



# CANPC<sup>TM</sup>

Certified Anesthesia & Pain Management Coder

## STUDY GUIDE

2026

2026

# Specialty Study Guide: CANPC™

ANESTHESIA AND PAIN MANAGEMENT



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SAMPLE PDF



# 2026 Specialty Study Guide: CANPC™

The *Specialty Study Guide: CANPC™* is designed to help anesthesia and pain management coders, billers, and other medical office professionals prepare for the CANPC™ examination. This guide is not comprehensive. Your primary resource for the exam will be your years of hands-on experience in coding for anesthesia and pain management.

Healthcare in the 21<sup>st</sup> century is complex and requires expertise in proper coding to obtain payment for procedures, services, equipment, and supplies. Becoming a CANPC™ is your best defense, shows your expertise in anesthesia coding, and helps your employer recoup proper payment. Membership in AAPC lends integrity to your credentials, provides a large network of coders for support, and allows you access to continuing education opportunities. The *Specialty Study Guide: CANPC™* is designed to provide an overall review of coding and compliance information for the more experienced coder, as well as for someone preparing for the CANPC™ examination.

We will review the importance of using the coding guidelines within ICD-10-CM and CPT®, and will emphasize the importance of correct Evaluation and Management (E/M) leveling. In addition to this study guide, you will need 2026 versions of ICD-10-CM, CPT®, and HCPCS Level II code books. You will need these code books for your CANPC™ exam, as well. We also recommend that you use an anesthesia crosswalk and the ASA (American Society of Anesthesiologists) Relative Value Guide® (RVG™).

## ICD-10-CM Coding

Proper diagnostic coding not only reports the medical necessity of procedures performed, but also contributes to data that will help determine health policies for tomorrow. Because physicians have traditionally been paid by CPT® code values, coders have sometimes given little importance to correct diagnosis coding. Regulatory trends show that diagnoses will play a larger role in future reimbursement. It is important to code correctly now.

We will discuss the major topics of diagnosis coding for anesthesia and pain management. The examinee must be familiar with the ICD-10-CM Official Guidelines for Coding and Reporting. The examinee must know how to select the appropriate ICD-10-CM codes, and the proper sequencing of diagnosis codes when more than one diagnosis code is required to report a patient's condition(s). The examinee must understand the conventions, general coding guidelines, and

chapter-specific guidelines in the ICD-10-CM code book. This year's guidelines can be found at <https://www.cms.gov/files/document/fy-2026-icd-10-cm-coding-guidelines.pdf>.

## Evaluation and Management Coding

Office visits consume most of the physician's time in most practices, and consequently represent the largest revenue source. Compliance is an increasing concern for practices. The E/M material will focus on the E/M services for anesthesia and pain management and will underscore the importance of modifier use. An understanding of the AMA E/M guidelines and subsection notes are an important foundation for accurate code selection that is provided in your CPT® code book. An online E/M calculator is provided for the online exam (<https://www.aapc.com/codes/em-calculator>) and your CPT® code book provides a Medical Decision Making (MDM) table to level an E/M service.

## CPT® Coding

Surgical procedures specific to anesthesia and pain management are discussed in this section. Special attention is given to the guidelines and parenthetical phrases associated with procedures. Understanding CPT® coding conventions will be helpful as well. The examinee must be able to select the appropriate CPT® codes for the surgical and diagnostic procedures performed, and crosswalk them to the appropriate anesthesia CPT® code.

## Top 10 Missed Coding Concepts

We will review the Top 10 Missed Coding Concepts for the CANPC™ certification exam. The list is not presented in any specific order. The information is determined after an evaluation by the AAPC exam department of the commonly missed questions on the exam.

## Practice Exam

Coders with extensive experience in anesthesia and pain management wrote both the practice exam and the certification exam. The practice exam mimics the format and structure of the CANPC™ certification exam.

AAPC has developed specialty credentials to enable coders to demonstrate superior levels of expertise in their respective

specialty disciplines. The following is information on the CANPC™ credential:

- CANPC™ stands alone as a certification with no prerequisite that the examinee holds a CPC®, COC®, or CPB® credential.
- Exams aptly measure preparedness for real world coding by being entirely operative/patient-note based. These operative (op) notes are redacted from real anesthesia and pain management practices.

The CANPC™ examination tests your knowledge of coding concepts, anatomic principles, and coding guidelines only. When you sit for this exam, remember that individual payer rules are not a consideration when choosing the right answer. Unless it is specifically stated in the case note or exam question that the patient is covered by Medicare, you should follow the CPT® coding guidelines. There will be questions on the exam specific to the Medicare calculation for time units and total anesthesia units for Medicare beneficiaries. The calculations for exam purposes for Medicare and commercial payers will be reviewed in this study guide.

The exam tests competency. The candidate most qualified to pass the exam will be proficient in understanding:

- Medical terminology and anatomy
- Medical physiology
- Calculation of time units and total anesthesia units
- Teaching physician guidelines for anesthesia services
- Medicare medical direction requirements
- HIPAA regulations
- ICD-10-CM coding
- E/M code selection using the AMA CPT® E/M guidelines
- CPT® coding for surgical and diagnostic procedures
- CPT® coding for anesthesia services using an anesthesia crosswalk in conjunction with the CPT® codebook
- CPT® coding for common pain management procedures
  - Sacroiliac injections
  - Trigger point injections
  - Discography
  - Nerve blocks
  - Epidurals
  - Transforaminal injections and facet joint injections
  - Nerve destruction
  - Pain pumps
- CPT® and HCPCS Level II modifier usage
- HCPCS Level II coding

Familiarity with practical coding and the code books is essential, as time is an important element in successfully completing the exam. You should approach the exam as you would approach your work—by demonstrating coding abilities essential to success. This is not a general aptitude test, and each question has a specific goal for measuring your competency. The practice exam within the *Specialty Study Guide: CANPC™* course is highly representative of the subject matter and level of difficulty you will encounter in the full-length exam.

## Test Answers and Rationales

The final chapter in the book contains the answers to a practice exam. Accompanying each answer is a rationale that explains the coding guidelines contributing to selecting the right answer. These rationales should help you understand what is needed to successfully approach and answer questions on the real exam, because they allow you a glimpse into the minds of the test's creators.

Examinees that pass the CANPC™ certification examination will receive recognition in AAPC's monthly magazine, *HEALTHCARE Business Monthly*, and a diploma suitable for framing.

## About AAPC

AAPC was founded in 1988 in an effort to elevate the standards of medical coding by providing training, certification, ongoing education, networking, and recognition.

AAPC provides medical coding certification exams for coders in physician practices and the outpatient/facility environment. AAPC has expanded beyond outpatient coding to include training and credentials in documentation and coding audits, inpatient hospital/facility coding, regulatory compliance, and physician practice management. The purpose of AAPC coding certifications is to test an examinee's knowledge of coding principles and proficiency in coding accurately and efficiently. AAPC examinations measure a coder's skill of both coding accuracy and efficiency.

## AAPC Member Code of Ethics

Members of AAPC shall be dedicated to providing the highest standard of professional service for the betterment of healthcare to employers, clients, vendors, and patients. Professional and personal behavior of AAPC members must be exemplary.

It shall be the responsibility of every AAPC member, as a condition of continued membership, to conduct themselves in



# ICD-10-CM Coding Guidelines

## Introduction to ICD-10-CM Coding Guidelines

The National Center for Health Statistics (NCHS) developed ICD-10-CM (International Classification of Diseases, 10<sup>th</sup> Revision, Clinical Modification) in consultation with a technical advisory panel, physician groups, and clinical coders, to assure clinical accuracy and utility. ICD-10-CM coding guidelines are developed by the Centers for Medicare & Medicaid Services (CMS) and the National Center for Health Statistics. Healthcare providers must begin using the most recent ICD-10-CM code revisions on Oct. 1 of each year, with no “grace period” to transition to the changes.

All versions of the ICD-10-CM code book typically include the ICD-10-CM Official Guidelines for Coding and Reporting. These guidelines are an invaluable source for diagnosis coding information and provide instruction supplemental to that found in the Tabular List and the Alphabetic Index of the ICD-10-CM code book.

ICD-10-CM codes are utilized to facilitate payment of health services, to evaluate utilization patterns, and to study the appropriateness of healthcare costs. Case-by-case success in achieving these goals requires an open line of communication between the coder and the documenting physician.

The Official Guidelines note, “A joint effort between the healthcare provider and the coder is essential to achieve complete and accurate documentation, code assignment, and reporting of diagnoses and procedures.” Each ICD-10-CM code assigned must be supported by documentation linked to the claim submitted (individual dates of service must stand alone), and coders must be mindful not to assume or extrapolate information from the medical record (for instance, coding a condition as acute when it isn’t documented as such).

The Official Guidelines are divided into four sections:

- Section I lists ICD-10-CM Conventions, General Coding Guidelines, and Chapter Specific Guidelines.
- Section II explains the Selection of Principal Diagnosis. The Uniform Hospital Discharge Data Set (UHDDS) defines the principal diagnosis as “that condition established after study to be chiefly responsible for occasioning the admission of the patient to the hospital for care.”

- Section III gives rules for Reporting Additional Diagnoses (diagnoses, in addition to the principal diagnosis, that affect the patient’s care).
- Section IV provides Diagnostic Coding and Reporting Guidelines for Outpatient Services. These include information about coding signs and symptoms, when to report chronic diagnoses, ambulatory surgery, routine outpatient prenatal visits, and more.

## General Tips for Using ICD-10-CM

Use the Alphabetic Index and Tabular List of the ICD-10-CM code book together to determine the diagnosis code. When attempting to select an ICD-10-CM diagnosis code, begin by searching for the main term—such as lesion, burn, etc.—in the Alphabetic Index. Follow all cross-references and “see also” entries. When you have located the code you are seeking, turn to that code in the Tabular List. Be sure to pay close attention to disease definitions, footnotes, color-coded prompts, and other instructions. Read all supplemental information completely to be certain you are choosing the correct code. Always select a diagnosis to the highest level of specificity supported by the available documentation.

The first-listed diagnosis should describe the most significant reason for the procedure or visit. The first-listed diagnosis will be reflective of the patient’s chief complaint. Relevant co-existing diseases and conditions, as well as related history or family history conditions, are reported as secondary diagnoses. When coding preexisting conditions, make sure the assigned diagnosis code identifies the current reason for medical management. Do not report conditions that no longer exist, or do not pertain to the visit.

Many patients will have numerous chronic complaints. Report a chronic complaint diagnosis *only* when that chronic condition is treated or becomes an active factor in the patient’s care.

Always select ICD-10-CM codes to the highest level of specificity supported by documentation. For example, diagnosis coding for fractures of the wrist and hand requires a 5<sup>th</sup> character (which specifies location), a 6<sup>th</sup> character (which specifies the laterality and whether the fracture is displaced or nondisplaced), and a 7<sup>th</sup> character (which specifies the episode of care). If this information is not documented, appropriate code selection is impossible. You should work with your provider to ensure that the information necessary for proper coding is always noted.

## General ICD-10-CM Guidelines

### Signs/Symptoms and Confirmed/Unconfirmed Diagnoses

Use of codes that describe signs and symptoms are acceptable when the provider has not established a related, definitive diagnosis. Report only confirmed diagnoses. Uncertain diagnoses described as “probable,” “possible,” “suspected,” “likely,” “rule out,” “consistent with,” “compatible with,” or “working diagnosis” are not coded. Code the highest level of certainty known, using codes that describe known signs, symptoms, abnormal test results, etc.

For example, if a patient has a breast mass and the provider suspects breast cancer, do not report breast cancer as the diagnosis. Instead, report the signs and symptoms, such as breast mass, that prompted the exam. If testing later confirms cancer, only then should you report the cancer diagnosis.

For outpatient encounters for diagnostic tests that have been interpreted by a physician, and the final report is available at the time of coding, report any confirmed or definitive diagnosis(es) documented in the interpretation. If a definitive diagnosis is known, do not code related signs and symptoms as additional diagnosis. That is, if the test is positive, you report the findings. For tests interpreted as “normal” code the condition, symptom, or sign that necessitated the diagnostic study.

In rare occurrences, a test is ordered without a clear indication of reason, and the ordering physician is not available to gather enough information prior to treating the patient. In such a case, you will want to confirm the order for the physician’s reason(s) that the test was ordered.

When you are provided with both a preoperative and postoperative diagnosis, always report the postoperative diagnose code if the pre- and postoperative diagnoses differ.

Do not report signs and symptoms attributable to a definitive diagnosis separately. Cite additional signs and symptoms, beyond the primary diagnosis, only when those signs and symptoms are not integral to the disease process. Report only those additional conditions that affect treatment, and that the provider documents for the current visit.

For example, a patient presents with shortness of breath. The next day, the physician determines the patient has pneumonia; but he feels the shortness of breath may be due to a cardiac condition. In such a case, you may still report the shortness of breath as a sign and symptom with pneumonia because the physician has documented reason to believe that the conditions are unrelated.

Above all, do not extrapolate or assume information. Select codes only from what is apparent in the available documentation.

### Acute vs. Chronic

The doctor makes the determination as to when a condition becomes chronic. Coders will select an appropriate code for “acute” or “sub-acute” (primary) vs. “chronic” (secondary) conditions based on the available documentation. For example, a torn meniscus (S83.2-) will become an internal derangement of knee (M23.-) after a defined period.

If a patient’s condition is both acute/sub-acute and chronic, and a single code does not describe this combination, the ICD-10-CM code book provides instruction to report the acute (sub-acute) code first, with the chronic code secondary.

### Sequela (Late Effects)

Sequela (late effects) codes are usually reported as secondary diagnoses, with the effect or reason for the visit as primary. There is no time limit (such as 90 days, one year, etc.) in which late effects can occur.

Sequela (late effects) of cerebrovascular disease fall specifically to category I69, which indicate conditions classifiable to I60-I67 (hemorrhage, occlusion, and stenosis, etc.) as the cause of sequela (late effects). Guidelines indicate the “late effects” include neurologic deficits caused by cerebrovascular disease, which may be present from the onset, or may arise at any time after the onset of the condition classifiable to categories I60-I67. A code(s) from category I69 may be assigned on a health case record with codes from I60-I67 if the patient has a current cerebrovascular disease and deficits from an old cerebrovascular disease.

Some of the codes in category I69 that specify hemiplegia, hemiparesis, and monoplegia also identify whether the dominant or nondominant side is affected. If the dominance is not stated (right-handed, left-handed, or ambidextrous), and the classification does not indicate a default, then the following applies:

- For ambidextrous patients, the default is always dominant
- If the left side is affected, the default is non-dominant
- If the right side is affected, the default is dominant

### Multiple Conditions Reported with a Single Code

In some cases, ICD-10-CM will employ a single code to describe two or more conditions concurrently, such as a primary diagnosis with an associated secondary process (manifestation), or a primary diagnosis with an associated complication. Code category I12, for instance, describes hypertension with chronic kidney disease. Likewise, K81.2 describes acute *and* chronic cholecystitis, and two separate codes are not necessary to describe these concurrent conditions. When selecting from among these codes, read all Includes, Excludes1, and Excludes2 notes to guide your decision.



AAPC continuously evaluates and enhances our certification exams throughout the year. As AAPC continues to enhance the certification exams, we are beta testing the inclusion of a fill-in-the-blank item type on our certification exams. To prepare you for both item types (multiple choice and fill-in-the-blank), we have provided two versions of this practice exam. The same questions are on both versions of the Test Your Knowledge practice exam; however, the last three cases on this version of the practice exam are fill-in-the-blank. If you prefer to test using the multiple-choice item type for all the cases, use practice exam B.

The following questions will test your comprehension of the information covered in this study guide. The answer key is used for both versions of the Test Your Knowledge practice exams.

## Version A

### CASE 1

**Anesthesia Time** 20:37 to 00:23

The anesthesiologist inserted a 21-gauge catheter into the R radial artery for monitoring.

A central line was already in place.

PS 4

**Preoperative Diagnosis:**

1. History of esophageal cancer
2. Esophageal perforation

**Postoperative Diagnosis:**

1. History of esophageal cancer
2. Partial thickness esophageal perforation

**Name of Procedure:**

1. Esophagogastroduodenoscopy
2. Ivor-Lewis esophagectomy
3. Feeding jejunostomy
4. Umbilical hernia repair

**Anesthesia:** General endotracheal by Dr. D.

**Indications for Procedure:** Patient is a 58-year-old man who has history of esophageal cancer. He has been treated with chemotherapy and radiation. Today, after eating a sandwich, he experienced severe retrosternal pain associated with vomiting of blood. He became febrile and tachycardic. He was diagnosed with esophageal perforation and was transferred.

**Description of Operative Procedure:** The patient was taken to the operating room immediately. He was placed under general endotracheal anesthesia. The flexible endoscope was introduced into the upper esophagus. The scope was advanced. There was some bruising of the esophageal wall from 30 to 40 cm. There was a stricture at the distal end of the esophagus around 45 cm from the incisor, but I was able to pass the scope through it without any problem. The stomach was entered. There was a lot of bile-stained fluid in the stomach which was aspirated. It was about 700 mL. The stomach was inspected. Otherwise, no other lesion. I was unable to pass the scope into the duodenum. The scope was then withdrawn after the stomach was deflated. The finding in the esophagus was noted again on withdrawal. The chest and abdomen were prepared with Chloraprep and draped in the usual sterile fashion with the patient supine on the operating table. The upper midline incision curving to the left side of the umbilicus

was performed. A quick inspection of the abdomen showed no gross metastasis. However, there were a number of lymph nodes around the left gastric artery that were matted together. I palpated the gallbladder and did not feel any gallstones. I mobilized the stomach. I first divided the gastrocolic omentum, ligating all the branches without damaging the gastroepiploic artery. The left side of the gastrocolic omentum was divided using endoscopic vascular stapler. The gastroesophageal omentum was similarly divided. The left triangular ligament of the liver was divided. The esophageal hiatus was dissected, and the abdominal esophagus was encircled with a Penrose drain. The anterior portion of the esophageal hiatus was divided. The gastrohepatic omentum was divided. Then we came to the left gastric artery pedicle. There were a lot of lymph nodes and they were matted together. Initially, I tried to divide it using the endoscopic GIA stapler, but it was not successful because of the bulk of the tissue. There was some bleeding and I controlled it with a Satinsky clamp. Finally, the bleeding was controlled by running 3-0 and 4-0 Prolene. Then the Kocherization of the second portion of the duodenum was performed. A pyloroplasty was performed by incising longitudinally through the pylorus and then sewing this defect in a transverse fashion using interrupted 3-0 silk stitches. Then the omentum was used to cover this pyloroplasty incision. Then a jejunostomy was performed by placing a size 16 red rubber catheter through the left upper quadrant into the abdomen, into the antrum and anti-mesenteric border of the proximal jejunum, about 20 cm distal to the jejunoduodenal junction. The red rubber catheter was secured to the jejunum using one stitch of 3-0 Vicryl and then a 4-0 silk purse-string. Then the groin portion of the jejunum was anchored to the abdominal wall using interrupted 4-0 silk. Hemostasis was ascertained. The peritoneal cavity was irrigated with warm Ancef containing saline. The abdominal fascia was closed with #1 looped PDS from the top and from the bottom and tied in the middle. Of note, the patient had an umbilical hernia. When I entered the abdomen, the umbilical hernia was taken apart by taking the umbilicus off the abdominal fascia. When I closed the abdominal fascia, the abdominal umbilical hernia was closed. Then the skin was closed with a stapler. The patient was then turned to the left lateral decubitus position. The right chest was prepared with Chloraprep and draped in the usual sterile fashion. A right posterolateral thoracotomy was performed. The latissimus dorsi muscle was incised and the serratus retracted anteriorly. The fifth intercostal space was entered. There was about 100 mL of yellowish tepid fluid in the right chest that was sent for various studies. The mediastinum appeared to be somewhat swollen and edematous. I mobilized almost the entire thoracic esophagus. The last group of subcarinal lymph nodes was sent for permanent section. After mobilizing the esophagus, I did not see any gross full-thickness perforation. The stomach was delivered in the chest. Then the lesser curve of the stomach was prepared for resection. The cardia of the stomach was resected using three firings of the GIA75 mm blue stapler. Then the upper thoracic esophagus was divided using a size 29 mm EEA stapler. The anvil was inserted into the proximal esophagus and then a purse-string was performed of the free edge of the esophagus using running 3-0 Prolene. The most proximal portion of the new lesser curve was inverted using interrupted seromuscular 4-0 silk stitches. Then the lesser curve was opened for a distance of about 2.5 cm and the body of the EEA stapler was inserted with the spike coming out of the stomach near the greater curve. Then the anvil was shunted to the body of the stapler which was then closed, and the stapler was fired. I asked the anesthesiologist to pass the nasogastric tube down into the body of the stomach and gastrostomy was closed with running 3-0 Prolene. The right chest was then irrigated with a copious amount of saline and then insufflated with continuous saline. Two On-Q pain pump catheters were threaded in the paraspinous position to traverse two intercostal spaces above and below the level of thoracotomy. A 28-French apical and a 28-French basal chest tube inserted. The right lung was reinflated. The rib cage was closed with four figure-of-eight #2 Vicryls. The serratus anterior, latissimus dorsi muscles was closed with running #1 Vicryl and the subcutaneous tissue closed with running 2-0 Vicryl. The skin was closed with stapler. The patient tolerated the procedure well. He was then transferred to the intensive care unit in stable condition.

**Estimated Blood Loss:** Approx. 500 mL.

Sponge, Instrument and Needle Counts: Correct.

1. The ICD-10-CM codes for this case are:
  - A. K22.3, C15.9
  - B. K22.3, C15.5, Z92.21
  - C. K22.3, Z85.01
  - D. K22.3, Z85.01, Z92.3, Z92.21



After reviewing the answers and rationales, if you have further questions, please send them to: [mct@aapc.com](mailto:mct@aapc.com)

## CASE 1 .....

Anesthesia Time [20:37 to 00:23](#)<sup>[1]</sup>

[The anesthesiologist inserted a 21-gauge catheter into the R radial artery for monitoring.](#)<sup>[2]</sup>

A central line was already in place.

[PS 4](#)<sup>[3]</sup>

### Preoperative Diagnosis:

1. History of esophageal cancer
2. Esophageal perforation

### Postoperative Diagnosis:

1. [History of esophageal cancer](#)<sup>[4]</sup>
2. [Partial thickness esophageal perforation](#)<sup>[5]</sup>

### Name of Procedure:

1. Esophagogastroduodenoscopy
2. Ivor-Lewis esophagectomy
3. Feeding jejunostomy
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**Anesthesia:** General endotracheal by Dr. D.

**Indications for Procedure:** Patient is a 58-year-old man who has history of esophageal cancer. He has been treated with chemotherapy and radiation. Today, after eating a sandwich, he experienced severe retrosternal pain associated with vomiting of blood. He became febrile and tachycardic. He was diagnosed with esophageal perforation and was transferred.

**Description of Operative Procedure:** The patient was taken to the operating room immediately. He was placed under general endotracheal anesthesia. The flexible [endoscope was introduced into the upper esophagus.](#)<sup>[6]</sup> The scope was advanced. There was some bruising of the esophageal wall from 30 to 40 cm. There was a stricture at the distal end of the esophagus around 45 cm from the incisor, but I was able to pass the scope through it without any problem. The stomach was entered. There was a lot of bile-stained fluid in the stomach which was aspirated. It was about 700 mL. The stomach was inspected. Otherwise, no other lesion. I was unable to pass the scope into the duodenum. The scope was then withdrawn after the stomach was deflated. The finding in the esophagus was noted again on withdrawal. The chest and abdomen were prepared with Chloraprep and draped in the usual sterile fashion with the patient supine on the operating table. The upper midline incision curving to the left side of the umbilicus was performed. A quick inspection of the abdomen showed no gross metastasis. However, there were a number of lymph nodes around the left gastric artery that were matted together. I palpated the gallbladder and did not feel any gallstones. I mobilized the stomach. I first [divided the gastrocolic omentum,](#)<sup>[7]</sup> ligating all the branches without damaging the gastroepiploic artery. [The left side of the gastrocolic omentum was divided](#)<sup>[7]</sup> using endoscopic vascular stapler. [The gastroesophageal omentum was similarly divided.](#)<sup>[7]</sup> The left triangular ligament of the liver was divided. The esophageal hiatus was dissected, and the abdominal esophagus was encircled with a Penrose drain. The anterior portion of the esophageal

hiatus was divided. **The gastrohepatic omentum was divided.**<sup>[7]</sup> Then we came to the left gastric artery pedicle. There were a lot of lymph nodes and they were matted together. Initially, I tried to divide it using the endoscopic GIA stapler, but it was not successful because of the bulk of the tissue. There was some bleeding and I controlled it with a Satinsky clamp. Finally, the bleeding was controlled by running 3-0 and 4-0 Prolene. Then the Kocherization of the second portion of the duodenum was performed. **A pyloroplasty was performed**<sup>[8]</sup> by incising longitudinally through the pylorus and then sewing this defect in a transverse fashion using interrupted 3-0 silk stitches. Then the omentum was used to cover this pyloroplasty incision. **Then a jejunostomy was performed by placing a size 16 red rubber catheter through the left upper quadrant into the abdomen, into the antrum and anti-mesenteric border of the proximal jejunum, about 20 cm distal to the jejunoduodenal junction. The red rubber catheter was secured to the jejunum using one stitch of 3-0 Vicryl and then a 4-0 silk purse-string.**<sup>[9]</sup> Then the groin portion of the jejunum was anchored to the abdominal wall using interrupted 4-0 silk. Hemostasis was ascertained. The peritoneal cavity was irrigated with warm Ancef containing saline. The abdominal fascia was closed with #1 looped PDS from the top and from the bottom and tied in the middle. Of note, the patient had an umbilical hernia. When I entered the abdomen, the umbilical hernia was taken apart by taking the umbilicus off the abdominal fascia. When I closed the abdominal fascia, the abdominal umbilical hernia was closed. Then the skin was closed with a stapler. The patient was then turned to the left lateral decubitus position. The right chest was prepared with Chloraprep and draped in the usual sterile fashion. **A right posterolateral thoracotomy**<sup>[10]</sup> was performed. The latissimus dorsi muscle was incised and the serratus retracted anteriorly. The fifth intercostal space was entered. There was about 100 mL of yellowish tepid fluid in the right chest that was sent for various studies. The mediastinum appeared to be somewhat swollen and edematous. **I mobilized almost the entire thoracic esophagus. The last group of subcarinal lymph nodes was sent for permanent section.**<sup>[11]</sup> After mobilizing the esophagus, I did not see any gross full-thickness perforation. The stomach was delivered in the chest. Then the lesser curve of the stomach was prepared for resection. **The cardia of the stomach was resected using three firings of the GIA75 mm blue stapler.**<sup>[12]</sup> Then the upper thoracic esophagus was divided using a size 29 mm EEA stapler<sup>[13]</sup>. The anvil was inserted into the proximal esophagus and then a purse-string was performed of the free edge of the esophagus using running 3-0 Prolene. **The most proximal portion of the new lesser curve was inverted using interrupted seromuscular 4-0 silk stitches. Then the lesser curve was opened for a distance of about 2.5 cm and the body of the EEA stapler was inserted with the spike coming out of the stomach near the greater curve.**<sup>[14]</sup> Then the anvil was shunted to the body of the stapler which was then closed, and the stapler was fired. I asked the anesthesiologist to pass the nasogastric tube down into the body of the stomach and gastrostomy was closed with running 3-0 Prolene. The right chest was then irrigated with a copious amount of saline and then insufflated with continuous saline. Two On-Q pain pump catheters were threaded in the paraspinous position to traverse two intercostal spaces above and below the level of thoracotomy. A 28-French apical and a 28-French basal chest tube inserted. The right lung was reinflated. The rib cage was closed with four figure-of-eight #2 Vicryls. The serratus anterior latissimus dorsi muscle was closed with running #1 Vicryl and the subcutaneous tissue closed with running 2-0 Vicryl. The skin was closed with stapler. The patient tolerated the procedure well. He was then transferred to the intensive care unit in stable condition.

**Estimated Blood Loss:** Approx. 500 mL.

**Sponge, Instrument and Needle Counts:** Correct.

<sup>[1]</sup> Anesthesia start and stop times used to calculate total time units.

<sup>[2]</sup> Insertion of the arterial line.

<sup>[3]</sup> Physical status modifier to report.

<sup>[4]</sup> Secondary Diagnosis.

<sup>[5]</sup> Primary Diagnosis: Reason for surgery.

<sup>[6]</sup> Esophagogastroduodenoscopy.

<sup>[7]</sup> Stomach dissected free of surrounding structures.

<sup>[8]</sup> Pyloroplasty done.

<sup>[9]</sup> Placement of the feeding tube in the jejunum.

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