

Spine Deformity Surgery Team Checklist (SDSTC) 2021

Preop Area

- ___ Confirm postop bed availability (ICU, PICU)
- ___ Surgical site marked with initials
- ___ All piercings & jewelry removed
- ___ Review TXA contraindication: clotting, stroke
- ___ Malignant Hyperthermia risk?
- ___ Allergies, and Latex Allergy?
- ___ Patient and family questions answered.
- ___ No skin infections. No Respiratory symptoms.
- ___ Preop neurologic exam
- ___ Presence implantable devices (pacemaker, vagal nerve stimulator, etc) & safety with neuro-monitoring
- ___ Surgical/ post-surgical plan reviewed w patient/family
- ___ Surgical and blood consent completed
- ___ Family member names & mobile number. Intraop call frequency
- ___ Chlorohexadine (CHG) wipe to surgical site
- ___ Hospital admin tasks (H+P update, Admit & other orders)

Pre-Flight OR Team Briefing

- ___ Visit OR and greet/welcome staff
- ___ All team members on white board.
- ___ Set room temp 69F/21C
- ___ Review surgical plan with staff and positioning
- ___ Neuromonitoring Tech: Type, Concerns, and ? Pre-Turn monitoring
- ___ Anesthesia: Airway concerns?
- ___ Anesthesia: TXA, Drugs Use/Don't Use (Suf/Prop), MAP&BIS goals
- ___ RM equip: light boxes, Lat X-Ray holder, lead shield, fluid warmers
- ___ Confirm Cell saver ordered
- ___ Confirm Imaging ordered
- ___ Instrument layout photograph available
- ___ Specials for Today. All equipment available?
- ___ Give Circulator Saline: Betadine 3:1
- ___ Check OR Table pin position and test.
- ___ Thigh foam pad and 3 pillows at foot
- ___ Stool under table for X-Ray
- ___ Put on under-body warmer on Jackson Table
- ___ Sutures for the Field
- ___ Bone Graft ordered
- ___ Dural repair supplies in room
- ___ Diamond and metal cutting bur available in room
- ___ Prep table setup: Alcohol, 4x4's, CHG, skin marker
- ___ Any questions from team? Thank you for your help.

Before Turning

- ___ Imaging up on wall or monitor, w proper orientation
- ___ Confirm vertebral numbering / transitional anatomy
- ___ Surgical implant "map" and other diagrams posted
- ___ Warm Blankets On Patient
- ___ Double-Check OR Table pad positions
- ___ IV's flowing normally, no infiltrate (compartment syndrome avoid)
- ___ Foley placed with good urine flow
- ___ Pneumatic boots applied and turned on
- ___ Evoked Potential Wire Placement Done
- ___ BIS Monitor on forehead
- ___ Endo-Tracheal tube taped securely*
- ___ Bite block x2 between molars*
- ___ Stretcher and OR Table heights checked, tables locked
- ___ Ensure all lines, foley, wires are free
- ___ NM Tech: Identify Needle Locations (staff safety)
- ___ Confirm grounding pad not over needles (burn risk)
- ___ Verify Wrists hand needles wrapped w towel (staff safety)

Positioning

- ___ Patient gently turned to prone, arms positioned
- ___ Eyes, nose, lips, ears protected w/o pressure *
- ___ ET Tube taped in securely*
- ___ Two bite blocks in place between molars*
- ___ Chest roll is away from brachial plexus/airway*
- ___ Reverse Trendelenburg 4 degrees (eyes & airway)
- ___ Neck neutral position*
- ___ For women, adjust breasts to minimize pressure
- ___ Turn on warmers on high, warm blankets on
- ___ Elbows/shoulders 90 degrees, no pressure ulnar n.
- ___ Arm boards out of way for surgeon
- ___ Ensure all IV/A-line connectors tight, no skin press
- ___ Pneumatic boots on, plugged in and turned on.
- ___ Add additional foam under iliac wings if needed
- ___ Pelvis level, thighs on pads, knees no pressure
- ___ Legs on pillows w knees flexed, strap on.
- ___ Under Pt: Abdomen & G-Tubes / lines / ITB pumps free pressure
- ___ Under Pt: Genitals free of pressure, not lying on foley valve
- ___ Under Pt: Tape/Velcro up Foley /NM wires (C-Arm)

Prep and Drape

- ___ ? Shoulders/Buttock taped to prevent creasing.
- ___ Upper and Lower Warm blankets applied
- ___ 4x4 sterile sponge alcohol wipe down entire back
- ___ Confirm no alcohol pooling (fire risk)
- ___ Surgical lights lined up over the surgical field
- ___ Edge drapes away from planned incision (avoid drape creep)
- ___ CHG Prep and Dry x3min
- ___ Confirm no CHG pooling (fire risk)
- ___ Skin incision and cross-hatches marked
- ___ Large Sticky Drape, Splits, and edges sealed
- ___ Red banner / Tape across main OR door
- ___ Confirm patient stretcher location outside door & labeled
- ___ Family name/phone number on white board
- ___ Trip Hazard check: tape down all wires/tubes
- ___ Foot pedals proper position.
- ___ Bovie, Bipolar, Drill Settings set and tested

Legend/Notes

- *Confirm with 2 team members
- SRG: surgeon
- RN: circulating nurse
- AN: Anesthesiologist / CRNA
- NM: Neuromonitoring Tech
- [PreOp Team Email Welcome & Training Example](#)
- For information on training and access to Electronic checklist web app, see: <https://careguard.org/spine-surgery-checklist>
- Or email drloydhey@gmail.com
- <http://www.srs.org/safety&value> (future)

Pre-Incision Timeout

- ___ SRG: Welcome & Team introductions name and role
- ___ SRG: Patient/Family Intro & Surgical Plan, EBL
- ___ SRG Reviews Preop Imaging: ID, levels, Transitional / Aberrant Anat.
- ___ RN: Patient name, DOB confirmed with Anesthesia
- ___ RN: Surgery consent read aloud, Confirm Site marking & Approach
- ___ RN: Allergies / Latex Allergies
- ___ RN: Positioning confirm legs/feet ok & strap on legs
- ___ RN: Blood availability
- ___ AN: Antibiotic given within 1 hour skin incision, & redose interval
- ___ AN: Positioning confirm OK eyes, nose, mouth, bite block, ears, neck, arms/shoulders
- ___ AN: warm all fluids, warmers on high until PT 37c
- ___ AN: minimize fresh gas flow to move bellows (1 liter - for normothermia)
- ___ AN: TXA given and drip started (50mg/kg, 5mg/kg/hr)
- ___ AN: MAP in 70's exposure, 80's during rod insertion
- ___ AN: q30m Verbally Report Eyes, ET Tube & Hands OK;
- ___ AN: q30m Verbally Report: EBL, MAP, PPV, BIS, TEMP, Urine Output*
- ___ RN: IF ARMS TUCKED, Verbal "Hands OK" q30m
- ___ RN: Verbal "Legs OK" q30m
- ___ Timers set for q30 min Anesth & foot/leg checks, 90m fam call, 2h glove changes, and Antibiotic redose
- ___ ASSISTANT: be aware spinal "RED ZONE" L1 & above - sucker/cord safety
- ___ NM: Neuromon being performed & baselines
- ___ NM: NM Emergency Checklist Available
- ___ Malignant Hyperthermia Risk & cart location
- ___ Fire Safety Review: no alcohol/CHG pooling.
- ___ Safety zone & sharps awareness – pass blunt end
- ___ Keep light handles 10 cm above highest head
- ___ Floor clear trip hazards, cables/tubes taped down.
- ___ Verify bed location and label in case of emergency
- ___ Make sure everyone is double gloved
- ___ Minimize trips going in and out of room unless necessary.
- ___ Sit down immediately if light-headed and notify staff.
- ___ Keep talking to minimum to maximize communication.
- ___ Use verbal "read-backs" to ensure accurate communication
- ___ SRG: "What safety concerns does everyone have?"
- ___ SRG: "I encourage all team members to to speak up during surgery"
- ___ SRG: "All Agree with Timeout and OK to proceed?"
- ___ All team members reply with verbal "Aye"

End of Surgery Debrief

- ___ What went well in the surgery?
- ___ What could we have done to make process safer/more efficient?
- ___ Complications?
- ___ Any equipment problems?
- ___ Any preventable trips in/out of OR room?
- ___ Sustainability/Stewardship Waste Avoidance
- ___ Suggested changes to checklists?
- ___ Review planned vs. actual target times including wakeup
- ___ Thank everyone for their help

Intra-Op

- ___ RN calls family for first phone call, marked on board
- ___ Metal marker over transverse process or in bone for level confirmation
- ___ Betadine sponge in wound, towel covering for X-Ray
- ___ AP/Lat Fluoro/X-Ray: confirm marker position with 2+ team members*
- ___ Perm
- anent mark with bur made on bone prior to marker removal.
- ___ Marked Level written on white board
- ___ Hemostasis check completed left side
- ___ Vancomycin powder 1gm rubbed into muscle left side
- ___ Hemostasis check completed right side
- ___ Vancomycin powder 1gm rubbed into muscle right side
- ___ **Pedicle screw placement safety subroutine (include link/video)**
- ___ Each step called out verbally as completed
- ___ Betadine sponge in wound, towel covering for X-Ray
- ___ Fluoroscopic/X-Ray/3D imaging confirmation screw position
- ___ XR: harmonious screw cascade
- ___ XR: screw lengths good on lateral
- ___ Possible screw impedance check
- ___ Confirm MAP raised to 80+ with AN. Turn off Sufenta.
- ___ Rods inserted bilaterally
- ___ Adequate rod sticking out each end, no muscle entrapment.
- ___ Betadine sponge in wound, towel covering for X-Ray
- ___ X-rays: good coronal/sagittal balance, LIV tilt, rod lengths, no screw plow
- ___ XR: no pneumothorax.

Before Closure

- ___ Screw caps locked double check by surgeon/asst.
- ___ Valsalva maneuver done to confirm no spinal fluid leak.
- ___ Irrigate wound copiously with saline
- ___ Complete posterolateral decortication
- ___ Place bone graft mixed w 2g Vancomycin.
- ___ Meticulous hemostasis confirmed
- ___ Drain placement if needed.

Closure

- ___ Fascia closure at distal and proximal ends first
- ___ Great care to ensure drain not sutured in
- ___ Push down on wound to test for water-tight closure?
- ___ Running water-tight fascial suture
- ___ Confirm body weight, then Inject 0.5% Marcaine w/ epi
- ___ Dermabond / Steri-Strips applied
- ___ Confirm Evoked potential monitoring normal
- ___ Remove ALL non-disposables (bipolar, clips, cables)
- ___ Pre-turn check all lines/foley & drains. Loosen Foley from table.

Turn to Supine

- ___ Turn supine onto bed gently, watching foley and drains
- ___ All NM needles removed and counted.
- ___ Inspect face, arms, hands, chest, pelvis & extremities
- ___ Patient moved bilateral lower extremities.
- ___ Extubated
- ___ Tongue check: no laceration
- ___ Extubated and moving lower extremities (wakeup done)

The Development and Implementation of a Spine Surgery Team Checklist v20200915 LA Hey

