

What do I do with a monoclonal protein?

Dr. Vi Dao, Medical Oncologist, CancerCare Manitoba

Serum protein electrophoresis (SPEP) is a common laboratory screening test for numerous conditions. However, the result of SPEP can generate confusion. This article will answer two common questions that FPs and NPs have: (1) What is the initial work up once a monoclonal protein (m-protein) is discovered? (2) What diseases are associated with an M-protein?

When faced with an abnormal SPEP, it is important to differentiate *polyclonal* gammopathy (associated with non-malignant, usually infectious/inflammatory states) from *monoclonal* gammopathy, the so-called "M-protein", which indicates the presence of an abnormal *malignant clone* within the B-lymphocyte and plasma cell lines. Serum immunofixation identifies the heavy-chain (IgG, IgM, IgA, or IgD) and light chain (kappa or lambda) subtype of immunoglobulin. The quantity of the M band is usually, but not always, reflective of the total clonal cell burden.

Once an M-protein is discovered, further work up (Figure 1, page 6) is required to determine which of three categories the patient falls under. The first, MGUS (monoclonal gammopathy of undetermined significance) is an asymptomatic, low disease burden state that only requires observation. The second, smoldering multiple myeloma (SMM) is a higher disease burden that satisfies the diagnosis of myeloma but is also asymptomatic. The third is symptomatic multiple myeloma (MM) whose symptoms are organized under the mnemonic CRAB (hyperCalcemia, Renal dysfunction, Anemia,

Bone lesions) and which requires immediate intervention. The primary care clinician should order the tests in Steps 1-3 as part of the referral to the hematologist. It should be noted that up to 20% of patients with myeloma will have a **normal** SPEP (no M-protein) due to light chain secretory disease or other "non-secretory" forms. Therefore, other tests, such as free light chain index (FLCI) and tissue biopsy must be done in the case of normal SPEP if a diagnosis of myeloma is suspected clinically due to findings such as unexplained lytic bone lesions or anemia. Although an elevated M band usually reflects a

Table 1 Diseases associated with an M-protein

Type of M-protein	Associated plasma cell disorders
Intact immunoglobulin (heavy & light chain)	Myeloma Waldenstrom macroglobulinemia
Light chain only	Light chain myeloma Light chain deposition disease Amyloidosis
Heavy chain only	Heavy chain deposition disease

Be a 'CancerPro'

Cancer System Essentials for Primary Care Education Session

Friday, June 14, 2013

9:00am – 3:00pm from the
Executive Boardroom, CCMB
at 675 McDermot Ave
& televised over MBTelehealth

Learn how to navigate the provincial cancer system for better patient care. This day-long session for family doctors, nurse practitioners and primary care nurses will give you the knowledge you need to get things done. Registration is free, thanks to the support of UPCON and the Community Oncology Program. A limited travel honorarium is provided for rural and northern participants.

- How the cancer system works - who does what and how to contact them
- Getting the most out of our provincial screening programs
- The ins and outs of achieving early diagnosis and making effective referrals
- Cancer treatment - what your patients can expect

Go to www.cancercare.mb.ca/cancerpro for more information or call 204-787-1229.

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The WHRA Breast Health Centre

The WRHA Breast Health Centre provides comprehensive services, resources and support for women and men with breast health concerns and symptoms of breast cancer. Located in Winnipeg across from the St. Boniface

Hospital, the BHC services all Manitobans whether patients live in Winnipeg, Rural or Northern Manitoba.

A multidisciplinary team of specialists coordinates clinical and diagnostic assessments, surgical consultation (including breast reconstruction), education and psychosocial support. Referrals for nutritional consultation and genetic counseling are available. Support for those diagnosed with lymphedema is offered through the lymphedema clinic.

All services along with guidelines for referrals and referral forms can be found on the BHC's web-site at <http://www.wrha.mb.ca/community/bhc/> using the link "How do I get an appointment." Patients over 35 require a mammogram within the last 12 months when there is a palpable concern with the referral. If you have questions about the BHC's services or the referral process, please call the Centre from Monday to Friday (between 8:00 am - 4:00 pm) at 204-235-3906 or toll-free at 1-888-501-5219.



New Rural Hubs, Staff for Faster Cancer Care

To ensure cancer patients receive the fastest treatment in Canada, the provincial government is launching four new regional CancerCare hubs in rural Manitoba.

The new hubs in Brandon, Selkirk, Steinbach and Thompson will open over the next year and are part of an expansion of 16 rural chemotherapy sites throughout the province. The hubs will better co-ordinate testing, referrals, diagnosis and treatment for rural Manitobans.

"With ongoing provincial and partner support to improve cancer services, including the most comprehensive cancer strategy in Canada, Manitobans will soon benefit from a wider network of CancerCare hubs," said Dr. Dhali Dhaliwal, president and CEO of CancerCare Manitoba. "The CancerCare hubs will facilitate rapid access to treatment right across Manitoba."

To further accelerate cancer testing, diagnosis and treatment for every Manitoban, the government has also committed to hiring over 50 new front-line staff including:

- eight more pathologists;
- 35 more technologists;
- two cancer testing co-coordinators; and
- eight new positions in rural CancerCare hubs (social workers and patient navigators).

HPV Related Head and Neck Squamous Cell Carcinoma (HNSCC):

A New Pandemic?

In 2010, about 1000 - 1500 new oropharyngeal cancers were seen in Canada. While a decrease in smoking has resulted in a decrease in the incidence of some tobacco related head and neck cancers such as laryngeal cancers, the incidence of oropharyngeal cancers is on the rise possibly as a result of Human Papilloma Virus (HPV). HPV are papilloma (wart) causing viruses. The estimated general population prevalence of oral HPV is approximately 7%. Out of about 200 different strains 16, 18, 31, 33, 35, 39, 45, 51, 66 cause cervical, ano-genital and oropharyngeal cancers. Tonsils are the most common site for HPV positive oropharyngeal cancers. Almost 40-80% of oropharyngeal cancers are HPV positive (89% of them are HPV 16 positive, 91% HPV 16 or 18 positive and 4% have multiple strains).



Unlike classical HPV negative head and neck cancers, HPV positive cancers are typically seen in younger patients, with a similar incidence in males and females. They are usually characterized by high grade basaloid tumors with advanced cervical lymph node metastases in an early stage primary tumor. They have a 25-30% better response to chemotherapy/ chemo-radiation and 30% better cancer related survival as compared to similarly staged HPV negative head and neck cancers. Although tobacco use doesn't appear to be a strong factor in the development of HPV positive tumors, it appears to modify the biologic behavior of these tumors, rendering them less responsive to therapy, resulting in worse survival compared to non-smoking HPV positive patients.

HPV vaccination for females between 9-26 years is publicly funded in Manitoba. In 2012, the National Advisory Committee on Immunization (NACI) recommended HPV vaccine to males aged between 9-26 to prevent genital warts, anal cancer and possibly head and neck cancer; however, most Canadian provinces have yet to implement this recommendation.

NACI recommends quadrivalent HPV vaccine for males

In January, 2012, the National Advisory Committee on Immunizations (NACI) updated their recommendations for the HPV vaccines. Recommendations have been made for males, an older female cohort and for the bivalent HPV vaccine. For more information, visit: <http://www.phac-aspc.gc.ca> and search "NACI Recommendations HPV January 2012." A 62-page pdf document will be available.

Manitoba Health expands eligibility criteria for HPV vaccine

The HPV vaccine is now available in Manitoba free-of-charge for females 9 to 26 years of age with increased risk of getting HPV, as determined by a health care provider. To learn more about Manitoba Health's Immunization Program, visit: <http://www.gov.mb.ca/health/publichealth/diseases/hpv.html>

Helping Women with Cancer



Look Good Feel Better is a national charity that addresses the appearance-related effects of cancer and cancer treatment experienced by women.

This program was created from the belief that if a woman with cancer can be helped to look good, chances are she'll feel better and will face her illness with greater confidence. Free, two-hour workshops are provided through trained volunteer cosmetic advisors.

At a workshop, women with cancer learn how to take care of their skin and nails, simple cosmetic tips, how to manage hair loss, and wig and head wear options.

Sessions are held at CancerCare Manitoba, at the Grace and Victoria Hospitals, and at the Western Manitoba Cancer Centre in Brandon. You or your patient can also call CCMB Patient & Family Support Services (204-787-2109) for more information.





From left to right: Annitta Stenning, CancerCare Manitoba Foundation; Dr. Belynda Salter-Oliver, Prairie Trail Medical Centre; Dr. Jeff Sisler, Community Oncology Program, CancerCare Manitoba; and Ruth Loewen, Community Oncology Program, CancerCare Manitoba on February 1, 2013 at Cancer Day for Primary Care.

2012 Community Cancer Scholarship Winners!

The following health professionals have been awarded funding for one to two weeks of training tailored to their areas of interest in cancer care, blood disorders, or oncology-focused continuing education courses. These scholarships are supported by funding from the CancerCare Manitoba Foundation and organized by the Community Oncology Program.

Congratulations to:

Dr. Michael Hanna: FP, Wheat City Medical Clinic, Brandon.

Juliana Jacobs: NP, Burntwood Community Health Resource Centre, Thompson.

Jen Lamont: Pharmacist, Western Manitoba Cancer Centre, Brandon.

Dr. Jarrett Lobley: FP, Winnipeg/Churchill RHA.

Debbie McNairnay: Patient navigator, Western Manitoba Cancer Centre, Brandon.

Dr. Deirdre O'Flaherty: FP, Northern Medical Unit/Churchill RHA.

Erin Roehl: Program assistant, Eriksdale Community Cancer Resource and Support Centre.

Dr. Belynda Salter-Oliver: FP, Prairie Trail Medical Centre, Winnipeg.

Angela Stewart-Lamport: Social worker, Western Manitoba Cancer Centre, Brandon.

Theresa Unger: Physician assistant, McCreary/Alonsa Medical Clinic.

Deb Weir: Nurse Navigator, Boundary Trails Health Centre Hub.



Ask the Cancer Expert

*Dr. Robert Lotocki
Medical Lead,
CervixCheck*

Question:

I've read the new guidelines for cervical cancer screening in healthy women, but what kind of Pap Test follow-up is recommended for those who've had a gynecologic cancer?

Answer:

The data on cervical screening recommendations for women with hysterectomies due to gynecologic cancers is limited. However, **endometrial cancer** patients should continue to be screened annually for five (5) years before they discontinue, assuming the results are normal. Screening can be discontinued for women with complete hysterectomies due to **ovarian cancer**. After treatment for **cervical cancer** women should continue cytology as long as they are biologically healthy. The age to stop screening women with a history of cervical cancer has not been defined. All women who have had complete hysterectomies due to **benign conditions** no longer need vaginal cancer screening tests with Pap tests, as long as they do not have a history of previous high-grade cervical lesions.

For resources and information on the new provincial cervical screening guidelines, visit: <http://TellEveryWoman.ca/> and click on "New Guidelines for Cervical Cancer Screening."



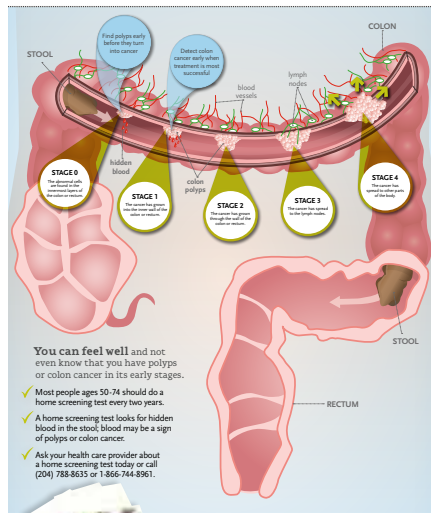
March is National Colorectal Cancer Awareness Month!

ColonCheck is preparing for an exciting month of events and activities promoting awareness of the significant impact that colorectal cancer has on Manitobans. We especially appreciate the collaborative partnerships we've made with primary care providers and UPCON clinics who are now distributing ColonCheck fecal occult blood tests to their patients. We are partnering with 55 medical clinics and 210 providers, representing both rural and urban regions of Manitoba. Due to the many benefits the ColonCheck Program offers providers, including a high quality FOBT, reminder letters sent to patients not completing their FOBT, rapid communication of all test results (FOBT, colonoscopy, pathology, and endoscopist management recommendations), time savings through our referral process for follow up colonoscopy, and wait time to colonoscopy from positive FOBT result of six to eight weeks, our partnerships continue to increase.

If you are interested in working with us to promote colorectal cancer screening within your practice, we can help! We'll work with you to find the best way to implement distribution of ColonCheck FOBTs to your patients. A very simple method has been established for practices using EMRs.

Colon Cancer Screening Saves Lives

Colon cancer is the second most common cause of cancer death in Manitoba.



You can feel well and not even know that you have polyps or colon cancer in its early stages.

- ✓ Most people ages 50-74 should do a home screening test every two years.
- ✓ A home screening test looks for hidden blood in the stool. Blood may be a sign of polyps or colon cancer.
- ✓ Ask your health care provider about a home screening test today or call (204) 788-8635 or 1-866-744-8961.



Pap Testing in Manitoba has Changed

CervixCheck has updated its screening guidelines. Pap tests are now recommended to start at age 21 for all sexually active women and continue every three years until 69 years of age. To support the extended screening interval, CervixCheck will be phasing in reminder letters to women who are overdue for a Pap test. For resources and information on the new provincial screening guidelines, and to register for our webinar, visit TellEveryWoman.ca and click on "New Guidelines for Cervical Cancer Screening."

It matters to

Them!

Your recommendation counts!
Talk to your patients about screening for cancer.

Watch for upcoming education opportunities for Manitoba health care professionals.
Register at GetCheckedManitoba.ca



Webinar for Primary Care

Attend CervixCheck's webinar, "Understanding the New Cervical Cancer Screening Guidelines" with Dr. Robert Lotocki.

Friday, March 1, 2013

12:00 - 1pm

Register at GetCheckedManitoba.ca

New! Instructions for the ColonCheck Fecal Occult Blood Test (FOBT)

ColonCheck
Cancer Care Manitoba
5-25 Sherbrook Street
Winnipeg, MB R3C 0R1
Telephone: (204) 788-8635
Fax: (204) 774-0341
Email: coloncheck@manitoba.ca
www.ColonCheckmb.ca



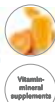
OK to eat red meat before and during the FOBT¹



OK to take NSAIDs before and during the FOBT²



≤ 250 mg of vitamin C per day during the FOBT³



DID YOU KNOW

- Red meat, NSAIDs and vegetables and fruits are no longer restricted prior to and during the ColonCheck FOBT? The only dietary recommendation is to limit vitamin C intake to no more than 250 mg/day.
- ColonCheck offers a variety of resources to use with your patients to improve screening participation. This includes the new Polyp Poster and tool for communicating the simplified dietary and medication recommendations during the FOBT.

¹ Krommel, C. (2010). Dietary interventions for fecal occult blood testing: Systematic review of the literature. *Clin Fam Physician*, 56(5): 220-28.
² Krommel, C. and Kohn, A. (2012). Are medication restrictions before FOBT necessary? Practical advice based on a systematic review of the literature. *Clin Fam Physician*, 56(5):359-66.

Where to find 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
<http://www.cancercare.mb.ca>

CancerCare Manitoba

Toll Free: 1-866-561-1026

Inquiry & Reception

MacCharles Unit (HSC) 204-787-2197
St. Boniface Unit 204-237-2559

Pharmacy: 204-787-1902

Breast Cancer Centre of Hope

691 Wolseley Street
Winnipeg, Manitoba R3C 1C3
204-788-8080
Toll Free: 1-888-660-4866

CCMB Screening Programs

25 Sherbrook Street, Unit #5
Winnipeg, Manitoba R3C 2B1

BreastCheck

204-788-8000
Toll Free: 1-800-903-9290

CervixCheck

204-788-8626
Toll Free: 1-866-616-8805

ColonCheck

204-788-8635
Toll Free: 1-866-744-8961

Community Cancer Programs Network (CCPN) Office

204-787-5159
Toll Free: 1-866-561-1026

Manitoba Prostate Centre

204-787-4461
Fax: 204-786-0637

Patient and Family Information and Resource Centre

204-787-4357
Toll Free: 1-866-561-1026

Patient and Family Support Services

204-787-2109
Toll Free: 1-866-561-1026

Patient Representative

204-787-2065
Pager: 204-931-2579
Toll Free: 1-866-561-1026

Western Manitoba Cancer Centre

300 McTavish Ave. East
Brandon, Manitoba R7A 2B3
204-578-2222
Fax: 204-578-4991

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: 1-888-532-6982
Cancer Information Service
Toll Free: 1-888-939-3333

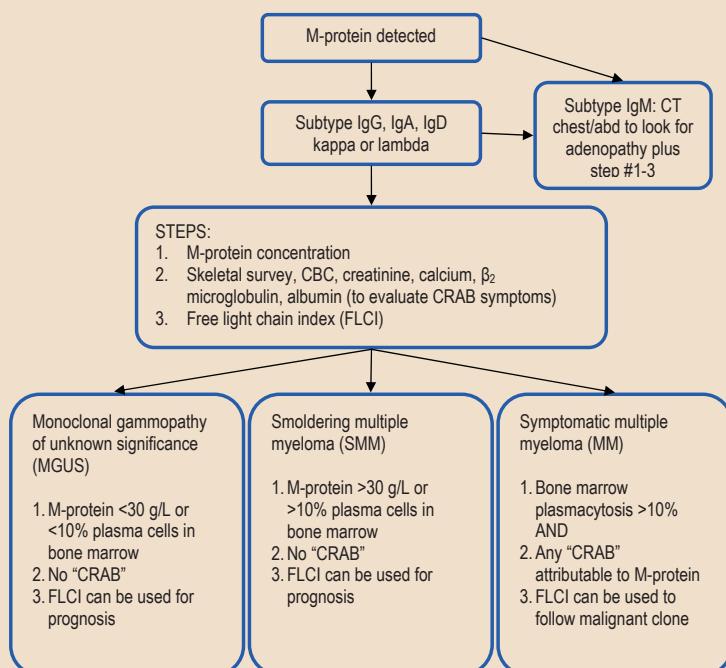
WRHA Breast Health Centre

204-235-3906
Toll Free: 1-888-501-5219

What do I do with a monoclonal protein from P.1

disease in the plasma cell spectrum, other conditions are possible and are listed in Table 1.

Investigating a M-Protein



Cancer Question?

call • text
204•226•2262

e-mail
cancer.question@cancercare.mb.ca

web form
cancercare.mb.ca/cancerquestion



**Expert Help
for Primary Care**
8:30am-4:30pm
Monday-Friday

All questions of an emergent nature about the care of a cancer patient should be directed to the oncologist on call (24 hrs a day) at the two Winnipeg teaching hospitals:

HSC 204.787.2071
St. Boniface 204.237.2053

