

# Surgical Oncology Network Newsletter

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## Surgical Oncology Network

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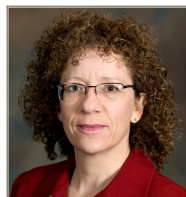
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## CONTINUING PROFESSIONAL DEVELOPMENT AND KNOWLEDGE TRANSFER

Continuing Professional Development & Knowledge Transfer (CPD-KT) is one of three SON Committees that assist with the planning, implementation & promotion of the Network's goals & priorities.



Dr. Rona Cheifetz  
 Chair, CPD-KT, Committee  
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Dr. Rona Cheifetz MEd is a graduate of the University of Toronto, Faculty of Medicine and completed her general surgery training at UBC. She then obtained a Masters Degree in Adult Education from UBC and completed a Surgical Oncology Fellowship in Toronto. She is an Assistant Professor in the Department of Surgery at UBC, Chief of the Surgical Oncology Service at Vancouver General Hospital and on active staff at the BC Cancer Agency. She is Head of CME for the Department of Surgery and for the BC

Surgical Oncology Network's Continuing Professional Development & Knowledge Transfer Committee. She is past president of the Canadian Society of Surgical Oncology. She has been responsible for developing a provincial CME program in surgical oncology for community surgeons and is the editor of the BC Surgical Oncology Newsletter. Her research interests are in continuing education and quality outcome measures in surgical oncology.

It has been 12 years since the SON was established and with it the original committee structure, which included the CME Committee. At that time, surgeons with advanced degrees in education were few and far between and surgical oncologists with this educational background were even rarer. I was asked by Dr. Noelle Davis, then Head of Surgical Oncology at the BC Cancer Agency, to lead the development of the Network's CME program. The Network mandate is to improve the quality of surgical cancer care provided throughout the province of BC through practice guidelines, outcomes research, communication and physician education.

The rest, as they say, is history. The past decade has been quite a journey. After an initial province wide needs assessment, a CME curriculum in surgical oncology for the provincial surgeons was developed, directed primarily towards community general surgeons. The core of this program has been the Annual Fall Update in Surgical Oncology. In the early years we actually ran more than one event annually, so this year we will hold the 14th SON Update. All courses have been fully accredited by UBC. Since the beginning, course evaluations have consistently been excellent and even with that great start, we have continued to improve over the years.

At our last performance review, 70% of provincial general surgeons had attended at least one CME event and 50% had attended more than one course. Given that not all registered general surgeons are in general surgical practice (sub-specialists and retirees are still listed with the College), this represents very strong "buy-in". At our last event, 65% of attendees reported that they would change their practice as a result of the course. Subsequent population based outcomes research following the rectal cancer courses that were run in 2002 and 2003, showed significant improvement in referrals rates for preoperative radiation and decreases in local recurrence rates.

I have had the privilege of meeting surgeons from all over BC at these events. I believe that this familiarity has closed some of the perceived barriers between academic and community surgery. When the office phone rings with a request for advice now, it is great to know who is calling and understand where they work. We have a fantastic surgical community in BC and regular dialogue will keep it vibrant and up to date.

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In addition to the SON's courses, the CME Committee (called the CPD-KT Committee since 2007 when CME and Communications were amalgamated) is responsible for the production of the SON Newsletter. The newsletter, which is now published twice yearly, is distributed to all surgeons in BC, all hospitals in BC and to the Heads of the Departments of Surgery at all Canadian medical schools. According to our last survey, the Newsletter is read by 80% of BC's general surgeons.

The newsletters have included a range of material, including updates on SON activities, article reviews, topic reviews, reports of clinical guidelines, synopses of the Annual Fall Update, and summaries of important reports from meetings in surgical oncology.

The BC Cancer Agency recognizes the broad readership of the SON Newsletter and uses it as a tool to communicate to the province's surgeons regarding changes in treatment protocols for cancer patients

and to notify surgeons of research and care issues, such as referral criteria and new clinical trials.

The Fall Update presentations and all the newsletters have been posted on the SON website since the foundation of the network. This is a very rich source of educational material in general surgical oncology. This year we have undertaken the task of indexing the contents to allow easier access to this great resource. I encourage you to check out the website and see what is available at <http://www.bccancer.bc.ca/HPI/SON/CME+Content+Index.htm>.

At the end of this year I will be completing my extended term as Chair of the CME/CPD-KT committee. It has been my pleasure to lead the development and establishment of the SON's educational program. I look forward to its ongoing success.

## SON FALL UPDATE 2012 - MALIGNANCIES OF THE LOWER GI TRACT - REVIEW

Dr. Manoj Raval, Chair, SON Colorectal Surgical Tumour Group; Colorectal Surgeon, St. Paul's Hospital

On October 20, 2012, the SON hosted the Annual Fall Update in Vancouver on Malignancies of the Lower GI Tract. There were approximately 80 attendees, primarily general surgeons, but also medical oncologists, radiation oncologists, and trainees. The following is a summary of the day, though readers are strongly encouraged to review the actual slide presentations, which are available on the SON website ([www.bccancer.bc.ca/son](http://www.bccancer.bc.ca/son)).

### SURGICAL TECHNIQUE AND PATHOLOGY

#### Complete Mesocolic Excision

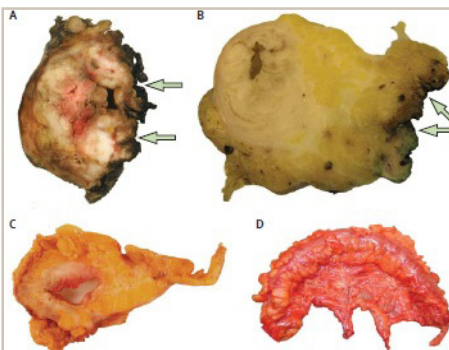
Dr. Paul Johnson (colorectal surgeon, Halifax) reviewed the evidence for complete mesocolic excision (CME) for colon cancer, where the dissection includes the entire regional mesentery of the cancer with an intact peritoneal-lined mesentery, and a related technique, central vascular ligation (CVL). A retrospective review, compared survival based on the extent of dissection classified as: muscularis propria, intramesocolic, and mesocolic planes. Despite equivalent node retrieval (median 14.5), in all stage III patients (curative and palliative), intramesocolic (HR 0.48,  $p=0.013$ ) and mesocolic (HR 0.45,  $p=0.014$ ) dissections conferred a significant survival advantage. When considering only curative resections, mesocolic excision remained significant (HR 0.50,  $p=0.043$ ).

colon cancers, respectively, with very few patients receiving adjuvant chemotherapy. The technique includes division of feeding vessels directly on the SMV/SMA for right-sided tumours, and of the IMV at the inferior border of the pancreas and the IMA at the aorta for left-sided tumours. The authors believe that high ligation confers a survival benefit, though comparisons were only to standard survival data based on stage.

Dr. Johnson concluded that with no prospective comparison studies, there is not enough evidence that CME plus CVL should be standard of care, and that there may be risks to CVL. However, he noted that CME alone is likely very safe and teachable, and therefore deserves consideration.

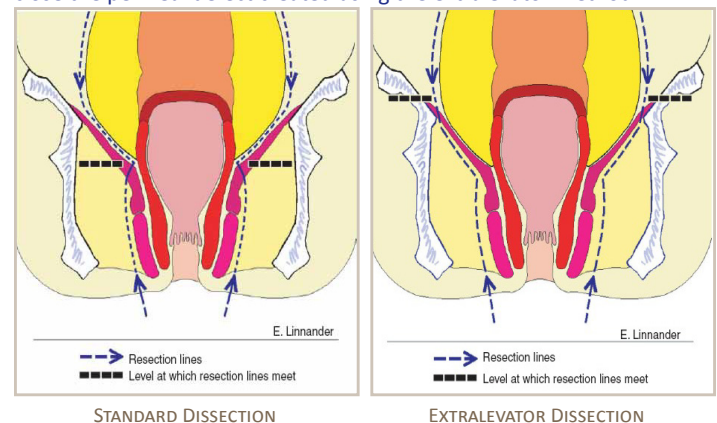
#### Conventional vs. Extralevator Technique for Abdominoperineal Resection

Dr. Terry Phang (colorectal surgeon, Vancouver) discussed conventional versus wide resection of the levator muscles during APR. The extralevator technique is generally performed prone for the perineal dissection to avoid "coning in" on the distal rectum. The intention is to overcome the problem of positive circumferential resection margins (CRM) after APR for distal third rectal cancers, shown to be very high (36% in a BC audit and 30% in the Dutch TME trial), as well as high perforation rates (14% in the Dutch TME trial), both of which have significant negative impact on local recurrence and survival. In a European retrospective study, perforation rate was lower (28.2% vs. 8.2%,  $p<0.025$ ) in the extralevator group, as was CRM positivity (49.6% vs. 20.3%,  $p<0.0001$ ). No definitive large-scale RCT has established which technique is better. Complex perineal reconstruction methods (sometimes requiring plastic surgery expertise) may be necessary to close the perineal defect created using the extralevator method.



#### GRADING OF THE PLANE OF MESCOLIC DISSECTION

(A) MUSCULARIS PROPRIA PLANE (ARROWS SHOW AREAS OF EXPOSED MUSCULARIS PROPRIA). (B) INTRAMESOCOLIC PLANE (ARROWS SHOW DISRUPTION OF THE MESOCOLON BUT THE INCISIONS DO NOT REACH DOWN TO THE MUSCULARIS PROPRIA). (C) MESOCOLIC PLANE (SMOOTH INTACT MESOCOLIC EXCISION). (D) MESOCOLIC PLANE WITH HIGH VASCULAR TIES CLOSE TO THE AORTA. (PHOTO COURTESY OF PROF P.O. NYSTROM, STOCKHOLM, SWEDEN).



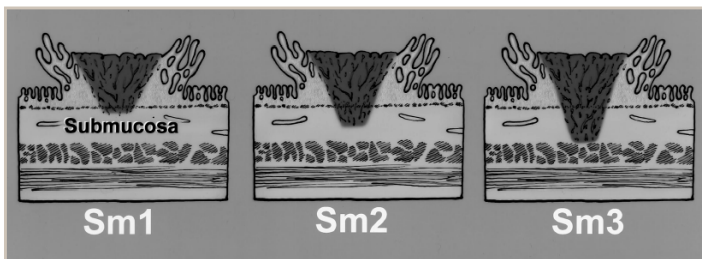
In a single institution retrospective review, where routine, very high, central vascular ligation (CVL) of feeding vessels is performed, 5-year survival was reported at 99.1%, 91.4%, and 70.2% for stage I, II, and III

## Pathologic Evaluation of Malignant Colon and Rectal Polyps

**Dr. Doug Filipenko** (pathologist, Vancouver) gave a synopsis of the salient points in microscopic evaluation of malignant polyp. He emphasized that malignant polyps have a strict definition (invasion into the submucosa), then reviewed Haggitt levels for pedunculated polyps, and Kikuchi levels for malignant sessile polyps. Kikuchi levels (Sm1, Sm2, Sm3) specify whether a T1 cancer in a polyp invades the upper, middle, or lower third of the submucosa, deeper levels potentially predicting higher lymph node metastases. He outlined the key features which a surgeon should expect in the malignant polyp pathology report: degree of differentiation or grade, angiolymphatic invasion, completeness of excision, and distance from margin to carcinoma. He indicated that these features can be difficult to determine with certainty and outlined some of the challenges pathologists face in providing this information.

### Malignant Colon Polyps - Who Needs Surgery?

**Dr. Tony MacLean** (colorectal surgeon, Calgary) discussed the indications for endoscopic polypectomy versus formal resection of a malignant polyp. Criteria for segmental versus extended resection were also discussed. The issues addressed included: the likelihood of residual luminal cancer, risk of positive lymph nodes, the comorbidities and functional outcome of the patient, and the risk tolerance of the patient. If margins are less than 1mm or cannot be assessed, risk of residual luminal cancer can be 10% or higher and further resection is indicated. This is particularly important in piecemeal polypectomy. Various criteria to assess lymph node metastases were discussed. Risk of positive nodes is under 1% in Haggitt's level 1-3 pedunculated polyps, but ranges from 3 to 25% in Haggitt level 4 polyps. Kikuchi or Sm levels may be more helpful, with 0-3% risk of positive nodes in Sm1 lesions and 23-25% in Sm3.

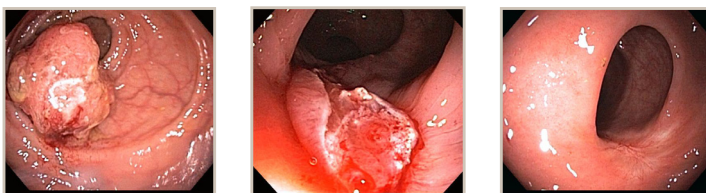


KIKUCHI LEVELS FROM NASCEMBENI R ET AL. DCR 2002

Dr. MacLean summarized indications for formal resection, as follows: positive or unclear margins, lymphovascular invasion, poor differentiation, and Sm3 lesions. Indications for consideration of extended resections (colectomy with ileorectal anastomosis or proctocolectomy with or without pouch reconstruction) include inflammatory bowel disease, proven or likely genetic disorders, synchronous tumours, and serrated or hyperplastic polyposis.

### Transanal Endoscopic Microsurgery for Rectal Neoplasms

**Dr. Carl Brown** (colorectal surgeon, Vancouver) presented the St. Paul's Hospital experience and reviewed the literature for TEM resection for rectal adenomas and adenocarcinomas. This technique utilizes a sealed, insufflating operating videoproctoscope to excise lesions transanally with much more precision and completeness of resection than conventional transanal methods. Lesions can be excised up to 20 cm from the anal verge, and full thickness excision of the rectal wall is



PREOP IMAGE

3 MONTHS POSTOP

1 YEAR LATER

generally performed. Dr. Brown presented evolving evidence where TEM may be appropriate (or even preferred) for early rectal cancers where the risk of lymph node metastasis is low or the operative risk for major resection in patients with significant comorbidity is high. Whereas studies of conventional transanal excision of rectal cancers showed unacceptably high local recurrence and low survival rates, these outcomes are much better with TEM resections, in some cases approaching or equaling outcomes of major resections for select T1 cancers. A few studies also show acceptable results with TEM resection of T2 cancers, though this is not generally recommended.

### Anal Cancers - Multidisciplinary Management

**Dr. Paul Johnson and Dr. Devin Schellenberg** (radiation oncologist, BCCA) then gave complementary presentations on the treatment of anal squamous cell cancer.

Dr. Johnson reviewed risk factors for anal cancer, specifically HPV, AIN, and HIV, and noted that in these patients, careful evaluation and examination should be undertaken for any anal symptoms, including EUA with biopsy if necessary. Patients with anal cancer are generally managed with chemoradiation. Proximal diversion may be needed for patients prior to chemoradiation for large, near-obstructing lesions. Careful surveillance after chemoradiation is critical for at least 3 years, with both physical examination and imaging.

In general, 'salvage surgery' is reserved for persistent or recurrent disease. Patients must be carefully evaluated for distant disease before proceeding with salvage surgery, though in some circumstances palliative salvage surgery may be appropriate. Liberal use of imaging, including PET/CT and MRI, is encouraged. A high level of expertise, including plastic surgery reconstruction, is required for best results. Unfortunately, outcomes of salvage surgery are not as high as would be preferred. Amongst 51 patients in BC undergoing salvage APR, 5-year survival was 29% and 5-year cancer free survival was 25%. However, only 63% of patients had R0 resection, which has been shown to be the greatest single prognostic factor on multivariate analysis.

Dr. Schellenberg then reviewed staging, workup and treatment. He reported that PET scanning is gaining favour in the initial workup, as it may influence the radiotherapy field. PET may identify, for example, more extensive lymphadenopathy than found on conventional imaging. Endorectal ultrasound and nodal biopsy may also play a role in local staging. While most patients appropriately receive standard care (5FU + mitomycin C + 50-60 Gy radiation), there is evolving evidence that reducing the dose of both chemotherapy and radiation will still produce good results, particularly for T1-T2 tumours, where part or most of the tumour has been locally excised prior to chemoradiation. For more advanced tumours, radiation techniques are evolving to spare normal tissues.

### Prophylactic Salpingectomy During Colorectal Surgery

**Dr. Sarah Finlayson** (gynecologic oncologist, Vancouver) discussed the potential value of prophylactic salpingectomy while operating for colon or rectal cancer. 'Ovarian' cancer, whether related to BRCA mutations or sporadic, has actually been found to originate in the fallopian tube. The rationale behind prophylactic resection is that ovarian cancer affects more than 1% of women, is not detected accurately on screening, and usually presents at an advanced stage. An educational initiative targeting BC gynecologists was launched in 2010 promoting salpingectomy during hysterectomy or tubal ligation, with referral of patients found to have high grade cancers for genetic counseling. If adopted, this maneuver has been predicted to reduce ovarian cancer deaths in BC by 40% over 20 years. Dr. Finlayson proposed that because colorectal cancer surgery is within the same body cavity and that prophylactic resection carries minimal risk, salpingectomy in postmenopausal women under 50 years, bilateral salpingo-oophorectomy in women over 50 years, and TAH/BSO in Lynch Syndromes should be promoted.



## UNUSUAL TUMOURS

*Dr. MacLean* returned to the podium along with *Dr. Hagen Kennecke* (medical oncologist, BCCA) to give a joint presentation on unusual GI tumours. **Neuroendocrine tumours (NET)**, specifically appendiceal carcinoid, were discussed first, as the most common tumour of the appendix, generally found incidentally in 1 in 300 appendectomies. Tumours < 1 cm rarely metastasize and require only appendectomy, whereas tumours over 2 cm should undergo right hemicolectomy due to a 30% risk of nodal metastases. In 1-2 cm tumours, *Dr. MacLean* listed several high risk features that should prompt consideration of a right hemicolectomy.

Rectal NET have been reported to be increasing in incidence, now comprising 11% of GI NETs. Nodal metastasis risk increases with size, and in tumours over 2 cm, radical resection is indicated, due to high risk of regional (60%) and distant (25%) metastases. The 1-2 cm size remains controversial. Lymphovascular invasion also seems to be a high risk feature for lymph node and distant metastases.

*Dr. Kennecke* then presented a comprehensive discussion on NET including a discussion of hypersecretory syndromes, which occur in 30% to 50% of tumours, and can guide diagnosis and management. In an effort to address confusing terminology, new definitions of NETs exist, and are defined as foregut, midgut, and hindgut. In contrast to NETs proper, neuroendocrine carcinomas (NEC) are characterized by higher mitotic count and Ki-67 expression. In completely resected NETs, adjuvant therapy is not indicated. A number of conventional and novel therapies exist for advanced NETs. Resectable hepatic metastases are treated surgically with curative intent, while non-resectable liver lesions are treated multimodally with ablation, embolization, and/or radioparticles attached to octreotide. The current indication for somatostatin analogues (octreotide) is for symptom control related to functioning NETs, but despite biochemical response of more than 70%, objective tumour response is under 5%. Chemotherapy plays a minor role in NETs except for those in the pancreas.



APPENDICEAL CARCINOID TUMOUR

**Rectal gastrointestinal stromal tumours (GIST)**, like other GISTs, carry risk of metastases based on size and mitotic index, where tumours over 5 cm or more than 5 mitoses per high power field have a 50% or more chance of metastasis. In general, clearly resectable tumours with acceptable morbidity should have primary surgery, whereas neoadjuvant imatinib should be used for tumours which are resectable but carry significant morbidity. Unresectable tumours receive imatinib.

**GI melanoma** was then discussed. In the small bowel, most are metastatic deposits and have a 5 year survival of less than 10% and median survival of 6 to 9 months. Surgery is only indicated for obstruction or bleeding. Anorectal melanoma is very rare, and has a very poor prognosis. Most reports show no difference between local and radical resection.



METASTATIC MELANOMA TO THE GI TRACT

**Colon and rectal lymphoma**, again rare, should prompt workup to determine if the lesion is primary or metastatic and be referred for adjuvant chemotherapy.

## ADJUVANT THERAPY

### General Surgeon's Guide to Chemotherapy for Colorectal Cancer

*Dr. Kennecke* then presented on the role of chemotherapy in CRC. In general, adjuvant chemotherapy is recommended after curative resection of stage III colon cancer, stage II and III rectal cancer, and stage II colon cancer with high-risk features, and should commence as soon as possible post-surgery. Beyond 3 months after surgery, the benefit is uncertain so **referrals should be made as soon as possible after surgery**, even before final pathology is available in many cases. *Dr. Kennecke* emphasized that many agents are available to treat metastatic disease. Current options include irinotecan, capecitabine, oxaliplatin, cetuximab, bevacizumab, and panitumumab. Median overall survival has increased to 20 months in these patients. Currently, over 70% of patients with metastatic disease receive systemic therapy, up from under 50% in 1995. Several trials are ongoing to determine length of chemotherapy and whether in some circumstances (curative and palliative), chemotherapy should precede surgery.

### General Surgeon's Guide to Radiotherapy for Rectal Cancer

*Dr. Jennifer Goulart* (radiation oncologist, BCCA) reviewed the evidence for short course (SCRT) versus long course chemoradiotherapy (LCCRT), the optimal timing of radiotherapy and surgery, and the role of radiotherapy after local excision of rectal cancer. RCTs evaluating SCRT have consistently shown reduction in local recurrence rate (approximately 50%) but variable effect on survival. Importantly, **total mesorectal excision must be performed and negative circumferential margins attained if the benefit of SCRT is to be realized**. The addition of chemotherapy in long course treatment increases the downstaging effect and increases local control, and in up to 20% of patients can result in complete response. However, in a Cochrane review of four RCTs, LCCRT has not been shown to consistently improve sphincter preservation rates compared to SCRT, and no difference in survival or distant metastases was shown. This review did report increased local control and pathologic complete response over SCRT.

With regards to timing of surgery **after SCRT, the standard regimen is surgery within 10 days of the start of radiation, or 3-5 days after conclusion**.

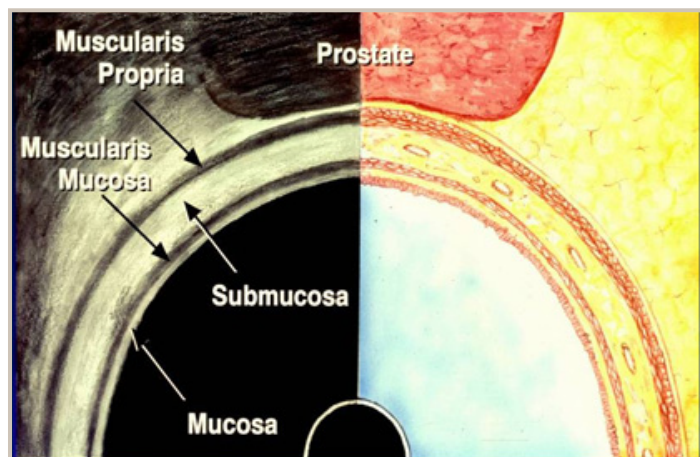
Controversy exists as to whether a greater interval will improve circumferential margin rate and pathologic response by downstaging (and therefore outcomes) versus the potential risk of increased complications. Retrospective studies would suggest that waiting longer may be safe and potentially more effective. For LCCRT, no RCT exists to assess whether waiting for a shorter or longer time than the standard 6 to 8 weeks changes oncologic outcomes or morbidity. Retrospective studies are inconsistent. Finally, the role of RT as adjuvant or neoadjuvant therapy for local excision of early rectal cancer was discussed. No large scale RCTs have been published, though trials are currently ongoing.

## IMAGING CHOICES IN COLORECTAL CANCER

**Dr. Patrick Vos** (radiologist, Vancouver) began by discussing endorectal ultrasound (ERUS) and MRI for local staging of rectal cancer. ERUS is generally better than MRI for assessing T-stage, but requires significant expertise, may not be as widely available as MRI, and may overestimate the height. In addition, the potentially threatened mesorectal fascia cannot easily be assessed with ERUS. Size criteria for positive nodes were reviewed, which differ depending on the nodal basin assessed. Overall accuracy for lymph node assessment is 60-80% and with appropriate expertise, MRI and ERUS are similar.

Dr. Vos then discussed imaging and follow-up of indeterminate lung and liver lesions. For hepatic lesions, complementary imaging (US, MRI) can help in determining significance. For lung lesions, CT has a higher rate of detection of nodules than CXR, but the clinical significance of these is likely to be low. Up to 25% of chest CTs may detect indeterminate lung nodules, but more than 70% are not metastases. A higher index of suspicion in patients with rectal cancer is warranted where the incidence of lung metastases is higher than colon cancer (10-18% vs. 5-6%). **There is poor evidence for the superiority of PET scanning over CT for the detection of metastases in indeterminate pulmonary or hepatic lesions.**

**Dr. Petter Tonseth** (radiology and nuclear medicine, BCCA) then discussed the role of PET/CT scanning in managing colorectal cancer. The “funded” indications for PET/CT in BC were reviewed, namely determination of stage in patients with potentially resectable recurrence of colorectal cancer, including rising CEA level. PET is not recommended in diagnosis or staging of non-metastatic cancer, in routine surveillance after curative surgery, or for measurement of treatment response in patients receiving neoadjuvant chemotherapy. Results from a systematic review showed sensitivity and specificity of 91% in detection of recurrent disease, and sensitivity of 91% and specificity of 76% in detection of metastatic disease.



ENDORECTAL ULTRASOUND

## GENETICS

### General Surgeon's Guide to Colorectal Cancer Genetics

Our keynote lecture was presented by **Dr. Robert Gryfe** (surgical oncologist, Toronto). He began with a discussion of the adenoma to carcinoma sequence and microsatellite instability (MSI) due to impaired DNA mismatch repair (MMR). MSI is clinically important as it is an independent prognostic indicator of improved survival on multivariate analysis, with a hazard ratio of 0.60 (0.53-0.69) compared with microsatellite stable (MSS) lesions on meta analysis. The clinical value of this information lies in tailoring of adjuvant chemotherapy for patients with stage II or III disease. There is significant mounting evidence that MSS, but not MSI, is predictive of improved survival with adjuvant FOLFOX, such that MSI patients likely should not receive 5-FU based chemotherapy.

Next, the novel field of molecular genetics-based therapeutics for palliative therapy was discussed, with agents targeted towards EGFR (cetuximab, panitumumab) and VEGF (bevacizumab). The anti-EGFR agents are targeted toward KRAS (wild-type) and BRAF genes, which are oncogenes downstream of EGFR and occur in 40% and 15% of colorectal cancers. KRAS-wt is predictive of improved survival with these agents, but BRAF is not, and KRAS mutation circumvents anti-EGFR therapy. Finally, bevacizumab, an angiogenesis inhibitor, was found to improve survival (HR 0.66) when added to irinotecan/fluorouracil/leucovorin in patients with stage IV colorectal cancer, but has significant potential complications (GI perforation, hemorrhage).

### Hereditary Cancer Program of British Columbia

**Dr. Linlea Armstrong** (medical geneticist, Vancouver) outlined the role of the HCPBC in colorectal cancer. Their aim is to reduce cancer morbidity and mortality by promoting effective and appropriate use of genetic testing to identify at risk patients. The criteria for Lynch syndrome were reviewed. Dr. Armstrong presented a review of 169 CRC patients under age 50 referred to the BCCA in a one year period, of which 50 fulfilled the HCP referral criteria. Thirty seven had counseling completed, and 25 of these had MSI analysis, of which 48% had MSI. Five patients were found to have the mutation associated with Lynch syndrome. Of the 109 patients who did not fulfill criteria, no mutations were found. For Lynch Syndrome Criteria, please visit <http://www.screeningbc.ca/Hereditary/ForHealthProfessionals/Default.htm>.

## CHALLENGING CASES

A lively, interactive discussion of interesting and challenging cases was then held between panelists and the audience, with moderation and review of the literature related to each by Dr. Rona Cheifetz (surgical oncologist, Vancouver). Panelists included surgeons (Drs. MacLean, Johnson, Gryfe, Phang, Brown), Dr. Kennecke from medical oncology, and Dr. David Voduc from radiation oncology. Please refer to the clinical scenarios and the supporting literature review on the slides on the website. Key “take-home” points from the presentations are highlighted here.

**Case 1: Obstructing T3N0 rectal cancer.** Discussion revolved around acute management options including endoscopic stent, proximal diversion, and resection. Recommendations for surgical management for otherwise stable patients with obstructing colon cancer, in order of preference demonstrated by the literature, were segmental resection with anastomosis, resection with stoma, and proximal diversion, but in very sick patients the order should be reversed. For obstructing rectal cancer, proximal diversion followed by usual multimodality treatment is appropriate. Stent placement requires significant expertise and carries a perforation rate of 5-10%, and should be reserved for patients at high risk with emergency surgery or those who need to be medically optimized.

**Case 2: Asymptomatic stage IV cancer.** The main question addressed was whether surgery or chemotherapy should be initial treatment. The concern is that resection can have high morbidity in this population and can delay or prevent the delivery of systemic therapy, while systemic therapy treats both local and distant disease. In the absence of perforation, Dr. Cheifetz felt that the literature supported initial combination chemotherapy (FOLFOX + bevacizumab) and was safe from both complication and survival perspectives. Unanswered questions included the role of surveillance to avoid emergency resection in patient progressing on treatment (and the role of stenting in this setting) and whether there is a survival advantage to resection of the primary.

**Case 3: Locally advanced right colon cancer.** In this case there was concern for invasion into the abdominal wall, liver, duodenum, and small bowel, but no distant metastases. Discussion points included whether management should be direct to surgery versus preoperative radiation and chemotherapy and the role of PET scan in this setting. While most of the literature addressed locally advanced rectal cancers, Dr. Cheifetz indicated evidence seemed to favour preoperative chemoradiation followed by radical surgery in colon cancer as well. PET scan was felt to be not necessary in the absence of distant metastases on routine staging imaging.

## COMPREHENSIVE CARE

### Enhanced Recovery After Surgery (ERAS): A BC Success Story

**Dr. Ahmer Karimuddin** (colorectal surgeon, Vancouver) reported on the development of the ERAS initiative. Through a multidisciplinary team of nutritionists, nurses, surgeons, anesthesiologists and hospital administrators, goals were early discharge, early feeding, and low readmission rates following colectomy. With a comprehensive program in Victoria involving 234 patients, 81% of patients were discharged by day 5, 70% were tolerating solid food by day 3, and only 12% were readmitted, all dramatic improvements compared to historical controls. Average length of stay also decreased from 9 to 5 days. Dr. Karimuddin outlined key papers in ERAS. Please refer to the journal article **Guidelines for Perioperative Care in Elective Colonic Surgery: Enhanced Recovery After Surgery (ERAS®) Society Recommendations by Gustafsson et al. World Journal of Surgery February 2013, Volume 37, Issue 2, pp 259-284** available at <http://link.springer.com/journal/268>.

### Surveillance After Treatment for Colorectal Cancer

**Dr. Brown** then returned to discuss the importance of close followup of patients treated curatively for CRC to detect treatable recurrence. As survival can be substantial with treatment of hepatic and pulmonary metastases, Dr. Brown presented evidence, including RCTs and meta-analyses, which clearly showed improved survival with intensive followup compared to “minimal” follow-up. Unfortunately, reviews across North America have shown that while colonoscopic follow-up is reasonably performed, less than one-third of patients have hepatic and pulmonary imaging as part of their surveillance. **All care providers are strongly encouraged to ensure their patients adhere to the BC Cancer Agency surveillance recommendations.**

<b>HISTORY &amp; PHYSICAL</b>	EVERY 3 MONTHS FOR 3 YEARS, THEN EVERY 6 MONTHS FOR AN ADDITIONAL 2 YEARS.	META-ANALYSES SUGGEST MORE INTENSE SURVEILLANCE IS BENEFICIAL.
<b>ENDOSCOPY</b>	COLONOSCOPY – PRIOR TO SURGERY OR WITHIN THE FIRST 12 MONTHS POST-OP AND THEN EVERY 3 – 6 YEARS.  <b>PATIENTS WITH GENETIC SYNDROMES SHOULD FOLLOW THE AMERICAN GASTROENTEROLOGICAL ASSOCIATION GUIDELINES.</b>  FLEXIBLE SIGMOIDOSCOPY – SHOULD BE DONE FREQUENTLY IN PATIENTS WITH RECTOSIGMOID TUMOURS WHO HAVE NOT HAD RADIOTHERAPY.	PATIENTS WITH HEREDITARY NON-POLYPOSIS COLON CANCER AND OTHER SYNDROMES BENEFIT FROM MORE STRINGENT SCREENING FOR SECOND PRIMARIES AND OTHER CANCERS.  THE PREVIOUS GUIDELINES SPECIFIED FREQUENCY OF FLEXIBLE SIGMOIDOSCOPY IN ALL PATIENTS WITH RECTAL CANCERS; HOWEVER THIS IS NOT RECOMMENDED IN ALL GUIDELINES AND DOES NOT REFLECT CURRENT PRACTICE.
<b>CEA TUMOUR MARKER</b>	WITH EVERY FOLLOW UP VISIT IN PATIENTS WHO ARE CANDIDATES FOR RESECTION OF SOLITARY METASTASES.	
<b>IMAGING</b>	LIVER IMAGING EVERY 6 MONTHS FOR 3 YEARS THEN ANNUALLY FOR 2 YEARS IN PATIENTS WHO ARE CANDIDATES FOR RESECTION OF SOLITARY METASTASES.  CHEST X-RAY EVERY 6 – 12 MONTHS X 5 YEARS IN PATIENTS WITH RECTAL PRIMARIES.	RECENT TRIALS HAVE FOUND THAT EITHER CT OR ULTRASOUND CAN BE EFFECTIVE IN THE EARLY DETECTION OF RESECTABLE SOLITARY METASTASES.  PATIENTS WITH RECTAL CANCER ARE AT HIGHER RISK OF LUNG METASTASES.

### Function and Quality of Life After Rectal Cancer Surgery

**Dr. Phang** concluded the day with his presentation on the critical topic of functional problems after pelvic surgery. He presented data on complications including low anterior resection syndrome, incontinence, urinary and sexual dysfunction, which can affect up to 50% or more of patients, with contributing factors being radiation and low anastomoses. He emphasized that clear discussion of these complications during the consent process is lacking, and that patient expectations are over-optimistic compared to reality. He emphasized the **need for better patient counseling and education.**



## WHAT'S ON THE BCCA WEBSITE?

*Dr. Rona Cheifetz, Chair, SON Continuing Professional Development & Knowledge Transfer Committee*

As a busy surgeon, few of us have the time to peruse the content of the BCCA Website, so here is a summary of some of the very useful information available to you and your patients:

### Complementary and Alternative Therapies

[www.bccancer.bc.ca/PPI/UnconventionalTherapies/default.htm](http://www.bccancer.bc.ca/PPI/UnconventionalTherapies/default.htm)

- » Patients often ask about the safety and efficacy of these therapies. It is really helpful to have a resource that you can direct them too that provides evidence-based commentary. This includes a link to the Natural Standard Database which is an international research collaboration that gathers evidence about complementary and alternative medicine therapies using scientific data and expert opinion. As well there are other links to recommended websites on the topic.

### Coping with Cancer

[www.bccancer.bc.ca/PPI/copingwithcancer/default.htm](http://www.bccancer.bc.ca/PPI/copingwithcancer/default.htm)

- » Surgical patients are disadvantaged in that they aren't linked to the support services and advice at the time of diagnosis that are available to patients who are first seen by medical or radiation oncologists. This link provides access to resources and information regarding emotional support, nutrition advice, symptom management, practical support (finances, etc). As well, there are links to many patient information pamphlets produced by the BCCA that are available online.

### Pamphlets and Handouts

[www.bccancer.bc.ca/PPI/copingwithcancer/pamphlets/default.htm](http://www.bccancer.bc.ca/PPI/copingwithcancer/pamphlets/default.htm)

- » There is a large selection of pdf handouts at this site. Some are tumour specific while others are more general. Examples of particularly useful resources include:
  - » Information about breast prosthesis, bras, and lymphedema supplies
  - » Suggestions for dealing with constipation
  - » Nutrition Guide for Women with Breast Cancer

### Cancer Management Guidelines

[www.bccancer.bc.ca/PPI/copingwithcancer/pamphlets/default.htm](http://www.bccancer.bc.ca/PPI/copingwithcancer/pamphlets/default.htm)

- » For the surgeon, these tumour site specific guidelines are particularly useful regarding the recommended extent of work-up for metastatic disease for different malignancies as well as the follow-up recommendations for visit frequency and investigations. Specific surgical recommendations regarding the extent of surgery are included for most sites.

## MANAGEMENT OF SECONDARY LYMPHEDEMA RELATED TO BREAST CANCER

*Dr. Rona Cheifetz, Chair, SON Continuing Professional Development & Knowledge Transfer Committee*

With apologies for the bias of reviewing an article written by an author with the same last name as mine, this is a very comprehensive review article on the management of secondary lymphedema in breast cancer. The authors reviewed the evidence based on a literature search of primary research and systematic reviews conducted over 5 years from 2005- 2009.

The article summarizes the evidence for complex decongestive therapy, CDT, (which includes manual lymphatic drainage, compression, remedial arm and shoulder exercises and deep breathing exercises, as well as the evidence for exercise). Not surprisingly, they found considerable variability in the quality of the literature, but that it did demonstrate a benefit to CDT in the management of lymphedema. The quality of the evidence in the literature on exercise was better than for CDT and

Reference: Cheifetz O, Haley L., *Breast Cancer Action*. *Canadian Family Physician* 2010 Dec 56: 1277-1284  
<http://www.cfp.ca/content/56/12/1277.short>

demonstrated the safety of exercise and its overall benefits for range of motion and quality of life without worsening lymphedema.

The paper includes a nice summary table on patient education topics that we are all asked about. They include the evidence (or lack thereof) to support recommendations related to blood pressure measurements on the affected side, trauma to the arm, sauna and hot tub use, etc. In addition, there is a list of links for Canadian lymphedema related resources.

Readers will find this a useful resource when faced with the challenges of counseling and managing patients with breast cancer related lymphedema.

## CANCER SURVIVORSHIP NURSE PRACTITIONER ACCEPTING NEW PATIENTS

*Lisa McCune MA, Program Facilitator, Provincial Survivorship Program, BC Cancer Agency*

Surgeons are often faced with emergency presentations of malignancy in patients who do not have primary care providers. Post-operatively, these patients require ongoing care, follow-up and support and often have difficulty accessing primary care services.

The BC Cancer Agency, in partnership with the Vancouver-based UBC Family Practice Clinic has launched a new program to provide ongoing care for "unattached" cancer survivors – people who have been treated for cancer but have no primary care provider.

The Survivorship Nurse Practitioner (NP) ensures patients are monitored for recurrence

and new cancers, ensures that post treatment side-effects are managed and provides primary care for all other conditions and health care needs as any other primary care provider.

The Survivorship NP has completed the BC Cancer Agency's 'General Practitioner in Oncology' (GPO) training program and has spent a number of hours in cancer treatment and follow-up clinics. Nurse Practitioners are licensed to diagnose and treat acute and chronic illnesses and can order diagnostic tests, prescribe medications, refer to specialist care and monitor patients over the long term.

The Vancouver-based Survivorship Nurse

Practitioner is accepting referrals. Patients must have had a previous cancer diagnosis, have an MSP number and live in any of the following areas: Vancouver, Burnaby, Richmond, Surrey, Delta/Ladner, White Rock, North Vancouver, West Vancouver, Coquitlam, Port Moody and Port Coquitlam. Individuals who meet these criteria and are seeking a primary care provider can call 604-829-2570.

For more information contact the BCCA Provincial Survivorship Program at [survivorship@bccancer.bc.ca](mailto:survivorship@bccancer.bc.ca)



# SURGICAL ONCOLOGY NETWORK NEWS

## SON RESIDENT TRAVEL AWARD for BC Surgery Residents/Fellows and Medical Students

This is a competitive award intended to motivate physicians and medical students early in their training, to pursue an interest in surgical oncology and to allow them to present research findings at conferences. Approved applications may be funded up to a maximum of \$1000. Forms and guidelines are available online at [www.bccancer.bc.ca/son](http://www.bccancer.bc.ca/son).

### 2013 RECIPIENTS:

- **Dr. Sarah Moore**, *Papillary Thyroid Cancer: Epidemiology and clinical implications of bilateral disease.*  
North Pacific Surgical Association 100th Annual Meeting, November 8-9, 2013, Victoria
- **Dr. Leah Jutzi**, *The Importance of Adjuvant Chemotherapy and Pelvic Radiotherapy in High-Risk Early Stage Endometrial Carcinoma.*  
Gynecologic Oncology of Canada 34th Annual Meeting, June 14-15, 2013, Calgary

## SON/UBC SUMMER STUDENT RESEARCH PROGRAM

The SON/UBC Summer Student Research Program provides undergraduate students with an opportunity to explore their interest in medical research by undertaking a project over the summer under the supervision of a principal investigator with an appointment in the Faculty of Medicine. For more information and to apply please visit [http://med.ubc.ca/research/md\\_undergrad/funding/summer-student-research-program](http://med.ubc.ca/research/md_undergrad/funding/summer-student-research-program)

### 2013 RECIPIENT:

- **Dr. Anees Bahji**, Department of Orthopaedics, UBC. **Supervisor: Dr. Paul Clarkson**  
**Project Title:** *Identification of independent risk factors for allogeneic blood transfusions in patients undergoing resection of a large bone of soft tissue sarcoma.*

### SURGICAL ONCOLOGY NETWORK NEWSLETTER

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VISIT THE SURGICAL ONCOLOGY WEBSITE  
[www.bccancer.bc.ca/son](http://www.bccancer.bc.ca/son)

The BC Surgical Oncology Network exists to promote and advance quality cancer surgery throughout the province, enable the integration of quality surgical oncology services into the formal cancer care system, and ensure that patients have the best possible outcomes through consistent access to high quality multidisciplinary care. To enhance appropriate, equitable and timely access to surgical services for cancer patients as close to home as possible, the Network supports communication and sharing of knowledge between subspecialty and community surgeons, their respective hospitals and the BC Cancer Agency.

The Council Executive oversees the implementation of the Network's mandate and is comprised of surgeons and senior health administrators representing all the health regions across the province. The three committees - Clinical Practice, Continuing Professional Development & Knowledge Transfer and Research & Outcomes Evaluation-assist with the planning, implementation and promotion of the Network's goals and priorities. The thirteen Surgical Tumour Groups advise on the issues and challenges in the surgical management of patients within each tumour site to improve the surgical management of cancer patients.

## THANK YOU

Dr. Rona Cheifetz was honoured at the Fall Update held on November 2, 2013, in recognition of her outstanding commitment and contribution to the continuing professional development of surgeons in BC. After 12 years as the educational consultant for the SON, Dr. Rona Cheifetz will step down as Chair of the CPD-KT Committee effective December 31, 2013. Dr. Cheifetz has been instrumental to the functioning and growth of the Network. Under her direction, BC was the first province to establish a provincial, centralized, community integrated surgical oncology education program. The SON Annual Fall Update and Newsletter have been integral to the ongoing education of surgeons across the province. During her tenure, there have been 17 educational events (including 14 accredited Updates) and 24 issues of the SON Newsletter. Dr. Cheifetz will remain a very active surgeon in the BCCA Surgical Oncology Program and at VGH, and will continue her involvement with the SON as a member of several Surgical Tumour Groups. The SON extends its gratitude and appreciation to Dr. Cheifetz for her dedication and service.



DR. CHRIS BALISKI, CHAIR, SON AND  
DR. RONA CHEIFETZ, CHAIR, CPD-KT

## UPCOMING CONFERENCES

Best of Oncology 2014 West Conference, Vancouver, BC, Four Seasons Hotel  
Feb 28, 2014 - [www.oncologyeducation.com](http://www.oncologyeducation.com)

SSO Annual Cancer Symposium, Phoenix, AZ, Phoenix Convention Center  
March 12-15, 2014 - [www.surgonc.org](http://www.surgonc.org)

Canadian General Surgery Review, Toronto, ON, Sheraton Toronto Airport Hotel  
March 28-30, 2014 - [www.generalsurgeryreview.ca](http://www.generalsurgeryreview.ca)

Toronto Breast Surgery Symposium & Aesthetic Plastic, Surgery Symposium, Toronto, ON  
April 3-5, 2014 - [www.torontoaestheticmeeting.ca](http://www.torontoaestheticmeeting.ca)

American Association For Cancer Research Annual Meeting (AACR 2014), San Diego, CA  
April 5-9, 2014 - [www.aacr.org](http://www.aacr.org)

American Society of Breast Surgeons 15th, Annual Meeting, Las Vegas, NV, Bellagio Hotel  
April 30 - May 5, 2014 - [www.breastsurgeons.org](http://www.breastsurgeons.org)

BC Surgical Society Meeting, Victoria, BC, Westin Bear Mountain Resort  
May 8-10, 2014 - [www.bcscs.ca](http://www.bcscs.ca)