm³, and the disease tends to be clinically aggressive, necessitating rapid evaluation, staging, and initiation of treatment.

The clinical course is more aggressive, and the disease is both more extensive and less responsive to conventional therapy. Immune deficiency and cytopenias are exacerbated by chemo administration. Cancer treatment increases the risk for opportunistic infections, further compromising the ability to deliver adequate and timely therapy.

Prognostic factors in HIV associated DLBCL can be divided into HIV related (CD4 count, presence of opportunistic infections, HIV viral loads, etc.) or lymphoma related (stage, complete response rate, International Prognostic Index/IPI, etc.). In the HAART era, lymphoma related prognostic factors, such as attainment of a complete remission or high IPI scores remain as independent risk factors for survival.
However, an immunological response to HAART, noted as an increase in CD4 count and undetectable HIV viral loads, seems to confer an additional benefit in patients with HIV associated DLBCL.

The median overall survival for patients has gone from six months in the pre-HAART era to 4 years in the HAART era, an overall survival that is comparable to HIV negative patients with DLBCL. 10

**Primary CNS lymphoma (PCNSL)** accounts for 1-2% of patient with HIV infection, and 10% of the cases with patients carrying an AIDS diagnosis. PCNSL presents with focal neurologic deficits including CN findings, headaches and/or seizures. The lesions on CT scans typically show ring enhancement with contrast, and can be found at any location. Frequently the disease can be established with positive CSF cytology, flow cytometry, and/or presence of EBV related DNA by PCR analysis. There is no need for extensive systemic evaluation as the disease is limited to the CNS.

Patients with PCNSL tend to have more severe underlying HIV disease. In one report this difference was noted by patients with PCNSL having a higher incidence of prior AIDS diagnosis (83% v. 37%), lower median CD4 lymphocyte count (30/dl v. 189/dl), and a worse median survival time (2.5 v. 6 months). 11 This report also showed that patients with poor risk factors (defined as KPS<70%, history of prior AIDS diagnosis, etc.), had a median survival of 4 months versus a “good” prognosis group, without any of these risk factors, who had a median survival of 11.3 months.

With the advent of HAART, the incidence of PCNSL in HIV positive patients has gone from 5.3 per 1000 person years in the early 1990s (pre-HAART), to 0.3 per 1000 person years in by 1999 (post-HAART). The survival of HIV positive patients with PCNSL before HAART was ~3months with brain irradiation and <1month without; in the HAART era, the 2 year overall survival is 2 years. 12

**Primary effusion lymphoma (PEL)** is a rare subtype of NHL predominantly associated with HIV. Primary effusion lymphoma has been associated with “Kaposi sarcoma associated herpes virus/human herpes virus type 8” (KSHV/HHV-8). 13,14 Primary effusion lymphoma presents as a liquid phase spreading along serous membranes in the absence of masses or adenopathy. In addition to HHV-8, many cases are associated with EBV. Extension of the lymphoma from the effusion to underlying tissue may occur. The outcome of PEL is poor with standard chemotherapy treatments, and the median survival is in the range of six months. 15 The long time frame, including pre and post HAART, and the small numbers make it difficult to make a statement as to HAART impact. 16 Optimal therapy for PEL remains to be defined.

**Castleman disease**, initially described by Benjamin Castleman in 1954, 17 has several variants. It is the plasmablastic multicentric Castleman disease (MCD) that is found in the people living with HIV. MCD is also associated with KSHV/HHV-8 infection. The disease is characterized as relapsing and remitting with patients presenting with fever, night sweats, weight loss, lymphadenopathy and hepatosplenomegaly. Patients may transform to plasmablastic or anaplastic large cell lymphoma. A standard approach to management has yet to be identified although multiple approaches with HAART, anti-herpes virus agents, single agent and combination chemotherapy and monoclonal antibody therapy (rituximab) exist within the literature. 18
There is no link between the risk of developing plasmablastic MCD and CD4 cell count, and plasmablastic MCD resembles some of the non-AIDs defining cancers in that the incidence is not declining, and has been reported to be rising. 19

**Hodgkins lymphoma (HL)** is classified by the WHO as one of the HIV associated lymphomas, although it is not considered an AIDS defining cancer. The risk of HL in the HIV population is approximately 20 fold when compared to the general population. 20 Clinically, HIV associated HL presents with advanced stages, extranodal or bone marrow involvement, and systemic B symptoms (fever, weight loss, night sweats). There is a predominance of two unfavorable histologic subtypes, namely mixed cellular and lymphocyte depleted types. EBV is positive in 78-100% of the patients v. 15-48% of non-HIV related HL. 21 The patients tend to have a higher CD4 count (>275/Mu-liter) when compared to the HIV associated diffuse large B cell lymphomas.

**AIDS-RELATED LYMPHOMA SYMPTOMS**

- Weight loss for no known reason
- Fever
- Night sweats
- Painless, swollen lymph nodes in the neck, chest, underarm, or groin.
- A feeling of fullness below the ribs.

**AIDS-RELATED LYMPHOMA RISK FACTORS**

- CD4 count
- HIV viral load
- Effect of HAART
- Genetic Factors
- Family History
- Age
- Gender
- Race
- Organ Transplant
AIDS-RELATED LYMPHOMA and AGE at HCMC

In the PRE-HAART era, the mean AGE OF DIAGNOSIS for those with AIDS-related Lymphoma was 39yrs old. Compared to those without HIV/AIDS, the mean AGE OF DIAGNOSIS was 59yrs old.

In the last 10yrs, the mean AGE OF DIAGNOSIS for those with AIDS-related Lymphoma was 43yrs old. Compared to those without HIV/AIDS, the mean AGE OF DIAGNOSIS was 58yrs old.
AIDS-RELATED LYMPHOMA and GENDER at HCMC

Nationally, 74,000-79,000 men and women will be diagnosed with Lymphoma each year, with greater number of men being diagnosed. In fact, the male-to-female incidence ratio for Non-Hodgkin’s Lymphoma in the general population is 2:1. However, in people living with AIDS, systemic Non-Hodgkin’s seems to occur equally in both sexes. In contrast, primary effusion lymphomas almost always occur in males.

In the PRE-HAART era, AIDS-related lymphoma in males accounted for 17% of all lymphoma cases at HCMC, 0% of cases in females, and 0.7% in transsexuals. Whereas, in those living without HIV/AIDS, males accounted for 52% of the cases, females accounted for 30% of cases, and transsexuals in 0% of the cases.

In the last 10yrs, AIDS-related lymphoma in males accounted for 13% of all lymphoma cases at HCMC and 6% in females. Whereas, those living without HIV/AIDS, 47% of the cases where males and 35% in females.
AIDS-RELATED LYMPHOMA AND RACE at HCMC

Racial differences in terms of incidence are most notable between Caucasians and African Americans. Traditionally, lymphoma affects more Caucasians than African Americans. The same can also be said for AIDS-related Non-Hodgkin’s Lymphoma which is seen more frequently in Caucasians than African Americans.

In the PRE-HAART era at HCMC, AIDS-related lymphoma patients were 80% Caucasian, 16% African Americans, 0% Asians, and 4% in other races. In contrast, HCMC Non-AIDS related Lymphoma patients were 74% Caucasian, 17% African American, 4% Asian, and 5% other races.

In the last 10yrs at HCMC, our AIDS-related lymphomas were 48% Caucasians, 45% African Americans, 0% Asians, and 7% in other races. In contrast, in the last 10 years at HCMC, our Non-AIDS related Lymphoma patients were 75% Caucasians, 17% in African Americans, 3% in Asians, and 5% in other races.
AIDS-RELATED LYMPHOMA AND STAGE at HCMC

Stage of disease not only affects presenting symptoms and signs of AIDS-related Lymphomas but it also affects prognosis. Patients with Stage IV disease, especially those due to bone marrow or meningeal involvement have shown to have shorter survival.

AIDS-related Lymphoma and Non-AIDS related Lymphoma by STAGE

AIDS-related Lymphoma and Non-AIDS related Lymphoma by STAGE
HCMC, POST-HAART (2002-2011)
TREATMENT OPTIONS OF AIDS-RELATED LYMPHOMA

HIV/AIDS therapy can make a difference in the outcome of AIDS-related cancer. However, successful treatment depends on several factors such as stage of disease, number of CD4 cells, and whether or not a patient has had other AIDS-related opportunistic infections.

Because of the variation of case presentation, there is no standard treatment plan for AIDS-related lymphoma. Treatment is normally adjusted for each patient and is usually one or more of the following:

- Combination chemotherapy.
- High-dose chemotherapy and stem cell transplant.
- A clinical trial of monoclonal antibodies.
- A clinical trial of different treatment combinations.

AIDS-RELATED LYMPHOMA AND SURVIVAL

In the pre-HAART era, the accepted median survival for HIV NHL was 8-20 months. Sparano et al 22 reviewed 108 HL patients treated over a 15 year period. There was a significant difference in estimated two year survival: 33% in the Pre-HAART era vs.45% in the HAART era (p=0.03). This was attributed to a decrease in AIDS-related death. The median survival was 19 months in the pre-HAART era, while the median survival had not been reached at the time of their analysis for patients receiving HAART.

Our experience at HCMC is similar; we have seen a dramatic improvement in the 1yr and 2yr overall survival in the Post-HAART era.

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<tbody>
<tr>
<td>Overall survival at 1yr</td>
<td>48%</td>
<td>38%</td>
<td>60%</td>
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<tr>
<td>Overall survival at 2yr</td>
<td>33%</td>
<td>13%</td>
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In writing this article, I reflect back to when I first joined the HCMC staff as a Radiation Oncologist in 1993. Patients with HIV/AIDS suffering with Kaposi’s sarcoma and CNS lymphoma comprised a large percentage of my practice. All of them died, many alone and some without ever having shared their diagnosis with family. In remembering those young people, I find myself feeling extremely grateful that the world has changed significantly since that time, both scientifically and socially.

Sincerely,
Carol Grabowski, MD

The Cornerstones of an Accredited Comprehensive Cancer Program

CANCER COMMITTEE

Hennepin County Comprehensive Cancer Program includes a Multidisciplinary Cancer Committee that is responsible for leading the Comprehensive Cancer Program and ensuring the compliancy of the Commission on Cancer Program Standards.

CANCER & TUMOR DATA REGISTRY

Under the guidance from the Cancer Committee, the Cancer & Tumor Data Services operates to maintain a complete database of all reportable cancer cases required by the Commission on Cancer and the Minnesota Department of Health that are diagnosed and/or treated at Hennepin County Medical Center. Vital statistics is collected for research, clinical trials, and mandatory state and national reporting of disease (cancer).

TUMOR CONFERENCES

Our Tumor Conferences is an educational way for our multidisciplinary team consisting of pathology, medical oncology, surgery, radiation oncology, radiology, nursing, genetics, and other services to review current cancer cases.

RESEARCH AND CLINICAL TRIALS

Clinical research advances science and ensures that patient care approaches the highest possible level of quality. Here at HCMC, patients who participate in clinical trials have the opportunity to advance evidence-based medicine. Patients are entered into Treatment, Prevention, Cancer Control, or Lab Studies.
CANCER COMMITTEE MEMBERS

Douglas Rausch, MD, Oncology Medical Director, Cancer Committee Chair
Carol Grabowski, MD, Radiation Oncology, Palliative Care, Cancer Committee Co-Chair
Richard Zera, MD, PhD, Surgical Oncology, Cancer Committee Cancer Liaison Physician

Satya Bommakanti, MD, Oncology
LouAnn Bosmans, CNP, AOCN, Oncology Nurse Practitioner
Annie Burrows, MS, CGC, Genetics
Chunny Daiker, BS, RHIT, Cancer & Tumor Data
Steven Debol, MD, Pathology
Tony Delmonico, RN, CHPN, Palliative Care
Betsy Grover, RN, Inpatient Medicine, Nurse Manager
Karen Holdgrafer, LICSW, Oncology Social Services
Rachel Koreth, MD, Oncology
Fred Kravitz, MD, Obstetrics & Gynecology
Virginia Kubic, MD, Pathology
Mary Kurvers, BSN, Administrative Director of Ambulatory Medicine/ Specialty Care
Kathy Lougiu, RHIT, CTR, Cancer & Tumor Data
Josy Mathew, MD, Oncology
Syndal Ortman, RN, DNP, FNP-BC, Oncology Nurse Practitioner
Dana Pitzen, RN, BSN, OCN, Inpatient Medicine, Clinical Care Supervisor
Kelly Porter, RN, BS, OCN, CHPN, Oncology Practice Manager
Gopal Punjabi, MD, Radiology
Natarajan Raman, MD, Radiation Oncology
Jeffrey Rubins, MD, Palliative Care
Linda Sershon, RN, MA, OCN, RS Medicine Manager
Scott Shimotsu, PhD, MPH, CPHQ, Quality Improvement Coordinator
Hannah Simmons, American Cancer Society Account Manager
Carol Sojos-Schmidt, BA, RN, OCN, CCRP, Clinical Trials Research
Carl Smith, MD, Urology
DeCourcy Squire, PT, CLT-LANA, CI-CS, Rehabilitation
Cindy Steele, MS, RN, CNP, AOCN, Oncology Nurse Practitioner
Jane VanDeusen-Morrison, RN, MS, AOCN, ACNS-BC, Breast Cancer Clinical Nurse
Lynn Weber, PharmD, BCOP, Oncology Pharmacy
Katie Won, PharmD, BCOP, Oncology Pharmacy
Cancer & Tumor Data Summary

Kathy Lougiu, RHIT, CTR
Chunny Daiker, BS, RHIT

Cancer & Tumor Data Snapshot

Cancer Incidence in 2011
HCMC VS. Minnesota

![Graph showing cancer incidence by site for Minnesota and HCMC in 2011.]
TOP 5 CANCERS AT HCMC IN 2011
Breast * Lung * Prostate * Colorectal * Lymphoma

2011 HCMC Breast Cancer Cases by AJCC

2011 HCMC Breast Cancer Cases by AJCC Stage

2011 HCMC Lung Cancer Cases by AJCC

Hennepin County Medical Center * Annual Cancer Report 2011
2011 HCMC Prostate Cancer Cases by AJCC

Number of Cases

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Prostate Cancer

2011 HCMC Colorectal Cancer Cases by AJCC

Number of Cases

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Colorectal Cancer

2011 HCMC Lymphoma Cancer Cases by AJCC

Number of Cases

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Lymphoma
TUMOR CONFERENCES SUMMARY

In 2011, The Comprehensive Cancer Program held 45 Multidisciplinary Tumor Conferences; presenting a total of 161 educational cancer cases.
Clinical Trials Nurse and Program Coordinator

Carol Sojos-Schmidt
BA, RN, OCN, CCRP

2011 Clinical Trials at HCMC
Number of Patients entered into Clinical Trials by Trial Type

<table>
<thead>
<tr>
<th>Trial Type</th>
<th>Onsite</th>
<th>Referrals</th>
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<tbody>
<tr>
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<tr>
<td>Lab Studies</td>
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CANCER RELATED SERVICES

Treatment

Medical Oncology
- Chemotherapy
- Hormonal/Anti-hormonal Therapy
- Immunotherapy
- Infusion Therapy

Radiation Oncology
- External Beam Radiotherapy
- High Dose Rate Brachytherapy
- Image Guided Radiation Therapy
- Intensity Modulated Radiation Therapy

Treatment Planning
- Computerized Axial Tomography
- Image Fusion (CT, MRI, PET)
- Medical Physics/Dosimetry
- Virtual Simulation

Surgical Oncology

Support Services
- American Cancer Society Patient Navigator
- Cancer Support Group
- Enteroxostomal Therapy
- Nutritional Support
- Occupation, Physical, Speech Therapy
- Pastoral Care
- Respiratory Therapy
- Social Services

Education

Professional Education
- Grand Rounds
- Continuing Education
- Continuing Medical Education
- Medical Library

Patient/Community Education
- Cancer Resource Call Center
- Cancer Screenings
- The Nancy Gelman Shiller Cancer Resource Library
- Elderly Services
- SAGE Program

Research

- Clinical Trials & Research
- Cancer & Tumor Data Registry

Case Management

- Tumor Conferences

Additional Services

- Pain Management
- Patient Transportation
- Palliative Care and Hospice Services
Helpful Internet Resources for Our Cancer Patients

The following is a listing of helpful websites that are available for locating cancer information.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Website</th>
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<tbody>
<tr>
<td>Hennepin County Medical Center</td>
<td><a href="http://www.hcmc.org">www.hcmc.org</a></td>
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<tr>
<td>American Cancer Society</td>
<td><a href="http://www.cancer.org">www.cancer.org</a></td>
</tr>
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<td>American College of Surgeons-Commission on Cancer</td>
<td><a href="http://www.facz.org/dept/cancer">www.facz.org/dept/cancer</a></td>
</tr>
<tr>
<td>American Joint Committee on Cancer</td>
<td><a href="http://www.cancerstaging.org/index.html">www.cancerstaging.org/index.html</a></td>
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<td>Cancer Answers</td>
<td><a href="http://www.canceranswers.com">www.canceranswers.com</a></td>
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<td>Cancer Care, Inc.</td>
<td><a href="http://www.cancercare.org">www.cancercare.org</a></td>
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<td>CancerEducation.com</td>
<td><a href="http://www.cancereducation.com">www.cancereducation.com</a></td>
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<td>Cancer Hope Network</td>
<td><a href="http://www.cancerhopenetwork.org">www.cancerhopenetwork.org</a></td>
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<td>Cancer Information Services</td>
<td><a href="http://www.cancer.gov">www.cancer.gov</a></td>
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<td>Center for Disease Control and Prevention-Nation Program of Cancer Registries</td>
<td><a href="http://www.cdc.gov/cancer/npcr/index.htm">www.cdc.gov/cancer/npcr/index.htm</a></td>
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<td>Clinical Trials.gov</td>
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<td>Consumer Health Information Resource</td>
<td><a href="http://www.healthfinder.gov">www.healthfinder.gov</a></td>
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<td>Hispanic Leadership Initiative on Cancer</td>
<td><a href="http://www.enaccion">www.enaccion</a> bcm tmc.edu</td>
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<td>Inter-Cultural Cancer Council</td>
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<td>National Cancer Institute</td>
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<td>National Comprehensive Cancer Network</td>
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<td>Wisconsin Cancer Reporting System</td>
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<td>National Coalition for Cancer Survivorship</td>
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<td>OncoLink</td>
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<td>R.A. Bloch Cancer Foundation, Inc.</td>
<td><a href="http://www.blochcancer.org">www.blochcancer.org</a></td>
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<td>U.S. Food and Drug Administration’s Office of Women’s Health</td>
<td><a href="http://www.fda.gov/womens/">www.fda.gov/womens/</a></td>
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**AIDS-related Lymphoma Article References**


8. AIDS-Related Lymphoma Treatment (PDQ), 2012


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