REGISTRAR PIP

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Coding Tips for Extent of Disease (EOD) and Summary Stage
First Installment: Breast, Colorectal and Lung Sites

Cancer Control vs Clinical Staging Needs:

Cancer staging is critical to not only patient care activities but to cancer research and population-based cancer control activities. For physicians involved in the care of patients, establishing the stage at diagnosis is necessary to assess an individual patient's prognosis. When evaluating treatment options or considering whether to enroll a patient into a clinical trial, the stage of the cancer must be determined before proceeding. As registrars, we often quickly relate to these uses of staging information.

We also need to keep in mind the knowledge of both the incidence of cancer and accurate staging are equally important in cancer control activities in order to evaluate this disease in a population. This type of information provides a way to assess the cancer burden and facilitate the development of cancer screening and treatment programs. A primary goal of cancer control activities is to reduce the incidence of cancer in the population which results in:

- **Risk reduction.**
- **Early detection.**
- **Improved treatment outcomes.**
- **Improved survivorship.**

Cancer control programs are different for populations with primarily early stage disease versus those with patients who present with primarily end stage disease. For example, if a population consists primarily of patients with early stage disease, the need for diagnostic and treatment services tends to be greater while populations with patients presenting with metastatic disease tend to invest more in services related to palliative and supportive care.

Consistently interpreting medical record documentation and coding guidelines, accurately coding the stage-related fields, and maintaining the stability of stage definitions over time are important given the described uses for staging information. Currently, we have three staging schemes (i.e., TMN, EOD, Summary Stage) because it has proven challenging for the standard setters to develop a stable, single staging scheme that is optimal for both cancer surveillance and clinical use. The reason? There is an inevitable conflict between a staging system being used clinically to reflect and support the most current treatments and investigations while maintaining the stability necessary for cancer control efforts.

Historically, we've seen as we learn more about each cancer disease process and observe the impact of new treatments developed, the TNM staging scheme, which is focused on clinical relevance, has been changed more often. On the other hand, SEER Summary Stage is a combination of clinical and pathologic documentation of the extent of disease with staging categories broad and stable enough to be used in data population surveillance efforts. SEER EOD provides stability in classifying tumors over time, which is needed for epidemiologic studies. Epidemiologists and researchers, typically use Summary Stage and EOD whereas clinicians rely upon TNM.

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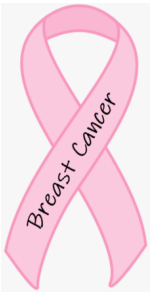
As registrars, we are called upon to meet the data needs of all three groups of users. This article will address the issues observed with EOD and Summary Stage coding. After nearly two years of coding EOD, it's time to provide feedback on the coding issues we've identified to help us improve our accuracy in the future. Hopefully, we will be able to recognize whether we inadvertently make any of these coding mistakes and the tips in the article should help us learn how to consistently apply the existing coding rules and guidelines.

Coding Issues and Improvement Tips

General Guideline: The EOD and Summary Stage combines clinical and pathologic findings and may consider pathologic findings after neoadjuvant treatment, provided there has not been disease progression.

Breast

✦ EOD Primary Tumor



- Coding involvement of the ***dermal stroma of the nipple*** has proven problematic for us. Some opted to code this extension using 100 (Confined to breast tissue and fat including nipple and/or areolar; Localized, NOS) or over-code it as 400 (Extensive skin involvement). The expression "dermal stroma of the nipple involvement" means there is involvement of not only the nipple, but the skin of the nipple, which is coded to 200 (Skin infiltration of primary breast including skin of nipple and/or areola) even when the patient does not have skin involvement in other parts of the breast.

✦ EOD Regional Lymph Nodes

- If the ***size of the metastasis*** in the lymph node is described as 0.05 cm, is that equivalent to 5.0 mm or 0.5 mm? Depending on how we answer this question for cases in which there is only a pathological assessment of the axillary lymph nodes, we code a different value for this field. The correct answer is 0.5 mm. We have observed errors related to this issue likely associated with either a) ***missing millimeters rather than centimeters*** were recorded in the pathology report to describe the size of the largest metastasis in the lymph node(s) OR b) we ***incorrectly converted*** the size of the metastasis from centimeters to millimeters.

- Oftentimes we overlook correctly capturing ***micrometastasis***. We've observed the use of a subset of codes that begin with the description "PATHOLOGICAL assessment only" (codes 200 to 300) or code 800 (Regional lymph nodes, NOS) not recognizing when code 100 (Micrometastasis, less than or equal to 2 mm) applies. When axillary level I and II nodes are involved, we need to pay attention to the size of the largest metastasis observed. When the size is less than or equal to 2 mm, or the pathologist indicates "micrometastasis, NOS" use code 100.

✦ Summary Stage 2018

- Oddly enough, the status of whether the axillary lymph nodes are involved or how they are involved causes a problem with not only the EOD Regional Lymph Node field but also when coding Summary Stage. ***Micrometastatic lymph node*** involvement is considered regional lymph node involvement and should be reflected in the Summary Stage code selected. However, the presence of only ***Isolated Tumor Cells (ITCs)*** in a regional node is not considered regional node involvement per SEER when coding Summary Stage and EOD Regional Nodes.

- Incorrectly capturing involvement of the ***dermal stroma of the nipple*** is another example of an issue that involves two fields: EOD Primary Tumor and Summary Stage. If we incorrectly code it for one field, we likely didn't correctly code it for the other field either. As previously stated, invasion of the skin (including the nipple skin) is considered regional by direct extension involvement for a breast tumor and needs to be captured in both fields and oftentimes these tumors were incorrectly coded as localized instead.

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Colorectal

✦ EOD Primary Tumor

- The most common error in coding the extension for colorectal primaries is forgetting to ***check the gross description*** of the pathology report for the type of tumor involvement when the synoptic report indicates "pericolonic/pericolorectal tissue." Keep in mind that all pathologic findings may be used to code the EOD Primary Tumor field; it is not limited to the description of the tumor in final diagnosis. The gross description may be used to code EOD.

  Incorrectly limiting our coding to reflect what is stated in either the final diagnosis or the definition of the applicable T category listed in the synoptic report can result in coding errors. For example, while some T categories for this site, such as T3, represent one T category for AJCC staging, it can be either localized or regional direct extension for the purposes of coding EOD and Summary Stage. When the pathologist only provides the definition or a general description of a T3 tumor in the final diagnosis or synoptic report, we need to check the gross description for mention/no mention of overlying serosa/peritoneum to accurately code this field because information needed to make the necessary distinction between the appropriate code is only available in the gross description of the report.

✦ EOD Regional Lymph Nodes

- As Note 2 states, for Colon and Rectum ONLY, any unnamed nodes removed with a colon or rectal resection are ***presumed to be regional pericolic or perirectal lymph nodes*** and are included in EOD Regional Nodes code 300 (pericoloic for sites C180-C189 and perirectal for sites C199 or C209. Code 800 (Regional lymph node(s), NOS) is rarely used for these sites anymore.

✦ EOD Mets

- ***Distant lymph node chain(s)*** are coded in this field. Don't assume all positive lymph nodes described are regional.

- ***Count the number of involved distant sites/lymph node chains*** and avoid the temptation of jumping to code 70 for any distant metastasis observed. For colorectal cases, the number of involved distant sites and lymph nodes is important to determine in order to assign the more specific, lower EOD Mets code. Different codes are used to capture these distinctions in this field.

✦ Summary Stage 2018

- Not all involved lymph nodes for colorectal cases are regional. The most common error is coding a regional Summary Stage value when a distant lymph node change is considered involved with metastasis. The presence of ***distant lymph node metastases is always coded as distant stage*** disease, regardless of the tumor involvement or whether regional lymph nodes were involved.

Lung

✦ EOD Primary Tumor

- We over code stage for many lung cases as regional because we do not recognize that code 300 (Any size tumor; Confined to Lung, NOS; Localized, NOS) applies. We often trip over the modifying words describing extension. There is "good" and "bad" ***ambiguous terminology*** for tumor extension. For example, a tumor that "abuts" a nearby structure in the lung, such as the pleura, is not considered involvement of the pleura because abut(s) is not considered a word that implies involvement.

- This field is particularly challenging to code for lung cases, especially when there is a description of a ***malignant hilar mass***. We seem to struggle and inadvertently assume a hilar mass described on a scan or clinically by the physician is referring to

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metastasis to hilar lymph nodes rather than recognizing this can be used to identify a primary that originated in the hilar region of the lung. Perhaps reminding ourselves of the anatomy of this region would help.

Each lung has an apex (the top), a base (the bottom), a root, and a hilum. The hilum is a wedge-shaped depression lying on the medial aspect and roughly midway down each lung, and slightly towards the vertebrae. The major bronchi, pulmonary arteries, pulmonary veins, and nerves are the structures which enter and exit the lungs in this region. The hilar lymph nodes are also present in this region. Due to the overlap of these structures, it can sometimes be difficult to detect enlargement of these lymph nodes versus the presence of a primary lung mass in this region.

Until we determine whether the tumor is primary in hilum, we won't know whether to code the involvement found in this region in this field or in the EOD Regional Lymph nodes field. According to SEER SINQ 20150025, the guideline we are to use in assigning primary site is, "Assign primary site code C340 when a lung tumor is described as a hilar mass."

- We incorrectly use code 100 (***Minimally invasive adenocarcinoma***) when we overlook Note 2 which indicates this extension code can only be used for tumors with this histology that are less than or equal to 3 cm ***WITH predominantly lepidic pattern*** AND less than or equal to 5 mm invasion in greatest dimension. Tumors with a lepidic pattern with an unknown size of the invasive component and localized tumors not described as "minimally invasive" or "superficially spreading" are coded to 300 (Any size tumor; Confined to Lung, NOS; Localized, NOS).

✦ **Summary Stage 2018**

- Summary Stage combines clinical and pathologic findings. Keep in mind that we may consider ***pathologic tumor findings after neoadjuvant treatment***, provided there has not been disease progression. In these instances, the further clinical extension should be coded even when the pathology report indicates a lower stage of disease. Oftentimes, neoadjuvant therapy produces an extensive treatment effect, and the pathologic findings were not as extensive as the pre-treatment clinical findings. In these situation, Summary Stage should reflect the more extensive clinical stage.

- Typically, if we make an error in the EOD Primary Tumor field coding the case as regional when it is local or vice versa, we also code Summary Stage incorrectly. Errors creep into this field most often, as they do the EOD Primary Tumor, when we don't adhere to the coding rules associated with ***ambiguous terminology***. We need to remember there are ambiguous terminology rules for not only determining the reportability of a disease process, but also when staging a case. (See Table 1 on page 5.)

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Table 1
Two Uses of Ambiguous Terminology
Positive for Describing Reportability and Tumor Extension

Ambiguous Terms for Reportability	Ambiguous Terms Describing Tumor Spread	
Apparent(ly)	Adherent	Incipient invasion
Appears	Apparent(ly)	Induration
Comparable with	Appears to	Infringe/infringing
Compatible with	Comparable with	Into*
Consistent with	Compatible with	Intrude
Favor(s)	Consistent with	Most likely
Malignant appearing	Contiguous/continuous with	Onto*
Most likely	Encroaching upon*	Overstep
Presumed	Extension to, into, onto, out onto	Presumed
Probable	Features of	Probable
Suspect(ed)	Fixation to a structure other than primary**	Protruding into (unless encapsulated)
Suspicious (for)	Fixed to another structure**	Suspected
Typical (of)	Impending perforation of	Suspicious
	Impinging upon	To*
	Impose/imposing on	Up to

* interpret as involvement whether the description is clinical or operative/pathological
** interpret as involvement of other organ or tissue

There is also a list of ambiguous terms used for EOD, unlike Reportability, that indicates "Not Involved." (See Table 2.) When staging, we need to remember the second set of "good" ambiguous terms indicating tumor involvement and ignore the tumor extension described using other descriptive terms.

Table 2
Ambiguous Terminology
Negative for Describing only Tumor Extension

Ambiguous Terms NOT Describing Reportability	Ambiguous Terms NOT Describing Tumor Spread	
There are no terms	Abuts	Extension to without invasion/involvement of
	Approaching	Kiss/kissing
	Approximates	Matted (except for lymph nodes)
	Attached	Possible
	Cannot be excluded/ruled out	Questionable
	Efface/effacing/effacement	Reaching
	Encased/encasing	Rule out
	Encompass(ed)	Suggests
	Entrapped	Very close to
	Equivocal	Worrisome

In the next several editions of the Registry PIPs, we will continue to review the EOD and Summary Stage coding issues identified for other primary sites. Hopefully, these summaries will identify areas we can each target to improve our own coding. These summaries can also be used to identify potential coding quality control efforts related to the coding performed for all the registry staff at your facility and as a training document for those of us who need a gentle reminder regarding how to handle selected coding issues by primary site.

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