CoC Operative Standard 5.6
Colon Resection

August 25, 2022

Presentation created by CSSP Education Committee
Webinar Logistics

• All participants are muted during the webinar

• Questions – including technical issues you may be experiencing – should be submitted through the question pane

• Questions will be answered as time permits

• Please complete the post-webinar evaluation you will receive via email
Moderator

Timothy J. Vreeland, MD, FACS
Brooke Army Medical Center
Vice-Chair, CSSP Education Committee
# The CoC Operative Standards

<table>
<thead>
<tr>
<th>Standard</th>
<th>Disease Site</th>
<th>Procedure</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.3</td>
<td>Breast</td>
<td>Sentinel node biopsy</td>
<td>Operative report</td>
</tr>
<tr>
<td>5.4</td>
<td>Breast</td>
<td>Axillary dissection</td>
<td>Operative report</td>
</tr>
<tr>
<td>5.5</td>
<td>Melanoma</td>
<td>Wide local excision</td>
<td>Operative report</td>
</tr>
<tr>
<td>5.6</td>
<td>Colon</td>
<td>Colectomy (any)</td>
<td>Operative report</td>
</tr>
<tr>
<td>5.7</td>
<td>Rectum</td>
<td>Mid/low resection (TME)</td>
<td>Pathology report (CAP)</td>
</tr>
<tr>
<td>5.8</td>
<td>Lung</td>
<td>Lung resection (any)</td>
<td>Pathology report (CAP)</td>
</tr>
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</table>
CoC Compliance Measures: Standard 5.6

1) Technical: Resection of the tumor-bearing bowel segment includes:
   a) Complete lymphadenectomy *en bloc*
   b) Proximal vascular ligation at origin of primary feeding vessel(s)

2) Documentation: Operative reports for colon cancer resections contain the **minimum required reporting elements in synoptic format**
   a) Curative intent
   b) Tumor location
   c) Extent of colon & vascular resection
      i. If deviations exist, documentation of why
Timeline for Standards 5.3-5.6

- **2020**: Introduction of operative standards
- **2021**: Plan for implementation, educate/train surgeons & registrars
- **2022**: Document final plan for implementation and conduct audits
- **2023**: Begin compliance with Standards 5.3-5.6
  - Site Visits review documentation of final plans for compliance
- **2024**: Site Visits review 2023 operative reports for 70% compliance
- **2025**: Site Visits review 2023 & 2024 operative reports for 80% compliance

Steps to Achieve Compliance:

- Document final plan for implementation and conduct audits
- Site Visits review documentation of final plans for compliance
Why colon resection as an operative standard?

• Proximal vascular ligation with *en bloc* lymphadenectomy optimizes complete resection of the associated lymph nodes for pathologic evaluation.

• The number of lymph nodes resected surgically and evaluated pathologically reflects the completeness of lymphadenectomy and is an indicator of surgical quality and oncologic outcome.
Adequate lymphadenectomy is associated with improved oncologic outcomes

- Analysis of Intergroup 0089 data informed the **NCCN minimum of 12 nodes** to establish the N-stage

<table>
<thead>
<tr>
<th>Stage</th>
<th>No. of lymph nodes</th>
<th>Overall survival, %</th>
<th>$P^*$</th>
<th>Cause-specific survival, %</th>
<th>$P^*$</th>
<th>Disease-free survival, %</th>
<th>$P^*$</th>
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<tbody>
<tr>
<td>II</td>
<td>&lt;11</td>
<td>73</td>
<td>&lt;.001</td>
<td>80</td>
<td>.015</td>
<td>72</td>
<td>.11</td>
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<td>11–20</td>
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<td>85</td>
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<td>79</td>
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<td>&gt;20</td>
<td>87</td>
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<td>74</td>
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<td>.002</td>
<td>55</td>
<td>.018</td>
<td>48</td>
<td>.014</td>
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<tr>
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<td>&gt;35</td>
<td>71</td>
<td></td>
<td>71</td>
<td></td>
<td>69</td>
<td></td>
</tr>
</tbody>
</table>

LeVoyer TE et al 2003, *J Clin Oncol*
Adequate lymphadenectomy for colon cancer has improved over time

Mean Number of Lymph Nodes Excised by Year of Diagnosis: All Patients

Year of diagnosis

NCCN guideline ≥ 12 nodes

Probability of Undergoing Lymph Node Excision

Year of diagnosis

LNE (≥1)  LNE (≥20)  LNE (≥12)

Garcia B et al 2016, Surg Oncol
### CoC Compliance Measures: Standard 5.6

<table>
<thead>
<tr>
<th>Right</th>
<th>Hepatic flexure</th>
<th>Transverse</th>
<th>Splenic flexure</th>
<th>Left</th>
<th>Sigmoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ileocolic, right colic <em>(if present)</em></td>
<td>Ileocolic, right colic <em>(if present)</em>, middle colic</td>
<td>Middle colic</td>
<td>Middle colic, ascending left colic</td>
<td>Inferior mesenteric + ascending left colic</td>
<td>Inferior mesenteric</td>
</tr>
</tbody>
</table>
CoC Compliance Measures: Standard 5.6

Katz et al. 2018, Operative Standards for Cancer Surgery
CoC Compliance Measures: Standard 5.6

1) Technical: Resection of the tumor-bearing bowel segment includes:
   a) Complete lymphadenectomy *en bloc*
   b) Proximal vascular ligation at origin of primary feeding vessel(s)

2) Documentation: Operative reports for colon cancer resections contain the *minimum required reporting elements* in *synoptic format*
   a) Curative intent
   b) Tumor location
   c) Extent of colon & vascular resection
      i. If deviations exist, documentation of why
Definition of Synoptic Reporting

- Standardized data elements organized as a structured checklist or template

- Each data element’s value is “filled in” using a pre-specified format to ensure interoperability of information
  - The information being sought is standardized
  - The options for each variable are constrained to a pre-defined set of responses

- Synoptic reports allow information to be easily collected, stored, and retrieved
Synoptic reporting has been used effectively

- **College of American Pathology synoptic reports** have been in use for some time

- Improved efficiency of documentation and standardized the language

- As surgeons, we have all reaped the benefits of this initiative

[https://www.facs.org/-/media/files/quality-programs/cancer/cssp/coc_standards_5_3_5_6_synoptic_operative_report_requirements.ashx](https://www.facs.org/-/media/files/quality-programs/cancer/cssp/coc_standards_5_3_5_6_synoptic_operative_report_requirements.ashx)
Why a transition to synoptic reporting?

- Improves **accuracy** of documentation
- Improves **efficiency** of data entry
- Reduces variability in care
- Improves quality of cancer care

https://www.facs.org/-/media/files/quality-programs/cancer/cssp/coc_standards_5_3_5_6_synoptic_operative_report_requirements.ashx
How will compliance with synoptic operative reporting be assessed?

- Compliance will be assessed based on seven randomly selected operative reports.
- Each operative note must meet the technical requirements of the standard and have the **three required synoptic elements for Standard 5.6** (at right).
- Site reviewers will then select a rating for the standard based on whether the **threshold compliance level** (e.g. 70%, 80%) has been met.

https://www.facs.org/-/media/files/quality-programs/cancer/cssp/coc_standards_5_3_5_6_synoptic_operative_report_requirements.ashx
Current Options for Synoptic Operative Reporting

01
Create Institutional Synoptic Templates
- Use required elements and responses from the CoC 2020 Standards manual
- Can be done using smart phrases/smart tools to supplement a traditional narrative operative report

02
Use Commercial Options
- Tools developed by vendors that include CoC required elements and responses
- Current vendor list available on ACS website: [Commercial Options](https://www.facs.org/cssp)

03
Download Fillable PDF Forms
- Available for download from Standards Resource Library in QPort
- Stop-gap measure to allow programs to ensure compliance with synoptic formatting requirements
CSSP Resources for Synoptic Operative Reporting

**Operative Standards Toolkit**
- Up to date information on all standards, resources, and CSSP news

**Quick Reference Guide**
- Composite of all required fields for synoptic reports
- [https://www.facs.org/-/media/files/quality-programs/cancer/cssp/coc_standards_5_3_5_6_synoptic_operative_report_requirements.ashx](https://www.facs.org/-/media/files/quality-programs/cancer/cssp/coc_standards_5_3_5_6_synoptic_operative_report_requirements.ashx)

**Commercial Options**
- Vendors offering EMR-integrated tools to meet synoptic reporting requirements
Case eligibility and self-auditing

• All colon cancer resections performed for **colon cancer with curative intent** meet inclusion eligibility for Standard 5.6.

• **Self audits** are not required for compliance w/ CoC Operative Standards, however they are encouraged to:
  • Establish **baseline metrics**
  • Identify **gaps in compliance prior** to site visits

• Pull cases within the scope of the standards following the [CSSP Case Identification Guidelines](#) found online
• Evaluate operative reports for measures of compliance
• Plan and implement interventions to address any gaps in compliance
Educating surgeons and other specialists

• Physician education
  • Monthly section meetings; educating surgical leadership
  • Presentation at multidisciplinary tumor boards

• Disseminate amongst specialists treating colon cancer
  • Colorectal Surgery
  • Surgical Oncology
  • Minimally Invasive Surgery
  • General Surgery
  • Acute Care Surgery
Frequently Asked Questions (FAQs)

• How does Standard 5.6 apply to colectomies performed on an emergent basis?
  • Standard 5.6 applies to “all resections performed with curative intent for patients with colon cancer and applies to all approaches.”
  • An indication for emergent surgery does not necessarily preclude the performance of proximal vascular ligation and en bloc lymphadenectomy. If high ligation cannot be performed, it should be documented in the operative note.

• If a neuroendocrine tumor occurs in the colon, does Standard 5.6 apply?
  • Standard 5.6 applies to adenocarcinomas and not to neuroendocrine tumors.
Frequently Asked Questions (FAQs)

• Do two colon primaries require two synoptic reports?
  • If the surgeon performs one resection with two primary tumors, one set of synoptic elements/responses would be required. If two resections are performed for two primary tumors, two sets of synoptic elements/responses would be required.

• For the “Extent of colon and vascular resection” data element, what should be documented if the resection that was performed does not correlate with any of the options listed?
  • The focus of Standard 5.6 is on proximal vascular ligation at the origin of the primary feeding vessels. Surgeons can use the “Other” response any time the resection is not one of those described by the other response options and describe the extent of the colon and vascular resection as part of their explanation.
Panel Discussion/Q&A
Special thanks

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Resources

ACS Cancer Surgery Standards Program (CSSP)
  facs.org/cssp

Operative Standards Toolkit
  facs.org/opstandardtoolkit
References

