CMS Measure ID/CMS QCDR ID: CAP 35  
**Measure Title:** Cancer Protocol and Turnaround Time for Gastrointestinal Carcinomas: Gastric, Esophageal, Colorectal and Hepatocellular Carcinomas

## Measure Specifications

<table>
<thead>
<tr>
<th>Measure Description</th>
<th>Percentage of all eligible pathology reports for gastric, esophageal, colorectal, and hepatocellular carcinoma specimens for which all required data elements of the gastrointestinal Cancer Protocols are recorded AND meet the maximum 4 business day turnaround time (TAT) requirement (Report Date – Accession Date ≤ 4 business days).</th>
</tr>
</thead>
</table>

**INSTRUCTIONS:** This measure has two performance rates that contribute to the overall performance score:

1. Percent of cases for which required data elements for all cancer protocols are recorded.
2. Percent of cases that meet the maximum 4 business day turnaround time.

The overall performance score submitted is a weighted average of: (Performance rate 1 x 70%) +(Performance rate 2 x 30%)

<table>
<thead>
<tr>
<th>Denominator Statement</th>
<th>All final pathology reports for eligible gastric, esophageal, colorectal, and hepatocellular carcinoma specimens that require the use of a CAP Cancer Protocol CPT®:88307, 88309 AND Any of the ICD10:</th>
</tr>
</thead>
</table>
|                       | • C18.0: Malignant neoplasm of cecum  
|                       | • C18.2: Malignant neoplasm of ascending colon  
|                       | • C18.3: Malignant neoplasm of hepatic flexure  
|                       | • C18.4: Malignant neoplasm of transverse colon  
|                       | • C18.5: Malignant neoplasm of splenic flexure  
|                       | • C18.6: Malignant neoplasm of descending colon  
|                       | • C18.7: Malignant neoplasm of sigmoid colon  
|                       | • C18.8: Malignant neoplasm of overlapping sites of colon  
|                       | • C18.9: Malignant neoplasm of colon, unspecified  
|                       | • C19: Malignant neoplasm of rectosigmoid junction  
|                       | • C20: Malignant neoplasm of rectum  
|                       | • C22.0: liver cell carcinoma  
|                       | • C22.7: other specific carcinoma of liver  
|                       | • C22.8: malignant neoplasm of liver, primary, unspecified as to type  
|                       | • C22.9: malignant neoplasm of liver, not specified as primary or secondary  
|                       | • C15.3: Malignant neoplasm of upper third of esophagus  
|                       | • C15.4: Malignant neoplasm of middle third of esophagus  
|                       | • C15.5: Malignant neoplasm of lower third of esophagus |

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### Denominator

<table>
<thead>
<tr>
<th>Exclusions</th>
<th>Exception</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Biopsy specimens</td>
</tr>
<tr>
<td></td>
<td>Cytology specimens</td>
</tr>
<tr>
<td></td>
<td>Lymphoma</td>
</tr>
<tr>
<td></td>
<td>Sarcoma</td>
</tr>
<tr>
<td></td>
<td>Resection specimens with no residual tumors</td>
</tr>
<tr>
<td></td>
<td>Well-differentiated neuroendocrine tumors</td>
</tr>
<tr>
<td></td>
<td>Hepatoblastoma</td>
</tr>
<tr>
<td></td>
<td>Gastrointestinal stromal tumor (GIST)</td>
</tr>
<tr>
<td></td>
<td>Metastatic malignancy to these organs OR</td>
</tr>
<tr>
<td></td>
<td>Cases requiring intradepartmental or extra-departmental consultation.</td>
</tr>
</tbody>
</table>

### Numerator Statement

All eligible cases where the following required elements found in the current CAP Cancer Protocol are recorded:

- Procedure
- Tumor Site
- Tumor Size
- Histologic Type
- Histologic Grade
- Margin status including all applicable required margins
- Tumor Extension
- Treatment Effect
- Tumor Focality (Hepatocellular only)
- Macroscopic Tumor Perforation (Colorectal only)
- Tumor Deposits (Colorectal only)
<table>
<thead>
<tr>
<th>Numerator Exclusions</th>
<th>None</th>
</tr>
</thead>
</table>
| Guidance             | Denominator Definitions:  
Eligible procedures for gastric carcinoma include:  
  - Partial gastrectomy  
  - Complete gastrectomy  
Eligible procedures for esophageal carcinoma include:  
  - Esophagectomy  
  - Esophagogastrectomy  
Eligible procedures for hepatocellular carcinoma include:  
  - Partial hepatic resection  
  - Total or complete hepatic resection  
Eligible procedures for colorectal carcinoma include:  
  - Partial colectomy/resection  
  - Total colectomy/resection  
  - Segmental colectomy/resection  
  - Low anterior rectal resection  
  - Abdominoperineal resection  

The numerator of Rate 1 is defined as gastric, esophageal, colorectal, and hepatocellular carcinoma specimens for which all required data elements of the “Colon and Rectum, Resection”, “Esophagus”, “Stomach” and “Hepatocellular Carcinoma” Cancer Protocols are included. If a case does not include one of the required data elements, it may not be included in the Numerator for Rate 1 (including cases that qualify for the GIST, Intrahepatic Bile Ducts and Distal Extrahepatic Bile Ducts Cancer Protocols). A case that
does not include all required data elements may be included in the Numerator of Rate 2 if the required turnaround time is met.

Numerator definitions for Rate 2:
1. Turnaround Time (TAT): The day the specimen is accessioned in the lab to the day the final report is signed out. Business days only.
2. Accession Date: The date recorded in the laboratory/hospital information system that documents when a specimen was received by the laboratory.
3. Report Date: The date recorded in the laboratory/hospital information system that documents when a result is verified and reported by the laboratory and is available to the requesting physician(s) (signed out).

**Measure Information**

<table>
<thead>
<tr>
<th>NQS Domain</th>
<th>Communication and Care Coordination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meaningful Measures</td>
<td>Transfer of Health Information and Interoperability</td>
</tr>
<tr>
<td>Area(s)</td>
<td></td>
</tr>
</tbody>
</table>

**Meaningful Measure Rationale**

The CAP cancer protocols have been thoroughly researched and have been determined to contain all the elements that a clinician would need to appropriately treat a patient with a malignant disease. Therefore, utilizing all the required elements found in a CAP protocol for malignant cases should be the very definition of a high-quality report and serve as a measure of pathologist performance. An accurate and complete diagnosis as would be found in a high-quality pathology report with the CAP cancer template is crucial to successful patient treatment and outcomes. The cancer protocols standardize the collection and reporting of all cancer patient data, facilitates communication between pathologists, clinicians and cancer registrars, and improves and supports information exchange and data interoperability (1).

Turnaround time (TAT) is an indicator of efficiency in anatomic pathology and may affect coordination of patient care. Timely pathology reports are one of the most important tools physicians use to adequately manage the quality and safety of patient care. The implication of surgical pathology report delay, as shown in research evidence, is that prolonged turnaround time can play a major role in disease complications, including raising morbidity and mortality rates. Therefore, verifying pathology reports in an appropriate timeframe helps healthcare practitioners with timely diagnosis and more effective treatment planning (2-4).

<table>
<thead>
<tr>
<th>Measure Type</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Source</td>
<td>Laboratory Information System; CAP cancer protocols; and pathology reports</td>
</tr>
<tr>
<td>Summary of Performance Gap</td>
<td>For January-1 November 2021, four practices have entered data. The average performance rate to date is 97.62%. Studies have indicated that even among users of CAP Cancer Protocols, significant variability exists in rates of protocol completion, particularly dependent on the method of data capture (electronic cancer checklists versus printed paper forms versus web-based methods)(1). A 2020 study of rectal cancer reporting showed that “The overall adherence rate to the College of American Pathologists guidelines was 73.3%. Notable reporting deficiencies were found in several key pathology characteristics, including tumor histologic grade (reporting rate 77.8%), radial margin (84.6%), distance from the closest margin (47.9%), treatment effect (47.1%), and lymphovascular (73.1%)/perineural invasions (35.4%). Synoptic reporting use and urban hospital settings were associated with better adherence rates, whereas academic status and hospital bed size had no impact. Reporting variations existed not only between institutions, but also within individual hospitals and pathologists.” The authors also stated that “Despite guidelines from the College of American Pathologists, variations in reporting quality continue to exist” (2) Specifically for colorectal cancer cases, a 2021 study found that “Significant variability in the odds of reporting these features was evident even after adjustment for differences in other tumor characteristics”, referring to pT4a category and lymphovascular invasion. Furthermore, “variability persisted in analyses among pathologists within the same site” indicating that true variability exists. This demonstrates the continued and increased need for synoptic reports for colorectal cancer. (3) Recent studies show that checklists are associated with improvement in completeness of surgical pathology reports, although completeness rates do not exceed 90% in most studies (4)</td>
</tr>
</tbody>
</table>

### Measure Owner
College of American Pathologists

### NQF ID
N/A

### Number of Performance Rates
1

### Overall Performance Rate
1st Performance Rate

### High-priority
Yes

### Improvement Notation
Inverse Measure: No
Proportional Measure: Yes (Higher score indicates better quality)
Continuous Variable Measure: No
Ratio Measure: No
Risk-adjusted: No

### Care Setting and Specialty
Care Setting: Other—Laboratories; Telehealth not applicable
Specialty: Pathology

### Current Clinical Guideline the Measure is Derived From
Guideline: None.

- Burgart, LJ. Protocol for the Examination of Specimens From Patients With Carcinoma of the Esophagus v 4.2.0.0 (June 2021)
  [https://documents.cap.org/protocols/Esophagus_4.2.0.0.REL_CAPCP.pdf](https://documents.cap.org/protocols/Esophagus_4.2.0.0.REL_CAPCP.pdf)

- Burgart, LJ Protocol for the Examination of Specimens From Patients With Hepatocellular Carcinoma v 4.2.0.0. (June 2021)
  [https://documents.cap.org/protocols/Liver.HCC_4.2.0.0.REL_CAPCP.pdf](https://documents.cap.org/protocols/Liver.HCC_4.2.0.0.REL_CAPCP.pdf)

- Burgart, LJ Protocol for the Examination of Resection Specimens From Patients With Primary Carcinoma of the Colon and Rectum v 4.2.0.0 (June 2021)
  [https://documents.cap.org/protocols/ColoRectal_4.2.0.0.REL_CAPCP.pdf](https://documents.cap.org/protocols/ColoRectal_4.0.0.REL_CAPCP.pdf)

- Burgart, LJ. Protocol for the Examination of Specimens From Patients With Carcinoma of the Stomach v 4.2.0.0 (June 2021)
Measure Flow
Performance Rate 1
GI Cancer Protocols and Turnaround Time (TAT)

Denominator

- Start 100 cases
- Procedure as listed is understood and available to the requesting physician within 4 business days
- Not in Eligible Population/Exclusion

Numerator 2

- Send case report:
  - Certified and available to the requesting physician within 4 business days
- Case requiring intra- or extradepartmental consultation
- Denominator Exception: (denominator)
- Pathology report not certified and available to the requesting physician within 4 business days
- Performance Net: (denominator)

Data Completeness:

- Denominator Exceptions as a percentage (denominator): 50%
- numerator 1 = (denominator)
- Performance Rate 2:
  - (denominator)
- Overall Performance Rate:
  - (Performance Rate 1)(Performance Rate 2) = 35.7% (65.7%)