COUNTY OF LOS ANGELES **DEPARTMENT OF HEALTH SERVICES**

HARBOR-UCLA MEDICAL CENTER

SUBJECT: OPERATING ROOM PROTOCOL **POLICY NO. 314A**

PURPOSE:
To establish the primary principles, policies and procedures that will ensure safe, efficient and cost-effective care of inpatients and outpatients who undergo procedures in the Operating Rooms.

POLICY:
Harbor-UCLA Medical Center's Operating Room Committee has adopted the following policies and procedures regarding utilization of the Operation Room Suite. In all phases of patient care in the Operating Room, the provisions of Policy No. 380 "Verification of Correct Patient, Procedure and Site" will be followed. The Clinical Director for Perioperative Services will be responsible for the governance of the Operating Room with respect to resolving scheduling and operational issues.

DEFINITIONS
1. **Redline/emergent:** A condition that demands immediate intervention to prevent the loss of life, limb, or organ function.
2. **Urgent:** A condition that requires intervention within a specific time frame to best ensure optimal outcome.
3. **Elective:** A condition that requires intervention but not within a specific time frame for optimal results.

PROCEDURE:

I. HUMAN RIGHTS AND DIGNITY OF PATIENTS

The care of patients should be conducted at all times with consideration for individual human rights and dignity. Every consideration should be given to the personal and psychosocial needs of the patient. All health care providers within the Operating Room Suite must be cognizant of and sensitive to the patient's physical and psychological comfort levels, rights of privacy, and personal dignity.

II. SCHEDULING OF ELECTIVE OPERATIONS

1. The Clinical Directors for Perioperative Services from Nursing, Anesthesia, and Surgery, in conjunction with Surgery Scheduling Center personnel, coordinate the Operating Room Schedule.
2. In general, the Operating Room hours for scheduled procedures are from 0730 to 1900 hours, Monday through Friday, except Wednesdays 0930 to 1900 hours, and with the exception of

rooms designated to end prior to 1900 by the Operating Room Committee. Electively scheduled cases are pre-empted by redline/emergency cases. Urgent cases can also be inserted into the elective block time schedule, but preferably into a surgical service's own block time.

3. The elective Operating Room schedule of each surgical service is to be submitted via the electronic health record to the Surgery Scheduling Center by 1200 hours the day before scheduled operations.
4. Monday elective cases must be scheduled by 1200 hours on the preceding Friday. Failure to submit cases on time result in loss of elective OR block time.
5. All proposed operations must be submitted to the Surgery Scheduling Center.
6. The names of the Attending Surgeon and Resident Surgeon are required on all scheduled procedures.
7. The responsibility for scheduling operations lies with the Attending or Senior Surgical Resident.
8. All electively scheduled patients for outpatient or same-day-admission surgeries will be evaluated pre-operatively by Anesthesiology provider staff prior to the scheduled operation. The Surgery Scheduling Center will be responsible for scheduling a Pre-Admission Testing (PAT) Clinic appointment (if needed) and for notifying the patient.
9. If the patient requires an ICU bed post-operatively, the surgeon should note this in the "Comments" section of the case booking.
10. If a regional anesthestic block is requested, the surgeon should note this in the "Comments" section of the case booking.

III. REDLINE/EMERGENT OPERATIONS

1. Redline/emergent procedures will take precedence over elective procedures. A surgeon requesting redline/emergent use of the Operating Room will notify the Operating Room Nurse Supervisor or designee AND the Trauma Attending on-call. The redline/emergent case will be accommodated in the first available Operating Room. The Operating Room Nursing Supervisor will be responsible for immediately notifying the Anesthesiologist-in-Charge of all emergent cases.
2. Prioritization of redline/emergent cases will be the responsibility of the Trauma Attending on-call.
3. If a redline/emergent case mandates postponement of an elective case, the delay will occur on the service that is involved with the redline/emergency, whenever possible.
4. Anesthesia and Nursing shall provide three-room emergency Operating Room capacity on evenings, nights, weekends and holidays. In the event an additional room is required, the Operating Room Nursing Supervisor or designee and the Anesthesiologist on call will coordinate the staffing coverage for the extra room.

IV. URGENT OPERATIONS

Urgent cases will be scheduled in the same fashion as emergent cases but will be accommodated on a first available room basis. Elective cases will not be pre-empted by urgent cases.

1. Whenever elective block Operating Room time unexpectedly becomes available on the day of surgery, the Trauma Attending Surgeon on-call will prioritize any awaiting emergent or urgent cases for scheduling into the empty room.
2. If a service has urgent cases and additional unused elective block time in their own room on a given day, that service will be permitted to complete those urgent cases in their elective room as staffing permits.

V. CHANGES/CANCELLATIONS

1. It is the responsibility of the surgeon to formally cancel a scheduled case. The surgeon must indicate the reason for cancellation and communicate this reason to the OR desk. If the Attending Anesthesiologist determines that a patient is inadequately prepared for an operation, communication with the attending surgeon should take place to determine whether postponement or cancellation of the case is appropriate. The reason for cancellation should also be documented in the patient's medical record.
2. Necessary changes in the schedule must be made by 1200 hours on the day prior to scheduled surgery.
3. If scheduling changes are made, the Scheduling Center must be notified.
   a. In the event an elective case is cancelled and rescheduled to a later date, the patient must have a new pre-operative appointment to the Pre-anesthesia Assessment & Treatment (PAT) Clinic if the original PAT appointment does not fall within 30 days of the rescheduled surgery date. The Surgery Scheduling Center will be responsible for scheduling the PAT Clinic appointment and for notifying the patient of the new PAT Clinic appointment.
   b. **Note:** Refer to Policy 314A "Pre-anesthesia Assessment & Testing for Elective Outpatient and Same-day-admission Surgery Patient".

VI. OPERATING ROOM STAFFING

1. The Operating Room Suite will be staffed for the performance of sixteen Operating Rooms, Monday through Friday. Sixteen rooms per day will be staffed from 0700 to 1900 hours, except Wednesdays 0900 to 1900 hours, or if an exception is determined by the Operating Room Committee. A minimum of three rooms will be available for urgent or emergent operations Monday through Friday from 1900 to 2300 hours. Two rooms will be in operation (in addition to a third room for trauma or other emergencies) Monday through Friday 2300 to 0730 hours, and on Saturdays, Sundays and holidays from 0730 to 0730 hours.
2. A surgical team will consist of one or more surgeons, a Registered Nurse (Circulating Nurse), and a Scrub Nurse (either a Surgical Technician or nurse with scrub experience), and one or more anesthesia personnel under the supervision of an Attending Anesthesiologist. Anesthesia personnel will not be required for straight local anesthesia cases. Straight local cases must be monitored by a Resident from the surgical team as defined by the Medical Center policy on Procedural Sedation. No cases will be performed without a full surgical team. Additional staff members may be assigned based on patient care requirements.
3. A Registered Nurse must be functioning as the Circulating Nurse and be in attendance throughout the procedure, regardless of the type of anesthesia administered.

VII. PREOPERATIVE REQUIREMENTS

1. Prior to booking an elective or urgent surgical case, the resident or attending surgeon will have an informed consent discussion with the patient or legal surrogate. This discussion should include the indication for the procedure, a description of the procedure itself, and the risks, benefits, and alternatives to the planned procedure. All of the patient's/legal surrogate's questions should be answered satisfactorily. When possible, a copy of the written surgical consent form will be provided to the patient for review.
2. All elective and urgent preoperative patients must have a surgical plan documented in either a Pre-Operative Surgeon's Note or as an addendum to the admission History & Physical in the electronic health record. The surgical plan documentation will consist of the pre-operative

diagnosis, planned procedure, attending surgeon(s), planned date of surgery (if known), and informed consent discussion including risks, benefits, alternatives of the procedure and that all of the patient's questions were addressed. Any specific considerations for the type of anesthesia to be used should also be included in the Pre-Operative Surgeon's Note.

3. The Pre-Operative Surgeon's Note will be placed in the Pre-Operative Note position in the Surgical Documentation folder of the electronic health record.
4. If there is not a complete surgical plan documented in either the Pre-Operative Surgeon's Note or as part of the admission History & Physical, then the case will not be booked by the Surgery Scheduling Center.
5. On or before the day of surgery, the surgeon will obtain a valid, witnessed Informed Consent and place this form in the patient chart. In such cases where a medical emergency exists, and immediate interventions are required for the alleviation of severe pain or for the immediate diagnosis and/or treatment of medical conditions that could lead to serious disability or death if not treated, the emergency exception rule can and should be invoked. This rule does not require two physician signatures. However, in such instances, precise documentation of the rationale for performance of the emergency interventions in the medical record by the most senior provider in attendance is required. For detailed information on the Informed Consent process refer to Hospital Policies 604A ("Informed Consent") and 604C ("Documenting Use of Interpretation Services during Informed Consent Discussions").
6. Telephonic consents, telegrams, emails, letters or fax transmissions are acceptable. These must be obtained prior to surgery. For detailed instructions on obtaining telegram or fax consents, the Vital Statistics Unit should be contacted at extension 6-4034. Detailed information may be obtained by reference to Hospital Policy 604B ("Informed Consent by Telephone, Facsimile, Letter, Telegram, and Email").
7. The informed consent for surgery does not have an expiration date but must be revised if there is a change in the patient's medical condition which may affect the procedure.
8. Except in cases of immediate emergency, all patients should have in their medical record a history and physical examination within 30 days of surgery, an interim note within 24 hours of surgery and a surgical plan note prior to arrival in the Operating Room Suite. The interim note MUST either: a) state that the patient was re-examined and there was no change from the previous history and physical; or b) state that the patient was re-examined and document the changes from the previous history and physical.
   Note: Refer to **Attachment 1**: "Pre-Anesthesia Testing Guidelines".
9. Except in cases of immediate emergency, all preoperative patients should have a preoperative note by the Anesthetist, as well as the minimal preoperative laboratory evaluation completed. The minimal preoperative laboratory evaluation should be completed according to established guidelines (See **Attachment 1**: "Pre-Anesthesia Testing Guidelines").
10. The availability of blood for transfusion should be indicated in the medical record. If blood has been reserved for an elective case but is not available, the Surgeon or Anesthesiologist may deem cancellation of the case necessary. (**See Attachment 2**: "Blood Availability Guidelines")
11. The final decision regarding the type of anesthesia to be provided will be made by the Anesthesiology staff in discussion with the operating surgeon.
12. Patients with transmissible infectious diseases should be indicated in the medical record.
13. Straight local anesthesia cases must be adults and ASA Class I or II.
14. In accordance with Hospital Policy No. 380 ("Verification of Correct Patient, Invasive Procedure and Surgical Site [Universal Protocol]"), the anesthesia provider, circulating nurse, and surgical

resident or attending shall participate in the "pre-op briefing" to verify correct patient, procedure, site/side/level (where applicable), and planned anesthesia prior to bringing the patient into the operating room. The patient should be involved in the process whenever possible. If after review of the Informed Consent form and the surgical plan in the Pre-operative Surgeon's note, the circulating nurse has any unaddressed questions or concerns about the operative plan, then s/he will communicate directly with the surgical attending of record for clarification.

15. The attending surgeon will participate in the pre-op briefing (informally known as "the huddle") prior to every operative case, to confirm his/her availability and level of supervision of the resident or fellow for the procedure. If the attending is not able to be present in-person at the pre-op briefing, then the resident or fellow will inform the attending that the pre-op briefing is occurring and provide the phone extension for him/her to call into the pre-op briefing. If an operative case is expected to involve more than one attending surgeon, then each attending involved will be required to participate in the pre-op briefing. The attending will clarify the level of resident/fellow supervision as:
    a. **Direct supervision** – the attending is physically present with the resident/fellow and patient;
    b. **Indirect supervision with direct supervision immediately available** – the attending is physically within the hospital or on the Harbor-UCLA campus, and is immediately available to provide direct supervision;
    c. **Indirect supervision with direct supervision available** – the attending is not physically present within the hospital or on campus but is immediately available by means of telephone or other electronic modalities and is available to provide direct supervision.

    The attending must be present either in-person or by phone for the entire pre-op briefing. If the attending is not available to participate in the pre-op briefing, or if any staff member involved in the briefing does not agree that the required elements of the briefing have been met, then the patient will not be brought into the Operating Room.
16. If any part of the planned operative procedure requires direct supervision, then, at the time of the pre-op briefing, the attending will indicate whether s/he is physically in the hospital, and, if not, the expected timeframe that s/he will arrive to the Operating Room.

VIII. INTRAOPERATIVE CONDUCT

1. An Attending Surgeon and an Attending Anesthesiologist will appropriately supervise all procedures carried out in the Operating Room. Should Attending supervision be unavailable, the operation should be canceled or postponed if possible.
2. All personnel entering the Operating Rooms are to be provided with proper attire to include scrub suits, caps or hoods, masks, shoe covers and eye protection. All head and facial hair, ears and earrings must be covered by a disposable bouffant style cap or hood. Cloth caps must also be covered by a disposable bouffant style cap.
3. In accordance with Hospital Policy No. 380 ("Verification of Correct Patient, Invasive Procedure and Surgical Site [Universal Protocol]"), prior to commencing any operation a final "time out" will be called and verification of the correct patient, procedure and site/side/level (where applicable) will be agreed upon by the surgeon, anesthetist and circulating nurse. The verification will be documented on the Record of Operation.
4. As part of the final "Time Out" the "DHS Standardized Final Surgical Time Out" Checklist (see **Attachment 3**) will be used to ensure that appropriate antibiotics, blood availability, imaging and test results, patient positioning, site marking, equipment availability, and any other problems or concerns are being properly addressed prior to commencement of the operation. This will include

specific communication between the Attending Anesthesiologist and the Attending Surgeon regarding patient airway issues or potential problems that could lead to intraoperative or immediate postoperative management difficulties related to operations involving the airway itself or changes in the caliber, integrity, or functionality of the airway.

5. All personnel leaving a contaminated Operating Room should discard cap or hood, shoe covers, mask, gloves, and the gown inside the Operating Room.
6. When leaving the Operating Room Suite, individuals must remove cap or hood, mask and shoe covers.
7. All cases must be supervised by Attending Surgeon and an Attending Anesthesiologist. The level of Attending Surgeon supervision will be documented in the electronic health record.
8. The Anesthetist will be prepared to induce the first electively scheduled patient at 0730 hours such that the operation may begin by 0800 hours. A surgeon (of an appropriate level to begin the procedure) must be present prior to induction of anesthesia.
9. The nursing staff will attempt to ensure that adequate preparations have been made such that patients are ready and draped for incision by 0800 hours.
10. Operations will be conducted with the strictest attention to sterile technique.
11. Surgical counts will be conducted according to Policy 314C: Prevention of Retained Surgical Items.
12. Whenever there is a change in managing anesthesiology personnel or surgical operating team leadership during progress of a case, there will be a "hand-off" communication between the anesthesiology and surgical providers that will include the procedure being performed, the current stage and progress of the procedure, the current physiologic status of the patient, the current fluid intake and output measurements, and any problems being encountered in the conduct of the operation. This "hand-off" communication will be initiated by the newly participating provider, whether an anesthesiology provider or surgeon. Any change in Operating Room personnel will be communicated to the entire Operating Room team.
13. Whenever there is a permanent change in nursing staff, there will be a "hand-off" communication between the incoming and outgoing nursing staff that will include patient status and case status, surgical count, and when appropriate, specimen status, blood product availability, and planned post-operative patient disposition. An official "shift-change pause" will be called, whenever possible, during the surgical sponge counts to minimize distraction and maximize the accuracy of the count. Any change in Operating Room personnel will be communicated to the entire Operating Room team.
14. Operating Room traffic will be restricted to include only personnel with direct patient care involvement.
15. Observation of surgical procedures is limited to enrollees of health care educational institutions and visiting academic personnel. Casual observation is prohibited. Company representatives are allowed only when their consultation is essential to the safe and proper use of new equipment or supplies, and their admission must be approved by the Attending Physician or the Attending Anesthesiologist, and the Operating Room Nursing Supervisor. In such instances, the patient should be informed of the consultant's presence in the Operating Room. The company representative will be denied entry into the Operating Room in the absence of the Attending Surgeon or Anesthesiologist. The attending physician must sign-in the representative and the representative will be issued an identification label with their name, company, date and OR number. Only one representative per company per OR will be allowed.
16. A surgeon must remain with the patient in the Operating Room until the procedure and anesthesia are completed. A member of the surgical team should accompany the patient to the Post Anesthesia Care Unit or Intensive Care Unit.

17. All removed surgical specimens must be submitted to the Department of Pathology for examination and must be accompanied by appropriate request forms. Detailed information may be obtained by reference to Hospital Policy No. 364 ("Specimens to be Delivered to the Pathology Department").
18. Music will be allowed only with the concurrence of all operating team members.
19. The use of cell phones for personal use is prohibited in the Operating Room.

IX. POSTOPERATIVE CONDUCT

1. All post-anesthesia patients should go to the Post Anesthesia Care Unit except those with active tuberculosis or other infectious diseases requiring special isolation techniques, open-heart surgery patients and neonatal patients. Other exceptions require the concurrence of the Surgeon and Anesthesiologist.
2. Patients expected to require hospitalization following elective operations must have a pre-assigned bed prior to operation.
3. Patients will be discharged from the Post Anesthesia Care Unit only after a personal evaluation of the patient by a member of the Anesthesia Department.

   If a patient is to be admitted to an ICU bed from the Post Anesthesia Care Unit, the Surgical Resident prior to the operative procedure will make arrangements. If a decision is made to admit the patient to an ICU during the course of operation, a member of the surgical house staff team will make arrangements for the ICU bed as quickly as possible. The surgical team will communicate their hand-off of the patient along with any required aspects of post-operative care directly with the ICU team.
4. Every reasonable effort should be made to contact the relatives of a patient following completion of the operation. This may be done by a member of the surgical team either in person or by telephone. The patients and relatives should be informed prior to the operation that they will be contacted following surgery so that they may wait in the appropriate area to be informed without undue delay or alarm.

Approved by:

Dawna Willsey, RN, MSN, CNOR
Clinical Nursing Director, Perioperative Services

David Cho, MD
Anesthesia Director, Perioperative Services

Brant Putnam, MD
Surgical Director, Perioperative Services

Revised and Approved by:
Medical Executive Committee on 5/2020

Janine R. E. Vintch, MD
President, Professional Staff Association

ATTACHMENT 1

Pre-Anesthesia Testing (PAT) Standardized Guidelines 2019

Surgical Category & EBL / ASA Physical Status Classification System	I. Minimally Invasive EBL <50 mL	II. Minimal to moderately invasive EBL <100 mL	III. Moderately to significantly invasive EBL <250 mL	IV. Highly Invasive Major EBL	v. Other Procedures
	• ENT – Myringotomy, Microlaryngoscopy, Bronchoscopy • GEN – Port Insertion • GYN – hysteroscopy • PLAS – • OPHTHAL-* • URO - Circumcision, vasectomy, cystoscopy • PSYCH-ECT	• ENT – T&A, Mastoid, Septo/ Rhinoplasty Sinus • GEN-Anorectal procedure, hernia, lap chole/appy, Breast, biopsy/ Needle LOC, Mastectomy • VASC – vein ligation/stripping • GYN – D&C Laparoscopy • ORAL – Dental/Restorations Extractions/Biopsy • ORTHO –Arthroscopy (except shoulder)	• ENT – Thyroidectomy, Parotidectomy • GEN – Chole (open), major lap proc., stomach/spleen/ bowel open bowel resection • GYN – Hyst/Myomectomy, vaginal hyst • ORAL – Oral/Maxillofacial • ORTHO – Extremities • PLAS – breast reduction • UROL – TURP	• More invasive / GEN – major bowel resection, Major VATS, or open thoracic, esophagectomy • ORTHO – IM Nailing, Hip & Long Bone Fractures, Amputations • UROL – radical prostate • VASC – bypass, aneurysm repair, endarterectomy • UROL – nephrectomy	• ORTHO – arthroplasty (Hip/Knee/shoulder) or shoulder arthroscopy
ASA I. ***A normal healthy patient.*** Healthy, non-smoking, no or minimal alcohol use.	"No" PAT Appointment (PAT Day of Surgery)	"No" PAT Appointment (PAT Day of Surgery)	"No" PAT Appointment (PAT Day of Surgery)	"Yes" to PAT Appointment	"Yes" to PAT Appointment
ASA II. ***A patient with mild systemic disease.*** Mild diseases only without substantive functional limitations. ***Examples include*** (but not limited to): current smoker, social alcohol drinker, pregnancy, obesity (30<BMI>40), well controlled DM/HTN, mild lung disease	"No" PAT Appointment (PAT Day of Surgery)	"No" PAT Appointment (PAT Day of Surgery)	"No" PAT Appointment (PAT Day of Surgery)	"Yes" to PAT Appointment	"Yes" to PAT Appointment
ASA III. ***A patient with severe systemic disease.*** Substantive functional limitations; one or more moderate to severe diseases. ***Examples include*** (but not limited to): poorly controlled DM or HTN, COPD, morbid obesity (BMI ≥40), active hepatitis, alcohol dependence or abuse, implanted pacemaker, moderate reduction of ejection fraction, ESRD undergoing regularly scheduled dialysis, premature infant PCA <60weeks, history (>3 months) of MI, CVA, TIA, or CAD/stents.	"Yes" to PAT Appointment	"Yes" to PAT Appointment	"Yes" to PAT Appointment	"Yes" to PAT Appointment	"Yes" to PAT Appointment
ASA IV. ***A patient with severe systemic disease that is a constant threat to life.*** ***Examples include*** (but not limited to): recent (<3 months) MI, CVA, TIA, or CAD/stents, ongoing cardiac ischemia or severe valve dysfunction, severe reduction of ejection fraction, sepsis, DIC, ARD, or ESRD not undergoing regularly scheduled dialysis	"Yes" to PAT Appointment	"Yes" to PAT Appointment	"Yes" to PAT Appointment	"Yes" to PAT Appointment	"Yes" to PAT Appointment
Other/Patients With Unique Perioperative Care ***Example***: anticoagulant medication +/- bridging required, coagulopathy, polypharmacy, Jehovah's Witness, airway concerns, history of problems with anesthetics, chronic pain, planned ICU admission, obstetrical patient with comorbidity	"Yes" to PAT Appointment	"Yes" to PAT Appointment	"Yes" to PAT Appointment	"Yes" to PAT Appointment	"Yes" to PAT Appointment

- ***OPHTHAL* - patients undergoing lens surgery with local anesthetic and sedation do not require routine preoperative consultation***

ATTACHMENT 1

Preoperative Condition	Test (Within 30 Days)										
	HGB	WBC	PT/ PTT	PLT Count	Electrolytes (Na, K, Cl)	Cr/ BUN	Gluc	Liver Panel	X-Ray	U-Tox	Thyroid
a. Procedure with blood loss	✓		✓	✓	✓	✓	✓				
b. Neonates	✓										
c. Age <49 yo	✓										
○ 50-60 yo	✓				✓	✓	✓				
○ >60 yo	✓				✓	✓	✓		✓		✓
d. Cardiovascular Disease/ ICD/PM	✓		✓	✓	✓	✓	✓		✓		
e. Pulmonary Disease	✓				✓	✓	✓		✓		
f. Malignancy	✓	✓	✓	✓	✓	✓	✓	✓	✓		
g. Hepatic Disease/ ETOH Abuse	✓		✓	✓	✓	✓	✓	✓			
h. Renal Disease	✓		✓	✓	✓	✓	✓				
i. Bleeding Disorder	✓		✓	✓							
j. Diabetes Mellitus	✓				✓	✓	✓				
k. CNS Disease	✓	✓			✓	✓	✓				
l. Smoking Hx >20 pack yr	✓				✓	✓	✓		✓		
m. Use of: Diuretic	✓				✓	✓					
○ Digoxin	✓				✓	✓					
○ Steroids	✓				✓	✓	✓				
○ Anticoagulants	✓		✓	✓							
n. Symptomatic Thyroid Disease	✓				✓	✓	✓				✓
o. Polysubstance Abuse	✓				✓	✓	✓			✓	

EKG (Within 6 months):

Should be considered in patients over the age of 40 who are other-wise healthy. In addition, patients with the following conditions should have an EKG:

- Hypertension
- Diabetes
- Significant systolic murmur (>II/VI) or any diastolic murmur
- Angina
- Syncope history
- Arrhythmias or history of palpitations
- Cocaine/Polysubstance abuse
- Renal disease
- Obstructive sleep apnea
- Significant pulmonary disease Patients with pacemakers or ICD

PREGNANCY TESTING:

Should be done in all female patients of childbearing age unless there is a history of hysterectomy or sterilization.

CHEST X-RAY (Within 6 months):

All patients over the age of 60 should have a chest radiograph. A chest x-ray should also be obtained in the following conditions:

- Symptomatic pulmonary disease (e.g., COPD, asthma, cystic fibrosis)
- Significant smoking history (>20 pack year history)
- Recent pneumonia or upper respiratory infection (URI) Cardiac disease (such as CAD, cardiomyopathy, rheumatic heart disease, etc.)
- Patients scheduled for thoracic surgery
- Patients with neck mass suggestive of tracheal deviation
- Malignancy with possible metastasis, radiation or chemotherapy

NPO Status: 8 hours for solids and fatty foods; 6 hours for formula; 4 hours for breast milk; 2 hours for clear liquids

Type and Screen: Refer to Policy No. 317A

DIALYSIS PATIENTS:

Recommend dialysis 1 day before surgery, and not more than 2 days after surgery.

ATTACHMENT 2: BLOOD AVAILABILITY GUIDELINES

The guidelines below establish the requirements for the pre-operative availability of blood products.

1. In general, the Harbor-UCLA Medical Center (HUMC) Blood Bank will honor pre-operative testing performed at another DHS Blood Bank (i.e., Type & Screen (T&S)).
    a. However, if crossmatched blood will be needed for the scheduled procedure, then the pre-operative Type & Cross (T&C) must be tested at the HUMC Blood Bank, using a sample of the patient's blood (either from a draw at HUMC or sent via courier from another DHS facility).
2. If a T&S/T&C is indicated, then anesthesia should not be induced until the blood is typed and the "screen" is resulted as negative.
3. If the "screen" is positive, this may indicate the presence of unexpected red blood cell (RBC) antibodies. The Blood Bank will evaluate for RBC antibodies and may attempt to crossmatch units. Once the antibody investigation (and crossmatch, if needed) is complete, then the operative case may proceed. If the antibody investigation is incomplete and/or the crossmatch is unsuccessful, this may indicate the presence of complex RBC antibodies. In this case, the Blood Bank may have to refer the testing to an immunohematology reference lab. The Operating Room case should not proceed until the Blood Bank (or the reference lab) has completed the antibody testing, located crossmatch-compatible blood (if needed), and given approval to proceed with surgery.
4. The minimum requirements for blood bank specimen/availability based on the operative case type are listed below. A number of commonly performed procedures (including but not limited to laparoscopic cholecystectomy, appendectomy, lumpectomy, mastectomy, tonsillectomy, thyroidectomy, ORIF of hand and foot fractures, and other soft tissue cases) are not listed below because they do not routinely require a T&S or T&C. However, the need for an individual patient to have a T&S/T&C may require discussion between the surgeon and anesthesiologist at the time of the pre-operative briefing:

SURGICAL SERVICE	PROCEDURE	BLOOD AVAILABILITY
CardioThoracic	Bentall / aortic aneurysm repair	T&C 4 units
CardioThoracic	Aortic valve repair / replacement	T&C 4 units
CardioThoracic	Atrial septal defect repair	T&C 4 units
CardioThoracic	Coarctation of aorta repair	T&C 4 units
CardioThoracic	Coronary artery bypass graft (CABG)	T&C 6 units
CardioThoracic	Insertion intra-aortic balloon pump (IABP)	T&S
CardioThoracic	ECMO cannulation / decannulation	T&C 4 units
CardioThoracic	Pectus excavatum / carniatum repair	T&C 4 units
CardioThoracic	Pericardiectomy	T&C 4 units
CardioThoracic	Pericardial window	T&S
CardioThoracic	Pulmonary embolectomy	T&C 4 units
CardioThoracic	Mitral valve repair / replacement	T&C 4 units

CardioThoracic	Resection intracardiac tumor	T&C 4 units
CardioThoracic	Resection ventricular aneurysm	T&C 4 units
CardioThoracic	Repair ventricular septal defect	T&C 4 units
CardioThoracic	All re-do open heart procedures	T&C 6 units
CardioThoracic	Esophagectomy / esophagogastrectomy	T&C 4 units
CardioThoracic	Lung wedge resection / lobectomy	T&C 4 units
CardioThoracic	Pneumonectomy	T&C 4 units
CardioThoracic	Mediastinoscopy	T&S
CardioThoracic	Video-assisted thoracoscopic surgery (VATS)	T&S
CardioThoracic	Thoracotomy	T&C 2 units
CardioThoracic	Thymectomy / other mediastinal operation	T&C 2 units
CardioThoracic	Tracheal reconstruction	T&C 2 units
General	Esophagogastrectomy	T&S
General	Adrenalectomy	T&S
General	Exploratory laparotomy - other	T&S
General	Resection abdominal / retroperitoneal tumor	T&C 4 units
General	Gastrectomy - partial or complete	T&S
General	Small bowel resection / enterectomy	T&S
General	Colectomy	T&S
General	Proctectomy / abdominperineal resection (APR)	T&S
General	Gastric fundoplication - open / laparoscopic	T&S
General	Gastric bypass / sleeve	T&S
General	Liver resection	T&C 4 units
General	Pancreatic resection	T&C 2 units
General	Pancreaticoduodenectomy	T&C 4 units
General	Splenectomy - laparoscopic, open	T&C 2 units
General	Biliary surgery - open (bile duct repair/reconstruction)	T&S
General	Pelvic exenteration	T&C 2 units
General	Amputation - below knee / above knee / hip disartic	T&S

Head & Neck	Repair facial fractures	T&S
Head & Neck	Maxillectomy / mandibulectomy	T&C 2 units
Head & Neck	Excision carotid body tumor	T&C 4 units
Head & Neck	Excision lesion major - laryngectomy, glossectomy	T&S
Head & Neck	Excision of gland - sublingual, submandibular	T&S
Head & Neck	Flap - free, rotational	T&S
Head & Neck	Neck exploration for trauma	T&C 2 units
Head & Neck	Radical neck dissection	T&C 2 units
Head & Neck	Tracheal repair / reconstruction	T&S
Head & Neck	Parathyroidectomy / thyroidectomy	T&S
Neurosurgery	Burr hole - brain biopsy, decompresion, other	T&S
Neurosurgery	Craniotomy for trauma, tumor, other	T&C 4 units
Neurosurgery	Craniotomy for aneurysm	T&C 4 units
Neurosurgery	Laminectomy (any level)	T&S
Neurosurgery	Fusion spine (any level)	T&C 2 units
Neurosurgery	Transphenoidal hypophysectomy	T&S
Neurosurgery	Cranioplasty / duraplasty	T&S
Neurosurgery	Discectomy	T&S
Neurosurgery	Resection spinal cord tumor	T&C 2 units
OB/Gyn	Hysterectomy - TAH, TVH, lap	T&S
OB/Gyn	Laparotomy - bowel resection, creation ostomy	T&S
OB/Gyn	Laparotomy - tumor debulking	T&C 2 units
OB/Gyn	Laparotomy - pelvic exenteration	T&C 2 units
OB/Gyn	Uterine myomectomy	T&S
OB/Gyn	Vaginectomy	T&S
OB/Gyn	Vulvectomy	T&S
OB/Gyn	Cesearean section	T&S
OB/Gyn	Cesearean section - placenta complicated	T&C 4 units
OMFS	Osteotomy - mandibular / maxillary	T&C 2 units

OMFS	Repair facial fractures	T&S
Ortho	ORIF fractute - femur / tibia	T&C 2 units
Ortho	ORIF fractute - humerus	T&S
Ortho	Hip disarticulation	T&C 4 units
Ortho	ORIF fracture - pelvis / acetabulum	T&C 4 units
Ortho	Arthroplasty - primary hip	T&C 2 units
Ortho	Arthroplasty - primary knee	T&S
Ortho	Arthroplasty - revision hip	T&C 4 units
Ortho	Arthroplasty revision knee	T&C 4 units
Ortho	Laminectomy (any level)	T&S
Ortho	Fusion spine (any level)	T&C 2 units
Pediatric	Laparotomy	T&S
Pediatric	Resection - Wilm's tumor	T&C 2 units
Pediatric	Repair - tracheo-esophageal fistula	T&S
Pediatric	Thoracotomy	T&S
Pediatric	Resection neuroblastoma	T&C 2 units
Plastics	Creation flap coverage - free, rotational, pedicle	T&S
Plastics	Repair facial fractures	T&S
Urology	Cystectomy	T&S
Urology	Nephrectomy - lap / open	T&S
Urology	Prostatectomy - open, lap/robotic	T&S
Urology	Prostatectomy - TURP	T&S
Urology	Renal transplant	T&C 2 units
Urology	Retroperitoneal lymph node dissection	T&S
Urology	Laparotomy - ileal conduit / reservoir	T&S
Vascular	Thoarcic endovascular aortic repair (TEVAR)	T&C 2 units
Vascular	Endovascular aortic aneurysm repair (EVAR)	T&C 2 units
Vascular	Abdominal aortic aneurysm repair - open	T&C 4 units
Vascular	Thoracoabdominal aneurysm repair	T&C 4 units

Vascular	Axillofemoral bypass	T&S
Vascular	Carotid endarterectomy	T&S
Vascular	Embolectomy - upper / lower extremity	T&S
Vascular	Femoral-femoral bypass	T&S
Vascular	Bypass - lower / upper extremity	T&S
Vascular	Laparotomy - mesenteric bypass	T&C 2 units
Vascular	Endarterectomy - lower extremity	T&S
Vascular	Iliac artery repair / reconstruction	T&C 2 units
Vascular	Thrombectomy - upper / lower extremity	T&S
Vascular	Amputation - below knee / above knee / hip disartic	T&S

Approved by:

Rachel Rangwala, MD
Director, Blood Bank

DHS STANDARDIZED FINAL SURGICAL TIME OUT

DHS Standardized Final Surgical Time Out **MUST** be done **BEFORE** skin incision, **BEFORE** surgical start or invasive procedure specifically **AFTER** the patient is prepped and draped

All other activities are suspended (unless life threatening emergency)	YES
All relevant team members present	YES
Time Out designee (per facility policy) identified	YES
Introduction by name and role	YES ☐ Done during the 1st case in the AM ☐ Done due to change of team members N/A- Everybody here is the same since the last case
Anesthesia/Sedation Record has been previously confirmed with the Patient's ID band at the procedure site (Once anesthesia/sedation record information has been verified against the patient's ID band, this anesthesia/sedation record can now be used as the patient's identification).	YES
Confirmed Patient's Name and DOB/MRUN	YES
Procedure matched to the patient's consent	YES N/A
What's in the blood bank? Type and Screen..... ☐ Type and Cross Match (# of units).....☐ Nothing.....☐ N/A.....☐	YES
Prophylactic antibiotic (given within 60 minutes prior to skin incision); except for Vancomycin[1] and Fluoroquinolones[2]	YES NO, given >60 minutes ☐ Anesthesia & surgeon discussed/decided if redosing patient is needed ☐ Vancomycin /Fluoroquinolones given ☐ N/A on this case
Relevant images properly labeled & displayed	YES N/A
Correct site or laterality (based on marked site) (internal structure, correct site verified based on patient's consent)	YES
Correct positioning	YES
Needed implants are present, available, & ready	YES N/A
Needed equipment & supplies are present, available, & ready	YES
Any equipment concerns	YES NO
Fire Risk/Precautions Assessment Completed?	YES N/A

Any last minute concerns?

Surgeon NO YES see below

Non-routine steps (i.e., relevant pt's clinical hx, anticipated difficulties, significant comorbidities, etc.)	YES
Case Duration	YES
Special Preparations	YES

Anesthesia Provider NO YES see below

Patient specific concerns (i.e., airway, plan/concerns for resuscitation, other complicating pt's characteristics or comorbidities)	YES
Post-op disposition	YES

Scrub/Circulating Nurse NO if YES specify

Final DHS Standardized Time Out Form 09.08.15

[12]Vancomycin and Fluoroquinolones are to be given within 120 minutes before skin incision. These 2 antimicrobials require prolonged infusion times and have longer half-lives.