CANADIAN PARTNERSHIP AGAINST CANCER | PARTENARIAT CANADIEN CONTRE LE CANCER

Recommendations from CPAC National Staging Advisory Committee

Background

In March 2009 CPAC formed a National Staging Advisory Committee to assist with its mandate of a National Cancer Staging Initiative to capture population based collaborative stage information for the four major cancers; breast, prostate, colorectal and lung for cases diagnosed from 2010 onwards. The Advisory committee was set up particularly to:

- Identify opportunities to strengthen the capture of staging information across Canada by coordinating activities with related national and provincial organizations;
- Provide advice regarding the transition for the development and implementation of new standards related to cancer staging;
- Advise on linkages with national and international groups that share a mandate in cancer staging such as the International Union Against Cancer (UICC), American Joint Committee on Cancer (AJCC), North American Association of Central Cancer Registries, (NAACCR) and College of American Pathologists (CAP);
- Foster the awareness, education, collection and use of high quality staging data in Canada.

There are other initiatives within CPAC such as the National Pathology Standards Advisory Committee that are instrumental for the success of the collection of collaborative staging information. Liaising among these groups occurs on a regular basis.

The National Staging Advisory Group includes representatives of Radiation, Medical and Surgical Oncology, Cancer Registry Operations, Epidemiology, Pathology, Information Technology and Statistics Canada.

The National Staging Advisory Committee set up a working group in June 2009 to begin to review all the material relating to Collaborative Stage version 2 (CSv2) that was being provided through the AJCC and the other standards setters in the United States. The members of the working group:

Dr. Jim Brierley, Chair, National Staging Advisory Committee Princess Margaret Hospital, Toronto
Ms. Kim Boyuk, Statistics Canada
Ms. Iris Chilton, Alberta Cancer Board
Ms. Darlene Dale, Staging Advisory Coordinator, National Staging Advisory Committee, Princess Margaret Hospital, Toronto
Ms. Elaine Hamlyn, Project Manager, National Staging Secretariat, CPAC
Ms. Karen Starratt, Nova Scotia Cancer Registry

Ms. Susan Belanger, Innovations Manager, Canadian Cancer Registry, Statistics Canada participated in the face to face meeting.

The working group was asked to develop recommendations that would be presented to the Canadian Council of Cancer Registries relating to; 1) Timelines for implementation of CSv2 for Canada, 2) The

collection of a Collaborative Stage version 2 minimum data set with a focus on Site Specific Factors, and 3) The training needs for a) regions with CS experience, and b) regions with no CS experience.

A face to face meeting was held in Ottawa on August 20-21, 2009 to develop the recommendations.

A. Recommendation for Implementation of CSv2:

The 2010 Canadian Cancer Registry (CCR) Call for Data by Statistics Canada (March 2012 will require Provinces and Territories to submit stage data CSv2 compliant. The 2009 Call for Data (March 2011) will accept data in either CSv1 or CSv2 format, however registries should not change systems mid year.

Data on patients diagnosed since 2004 and collected in CSv1 will be converted to CSv2 when provincial/territorial registries start using CSV2. If diagnosed on or after Jan 1st 2010 data cannot be converted from CSv1 to CSv2 without significant loss of data.

Statistics Canada will no longer accept TNM as of 2010 data. This recommendation has also been put forward by the Data Quality Management Committee.

Prior to implementing CSv2 registries should save data collected in CSv1 as a reference to the original data collected and for submission in CSv1. This will also provide a backup should there be any problems with the conversion. For 2008 cases due for submission in March 2010, CCR will require submission in CSv1.For 2009 submission due March 2011, CCR requests data in CSv1, but for registries that have already converted to CSv2, CCR will accept data in CSv1 or CSv2.

Although it is intended that CSv2 will be available for implementation by Dec 31st 2009 there are still concerns that all the necessary material will not be available on time. If there is a delay, provinces that collect data in 'real time' may be unable to implement CSv2 in time to collect data for patients diagnosed in January 2010. Therefore registries will need to wait for the material or wait until 2011 as Statistics Canada does not want individual provinces to submit 2010 data in both version 1 and version 2, one or the other should be used.

For provinces that are collecting data in 2011 on patients diagnosed in 2010 this should not be a problem. If there is a delay in implementation for regions who collect in 'real time' they can either collect on CSv1 for the whole of 2010 with the intent of going back and doing some recoding for the new site specific factors or hold off data collection for 2010 patients until CSv2 is available. An option that has been recommended for US registries is to collect the data on paper. This is not recommended for Canadian registries and if the delay in implementation is significant it is recommended that they should collect 2010 data in CSv1.

If the registry identifies missed cases diagnosed prior to 2010, the CSv2 algorithm will require the elements of CSv2 but produce a derived TNM 6th edition.

Once the conversion from CSv1 to CSv2 is completed in each registry, all data will be converted and updates will be sent to Statistics Canada. Registries need to inform Statistics Canada before they convert to CSv2 so that Statistics Canada is in a position to accept the converted data.

As each registry has different procedures and timelines, once the complete CSv2 programs are available, each registry will need to work with Statistics Canada to ensure that their process for implementation will work with the timing of CCR submissions.

B. Recommendations for Collection of CSv2 Site Specific Factors:

The working group reviewed the site specific factors (SSF) for the four main tumour sites; breast, colo-rectal, lung and prostate. The SSF have been divided into 4 classes,

Code	Description
I	Essential for TNM calculation
II	Essential for Clinical Decision Making, not required for TNM calculation
III	Collected in CSv1 and not in I or II *
IVa	Collect if available in CAP Checklist
IVb	Collect if readily available in clinical chart

*Registries who collected in CSv1 can continue collecting.

For registries just starting should only collect if available in CAP Checklist or if readily available in clinical chart

However, these recommendations are dependant on both the final SSF for CSv2 and the final College of American Pathologists checklist.

Registries that have been collecting the SSF in version 1 are encouraged to continue collecting these same SSF in addition to those recommended for version 2 if they are deemed useful.

Below are the recommendations for the breast, colorectal, lung and prostate site specific factors to collect for the major sites (as of April 2011):

Colon & Rectum

Site Specific Factor	Class
CEA	III
Clinical Assessment of Regional Lymph Nodes	I
CEA Lab Value	IVb
Tumour Deposits (#)	IVa
Tumour Regression Grade	IVa
Circumferential Resection Margin (CRM) for rectum	II
Circumferential Resection Margin (CRM) for colon	IVa
Microsatellite Instability	IVa
Perineural Invasion (present/absent)	IVa
KRAS (abnormal/normal)	IVa
18q Loss of Heterozygosity (LOH) (present/absent)	IVa

Lung

Site Specific Factor	Class
Separate Tumour Nodule-Ipsilateral Lung	I
Visceral Pleural Invasion (PL)/Elastic Layer (Based on H&E and elastic stains)	IVa

Prostate

Site Specific Factor	Class
PSA Lab Value	I
PSA (Normal, Abnormal) Interpretation	II
CS Extension Pathologic Extension	I
Prostate Apex Involvement	IVa
Gleason's Primary & Secondary Pattern Values on Needle Core Biopsy/Transurethral Resection of Prostate (TURP)	III
Gleason's Score on Needle Core Biopsy/Transurethral Resection of Prostate (TURP)	I
Gleason's Primary & Secondary Patterns in Prostatectomy/Autopsy	III
Gleason's Score on Prostatectomy/Autopsy	I
Gleason's Tertiary Pattern on Prostatectomy/Autopsy	IVa
Number of Cores Positive	IVa
Number of Cores Examined	IVa
Needle Core Biopsy Findings	IVa
Clinical Staging Procedures Performed	IVb

Breast

Site Specific Factor	Class
Estrogen Receptor Assay	II
Progesterone Receptor Assay	II
# of Positive Ipsilateral Level I-II Axillary Lymph Nodes	I
Immunohistochemistry (IHC) Regional Nodes	I
Molecular (MOL) Studies Regional Lymph Nodes	I
Size of tumour Invasive Component	III
Nottingham or Bloom-Richardson (BR) Score/Grade	II
Her2 IHC Lab Value	II
Her2 IHC test-Interpretation	II
Her2 FISH Lab Value	II
Her2 FISH test Interpretation	II
Her2 CISH Lab Value	II
Her2 CISH test-Interpretation	II
Her2 Result of Other or Unknown Test	II
Her2 Summary Result of Testing	II
Combinations of ER, PR, Her2 Results	II
Circulating Tumour Cells (CTC) & Method of Detection	IVa
Disseminated Tumour Cells (DTC), bone marrow, micrometastastes) & Method of Detection	IVa
Assessment of Positive Ipsilateral Axillary Lymph Nodes	IVb
Assessment of Distant Metastases	IVb
Response to Neoadjuvant Therapy	IVa
Multi-gene Signature Method	IVa
Multi-gene Signature Results	IVa
Paget's Disease	IVa

The AJCC are working to develop SSF recommendations. Their draft information was reviewed by the working group. The AJCC has 5 classes:

Code	Description
	Collected for CSv1
S	Required for TNM, this is the same as our class I
C	Recommended to be required, this is similar to our class II but not the same and needs to be reviewed to ensure its necessary and the feasibility of collecting; some may be III and IV.
P	Pending review
HV	High Value Research

P and HV are not equivalent to III and IV but P and HV could be combined and converted to III and IV depending on the finalized CAP checklist.

Registries should collect at a minimum those SSF classified as I and II. At the national level the CCR will accept all SSF. As an example, for prostate cases the recommendation is to collect 5 SSF however, the CCR will allow for the collection of all 11 SSF for prostate.

When the AJCC has finalized the list of SSF and the CAP checklists are available the working group will review the list of SSF for all sites taking into consideration expert opinion and SSF identified by Louise Zitzelsberger and essential for treatment decisions.

In addition, recently a survey has been circulated through NAACCR to be completed by both Canadian and US registries by mid-September. The results from the Canadian registries will be reviewed by the working group and may require some modifications to the recommended SSF.

Given that Statistics Canada will collect CSv1 and CSv2 for patients diagnosed in 2010, the list does not need to be finalized until Dec 2009. Even then the list can be revised and added to as further information or research becomes available.

Some registries are capturing collaborative stage for other cancers in addition to the major four sites. When the AJCC has finalized the list of SSF and the CAP checklists are available the working group will reconvene to review the list of SSF for all sites taking into consideration expert opinion from the CPAC Treatment Guidelines Group.

In summary, the general rule should be, 'If it's not in the chart (electronic or paper), don't go and get it.

In addition to the SSF, registries are required to collect lymphovascular invasion (LVI) for cases as of 2010, specifically for penis and testis as it effects the T category.

C. Recommendations for Training of Collaborative Stage:

Based on feedback from the National Stage Trainers and the coding staff in the regions the Collaborative Stage version one training model has proven to be very successful. The knowledge translation, transfer and uptake for those regions collecting collaborative stage have been deemed a success.

The Canadian National Trainers attended the Train the Trainer session held in Chicago in July 2009. They were consulted for the development of the training recommendations.

As the collection of Collaborative Stage expands across the country, therefore it is recommended that a staging trainer from New Brunswick and Quebec with collaborative stage experience, be invited to join the National Stage Trainer team. British Columbia is not yet collecting CS; therefore a potential provincial trainer should attend CSv2 training mentoring under more experienced Health Information Professionals. The BC trainer would attend and present at the CSv2 introductory sessions under the guidance of a mentor to develop their skills with a plan to evolve into a staging expert. National staging experts would reduce the need for travel and build the expertise with the regions. The trainers would work together to ensure consistency across the country rather than bringing all coders together.

Below are the details of the process required to develop training materials for CSv2 for experienced and novice abstractors. Section 1 must be completed before 2 and 3. Subsections are in priority order.

1. Face to face meetings for the ***6 existing National Stage Trainers*** (and possibly New Brunswick and Quebec) in order to prepare material for those with no experience and with experience.
    a. Update material for 4 main (breast, colo-rectal, lung, prostate) sites and prepare training for part 1 of the CS v2 manual. Adapt available material when possible. This will take 5 days. To facilitate the process the trainers could be split into two groups so that the training material for each site could be developed by 3 trainers.

b. Update all other existing materials for the sites that coders have been trained on to CSv2 eg. Digestive, Urinary.
c. CSv1 that have not been presented for training, to convert to CSv2 Eg. Eye, bone, gallbladder.

The end result of this would be material to train those with no CS experience and material to train experienced CS coders for CSv2.

2. Need for Face to Face training sessions ***Nationally for existing CS coders*** to teach CSv2: although this could be done on a regional basis it was found that national as opposed to regional training was more effective for CSv1.

a. Review of Part 1 of CS manual, Schemas for Breast, Colorectal, Lung and Prostate (Urology schemas). This will require 3 days.
b. Head & Neck, Skin/Merkel Cell/Melanoma, Liver/Bile Duct. Time required, to be determined.
c. Lymphoma/Hematopoietic, GIST/Neuroendocrine, Gynecology. Time required, to be determined.
d. Schemas not trained in CSv1. Time required, to be determined

3. Need for Face to Face training session in ***each of the 2 official languages for the new provinces with no experience in CS or new coders from other provinces.***

a. Presentation of Part 1 of CS manual, Schemas for Breast, Colorectal, Lung and Prostate (Urology schemas). This will require 3 days per cancer site.
b. Head & Neck, Skin/Merkel Cell/Melanoma, Liver/Bile Duct, Time required, to be determined.
c. Lymphoma/Hematopoietic, GIST/Neuroendocrine, Gynecology. Time required, to be determined.

To accomplish this training plan, the National Stage Trainers need to:

- Meet in October to update training materials to CSv2 to begin providing the training (2a) in December 2009.
- Complete the training program for the 4 main sites by January 31st, 2010, for point 2a, to position regions ready to process their 2010 cases early in the New Year (pending software availability).
- Deliver a CSv2 introductory course in September 2010 (3a). Based on information from those provinces it was determine that they will not start processing their 2010 cases until January 2011. Therefore the training should consider their timelines and deliver in the Fall of 2010.

In addition to the training for Collaborative Stage, the National Staging Advisory Committee has been contacting the major Medical Associations in Canada to gain permission to send notifications to their members on the release of TNM 7th edition. Once all the final details are available, an email notification will be prepared and circulated. Details will also be posted on the CPAC web site.

Through the National Staging Advisory Committee these recommendations will be reviewed on an annual basis or as required.