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CANCER talk

› CONNECTING WITH MANITOBA'S HEALTH PROFESSIONALS

CANCERCARE MANITOBA'S REGIONAL APPROACH TO PATIENTS PRESENTING WITH A NEUTROPAENIC FEVER

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CancerCare Manitoba's approach to the neutropaenic fever syndrome has evolved since the first protocols emerged in the 1980s.

The core principles for this approach include exercising a high index of suspicion to rapidly identify patients at highest risk based upon an understanding of the principles of chemotherapy-induced neutropaenia; undertaking a clinical assessment based upon history, physical examination, and accurately taken vital signs; to reach a clinical diagnosis before the availability of laboratory test results or diagnostic imaging; and administering initial empiric antibacterial therapy within 60 minutes of the initial triage. The purpose of this systematic approach is to prevent evolution of the syndrome and sepsis-related death by the early and timely reduction of the infective bacterial burden.

A cancer patient in receipt of cytotoxic chemotherapy within the previous six weeks who presents for medical assessment with subjective fever and malaise, or an inflammatory illness may be at potential risk. An initial history is taken to characterize the syndrome. This includes inquiring about fever, chills, or inflammatory organ system-based symptoms of the upper or lower respiratory tract, biliary tree, GI tract, GU tract, or skin; the temporal relationship of symptoms to the first day of the current cycle of cytotoxic therapy, which is important since most infections occur during the latter half of the second week, around day 12-14; and to identify any potential antimicrobial hypersensitivities. This should be followed by an examination to detect candidate sites for infection, and vital signs suggesting inflammatory response syndrome (oral temperature ≥ 38.3C once or >38C on ≥2 occasions over ≥1 hour; pulse > 90/minute, respirations > 20/minute, or systolic blood pressure

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[SBP] < 90 mmHg, or mean arterial pressure [({Diastolic BP x 2} + SBP) / 3] < 65 mmHg). Simultaneously, samples of blood for culture (all lumens of a central venous access device plus a peripheral site), complete blood count, electrolytes including urea nitrogen and serum creatinine, and serum lactate at a minimum should be obtained. It is important to remember from the core principles that prior to the availability of these results, and based upon the above clinical assessment, initial empirical broad-spectrum antibacterial therapy must be administered within 60 minutes of the initial triage.

The choice of initial empirical antibacterial regimen is based upon an assessment of risk for medical complications signaled by pre-existing end-organ co-morbidities and validated risk scores, such as the Multinational Association for Supportive Care in Cancer (MASCC) score. High-risk patients (e.g. MASCC score < 21, acute leukaemia, transplant recipients, longer-term severe neutropaenia [> 7 days], co-morbidities with end-organ damage, severe sepsis or septic shock) should be admitted to hospital and treated with intravenous regimens such as piperacillin-tazobactam. Where the clinical assessment and vital signs suggest severe sepsis or septic shock, critical care service consultation and additional agents such as an aminoglycoside are recommended. Where there is a history of infection with methicillin-resistant Staphylococcus aureus, the addition of a glycopeptide such as vancomycin should be considered. Routine initial addition of vancomycin is not recommended because of inefficacy and nephrotoxicity. Low-risk patients (MASCC score ≥ 21, solid tumour patients, no co-morbidities, short-term [≤7 days] severe neutropaenia) may be considered for out-patient treatment with oral combination therapy such as amoxicillin-clavulanate plus ciprofloxacin with frequent follow-up until myeloid reconstitution.

The new updated neutropaenic fever protocol together with its algorithms, standardized order sets, and staff and patient information is being circulated throughout the region and the province. Further, this approach is published electronically and available on Up-to-Date as “An Overview of Neutropenic Fever Syndromes”.

TUMOUR LYSIS

Dr. Leonard Minuk

Tumor lysis syndrome (TLS) involves the massive breakdown of tumor cells leading to the release of potassium, phosphate, and nucleic acids (which are broken down into uric acid) into the circulation. Patients can develop hyperkalemia-induced arrhythmias, symptomatic hypocalcemia (secondary to hyperphosphatemia) and acute renal insufficiency due to renal tubular deposition of uric acid and calcium phosphate. TLS usually occurs within 7 days of chemotherapy treatment, but may occur spontaneously prior to therapy.

Risk factors for TLS include malignancies that have: 1) high proliferative rate, 2) chemo-sensitivity, and 3) high disease burden (tumor mass >10cm, WBC >50, heavy bone marrow involvement). Diseases that are considered high risk for TLS include acute lymphoblastic leukemia, Burkitt’s lymphoma, acute myeloid leukemia, lymphoblastic lymphoma, germ cell tumors, and some cases of bulky, aggressive non Hodgkin lymphoma. Interestingly, diseases not traditionally associated with TLS due to lower chemo-sensitivity, such as chronic lymphocytic leukemia, are now at risk with newer targeted therapies (i.e. venetoclax). The risk of developing TLS is also increased in patients with an elevated lactate dehydrogenase, or baseline elevations in uric acid or creatinine prior to starting therapy.

Prophylaxis against TLS is determined by risk stratification which uses a number of the criteria above. Low risk patients are often only observed. The mainstay of therapy for patients at intermediate or high risk of TLS is IV hydration and careful electrolyte monitoring. These patients are also treated with uric acid lowering agents; the two most commonly used are allopurinol, which inhibits the production of uric acid, and rasburicase, which degrades existing uric acid. Allopurinol is used in intermediate risk situations, whereas rasburicase is used as prophylaxis in high risk situations, for treatment of established TLS, or when allopurinol is contraindicated (severe renal insufficiency or allergy). Treatment of established TLS is similar to prophylaxis in high risk situations except patients require closer monitoring of electrolytes and may require cardiac monitoring and even dialysis in severe cases.

Leonard Minuk is a Hematologist and Director of the Clinical Trials Unit, CancerCare Manitoba.

SPINAL CORD COMPRESSION

Dr. Shrinivas Rathod

Malignant spinal cord compression (MSCC) is an oncological emergency, and one of the most dreaded complications of metastatic cancer, potentially leading to permanent neurologic impairment and drastically affecting a patient's quality of life.[1] Haematogenous spread to the vertebral spine causing collapse and compression is the commonest mechanism, accounting for over 85% of MSCC. [2 3] The next most common cause of MSCC is local tumour extension into the spinal cord and deposition of tumour cells directly within the spinal cord.

At presentation, 90% of cases have pain (local and/or radicular), and up to 50% may be unable to walk and have sensory and/or bladder or bowel dysfunction.[4] Magnetic resonance imaging of the whole spine is the imaging modality of choice, with a sensitivity and specificity of 90-95%.[5] Evidence supports the use of corticosteroids as adjunctive therapy. Unless contraindicated, administer an immediate loading dose of 16mg of dexamethasone (given intravenously or orally) followed by a short course of 16mg dexamethasone daily (given in divided doses, such as 8mg twice daily per ora).[6-8]

Definitive treatment may include any combination of radiotherapy, surgery, or chemotherapy.[9-11] If therapy is appropriate, it should be started before any further neurological deterioration occurs and ideally within 24-48 hours of the confirmed diagnosis of MSCC. To guide treatment plans, it is important for patients to have a histological or cytological diagnosis of malignancy. When deciding on definitive treatment with the patient, consider the patient's performance status, extent of metastatic disease, spinal stability, underlying tumour radiosensitivity, and degree of spinal cord compression.[12,13]

Early diagnosis and treatment are essential to prevent permanent neurological damage, so early recognition by primary care providers coupled with rapid referral pathways and treatment are required.

Shrinivas Rathod is a Radiation Oncologist working with Lung, CNS and brain metastasis disease site groups at CCMB.

A Message from Dr. Sri Navaratnam, President & CEO of CancerCare Manitoba

Every day, 20 Manitobans are newly diagnosed with cancer. In addition, 45,000 Manitobans, diagnosed with cancer in the last 15 years, are living with cancer or are now cancer-free.

CancerCare Manitoba treats patients who have been diagnosed with cancer, but that is only a portion of the cancer patient's journey. Primary care providers (PCP) are a vital part of providing care to these patients.

Over the past five years, CancerCare Manitoba has been asking PCPs to ensure referrals for tests are "Out the Door in 24" hours when there is a suspicion of cancer. We have also been working with our health-care partners to streamline testing and referrals. During the wait for a diagnosis, patients view their PCP as a source of information and support.

If a PCP needs assistance in the work-up of suspected cancer, or if a patient needs guidance and emotional support while awaiting a diagnosis, Cancer Navigation Services is there to help. An expert team is available by phone to help the PCP get the patient to diagnosis and, if needed, treatment. Call 1-855-837-5400. The Cancer Helpline for Primary Care is another resource CCMB provides to PCPs. Call or text 204-226-2262 to ask any questions related to diagnosis and treatment.

During treatment, the patient still turns to their PCP for health-care matters not related to their cancer. After treatment, when the patient is ready to return to their PCP for all of their care, CCMB provides a personalized follow-up care plan that contains a treatment summary, outlines future tests and appointments, and lists symptoms to watch for in the future. Patients are asked to discuss this plan with their PCP.

PCPs are essential to CancerCare Manitoba and cancer patients along every step of the cancer journey. They are an integral partner in providing excellent cancer care in this province.

Thank you,

Dr. Sri Navaratnam

New Support Group for Caregivers

Over 30% of those diagnosed with cancer experience clinically significant anxiety or depression, and the rate for primary caregivers / support persons is even higher. The Psychosocial Oncology Program at CancerCare Manitoba is offering a support group for caregivers this fall. Please have those interested contact 207-787-2109 for more information.

ASK THE Cancer Expert

Saroj Niraula, MBBS, MD, MSc
Chair, Breast Disease Site Group, CancerCare Manitoba

QUESTION: What is the appropriate duration for hormone therapy for breast cancer?

ANSWER:

Tamoxifen (20mg daily for 5-10 years based on oncologist assessment)

If the patient has been on Tamoxifen for a total of 5 years, please refer the patient to CCMB for a discussion regarding switching to an Aromatase Inhibitor or extending Tamoxifen to 10 years. Fax a referral to CCMB at 204-786-0621.

Aromatase Inhibitors (AI) (anastrazole 1mg, letrozole 2.5mg, exemestane 25mg daily)

After 5 years of therapy, please refer patients to CCMB by fax 204-786-0621 for discussion of extending AI to 10 years.

Please review the patients you currently have on endocrine therapy and ensure that they haven't exceeded the recommended duration of therapy.

Aromatase Inhibitor Issues and Suggested Management

- *Hot flashes*: Try bedtime dosing; add venlafaxine, gabapentin/pregabalin or clonidine; consider change of AI.
- *Arthralgias/myalgias*: use of acetaminophen; exercise, NSAIDs; change of AI; switch to Tamoxifen if appropriate
- *Vaginal dryness*: Use vaginal moisturizers & lubricants; use of intravaginal estrogens is relatively contraindicated.
- *Osteoporosis*: Calcium 1200 mg od from diet, supplements if needed; Vitamin D 800-2000 IU od; weight-bearing exercise; bisphosphonates if indicated.
- *Cardiovascular Risks*: Monitor blood pressure and cholesterol and treat if elevated.

Tamoxifen Issues and Suggested Management

- *Medication Interactions*: Please review any antidepressants the patient is taking as some interfere with the efficacy of Tamoxifen.
- *Hot flashes*: Try bedtime dosing; add venlafaxine, gabapentin/pregabalin or clonidine.
- *Vaginal dryness*: Use vaginal moisturizers & lubricants; use of intravaginal estrogens is debatable.
- *Increased vaginal discharge*: Increased discharge is common but if symptomatic, test to rule out infection.
- *Risk of uterine cancer*: Risk of 0.2% –0.3% per year for post-menopausal women. All post-menopausal bleeding requires transvaginal US and/or endometrial biopsy and referral to gynecology if concerned.
- *Risk of venous thromboembolism*: Risk is 0.2% per year. Encourage smoking cessation, be vigilant for VTE symptoms.
- *Vision Changes*: Risk of early cataract formation is very low; however, Manitoba Health covers the cost of basic eye exams for women on Tamoxifen every one to two years.

For the latest follow-up guidelines visit: www.cancercare.mb.ca/followupcare

UPP with COP!

The Community Oncology Program (COP) is delighted to welcome CancerCare Manitoba's Underserved Populations Program (UPP) under the COP umbrella. Formerly known as First Nations, Metis and Inuit Cancer Control, UPP now has an expanded mandate to effect system change and advocate on behalf of all populations experiencing barriers to accessing timely and culturally appropriate cancer care.

LYNCH SYNDROME

Dr. Harminder Singh and Heidi Rothenmund, Genetic Counselor, on behalf of the Manitoba Hereditary Gastrointestinal Cancers Clinical and Research Group

Lynch Syndrome (LS) is responsible for up to 5% of colorectal cancers (CRCs).

Approximately three years ago, Manitoba started screening all CRC specimens resected from individuals aged 70 years and younger (and more recently all endometrial cancers from patients diagnosed at age 60 or younger) for LS. For those who do not have a surgical resection (for example someone with metastatic disease, patients whose cancer was completely removed on endoscopy, or those who had cancer surgery years ago), it is currently only performed on physician request (although that is likely to change in the near future to include those not having surgical resections). The risk of LS is low among those not meeting these age criteria, and hence LS screening for such patients is only performed on an individual basis, based on clinical history. **It is important that physicians watch out for individuals with CRC who might have not been screened and ask the reporting pathologist for the screening test.** It is also important to recognize a family history of cancer that may be suggestive of LS. The family history which should raise suspicion of LS includes a) three or more family members (same side of family) with LS- associated cancers b) any family member with CRC or endometrial cancer diagnosed at age less than 50 c) a family member with multiple LS associated cancers. The following discussion explains the rationale for screening for LS, and the role that primary care providers play in ensuring that patients are appropriately screened.

LS is an autosomal dominant condition, and is the most common inherited condition increasing risk of CRCs and endometrial cancers. The autosomal dominant pattern of heritance implies that approximately half of the first-degree relatives (parents, siblings, and children) of an individual with LS will also have LS. The lifetime risk of CRC among individuals with LS has been reported to be as high as 80%, while the risk of endometrial cancer is 40-65%. LS is also (though much less commonly) implicated in the development of upper urinary tract, ovarian, gastric, small bowel and hepatobiliary cancers.

Regular screening with colonoscopy every year or every other year of individuals with LS can reduce the risk of developing and dying from CRC by 75-94%. Women with LS are often advised to undergo hysterectomy and bilateral salpingo-oophorectomy once they have finished child bearing or by age 40. Other cancer screening may also be performed after discussing the potential benefits and limitations of those screening tests. Because of the large potential reduction in the risk it is important to recognize individuals with LS so that they can start appropriate screening and procedures in a timely fashion. For individuals with CRC, a diagnosis of LS leads to a change in surgical approach—the most commonly recommended surgery is subtotal colectomy to reduce the risk of developing a second CRC in the remaining colon. In addition, once an individual is diagnosed with LS, genetic testing is then available to at-risk relatives. **Therefore, recognition of LS is important for those with cancer, as well as for detection of LS in their affected relatives.**

Currently, the screening test for LS requires assessment of the cancer tissue. The screening test (immunohistochemistry looking for the lack of the proteins produced by the implicated mutated genes and/or another test called microsatellite instability testing) is first performed, which if positive leads to assessment (genetic test) for the gene mutation suspected on the screening test. **The definitive genetic test is only performed if the affected person agrees and provides consent for genetic testing, and hence individuals need to be first seen by Genetics and have genetic counselling to understand the implications of the test.** Once LS is confirmed, a blood test can be done for the relatives to determine if they carry the same genetic mutation. For Individuals with LS, colonoscopy is generally recommended starting at age 20-25 years, or 2-5 years before the earliest age of cancer diagnosis in the family (whichever is earlier). Genetic testing for LS is typically available beginning at age 18.

Family physicians and nurse practitioners have a vital role in ensuring LS screening, identifying family histories that might be suggestive of LS, encouraging those with a positive LS screen test to undergo definitive genetic testing, encouraging those with LS to undergo regular colonoscopy and other recommended screening and procedures, and encouraging those with LS to inform all of their first-degree relatives so that the relatives can also then undergo LS genetic testing and follow-up.

SCREENING CORNER

Pap Test Competency Training

CervixCheck will host training on October 6, 2017 for health care providers in Manitoba seeking to:

- Initiate or refresh learning and competency about cervical cancer screening or
- Mentor colleagues to become competent in screening of cervical cancer.

Learn more at GetCheckedManitoba.ca/provider.

HOW TO REACH US

CCMB REFERRAL CENTRE
204-787-2176
FAX: 204-786-0621
M-F, 0830-1630, closed Stat Holidays

Emergency Referrals:
HSC PAGING: 204-787-2071
ST. BONIFACE PAGING: 204-237-2053

CANCER QUESTION? HELPLINE FOR HEALTH CARE PROVIDERS
204-226-2262 (call or text/SMS)
EMAIL: cancer.question@cancercare.mb.ca
WEB FORM: cancercare.mb.ca/cancerquestion
M-F, 0830-1630, closed Stat Holidays

CCMB SCREENING PROGRAMS BREASTCHECK - CERVIXCHECK - COLONCHECK
1-855-952-4325
GetCheckedManitoba.ca

CANCERCARE MANITOBA
TOLL FREE: 1-866-561-1026
(ALL DEPARTMENTS & CLINICS)
www.cancercare.mb.ca

Inquiry & Reception
MCDERMOT UNIT (HSC) 204-787-2197
ST. BONIFACE UNIT 204-237-2559

Pharmacy: 204-787-1902

COMMUNITY CANCER PROGRAMS NETWORK (CCPN) OFFICE, CCMB
204-784-0225

MANITOBA PROSTATE CENTRE, CCMB
204-787-4461
FAX: 204-786-0637

PAIN & SYMPTOM MANAGEMENT
204-235-2033—Ask for pain & symptom physician on call
M-F: 08:30-16:30

PALLIATIVE CARE CLINICAL NURSE SPECIALIST
204-235-3363

PATIENT AND FAMILY SUPPORT SERVICES, CCMB
Psychosocial Oncology, Dietitians, Speech Language Pathology, Guardian Angel Caring Room, Patient Programs, Navigator Newsletter
204-787-2109

UNDERSERVED POPULATIONS
204-784-0218

BREAST & GYNE CANCER CENTRE OF HOPE
204-788-8080
TOLL FREE: 1-888-660-4866
691 Wolseley St.
Winnipeg MB R3C 1C3

WESTERN MANITOBA CANCER CENTRE
204-578-2222
FAX: 204-578-4991
300 McTavish Ave. East
Brandon MB R7A 2B3

OTHER NUMBERS:

CANCERCARE MANITOBA FOUNDATION
donations & inquiries: 204-787-4143
TOLL FREE: 1-877-407-2223
FAX: 204-786-0627

CANADIAN CANCER SOCIETY
VOLUNTEER DRIVERS: 204-787-4121
TOLL FREE: 1888-532-6982

CANCER INFORMATION SERVICE:
TOLL FREE: 1-888-939-3333

CANADIAN VIRTUAL HOSPICE
virtualhospice.ca

WRHA BREAST HEALTH CENTRE
204-235-3906
TOLL FREE: 1-888-501-5219

ANNOUNCEMENTS

We are very pleased to announce that Dr. Danielle Desautels joined the Department of Medical Oncology and Haematology, CancerCare Manitoba, and the Section of Haematology/ Oncology, Department of Internal Medicine, University of Manitoba, on August 1st, 2017.

Dr. Danielle Desautels graduated from medical school at the University of Manitoba in 2010. She went on to complete her residency training in Internal Medicine followed by subspecialty training in Medical Oncology. She then pursued a clinical fellowship in breast cancer through the Sunnybrook Health Sciences Centre and a Master's Program in Clinical Epidemiology and Health Care Research through the Institute of Health Policy, Management and Evaluation.

Dr. Desautels will be providing outpatient services in the breast disease site group and will be participating in the Medical Oncology Consultation Service at the Health Sciences Centre. Her office will be located at the McDermot site.

Missed Cancer Day for Primary Care on May 5?

View presentations and slides online at
www.cancercare.mb.ca/cancerday

Videos are best viewed using Internet Explorer

COMMUNITY ONCOLOGY PROFESSIONAL DEVELOPMENT AWARDS NOW ACCEPTING APPLICATIONS!

Are you a Family Physician or Nurse Practitioner in Primary Care Practice within Manitoba?

Are you a Health Care Professional affiliated with the Community Oncology Program?

This is YOUR opportunity to:

- Pursue one-two weeks of oncology & blood disorders individualized study or training, OR
- Apply for funding for an oncology course or conference

Deadline for applications is **November 10, 2017.**

Apply online at:
www.cancercare.mb.ca/scholarships

Questions?

Contact Jill Sutherland:
jsutherland4@cancercare.mb.ca