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A quarterly newsletter from Mary Lanning Healthcare's Morrison Cancer Center
The future of cancer care in central Nebraska
The definition of excellence in comprehensive community oncology

MCC radiation oncology targets precision

Radiation Oncology at the Morrison Cancer Center uses state-of-the-art technologies for planning and delivering comprehensive radiation treatment.

A Varian TrueBeam Linear Accelerator enables the center to perform the latest treatments, including precision IMRT and radiosurgery. A pixilated beam "paints" the radiation to limit it to the tumor region and avoid sensitive normal organs around it during the treatment course.

Radiosurgery, on the other hand, delivers a high dose over just a few days to destroy small tumors. Both techniques are

used against cancer with previously inconceivable accuracy made possible by the sophisticated technology of the TrueBeam.

Our staff use its Optical Surface Monitoring System to position patients and monitor position during treatment, detecting movements as small as a millimeter. This magic is made possible by a patterned red light shining on the patient, and cameras that 'read' the surface contours to see if the patient moves away from the correct position.

Our simulator is able to make "4D"

scans, tracking the motion of tumors during the patient's breathing, improving targeting of moving tumors in the lung, as well as reducing effects on the normal lung. Therapists use the treatment machine to make a CT image of the target region to align the patient to the planned treatment anatomy, improving accuracy.

Dr. Thomas Zusag, radiation oncologist, is known as an innovator in radiation oncology and its techniques, including brachytherapy and radiosurgery. He is published in the areas of lung cancer, gynecologic cancers, brachytherapy and reirradiation.



This issue

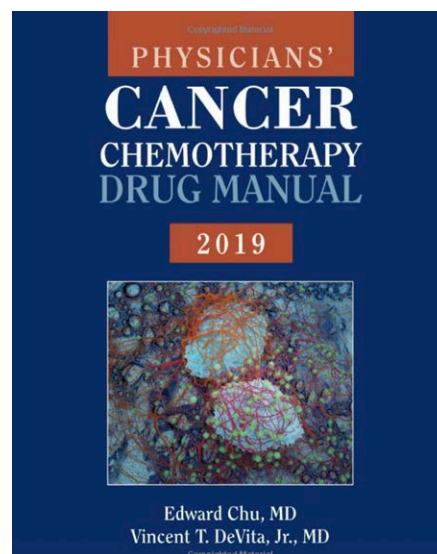
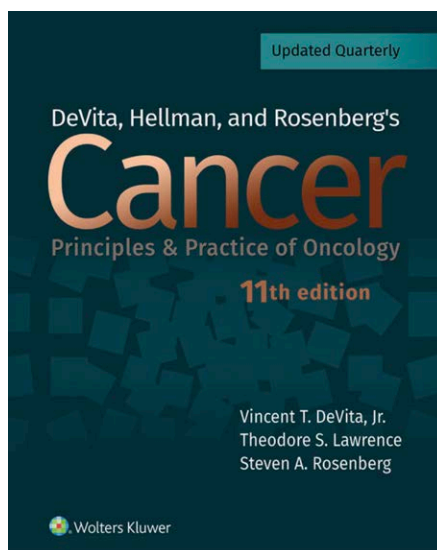
- National textbooks
- Palliative care
- Myeloma support
- Music and pets
- New employees
- Ask the Expert
- Sutton Health Fair
- Sun safety education

MCC contributes to two major textbooks

A Morrison Cancer Center physician recently received credit for his contributions in two important cancer textbooks.

Dr. M. Sitki Copur is listed as a contributing author for two national/international oncology textbooks. These books serve as guides for cancer physicians around the world.

Dr. Copur is listed as contributing to DeVita, Hellman and Rosenberg's "Cancer Principles & Practice of Oncology" 11th edition, and "Physicians' Cancer Chemotherapy Drug Manual 2019."



UNMC/MCC collaborate on palliative care

The Morrison Cancer Center continues to expand its palliative care team services.

On February 5, the Morrison Cancer Center Palliative Care Team hosted a collaborative meeting with University of Nebraska Palliative Care Team members. After a presentation on palliative care by Dr. Melissa Teply, both teams shared ideas and opportunities on improving organization and delivery of palliative care services in the community oncology setting.

Palliative care in oncology is a relatively new concept. Most community oncology cancer programs are not equipped with a palliative care team.

The Morrison Cancer Center Palliative Care Team is providing a crucial service to our cancer patients. The team focuses on relief of suffering and improvements in quality of life for cancer patients while they undergo active cancer treatments.



The MCC and UNMC Palliative Care Teams meet at Lochland Country Club in Hastings in February.

MCC/UNMC attend Myeloma Support Group

Representatives of the Morrison Cancer Center and the University of Nebraska Medical Center recently attended the Myeloma Support Group at the Evangelical Free Church in January.

Dr. James Omel hosted Dr. Sarah Holstein, a UNMC speaker, along with Dr. M. Sitki Copur and Chandra Muske, RN BSN, as part of the support group meeting.

Dr. Holstein shared recent myeloma data presented at the American Society of Hematology (ASH) meeting in San Diego.

Dr. Omel, who is a myeloma survivor and advocate, began the support group in 1999. During meetings, patients share their experiences and hear about information and resources involving myeloma.

Dr. Omel has been actively involved in all aspects of the disease. He has created a remarkable and successful support group. Forty-five myeloma patients and family members attended the January meeting.



Pictured above are Michelle Grady, Dr. James Omel, Dr. M. Sitki Copur and Dr. Sarah Holstein at the January meeting of the Myeloma Support Group, which took place in the Evangelical Free Church. Below: Dr. Holstein addresses the group.



MCC team celebrates accomplishments

The Morrison Cancer Center team took time out to celebrate its recent successes during a dinner with two members of the Mary Lanning Healthcare Executive Team.

Eric Barber, MLH President and CEO, and Mark Callahan, MLH COO, hosted the cordial evening at Fuji restaurant in Grand Island in January.

The Morrison Cancer Center team has shown outstanding performance within the last six months, quadrupling its patient numbers. In addition, three more satellite clinics have been added to our service area. The Morrison Cancer Center now provides hematology/oncology services in York, Henderson and Grand Island. The momentum of the Morrison Cancer Center team continues to build at a remarkable pace, making it the premier academic, community-based cancer program in central Nebraska.



The Morrison Cancer Center team gathers with MLH representatives during a dinner in January at Fuji restaurant in Grand Island.

'Pepper Wednesdays' and 'Dulcimer Thursdays'

Music and pets have brought a little added joy to patients at the Morrison Cancer Center recently.

A dash of Pepper

Pepper is a specially trained therapy dog who visits the Morrison Cancer Center every Wednesday. The 136-pound pup spends about 20 minutes with each patient, allowing patients to hug, pet or just talk to her.

The big dog has the run of the building, going into rooms, treatment areas, chemotherapy suites and lounges or group areas to greet and cheer patients, visitors and staff.

Spending time with Pepper has lowered patient blood pressures and levels of the "stress hormone," cortisol. At the same time it seems to boost levels of feel-good hormones. The patients and staff of MCC love Pepper!



Dr. M. Sitki Copur poses with patients and family members who are enjoying the comfort and company of Pepper, the therapy dog. Pepper visits MCC on Wednesdays.



Making melodies

The Prairie Dulcimer Players, a group of 14, come to MCC on Thursdays to share their love of music and the hammered dulcimer.

The instrument produces a quiet and

soothing sound. It is played by number, rather than reading musical notes.

The Morrison Cancer Center patients say they love to hear "You Are My Sunshine," "Amazing Grace" and patriotic songs. The Prairie Dulcimer Players play

beautiful and calming music and bring smiles to the faces of patients and staff. Frequently, patients join the choir and sing along.

Many members of the group are wood carvers, as well as musicians.



The Prairie Dulcimer Players perform recently at the Morrison Cancer Center.

New employees join cancer center staff

Three new employees recently were added to the Morrison Cancer Center due to growing patient numbers and the expanding scope. MCC officials are proud to announce that since the last issue, we have added new faces and talents to our academic, community-based, comprehensive cancer center. Gina Krieger, Stephanie Borrell, RN, and Carla Hubl, RN, are now part of the team.



Gina Krieger took the position of scheduling specialist. Her main role is supporting patient scheduling needs for medical oncology. She works to coordinate labs, clinic visits and infusions.



Stephanie Borrell, RN, joined our highly qualified nursing team at the Morrison Cancer Center. She supports medical oncology nursing work.



Carla Hubl, RN, is helping to build an exemplary academic, community-based clinical trials program in collaboration with the University of Nebraska Medical Center and NCI-designated cooperative group

MCC appearing on local radio talk show

Starting in October 2018, the Morrison Cancer Center team has been participating in the "Ask the Expert" radio program.

Produced by Platte River Radio and aired on KHAS-AM 1230, these educational programs are intended to bring awareness to important oncology-related healthcare topics.

Dr. M. Sitki Copur of the Morrison Cancer Center shared recent information on **Obesity and Cancer** in January, **Prostate Cancer** in February and **Human Papilloma Virus-related Cancer** in March. Upcoming topics include **Immunotherapy in Cancer Part 1 and 2** and **Melanoma Skin Cancer**. You can find these educational interviews at www.marylanning.org/our-services/cancer-care/in-the-news/

The screenshot shows the Mary Lanning Healthcare website. The main content area is titled "In the News" and features a video player for an interview with Dr. M. Sitki Copur about HPV (Human Papillomavirus) on KHAS Radio. The video is titled "HPV (human papillomavirus)" and was published on March 6, 2019. The page also includes a sidebar with navigation links for various services and a search bar at the top.

www.marylanning.org/our-services/cancer-care/in-the-news/

MCC team guest at Sutton Health Fair

Dr. M. Sitki Copur and Sally Molnar from the Morrison Cancer Center were among special guests at the first Sutton Health and Emergency Services Day on February 9 in Sutton.

The event ran from 7 a.m. until 2 p.m. Dr. Copur and Molnar, MCC Director, provided information about cancer services.

Others in attendance were Caring Friends In Home Companion Services; Clay County Physical Therapy; Innovative Prosthetics and Orthotics; Integrity Dermatology; Jackie Kment, PA-C, free skin evaluations; Nebraska Orthopedics and Sports Medicine; Dr. Dane Todd, Quality Healthcare Specialty Clinic, mental health services; Safe Kids, new Nebraska car seat laws and computer crash test demos; South Central Chiropractic; Corey Ebert, DC;



Sally Molnar (left) and Dr. M. Sitki Copur (back row, second from left) were among several healthcare providers who participated in the first Sutton Health and Emergency Services Day in February.

South Heartland District Health Department, emergency preparedness, radon, foot kits, Every Woman Matters, fall prevention, vet set, pre-diabetes risk assessments; Sutton Community

Home & Hillcrest View Assisted Living; Sutton Community Home Foundation; Sutton Pharmacy; Sutton Volunteer Fire Dept.; Sutton EMS and Sutton Police Dept.

Sun safety subject of educational presentations

The Morrison Cancer Center and the South Heartland Cancer Coalition are working together to educate the public about topics including sun safety.

This education, which addresses a variety of prevention, healthy living and healthy habits, also includes the advantages of early detection and promotion of evidence-based screenings. Sun safety education is a priority in central Nebraska.

We see a much higher incidence and mortality rates from melanoma in the South Heartland region (Adams, Clay, Nuckolls and Webster counties) than in Nebraska overall.

The MCC staff began reaching out to the local and surrounding community schools to present and educate children in middle and high school about the importance of sun safety. This is a great opportunity to impact the lives of youth at a time when they are establishing



The Morrison Cancer Center staff provides information about sun safety to students recently. their own health habits, and are willing to listen to the advice from providers.

Peer-reviewed oncology publications from Morrison Cancer Center since our last issue

- **Copur MS.** Strategies for the Optimal Management of Dyspnea in Cancer Patients with Advanced Illness. Comorbidity Consult-Perspective article. Oncology CancerNetwork, December 2018. **(Published)**
- **Copur MS, Horn A, Pornchai J.** 49-year-old man with pathologic hip fracture and widespread metastatic lytic lesion in his bone. Case Quandaries. Oncology CancerNetwork, January 2019. **(Published)**
- **Copur MS.** Lack of awareness, lack of clinical trials in the community where most needed. Oncology 2019; 33:54-57. **(Published)**
- **Copur MS, et al.** Molecular Analysis for Therapy Choice (MATCH) - Phase 2 Study of Palbociclib in Patients with Tumors with CCND1, 2, 3 Amplification. MATCH sub-protocol EAY131-Z1B - Clin Can Res 2019. **(Published AACR, Abstract)**
- **Copur MS.** Supporting Data Versus Patient

- Requests/Demands in Oncology: When They Don't Concur, How to Handle? Oncology 2019; 34:44-47. **(Accepted for publication)**
- **Copur MS, Horn A.** 5-year-old man with abdominal distension pain. Image IQ. Oncology, CancerNetwork, November 2018. **(Accepted for publication)**
- **Copur MS, Wedel W.** 22-year-old Caucasian woman with a four-month history of pain, tenderness and swelling in her right breast. Image IQ. Oncology, CancerNetwork, November 2018. **(On the press)**
- **Copur MS, Turcotte K, Fu K, Jonglertham P.** 70-year-old woman with progressive red to violaceous papules and plaques on her neck and abdominal skin. Case Quandaries. Oncology Cancer Network, 2019. **(On the press).**
- **Copur MS, Jonglertham P, Zusag T.** Should all patients with a diagnosis undergo ex-

- panded panel testing?. J Clin Oncol 2019. **(Accepted)**
- **Copur MS, Jonglertham P, Zusag T, Springer CR, Molnar S, Robbins L, Peterson T, Arbogast J, Muske C, Shipman S, Fakkema E.** Multiplex genomic testing (MGT): Four-year real-world experience of two community oncology practices in central rural Nebraska. J Clin Oncol 2019. **(Accepted for publication)**
- **Islam KM, Deviany P, Anggondowati T, Ryan J, Fetrick A, Bagenda D, Copur MS, et al.** Patient-Defined Treatment Success: Perspectives of Advanced-Stage Lung Cancer Patients. J Oncol Pract. **(Submitted for publication)**
- **Copur MS, Jonglertham P, Springer C, Zusag T, Faris S.** The Role of Ovarian Suppression in Adjuvant Endocrine Treatment of Premenopausal Breast Cancer-Missing Data on DNA Microarray Gene Profile. J Clin Oncol 2019. **(Submitted for publication)**



Radical prostatectomy or watchful waiting in prostate cancer — 29-year follow-up

Radical prostatectomy reduces mortality among men with clinically detected, localized prostate cancer, but evidence from randomized trials with long-term follow-up is sparse. Authors randomly assigned 695 men with localized prostate cancer to watchful waiting or radical prostatectomy from October 1989 through February 1999 and collected follow-up data through 2017. By December 31, 2017, a total of 261 of the 347 men in the radical-prostatectomy group and 292 of the 348 men in the watch-

ful-waiting group had died; 71 deaths in the radical-prostatectomy group and 110 in the watchful-waiting group were due to prostate cancer (relative risk, 0.55; $P < 0.001$). At 23 years, a mean of 2.9 extra years of life were gained with radical prostatectomy. Gleason score higher than 7 was associated with a risk that was 10 times as high as that with a score of 6. Men with clinically detected, localized prostate cancer and a long life expectancy benefited from radical prostatectomy, with a mean of 2.9 years

of life gained. A high Gleason score and the presence of extracapsular extension in the radical prostatectomy specimens were highly predictive of death from prostate cancer.

Reference: Bill-Axelsson A, Holmberg L, Garmo H, et al. Radical prostatectomy or watchful waiting in prostate cancer — 29-year follow-up. N Engl J Med 2018; 379:2319-2329.



Stereotactic ablative radiotherapy versus standard radiotherapy in stage 1 non-small-cell lung cancer (TROG 09.02 CHISEL): a phase 3, open-label, randomized, controlled trial

Stereotactic ablative body radiotherapy (SABR) is widely used to treat inoperable stage 1 non-small-cell lung cancer (NSCLC). In a multicenter, phase 3, randomized, controlled trial in 11 hospitals in Australia and three hospitals in New Zealand, patients with biopsy-confirmed stage 1 (T1–T2aN0M0) NSCLC with medically inoperable lung cancer who had a peripherally located tumor were randomly assigned in a 2:1 ratio to SABR (54 Gy in three 18 Gy fractions, or 48 Gy in four 12 Gy fractions.) or

standard radiotherapy (66 Gy in 33 daily 2 Gy fractions or 50 Gy in 20 daily 2.5 Gy fractions). The primary endpoint was time to local treatment failure. Freedom from local treatment failure was improved in the SABR group compared with the standard radiotherapy group $p=0.0077$. Median time to local treatment failure was not reached in either group. In patients with inoperable peripherally located stage 1 NSCLC, compared with standard radiotherapy, SABR resulted in superior local control of

the primary disease without an increase in major toxicity.

Reference: Ball D, Mai TM, Vinod S et al. Stereotactic ablative radiotherapy versus standard radiotherapy in stage 1 non-small-cell lung cancer (TROG 09.02 CHISEL): a phase 3, open-label, randomized, controlled trial. Lancet Oncol 2019. [http://dx.doi.org/10.1016/S1470-2045\(18\)30896-9](http://dx.doi.org/10.1016/S1470-2045(18)30896-9).



Adjuvant therapy for resected biliary tract cancer: ASCO clinical practice guideline

An expert panel was convened to develop clinical practice guideline recommendations based on a systematic review of the medical literature. Recommendation 1. Patients with resected biliary tract cancer should be offered adjuvant capecitabine chemotherapy for a duration of six months (Type: Evidence based; Benefits outweigh harms; Evidence quality: Intermediate; Strength of recommendation: Moderate). In the BILCAP (Adjuvant Capecitabine for Biliary Tract Cancer) phase III randomized, controlled trial, capecitabine was delivered at a dose of 1,250 mg/m² twice a day on treatment days 1 to 14 of a three-week cycle for 24 weeks (eight cycles). The expert panel agrees that the

recommended dose of capecitabine may be determined by institutional and regional practices. Recommendation 2. Patients with extrahepatic cholangiocarcinoma or gallbladder cancer and a microscopically positive surgical margin resection (R1 resection) may be offered chemoradiotherapy (Type: Evidence and Consensus based; Benefits outweigh harms; Evidence quality: Low; Strength of recommendation: Moderate). A shared decision-making approach is recommended, considering the risk of potential harm and potential for benefit associated with radiation therapy for patients with extrahepatic cholangiocarcinoma or gallbladder cancer. The expert panel notes that in

the SWOG0809 prospective single-arm trial of chemoradiotherapy, radiation was delivered at a dose of 45 Gy to regional lymphatics and 54 to 59.4 Gy to the tumor bed. However, at this time, the evidence base is not sufficiently well developed to make a recommendation for optimal dosing of radiation therapy in the context of chemoradiation therapy.

Reference: Shroff RT, Kennedy EB, Bachini M et al. Adjuvant Therapy for Resected Biliary Tract Cancer: ASCO Clinical Practice Guideline. Published online March 11, 2019, DOI:10.1200/JCO.18.02178.



A Phase II Trial of Neratinib & Capecitabine for Patients with Human Epidermal Growth

Patients with measurable, progressive, HER2-positive brain metastases (92% after receiving CNS surgery and/or radiotherapy) received neratinib 240 mg orally once per day plus capecitabine 750 mg/m² twice per day for 14 days, then 7 days off. Lapatinib-naïve (cohort 3A) and lapatinib-treated (cohort 3B) patients were enrolled. If nine or more of 35 (cohort 3A) or three or more of 25 (cohort 3B) had CNS objective response rates (ORR), the drug combination would be deemed promising. The primary endpoint was composite

CNS ORR in each cohort separately, requiring a reduction of 50% or more in the sum of target CNS lesion volumes without progression of nontarget lesions, new lesions, escalating steroids, progressive neurologic signs or symptoms, or non-CNS progression. Forty-nine patients enrolled in cohorts 3A (n = 37) and 3B (n = 12; cohort closed for slow accrual). In cohort 3A, the composite CNS ORR = 49% (95% CI, 32% to 66%), and the CNS ORR in cohort 3B = 33% (95% CI, 10% to 65%). Median progression-free survival was 5.5 and 3.1 months in cohorts 3A

and 3B, respectively; median survival was 13.3 and 15.1 months. Diarrhea was the most common grade 3 toxicity (29% in cohorts 3A and 3B). Neratinib plus capecitabine is active against refractory, HER2-positive breast cancer brain metastases.

Reference: Freedman RA, Gelman RS, Anders CK et al. A Phase II Trial of Neratinib and Capecitabine for Patients with Human Epidermal Growth Factor Receptor 2-Positive Breast Cancer and Brain Metastases. J Clin Oncol 2019.



First-line treatment of patients with Indolent Non-Hodgkin Lymphoma or Mantle-Cell Lymphoma with Bendamustine Plus Rituximab versus R-CHOP or R-CVP: Results of the BRIGHT 5-Year Follow-Up Study

The BRIGHT study (ClinicalTrials.gov identifier: NCT00877006) was initiated to compare the efficacy and safety of bendamustine plus rituximab (BR) with rituximab plus cyclophosphamide, doxorubicin, vincristine and prednisone (R-CHOP) or rituximab plus cyclophosphamide, vincristine and prednisone (R-CVP) for treatment-naïve patients with indolent non-Hodgkin lymphoma or mantle-cell lymphoma. Patients were monitored for a minimum of five years after completion of study treatment. PFS rates at five years were 65.5% in the

BR treatment group and 55.8% in the R-CHOP/R-CVP group. The difference in PFS was considered significant with a hazard ratio of 0.61 (95% CI, 0.45 to 0.85; P = .0025). The hazard ratio for event-free survival and duration of response (P = .0020 and .0134, respectively) also favored the BR regimen over R-CHOP/R-CVP. However, no significant difference in overall survival was observed. The overall safety profiles of BR, R-CHOP and R-CVP were as expected; no new safety data were collected during long-term follow-up. Overall, BR demonstrated

better long-term disease control than R-CHOP/R-CVP and should be considered as a first-line treatment option for patients with indolent and mantle-cell lymphoma.

Reference: Flinn IW, Jagt R, Kahl B et al. First-Line Treatment of Patients with Indolent Non-Hodgkin Lymphoma or Mantle-Cell Lymphoma with Bendamustine Plus Rituximab versus R-CHOP or R-CVP: Results of the BRIGHT 5-Year Follow-Up Study. J Clin Oncol 2019. <https://doi.org/10.1200/JCO.18.00605>.

FDA hematology/oncology drug approvals since last issue

• **Atezolizumab (TECENTRIQ, Genentech Inc.)** in combination with carboplatin and etoposide, for the first-line treatment of adult patients with extensive-stage small-cell lung cancer (ES-SCLC). **March 18, 2019**

• **Atezolizumab for PD-L1 positive unresectable locally advanced or metastatic triple-negative breast cancer.** **March 8, 2019**

• **Trastuzumab and hyaluronidase-oysk injection**, for subcutaneous use (**Herceptin Hylecta, Genentech Inc.**). Herceptin Hylecta is a combination of trastuzumab, a HER2/neu receptor antagonist, and hyaluronidase, an endoglycosidase, for the treatment of HER2 overexpressing breast cancer. **February 28, 2019**

• **Trifluridine/tipiracil tablets (LONSURF, Taiho Pharmaceutical Co., Ltd.)** a fixed combination of trifluridine, a nucleoside metabolic inhibitor, and tipiracil, a thymidine phosphorylase inhibitor for adult patients with metastatic gastric or gastroesophageal junction (GEJ) adenocarcinoma previously treated with at least two prior lines of chemotherapy that included a fluoropyrimidine, a platinum, either a taxane or irinotecan, and if appropriate, HER2/neu-targeted therapy. **February 22, 2019**

• **Pembrolizumab (KEYTRUDA, Merck)** for the adjuvant treatment of patients with melanoma with involvement of lymph node(s) following complete resection. **February 15, 2019**

• **Caplacizumab-yhdp (CABLIVI, Ablynx NV)** for adult patients with acquired thrombotic thrombocytopenic purpura (aTTP), in combination with plasma exchange and immunosuppressive therapy. **February 6, 2019**

• **Cabozantinib (CABOMETYX, Exelixis, Inc.)** for patients with hepatocellular carcinoma (HCC) who have been previously treated with sorafenib. **January 14, 2019**

• **Tagraxofusp-erzs (ELZONRIS™, Stemline Therapeutics)**, a CD123-directed cytotoxin, for blastic plasmacytoid dendritic cell neoplasm (BPDCN) in adults and in pediatric patients 2 years and older. **December 21, 2018**

• **Ravulizumab-cwvz (ULTOMIRIS™, Alexion Pharmaceuticals, Inc.)** for adult patients with paroxysmal nocturnal hemoglobinuria (PNH). **December 21, 2018**



Dr. Pornchai Jonglertham talks with a patient recently. Dr. Jonglertham is a medical oncologist/hematologist at the Morrison Cancer Center,



Carlene Springer, APRN

**Our patients.
Our family.
Our inspiration.**



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