

# Tech in Surgery-Certified Detailed Test Plan

Effective: January 2024  
EX-0504

## TS-C (NCCT) Detailed Test Plan

This detailed test plan reflects the results of a national job analysis study that determined the critical job competencies to be tested by NCCT in this certification examination. It contains 150 scored items, 25 unscored pretest items, and candidates are allowed four (4) hours to complete the examination. This certification examination is comprised of 92% standard, 4-option multiple-choice items and 8% alternative items (e.g., Drag and Drop, Multi-Select, Hotspot).

### Number of Scored Items    Content Categories

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<b>41</b>	<b>1 Perioperative Care and Preparation</b>
9	<b>A Basic Science</b>
	1 Apply knowledge of human anatomy to the surgical procedure.
	2 Understand the uses, effects, and complications of drugs.
	3 Execute the “Rights” of medication administration.
	4 Use appropriate fluids based on surgical procedure needs.
12	<b>B Integrity and Sterility of Items</b>
	1 Identify various methods of sterilization (e.g., steam, gas).
	2 Verify biological and air removal tests per protocol.
	3 Verify correct package integrity (e.g., read indicators, know what makes a package unsterile).
	4 Identify common sources of contamination/bioburden (e.g., liquid, rust, tissue).
11	<b>C Environmental Safety</b>
	1 Initiate preventative and/or corrective actions in potentially hazardous situations (e.g., SDS, biohazard spills, surgical smoke).
	2 Apply emergency preparedness knowledge, when necessary (e.g., RACE, PASS).
	3 Ensure patient and surgical team safety during laser procedures.
	4 Follow CDC Standard Precautions and transmission precautions (e.g., airborne, contact, droplet, hand-hygiene).
9	<b>D Communication and Reporting</b>
	1 Communicate updates to a surgeon’s preference card to the surgical team.
	2 Perform the count with a nurse at appropriate times.
	3 Provide the surgical team with information required to complete an incident report.
	4 Differentiate between a reportable incident and a sentinel event.
	5 Label specimens, medication and solutions appropriately.
<b>48</b>	<b>2 Preoperative Care and Preparation</b>
16	<b>A Surgical Procedure Set-Up</b>
	1 Prepare the operating room environment according to the surgical procedure (e.g., temperature).
	2 Use preference card to obtain supplies.
	3 Use appropriate personal protective equipment (e.g., mask, eye protection).
	4 Prepare equipment in the operating room (e.g., bed, table, ring stand, kick bucket).
	5 Assess and assemble any instruments used during the case.
	6 Arrange sterile instruments and supplies for surgical procedures.

- 14      **B Patient Safety**
- 1      Anticipate the needs of special patient populations (e.g., pediatric, geriatric, bariatric).
  - 2      Transfer the patient safely to and from the procedure table.
  - 3      Assist in using appropriate safety equipment.
  - 4      Participate in the Surgical Time Out.
- 18      **C Sterile Technique**
- 1      Apply principles of aseptic techniques when opening the sterile field.
  - 2      Follow proper sequencing for the surgical hand scrub.
  - 3      Follow proper technique for donning sterile gown and gloves.
  - 4      Follow proper technique for gowning and gloving the surgical team.
  - 5      Follow proper technique for prepping and draping the patient.
  - 6      Recognize and respond to any breaks in sterile technique.
- 37**      **3 Intraoperative Care and Preparation**
- 11      **A Preparation of Supplies**
- 1      Select the appropriate sutures and needles.
  - 2      Verify with the surgeon and circulating nurse the type and expiration date of implantable devices.
  - 3      Prepare the surgical device for implantation (e.g., drains, catheters, tubing).
  - 4      Identify and prepare the appropriate stapling devices.
- 26      **B Surgeon Support**
- 1      Determine necessary instruments and supplies during surgery (e.g., bleeder, open vs. laparoscopy).
  - 2      Anticipate intraoperative assistance to the surgeon (e.g., sponging, suctioning, irrigation, wiping instruments).
  - 3      Assess the need for retraction to facilitate proper operative exposure.
  - 4      Apply indirect cautery under the direction of the surgeon.
  - 5      Organize and handle suture materials.
  - 6      Pass and cut suture materials.
  - 7      Organize and handle instruments based on surgical wound class (e.g., bowel, cancer, vaginal).
  - 8      Handle specimens appropriately.
- 24**      **4 End of Procedure Tasks and Postoperative Care**
- 12      **A End of Procedure Tasks**
- 1      Assist the surgeon with skin closure.
  - 2      Prepare dressing materials for application.
  - 3      Assist the surgeon with application of post-surgical devices (e.g., splints, braces, casts).
  - 4      Verify procedure process and results (e.g., specimen, procedural changes, implants used).
  - 5      Report the total amount of medications and solutions used during the procedure.
  - 6      Recognize possible post op complications (e.g., bleeding at surgical site, hematoma).
- 12      **B Postoperative Tasks**
- 1      Maintain the sterility of the back table and mayo stand until the patient leaves the room.
  - 2      Prepare the instruments for the decontamination and sterilization process.
  - 3      Use appropriate liquid disinfectants.
  - 4      Complete room turnover between surgeries.
  - 5      Complete end-of-day cleaning of operating room and supply return.

## Essential Knowledge Base:

### Apply a working understanding of these integrated concepts:

- 1 Aseptic technique
- 2 Anatomy and physiology
- 3 Microbiology
- 4 Pharmacology
- 5 Emergency preparedness
- 6 Healthcare regulations and policies
- 7 Pathophysiology
- 8 Patient rights
- 9 Safety protocol
- 10 Surgical counts
- 11 Surgical conscience
- 12 Instrumentation
- 13 Safety equipment
- 14 Operating room environment
- 15 Patient positioning and preparation
- 16 Instrument sterilization
- 17 Special patient populations
- 18 Draping
- 19 Tissue specimen handling
- 20 Surgical procedures
- 21 Dressings/bandages
- 22 Wound closure supplies
- 23 Post-surgical devices



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