ZSFG JOINT CONFERENCE COMMITTEE MEETING

September 26, 2023

MEDICAL STAFF Report

Contents:

ZSFG CHIEF OF STAFF REPORT
Presented to the JCC-ZSFG on September 26, 2023
September 2023 MEC Meeting

CLINICAL SERVICE REPORT: Department of Anesthesia & Perioperative Care– Romain Pirracchio, MD
The Service's mission is to promote the best personalized care experience for patients in line with the core principles of justice, equity, safety, and sustainability.

I. Scope of the Clinical Service - The Department provides comprehensive perioperative care with its clinical services/programs.
   A. Preoperative Anesthesia – Elective cases start in the well-staffed Preoperative Anesthesia Clinic. Some clinical pathways include Colorectal ERAS Pathway, OSA Pathway, and Lyft Free Rideshare Program. The Clinic was much involved in the COVID-19 response. It serves 600-800 patients every month, and video visits began in April 2023. The current TNAA is 5 to 7 days.
   B. Operative/Procedural Anesthesia–Post-pandemic volumes indicate about 10K per year. From 7/01/2022 to 7/31/2023, there were about 1.6K blocks. The clinical pathways include coordination and provision of subspecialty pediatric anesthesia attending staffing with Mission Bay, along with a NORA block with new EPIC build. For emergent trauma and acute care, the Acute Spine Injury Patient Flow Pathway is in progress. Also, reviewers of the ACS Trauma Survey highlighted the Department's critical role in trauma care.
      1. Obstetric Anesthesia – There are 2 ACGME fellowship-trained OB anesthesiologists. Also, many clinical pathways are being built to improve patient safety and improve workflow. QI efforts include reducing GA rate for C-sections and tracking ERAS compliance. Moreover, an enhanced OB anesthesia simulation program is offered to faculty and residents.
      2. ZSFG Women's Options Clinic Anesthesia - There are projects to streamline workflow, along with focus on education that includes development of anesthesia resident curriculum. The Department's expertise in this area is recognized nationally, marked by ZSFG leadership representation in various national organizations.
   C. ZSFG Anesthesia Workroom – The Workroom technicians maintain the quality of care and patient safety. There are projects to constantly improve the Department's workflow and workspace. Past staffing challenges were addressed that improved the group's well-being and work. The group is also involved in promoting financial stewardship by negotiating prices/contracts for OR equipment.
   D. Anesthesia Pain Service (APS) – APS is offered to patients after surgery. There is staff everyday to provide advanced pain management techniques for patients to reduce reliance on opioids. On average, there are 100 patients per month (1,250 per year) and 300 interventional pain procedures (epidurals/nerve catheters) per year. A major project is to introduce low dose Ketamine IV infusion for acute pain in the Med/Surg area.
   E. ICU Anesthesia Critical Care- There are 9 ICU-trained faculty. In addition, there are 23 SICU weeks staffed by anesthesia intensivists with participation in night coverage at SICU/MICU. There are 23 anesthesia residents per year and 6 anesthesia critical care fellows. A major project is the transition to a new SICU staffing model with the SICU team as the center of the coordination of care in the ICU. Clinical highlights include new respiratory care pathways and new extubation huddle, along with several pathways in progress.
   F. Respiratory Care Services (RCS) - There are about 50-55 respiratory therapists, a medical director, and leadership team. They serve patients in ICU, neonatal ICU, and Emergency Department. The team is also involved in MERT/Code Blue, floor support, and hospital transports (all intubated patients). Last year, an extra RCS provider was scheduled for 200+ days to meet increased clinical volume.
   G. Anesthesia Pain Clinic – The Clinic provides services after patient discharge. Its mission is to provide non-opioid alternatives for network patients with chronic pain. In FY 22-23, there were over 2K patient encounters with close to 600 interventional pain procedures. The faculty at the Clinic is also doing OR procedures.

II. Faculty and Trainees
   A. Faculty - There are 32 faculty members with about a third as assistant professors. A list of new faculty members was presented. Ongoing efforts to improve retention include conducting faculty survey/faculty retreat, exit interviews, and improving well-being of faculty. The Department aims to foster the diversity of the clinical mission for providers to do a variety of clinical work. Moreover, the Department offers monthly CME-accredited faculty

education series and a joint international conference between Anesthesia departments at ZSFG and a hospital in Paris.

B. Trainees
   1. There are 77 residents and 31 medical students.
   2. Training programs are provided to the Department's trainees, along with residents from Medicine, Emergency Medicine, and Pulmonary Medicine. The Anesthesia Simulation Lab is instrumental in providing education, and the Anesthesia Residency Program has been consistently ranked as #1 or #2 for about a decade.

III. Performance Improvement and Patient Safety Initiatives
   A. QI – It is a core research activity. QI initiatives are discussed in all meetings (weekly and monthly) of the Department's various groups. Some of the ongoing projects are as follows:
      1. Improvement in monitoring and treatment of perioperative hyperglycemia – In FY 21–22, fewer than 65% of eligible patients with hyperglycemia had glucose re-checked or treated with insulin within 90 minutes. The target is 75%, and in August 2023, the rate was at 82%.
      2. Decrease avoidable use of general anesthesia (GA) during C-sections – The benchmark is < 10% for urgent/emergent C-sections. In FY 21-22, 14.9% of all deliveries received GA. In FY 22-23, the rate has decreased to 12%, and the goal is < 5%.
      3. Decrease the carbon footprint of anesthesia delivery – Reducing fresh gas flow (FGF) decreases anesthesia waste when using sevoflurane, a potent greenhouse gas. The goal is to increase the percent of cases with mean FGF ≤ 2L/minute between intubation and extubation. In FY 22-23, the baseline is 25% with 40% as the target. In August 2023, the rate was at 51%.
      4. Equity-focused QI initiatives – Information is analyzed for disparities whenever data is retrieved for any QI project. Some specific equity-focused QI initiatives projects include the following: (1) assessing disparities in type of anesthesia received by arthroplasty patients/C-sections, (2) assessing disparities in perioperative wait times, and (3) improving language access services in the perioperative setting.
      Several years ago, the UCSF Center for Health Equity in Surgery and Anesthesia (CHESA) was established to advance health equity in perioperative care in research, education, and advocacy. In research, ongoing projects include *The Open Oximetry Project* wherein new standards are created for diversity of skin color in research studies. CHESA also leads a global anesthesia workforce survey of > 150 countries to help local leaders optimize anesthesia resources. In education, a health equity curriculum for surgery and anesthesia residents was developed.
   B. Faculty Well-Being – A well-being group leads multiple initiatives to improve well-being of faculty members. The NPS results for various queries (e.g., recommend ZSFG as place to work) are fairly good. Another project to improve well-being is the new ZSFG Anesthesia website for enhanced communication, providing needed information by faculty, medical students, residents, and other learners. It also provides access to the QI database and includes risk management protocols developed by the Department.
   C. Involvement in Committees - There are multiple opportunities for leadership positions, and many faculty members hold positions at the hospital and elsewhere.

IV. Research - The Department has a strong research group that covers the full gamut of research. For the past decades, research was centered on improving OR safety with new anesthetics and basic physiology. The new approach is focused on the full perioperative experience by connecting all the different groups inside and outside the Department. This has led to success in terms of grants amounting to over $33M from multiple sources. There were over 100 publications in high-impact journals during the 2022-2023 cycle.

V. Financial Report - In FY 23, the revenues from (only) prof fee and affiliation agreement amount to $14.09M. Including revenues from research grants and other sources, the total FY 23 revenue is $19.2M. The total FY 23 expenses amount to $13.3M. Expenses were reduced by streamlining coding and billing practices, leading to significant improvement in the financial situation (e.g., resumption of a positive reserve balance since FY 21). In FY 24, the net position is projected at a loss of $359K, and the Department is closely looking at the matter.

VI. Summary
   A. Strengths – These include the people, diversity of the clinical mission, strong academic program, focus on global health and equity, patients, and colleagues in the other departments.
   B. Challenges – These include staffing (i.e., retention, CRNA shortage, and URM hiring) and finances. The Pain Clinic, APS, and RCS were particularly noted to be encountering these challenges.

Dr. Gabe Ortiz, along with other MEC members, expressed gratitude for the extensive work done by the Department to support many programs by collaborating with other departments.

ZSFG CHIEF OF STAFF ACTION ITEMS
Presented to the JCC-ZSFG September 26, 2023
SEPTEMBER 2023 MEC Meetings

Clinical Service Rules and Regulations

- Anesthesia – no changes

Credentials Committee –

- Standardized Procedures – (Summary of Changes for each SP Attached; Copies of SPs sent to Commissioners)
  - Revised Anesthesia SP 2023 with Addition of Protocol 8 Botox
  - Revised Otolaryngology SP 2023

- Privileges List - None

ANESTHESIA AND PERIOPERATIVE CARE CLINICAL SERVICE
RULES AND REGULATIONS
~~2021~~2023

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I. ORGANIZATIONAL STRUCTURE AND ADMINISTRATIVE POLICIES

A. SCOPE OF SERVICE

1. OVERSIGHT - The Chief of the Anesthesia Service (Refer to Appendix A for detailed job description) is responsible for oversight of all anesthetic care at Zuckerberg San Francisco General Hospital (ZSFG), all functions of the Post-Anesthesia Care Unit (PACU) related to the Anesthesia and Perioperative Care Clinical Services, administration of anesthesia faculty attending in the Medical-Surgical ICU and administration of the Respiratory Care Service.

B. ORGANIZATION/STAFFING OF THE ANESTHESIA AND PERIOPERATIVE CARE SERVICE

1. CHIEF OF SERVICE - The Chief of the Anesthesia Service, or his/her designee, is responsible for ensuring the quality of anesthesia care. As necessary, assistance is invited from other services/departments, the Performance Improvement and Patient Safety Committee, or the appropriate ZSFG administrative committee or organization (example: Executive Committee, OR Committee, Engineering, etc.).

   To facilitate the administrative oversight of the varied clinical activities in the Department, the Chief has appointed the following clinical leaders (see Appendix B for Department of Anesthesia Organizational Chart):

   Vice Chief(s) of Anesthesia

   Clinical Director ZSFG operating rooms
   Director of Obstetrical Anesthesia
   Director of Quality Improvement
   Medical Director Post-Anesthesia Care Unit (PACU)
   Medical Director Anesthesia Workroom
   Medical Director of Respiratory Therapy
   Medical Director of the Anesthesia Pre- Operative Clinic
   Medical Director Trauma Anesthesia
   Medical Director Anesthesia Pain Clinic
   Anesthesia SICU Director

2. REGULAR SERVICE PROVISION – Anesthesia services at ZSFG Medical Center are administered by a combination of fully credentialed, qualified anesthesiologists who are board certified or actively pursuing board certification, or the equivalent, as determined by the Chief of Anesthesia and Perioperative Care, or certified registered nurse anesthetists **(**CRNAs**)** and residents in the training program of the Department of Anesthesia and Perioperative Care, UCSF.

   The scope of anesthesia services is determined by a continuing process of needs assessment and negotiation with ZSFG and other clinical departments. The Chief of the Anesthesia Service, or his/her designee, is responsible to oversee and provide

adequate coverage. The Department of Anesthesia and Perioperative Care will always provide qualified anesthesia personnel to meet the obligations of these agreements. Residents, fellows and CRNAs may administer anesthesia when under the supervision of an attending anesthesiologist who is immediately available if needed. This supervising attending anesthesiologist will be prepared to immediately conduct hands-on intervention if needed.

3. ON-CALL COVERAGE - A minimum of three physicians or two physicians and one nurse anesthetist will be in the hospital at all times. Of these, one physician will be available for immediate emergencies and will coordinate the activities of the other two. One of the physicians will be available for obstetrical anesthesia.

4. ON-CALL FACULTY ANESTHESIOLOGIST - At all times, one member of the attending staff is in the hospital or is readily available and takes responsibility for all anesthetics administered. A second attending anesthesiologist is on-call for backup and will be called in to ensure adequate in-house coverage if the coordinating anesthesia attending is confronted with or anticipates work load which cannot be handled safely with the regular staff.

5. ANESTHESIA SERVICE IN THE EVENT OF A DISASTER – The Anesthesia Service functions within the scope of the overall hospital disaster plan. In the event of a mass casualty event, the on-call attending anesthesiologist will estimate the total need for additional faculty, nurse anesthetists and workroom technicians and initiate the disaster call-back list.

   In the event of a disaster that inactivates the telephone system, it is the responsibility of all personnel (who are able so to do) to come to the hospital immediately when they become aware of the disaster.

6. EMERGENCY PROCEDURES - In any emergency that requires resuscitation or handling of any airway problem, the Anesthesia Service may be contacted through the on-call physician on 30000 or 30001, immediately, or a “Code Blue” or airway stat may be called via the operator. When a replacement pager/phone is in use, the telephone operator, the Emergency Department and Delivery Room, and the OR front desk will be notified by the on-call anesthesia resident or faculty.

7. JEHOVAH’S WITNESSES – Surgery that may involve any blood loss in a Jehovah’s Witness may only be scheduled following prior arrangement with the Department of Anesthesia by obtaining an Anesthesia consultation. This is to ensure that the patient and anesthesia provider understand the types of blood and fluid products available, that there is a clear understanding of the patient’s wishes regarding the type of products they will accept, and to ensure the availability of an anesthesiologist prepared to enter into an agreement not to transfuse blood, if that is what the patient desires.

8. NURSE ANESTHETIST JOB DESCRIPTION (CRNA)

   See Section II.E. Affiliated Professionals

C. DELIVERY OF ANESTHETIC CARE

1. OVERVIEW - Anesthesia providers (as described above) will routinely administer anesthesia to all patients brought to surgery, except in those cases where the surgeon desires to administer local or topical anesthesia, or where no anesthesia is required.
   The Anesthesia Service will also provide anesthesia in other sections of the hospital (Labor & Delivery floor, radiology suite, emergency department, etc.) when appropriate. A uniform standard of anesthesia care will be followed wherever anesthesia services are delivered to patients.

2. PRE-OPERATIVE ANESTHESIA EVALUATION - Each patient will be evaluated either by clinic visit, in hospital visit or chart review by a member of the anesthesia care team within the 48 hours prior to surgery. Pre-anesthesia evaluation and documentation shall be performed according to the guidelines (Basic Standards for Pre-Anesthesia Care described by the American Society of Anesthesiologists) and shall take into account the patient's medical condition and surgical urgency (Appendix C). If, in his/her opinion, additional diagnostic or therapeutic measures are necessary prior to surgery, he/she will discuss these measures with the responsible surgeon/proceduralist and with an anesthesia attending. These concerns will also be discussed with the anesthesia care team assigned to the case as soon as possible.

   The preoperative note shall be reviewed, verified, and signed by the anesthesia care team on the day of surgery. It will include a notation of patient's diagnosis, surgical or obstetrical procedure anticipated; pertinent history and physical; assessment of anesthetic problems; and choice of anesthesia type (general, MAC, neuroaxial block, peripheral regional anesthesia or a combination of these). On the day of surgery, the anesthesia care team shall verify the identification of the patient, site and side of surgery, presence of consent and any changes to the previously obtained history and physical. All questions from the patient and/or family shall be answered and the preferred type of anesthesia explained and any alternatives discussed. In the case of emergency where the urgency of the situation precludes a complete preoperative evaluation, specific documentation of the emergent nature of the procedure should be made by the attending anesthesiologist.

3. CHOICE OF ANESTHESIA - Under most circumstances, the responsibility for the choice of anesthetic technique belongs to the anesthesiologist. When unusual circumstances cause the surgeon to have a special preference, this should be handled by prior consultation.

4. ADMINISTRATION OF ANESTHESIA - Immediately prior to the induction of anesthesia or intravenous sedation, with the patient in the OR or procedure room, the patient's condition will be reviewed by the anesthesia provider including measurement of vital signs, and assessment of airway status and response to pre-procedure medications. This physician or his/her assigned replacement will continue to be responsible for the safety of the patient throughout the anesthetic period.

   It is expected that the attending anesthesiologist will be present for induction and emergence from anesthesia and any other critical parts of the procedure.

   A record will be kept of all events taking place during the induction of, maintenance of, and emergence from anesthesia. This record will include vital signs, the amounts and duration of all drugs, anesthetic agents, intravenous fluids, and blood products given and placement of invasive catheters and description of anesthetic technique including methods of body warming. In addition, the anesthesia record will document the estimated blood loss and urinary output when measured, any unusual events during the anesthesia period and the status of the patient at the conclusion of surgery in the PACU.

   Whenever there is a change of anesthesia care provider, for example at morning break, lunch break, or at shift changes, a formal handoff of patient care information will occur between the outgoing and incoming care provider as required by The Joint Commission (TJC) and in conformance with the Departmental Transition of Care Policy (Appendix D).

   Standards for Basic Intra-operative Monitoring established by the American Society of Anesthesiologists will be adhered to in all cases. (See Appendix E) The anesthesia record shall document the monitors utilized and the results of such monitoring.

   It is department policy that all syringes or intravenous fluids containing medication for patient administration be appropriately labeled. Medications should be prepared daily, and discarded at the end of the work period.

   a. All syringes will be labeled with drug name, concentration or total dose, the date and time of preparation and the initials of the anesthesia provider.
   b. All syringes containing medications outdate 24 hours after they are drawn up, except for propofol, which outdates after 12 hours.
   c. Labeling of the syringe is not required if the drug is drawn up and administered immediately by the individual who prepared the medication with no intervening tasks.
   d. In all operating rooms or procedural areas when the anesthesia provider is not present, unused medications will reside inside the lockable anesthesia cart. Anesthesia carts may be left unlocked and non-controlled medications may be left in, or on, the top of unlocked anesthesia carts or anesthesia

machines immediately prior to, during, and immediately following surgical cases in an operating room, so long as there are authorized operating room personnel in the immediate vicinity (see appendix F for detailed Policy and Procedure).

e. Anesthesia providers may carry medications on their person under the following circumstances:
    i. When taking those drugs directly for administration at the patient's bedside. These drugs may include but are not limited to analgesics, anxiolytics, sedatives, vasopressors, anti-emetics, beta-blockers, bronchodilators. Only drug sufficient for the anticipated patient need should be carried on the provider's person.
    ii. When transporting a patient to or from an acute care unit.
f. Controlled drugs must at all times be either under the direct control of the anesthesia provider or in an approved locked box or drawer in a secure area. Controlled drugs (narcotics/sedatives and ketamine) are obtained from Pharmacy or the operating room charge nurse using a locked box method. Dispensed drugs are entered in a Pharmacy Log sheet. Any unused medications in the syringes should be disposed of, with a witness, prior to the initiation of care of another patient. The waste must be documented on the controlled substance administration record and initialed by the provider and witness.
g. All used medications will be disposed of between cases. At the conclusion of the work period, all used and unused medications will be disposed of.
h. ZSFG high-alert medications (heparin and insulin) must be drawn up and the dose checked by two providers.
i. Anesthesia care providers will be familiar with, and adhere to, the Operating Room Universal Protocol Policy and Procedure and will actively participate in the Rolling Timeout, Final Timeout and end of case debriefing.

5. ANESTHESIA EQUIPMENT

a. The anesthesia work place consists of an anesthetic machine, monitoring and an anesthesia cart.
b. The anesthesia provider shall inspect and test the anesthetic apparatus prior to use. The Anesthesia Apparatus Checkout Recommendations (Appendix G) will serve as a guide. In general, this will include checking:
    i. Reserve supply of oxygen
    ii. Connected pipeline inlets
    iii. Functioning, filled vaporizers
    iv. Calibrated, functioning oxygen analyzers and respiratory gas and anesthetic analyzers

v. That the Anesthesia machine is free of leaks
vi. That there are functioning inspiratory and expiratory valves (if a circle system is to be used)
vii. That there is non-exhausted CO_2 absorbent (if a circle system is to be used)
viii That there is a functioning leak-free mechanical ventilator, where appropriate

c. If leaks or other faults are detected, the equipment must not be used until the fault is repaired.

d. The anesthesia provider shall also check the availability, readiness, cleanliness (sterility where appropriate) and working order of all other equipment used in the administration of anesthetic agents. This includes resuscitative equipment.

e. All reusable anesthesia equipment in direct contact with the patient shall be cleaned after each use (See Infection Control).

f. Regular anesthesia carts are standardized according to the Anesthesia Cart Policy and are provided for every OR. Additionally, the following specially equipped carts are available:

- Two Trauma Carts, one located in the Trauma OR (in addition to a regular cart); a second Trauma cart is available in the designated Trauma Backup OR when the primary trauma OR is in use.
- Obstetrical OR carts are available in each of the Labor & Delivery operating rooms. An emergency airway cart is in the primary OB OR.
- One epidural cart is maintained on Labor and Delivery.
- Two fiberoptic/difficult airway carts.
- One regional anesthesia cart.
- Three Pediatric Carts.
- Two Malignant Hyperthermia (MH) cart.
- Two ICU difficult airway carts.

Except for the MH cart, carts will be stocked with drugs and supplies by OR workroom and pharmacy personnel according to established policy (See OR Workroom Policy and Procedures).
Responsibilities for stocking and checking the contents of the MH cart are defined in the MH cart Policy & Procedure (Appendix H).

g. Four Anesthesia Intubation Bags will be maintained for emergency airway procedures within the hospital. The contents and procedures for stocking and checking these bags are described in the Anesthesia Intubation Bags Policy and Procedure (Appendix I).

h. To ensure proper care of any surgical emergency case, designated Trauma and L&D ORs are prepared and checked at least once per day. Details of preparing and checking these areas are described in the Trauma Operating Room Preparedness Policy and Procedure (Appendix J) and Labor and Delivery Operating Room Preparedness Policy and Procedure (Appendix K).

i. The presence of flammable materials and oxidizing agents makes the operating room a location for potential fires. In order to minimize the probability of fire, the ZSFG Fire Safety in the OR Guidelines will be followed (Appendix L).

6. OTHER SPECIAL ANESTHESIA EQUIPMENT - Disposable anesthesia hoses and breathing bags are available and will be discarded after each use. Disposable anesthesia hoses, adapters, connectors, Y-pieces and other removable parts are to be replaced with clean or sterile equipment for each case. Plastic or rubber goods may be sterilized by either ethylene oxide or sterilized in perchloric acid. These items need not be sterile at the time of use as long as they are disinfected and stored in a clean manner.

Ventilators and canisters in daily use should be cleaned at monthly intervals.
Disposable endotracheal tubes are to be discarded after use.
Disposable suction catheters are to be discarded after each use.
All medication vials are single use and will be disposed of at the end of the case.
Anesthesia circuits will contain a filter to prevent contamination of those parts not replaced after each case (CO2 absorber, etc).

7. POST-ANESTHESIA CARE UNIT (PACU)

a. All patients who have had surgery and/or anesthesia who are not directly admitted to an intensive care unit should be admitted to the Post-Anesthesia Care Unit (PACU) for observation until fully recovered from anesthesia and until vital signs are stable. Patients with infections requiring respiratory isolation will require special arrangements per Infection Control policies.

b. Non-post-operative patients requiring special care and/or procedures may be admitted at the discretion of the responsible anesthesiologist after consultation with the PACU charge nurse. This will be considered if all other special care units of the hospital are at capacity. The PACU is thus the unit of last resort for critical care patients

c. Medical Orders for Postanesthesia care, including pain medication, are provided by the anesthesia care team who admits a patient to the PACU on the designated order form. The form is faxed to Pharmacy before PACU admission. Any changes or additions to the order form must be co-signed.

d. It is the responsibility of the anesthesia provider to give a verbal report to the PACU nurse on each patient admitted.

e. The anesthesia provider should not leave the patient until completely satisfied that the patient can be safely attended by the nurse receiving the patient, whether this be in the PACU, or intensive care unit.

f. The anesthesia attending or his/her designee will follow the progress of each patient under his/her care in the PACU. He/she will be available for consultation concerning any complications in the post-operative period. The anesthesiologist or his/her designee must evaluate the patient for anesthestic complications following surgery. The responsible physician or dentist who discharges the patient from the hospital must inform Anesthesia of any unusual anesthetic related events that may occur post discharge.

g. In general, visitors are not allowed in the PACU. Exceptions will be made, for example, when the patient is very young, or when the patient must spend an unusual amount of time in the PACU, or at the discretion of the anesthesia attending and PACU charge RN. Under these circumstances, visitors will be allowed~~,~~ when the Charge Nurse approves.

h. In the case of an emergency in the PACU, the anesthesia resident or CRNA and attending on-call and the surgeon involved will be notified.

i. An anesthesia attending must evaluate each patient who has received anesthesia services and document readiness for discharge before the patient can leave the PACU. The patient must meet PACU discharge criteria (see PACU Nursing Policy and Procedures).

II. CREDENTIALING

A. MEMBERSHIP REQUIREMENTS

Membership on the Medical Staff of Zuckerberg San Francisco General Hospital is a privilege which shall be extended only to those practitioners who are professionally competent and continually meet the qualifications, standards, and requirements set forth in ZSFG Medical Staff Bylaws, Rules and Regulations and accompanying manuals as well as these Clinical Service Rules and Regulations.

B. NEW APPOINTMENTS

The process of application for membership to the Medical Staff of ZSFG through the Anesthesia and Perioperative Care Clinical Service Department is in accordance with ZSFG

Bylaws, Rules and Regulations and accompanying manuals as well as these Clinical Service Rules and Regulations.

1. Attending staff appointed to the Medical Staff will be proctored at the beginning of service. This will include:

    a. Observation of the appointee discharging his/her usual clinical responsibilities, and
    b. Observation of the appointee in his/her discussion of clinical problems with housestaff or CRNAs.
    c. A sufficient number of times will be used to reach a conclusion as to competence.

2. By the end of three (3) months, the proctor will submit a report to the Chief of Anesthesia Service. This report will include:

    a. The nature of observations made
    b. The time period of observations,
    c. A recommendation may be made for a further period of proctoring if this is thought to be necessary.

3. When intensive care privileges are to be included, proctoring will include observations of care given by the appointee by a member of the Anesthesia ICU attending staff.

4. Proctoring reports will form a part of the Chief of Anesthesia Service's recommendation for appointment to the staff.

5. Quality of care issues in regard to faculty are discussed in several ways (See Section IX.D. Clinical Indicators). This information is used for reappointment.

6. Attending staff are evaluated on an ongoing basis in various ways.

    a. Initially, the proctoring protocol is followed.
    b. Through Faculty Reappointment every two years.
    c. Through twice yearly Ongoing Professional Performance Evaluation . (See Appendix N, Anesthesia OPPE)

C. REAPPOINTMENTS

The process of reappointment to the Medical Staff of ZSFG through the Anesthesia and Perioperative Care Clinical Service is in accordance with ZSFG Bylaws, Rules and

Regulations and accompanying manuals as well as these Clinical Service Rules and Regulations.

1. REAPPOINTMENT CRITERIA

The criteria for faculty reappointment shall include review of his or her clinical care, licensure status, professional judgment and performance, and review of health status as indicated. The reappointment process will include review of case management by the Departments Director of Quality Improvement, the Clinical Director of Anesthesia, or the Vice Chief of Anesthesia as reflected in the twice yearly OPPE. The following information will be collected and reviewed.

a. A review of the number and type of cases done by each faculty will be generated from the operating room records to allow the Chief of Anesthesia Service (or designee) to review the work performed by each faculty member and adequacy of clinical experience.

b. Further, a review of the postoperative complications will be summarized as part of the OPPE process and the appropriate faculty member's cases with problems will be noted (physician specific). These will be based on Joint Commission mandated clinical indicators.

c. A file will be generated for each faculty member to allow a review by the Chief of Anesthesia Service (or designee). Documentation of licensure will include current state license, and DEA license.

d. There will also be an ongoing review of cases listed for possible M & M discussion. This will be discussed at regular monthly conferences and as needed at faculty meetings. These will be kept on file and available for review at the time of reappointment. Finally, the Chief of Anesthesia Service shall file individual memos, comments or other documentation relating to an individual physician's clinical care and competence, so that he will be able to document and re-certify the individual at reappointment time.

D. PRACTIONER PERFORMANCE PROFILES

The Anesthesia and Perioperative Care Clinical Service Practitioner Performance Profiles are maintained by the Chief of Anesthesia Service. This includes items C.1. (a – d) above.

E. AFFILIATED PROFESSIONALS

The process of appointment and reappointment to the Affiliated Professionals through the Anesthesia and Perioperative Care Clinical Service is in accordance with ZSFG Bylaws, Rules and Regulations and accompanying manuals as well as these Clinical Service Rules and Regulations.

1. NURSE ANESTHETIST JOB DESCRIPTION (CRNA)

    a. Characteristics of Job - Under the supervision of physician anesthesiologists, CRNAs administer anesthesia, other central nervous system depressants and necessary additional medications in the operating suite, delivery rooms, and other diagnostic and treatment areas. They may respond to cardiopulmonary emergencies in the Emergency Department and other patient care areas. They maintain records of anesthesia and other drugs administered, of resuscitations carried out, and of each patient's responses to these measures.

    b. Responsibilities of Job – CRNAs are responsible for: 1) carrying out established methods and procedures in administering anesthetics, including both elective and emergency operations and procedures; 2) monitoring patient's physiological status, using current electronic and other equipment; 3) preparing detailed medical and technical records relative to anesthetics administered and patient's reactions. The nature of work involves sustained physical effort and manual dexterity with some exposure to health and accident hazards. Rotation on night and weekend call may be required.

    c. Minimum Qualifications:

        i. Training and experience: requires completion of high school, supplemented by graduation from an accredited school of nursing and two years of special certified training in anesthesia, or an equivalent combination of training and experience. Current ongoing experience with a broad range of anesthetist's duties is essential.

        ii. Knowledge, abilities and skills: requires thorough knowledge of various types and methods of administering anesthesia; standard operating room methods, equipment and procedures; anesthesia equipment, instruments and drugs used in various types of surgery.

        iii. Requires ability and skill to detect unfavorable patient reactions and apply prompt remedial measures.

        iv. License: requires possession of current valid license as a registered nurse issued by the State Board of Nursing Examiners, and current certification by the American Association of Nurse Anesthetists (or evidence of eligibility for the first six months' employment.)

F. STAFF CATEGORIES

Anesthesia and Perioperative Care Clinical Service attending staff fall into the same staff categories that are described in Article III of the ZSFG Bylaws, Rules and Regulations and accompanying manuals as well as these Clinical Service Rules and Regulations.

III. DELINEATION OF PRIVILEGES

A. DEVELOPMENT OF STAFF PRIVILEGE CRITERIA

Anesthesia privileges are developed in accordance with ZSFG Medical Staff. All requests for clinical privileges will be evaluated and approved by the Chief of Anesthesia.

B. PRIVILEGE CATEGORIES: See Appendix M

C. ANNUAL REVIEW OF CLINICAL SERVICE PRIVILEGE REQUEST FORM

The Anesthesia and Perioperative Care Clinical Service Privilege Request Form shall be reviewed annually.

D. DEVELOPMENT OF PRIVILEGE CRITERIA

Refer to Section III A – Development of Staff Privilege Criteria

E. CLINICAL PRIVILEGES AND MODIFICATION/CHANGE TO PRIVILEGES

The process for modification/change to the privileges for members of the Anesthesia Service is in accordance with the ZSFG Medical Staff Bylaws, Rules and Regulations and accompanying manuals.

IV. PROCTORING AND MONITORING – See Section II A and B, and IX

A. REQUIREMENTS

Monitoring (Proctoring) requirements for the Anesthesia and Perioperative Care Clinical Service shall be the responsibility of the Chief of the Anesthesia Service.

B. ADDITIONAL PRIVILEGES

Request for additional privileges for the Anesthesia and Perioperative Care Clinical Service shall be in accordance with the ZSFG Bylaws, Rules and Regulations and accompanying manuals as well as these Clinical Service Rules and Regulations.

C. REMOVAL OF PRIVILEGES

Request for removal of privileges for the Anesthesia and Perioperative Care Clinical Service shall be in accordance with the ZSFG Bylaws, Rules and Regulations and accompanying manuals as well as these Clinical Service Rules and Regulations.

V. EDUCATION

The Anesthesia and Perioperative Care Service offers an extensive lecture series for 1st, 2nd, and 3rd year residents. A well-organized course structure is provided for medical student rotations. In addition, all members of the staff can attend UCSF department courses for CME credits.

VI. ANESTHESIA AND PERIOPERATIVE CARE CLINICAL SERVICE HOUSESTAFF TRAINING PROGRAM AND SUPERVISION

Attending faculty shall supervise house staff in such a way that house staff assume progressively increasing responsibility for patient care according to their level of training ability and experience.

A. ROLE, RESPONSIBILITY AND PATIENT CARE ACTIVITIES OF THE HOUSE STAFF:

1. The resident physician shall be responsible for preoperative evaluation, planning and administration of an anesthetic, and postoperative care of assigned patients. This will be done under the supervision of an attending faculty member. It is expected that all cases will be discussed with the attending anesthesiologist prior to the induction of anesthesia.

2. Decisions regarding the progressive involvement and independence of the resident in the above-mentioned patient care activities are made following close observation of the skills and knowledge base of the resident.

B. RESIDENT EVALUATION PROCESS:

1. Each of the staff completes a written evaluation and this is entered into an electronic departmental database. General recommendations are then passed on to a faculty advisor. The UCSF Anesthesia Department reports on resident clinical competence to the American Board of Anesthesia on a regular basis. The period of time at ZSFG is closely scrutinized for quality of care. Clinical comments are made to the house staff on a daily basis when needed.

2. Didactic Educational Activities

    a. Tuesday/Thursday afternoon conferences are directed at topics of clinical relevance to the practice of anesthesia at ZSFG, as well as reviews of recent journal articles relevant to the clinical cases seen at ZSFG and are run by faculty members.

    b. Monthly Wednesday morning M/M Conference includes evaluation and discussion of all department wide deaths, as well as significant

complications, near misses and appropriate cases with an emphasis on specific problems and/or possible changes in practice and improved care.

c. All residents are required to attend bi-weekly didactic sessions and grand rounds.

3. Ability to write patient care orders:
House staff members may write patient care orders following management discussions with an attending.

VII. ANESTHESIA AND PERIOPERATIVE CARE CLINICAL SERVICE CONSULTATION CRITERIA

A. In cases in which the patient has a significant systemic disease or an unusual surgical problem, consultation is required. Previously mentioned, this includes patients who are Jehovah's Witness. All consultations must be in writing and signed by the consultant. This consultation may be accomplished by a visit to the preoperative clinic or by an individual consultation regarding an inpatient or a patient in clinic.

B. Consultation is not required in the case of extreme emergency when, in the opinion of the attending physician, the life of the patient would be jeopardized by the delay necessary to obtain qualified consultation. In such emergency cases, the physician shall record the emergency situation, which required this action.

C. When a member of the medical staff has discussed a case preoperatively, or given advice about the patient, or where consultation is the result of a clinical conference, this should be so stated in the chart.

VIII. DISCIPLINARY ACTION

The Zuckerberg San Francisco General Hospital Medical Staff Bylaws, Rules and Regulations and accompanying manuals will govern all disciplinary action involving members of the ZSFG Anesthesia and Perioperative Care Clinical Service.

IX. PERFORMANCE IMPROVEMENT/PATIENT SATETY (PIPS) and UTILIZATION MANAGEMENT

The overall responsibility for Performance Improvement/Patient Safety and Utilization Management rests with the Chief of the Anesthesia and Perioperative Care Clinical Service. Design and implementation and other portions of the programs will be delegated to members of the department, recognizing that this is a department-wide responsibility.

A. GOALS AND OBJECTIVES

The Chief of the Anesthesia Service, or his/her designee, is responsible for ensuring resolution of quality care issues. As necessary, assistance is invited from other departments, the Performance/Improvement Patient Safety (PIPS) Committee, or the appropriate ZSFG administrative committee or organization (example: Executive Committee, OR Committee, Engineering, etc.).

1. To ensure appropriate care of all patients receiving anesthetic care or intervention. It is understood that this care is provided chiefly in the OR and PACU, but includes other areas such as the Emergency Room, intensive care units, obstetrical suite, GI suite, and Radiology.

2. To minimize morbidity and mortality as well as to avoid unnecessary days of inpatient care. Efficiency in delivery of service is also a prime objective.

B. RESPONSIBILITY

1. Anesthetic morbidity and mortality is identified, by postoperative visits, reports submitted into the division's M&M database, and Unusual Occurence reports. A record of this is kept for individual anesthetists, and major problems are highlighted. This is maintained within the Anesthesia and Perioperative Care Clinical Service. These are reviewed regularly to determine adequacy of care. Specific problems are tabulated for faculty reappointment database. The Chief and his/her designees also review near miss reports made by CRNAs, residents, and faculty contemporaneously and appropriate follow-up and/or corrective actions are taken.

2. Monthly staff meetings address organizational as well as performance improvement and patient safety issues. Minutes are submitted to the Medical Staff Office. The minutes outline topics covered, and "track" ongoing problems. Performance improvement and patient safety issues are discussed at most meetings.

3. As topics arise from M&M Conference, notices from other departments of physicians, patients, or administration, a member of the attending staff undertakes further evaluation. This may take the form of a broad review or specific attention to a clinical problem.

   Follow-up on the above might include:

   a. Inservice (or departmental education/training). (Example: A follow-up on the review of epidural narcotics or lecture to the nursing staff on these modalities and means to decrease side effects.)

b. Revision of policy or procedures.

c. Potential staff changes/proctoring, dismissal, etc.

d. Purchase of equipment. (Example: The O.R. monitoring equipment has expanded dramatically in recent years and exceeds the American Society of Anesthesiology standards).

C. REPORTING

Performance Improvement/Patient Safety (PIPS) and Utilization Management activity records will be maintained by the department. Further, minutes will be sent to the Medical Staff Office and will include PIPS and Utilization Management information/follow-up, etc.

D. CLINICAL INDICATORS

The Department of Anesthesia and Perioperative Care believes in the consistent delivery of quality patient care, as defined by the Institute of Medicine, i.e. that it is safe, timely, effective, efficient, equitable and patient-centered. The Anesthesia and Perioperative Care Clinical Service reviews and evaluates the quality and appropriateness of the care delivered on a continuous basis. This is a multi-faceted program with data collection from numerous sources. These include:

1. Direct supervision of the performance of residents and CRNA's by members of the attending staff. Monthly evaluation of each resident includes direct comment on patient care issues. Performance evaluations of CRNA's are done on an annual basis.
2. All anesthesia-related deaths and complications are reviewed at monthly Morbidity and Mortality meetings. Cases are reviewed for deaths, myocardial infarction, neurologic injury, aspiration, and other adverse events occurring within 48 hours of anesthesia care. These indicators are reviewed at the monthly M&M conference and are included as part of OPPE. All members of the Anesthesia Service, including faculty, CRNA's, residents, and students are expected to attend these meetings. They are accredited for Continuing Medical Education. An attempt is made to determine ways to improve patient outcomes and avoid future problems. This is an open forum for frank discussion. Records are kept in the departmental office.

   Cases are also reviewed at routine ZSFG departmental faculty meetings with an emphasis on specific problems on possible changes in practice. Some cases are also presented and discussed at UCSF departmental Grand Rounds.

3. STARS conferences (ZSFG Tuesday/Thursday Afternoon Resident Seminars) are for primarily residents and are directed to topics relevant to the care of patients at ZSFG. These meetings are to discuss cases, recent and topical journal articles, special

techniques and ideas to improve anesthesia management, especially as pertains to trauma and indigent care, and avoidance of future problems.

E. CLINICAL SERVICE PRACTITIONERS PERFORMANCE PROFILES

Refer to Section IX.D.

F. MONITORING & EVALUATION OF APPROPRIATENESS OF PATIENT CARE

It is understood that regular review by the Performance Improvement/Patient Safety Committee will occur as reports and problems arise from our department or others within ZSFG. Further, there shall be an annual review of our program and Performance Improvement and Patient Safety Issues from the previous year. Refer to Section IX.D.

G. MONITORING & EVALUATION OF PROFESSIONAL PERFORMANCE

See Attending, Resident, and CRNA staff. Refer to Section IX.D.

H. CLINICAL INDICATORS

Refer to Section IX.D, Clinical Indicators

X. MEETING REQUIREMENTS

In accordance with ZSFG Medical Staff Bylaws 7.2.I, All Active Members are expected to show good faith participation in the governance and quality evaluation process of the Medical Staff by attending a minimum of 50% of all committee meetings assigned, clinical service meetings and the annual Medical Staff Meeting.

The Anesthesia and Perioperative Care Clinical Service shall meet as frequently as necessary, but at least quarterly to consider findings from ongoing monitoring and evaluation of the quality and appropriateness of the care and treatment provided to patients.

As defined in the ZSFG Medical Staff Bylaws, Article VII, 7.2.G., a quorum is constituted by at least three (3)-voting members of the Active Staff for the purpose of conducting business.

XI. ADDITIONAL CLINICAL SERVICE SPECIFIC INFORMATION

A. Monthly orientation sessions are held to inform house staff of ZSFG specific rules and regulations, patient care issues, schedules, etc.

B. Ongoing educational sessions are held for faculty and CRNAs regarding hospital and department policies and procedures, equipment, performance improvement and patient safety, etc.

C. Scheduling of house staff is done in accordance with the UCSF resident work hour improvement project.

D. Risk Management: the department adheres to all hospital policies. Any untoward events are reported promptly to risk management

E. Well Being: The Department of Anesthesia has an active Physician Well Being Committee. Any evidence of impairment is referred to the committee and a prompt and thorough investigation is carried out. If impairment is found it is promptly treated appropriately.

XII. ADOPTION AND AMENDMENT

The Anesthesia and Perioperative Care Clinical Service Rules and Regulations will be adopted and revised by a majority vote of all Active members of the Anesthesia and Perioperative Care Clinical Service every two years at an Anesthesia and Perioperative Care Clinical Service meeting

APPENDIX A: Clinical Service Chief of Anesthesia and Perioperative Care Service Job Description

Title: Clinical Service Chief of Anesthesia and Perioperative Care Service Job Description

Chief of Anesthesia and Peri-Operative Care Clinical Service Position Summary:

The Chief of Anesthesia and Peri-Operative Care Clinical Service directs and coordinates the Service's clinical, educational, and research functions in keeping with the values, mission, and strategic plan of Zuckerberg San Francisco General Hospital (ZSFG) and the Department of Public Health (DPH). The Chief also insures that the Service's functions are integrated with those of other clinical departments and with the Hospital as a whole.

Reporting Relationships:

The Chief of Anesthesia and Peri-Operative Care Clinical Service reports directly to the Vice Dean and the University of California, San Francisco (UCSF) Department Chair. A committee appointed by the Chief of Staff reviews the Chief not less than every four years. Reappointment of the Chief occurs upon recommendation by the Chief of Staff, in consultation with the Vice Dean, the UCSF Department Chair, and the ZSFG Executive Administrator, upon approval of the Medical Executive Committee and the Governing Body. The Chief maintains working relationships with these persons and groups and with other clinical departments.

Position Qualifications:

The Chief of Anesthesia and Peri-Operative Care Clinical Service is board certified, has a University faculty appointment, and is a member of the Active Medical Staff at ZSFG.

Major Responsibilities:

The major responsibilities of the Chief of Anesthesia and Peri-Operative Care Clinical Service include the following:

Providing the necessary vision and leadership to effectively motivate and direct the Service in developing and achieving goals and objectives that are congruous with the values, mission, and strategic plan of ZSFG and the DPH.

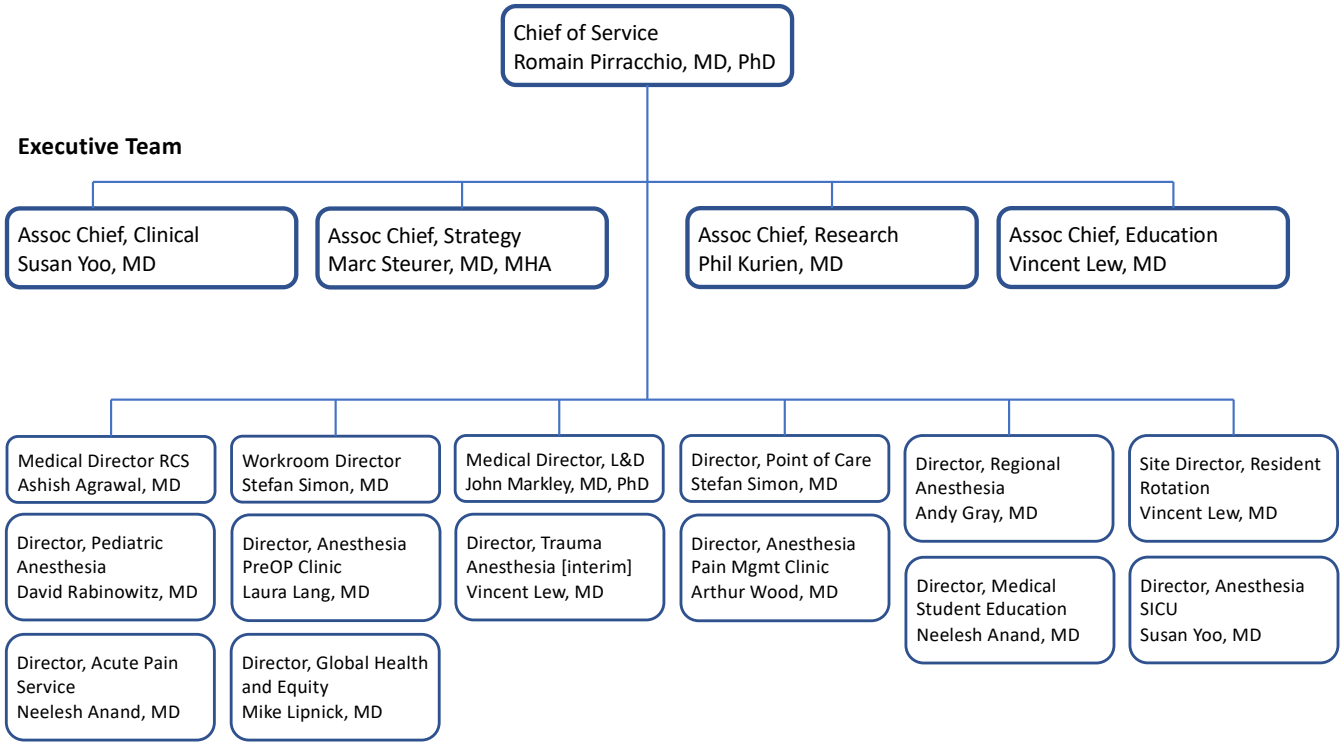
In collaboration with the Executive Administrator and other ZSFG leaders, developing and implementing policies and procedures that support the provision of services by reviewing and approving the Service's scope of service statement, reviewing and approving Service policies and procedures, identifying new clinical services that need to be implemented, and supporting clinical services provided by the Department;

In collaboration with the Executive Administrator and other ZSFG leaders, participating in the operational processes that affect the Service by participating in the budgeting process, recommending the number of qualified and competent staff to provide care, evaluating space and equipment needs,

selecting outside sources for needed services, and supervising the selection, orientation, in-service education, and continuing education of all Service staff;

Serving as a leader for the Service's performance improvement and patient safety programs by setting performance improvement priorities, determining the qualifications and competencies of Service personnel who are or are not licensed independent practitioners, and maintaining appropriate quality control programs; and performing all other duties and functions spelled out in the ZSFG Medical Staff Bylaws.

APPENDIX B: UCSF Department of Anesthesia and Perioperative Care Zuckerberg San Francisco General Hospital Division Organization



APPENDIX C: Basic Standards for Preanesthesia Care

(Approved by the American Society of Anesthesiologists House of Delegates on October 14, 1987, and last affirmed on December 13, 2020)

These standards apply to all patients who receive anesthesia care. Under exceptional circumstances, these standards may be modified. When this is the case, the circumstances shall be documented in the patient's record.

An anesthesiologist shall be responsible for determining the medical status of the patient and developing a plan of anesthesia care.

The anesthesiologist, before the delivery of anesthesia care, is responsible for:

1. Reviewing the available medical record.

2. Interviewing and performing a focused examination of the patient to:

    a. Discuss the medical history, including previous anesthetic experiences and medical therapy.

    b. Assess those aspects of the patient's physical condition that might affect decisions regarding perioperative risk and management.

3. Ordering and reviewing pertinent available tests and consultations as necessary for the delivery of anesthesia care.

4. Ordering appropriate preoperative medications.

5. Ensuring that consent has been obtained for the anesthesia care.

6. Documenting in the chart that the above has been performed.

APPENDIX D: ZSFG Anesthesia Department Transition of Care Policy

Title: **ZSFG Anesthesia Department Transition of Care Policy**

Purpose: To establish Policy and Procedure defining the purpose and procedure concerning perioperative transition of care. This Policy is compliant with the Joint Commission Standard PC.02.02.01 (Coordinating the patient's care, treatment, and services based on the patient's needs).

Policy: An anesthesia team consisting of a faculty member and an anesthesia resident or CRNA provides Perioperative anesthesia care at ZSFG. Transition of anesthesia care ("hand-off") to a different provider may become necessary at the end of the care giver's regular working shift, or during the regular working hours for a short time to ensure adequate breaks. This Policy formalizes and standardizes the process of any transition of care, which becomes necessary during the intraoperative period.

Oversight for establishing this Policy & Procedure is the responsibility of the Chief of Anesthesia or his/her designee.

Background: Adequate transfer of patient care is a crucial part of a safe medical practice. TJC recognizes this in implementing a National Patient Safety Goal in 2007 to ensure standardization when patient care is transferred to another care giver. This P&P defines a safe and standardized process to transfer accurate information about the patient including medical history, surgical procedure, current conditions and anticipated intraoperative course.

Procedures:

1. Intraoperative transfer of care and other shift related transfers will follow a standardized checklist with standardized responsibilities.
    a. The ZSFG Anesthesia Handover Checklist will be followed for transfer of patient care in the main OR and all satellite anesthetizing locations including obstetrical anesthesia.
2. Handover procedures are performed whenever care or responsibilities are transferred between caregivers. This includes:
    a. Any permanent transfers of care between faculty and/or between residents and CRNA's.
    b. Intermittent transfers of care (e.g. as occurs for morning, lunch, and preoperative breaks)
3. Handovers are performed face to face and at the bedside by going through the items on the Handover Checklist as well as going over and verifying all drawn up medications including controlled substances.
4. A Handover will also occur at 7AM and 6PM between incoming and departing anesthesia faculty managing the OR, Obstetrical Suites, and Anesthesia Pain Service to ensure appropriate transfer of patient information and management duties.
    a. This Handover will follow the ZSFG Anesthesia Shift Handover Checklist and the ZSFG Anesthesia OB/Pain Service Shift Handover Checklist

APPENDIX D1-3

D.1 ZSFG Anesthesia Case Handover Checklist

D.2 ZSFG Anesthesia OB/Pain Service Shift Handover Checklist

D.3 A & B ZSFG Anesthesia Shift Handover Checklist

D.1 ZSFG Anesthesia Case Handover Checklist
(to be performed for all anesthesia personnel changes)

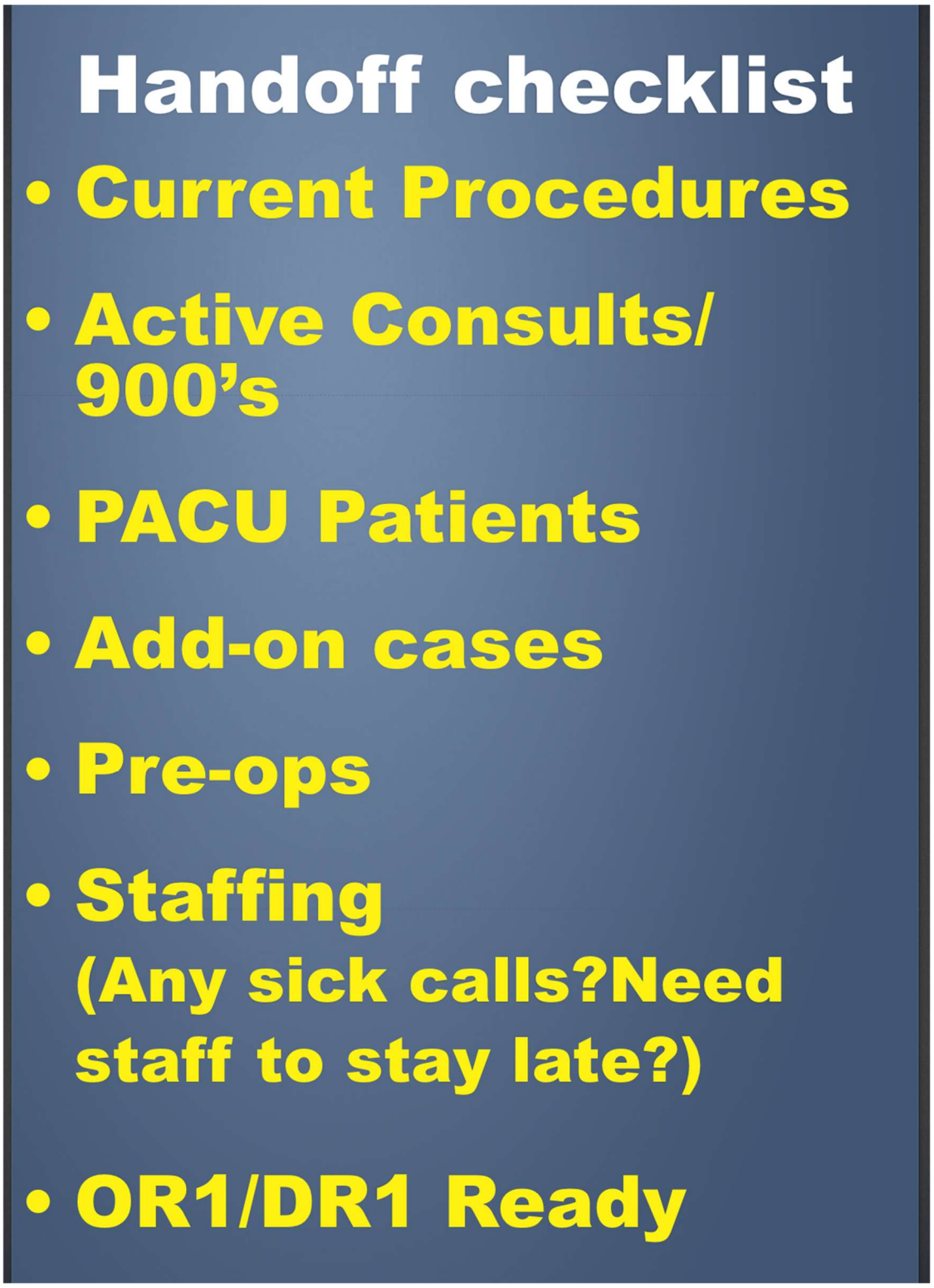
(unknown patient only)

- Name, Age, ASA, Language
- Surgical Phase & Estimated Length
- H&P / Co-Morbidities
- Allergies
- Patient's Daily Medication
- Anesthesia Type
- Patient Position
- Airway & Ventilation
- Cardiovascular Status (ABG?)
- Opioid & Paralytic
- Lines & Location of IV Port
- EBL & I/O Balance
- Requests by Surgeons
- Disposition Plan
- Antibiotic & Medication Hand-Off

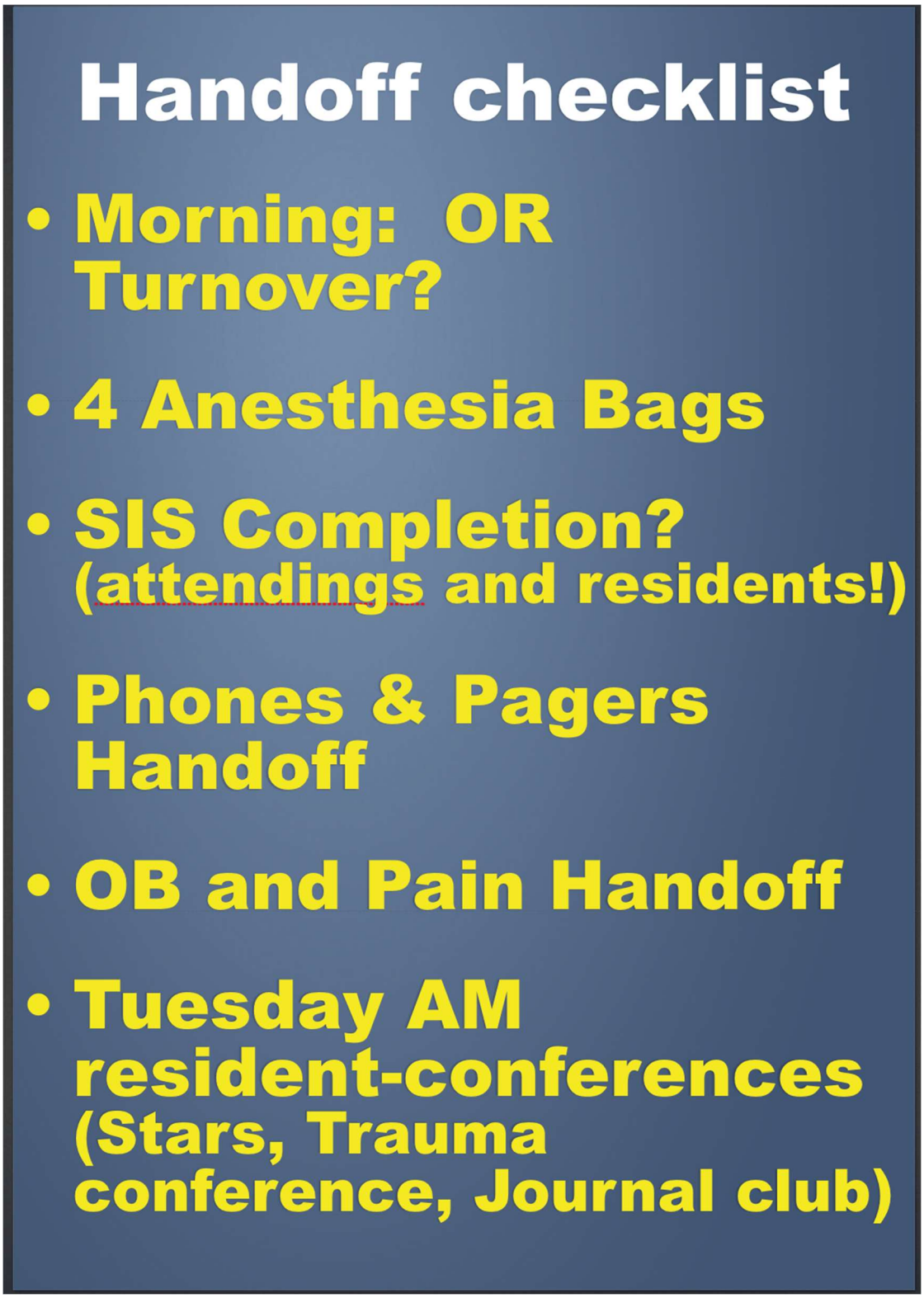
D.2 ZSFG Anesthesia OB/Pain Service Shift Handover Checklist

- **Current ongoing or scheduled surgical procedures in OB**
- **Current laboring patients**
- **Current Epidurals/Continuous SpA**
- **Readiness of LD ORs**
- **Current pain patients**

D.3A ZSFG Anesthesia Shift Handover Checklist



D.3B ZSFG Anesthesia Shift Handover Checklist



APPENDIX E: Standards for Basic Anesthetic Monitoring

STANDARDS FOR BASIC ANESTHETIC MONITORING

(Approved by the ASA House of Delegates on October 21, 1986, last amended on October 20, 2010, and reaffirmed on December 13, 2020)

These standards apply to all anesthesia care although, in emergency circumstances, appropriate life support measures take precedence. These standards may be exceeded at any time based on the judgment of the responsible anesthesiologist. They are intended to encourage quality patient care, but observing them cannot guarantee any specific patient outcome. They are subject to revision from time to time, as warranted by the evolution of technology and practice. They apply to all general anesthetics, regional anesthetics and monitored anesthesia care. This set of standards addresses only the issue of basic anesthetic monitoring, which is one component of anesthesia care. In certain rare or unusual circumstances, 1) some of these methods of monitoring may be clinically impractical, and 2) appropriate use of the described monitoring methods may fail to detect untoward clinical developments. Brief interruptions of continual† monitoring may be unavoidable. These standards are not intended for application to the care of the obstetrical patient in labor or in the conduct of pain management.

STANDARD I

Qualified anesthesia personnel shall be present in the room throughout the conduct of all general anesthetics, regional anesthetics and monitored anesthesia care.

Objective

Because of the rapid changes in patient status during anesthesia, qualified anesthesia personnel shall be continuously present to monitor the patient and provide anesthesia care. In the event there is a direct known hazard, e.g., radiation, to the anesthesia personnel which might require intermittent remote observation of the patient, some provision for monitoring the patient must be made. In the event that an emergency requires the temporary absence of the person primarily responsible for the anesthetic, the best judgment of the anesthesiologist will be exercised in comparing the emergency with the anesthetized patient's condition and in the selection of the person left responsible for the anesthetic during the temporary absence.

STANDARD II

During all anesthetics, the patient's oxygenation, ventilation, circulation and temperature shall be continually evaluated.

Oxygenation

Objective

To ensure adequate oxygen concentration in the inspired gas and the blood during all anesthetics.

Methods

1. Inspired gas: During every administration of general anesthesia using an anesthesia machine, the concentration of oxygen in the patient breathing system shall be measured by an oxygen analyzer with a low oxygen concentration limit alarm in use.*

2. Blood oxygenation: During all anesthetics, a quantitative method of assessing oxygenation such as pulse oximetry shall be employed.* When the pulse oximeter is utilized, the variable pitch pulse tone and the low threshold alarm shall be audible to the anesthesiologist or the anesthesia care team personnel.* Adequate illumination and exposure of the patient are necessary to assess color.*

Ventilation

Objective

To ensure adequate ventilation of the patient during all anesthetics.

Methods

1. Every patient receiving general anesthesia shall have the adequacy of ventilation continually evaluated. Qualitative clinical signs such as chest excursion, observation of the reservoir breathing bag and auscultation of breath sounds are useful. Continual monitoring for the presence of expired carbon dioxide shall be performed unless invalidated by the nature of the patient, procedure or equipment. Quantitative monitoring of the volume of expired gas is strongly encouraged.*

2. When an endotracheal tube or laryngeal mask is inserted, its correct positioning must be verified by clinical assessment and by identification of carbon dioxide in the expired gas. Continual end-tidal carbon dioxide analysis, in use from the time of endotracheal tube/laryngeal mask placement, until extubation/removal or initiating transfer to a postoperative care location, shall be performed using a quantitative method such as capnography, capnometry or mass spectroscopy.* When capnography or capnometry is utilized, the end tidal CO2 alarm shall be audible to the anesthesiologist or the anesthesia care team personnel.*

3. When ventilation is controlled by a mechanical ventilator, there shall be in continuous use a device that is capable of detecting disconnection of components of the breathing system. The device must give an audible signal when its alarm threshold is exceeded.

4. During regional anesthesia (with no sedation) or local anesthesia (with no sedation), the adequacy of ventilation shall be evaluated by continual observation of qualitative clinical signs. During moderate or deep sedation the adequacy of ventilation shall be evaluated by continual observation of qualitative clinical signs and monitoring for the presence of exhaled carbon dioxide unless precluded or invalidated by the nature of the patient, procedure, or equipment.

Circulation

Objective

To ensure the adequacy of the patient's circulatory function during all anesthetics.

Methods

1. Every patient receiving anesthesia shall have the electrocardiogram continuously displayed from the beginning of anesthesia until preparing to leave the anesthetizing location.*

2. Every patient receiving anesthesia shall have arterial blood pressure and heart rate determined and evaluated at least every five minutes.*

3. Every patient receiving general anesthesia shall have, in addition to the above, circulatory function continually evaluated by at least one of the following: palpation of a pulse, auscultation of heart sounds, monitoring of a tracing of intra- arterial pressure, ultrasound peripheral pulse monitoring, or pulse plethysmography or oximetry**.**

Body Temperature

Objective

To aid in the maintenance of appropriate body temperature during all anesthetics.

Methods

1. Every patient receiving anesthesia shall have temperature monitored when clinically significant changes in body temperature are intended, anticipated or suspected.

† Note that "continual" is defined as "repeated regularly and frequently in steady rapid succession" whereas "continuous" means "prolonged without any interruption at any time."

* Under extenuating circumstances, the responsible anesthesiologist may waive the requirements marked with an asterisk (*); it is recommended that when this is done, it should be so stated (including the reasons) in a note in the patient's medical record.

APPENDIX F: Anesthesia Cart Locking, Medication Safety and Controlled Substance Policy and Procedure

Title: **Anesthesia Cart Locking, Medication Safety and Controlled Substance Policy and Procedure**

Purpose: To establish Policy and Procedure for the locking of anesthesia carts and handling of controlled substances. Oversight for establishing and updating this Policy & Procedure is the responsibility of the Chief of Anesthesia or his/her designee.

Background: Anesthesia carts contain various equipment and drugs needed for induction and maintenance of anesthesia and the support of additional anesthesia related tasks e.g. difficult airway management, central line placement, etc. To avoid illegitimate access to the carts, all carts are generally kept locked. At the beginning and end of cases, however, it is necessary for the anesthesia provider to have immediate access to drugs and equipment. As stated in the attached Security of Medications in the Operating Room position statement drafted by the American Society of Anesthesiologists (ASA), "At the end of anesthesia cases, when patients are particularly vulnerable, anesthesia professionals dedicate full attention to their patients. This vulnerable period extends from the time the patient emerges from anesthesia until the anesthesia professional transports the patient to a recovery area. If drugs are locked up during this vulnerable period, provider access to drugs required for emergency patient care is obstructed. Furthermore, requiring anesthesia professionals to divert attention from patients in order to lock non-controlled medications in anesthesia carts during the period between emergence from anesthesia and transport of patients out of the operating room jeopardizes patient safety. Therefore, locking non-controlled medications at this point in the anesthetic should not be required." (Appendix F1) Similarly, anesthesia providers bring premedicated patients from the preoperative holding area into the operating room. Immediate access to anesthesia drugs and equipment may be required. For these reasons the ASA states in the position statement "Anesthesia carts may be left unlocked and non-controlled medications may be left in or on the top of unlocked anesthesia carts or anesthesia machines immediately prior to, during, and immediately following surgical cases in an operating room, so long as there are authorized operating room personnel in the OR suite."

The position of the regulatory authorities on this issue is in flux. While the State Operations Manual require that carts containing anesthesia medications be locked whenever they are not directly monitored by an individual with legal access to the medications, even within a secure operation room suite CMS published a proposed revision on March 25, 2005 requiring now that "all drugs and biologicals be kept in a secure area, and locked ***when appropriate***" [§482.25(b)(2)]. This has now been finalized in 482.25(b)(2)(i) (Appendix F2). The California Department of Health Services issued a memorandum stating that "anesthesia carts and anesthetic machines may remain unlocked during and in between surgical cases in a given operation room, as long as there are surgical service personnel in the immediate vicinity." This statement follows American Society of Anesthesiologists (ASA) policy.

The Anesthesia Locked Cart Policy follows the final CMS rule as well as the ASA position statement on this issue.

Policies:

- Anesthesia carts are generally to be kept locked at all times. However, in certain situations Anesthesia professionals must have immediate access to drugs required for emergency patient care. Procedures designed to prevent unauthorized access to such drugs must be consistent with this imperative for patient safety. Therefore, the following exemptions apply to the locked cart policy:
    - Anesthesia carts may be left unlocked and non-controlled medications may be left in, or on, the top of unlocked anesthesia carts or anesthesia machines immediately prior to, during, and immediately following surgical cases in an operating room, so long as there are authorized operating room personnel in the immediate vicinity.
    - Anesthesia carts may also remain unlocked whenever the anesthesia provider is able to directly monitor access to the anesthesia cart.

- All medications and solutions will be labeled with the medication name, concentration, date, time drawn up, and initials of the care provider whenever transferred from their original container.
    - Medications transferred from their original container will expire 24 hours after they are drawn up, except for propofol, which expires after 6 hours.
    - No more than 1 medication will be labeled at a time.
    - All labels are to be verified verbally and visually by two qualified individuals when the person preparing the medication is not the person administering the medication.
    - Any medications found unlabeled are to be immediately discarded.
    - At shift change or break relief, all medications and their labels will be reviewed by entering and exiting personnel.
- Drug boxes containing controlled substances are picked up from pharmacy prior to starting work and must be returned immediately to pharmacy after the shift ends. Proper hospital ID is required when obtaining controlled substance boxes. The controlled substance box must be brought directly to the providers assigned OR and kept locked to the top of the anesthesia cart. **Drug box keys are always to be kept with the provider. Keys may not be stored in the anesthesia cart, even if the cart is locked.**

  Exemptions:
    - Open and/or unlocked controlled substance boxes are acceptable whenever the anesthesia provider is in the immediate vicinity and able to directly monitor access to the drug box.
- Controlled substances drawn up into syringes require labels with concentration, date, time & the initials of the provider drawing up the medication if not administered immediately and completely
- Controlled substances in syringes must remain in the OR at all times. Exemption:

- To obtain adequate pre- or postoperative sedation and pain management the anesthesia provider is allowed to carry a reasonable amount of controlled substances on his body in syringes if directly heading to the pre-operative area to premedicate a patient or while transporting a patient at the end of a case.
- Controlled substances in use (applied over continuous infusion pumps or from syringes) may be handed off to another provider during transfer of care or for breaks. The provider who originally checked out the controlled substance box remains responsible for complete and correct documentation of administration.
    - Rational: Controlled substances are routinely administered in almost every anesthesia case. Often they are administered via a continuous infusion or syringe pump. From practical as well as quality of care standpoints, those drugs cannot and should not be discontinued when the anesthesia provider changes. Official recommendations regarding this matter from the ASA and AANA are not available, however, statements have been made that this is considered to be the standard practice nationwide.

APPENDIX

F 1. ASA Position Statement "Security of Medications in the Operating Room"

F.1 ASA POSITION STATEMENT "SECURITY OF MEDICATIONS IN THE OPERATION ROOM"

American Society of Anesthesiologists™

Statement on Security of Medications in the Operating Room

Committee of Oversight: Quality Management and Departmental Administration

(Approved by the ASA Executive Committee in October 2003, and last amended by the ASA House of Delegates on October 17, 2018)

Preamble

A secure environment of care is necessary for medication safety. Medication safety includes the security of oral, sublingual, parenteral, and inhaled pharmaceutical agents used for elective and emergency patient care. A secure physical area ensures the integrity of anesthesia machines as well as other equipment and materials. Security of medications in the operating room suite is essential for patient safety.

Recommended Policies

1. Access to operating room suites must be strictly limited to authorized persons.
2. All Schedule II through V medications must be kept in locked enclosed areas when not under the direct control of an anesthesia professional.
3. Anesthesia professionals must have immediate access to drugs and equipment required for emergency patient care. Procedures designed to prevent unauthorized access to such drugs must not impede this imperative for patient safety.
4. Anesthesia carts and anesthesia machines may remain unlocked, and non-controlled* medications may be left in or on top of unlocked anesthesia carts or anesthesia machines immediately prior to, during, and immediately following surgical cases in an operating room, so long as there are authorized operating room personnel in the OR suite.

Rationale

A. Because the operating room suite is a limited-access secure location, it is safe practice for anesthesia professionals to leave non-controlled* medications on the top of their anesthesia carts or anesthesia machines for brief periods (e.g., while going to a nearby holding area to bring a patient into the operating room).

B. At the end of anesthesia cases, when patients are particularly vulnerable, anesthesia professionals dedicate full attention to their patients. This vulnerable period extends from the time the patient emerges from anesthesia until the anesthesia professional transfers care of the patient to recovery personnel. If drugs are locked up during this vulnerable period, provider access to drugs required for emergency patient care is obstructed. Requiring anesthesia professionals to divert attention from patients in order to lock non-controlled* medications in anesthesia carts during the period between emergence from anesthesia and transport of patients out of the operating room jeopardizes patient safety. Therefore, locking non-controlled* medications at this point in the anesthetic should not be required.

C. It is necessary and safe practice for non-controlled* medications to be set up for emergency cases (e.g., obstetrics, trauma) and made secure ("locked") by a tamper-evident device that can easily be broken by authorized persons. Locks requiring knowledge of a combination or possession of a physical key jeopardize patient safety in this setting.

D. It is necessary and safe practice for emergency anesthesia drugs (e.g., dantrolene for the treatment of malignant hyperthermia) to be kept in a dedicated emergency cart or cupboard and made secure ("locked") by a tamper-evident device that can easily be broken by authorized persons. Locks requiring knowledge of a combination or possession of a physical key jeopardize patient safety, in this setting.

*The term "non-controlled" refers to medications that are not Schedule II-V.

APPENDIX G: ZSFG MACHINE CHECKLIST

ZSFG Machine Checklist

The Draeger anesthesia machine is equipped with an internal checklist specific for the device. A full machine check will be performed prior to the first use of the device for the day. Between uses, the manufacturers abbreviated machine check will be performed.

Draeger Machine Checklist
(morning check only)

- New Circuit System Attached & Extended to Anticipated Use
- Self-Test Completed
- New Circuit System Attached
- Suction System Complete & Function Test
- Final Status Machine
- Monitor Set

APPENDIX H: MALIGNANT HYPERTHERMIA RESPONSE

TITLE: MALIGNANT HYPERTHERMIA RESPONSE

PURPOSE

The purpose of this policy is to ensure a well-coordinated response to malignant hyperthermia (MH) treatment by:

- Defining MH and providing guidelines for the diagnosis of MH
- Outlining responsibilities of the clinical team during the treatment of MH
- Providing guidelines on how to stock and check the MH emergency cart

DEFINITIONS

Malignant Hyperthermia:

- The MH crisis is a biochemical chain reaction response, "triggered" by commonly used general anesthetics and the paralyzing agent succinylcholine (a neuromuscular blocker), within the skeletal muscles of susceptible individuals.
- Some patients who are MH susceptible may experience a MH crisis without exposure to anesthetic drugs. Such events are rare. Strenuous exercise, exposure to heat, or perhaps high body temperature from infection may precipitate the crisis.
- The general signs of the MH crisis include increased heart rate, greatly increased body metabolism, muscle rigidity and/or fever that may exceed 110°F along with muscle breakdown, derangements of body chemicals and increased acid content in the blood.
- Severe complications include: cardiac arrest, brain damage, internal bleeding or failure of other body systems. Thus, death, primarily due to a secondary cardiovascular collapse, can result.
- **MH is a medical emergency.** Minimizing time to appropriate treatment is essential!

Diagnosis of Malignant Hyperthermia:

- The most consistent indicator of potential MH in the OR is an **unanticipated increase (e.g., doubling or tripling) of end-tidal CO_2** when minute ventilation is kept constant. The increase in CO_2 may occur over a brief period of time or may develop over longer periods of time (minutes to hours). If upward adjustments of minute ventilation (tidal volume and frequency) are required to maintain normal end-tidal CO_2, the possibility of MH should be considered and promptly evaluated.
- If sudden, **unexpected cardiac arrest** occurs, especially in a young male, hyperkalemia should be considered immediately and therapy started with calcium, hyperventilation, glucose, and insulin. Plasma potassium concentration should be measured as soon as possible. Sudden unexpected cardiac arrest is not typically due to MH, but due to sudden rapid rhabdomyolysis.
- **Unexpected tachycardia, tachypnea and jaw muscle rigidity** (masseter spasm) are often common signs of MH that follow the significant CO_2 increase.
- **Respiratory and metabolic acidosis** usually indicates fulminant MH. However, metabolic acidosis is not always present prior to severe temperature increase.
    - A specific sign of the MH syndrome is **body rigidity** (i.e., limbs, abdomen and

chest). When there is a suspicion of MH, attempts should be made to determine if muscle rigidity is also present.

- **Temperature elevation** usually follows the appearance of other signs of MH. Temperature change during MH is best detected by core temperature measurement (tympanic, naso- or oropharyngeal, esophageal, rectal, or pulmonary artery). Forehead skin temperature is less acceptable; it is slower in reflecting changes in core temperature and could be influenced by peripheral vasoconstriction. **MHAUS recommends that core temperature be measured whenever general anesthesia is administered for procedures lasting more than 30 minutes.**
- **Postoperative rhabdomyolysis** without intraoperative signs of MH should be treated with hydration, mannitol and bicarbonate. Plasma potassium concentration should be measured immediately or as soon as possible. The patient should be referred to a neurologist and to an MH testing center to evaluate occult myopathy and determine the need for evaluation of MH susceptibility.

Drugs and Malignant Hyperthermia:

- **All volatile inhalation anesthetics (Halothane, Enflurane, Isoflurane, Desflurane, Sevoflurane) and Succinylcholine are MH triggers.** Nitrous oxide is not a trigger.
- **DO NOT ADMINISTER** calcium channel blockers when Dantrolene has been given since it may increase the risk for hyperkalemia and subsequent cardiac arrest.
- All other currently used anesthetics and life-support drugs are considered safe.

PROTOCOL: MALIGNANT HYPERTHEMIA RESPONSE

I. Criteria for suspecting MH and Hospital Locations where MH may occur:

A. Suspect MH if one or more of the following criteria are present:

1. Unanticipated increase (e.g., doubling or tripling) of end-tidal CO_2 when minute ventilation is kept constant
2. Unexpected cardiac arrest
3. Unexpected tachycardia, tachypnea, jaw muscle rigidity (masseter spasm)
4. Respiratory and metabolic acidosis
5. Body rigidity (i.e., limbs, abdomen and chest)
6. Temperature elevation
7. Postoperative rhabdomyolysis

B. MH may occur in the following hospital locations:

1. Operating Room (including OB OR) – Primary site: MH may occur at any time during or emerging from anesthesia, including in the immediate post-operative period
2. Post Anesthesia Care Unit (PACU)
3. Emergency Department (ED)
4. MH can occur anywhere in the hospital where patients require emergency intubation with succinylcholine or in other departments that use inhaled anesthetics for procedures (i.e., IR, GI, ICU)

5. **If the patient experiences MH outside of the OR area, immediately transport the patient to the OR for appropriate care. The Anesthesia D1 to assign the specific OR treatment room. For patients already in the ICU, the ICU Attending and Anesthesia D1 will decide whether to treat the patient in the OR or ICU.**

II. Staff/Service Roles during an MH Crisis

A. ANESTHESIA

1. Recognize and diagnose MH
2. Immediately discontinue volatile anesthetics or succinylcholine upon diagnosis
3. Start TIVA (Total Intravenous Anesthesia), if anesthesia is required
4. Hyperventilate patient at 2-3 times predicted minute ventilation with 100% oxygen.
5. FiO_2 1.0 at 10 L/min. Keep the circuit system, absorber and ventilation machine.
6. Activate the MH response system by obtaining the MH Cart, clearly designating roles and responsibilities and ensuring closed loop communication
    a. Designate an anesthesia technician to obtain the MH Cart from the Anesthesia Workroom (VOIP phone 31022)
    b. Page the Anesthesia D1 during the day or Anesthesia Night Attending at night to assign an anesthesiologist to be the team leader of the MH response (VOIP phone 30001)
    c. Inform surgeons of an MH emergency and coordinate the most expeditious surgical plan to finish the surgical procedure
7. Administer Dantrolene Sodium 2.5 mg/kg by rapid IV bolus
    a. Designate an anesthesia attending, resident, CRNA, nurse, and/or pharmacist to reconstitute the Dantrolene (designate multiple team members solely for Dantrolene reconstitution, as the process is time intensive).
    b. Reconstitute each 20 mg vial of Dantrolene with 60 mL Sterile Water for Injection. Shake the vial until the solution is clear. The resulting solution contains 20 mg of Dantrolene and 3gm of Mannitol
    c. Designate one provider to administer Dantrolene via rapid IV push.
    d. DO NOT use 5% Dextrose Injection, 0.9% Sodium Chloride Injection or other acidic solutions since it is not compatible with Dantrolene
    e. DO NOT transfer Dantrolene to large glass bottles for prophylactic infusion due to precipitate formation observed with the use of some glass bottles as reservoirs
    f. The contents of the vial must be protected from direct light and used within 6 hours after reconstitution. Store reconstituted solutions at controlled room temperature (59°F to 86°F or 15°C to 30°C)
8. Repeat Dantrolene administration as often as necessary
    a. Titrate to control clinical signs of MH to a total dose of 10 mg/kg. Note that in some patients, up to 30 mg/kg may be required
    b. Dantrolene sodium does not produce significant cardiac or pulmonary complications when administered acutely. **Therefore, there is little harm in administering Dantrolene where MH is suspected, but not yet proven**

9. Team Leader of MH Response will designate the following roles and use the MH Checklist as a guideline for management:
    a. An anesthesia provider to manage the patient's ventilation and anesthesia
    b. A circulating RN as lead nurse to call for help, activate the MH response system and delegate responsibilities to other nurses and techs
    c. An anesthesia provider or CRNA to record the events during the MH crisis on the MH Flowsheet
    d. An anesthesia care provider to insert an arterial line and additional large bore IV access, if not already present
    e. An anesthesia provider or RN to administer medications
    f. An anesthesia technician to obtain the following (VOIP phone 31022)
        i. Refrigerated items from the anesthesia workroom (i.e., 1L IV Plasmalyte x 3 bags, 3L NS for Irrigation x 1 bag, Regular Insulin 10mL vial with NS 100 mL IV Bag x 1 kit)
        ii. Crash Cart
        iii. Other supplies (i.e., syringe pump, spiked IV, triple lumen CVC, A-line sets)
10. Call the MH hotline **1-800-MH-HYPER (1-800-644-9737)** as needed for consultation to help with patient management
11. Perform and monitor the following laboratory tests and studies
    a. Arterial Blood Gas
    b. Basic Metabolic Panel, LDH, Thyroid Studies (TSH, Free T4, Free T3)
        i. Avoid parenteral potassium, if possible, during ongoing rhabdomyolysis
        ii. Following control of the acute episode, persistent hypokalemia may be treated with careful monitoring of the serum potassium level.
    c. Creatine Kinase (CK): Measure CKs every 6 hours until decreased
        i. CK may remain elevated for 2 weeks if event was severe
        ii. After the patient has improved and stabilized, CK should be measured on a declining time basis until it is normal (e.g., every 4 hours during the acute episode to every week during convalescence)
        iii. Monitoring is important because CK is elevated normally in some myopathies, and should be recognized as a part of overall evaluation and treatment
    d. Coagulation profile (PT/INR, PTT, Fibrinogen, D-Dimer, Lactate) – Disseminated intravascular coagulation (DIC) may occur
    e. CBC, Platelets, Serum Myoglobin
    f. Urine Hemoglobin and Myoglobin, Urinalysis
    g. EKG
12. Monitor core temperature and treat for hyperthermia
    a. If hyperthermic or core temperature rises rapidly, cool the subject using one or more of the following modalities:
        i. Cold IV Plasmalyte-148
        ii. Cold Sodium Chloride 0.9% for Irrigation via lavage of NG, bladder,

rectum and/or open cavities

iii. Ice packs for external surface cooling

iv. Consider calling the SICU (x69954) for intracool catheters and/or cooling blankets

b. Cease cooling efforts when temperature has fallen to 38°C

13. Monitor and treat other conditions that can occur (e.g., acidosis, hyperkalemia, dysrhythmias, and myoglobinuria)

a. Monitor arterial blood gases and treat acidosis if not promptly reversed by Dantrolene administration

i. Sodium Bicarbonate (8.4%) IV at initial dose of 1-2mEq/kg

ii. Or may titrate based on base deficit: Give 0.3 x weight (kg) x base deficit

iii. Ensure adequate minute ventilation to avoid paradoxical intracellular acidosis and continue to monitor ABGs

b. Monitor serum K^+ and EKG and treat for hyperkalemia (peaked T-waves, widened QRS, QT and PR prolongation, wide complex ventricular tachycardia)

i. Treat cardiac arrhythmias associated with hyperkalemia

(i) Calcium Chloride (10%) IV 10 mg/kg

(ii) Monitor serum K^+ and ionized Ca^{++}

(iii) Avoid calcium channel blockers

ii. Treat hyperkalemia

(i) Sodium Bicarbonate (above)

(ii) Regular Insulin IV bolus 0.15 units/kg (or 10 units).

(a) Insulin is considered a **"High Alert"** medication. As such, two providers must double check the dose prior to administration

(b) Dilute 1 mL=100 units Regular Insulin into a 100 mL NS Bag (final concentration 1 unit/mL). Draw up 10 mL=10 units dose.

(iii) Follow Insulin with Dextrose 50% IV bolus 1 mL/kg. Monitor serum glucose.

c. Monitor and treat for dysrhythmias

ii. Usually responds to treatment of acidosis and hyperkalemia by hyperventilation, Dantrolene, Sodium Bicarbonate, and Calcium Chloride (see above)

iii. Treat dysrhythmias using ACLS algorithms and crash cart

14. Place or confirm foley catheter. Monitor urine output

a. Ensure urine output of at least 2 mL/kg/hr by hydration and diuretics to minimize myoglobinuria

b. Hydrate aggressively (may require CVP monitoring). Avoid potassium containing solutions that contain **more than** 5 mEq/L of potassium

c. Diuresis with Furosemide 0.5-1 mg/kg IVP

d. Additional Mannitol is not usually necessary since 1 vial of Dantrolene contains 3gms of Mannitol

15. Once patient stabilized, transport to the ICU and provide detailed handoff to ICU team
    a. Continue intravenous Dantrolene for at least 24 hours after control of the episode (approximately 1 mg/kg every 6 hours either by IV bolus or infusion)
    b. Watch for recrudescence and monitor core temperature by appropriate monitoring in an ICU for at least 24 hours
        i. May reoccur in about 25% of MH cases.
        ii. Greatest risk in muscular patients or who have received an anesthetic for at least 150 minutes prior to MH symptoms.
16. Report the event to MHAUS
    a. Submit a confidential Adverse Metabolic or Muscular Reaction to Anesthesia (AMRA) report for patients who have had acute MH episodes to the **North American MH Registry of MHAUS** (see www.mhreg.org)
    b. Have the patient call **1-888-274-7899** to add their name to the North American MH Registry Database
17. Refer patients and families to MHAUS for information on the disease

B. NURSING

1. Designate circulating RN of the case as lead nurse to delegate responsibilities to other nursing staff
2. Active the MH response system by calling the OR Front Desk (x68134) to have them:
    a. Overhead page the OR to request for adequate help in the MH crisis
    b. (Dial 68134)
    c. Call PACU (x68127) to bring 4 large plastic bags of ice to the MH crisis
    d. Page the AOD (63519) to arrange for ICU disposition
    e. Call the OR Pharmacy (x60242) to request other medications as needed
3. Reconstitute and administer Dantrolene
4. Prepare and administer other emergency medications as directed by the MH Lead
5. Obtain blood or urine for laboratory tests ordered
6. Assist in cooling the patient as directed by the MH Lead

C. SURGERY

1. Assess and coordinate the most expeditious surgical plan to finish the surgical procedure (e.g., close the wound, complete the procedure, modify the procedure)
2. Assist in cooling the patient using the specified methods
3. Assist with any other activities as directed by the MH Lead

D. ANESTHESIA TECHNICIANS

1. Bring the MH Treatment cart to the OR suite
2. Bring the Crash Cart to the OR suite
3. Bring refrigerated items from the anesthesia workroom refrigerator to the OR suite
    a. 3 bags of cold 1L IV Plasmalyte
    b. 1 bag of cold 3L NS for Irrigation
    c. Regular Insulin 100units/mL 10 mL vial with NS 100 mL IV Bag
4. Bring a syringe pump, spiked IV, triple lumen CVC, and A-line sets to the OR suite
5. Set up, obtain and/or arrange other supplies and equipment as necessary

6. Restock the supplies in the MH cart upon conclusion of MH treatment in the OR

E. PHARMACY

1. Reconstitute Dantrolene
2. Prepare other emergency medications as directed by the MH Lead
3. Restock the medications in the MH cart upon conclusion of MH treatment in the OR

F. FRONT DESK PERSONNEL

1. Activate the MH response system and call for additional help (See Nursing Section)
2. Arrange for specimens to be sent to the laboratory
3. Obtain additional supplies as requested

G. PACU

1. Bring 4 large plastic bags filled with ice to the OR suite
2. Offer other assistance to the OR team

H. ADMINISTRATOR ON DUTY (AOD)

1. Arrange for ICU disposition post treatment
2. Offer other assistance to the OR team

III. Documentation

A. Document MH Response Events on the MH Response Flow Sheet (see Appendix H1)

B. Documentation of the response to the event will be placed in the patient's medical chart

C. Report event to MHAUS via a confidential Adverse Metabolic or Muscular Reaction to Anesthesia (AMRA) Report to the North American MH Registry of MHAUS

IV. Maintenance of the Malignant Hyperthermia Cart

A. A Malignant Hyperthermia Emergency Cart (MH Cart) will be maintained in the Anesthesia Workroom.

B. The MH Cart will be stocked with the drugs listed in Appendix H2 and the supplies listed in Appendix C as described in the body of this policy

C. The MH Cart will be secured with a tamper-evident seal

D. The MH Cart will have attached to it a list of the drugs contained within and the name and date of the drug that will expire first.

E. The MH Cart will have the Malignant Hyperthermia Policy attached

F. On establishment of the MH Cart, a pharmacist will verify the presence of all drugs and supplies listed in Appendix H2. The anesthesia technician will ensure the presence of all supplies listed in Appendix H3. The pharmacist will then seal the box with a tamper-evident seal and fill in the required information on the "Operating Room Malignant Hyperthermia Cart" form on the cart.

G. The cart will be checked by the pharmacist and anesthesia technician every 30 days, and after every deployment for integrity and outdating of contents. A record of such inspections will be recorded by the pharmacist and kept for at least three years in the pharmacy.

V. Resources

A. wwww.mhaus.org

B. Hirshey Dirksen SJ, Van Wicklin SA, Mashman DL, Neiderer P, Merritt, DR. Developing Effective Drills in Preparation for a Malignant Hyperthermia Crisis. AORN Journal 2013; 97(3): 329-353.

Appendix H1

Date:	Patient Name / MRN:	Location/Room Number:	Anesthesia Provider(s):	Recorder (Anesthesia/CRNA):
Time:	**Medications Used During Case (circle all that apply):** Succinylcholine / Desflurane / Isoflurane / Sevoflurane	**Patient's Weight (kg)**	**Surgery Provider(s):**	**RN(s):**

Intervention	Time
1. ☐ Discontinue Triggers (succinylcholine, inhaled anesthetics) **2. ☐ Start TIVA** (Total Intravenous Anesthesia), if anesthesia required **3. ☐ Hyperventilate 2-3 Times Predicted Minute Ventilation** **4. ☐ FiO2 1.0 at 10 L/min.** Keep circuit, absorber and machine.	
5. Obtain MH Cart / Call for Help / Inform OR Team ☐ Designate **anesthesia technician to obtain MH Cart** *Anes Workroom* *(VOIP phone 31022)* ☐ **Page the Anesthesia D1** or Anesthesia Night Attending *(VOIP phone 30001)* ☐ D1 to designate an Anesthesiologist as **Team Leader** ☐ **Inform Surgeons** of MH emergency and to coordinate the most expeditious surgical plan to finish the surgical procedure	
6. ☐ Administer Dantrolene 2.5 mg/kg per dose IV Bolus *MH Cart* **Repeat Dose until Symptoms Subside** (up to 10-30 mg/kg) ☐ Dilute only 60 mL Sterile Water for Injection in each 20 mg Dantrolene vial (i.e., 75 kg patient = 9 vials Dantrolene per dose) ☐ Assign multiple team members to reconstitute Dantrolene ☐ Designate a provider to administer Dantrolene via IV push	**Med/Dose/Time:**
7. Team Leader to Designate Roles and Responsibilities ☐ Designate an anesthesia **provider to manage vent and anesthesia** ☐ Designate **circulating RN as Lead Nurse**. Lead RN to delegate RN duties and to **call OR Front Desk** *(x68134)* to notify the following: ☐ **Overhead Page OR** to request adequate help in MH crisis *(Dial 68134)* ☐ **Call PACU** *(x68127)* to bring 4 large plastic bags of ice ☐ **Page the AOD** *(63519)* to arrange for ICU disposition ☐ **Call OR Pharmacy** *(x60242)* to request meds as needed ☐ Designate an anesthesia **provider or CRNA to record the events** during the MH crisis on the MH Flowsheet *MH Cart* ☐ Designate a **provider to insert lines** (arterial line, additional large bore IV access), if not already present ☐ Designate a separate **provider to administer medications** ☐ Designate an **anesthesia technician to obtain**: **From the Anesthesia Workroom** *(phone 31022)* ☐ Syringe Pump, Spiked IV, Triple Lumen CVC, A-line Sets **From the Anesthesia Workroom Refrigerator** ☐ 1L IV Plasmalyte x 3 bags ☐ 3L NS for Irrigation x 1 bag ☐ Insulin 10 mL vial / NS 100 mL IV Bag x 1 kit **From the Nearest Available Location** ☐ Crash Cart	

Intervention	Time
8. ☐ Call MH Hotline *(1-800-644-9737)* for additional help, as needed	
9. Obtain and Monitor Labs and Studies *sample lab sheets in MH Cart* ☐ **ABG Kit:** ABG ☐ **Light Blue:** PT/INR, PTT, Fibrinogen, D-Dimer ☐ **Gold Gel:** Basic Metabolic Panel, CK, LDH, Serum Myoglobin, Thyroid Studies (TSH, Free T4, Free T3) ☐ **Lavender:** CBC, Platelets ☐ **Grey:** Lactate ☐ **Urine Dipstick / Collection Cup:** Hemoglobin / Myoglobin, UA ☐ **Monitoring Equipment:** EKG, Core Temperature	**Result/Time:**
10. Cool Patient to Goal Temp of 38°C using one or more methods**:** ☐ Cold Plasmalyte-148 IV *Anes Workroom Fridge* ☐ Cold Sodium Chloride 0.9% for Irrigation via nasogastric, bladder, rectal and/or open cavity lavage *Anes Workroom Fridge* ☐ Ice Packs for external surface cooling *PACU* ☐ Consider calling 4E ICU *(x69954)* for intracool catheter and/or cooling blanket	
11. Treat Acidosis (if not reversed by Dantrolene administration) ☐ Sodium Bicarbonate 8.4% IV 1-2 mEq/kg *Crash Cart* ☐ Ensure adequate minute ventilation	**Med/Dose/Time:**
12. Treat Hyperkalemia and Associated Dysrhythmias ☐ Calcium Chloride 10% IV 10 mg/kg *Crash Cart* **Avoid Calcium Channel Blockers** ☐ Sodium Bicarbonate (above) *Crash Cart* ☐ Insulin IV 0.15 units/kg (or 10 units) *Anes Workroom Fridge* ***HIGH ALERT / TWO PROVIDERS MUST DOUBLE CHECK*** Dilute Insulin 1 mL (= 100 units) in 100 mL NS Bag (Final Conc = 1 unit/mL), then give Insulin 10 mL = 10 units IV ☐ Dextrose 50% IV 1 mL/kg *Crash Cart* Monitor serum glucose. ☐ Treat dysrhythmias using ACLS algorithms *Crash Cart*	**Med/Dose/Time:**
13. ☐ Place or Confirm Foley to Monitor Urine Output ☐ Aggressive hydration. Ensure UO of at least 2 mL/kg/hr. ☐ Consider diuresis with Furosemide 0.5-1 mg/kg IVP *Omnicell*	**Med/Dose/Time:**
14. ☐ Transport to ICU (and continue Dantrolene 1 mg/kg IV q6h)	

APPENDIX H2: List of MH Cart Drugs

A. Medications

1. Dantrolene Sodium for injection 20 mg x 36 vials (dilute each vial with 60 mL sterile water at the time of use).
2. Sterile Water for Injection USP (preservative free) 100 mL x 36 vials
3. Regular Insulin (100 units/mL) 10 mL x 1 vial **(in anesthesia workroom refrigerator)**

B. Fluids

1. Sodium Chloride 0.9% 100 mL IV x 1 bag (to dilute insulin to a 1 unit/mL concentration **(in anesthesia workroom refrigerator)**
2. 1L cold Plasmalyte-148 IV x 3 bags **(in anesthesia workroom refrigerator)**
3. 3L cold Sodium Chloride 0.9% for Irrigation x 1 bag **(in anesthesia workroom refrigerator)**

APPENDIX H3: List of MH Cart Supplies and Equipment

A. General Equipment/Nursing Supplies

1. Toomy irrigation syringes (60 mL x 2) for NG irrigation
2. Rectal tubes (sizes appropriate for your patient population) and collection bag
3. Three-way irrigating foley catheters: (sizes appropriate for your patient population)
4. Irrigation tray with piston syringe (x 1) for NG irrigation
5. 5-in-1 Connector x 4
6. Cysto/Bladder Irrigation Set 81" (2.1m) Regulating Clamp
7. Large clear plastic bags for ice x 4
8. Small plastic bags for ice x 4
9. Bucket for ice

B. Medication Preparation

1. Vented spikes x 36 spikes (to reconstitute Dantrolene)
2. Syringes 60 mL luer lock x 36 syringes (to reconstitute Dantrolene)
3. Red syringe caps x 36 caps
4. Syringes to draw up insulin: 1 mL x 1 syringe, 10 mL x 1 syringe
5. Needles 18G x 4, 16G x 4 to draw up medications

C. Monitoring Equipment

1. All immediately available in anesthesia cart and pre-assembled in workroom

D. Laboratory Testing Supplies

1. Needled-type ABG kits x 6
2. Blood Specimen Tubes:
    a. Gold Gel: Basic Metabolic Panel, CK, LDH, Thyroid Studies (TSH, Free T4, Free T3), Serum Myoglobin
    b. Light Blue: PT/INR, PTT, Fibrinogen, D-Dimer
    c. Grey: Lactate
    d. Lavender: CBC, Platelets
3. Chem Strips/Dipstick for Urinalysis: Urine Hemoglobin
4. Urine Collection Container: UA, Urine Myoglobin

E. Documents

1. Physician Order Form x 2
2. Laboratory Request Forms: Blood/Serum Form x 2; Urinalysis Form x 2 (see prefilled example on MH Cart)
3. Adverse Metabolic Reaction to Anesthesia (AMRA) Report Form (obtain from MH Registry Website)
4. MH Response Flow Sheet to provide documentation of the crisis (on MH Cart)
5. MH Policy (posted on the outside of the MH Cart)
6. MH Intervention Checklist (posted on the outside of the MH Cart)

APPENDIX I: Anesthesia Intubation Bags Policy and Procedure

Zuckerberg San Francisco General Hospital
1001 Potrero Avenue
San Francisco, CA 94110

Title: **Anesthesia Intubation Bags Policy and Procedure**

Purpose: To establish Policy and Procedure defining the purpose, availability, maintenance, and restocking of anesthesia intubation bags that provide immediate availability of airway management tools to anesthesia personnel outside of the operating room and that are Title 22 and CMS compliant.

Policy: Three adult and one pediatric Anesthesia Intubation Bags will be maintained by the Department of Anesthesia.

Anesthesia personnel (faculty, resident or CRNA) will be responsible for stocking and maintaining the supplies of the Anesthesia Intubation Bags.

Pharmacy personnel will be responsible for stocking and sealing the medication (drug) boxes contained within the Anesthesia Intubation Bags. Oversight for establishing the contents and use of the drug boxes is the responsibility of the Director of Pharmacy or his/her designee.

Background: Anesthesiology staff are required to provide emergency airway management and resuscitative capabilities outside of the operating room. These services include: 1) airway management in the emergency department; 2) airway management in the Intensive Care Units; 3) responding to code blue calls throughout the hospital; and 4) transport of critically ill intubated patients to and from the ICU's and the operating room. These services require the immediate availability of drugs and equipment for induction of anesthesia, muscle relaxation, and resuscitation. The emergent nature of these services, and the fact that they may need to be provided in the elevators or in transit where such equipment might not be otherwise available, requires a portable bag containing the necessary drugs and equipment which can be carried by anesthesia personnel. Since these services may be required simultaneously at different locations throughout the hospital, three (3) adult and one (1) pediatric Anesthesia Intubation Bags will be established and maintained. Each Anesthesia Intubation Bag will contain standardized medications and supplies. (See Appendix I 1& 2 1 for listing of medications and supplies). Since these bags must be immediately available and restocked 24 hours a day, pharmacy will provide all necessary drugs in a self-contained box sealed with a tamperproof seal that will be used to stock and restock the drug supply in the Anesthesia Intubation Bags.

Procedure:

1. Anesthesia stocking procedure

a. Anesthesia Intubation Bags will be stored in the OR.

b. The Anesthesia Intubation Bags have a list of supplies and medications contained within and the name and date of the first medication to expire located in a side pocket.

c. It is the responsibility of the "E4 (trauma)-anesthesia resident" to maintain and check the Anesthesia Intubation Bags Monday-Friday at the beginning of the

morning shift. On Weekends, and on special dates where there is no E4 resident, anesthesia faculty or CRNAs may be designated to complete this task.

d. The "D1-anesthesia faculty attending" is ultimately responsible to ensure completion of the maintenance and checking of the Anesthesia Intubation bags.

e. The maintenance and checking procedures are to be done every day at the beginning of the shift.

f. The Anesthesia Intubation bags are to be opened and the entire contents removed. The bags are checked for cleanliness and that they are free of used or dirty equipment or supplies.

g. Anesthesia staff (defined above) will verify the presence of all contents listed in Appendix I 1 & 2 and ensure that sealed and sterile supplies are not damaged or open.

h. The Capnometer battery will be checked and replaced if it is low, before returning the device to the Bag.

i. A new sealed medication box will be checked for integrity and expiration date before placing in the Anesthesia Bag.

j. If the bags are opened and/or the contents used, the anesthesia provider will return to the Anesthesia workroom as soon as possible and the bag replenished by following items #e-i.

2. Pharmacy restocking procedure

a. Daily in the morning by no later than 8 AM, pharmacy staff will provide ten (10) drug boxes containing the medications listed on Attachment A sealed with a tamper evident seal.

b. The drug boxes will have a label on the outside listing the contents of the medications with the expiration date of the first drug to expire. A pharmacist will check the contents of the drug box for accuracy and seal the drug box with a red tamper evident seal. The seal serial number will be recorded on the label.

c. Anesthesia staff (defined above) will use the pharmacy prepared and sealed drug boxes to perform the AM restocking of the drug supply of the Anesthesia Intubation Bags by replacing the drug box contained within the Anesthesia Intubation Bag with a fresh drug box.

d. When a drug box is used during the day, the Anesthesia staff will replace the used drug box with a fresh drug box from the Anesthesia Workroom. Anesthesia staff will secure the used drug box in the Anesthesia workroom for pick up in the morning by pharmacy staff.

References: Pharmacy P&P 6:12 Anesthesia Intubation Bag replenishment
APPENDIX
I.1 Adult Code Bag Inventory
I.2 Pediatric Code Bag Inventory

APPENDIX I.1 Adult Code Bag Inventory

Zuckerberg San Francisco General Hospital
1001 Potrero Avenue
San Francisco, CA 94110

Denali, Matterhorn, Shasta INVENTORY

drug expiration **date** _____ **initial** _____

Pharmacy Drug Box

Rocuronium PFS	50mg	x2	Succinylcholine PFS	200mg	x2
Propofol	200mg	x2	Ephedrine PFS	50mg	x1
Etomidate PFS	40mg	x1	Phenylephrine PFS	1000mcg	x2
Epinehprine PFS	1mg	x2			

Top Compartment

in zippered compartment

- 10ml Syringe x6 (in plastic bag)
- 18G Needle x6 (in plastic bag)
- drug label roll

-Pharmacy Drug Box
-Intubation Roll

- ET tubes (6.0, 7.0, 7.5)
- ETT 14 Fr stylet
- Oral Airways (80, 90)
- Nasal Airway (28, 32, 36–depending on availability)
- 2x DISPOSABLE LARYNGOSCOPES:
- Mac 3&4 2x each size
- Miller 2&3 2 x each size
- pink tape, 2x 10ml Syringes
- 2x Spare plastic bags
- Magill forceps

Bottom Compartment

- Cricothyrotomy set
- AirQ 3.5 & 4.5 (with ETT stylet)
- 30ml syringe
- Gum elastic bougie
- Jackson Reese & large (blue ring) face mask

Left Lateral Compartment

- Capnograph
- Capnograph sampling line
- Spare plastic bags x2

Right Lateral Compartment

- IO drill
- IO needle 25mm (IN PLASTIC BAG) x2
- Procedure Forms x5
- Anesthesia Preop Form x2
- Anesthesia Consent x2
- Laminated SFGH Map & inventory list, signed

APPENDIX I.2 Pediatric Code Bag Inventory

Potrero Hill (PEDIATRIC) INVENTORY

drug expiration _____
date **initial**

Pharmacy Drug Box

Rocuronium PFS	50mg	x2	Succinylcholine PFS	200mg	x2
Propofol	200mg	x2	Ephedrine PFS	50mg	x1
Etomidate PFS	40mg	x1	Phenylephrine PFS	1000mcg	x2
Epinehprine PFS	1mg	x2			

Top Compartment

in zippered compartment
- 10ml Syringes x6 (in plastic bag)
- 18G Needles x6 (in plastic bag)
- drug label roll

-Pharmacy Drug Box
-Intubation Roll
- ET tubes cuffed (3.0,3.5,4.0,4.5,5.0)
- ET tubes UNcuffed (2.5,3.0,3.5,4.0)
- ETT 14 Fr stylet & 6Fr stylet
- Oral (50,60,70) & Nasal Airways (24,28)
- 2x DISPOSABLE LARYNGOSCOPES each size:
- MAC 1, 2, 3 2x each size
- Miller 0,1, 2 2x each size
- Pink tape, 2x 10ml syringes, 1x 3ml syringe
- 2x Spare plastic bags
- Pediatric Magill forceps

Bottom Compartment
- Cricothyrotomy set
- AirQ 1.0,1.5,2.5 (with pediatric ETT stylet)
- 10ml syringe
- Pediatric Ambu bag & Jackson Reese system
- Breathing bags (0.5l, 1.0l)
- Masks (neonate, infant, toddler, child)

Left Lateral Compartment
- Capnograph & sampling line
- Spare plastic bags x2

Right Lateral Compartment
- EZ IO power driver
- IO needle (15mm & 25mm) (IN PLASTIC BAG)
- Procedure Forms x5
- Anestehsia Preop Form x2
- Anesthesia Consent x2
- Laminated SFGH Map; Inventory list, signed

APPENDIX J: Trauma Operating Room Preparedness Policy and Procedure

Zuckerberg San Francisco General Hospital
1001 Potrero Avenue
San Francisco, CA 94110

Title: **Trauma Operating Room Preparedness Policy and Procedure**

Purpose: To establish Policy and Procedure defining the purpose, availability, & maintenance of anesthesia readiness of urgent trauma care at ZSFG, and which is compliant with TJC and other state and federal requirements.

Policy: 24 hrs/day, 7 days/week, the Department of Anesthesia at ZSFG provides immediate readiness of one operation room (OR) for accepting urgent, severe trauma care.

Anesthesia personnel (faculty, resident, CRNA and anesthesia technicians) will be responsible for checking, maintaining and stocking all supplies necessary for this task in the designated Trauma Operating Room.

Oversight for establishing this Policy & Procedure is the responsibility of the Chief of Staff Anesthesia or his/her designee.

Background: ZSFG is a Level-1-Trauma center in the City & County of San Francisco and is therefore required to take care of severely injured patients at any time with short notice. The emergent nature of these services requires continuous maintenance of an open and prepared OR. The designated Trauma OR is usually OR#1. If this room is in use or not ready for any other reason, a back-up OR will immediately be designated and setup as described in this P&P.

In the OR, Anesthesia staff provide anesthesia, emergency airway management, iv resuscitation, and monitoring. These services require the immediate availability of all drugs and equipment necessary for induction of anesthesia, muscle relaxation, airway management and resuscitation. In the designated Trauma OR, anesthesia personnel are responsible for:

(1) Readiness of the anesthesia machine. This requires a complete check of the machine according to the ZSFG Machine Checklist (SEE APPENDIX G), performed every 24 hrs in the AM.

(2) Maintaining a fully stocked anesthesia cart containing all drugs & equipment.

(3) Medication preparedness requires that induction agents, vasoactive drugs and paralytic agents be in appropriately labeled syringes and ready at all times.

(4) Airway device preparedness.

(5) IV resuscitation preparedness of high flow infusion and transfusion systems as well as an invasive blood pressure monitoring device.

DETAILS OF (3)-(5) ARE DESCRIBED IN “OR#1 CHECKLIST”, APPENDIX J1

Procedures:

1. It is the responsibility of the "D1-attending", together with the OR charge nurse, to ensure availability of a designated OR 24/7.
2. It is the responsibility of the "D1-attending" to ensure that this designated OR is prepared from an anesthesia perspective to receive a patient with no notice.
3. During regular weekdays, the "D1-attending" delegates the performance of all necessary tasks to the "E4-resident". On Saturdays, or if for any other reason the "E4-resident" is not available, the "D1-attending" can delegate the tasks to any other resident, CRNA or faculty.
4. Regular checks of Trauma OR anesthesia preparedness are performed:
    a. Every morning between 7AM – 8AM
    b. If a back-up OR becomes designated as the Trauma OR
    c. Following every turn-over of OR#1
5. A complete check of the anesthesia machine is performed according to FDA regulations. A checklist (Appendix G) is attached to the anesthesia machine.
6. Intubation Equipment is placed in a tray on the anesthesia machine. This includes two laryngoscope handles, which are exchanged daily between 7AM-8AM by anesthesia technicians; a Miller 2 and a Mac 3 blade are attached to the handles and tested. Additional blades in the airway tray include a Mil 3 and Mac 4. Two endotracheal tubes (ETT) size 7.0 & 7.5 with attached syringes and stylets complete the airway tray. ETTs are good for 1 month after the package has been opened. Opening dates are marked on the ETT packages.
7. The following emergency medications are either provided by pharmacy as pre-filled syringes or are drawn up daily between 7AM-8AM:
    a. Succinlycholine 200mg/10ml
    b. Phenylephrine 100mcg/ml in 10ml syringe (& a 90ml bag of normal saline)
    c. Ephedrine 50mg/10ml

    All drugs drawn up by anesthesia care providers are properly labeled, including concentrations, date, time and initials. They are good for 24 hrs.

    If syringes are opened to prepare for drawing up additional emergency medication, they must be dated, timed and initialed and are good for 24 hrs.
8. The Anesthesia cart is checked daily by anesthesia technicians for proper stocking. The designated anesthesia staff member double checks stocking of the cart and ensures that the cart is clean and free of equipment on top of the cart. IV and A-line starter kits are kept on top of tilt bins. The staff member ensures that the anesthesia cart is always locked when no anesthesia personal are in the room.
9. An A-line system is readily available daily
10. An IV line system will be assembled connecting a hotline system (with extension tubing and 2 high-flow stopcocks) together with a Y-set ("blood pump"). The system is kept un-spiked, the hotline heater off, and the tubing endings off the floor. The system is dated, timed and initialed on the remaining paper tape of the hotline system. Un-spiked, the system is good for 1 month, if spiked onto a fluid bag and/or hotline heater is on, the system is good for 24 hrs.
11. A Belmont infuser is kept in the room, plugged in and powered off. The infusion system should be left 'unspiked' (not connected to any IV fluid bags). The infusion system is dated, timed and

initialed on the paper tape attached to the system. Un-spiked, the system is good for 1 month, if spiked the system is good for 24 hrs.

12. All crystalloid bags are to be kept unopened in their wrappers. If opened, they are dated, timed, and initialed and are good for 24 hrs.
13. After the room is used, all 'exposed' disposable supplies are disposed of. "Exposed" is anything that is not covered during patient care, including, but not limited to, open IV setups, open Belmont setups, etc. All exposed surfaces (e.g. the anesthesia machine, anesthesia cart, and anesthesia monitors) are sanitized with an FDA approved disinfectant or replaced with clean equipment.
14. A designated anesthesia staff member completes all tasks on the "OR #1 checklist", (Appendix J1).
15. Audits of the Trauma OR readiness are performed and recorded quarterly by the Chief of Service or the Director of Clinical Anesthesia. Irregularities are documented and planned actions described.

APPENDIX

J.1 ZSFG Anesthesia OR #1 Checklist

J.1 ZSFG Anesthesia OR 1 Daily Checklist11**OR 1 DAILY CHECKLIST**

Zuckerberg San Francisco General Hospital
1001 Potrero Avenue
San Francisco, CA 94110

Anesthesia Machine
- Check per separate protocol

Intubation Tray
- Single Use laryngoscopes
- MAC 3&4 + Miller 2&3
- 7.0 & 7.5 ETT styleted, 10ml syringe attached, with exp date and initials (good for 30d)
- 90mm oral airway, 30Fr nasal airway, tongue depressor

Emergency Medication (2nd Drawer)
- 2* Etomidate 20mg (in vial with unopened 10ml syringe & needle)
- 1* Succinylcholine 200mg (prefilled)
- 2*Rocuronium 50mg (prefilled)
- 2* Phenylephrine 100mcg/ml (prefilled)
- 2* Ephedrine 5mg/ml (prefilled)

check all for expiration

A-line setup
- spiked, de-aired, zeroed, dated (exp) done daily by techs (good for 24h)

Belmont Rapid Infuser
- power plugged in
- tubing assembled with 3liter reservoir in line
- top 5 clamps clamped
- 250ml of NS hanging, not spiked
- Belmont extension tubing, packaged hanging on pole (for use with femoral lines only)

check for expiration date (good for 30d), if freshly assembled date with expiration

Anesthesia Mayo Stand
- A-line supplies
- 2*Arrow Arterial Line
- 2* 20g Angiocath
- 1* Arrow Guidewire
- Arm board, tegaderm, A-line sterile kit, chloroprep, 4x4s, 1"tape

Monitors
- ECG with pads ready on bed

OR Table
- Plugged in, "on", @ lowest position

Anesthesia carts
- 2 large bore iv start kits on top of anesthesia machine (2* 16G iv, 2* 14G iv, 4x4s, chloroprep, 1" tape, tourniquet, tegaderm) NO open/filled syringes
- 1 arterial line starting kit on top of anesthesia machine (arrow a-line, 2* 20G iv, 4x4s, chloroprep, 1" tape, tourniquet, tegaderm, arm board)
- ensure both carts are locked

General Rules for OR 1 readiness
- cart and drugs locked
- all items arranged according to markings on floor
- all fluid containing items are good for 24h (i.e. syringes, spiked bags)
- all air containing items are good for 30d (i.e. ETT, Belmont tubing)
- everything is to be labeled with the expiration date (NOT the date when opened/ prepared)

Turnover After Each Case
- OR 1 shall be turned over ASAP after each case (to be ready for the next patient)
- All "exposed" disposables are discarded
- All "exposed" surfaces are to be wiped down with H_2O_2 wipes
- "exposed" = all items & surfaces that are not covered during patient care (i.e. anesthesia machine, monitor, carts, Belmont etc.)

Sign off that check is complete on dedicated sign off sheet once daily

APPENDIX K: Labor and Delivery Operating Room Preparedness Policy

Title: **Labor and Delivery Operating Room Preparedness Policy**

Purpose: To establish Policy and Procedure defining the purpose, availability, and maintenance of anesthesia readiness for urgent obstetric care at ZSFG that is compliant with TJC and other state and federal requirements.

Policy: 24 hrs/day, 7 days/week, the Department of Anesthesia at ZSFG provides immediate readiness of 2 Labor and Delivery (L&D) operating rooms (ORs) for accepting urgent/emergent obstetrical care.

Anesthesia personnel (faculty, resident, CRNA and anesthesia technicians) will be responsible for checking, maintaining and stocking all supplies necessary for this task in the designated L&D ORs.

Oversight for establishing this Policy & Procedure is the responsibility of the Chief of Anesthesia or his/her designee.

Background: Obstetrician-gynecologists at ZSFG provide the full range of clinical care, including caring for high-risk pregnancies, to a diverse population of women visiting the hospital. Anesthesia services require the availability of all drugs and equipment necessary for administration of anesthesia for emergent surgical procedures such as cesarean delivery. In the designated L&D OR, anesthesia personnel are responsible for:

(1) Readiness of the anesthesia machine. This requires a complete check of the machine according to the ZSFG Machine Checklist (SEE APPENDIX G), performed every 24 hrs in the AM.

(2) Maintaining a fully stocked OB anesthesia-specific anesthesia cart containing all drugs and equipment as defined in Appendix K1, K2.

(3) Medication preparedness including the immediately availability of induction agents, vasoactive drugs and paralytic agents. Drawn up drugs are to be kept locked in the anesthesia cart.

(4) Airway device preparedness.

(5) IV resuscitation preparedness including the availability of high flow infusion and transfusion systems as well as an invasive blood pressure monitor.

DETAILS OF (3)-(5) ARE DESCRIBED IN "L&D CHECKLIST" SEE APPENDIX K1, K2.

Procedures:

1. It is the responsibility of the Anesthesia attending responsible for OR, together with the L&D charge nurse, to ensure availability of at least one designated L&D OR available 24/7.
2. It is the responsibility of the Anesthesia attending responsible for OR to ensure that these designated ORs are prepared from an anesthesia perspective to receive a patient without notice.

3. During weekdays and Sundays, the "OB-anesthesia attending" delegates the performance of all necessary tasks to the OB anesthesia resident/CRNA. On Saturdays, or if for any other reason the OB anesthesia resident/CRNA is not available, the "OB-anesthesia attending" can delegate the tasks to any other anesthesia provider.
    a. Regular checks of L&D ORs for anesthesia preparedness are performed:
        i. Every morning, ideally between 7AM – 8AM
        ii. If an additional back-up OR becomes designated as an L&D OR
        iii. Following every turnover of an L&D OR
    b. A complete check of the anesthesia machine is performed according to FDA regulations. A checklist (APPENDIX G) is attached to the anesthesia machine.
    c. Intubation Equipment is checked and immediately available. Opened intubation equipment expires in 1 month. Initials and the date of expiration will be written on opened equipment. Applies only to L&D OR B: A portable video laryngoscope system is available, checked for functionality daily, and is plugged in, but powered off.
    d. The following emergency medications are immediately available:
        i. Etomidate or Propofol will be available
        ii. Succinlycholine 200mg/10ml
        iii. Phenylephrine 1000mcg/10ml
        iv. Ephedrine 50mg/10ml

    When drawn up by anesthesia care providers, all syringes are to be properly labeled, including drug, concentration, date, time and initials. They expire in 24 hrs. All drugs are kept in the top two drawers of the anesthesia cart. The cart is to be kept locked whenever authorized personnel are not in the immediate vicinity.

    If syringes are opened to prepare for drawing up additional emergency medication, they must be dated, timed and initialed and are valid for 24 hrs.

    e. The Anesthesia cart is checked daily and after each use by anesthesia technicians for proper stocking. The designated anesthesia staff member double checks stocking and ensures that the cart is clean. IV and arterial line placement kits are available at all times. The staff member ensures that the anesthesia cart is always locked when no anesthesia personnel is in the room.
    f. Applies to both L&D OR A and B: An invasive pressure monitoring (arterial line) system including all necessary equipment and attachments is grouped together, unopened and in sterile packaging, in a plastic bag, ready for immediate assembly and use. Opened, but un-spiked, the system expires in 1 month; if spiked, the system expires in 24 hrs. Initials and the date/time of expiration will be written on the drip chamber in these situations. An invasive pressure transducer cable is readily available.
    g. Applies to both L&D OR A and B: An IV fluid warmer (hotline) system including all necessary equipment and attachments is grouped together, unopened and in sterile packaging, in a plastic bag, ready for immediate assembly and use. Opened, but un-spiked, the system expires in 1 month; if spiked, the system expires in 24 hrs. Initials and the

date/time of expiration will be written on the drip chamber in these situations. The fluid warmer is plugged in, but powered off.

h. Applies only to L&D OR B: A trauma anesthesia-specific anesthesia cart is available and its contents maintained by the anesthesia technicians.

i. Applies only to L&D OR B: An ultrasound with a linear probe is available. The machine is plugged in, but powered off.

j. Applies only to the substerile room between L&D ORs A and B: A rapid infuser (Belmont) system including all necessary equipment and attachments is grouped together, unopened and hanging from the rapid infuser, ready for immediate assembly and use. Opened, but un-spiked, the system expires in 1 month; if spiked, the system expires in 24 hrs. Initials and the date/time of expiration will be written on the reservoir in these situations. The rapid infuser is plugged in, but powered off.

k. All crystalloid bags are to be kept unopened in their wrappers. If opened, they are dated, timed and initialed and expire in 24 hrs.

l. After the OB OR is used, all 'exposed' disposable supplies are disposed of. "Exposed" is anything that is not covered during patient care, including, but not limited to, open IV systems, open Belmont systems, etc. All exposed surfaces (e.g. the anesthesia machine, anesthesia cart, and anesthesia monitors) are sanitized with an FDA-approved disinfectant or replaced with clean equipment.

m. Following the daily OB OR checks, the designated anesthesia staff member certifies completion of all tasks by signing the "L&D OR A and B readiness sign-off sheet".

n. Audits of the L&D OR readiness are performed and recorded at least quarterly by the Chief of Service or the Director of Clinical Anesthesia. Irregularities are documented and planned actions described.

APPENDIX

G. ZSFG Machine Checklist

K.1 L&D OR B Checklist

K.2 L&DOR A Checklist

APPENDIX K.1 L&D OB OR B, H2214B Checklist

Keep it as you would like to find it for a STAT C-section

Anesthesia Machine:
- Machine check per protocol.
- Suction functional.
- Restart computer.

Monitors:
- EKG leads with pads untangled on OR table.
- SpO2 probe attached.
- Adult Regular, size 11 BP cuff present.
- NMT, arterial line, temperature cables present in drawer of anesthesia machine.

OR Table:
- Plugged in, on, and at lowest position.
- Arm board attached on side opposite of patient entrance.
- Blue ramp on OR bed, placed under hovermat.

Intubation Equipment in Airway Tray:
- Single use laryngoscopes, Miller 2 and 3, Macintosh 3 and 4. Do NOT open.
- Oral and nasal airways. Do NOT open.

ETT (dated and initialed - good for 1 month after opening):
- 6.5 and 7.0 ETT with stylets, syringes attached.

Difficult Airway Equipment:
- Glidescope plugged in.
- Glidescope blade 3 functional.
- Backup Glidescope 4 blade functional.
- LMA 3.5, 4.5 in anesthesia cart.

Emergency Medication/Anesthesia Cart:
- Sealed anesthesia medication trays in anesthesia cart; no medications out.
- Cart locked while unattended.

Arterial Line Setup:
- A-line start kit on back table.
- A-line setup package in clear bag on back table (500 mL NS bag, pressure bag, A-line transducer – everything unopened).

IV Line:
- IV start kit on cart.
- Hotline setup package in clear bag on back table (1000 mL Plasmalyte, Y-connector, Hotline tubing, Stopcock x 2, IV extension – everything unopened).

Belmont Rapid Infuser (located in substerile room H2214C):

- Plugged in and all components hanging on Belmont IV pole: 250 mL NS bag, bucket, Belmont tubing, extension x 1. Everything unopened or if opened, labeled with 1 month expiration date.

Neuraxial Kits:

- One spinal and one Arrow epidural kit on top of anesthesia machine.
- At least one more spinal, Arrow epidural, and Braun epidural kits available in room.

Sign off that you checked the above on the "OB Anesthesia OR Checklist Sign Off" on the wall in OB OR B, H2214B.

APPENDIX K.2 L&D OB OR AB, H2214A Checklist

Keep it as you would like to find it for a STAT C-section

Anesthesia Machine:
- Machine check per protocol.
- Suction functional.
- Restart computer.

Monitors:
- EKG leads with pads untangled on OR table.
- SpO2 probe attached.
- Adult Regular, size 11 BP cuff present.
- NMT, arterial line, temperature cables present in drawer of anesthesia machine.

OR Table:
- Plugged in, on, and at lowest position.
- Arm board attached on side opposite of patient entrance.

Intubation Equipment in Airway Tray:
- Single use laryngoscopes, Miller 2 and 3, Macintosh 3 and 4. Do NOT open.
- Oral and nasal airways. Do NOT open.

ETT (dated and initialed - good for 1 month after opening):
- 6.5 and 7.0 ETT with stylets, syringes attached.

Difficult Airway Equipment:
- Glidescope in OB OR B
- LMA 3.5, 4.5 in anesthesia cart.

Emergency Medication/Anesthesia Cart:
- Sealed anesthesia medication trays in anesthesia cart; no medications out.
- Cart locked while unattended.

Arterial Line Setup:
- A-line start kit on back table.
- A-line setup package in clear bag on back table (500 mL NS bag, pressure bag, A-line transducer – everything unopened).

IV Line:
- IV start kit on cart.
- Hotline setup package in clear bag on back table (1000 mL Plasmalyte, Y-connector, Hotline tubing, Stopcock x 2, IV extension – everything unopened).

Neuraxial Kits:

- One spinal and one Arrow epidural kit on top of anesthesia machine.
- At least one more spinal, Arrow epidural, and Braun epidural kits available in room.

Sign off that you checked the above on the "OB Anesthesia OR Checklist Sign Off" on the wall in OB OR B, H2214B

Appendix L: ZSFG Fire Safety in the OR Guidelines

The acronyms RACE and PASS are used to describe actions to be taken in the event of an OR fire.

- R-Remove immediate danger
- A-Announce the fire by pulling alarm and dial 9-911.
- C-Contain the fire by closing the doors
- E-Extinguish the fire if safe to do so.

- P-Pull the pin
- A-Aim at the base of fire
- S-Squeeze the handle
- S-Sweep back and forth

Risk Reduction Strategies
Each member of the surgical team - surgeon, anesthesiologist, nurse - controls an element of the fire triangle:

- Oxygen source
- Heat
- Fuel

Oxygen source

- Both O2 and N2O support combustion. Be aware of possible enriched O2 and N2O atmospheres near the surgical site under the drapes, especially during head and neck surgery.
- Use air or FiO2 30% for open delivery.
- Minimize O2 and N2O buildup beneath surgical drapes; tent drapes to dissipate gases.
- Use an incise drape to isolate head and neck incisions from O2 and alcohol vapors.

Fuel and Heat

When using electrosurgery, electrocautery, or lasers:

- Coat facial hair near the surgical site with water-soluble surgical lubricating jelly to make it nonflammable.
- Do not drape patient until all flammable preps have fully dried.
- Wet gauze or sponges used with uncuffed tracheal tubes to minimize leakage of O2 into the oropharynx; keep them wet.
- Moisten sponges, gauze, and pledgets (and their strings) to render them ignition resistant.
- Scavenge the oropharynx with separate suction.
- Stop supplemental O2 at least one minute before and during use of the unit, if possible. (Surgical team communication is essential.)
- Activate the ESU (laser) when the active tip is in view (especially if looking through a microscope).
- Deactivate the unit BEFORE the tip leaves the surgical site.
- Place electrosurgical electrodes in a holster or off of the patient when not in active use (i.e., when not needed within the next few moments).

- Place lasers in standby when not in active use.
- Do not place red rubber catheter sleeves over electrosurgical electrodes.
- Fiberoptic light sources CAN start fires.
- Complete all cable connections before activating the source.
- Place source in standby when disconnecting cables.

Roles and Responsibilities

Whoever discovers the fire, call 9-911.

- Airway Fire:
  1. Disconnect circuit from fresh-gas source
  2. Remove ET tube and/or debris
  3. Squirt saline into field
  4. Ventilate by mask
  5. Reintubate trachea/bronchoscopy

- Drapes on Fire
  1. Remove to the floor and smother using:
  2. Saline solution
  3. Sheet/blanket technique
  4. Appropriate extinguisher
     - CO2 BC in each OR
     - Chemical ABC in hallways
  5. Use a slow sweeping motion

- Fire in OR

Anesthesiologist:

1. Shut off anesthesia machine. Disconnect circuit and ventilate patient with Ambu Bag.
2. Administer IV meds to maintain anesthetic state.
3. Unlock OR table.

Charge Nurse:

1. Ensure O2 is shut down.

Scrub person:

1. Take instruments to stabilize/close patient.

Surgeon:

1. Protect surgical wound site.
2. Make final decision to evacuate OR

Circulator:

1. Clear operative zone to door.
2. Help anesthesiologist transport patient from OR.
3. Close door to contain fire.

Receiving Area:

1. Set-up and prepare to receive patients.

Note: The applicability of these recommendations must be considered separately for each patient, consistent with their needs.

Appendix M1 Clinical Service Privilege Form

Anesthesia ANESTHESIA & PERIOPERATIVE CARE 2018

FOR ALL PRIVILEGES
All complication rates, including problem transfusions, deaths, unusual occurrence reports and sentinel events, as well as Department quality indicators, will be monitored semiannually.

6.10 CORE PRIVILEGES
Preoperative evaluations of patients at all levels of American Society of Anesthesia classification including emergencies (inclusive of anesthesia privilege 6.11). Management of procedures for rendering these patients insensible to pain and emotional stress before, during and after surgical, obstetric and certain medical interventions. These procedures include all anesthetic and sedative techniques inducing local infiltration, regional anesthesia and general anesthesia. They also include special skills necessary for support of life functions during an anesthetic, in the post anesthesia care unit, and elsewhere in the hospital. These include airway management, including direct laryngoscopy and fiberoptic laryngoscopy, hemodynamic monitoring, including insertion of arterial lines, central lines, and pulmonary artery catheters, and mechanical ventilation and resuscitation.

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Anesthesia.

PROCTORING: 5 observed cases

REAPPOINTMENT: Review of a minimum of 10 anesthetics

6.11 PREOPERATIVE EVALUATION PRIVILEGES
Preoperative evaluation of patients at all levels of American Society of Anesthesiologists classification, inclusive of emergencies, to include: Assessment of, consultation for, and preparation of patients for anesthetist; Determination of the patient's mental status, development of a plan and obtaining consent for anesthetic care.

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Anesthesiology.

PROCTORING: 5 reviewed cases

REAPPOINTMENT: Review of 5 cases

6.20 SPECIAL PRIVILEGES

6.21 INTENSIVE CARE
Evaluation and management of Critical Care Unit patients

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Anesthesia with special qualifications in Critical Care Medicine. Under special circumstances, the recommendation of the Chief of Anesthesia and Perioperative Care may be required

PROCTORING: 5 observed cases

REAPPOINTMENT: Review of a minimum of 30 patients

6.22 TRANSESOPHAGEAL/TRANSTHORACIC ECHOCARDIOGRAPHY FOR PERIOPERATIVE MONITORING
Transesophageal echocardiography (TEE)/Transthoracicechocardiography (TTE) for perioperative monitoring of wall motion, volume status and pericardial fluid

Privilege	Status	

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Anesthesia and documentation of competency from a residency or fellowship program, or completion of the ZSFG department of anesthesia TEE/TTE training course.

PROCTORING: Proctoring will consist of three (3) direct observations (patient or simulator) by a medical staff member who has either 6.22 or 6.23 privilege and has successfully completed proctoring. A minimum of one each, TEE/TTE, is required for proctoring. A summary monitoring report will be sent to the Clinical Service Chief at the completion of successful proctoring.

REAPPOINTMENT: Performance of a minimum of 5 (five) TEE or TTE exams (patient or simulator) for monitoring of wall motion abnormalities, volume status, or pericardial fluid every two (2) years is required for reappointment. A minimum of one each, TEE/TTE, is required for reappointment. Physician specific peer review data must include information regarding cases in which transesophageal or transthoracic echocardiography was utilized for perioperative monitoring.

6.23 TRANSESOPHAGEAL/TRANSTHORACIC ECHOCARDIOGRAPHY FOR PERIOPERATIVE COMPREHENSIVE EXAMINATION
Transesophageal/Transthoracic echocardiography monitoring of perioperative patients for comprehensive examination.

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Anesthesia. Successful completion of the Perioperative Transesophageal Echocardiography Certification Examination administered (PTEeXAM) by the National Board of Echocardiography (NBE testamur status).

PROCTORING: Proctoring will consist of five (5) direct/observations by a medical staff member who has 6.23 privilege and has successfully completed proctoring. A minimum of one each, TEE/TTE, is required for proctoring. A summary monitoring report will be sent to the Clinical Service Chief at the completion of successful proctoring.

REAPPOINTMENT: Performance of a minimum of 5 (five) complete TEE/TTE exams every two (2) years is required for reappointment. A minimum of one each, TEE/TTE, is required for reappointment. Physician specific peer review data must include information regarding cases in which transesophageal or transthoracic echocardiography was utilized for a comprehensive examination.

6.24 CTSI (CLINICAL AND TRANSLATIONAL SCIENCE INSTITUTE) - CLINICAL RESEARCH
Admit and follow adult patients for the purposes of clinical investigation in the inpatient and ambulatory CTSI Clinical Research Center settings.

PREREQUISITES: Currently Board Admissible, Certified, or Re-Certified by one of the boards of the American Board of Medical Specialties. Approval of the Director of the CTSI (below) is required for all applicants.

PROCTORING: All OPPE metrics acceptable

REAPPOINTMENT: All OPPE metrics acceptable

_____ _____
CTSI Medical Director Date

6.25 PAIN MEDICINE
Interventional Procedures For The Management Of Acute Or Chronic Pain Syndromes

Privilege	Status

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified in Anesthesiology with special qualifications in Pain Medicine by the American Board of Anesthesiology and documentation of competency from a residency and fellowship program accredited by the Accreditation Council on Graduate Medical Education.

PROCTORING: Proctoring will consist of direct observations by a medical staff member who has 6.25 privilege and has successfully completed proctoring. A minimum of two (2) direct observations of each of three categories of interventional pain procedures listed below is required for proctoring.

REAPPOINTMENT: Performance and peer review of a minimum of four (4) cases in each of the three categories of procedures listed below every two (2) years is required for reappointment. Physician specific peer review data must include information regarding cases in which interventional procedures were used for management of acute or chronic pain syndromes.

PRIVILEGE DESCRIPTIONS:
- Fluoroscopy based injections/neuromodulation/neurolysis of the spinal column, peripheral nerves, ganglia, joints, or bursa sacs. NB-fluoroscopy must be performed by individual licensed to use fluoroscopy (may include: privilege 6.26, radiology technician, provider with other ZSFG fluoroscopy privilege)
- Ultrasound based neuromodulation/neurolysis of the spinal column or peripheral nerves and injection/neuromodulation/neurolysis of the ganglia, joints, or bursa sacs
- Chemodenervation (botulinum toxin) or local anesthetic injection of trigger points, scar, pericranial muscles (for migraine), or neuroma

6.26 DIAGNOSTIC RADIOLOGY: FLUOROSCOPY

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by The American Board of Anesthesiology. A current x-ray/Fluoroscopy Certificate is required.

PROCTORING: Presentation of valid California Fluoroscopy certificate

REAPPOINTMENT: Presentation of a valid California Fluoroscopy certificate.

Appendix M Nurse Practitioner Privilege Form

AFF_2020 Anesthesia 2020

CORE STANDARDIZED PROCEDURES

HEALTH CARE MANAGEMENT, PRIMARY CARE / SPECIALTY CLINICS / INPATIENT UNITS

REQUIREMENT: Active California license, Board certification,(staff hired prior to Board requirement will be "grandfathered " in at reappointment), Basic Life Support (BLS) from an approved provider, Advanced Cardiac Life Support (ACLS) for noted procedures, possession of a Medicare/Medical Billable Provider identifier or have submitted an application, Furnishing Number and DEA number if applicable. Must be an ANP, FNP, PNP or PA.

PROCTORING: A minimum of 5 cases for each core category. One case may apply to multiple categories including core and special procedures demonstrate clinical competence or as noted in each special protocol.

REAPPOINTMENT: 5 chart reviews every 2 years. Charts can include reviews completed for special procedure reviews.

PRE-OP SCREENING OF ADULTS

REQUIREMENT: Active California license, Board certification, Basic Life Support (BLS) from an approved provider, possession of a Medicare/Medical Provider identifier or have submitted an application, Furnishing Number and DEA number if applicable. Must be an ANP, FNP or PNP.

PROCTORING: 3 months in length. Presentation of 5 adult cases with chart review of the same 5 cases.

REAPPOINTMENT: Review of 3 adult cases every 2 years.

PRE-OP SCREENING OF CHILDREN

REQUIREMENT: Active California license, Board certification, Basic Life Support (BLS) from an approved provider, possession of a Medicare/Medical Provider identifier or have submitted an application, Furnishing Number and DEA number if applicable. Must be an ANP, FNP or PNP.

PROCTORING: 3 months in length. Presentation of 5 pediatric cases with chart review of the same 5 cases.

REAPPOINTMENT: Review of 3 pediatric cases every 2 years.

FURNISHING MEDICATIONS AND DRUG ORDERS

REQUIREMENT: Active California license, Board certification,(staff hired prior to Board requirement will be "grandfathered " in at reappointment), Basic Life Support (BLS) from an approved provider, Advanced Cardiac Life Support (ACLS) for noted procedures, possession of a Medicare/Medical Billable Provider identifier or have submitted an application, Furnishing Number and DEA number if applicable. Must be an ANP, FNP, PNP or PA.

PROCTORING: A minimum of 5 cases for each core category. One case may apply to multiple categories including core and special procedures demonstrate clinical competence or as noted in each special protocol.

REAPPOINTMENT: 5 chart reviews every 2 years. Charts can include reviews completed for special procedure reviews.

SPECIAL STANDARDIZED PROCEDURES

eCONSULT

REQUIREMENT: 6 months of experience in the specific specialty and are providing care to patients in the area they are reviewing, understanding of algorithms or referral guidelines used for screening, triaging and prioritizing of patients.

PROCTORING: Concurrent review of the first 20 EConsult consultation decisions during the first 3 months.

REAPPOINTMENT: 5 eConsult consultations every 2 years.

MANAGEMENT OF NEURAXIAL/NERVE CATHETERS FOR PAIN CONTROL

REQUIREMENT: On site training by a privileged provider or documentation of previous training.

PROCTORING: A minimum of 2 observations by a qualified anesthesia attending of each of the following: clinical assessment of patient in relation to pain management, assessment of catheter site, setup of infusion pump, selection/administration of infusion medications, and removal of catheter.

REAPPOINTMENT: 2 observations of clinical assessment of patient in relation to pain management, assessment of catheter site, setup infusion pump, selection/administration of infusion medications and removal of catheter.

TRIGGER POINT INJECTIONS

REQUIREMENT: Training will be provided on site by an experienced provider.

PROCTORING: New Practitioner, 2 successful observed demonstrations of the procedure. Experienced, 1 successful observed demonstration of the procedure. Chart review of all observed cases.

REAPPOINTMENT: Performance of at least 2 injections every 2 years. 1 chart review every 2 years.

Appendix N Anesthesia OPPE Definition of Thresholds

1. Deaths

- *Acceptable*: Any non-preventable deaths (e.g., trauma patients with non-survivable injuries) will be considered acceptable.
- *Marginal*: One or more deaths that are deemed possibly preventable would be considered marginal performance.
- *Unacceptable:* One or more preventable deaths (e.g. mismanagement by the anesthesia provider) are considered unacceptable.

2. Cardiac Arrest / MI

- *Acceptable*: Any non-preventable cases (e.g. patient is medically optimized, cardiac evaluation and risk is clearly documented and anesthetic plan is tailored to minimize cardiac impact) are considered acceptable.
- *Marginal*: One or more cardiac events that are deemed possibly preventable would be considered marginal performance (e.g., cardiac risk not well documented / recognized by provider resulting in management decisions that fail to minimize cardiac risk).
- *Unacceptable:* One or more preventable cardiac events are considered unacceptable (mismanagement by the anesthesia provider, e.g., prolonged period of untreated hypotension or unaddressed tachycardia).

3. Unrecognized Difficult Airway

- *Acceptable*: 0-2 cases with full documentation of airway exam, reflecting that the standard of care for airway assessment has been met.
- *Marginal*: 1-2 cases with incomplete documentation of airway exam
- *Unacceptable:* > 2 cases with incomplete documentation of airway exam or 1 case without documentation of airway exam. Without documentation of the airway exam, standard of care for airway assessment has not been met.

Note: None of the components of the airway exam have high positive predictive value. Difficult airways scenarios occur despite appropriate assessment and planning. If appropriate steps in assessment and planning are taken the management will be considered acceptable.

4. Unplanned Re-intubation

- *Acceptable*: Non-preventable cases are re-intubations that are clinically indicated by patient factors. All appropriate assessment and treatment was completed prior to extubation (adequate minute ventilation, responding to commands, neuromuscular blockade reversed/resolved).
- *Marginal*: 1-2 preventable re-intubations (patient with residual neuromuscular blockade, poor respiratory mechanics prior to extubation, hypoxia prior to extubation)
- *Unacceptable:* Greater than 2 preventable re-intubations. See definitions above.

5. Medication Error

- *Acceptable*: 0-2
- *Marginal*: 3
- *Unacceptable:* ≥ 4

Note: Assessments of medication errors should include evaluation of severity of outcome, appropriate recognition of error and measures taken to mitigate any possible harm.

6. Perioperative Aspiration

- *Acceptable*: 0-1 cases of pulmonary aspiration requiring escalation in level of care (unplanned admission or ICU) in elective cases. Trauma patients and emergency cases with intra-abdominal processes are at a higher risk of aspiration and will be considered differently.
- *Marginal*: 1-2 cases defined as above
- *Unacceptable:* ≥ 3

7. Dental Trauma

- *Acceptable*: 0-3 Dental trauma is a known risk of general anesthesia and intubation, which is included in the informed consent process. Appropriate documentation should include a dental exam that indicates increased risk if poor dentition is present.
- *Marginal*: 3-4 with appropriate documentation. 2-3 cases may be considered marginal if documentation is incomplete; reflecting that appropriate assessment may not have been completed.
- *Unacceptable:* ≥5

8. Peripheral Nerve Injury

- *Acceptable*: 0-1
- *Marginal*: 2
- *Unacceptable:* ≥ 3

9. Problem Transfusions

- *Acceptable*: 0-2 cases with appropriate documentation of blood transfusion protocols (e.g., 2 providers check the blood against the patient information including blood type, check expiration and sign the slip)
- *Marginal*: 1 case without appropriate documentation.
- *Unacceptable:* ≥ 2 cases without appropriate documentation

Note: There may be circumstances in trauma resuscitation that prevent the provider from completing all documentation prior to hanging the blood (e.g. signing the provider line with time and date the blood is administered). Therefore, 1 case will be considered marginal rather than unacceptable.

10. Clinical Cases, UO, Complaints, Risk Management Cases, Professionalism, Cases of Concern

- *Acceptable*: 0-1
- *Marginal*: 2
- *Unacceptable:* ≥ 3

Note: Given the diversity of type and severity of issues that may be raised via case review, patient

complaints, U/Os and sentinel events, the specifics of the incident are important in determining whether the performance is acceptable, marginal or unacceptable

NURSE PRACTITIONERS ONLY;

11 . Allergy list review/update

- *Acceptable*: >90%
- *Marginal*: 80-90%
- *Unacceptable:* <80%

12 . Medication list review/update

- *Acceptable*: >90%
- *Marginal*: 80-90%
- *Unacceptable:* <80%

City and County of San Francisco

Department of Public Health

London Breed
Mayor

Zuckerberg San Francisco General Hospital and Trauma Center

Gabriel Ortiz, MD, PhD
Chief of Staff

Committee on Interdisciplinary Practice
Standardized Procedures Summary of Changes for **Aug 2023**

Standardized Procedure Name:	Anesthesia SP Protocol #8 Botox Injections for Migraines • Seeking vote to approve the addition of this protocol only (the entire SP not up for approval)
Department:	Anesthesia
Date of last approval:	June 2020
Summary of SP updates:	Added Protocol #8 Botox Injections – copied from the approved protocol in the Neurology SP
Update #1:	• Botox injection protocol copied from the approved protocol in the Neurology SP. • Only revisions to this protocol include: o A.1 changed "Neurology Service" to "Anesthesia Pain Clinic" o D.2.a included "…Anesthesiology or Neurology consultation…" re: patients are referred to the Anesthesia Pain clinic by both services

Standardized Procedure Name:	Otolaryngology SP
Department:	Otolaryngology
Date of last approval:	July 2015
Summary of SP updates:	Seeking approval of the revised SP No changes were made to the content or proctoring and reappointment criteria within this SP.
Update #1:	Deleted section on Ongoing Professional Performance Evaluation
Update #2:	Included "Zuckerberg" when applicable
Update #3:	Grammatical and punctuation changes throughout document. For example, changed "in order to" to "to," "often times" to "times," "3 part" to "3-part"

Zuckerberg San Francisco General Hospital
Committee on Interdisciplinary Practice

Standardized Procedures

Nurse Practitioner/Physician Assistants

Title: Department of Anesthesia

2020~~20~~23

PREAMBLE

I. Policy Statement

A. It is the policy of Zuckerberg San Francisco General Hospital and Trauma Center (ZSFG) that all standardized procedures are developed collaboratively and approved by the Committee on Interdisciplinary Practice (CIDP) whose membership consists of Nurse Practitioners, Nurse Midwives, Physician Assistants, Pharmacists, Registered Nurses, Physicians, and Administrators and must conform to all eleven steps of the standardized procedure guidelines as specified in Title16, CCR Section 1474.

B. All standardized procedures are to be kept in a unit-based manual. A copy of these signed procedures will be kept in an operational manual in the 4J Preoperative and Pain Clinic, the Pre-Op Clinic Medical Director's Office and on file in the Medical Staff Office.

II. Functions to Be Performed

The following standardized procedures are formulated as process protocols to explain the overlapping functions performed by the NP/PA in their practice. Each practice area will vary in the functions that will be performed, such as primary care in a clinical, specialty clinic care setting or inpatient care in a unit-based hospital setting.

A Nurse Practitioner (NP) is a Registered Nurse who has additional preparation and skills in physical diagnosis, psychosocial assessment, and management of health-illness; and who has met the requirements of Section 1482 of the Nurse Practice Act. Nurse Practitioners provide health care, which involves areas of overlapping practice between nursing and medicine. These overlapping activities require standardized procedures. These standardized procedures include guidelines stating

specific conditions requiring the Nurse Practitioner to seek physician consultation.

Physician assistants (PA) are health care providers licensed to practice medicine with physician supervision and who have attended and successfully completed an intensive training program accredited by the Accreditation Review Commission on education for the Physician Assistant (ARC-PA). Upon graduation, physician assistants take a national certification examination developed by the National Commission on Certification of PAs in conjunction with the National Board of Medical Examiners. To maintain their national certification, PAs must log 100 hours of continuing medical education every two years and sit for a recertification examination every ten years (6 year recertification cycle prior to 2014, 10 year recertification cycle starting in 2014 and thereafter). Graduation from an accredited physician assistant program and passage of the national certifying exam are required for state licensure. While functioning as a member of the Community Health Network, PAs perform health care-related functions under physician oversight and with the utilization of standardized procedures and the Physician Assistant Practice Agreement.

The NP/PA conducts physical exams, diagnoses and treats illness, orders and interprets tests, counsels on preventative health care, assists in surgery, performs invasive procedures and furnishes medications/issues drug orders as established by state law.

III. Circumstances Under Which NP/PA May Perform Function

A. Setting
   1. Location of practice is in the Anesthesia Pre-operative Clinic, the Anesthesia Pain Management Clinic, and any other part of the hospital where pre-operative assessment and optimization, or acute/chronic pain assessment and management are required.

B. Supervision
   1. Overall Accountability:
      The NP/PA is responsible and accountable to the respective Medical Directors of the Preoperative Clinic and Pain Clinic, as well as the Anesthesia attending assigned to supervise the Anesthesia Pre-Op Clinic, Anesthesia Pain Management Clinic, or Anesthesia Acute Pain Service.

2. A consulting physician (Anesthesia attending) will be available to the NP/PA, by phone, in person, or by other electronic means at all times.

3. Physician consultation is to be obtained as specified in the protocols and under the following circumstances:

   a. Acute decompensation of patient situation
   b. Problem that is not resolved after reasonable trial of therapies
   c. Unexplained historical, physical, or laboratory findings
   d. Upon request of patient, affiliated staff, or physician
   e. Initiation or change of medication other than those in the formulary(ies)
   f. Problem requiring hospital admission or potential hospital admission
   g. Acute, severe respiratory distress
   h. An adverse response to respiratory treatment, or a lack of therapeutic response

IV. Scope of Practice

Protocol #1: Health Care Management: Primary Care/Specialty Clinics/Inpatient Units
Protocol #2: Pre-Op Screening of Adults
Protocol #3: Pre-Op Screening of Children
Protocol #4: Furnishing Medications and Drug Orders
Protocol #5: Electronic Consult (eConsult) Review
Protocol #6: Management of Neuraxial/Nerve Catheters for Pain Control
Protocol #7: Trigger Point Injections
Protocol #8: Botox Injections for Migraines

V. Requirements for the Nurse Practitioner/Physician Assistant

A. Basic Training and Education

1. Active California Registered Nurse/ Physician Assistant license.
2. Successful completion of a program, which conforms to the Board of Registered Nurses (BRN)/Accreditation Review Commission on education for the Physician Assistant (ARC)-PA standards.
3. Maintenance of Board Certification (NP)/National Commission on the Certification of Physician Assistants (NCCPA) certification.
4. Maintenance of certification of Basic Life Support (BLS) that must be from an American Heart Association provider.

5. Possession of a National Provider Identifier or must have submitted an application.
6. Copies of licensure and certificates must be on file in the Medical Staff Office.
7. Furnishing Number and DEA number if applicable.

B. Specialty Training
   1. Degree needed for adults: Adult Nurse Practitioner (ANP), Family Nurse Practitioner (FNP) or Physician Assistant (PA)
   2. Degree needed for children less than 18 years of age: FNP, PA or Pediatric Nurse Practitioner (PNP)

VI. Evaluation

A. Evaluation of NP/PA Competence in performance of standardized procedures.
   1. Initial: At the conclusion of the standardized procedure training, the Medical Directors and/or designated physician and other supervisors, as applicable, will assess the NP/PA's ability to practice.

      a. Clinical Practice
         1. Length of proctoring period will be three months which can be shortened or lengthened.
         2. The evaluator will be the Medical Directors and/or designated supervising physician or peer reviewers as applicable.
         3. The method of evaluation in clinical practice will be a minimum of 5 cases for each core category. One case may apply to multiple categories including core and special procedures demonstrate clinical competence or as noted in each special protocol.
   2. Follow-up: Areas requiring increased proficiency as determined by the initial or annual evaluation will be re-evaluated by the Medical Directors, and/or designated physician, at appropriate intervals.
   3. Ongoing Professional Performance Evaluation (OPPE): Every six months, affiliated staff will be monitored for compliance to departmental specific indicators and reports sent to the Medical Staff Office.
   4. Biennial Reappointment: Medical Directors, and/or designated physician must evaluate the NP/PA’s clinical competence. For reappointment, 5 chart reviews every 2 years or as noted in each

special protocol. Charts can include reviews completed for special procedure reviews.

VII. Development and Approval of Standardized Procedure

A. Method of Development
    1. Standardized procedures are developed collaboratively by the Nurse Practitioners/Physician Assistants, Nurse Midwives, Pharmacists, Physicians, and Administrators and must conform to the eleven steps of the standardized procedure guidelines as specified in Title 16, CCR Section 1474.

B. Approval
    1. The CIDP, Credentials, Medical Executive and Joint Conference Committees must approve all standardized procedures prior to its implementation.

C. Review Schedule
    1. The standardized procedure will be reviewed every three years by the NP/PA and the Medical Director and as practice changes.

D. Revisions
    1. All changes or additions to the standardized procedures are to be approved by the CIDP accompanied by the dated and signed approval sheet.

Protocol #1: Health Care Management – Specialty Clinics/Inpatient Units (Core)

A. DEFINITION

This protocol covers the procedure for age appropriate health care management in specialty clinics and inpatient units. Scope of care includes health care maintenance and promotion, management of common acute illness and chronic stable illnesses within outpatient clinics, Emergency Department, Inpatient units, ICU.

B. DATABASE

1. Subjective Data
   a. Screening: age appropriate history that includes but is not limited to past medical history, surgical history, hospitalizations/injuries, habits, family history, psychosocial history, allergies, current medications, treatments, and review of systems.
   b. Ongoing/Continuity: review of symptoms and history relevant to the disease process or presenting complaint.
   c. Pain history to include onset, location, and intensity.

2. Objective Data
   a. Physical exam consistent with history and clinical assessment of the patient.
   b. Laboratory and imaging evaluation, as indicated, relevant to history and exam.
   c. All Point of Care Testing (POCT) will be performed according to the ZSFG POCT policy and procedure 16.20.

C. DIAGNOSIS

Assessment of data from the subjective and objective findings identifying risk factors and disease processes. May include a statement of current status of disease (e.g. stable, unstable, and uncontrolled).

D. PLAN

1. Treatment
   a. Age appropriate screening tests, and/or diagnostic tests for purposes of disease identification.
   b. Initiation or adjustment of medication per Furnishing/Drug Orders protocol.
   c. Immunization update.
   d. Referral to specialty clinics and supportive services, as needed.

2. Patient conditions requiring Attending Consultation
   a. Acute decompensation of patient situation.
   b. Problem that is not resolved after reasonable trial of therapies.
   c. Unexplained historical, physical or laboratory findings.
   d. Uncommon, unfamiliar, unstable and complex patient conditions.
   e. Upon request of patient, NP, PA, or physician
   f. Problem requiring hospital admission or potential hospital admission.

3. Education
   a. Patient education appropriate to diagnosis including treatment modalities and lifestyle counseling (e.g. smoking cessation, diet, exercise).
   b. Anticipatory guidance and safety education that is age and risk factor appropriate.
   c. Discharge information and instructions.

4. Follow-up
   As indicated and appropriate to patient health status and diagnosis.

E. RECORD KEEPING

All information relevant to patient care will be recorded in the medical record (e.g.: admission notes, progress notes, procedure notes, discharge notes).

Protocol #2: Pre-Op Screening of Adults (Core)

A. Definition

This protocol covers the assessment and management of adults prior to the administration of anesthesia. This will include a directed history and physical.

1. Proctoring
    a. Length of proctoring period will be three months which can be shortened or lengthened.
    b. The evaluator will be the Medical Director of the Anesthesia Pre-Op Clinic
    c. The method of evaluation in clinical practice will be presentation of 5 adult cases to either the Medical Director or designated physician during the proctoring period with a chart review of the same 5 cases

2. Reappointment:
    a. The period of review will be every 2 years
    b. The evaluator will be the Medical Director of the Anesthesia Pre-Op Clinic
    c. Evaluation will be the review of 3 adult medical record cases

B. Data Base

1. Subjective Data:
    a. Screening: appropriate history that includes but is not limited to: past medical history, surgical history, hospitalizations/injuries, habits, family history, psychosocial history, allergies, current medications, treatments, and review of systems.
    b. Historical information relative to the presenting illness (past health history, family history, occupational history, personal/social history, review of systems;
    c. Status of relevant symptom(s), e.g. present or stable

2. Objective Data:
    a. Physical examination appropriate to the disease process
    b. Review of appropriate laboratory / diagnostic studies
    c. All Point of Care Testing (POCT) will be performed according to the ZSFG POCT policy and procedure 16.20.

C. Diagnosis

Assessment of data from the subjective and objective findings identifying risk factors and disease processes may include a statement of current status of disease (e.g. stable, unstable, and uncontrolled).

D. Plan

1. Diagnostic Plan
   a. Appropriate screening tests, and/or diagnostic tests for purposes of disease identification
   b. Referral to specialty clinics and supportive services, as needed

2. Treatment Plan
   a. Physical and/or occupational therapy and/or speech therapy, if appropriate
   b. Diet and exercise prescription as indicated by the disease process and the patient condition
   c. Management of medications as appropriate

3. Patient conditions requiring Attending Consultation
   a. With emergent conditions requiring prompt medication attention
   b. With acute decompensation of the patient situation
   c. When there is a problem that is not resolving as anticipated with unexplained, historical, physical and/or laboratory findings
   d. Upon request of the patient, NP, PA, or Physician
   e. When ordering expensive and/or unusual diagnostic studies
   f. When prescribing medications not within the clinical expertise of the NP/PA
   g. Patient conditions that may require physician consultation in addition to the ones mentioned in the preamble including but not limited to:
      - Significant abnormal lab values
      - New carotid bruits
      - New cardiac murmurs or other cardiac symptoms
      - Current uncompensated heart failure
      - New ECG changes
      - Other acute or chronic conditions which will benefit from treatment and stabilization prior to surgery.

- Patients evaluated for surgery who have unusual and/or unanticipated findings.

4. Patient / Family Education
   In verbal and/or written format, the Nurse Practitioner explains to the pertinent party or parties involved the disease process, pertinent signs and symptoms, therapeutic modalities and appropriate follow-up.

5. Follow-up and Referral
   Performed in accordance with the standard of practice and/or with the consulting physician's recommendation.

E. Record Keeping

Patient contacts and visits are to be documented in accordance with standard practice and institutional policy. All information relevant to patient care will be recorded in the medical record.

Protocol #3: Pre-Op Screening of Children (Core)

A. Clinical Definition
   This protocol covers the assessment and management of children less than 18 years of age prior to the administration of anesthesia. This will include a directed history and physical.

   1. Proctoring
      a. Length of proctoring period will be three months in length which can be shortened or lengthened.
      b. The evaluator will be the Medical Director of the Anesthesia Pre-Op Clinic
      c. The method of evaluation in clinical practice will be presentation of 5 pediatric cases to either the Medical Director or designated physician during the proctoring period with a chart review of the same 5 cases.

   2. Reappointment:
      a. The period of review will be every 2 years
      b. The evaluator will be the Medical Director of the Anesthesia Pre-Op Clinic
      c. Evaluation will be the review of 3 pediatric medical record cases.

B. Database

   1. Subjective Data:
      a. Screening: age appropriate history that includes but is not limited to: past medical history, surgical history, hospitalizations/injuries, habits, family history, psychosocial history, allergies, current medications, treatments, and review of systems.
      b. Historical information relative to the presenting illness (past health history, family history, occupational history, personal/social history, review of systems
      c. Status of relevant symptom(s), e.g. present or stable

   2. Objective Data:
      a. Physical examination appropriate to the disease process
      b. Review of appropriate laboratory / diagnostic studies
      c. All Point of Care Testing (POCT) will be performed according to the ZSFG POCT policy and procedure 16.20.

C. Diagnosis
Assessment of data from the subjective and objective findings identifying risk factors and disease processes may include a statement of current status of disease (e.g. stable, unstable, and uncontrolled).

D. Plan

1. Diagnostic Plan
    a. Age appropriate screening tests, and/or diagnostic tests for purposes of disease identification
    b. Referral to specialty clinics and supportive services, as needed

2. Treatment Plan
    a. Physical and/or occupational therapy and/or speech therapy, if appropriate
    b. Diet and exercise prescription as indicated by the disease process and the patient condition
    c. Management of medication as appropriate.

3. Patient conditions requiring Attending Consultation
    a. With emergent conditions requiring prompt medication attention
    b. With acute decompensation of the patient situation
    c. When there is a problem that is not resolving as anticipated with unexplained, historical, physical and/or laboratory findings
    d. Upon request of the patient, NP/PA, or Physician
    e. When ordering expensive and/or unusual diagnostic studies;
    f. When prescribing medications not within the clinical expertise of the NP/PA
    g. Patient conditions that may require physician consultation in addition to the ones mentioned in the preamble including but not limited to:
        - Significant abnormal lab values
        - Congenital heart disorders
        - Severe neuromuscular disease
        - Cranio-facial malformations
        - Other acute or chronic conditions which will benefit from treatment and stabilization prior to surgery
        - Patients evaluated for surgery who have unusual and/or unanticipated findings

4. Patient / Family Education
    a. In verbal and/or written format, the NP/PA explains to the pertinent party or parties involved the disease process, pertinent signs and symptoms, therapeutic modalities and appropriate follow-up.
    b. The NP/PA will provide age appropriate verbal and/or written information to prepare a child and/or their family for the operative experience.

5. Follow-up and Referral
   Performed in accordance with the standard of practice and/or with the consulting physician's recommendation.

E. Record Keeping
    1. Patient contacts and visits are to be documented in accordance with standard practice and institutional policy.
    2. All information relevant to patient care will be recorded in the medical record.

Protocol #4: Furnishing Medications/Drug Orders (Core)

A. DEFINITION

"Furnishing "of drugs and devices by nurse practitioners is defined to mean the act of making a pharmaceutical agent/s available to the patient in accordance with a standardized procedure. A "drug order" is a medication order issued and signed by a physician assistant. Physician assistants may issue drug orders for controlled substances Schedule II -V with possession of an appropriate DEA license. Nurse practitioners may order Schedule II - V controlled substances when in possession of an appropriate DEA license. Schedule II - III medications for management of acute and chronic illness need a patient specific protocol. The practice site, Anesthesia Services, scope of practice of the NP/PA, as well as Service Chief or Medical Director, determine what formulary/ies will be listed for the protocol. The formulary/ies to be used are: ZSFG, Community Health Network, Community Behavioral Health Services, Laguna Honda Hospital, Jail Health Services, San Francisco Health Plan, Medi-Cal and AIDS Drug Assistance Program. This protocol follows CHN policy on Furnishing Medications (policy no. 13.2) and the writing of Drug Orders. (Policy no. 13.5).

B. DATA BASE

1. Subjective Data
    a. Age appropriate history and review of symptoms relevant to the presenting complaint or disease process to include current medication, allergies, current treatments, and substance abuse history.
    b. Pain history to include onset, location, and intensity.

2. Objective Data
    a. Physical exam appropriate to presenting symptoms.
    b. Describe physical findings that support use for CSII-III medications.
    c. Laboratory and imaging evaluation, as indicated, relevant to history and exam.
    d. All Point of Care Testing (POCT) will be performed according to the ZSFG POCT policy and procedure 16.20.

C. DIAGNOSIS

Assessment of data from the subjective and objective findings identifying disease processes, results of treatments, and degree of pain and/or pain relief.

D. PLAN

1. Treatment
    a. Initiate, adjust, discontinue, and/or renew drugs and devices.
    b. Respiratory medications and treatments will be written based on the assessment from the history and physical examination findings and patient response to prior or current treatment.
    c. Nurse Practitioners/Physician Assistants may order Schedule II - III controlled substances for patients with the following patient specific protocols. These protocols may be listed in the patient chart, in the medications sections of the electronic health record, or in the Medication Administration Record (MAR). The protocol will include the following:
        1. location of practice
        2. diagnoses, illnesses, or conditions for which medication is ordered
        3. name of medications, dosage, frequency, route, and quantity, amount of refills authorized and time period for follow-up.
    d. To facilitate patient receiving medications from a pharmacist the following information must be provided:
        i. name of medication
        ii. strength
        iii. directions for use
        iv. name of patient
        v. name of prescriber and title
        vi. date of issue
        vii. quantity to be dispensed
        viii. license no., furnishing no.(NP only), and DEA no.
    e. Limitations
        1. A prescription for a Schedule II or III controlled substance shall be limited to the number of tablets needed until the next scheduled follow-up clinic appointment.
        2. No refills will be allowed for lost or stolen narcotic prescriptions.

2. Patient conditions requiring Attending Consultation
    a. Problem which is not resolved after reasonable trial of therapies.
    b. Unexplained historical, physical or laboratory findings.
    c. Upon request of patient, NP, PA, or physician.
    d. Failure to improve pain and symptom management.
    e. Acute, severe respiratory distress

3. Education
    a. Instruction on directions regarding the taking of the medications in patient's own language.
    b. Education on why medication was chosen, expected outcomes, side effects, and precautions.

4. Follow-up
    a. As indicated by patient health status, diagnosis, and periodic review of treatment course.

E. RECORD KEEPING

All medications furnished by NPs and all drug orders written by PAs will be recorded in the electronic medical record\MAR as appropriate.

Protocol #5: Electronic Consult (eConsult) Review

A. DEFINITION

eConsult review is defined as the review of new outpatient consultation requests via the online electronic health record. A new outpatient is defined as a patient that has neither been consulted upon by the specialty service, admitted to the specialty service nor seen in the specialty clinic within the previous two years.

1. Prerequisites:
   a. Providers reviewing eConsults will have six months experience with patients in the specific specialty area provided at ZSFG or elsewhere before allowed to do electronic referrals independently.
   b. Providers reviewing eConsults will be licensed as stated in the Standardized Procedure NP/PA Preamble.
   c. Providers reviewing eConsults will consistently provide care to patients in the specialty clinic for which they are reviewing.
   d. Providers reviewing eConsults will have expertise in the specialty practice for which they are reviewing.

2. Educational Component: Providers will demonstrate competence in understanding of the algorithms or referral guidelines developed and approved by the Medical Director which will be used to facilitate screening, triaging and prioritizing of patients in the eConsult system.

3. Proctoring: Concurrent review of the first 20 eConsult consultation decisions will be performed by the Medical Director or designee concurrently for the first three months.

4. Reappointment: A review of five eConsults every two years.

B. DATABASE

1. Subjective Data
   a. History: age appropriate history that includes but is not limited to past medical history, surgical history, hospitalizations/injuries, habits, family history, psychosocial history, allergies, current medications, treatments, and review of systems relevant to the presenting disease process as provided by the referring provider on the electronic referral. eConsult review will be confined to data found in the submitted eConsult form. Data contained in the paper or electronic medical record, but not in the eConsult,

is specifically excluded from the eConsult review. The reviewer will request further information from the referring provider if information provided is not complete or does not allow for an adequate assessment of urgency and appropriateness of the referral.

b. Pain history to include onset, location, intensity, aggravating and alleviating factors, current and previous treatments.

2. Objective Data
   a. Physical exam consistent with history and clinical assessment of the patient as provided by the referring provider.
   b. Laboratory and imaging evaluation as obtained by the referring provider relevant to history, physical exam, and current disease process will be reviewed. Further evaluation will be requested from the referring provider if indicated.

C. DIAGNOSIS

A diagnosis will not be determined at the time of eConsult review. Differential diagnosis will be provided at the time the patient is seen in clinic by the consulting provider. Assessment of the subjective and objective data as performed by the consulting provider in conjunction with identified risk factors will be evaluated in obtaining a diagnosis.

D. PLAN

1. Review of eConsult
   a. Algorithms or referral guidelines developed and approved by the Medical Director will be used to facilitate screening, triaging and prioritizing of patients in the eConsult system.
   b. All data provided via the eConsult request will be reviewed and assessed for thoroughness of history, adequacy of work up, and urgency of condition.
   c. Any missing data that is needed for the initial assessment of the patient will be requested from the referring provider.

2. Patient conditions requiring Attending Consultation
   a. Acute decompensation in patient condition.
   b. Unexplained historical, physical or laboratory findings.
   c. Upon request of the referring NP, PA, or physician.
   d. Problem requiring hospital admission or potential hospital admission.
   e. When recommending complex imaging studies or procedures for the referring provider to order.

f. Problem requiring emergent/urgent surgical intervention.
g. As indicated per the algorithms developed by the Chief of Service.

3. Education
   a. Provider education appropriate to the referring problem including disease process, additional diagnostic evaluation and data gathering, interim treatment modalities and lifestyle counseling (e.g. diet, exercise).

4. Scheduling of Appointments
   a. Dependent upon the urgency of the referral, the eConsult will be forwarded to the scheduler for either next available clinic appointment scheduling or overbook appointment scheduling.

5. Patient Notification
   a. Notification of the patient will be done by the referring provider if the appointment is scheduled as next available. If the appointment is scheduled as an over book within two weeks of the electronic referral, the consulting scheduler is responsible for notifying the patient.

E. RECORD KEEPING

All information contained within the eConsult including the initial referral and any electronic dialogue between providers will be recorded in the electronic medical record upon scheduling or after a period of six months.

During the proctoring period, the eConsult request will be printed and the provider recommendations will be written on the printout. These will be cosigned by the proctor and filed in the provider's educational file. The recommendations will then be entered into the electronic medical record and forwarded to the scheduler.

Protocol #6: Management of Neuraxial and Peripheral Nerve Catheters

A. Definition
Management of in situ neuraxial and peripheral nerve catheters for the purpose of optimizing pain control including assessment of catheter site, setup of infusion pump, selection/administration of infusion medications, and removal of catheter after use is no longer indicated.

1. Location of procedure may include Emergency Department, Inpatient Units, Perioperative Area, and Intensive Care Units

   a. Indications - Patients with in situ neuraxial or peripheral nerve catheters who require catheter management.

   b. Precautions/Contraindications that require physician consultation:

      - Patients who are acutely hypotensive or predisposed to hypotension such as elderly patients, patients with heart failure, or hypovolemic patients.
      - New focal neurologic findings or severe back pain.
      - Patients with signs of neuraxial or peripheral nerve catheter infection or risk factors for contamination of such catheters including fever or elevated white blood cell count; catheter site tenderness, erythema, swelling, discharge, or bleeding; non-intact catheter dressing or catheter disconnection.
      - Patients with documented allergy to medication or medication in same class as catheter infusion medication.
      - Patients with coagulopathy or taking antithrombotic medications not consistent with joint UCSF/ZSFG "Guidelines For The Use of Antithrombotic Agents In The Setting Of Neuraxial Procedures"[1].

B. Data Base

1. Subjective Data

   a. History and review of symptoms relevant to the presenting complaint, pain presentation, and catheter placement procedure

[1] https://anesthesia.ucsf.edu/clinical-resources/guidelines-use-antithrombotic-agents-setting-neuraxial-procedures-0

b. Pertinent past medical history, surgical history, family history, hospitalizations, habits, current medications including aspirin, aspirin-containing products, anticoagulants, anti-platelet agents, and non-steroidal anti-inflammatory agents, and allergies including anesthetic agents and opioids.

2. Objective Data

a. Physical exam to include vital signs review, inspection and palpation of the catheter site, sensory level of the neuraxial or nerve block, extremity motor and sensory function as appropriate

b. Laboratory, Point of Care Testing (POCT), and imaging studies, as indicated, relevant to history and exam.

C. Diagnosis

Assessment of data from the subjective and objective findings to gauge effectiveness of pain control and determine the presence of complications related to pain management therapies

D. Plan

1. Therapeutic Treatment Plan
   a. Explain to the patient, if possible, the availability, risks, and benefits of relevant pain treatment modalities.

   b. Determine, in consultation with the attending physician, the consulting team, and the patient, which pain treatment modalities will be initiated, adjusted or discontinued

   c. Set up catheter medication infusion pump, initiate/adjust infusion medication, or remove catheter as appropriate

   d. Initiate, adjust, or discontinue other pharmacologic and non-pharmacologic pain modalities as indicated

2. Patient conditions requiring attending physician consultation

   a. Acute hypotension, allergic reaction, and any decompensation of patient.

   b. New neurologic findings or severe back pain

b. Unexplained physical or laboratory findings

c. Catheter requires removal/replacement due to inadequate function, loss of sterility, or signs of infection

d. Upon request of patient, NP, PA or physician

3. Education

   Provide patient and provider education related to catheter purpose, signs of malfunction/complication, and the patient controlled analgesia function

4. Follow-up

   While on service, NP/PA will perform daily subjective/objective evaluation as described in section B) Data Base while catheter is in situ.

E. Record Keeping

1. Patient contacts are to be documented in the medical record in accordance with standard practice and institutional policy.
2. All information relevant to patient care will be recorded in the medical record

F. Summary of Prerequisites, Proctoring and Reappointment Competency

Requirements to be completed prior to initiation of proctoring and provision of direct patient care: a. Completion of onsite training by a qualified anesthesia provider.
Proctoring a. A minimum of 2 observations by a qualified anesthesia attending of each of the following: clinical assessment of patient in relation to pain management, assessment of catheter site, setup of infusion pump, selection/administration of infusion medications, and removal of catheter

Reappointment a. The evaluator will be the Medical Director of the Anesthesia Acute Pain Service b. Management of 2 cases and 1 chart review every 2 years.

Protocol #7: Procedure: Trigger Point Injection

A. DEFINITION:

A trigger point is defined as a focal area of soft tissue hyperirritability that is painful on palpation and/or elicits a twitch response. Trigger point injection is the insertion of a needle into a trigger point, with or without injection of solution (e.g. saline, steroids, and anesthetics) into the region of the trigger point.

1. Indications:
    - Pain attributed to a trigger point or a taut area of skeletal muscle
2. Precautions/contradictions:
    - Allergy to injectable medication
    - Close proximity to vital organs (e.g. potential risk of pneumothorax)

B. DATA BASE

1. Subjective Data
    a. History and review of symptoms relevant to the presenting complaint or procedure to be performed.
    b. Pertinent past medical history, injury event history, surgical history, family history, hospitalizations, habits, current medications, allergies.

2. Objective Data
    a. Physical exam appropriate to the procedure to be performed.

    b. Laboratory and imaging evaluation, as indicated, relevant to history and exam.
    c. All Point of Care Testing (POCT) will be performed according to ZSFG POCT policy and procedure 16.20.

C. DIAGNOSIS

Assessment of subjective and objective data to identify disease processes such as myofascial pain with trigger points.

D. PLAN

1. Therapeutic Treatment Plan
    a. Explain the procedure to the patient.
    b. Patient consent obtained per hospital policy before procedure is performed.
    c. Time Out performed per hospital policy.
    d. The procedure is performed following standard medical technique according to the departmental guidelines.

e. Diagnostic tests for purposes of disease identification.
f. Initiation or adjustment of medication per Furnishing/Drug Orders protocol.
g. Referral to physician, specialty clinics, and supportive services, as needed.

2. Patient conditions requiring Attending Consultation
   a. Acute decompensation of patient situation.
   b. Allergic reaction
   c. Unexplained historical, physical or laboratory findings
   d. Upon request of patient, NP/PA, or physician
   e. Problem requiring hospital admission or potential hospital admission.

3. Education
   Patient will be informed that pain relief may occur immediately if anesthetics or steroids are injected. Baseline pain may recur upon clearance ("wearing out") of the medications from the area of injection. Patient will be instructed in signs and symptoms of infection or allergy and procedures to follow if they occur.

4. Follow-up
   Patients will be seen in follow up within 4-6 weeks if clinically indicated.

E. RECORD KEEPING
Patient visit, consent forms, and other procedure specific documents will be documented in electronic medical record.

F. Summary of Proctoring and Reappointment Competency

Requirements to be completed prior to initiation of proctoring and provision of direct patient care: Training by 3 direct observations of a qualified anesthesia attending performing trigger point injections will occur. Standardized Training will include NP/PA being able to demonstrate knowledge of the following for all noted injection sites: 1. Indications for procedure and treatment 2. Risks and benefits of procedure and medication 3. Related anatomy and physiology 4. Consent process 5. Wound infection and wound healing mechanisms

6. Use of required equipment 7. Steps in performing procedures 8. Ability to interpret results and formulate follow-up plans 9. Documentation and CPT and ICD-10 coding 10. Ability to recognize complication
Proctoring: a. New practitioners to procedure will have a minimum of 2 successful observed demonstrations of the procedure b. Experienced practitioners to procedure (as defined by proctoring at another institution with ongoing performance assessment documented within the past 2 years) will have a minimum of 1 successful observed demonstrations of the procedure. c. Chart review of all observed cases.
Reappointment Competency a. Performance of at least 2 injections every 2 years. b. 1 chart review every 2 years.

Protocol #8: Botox injections

A. DEFINITION

Administration of Botox (Onabotulinum toxin A) for the treatment of chronic migraine.

1. Location to be performed: Anesthesia Pain Clinic

2. Performance of Botox Administration
   - a. Indications
     1. Prophylaxis of headaches in adult patients with chronic migraine (≥15 days per month with headache lasting 4 hours a day or longer)
   - b. Precautions
     1. Potency units of Botox are not interchangeable with other preparations of botulinum toxin products.
     2. Spread of toxin effects: swallowing and breathing difficulties can lead to death. Seek immediate medical attention if respiratory, speech, or swallowing difficulties occur.

3. Concomitant neuromuscular disorders, including peripheral motor neuropathic diseases, amyotrophic lateral sclerosis, or neuromuscular junction disorders (e.g., myasthenia gravis or Lamber-Eaton syndrome) may exacerbate clinical effects of treatment. Patients with known or unrecognized neuromuscular or neuromuscular junction disorders should be monitored when given Botox. They may be at increased risk of clinically significant effects including generalized muscle weakness, diplopia, ptosis, dysphonia, dysarthria, severe dysphagia, and respiratory compromise.

4. Use with cautions in patients with compromised respiratory function.

5. Bronchitis and upper respiratory infections may occur in patients treated for spasticity.

6. Patients receiving concomitant treatment of Botox and aminoglycosides or other agents interfering with neuromuscular transmission (e.g., curare-like agents), or muscle relaxants, should be observed closely because the effect of Botox may be potentiated.

c. Contraindications

1. Allergy or hypersensitivity to Botox or any other botulinum toxin preparation or to any components in the preparation.

2. Infection at proposed injection site.

3. Patient refusal

B. DATA BASE

1. Subjective Data

a. History and review of symptoms relevant to the presenting complaint or procedure to be performed including but not limited to presence of headache and motor/sensory deficits.

b. Pertinent past medical history, surgical history, family history, hospitalizations, habits, current medications including aminoglycosides and other agents interfering with neuromuscular transmission, anticholinergic drugs, other botulinum neurotoxin products, and muscle relaxants, and allergies.

2. Objective Data
    a. Physical exam appropriate to the procedure to be performed including detailed neurologic examination and integrity of the skin at the proposed injection site.
    b. The procedure is performed following standard medical technique according to the PREEMPT trial and Manual of Botulinum Toxin Therapy, Second Edition.

C. DIAGNOSIS

Assessment of subjective and objective data to identify disease processes. Differential diagnoses would include but not limited to tension type headache or other primary headache disorders, intracerebral hemorrhage, aneurysmal subarachnoid hemorrhage, meningitis, space occupying lesion, idiopathic intracranial hypertension, cerebral venous thrombosis, spontaneous internal carotid artery dissection, or giant cell arteritis.

D. PLAN

1. Therapeutic Treatment Plan
    a. Patient consent, consistent with hospital policy, obtained before procedure is performed.
    b. Timeout conducted consistent with hospital policy.
    c. Diagnostic tests might include blood work such as C-Reactive Protein (CRP) and Erythrocyte sedimentation rate (ESR); CT or MRI only if patient symptoms do not meet criteria for migraine.
    d. Initiation or adjustment of medication per Furnishing/Drug Orders protocol.
    e. Referral to physician, specialty clinics, and supportive services, as needed.

2. Patient conditions requiring Attending Consultation
    a. All patients requiring this procedure will receive Anesthesiology or Neurology Consultation with attending input confirming the need for the procedure.

3. Education
    a. Discharge instructions and patient education material will be provided.

4. Follow-up

As appropriate for procedure performed.

    a. Assess for side effects including a sensation of tightness across the forehead, inability to frown, eyebrow asymmetry

eyelid ptosis, shoulder weakness or pain. Side effects typically self-resolve within 1-3 months.

b. Assess for allergic reaction.

E. COMPETENCY ASSESSMENT

1. Initial Competence

a. The Nurse Practitioner or Physician Assistant will be instructed on the procedure, efficacy and the indication of this therapy and demonstrate understanding of such.

b. The Nurse Practitioner or Physician Assistant will receive training and demonstrate competency in the following:

i. Medical indications and contraindications of the procedure.
ii. Benefits and potential side effects of the procedure.
iii. Related anatomy and physiology.
iv. Consent process (if applicable).
v. Steps in performing the procedures.
vi. Documentation of the procedure.

c. An Allergan certificate of completion of the Professional Education and Injection Paradigm Simulation Training for Botox will be required to certify that training is completed.

d. The Nurse Practitioner or Physician Assistant will observe the supervising physician/designee perform each procedure three times. The Nurse Practitioner or Physician Assistant will then perform the procedure three times under direct supervision.

e. The supervising physician will document the Nurse Practitioner or Physician Assistant's competency prior to allowing that individual to perform the procedure without supervision.

f. The Nurse Practitioner or Physician Assistant will ensure the completion of competency sign off documents.

2. Continued Proficiency

a. The Nurse Practitioner or Physician Assistant will demonstrate competency by successful completion of the initial competency.

b. Each candidate will be initially proctored and signed off by the supervising physician/designee. The Nurse Practitioner or Physician Assistant must perform this procedure at least three times every two years. In cases where this minimum is not met, the supervising physician or designee must again sign off the procedure for the Nurse Practitioner or Physician Assistant. The Nurse Practitioner or Physician Assistant will be signed off after demonstrating 100% accuracy in completing the procedure.

3. RECORD KEEPING

a. Patient visit, consent forms, and other procedure specific documents will be recorded in the medical record as appropriate.

F. Summary of Prerequisites, Proctoring and Reappointment Competency Documentation

Prerequisites Completion of standardized procedure training on site
Proctoring Period a. Minimum of 3 successful observed demonstrations b. Minimum of 3 chart reviews
Reappointment Competency a. Evaluation will be performed by Supervising Physician and/or his or her designee b. Ongoing competency evaluation. 1. Completion of three procedures every 2 years. 2. Three chart reviews needed every 2 years.

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ZSFG 2020 Anesthesia Service NP/PA Standardized Procedures

Medical Director or Division Chief Approval or Service Chief Approval

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Author Name: Arthur Wood, MD Anesthesia Service Standardized Procedures

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Gov. Body Approval Date: 6/23/2020

STANDARDIZED PROCEDURE – NURSE PRACTITIONER / PHYSICIAN ASSISTANT

PREAMBLE

Title: Combined Otolaryngology

I. Policy Statement

A. It is the policy of Zuckerberg San Francisco General Hospital and Trauma Center that all standardized procedures are developed collaboratively and approved by the Committee on Interdisciplinary Practice (CIDP) whose membership consists of Nurse Practitioners, Nurse Midwives, Physician Assistants, Pharmacists, Registered Nurses, Physicians, and Administrators and must conform to all eleven steps of the standardized procedure guidelines as specified in Title16, CCR Section 1474.

B. All standardized procedures are to be kept in a unit-based manual. A copy of these signed procedures will be kept in an operational manual in the Otolaryngology/Head and Neck Surgery Office and on file in the Medical Staff Office.

II. Functions To Be Performed

Each practice area will vary in the functions that will be performed, such as primary care in a clinical, specialty clinic care setting or inpatient care in a unit-based hospital setting.

A Nurse Practitioner (NP) is a Registered Nurse who has additional preparation and skills in physical diagnosis, psychosocial assessment, and management of health-illness; and who has met the requirements of Section 1482 of the Nurse Practice Act. Nurse Practitioners provide health care, which involves areas of overlapping practice between nursing and medicine. These overlapping activities require standardized procedures. These standardized procedures include guidelines stating specific conditions requiring the Nurse Practitioner to seek physician consultation.

Physician assistants (PA) are health care providers licensed to practice medicine with physician supervision and who have attended and successfully completed an intensive training program accredited by the Accreditation Review Commission on education for the Physician Assistant (ARC-PA). Upon graduation, physician assistants take a national certification examination developed by the National Commission on Certification of PAs in conjunction with the National Board of Medical Examiners. To maintain their national certification, PAs must log 100 hours of continuing medical education every two years and sit for a recertification examination every ~~six~~ ten years. Graduation from an accredited physician assistant program and passage of the national certifying exam are required for state licensure. While functioning as a member of the Community Health Network, PAs perform health care-related functions under physician oversight and with the utilization of standardized procedures and Practice Agreement (documents supervising agreement between supervising physician and PA).

The NP/PA conduct physical exams, diagnose and treat illnesses, order and interpret tests, counsel on preventative health care, assist in surgery, perform invasive procedures and furnish medications/issue drug orders as established by state law.

III. Circumstances Under Which NP/PA May Perform Function

A. Setting
   1. Location of practice is the inpatient and outpatient settings at Zuckerberg San Francisco General Hospital and Trauma Center.
   2. Role in the inpatient and outpatient setting may include performing physical exams, ~~diagnosing~~diagnosing, ~~and~~ treating illnesses, ordering and interpreting tests, counseling on preventative health care, assisting in surgery, performing invasive procedures and furnishing medications or issuing drug orders for the Otolaryngology patient as well as admitting, transferring, and discharging Otolaryngology patients within the hospital setting.

B. Supervision

   1. Overall Accountability:
      The NP/PA is responsible and accountable to: the Chief of Otolaryngology.
   2. A consulting physician that may include attending and fellows with Clinical instructor status will be available to the

NP/PA, by phone, in person, or by other electronic means at all times.

3. Physician consultation is to be obtained as specified in the protocols and under the following circumstances:
   a. Acute decompensation of patient situation
   b. Problem that is not resolved after reasonable trial of therapies.
   c. Unexplained historical, physical, or laboratory findings.
   d. Upon request of patient, affiliated staff, or physician.
   e. Problem requiring hospital admission or potential hospital admission.
   f. Acute, severe respiratory distress.
   g. An adverse response to respiratory treatment, or a lack of therapeutic response.

IV. Scope of Practice

1. HCM: Acute/Urgent Care/Inpatient Care/Outpatient Care
2. Furnishing Medications/Drug Orders
3. eReferral Review
4. Nasopharyngoscopy
5. Rigid Nasal Endoscopy
6. Chemical Nasal Cautery with Silver Nitrate
7. Manual Cerumen Disimpaction under ear microscope
8. Manual removal of a foreign body under ear microscope
9. Debridement of Nasal Mucous or Crusts with Use of Rigid Endoscope following endoscopic sinus Surgery
10. Nasal Biopsy obtained under guidance of Rigid Nasal Endoscopy
11. Punch Biopsy, Incisional Biopsy or Excisional Biopsy less than 5mm
12. Tracheotomy Tube Change
13. Myringotomy with and without tube placement
14. Inferior turbinate coblation
15. Limited diagnostic ultrasound of the neck
16. Ultrasound-guided needle placement
17. Botox injection

V. Requirements for the Nurse Practitioner/Physician Assistant

A. Basic Training and Education
   1. Active California Registered Nurse/Physician Assistant license.
   2. Successful completion of a program, which conforms to the Board of Registered Nurses (BRN)/Accreditation Review

Commission on education for the Physician Assistant (ARC)-PA standards.

3. Maintenance of Board Certification (NP)/National Commission on the Certification of Physician Assistants (NCCPA) certification.
4. Maintenance of certification of Basic Life Support (BLS) that must be from an American Heart Association provider
5. Possession of a National Provider Identifier or must have submitted an application.
6. Copies of licensure and certificates must be on file in the Medical Staff Office.
7. Furnishing Number and DEA Number within 12 months of hire.
8. Physician Assistants are required to sign and adhere to the Zuckerberg San Francisco General Hospital and Trauma Center Practice Agreement. Copies of Practice Aggreement must be kept at each practice site for each PA.

B. Specialty Training
   1. Specialty requirements: ANP, FNP, or Acute Care
      a. Certification as a Certified Otorhinolaryngology Nurse (CORLN) within 3 years of hire via the National Certifying Board of Otorhinolaryngology and Head-Neck Nurses (NCBOHN).
   2. Experience
      a. NP/PA must have 2 years' experience, either as an NP/PA or registered nurse (RN) in an acute care setting and an interest in head and next medicine and surgery.
      b. If above criteria in (a) not met (inexperienced NP/PA) additional proctoring is required as further delineated.

VI. Evaluation

A. Evaluation of NP/PA Competence in performance of standardized procedures.
   1. Initial: at the conclusion of the standardized procedure training, the Medical Director or physician designee will assess the NP/PA's ability to practice.
      a. Clinical Practice
         1. Length of proctoring period will be three months for an experienced NP/PA and six months for a newly graduated NP/PA. The NP/PA will be supervised by the Chief of Otolaryngology, Otolaryngology Service Attending's and Otolaryngology Fellows

with Clinical Instructor status.

2. The evaluator will be the Chief of Otolaryngology or a designated Otolaryngology physician
3. The method of evaluation in clinical practice will be:
   - A total of 10 cases will be evaluated during the proctoring period. For an inexperienced NP, a strict proctoring protocol will be enacted where all cases for the first 60 clinic sessions will be proctored by an attending physician in a concurrent and consecutive manner.
   - Direct supervision by the evaluator will occur while providing patient care during the first three months for an experienced NP and 6 months for an inexperienced NP.
   - All cases will be presented to the evaluating physician
   - All patient documentation including history and physicals, progress notes, discharge summaries, consultation requests and patient orders will be co-signed concurrently to patient care.
   - In the case of a six month proctoring period, cases may be evaluated by chart review process by the Chief of Otolaryngology or the designated Otolaryngology physician.

2. Follow-up: areas requiring increased proficiency as determined by the initial or annual evaluation will be re-evaluated by the Medical Director, and/or designated physician, at appropriate intervals.

3. Biennial Reappointment: Medical Director, and/or designated physician must evaluate the NP/PA's clinical competence as noted in the specific procedures.

VII. Development and Approval of Standardized Procedure

A. Method of Development

1. Standardized procedures are developed collaboratively by the Nurse Practitioners/Physician Assistants, Nurse Midwives, Pharmacists, Physicians, and Administrators and must conform to the eleven steps of the standardized procedure guidelines as specified in Title 16, CCR Section 1474.

B. Approval
   1. The CIDP, Credentials, Medical Executive and Joint Conference Committees must approve all standardized procedures prior to its implementation.

C. Review Schedule
   1. The standardized procedure will be reviewed every three years by the NP/PA and the Medical Director and as practice changes.

D. Revisions
   1. All changes or additions to the standardized procedures are to be approved by the CIDP accompanied by the dated and signed approval sheet.

Protocol #1: Health Care Management – Acute/Urgent Care/Inpatient and Outpatient Care

A. DEFINITION

This protocol covers the procedure for patient visits for urgent problems, which include but are not limited to common acute problems, uncommon, unstable, or complex conditions within the emergency room, inpatient and outpatient services.

B. DATA BASE

1. Subjective Data
   a. History and review of symptoms relevant to the presenting complaint and/or disease process.
   b. Pertinent past medical history, surgical history, family history, psychosocial and occupational history, hospitalizations/injuries, current medications, allergies, and treatments.
   c. Pain history to include onset, location and intensity.

2. Objective Data
   a. Physical exam appropriate to presenting symptoms.
   b. Laboratory and imaging evaluation, as indicated, relevant to history and exam.
   c. All Point of Care Testing (POCT) will be performed according to the SFGH POCT policy and procedure 16.20.

C. DIAGNOSIS

Assessment of data from the subjective and objective findings to identify disease processes. This may include a statement of current status of disease. Status of disease may be stable, unstable or uncontrolled.

D. PLAN

1. Therapeutic Treatment Plan
   a. Diagnostic tests for purposes of disease identification.
   b. Initiation or adjustment of medication per Furnishing/Drug Orders protocol.
   c. Immunization update
   d. Referral to physician, specialty clinics, and supportive services, as needed.

2. Patient conditions requiring Attending Consultation
   a. Acute decompensation of patient situation
   b. Problem that is not resolved after reasonable trial of therapies

c. Unexplained historical, physical or laboratory findings
d. Uncommon, unfamiliar, unstable and complex patient conditions.
e. Upon request of patient, NP, PA, or physician
f. Initiation of change of medication other than those in the formularies.
g. Outpatient requiring hospital admission or potential hospital admission.
h. Acute, severe respiratory distress

3. Clinical Consultations requiring OHNS MD consultation.
NP may participate in the initial evaluation and triage: encounter must be also staffed with an OHNS Resident or Attending.
a. Patients requiring inpatient admission from the emergency department, acute care or outpatient clinic setting.
b. Acute airway distress
c. Deep neck space infection
d. Epistaxis refractory to initial management
e. Facial trauma with closed head injury or multi-system trauma

4. Education
a. Patient education appropriate to diagnosis including treatment modalities and lifestyle counseling (e.g. diet, exercise).
b. Anticipatory guidance and safety education that is age and risk factor appropriate.

5. Follow-up
As appropriate regarding patient health status and diagnosis.

E. RECORD KEEPING
All information from patient visits will be recorded in the medical record. (e.g.: admission notes, progress notes, procedure notes)

Protocol #2: Furnishing Medications/Drug Orders

A. DEFINITION

"Furnishing "of drugs and devices by nurse practitioners is defined to mean the act of making a pharmaceutical agent/s available to the patient in accordance with a standardized procedure. A "drug order" is a medication order issued and signed by a physician assistant. Physician assistants may issue drug orders for controlled substances Schedule II -V with possession of an appropriate DEA license. All drug orders for controlled substances shall be approved by the supervising physician for the specific patient prior to being issued or carried out. Alternatively, PAs may prescribe controlled substances without patient specific approval if they have completed education standards as defined by the Physician Assistant Committee. A copy of the Certificate must be attached to the physician assistants Practice Agreement document. Nurse practitioners may order Schedule II - V controlled substances when in possession of an appropriate DEA license. Schedule II - III medications for management of acute and chronic illness need a patient specific protocol. The practice site, scope of practice of the NP/PA, as well as Service Chief or Medical Director, determine what formulary/ies will be listed for the protocol. The formulary/ies to be used are: San Francisco General Hospital and Trauma Center/Community Health Network, Community Behavioral Health Services, Laguna Honda Hospital, Jail Health Services, San Francisco Health Plan, Medi-Cal and AIDS Drug Assistance Program. This protocol follows CHN policy on Furnishing Medications (policy no. 13.2) and the writing of Drug Orders. (Policy no. 13.5).

B. DATA BASE

1. Subjective Data
   a. Age aAppropriate history and review of symptoms relevant to the presenting complaint or disease process to include current medication, allergies, current treatments, and substance abuse history.
   b. Pain history to include onset, location, and intensity.

2. Objective Data
   a. Physical exam consistent with history and clinical assessment of the patient.
   b. Describe physical findings that support use for CSII-III medications.
   c. Laboratory and imaging evaluation, as indicated, relevant to history and exam.

d. All Point of Care Testing (POCT) will be performed according to the SFGH POCT policy and procedure 16.20.

C. DIAGNOSIS

Assessment of data from the subjective and objective findings identifying disease processes, results of treatments, and degree of pain and/or pain relief.

D. PLAN

1. Treatment
   a. Initiate, adjust, discontinue, and/or renew drugs and devices.
   b. Respiratory medications and treatments will be written based on the assessment from the history and physical examination findings and patient response to prior or current treatment.
   c. Nurse Practitioners may order Schedule II - III controlled substances for patients with the following patient specific protocols. These protocols may be listed in the patient chart, in the medications sections of the LCR, or in the Medication Administration Record (MAR). The protocol will include the following:
      1. location of practice
      2. diagnoses, illnesses, or conditions for which medication is ordered
      3. name of medications, dosage, frequency, route, and quantity, amount of refills authorized and time period for follow-up.
   c. To facilitate patient receiving medications from a pharmacist provide the following:
      1. name of medication
      2. strength
      3. directions for use
      4. name of patient
      5. name of prescriber and title
      6. date of issue
      7. quantity to be dispensed
      8. license no., furnishing no., and DEA no.

2. Patient conditions requiring Consultation
   a. Problem which is not resolved after reasonable trial of therapies.
   b. Initiation or change of medication other than those in the formulary.
   c. Unexplained historical, physical or laboratory findings.

d. Upon request of patient, NP, PA, or physician.
e. Failure to improve pain and symptom management.
f. Acute, severe respiratory distress
g. An adverse response to respiratory treatment or a lack of therapeutic response.

3. Education
   a. Instruction on directions regarding the taking of the medications in patient's own language.
   b. Education on why medication was chosen, expected outcomes, side effects, and precautions.

4. Follow-up
   a. As indicated by patient health status, diagnosis, and periodic review of treatment course.

E. RECORD KEEPING
All medications furnished by NPs and all drug orders written by PAs will be recorded in the medical record\LCR\MAR as appropriate

Protocol #3: eReferral Review

A. DEFINITION
eReferral review is defined as the review of new outpatient consultation requests via the online eReferral system. A new outpatient is defined as a patient that has not been consulted upon by the Otolaryngology service, admitted to the Otolaryngology service nor seen in the Otolaryngology clinic within the previous two years.

1. Prerequisites:
   a. Providers reviewing eReferrals will have six months experience with patients in the Otolaryngology Service at San Francisco General Hospital and Trauma Center or elsewhere before being allowed to do eReferrals independently.
   b. Providers reviewing eReferrals will be licensed as stated in the Standardized Procedure-Nurse Practitioner/PA Preamble.
   c. Providers reviewing eReferrals will consistently provide care to patients in the specialty clinic for which they are reviewing.
   d. Providers reviewing eReferrals will have expertise in the specialty practice for which they are reviewing.

2. Educational Component: Providers will demonstrate competence in understanding of the algorithms or referral guidelines developed and approved by the Chief of Service

which will be used to facilitate screening, triaging and prioritizing of patients in the eReferral system.

3. Proctoring: A review of 5% of the eReferral consultation decisions will be performed by the Chief of Service or designee concurrently for the first three months.

4. Reappointment: A review of 5 eReferral consultations every two years.

B. DATA BASE

1. Subjective Data
   a. History: age appropriate history that includes but is not limited to past medical history, surgical history, hospitalizations/injuries, habits, family history, psychosocial history, allergies, current medications, treatments, and review of systems relevant to the presenting disease process as provided by the referring provider on the electronic referral. eReferral review will be confined to data found in the submitted eReferral form. Data contained in the paper or electronic medical record, but not in the eReferral, is specifically excluded from the eReferral review. The reviewer will request further information from the referring provider if information provided is not complete or does not allow for an adequate assessment of urgency and appropriateness of the referral.
   b. Pain history to include onset, location, and intensity, aggravating and alleviating factors, current and previous treatments.

2. Objective Data
   a. Physical exam consistent with history and clinical assessment of the patient as provided by the referring provider.
   b. Laboratory and imaging evaluation as obtained by the referring provider relevant to history, physical exam, and current disease process will be reviewed. Further evaluation will be requested from the referring provider if indicated.

C. DIAGNOSIS

A diagnosis will not be determined at the time of eReferral review. Differential diagnosis will be provided at the time the patient is seen in clinic by the consulting provider. Assessment of the subjective and objective data as performed by the consulting provider in

conjunction with identified risk factors will be evaluated in obtaining a diagnosis.

D. PLAN

1. Review of eReferral
   a. Algorithms or referral guidelines developed and approved by the Chief of Service and Otolaryngology/Head and Neck Surgery Faulty will be used to facilitate screening, triaging and prioritizing of patients in the eReferral system.
   b. All data provided via the eReferral consultation request will be reviewed and assessed for thoroughness of history, adequacy of work up, and urgency of condition.
   c. Any missing data that is needed for the initial assessment of the patient will be requested from the referring provider.

2. Patient conditions requiring Attending Review
   a. Acute decompensation in patient condition
   b. Unexplained historical, physical or laboratory findings
   c. Upon request of the referring NP, PA, or physician
   d. Problem requiring hospital admission or potential hospital admission
   e. Problem requiring emergent/urgent surgical intervention
   f. As indicated per the algorithms developed by the Chief of Service.

3. Education
   a. Provider education appropriate to the referring problem including disease process, additional diagnostic evaluation and data gathering, interim treatment modalities and lifestyle counseling (e.g. diet, exercise).

4. Scheduling of Appointments
   a. Dependant upon the urgency of the referral, the eReferral will be forwarded to the scheduler for either next available clinic appointment scheduling or overbook appointment scheduling.

5. Patient Notification
   a. Notification of the patient will be done by the referring provider if the appointment is scheduled as next available. If the appointment is scheduled as an over book within two weeks of the eReferral, the consulting scheduler is responsible for notifying the patient.

E. RECORD KEEPING

All information contained within the electronic referral including the initial referral and any electronic dialogue between providers will be recorded in the lifetime clinic record (LCR) upon scheduling or after a period of six months.

During the proctoring period, the eReferral consultation request will be printed and the provider recommendations will be written on the print out. These will be cosigned by the proctor and filed in the provider's educational file. The recommendations will then be entered into the LCR and forwarded to the scheduler.

Protocol #4: Procedure: Nasopharyngoscopy

A. DEFINITION

"Nasophayrngoscopy" is the examination of a patient's nasopharyngeal structures with the use of a flexible, lighted fibro-optic camera that is passed through the patient's nose and nasopharyngeal space. This is done ~~in order to~~to assess for masses of the head and neck and structural abnormalities of the head and neck that may contribute to the patient's symptoms—such as a deviated septum, allergic rhinitis, sinusitis, nasal polyps, sources of nasal bleeding, gastroesophageal reflux disease, laryngeal polyps, nodules, or paralysis, or the presence of a foreign body.

1. Location to be performed: Outpatient Otolaryngology Clinic, emergency department or inpatient units.

2. Performance of procedure:
   a. Indications: voice hoarseness, sinusitis, "chronic cough, recurrent expectoration, previous head and neck cancer, recurrent or persistent serous otitis media in adults, hemoptysis, and bad breath not associated with dental disease" (Patton, 1997), allergy symptoms, epistaxis, shortness of breath, aspiration, nasal congestion, and postnasal drip
   b. Precautions: may elicit gag reflex or trigger nosebleed
   c. Contraindications: patient history of croup, patient refusal following thorough explanation of the procedure, history of an allergy to the used preparatory medications (topical decongestant and anesthetic)

B. DATA BASE

1. Subjective Data
   a. History and review of symptoms relevant to the presenting complaint or procedure /surgery to be performed.
   b. Pertinent past medical history, surgical history, family history, hospitalizations, habits, current medications, allergies.

2. Objective Data
   a. Physical exam appropriate to the procedure to be performed.
   b. The procedure is performed following standard medical technique according to the departmental resources (i.e. specialty guidelines).

c. Laboratory and imaging evaluation, as indicated, relevant to history and exam.
d. All Point of Care Testing (POCT) will be performed according to SFGH POCT policy and procedure 16.20.

C. DIAGNOSIS

Assessment of subjective and objective data to identify disease processes.

D. PLAN

1. Therapeutic Treatment Plan
   a. Patient consent obtained before procedure is performed and obtained according to hospital policy.
   b. Time-out performed per hospital policy.
   c. Diagnostic tests for purposes of disease identification.
   d. Initiation or adjustment of medication per Furnishing/Drug Orders protocol.
   e. Referral to physician, specialty clinics, and supportive services, as needed.

2. Patient conditions requiring Attending Consultation
   a. Acute decompensation of patient situation.
   b. Unexplained historical, physical or laboratory findings
   c. Uncommon, unfamiliar, unstable, and complex patient conditions
   d. Upon request of patient, NP, PA or physician
   e. Problem requiring hospital admission or potential hospital admission.

3. Education

   Discharge information and instructions pertaining to applicable treatment regimens and/or further diagnostic work-up.

4. Follow-up

   As appropriate for procedure performed.

E. RECORD KEEPING

Patient visit, consent forms, and other procedure specific documents will be recorded in the medical record and LCR as appropriate.

F. Summary of Prerequisites, Proctoring and Reappointment Competency

Prerequisites: A. The prior experience required for this involves a 3 part training program, elaborated in the next point. B. The training program for this protocol includes the following: 1. Review of naso-pharyngeal anatomy text book 2. Observation of the proctor performing this procedure on at least 3 occasions 3. Practicing on models in the temporal bone lab
Proctoring Period: 1. Length of proctoring period is 1 month for an experienced NP and 3 months for an inexperienced NP. 2. The completion of the above 3--part training program 3. 3 successful demonstrations of nasopharyngoscopy on live patients for an experienced NP and 6 demonstrations for an inexperienced NP. 4. Submission of a letter of competency to the Credentialing Committee by the Clinical Service Chief 4. The evaluator will be an Otolaryngology attending.
Reappointment Competency Documentation: 1. Ongoing competency is established via 1 successful demonstration of nasopharyngoscopy and 1 chart review every 2 years.

Protocol # 5: Procedure: Rigid Nasal Endoscopy

A. DEFINITION

Rigid nasal endoscopy is the examination of a patient's sinonasal structures with the use of a rigid, lighted camera that is passed through the patient's nose. This is done ~~in order to~~to assess for masses of the nose or sinuses and structural abnormalities of the nose and sinuses that may contribute to the patient's symptoms such as a deviated septum, allergic rhinitis, sinusitis, nasal polyps, sources of nasal bleeding, or the presence of a foreign body.

1. Location to be performed: Outpatient Otolaryngology Clinic, emergency department or inpatient units.

2. Performance of procedure:
   a. Indications: nasal congestion/obstruction, sinusitis, previous nasal or sinus cancer/masses, recurrent nose bleeds, allergy symptoms and postnasal drip
   b. Precautions: may trigger nosebleed
   c. Contraindications: patient history of croup, patient refusal following thorough explanation of the procedure, history of an allergy to the used preparatory medications (topical decongestant and anesthetic)

B. DATA BASE
1. Subjective Data
   a. History and review of symptoms relevant to the presenting complaint or procedure /surgery to be performed.
   b. Pertinent past medical history, surgical history, family history, hospitalizations, habits, current medications, allergies.

2. Objective Data
   a. Detailed physical exam head and neck.
   b. The procedure is performed following standard medical technique according to the departmental resources (i.e. specialty guidelines).
   c. Laboratory and imaging evaluation, as indicated, relevant to history and exam.
   d. All Point of Care Testing (POCT) will be performed according to SFGH POCT policy and procedure 16.20.

C. DIAGNOSIS

Assessment of subjective and objective data to identify disease processes.

D. PLAN

1. Therapeutic Treatment Plan
   a. Patient consent obtained before procedure is performed and obtained according to hospital policy.
   b. Time-out performed per hospital policy.
   c. Diagnostic tests for purposes of disease identification.
   d. Initiation or adjustment of medication per Furnishing/Drug Orders protocol.
   e. Referral to physician, specialty clinics, and supportive services, as needed.

2. Patient conditions requiring Attending Consultation
   a. Acute decompensation of patient situation.
   b. Unexplained historical, physical or laboratory findings
   c. Uncommon, unfamiliar, unstable, and complex patient conditions
   d. Upon request of patient, NP, PA, or physician
   e. Problem requiring hospital admission or potential hospital admission.

3. Education
   Discharge information and instructions pertaining to applicable treatment regimens and/or further diagnostic work-up.

4. Follow-up
   As appropriate for procedure performed, pertaining to applicable treatment regimens and/or further diagnostic work-up

E. RECORD KEEPING

Patient visit, consent forms, and other procedure specific documents will be recorded in the medical record and LCR as appropriate.

F. Summary of Prerequisites, Proctoring and Reappointment Competency

Prerequisites:

1. The prior experience required for this involves a 3 part training program, elaborated in the next point.

2. The training program for this protocol includes the following:
   a. Review of nasal and sinus anatomy text book

b. Observation of the proctor performing this procedure on at least 3 occasions c. Practicing on models in the temporal bone lab
Proctoring Period: 1. Length of proctoring period is 1 month for an experienced provider and 3 months for an inexperienced provider. 2. Competency in performance of rigid nasal endoscopy includes: a. The completion of the above 3 part training program b. 3 successful demonstrations of rigid nasal endoscopy on live patients for an experienced provider and 6 for an inexperienced provider. c. Submission of a letter of competency to the Credentialing Committee by the Clinical Service Chief d. The evaluator will be an Otolaryngology attending
Reappointment Competency Documentation: 1. Ongoing competency is established via 1 successful demonstration of rigid nasal endoscopy and 1 chart review every 2 years.

Protocol #6: Procedure: Chemical Nasal Cautery with Silver Nitrate

A. DEFINITION

Chemical nasal cautery is done on occasions of epistaxis or nasal bleeding that persists despite adequate external digital pressure. In treatment of epistaxis, the approach is systematic including: first, external digital pressure, second, chemical or electrical nasal cautery, third nasal packing, and lastly surgical intervention (Ho & Chan, 2008). Chemical nasal cautery is done with the use of silver nitrate sticks that can be applied to the observed points of excoriation or sources of nasal bleeding along the nasal mucosa. Visualization of these points or sources is aided with the use of rigid nasal endoscopy, a rigid, lighted probe that is passed through the patient's nose. This allows performance of this procedure without disturbing unaffected surrounding nasal mucosa.

1. Location to be performed: Outpatient Otolaryngology Clinic, emergency department or Inpatient units.

2. Performance of procedure:
   a. Indications: epistaxis that has not responded to external digital pressure and can be attributed to specific points/sources of bleeding along the nasal mucosa
   b. Precautions: use of silver nitrate has been associated with an uncomfortable burning sensation as well as septal perforation if over application is attempted
   c. Contraindications: if epistaxis is profuse and specific points/sources of bleeding cannot be identified, the source of bleeding is assessed to be located in the posterior part of nose, or the patient cannot tolerate either the silver nitrate application or rigid nasal endoscopy for whatever reason

B. DATA BASE
1. Subjective Data
   a. History and review of symptoms relevant to the presenting complaint or procedure /surgery to be performed.
   b. Pertinent past medical history, surgical history, family history, hospitalizations, habits, current medications, allergies.

2. Objective Data
   a. Detailed physical exam of the head and neck.

b. The procedure is performed following standard medical technique according to the departmental resources (i.e. specialty guidelines).
c. Laboratory and imaging evaluation, as indicated, relevant to history and exam.
d. All Point of Care Testing (POCT) will be performed according to SFGH POCT policy and procedure 16.20.

C. DIAGNOSIS
Assessment of subjective and objective data to identify disease processes.

D. PLAN
1. Therapeutic Treatment Plan
   a. Patient consent obtained before procedure is performed and obtained according to hospital policy.
   b. Time-out performed per hospital policy.
   c. Diagnostic tests for purposes of disease identification.
   d. Initiation or adjustment of medication per Furnishing/Drug Orders protocol.
   e. Referral to physician, specialty clinics, and supportive services, as needed.

2. Patient conditions requiring Attending Consultation
   a. Acute decompensation of patient situation.
   b. Unexplained historical, physical or laboratory findings
   c. Uncommon, unfamiliar, unstable, and complex patient conditions
   d. Upon request of patient, NP, PA, or physician
   e. Problem requiring hospital admission or potential hospital admission.

3. Education
   Discharge information and instructions pertaining to applicable treatment regimens and/or further diagnostic work-up.

4. Follow-up
   As appropriate for procedure performed.

E. RECORD KEEPING
Patient visit, consent forms, and other procedure specific documents will be recorded in the medical record and LCR as appropriate.

F. Summary of Prerequisites, Proctoring and Reappointment Competency

Prerequisites: 1. The prior experience required for this involves successful completion of the training program for rigid nasal endoscopy. 2. Ability to perform this procedure requires the following: a. Completion of the rigid nasal endoscopy training program (See Rigid Nasal Endoscopy by the Nurse Practitioner/Physicians Assistant) b. Observation of the proctor performing this procedure on at least 3 occasions
Proctoring Period: 1. Length of proctoring period is 3 months for an experienced provider and 6 months for an inexperienced provider. 2. Competency in performance of chemical nasal cautery with silver nitrate includes: a. The completion of the above 3 requirements b. 3 successful demonstrations of chemical nasal cautery on live patients for an experienced provider and 6 for an inexperienced provider. c. Submission of a letter of competency to the Credentialing Committee by the Clinical Service Chief d. The evaluator will be an Otolaryngology attending.
Reappointment Competency Documentation: 1. Ongoing competency is established via one successful demonstration of chemical nasal cautery with silver nitrate every 2 years and 1 chart review.

Protocol #7: Procedure: Manual Cerumen Disimpaction under Ear Microscope

A. DEFINITION

Ceumen impaction "is defined as an accumulation of cerumen that causes symptoms, prevents a needed assessment of the ear canal/tympanic membrane or audiovestibular system, or both." (Roland et al., 2008). ~~Often times~~Often the patient with cerumen impaction has undergone several attempts of disimpaction by the primary care/referring provider, such as with cerumenolytic agents or irrigation. If these attempts prove unsuccessful, the patient is referred to Otolaryngology for disimpaction, or manual removal of the cerumen under a binocular ear microscope, which enhances visualization. This procedure is also done as a primary course of treatment if the patient cannot tolerate the use of cerumenolytic agents or irrigation, such as patients who have undergone previous ear surgery or have a history of a perforated tympanic membrane.

1. Location to be performed: Otolaryngology Outpatient Clinic, emergency department or inpatient unit

2. Performance of procedure:
   a. Indications: accumulation of cerumen that causes symptoms of otalgia, hearing loss, ear fullness, odor, discharge, or itching or that prevents a necessary evaluation of the ear canal or tympanic membrane
   b. Precautions: cerumen disimpaction can cause trauma to the external auditory canal and/or tympanic membrane, hearing loss, dizziness, bleeding, and/or infection
   c. Contraindications: patients that are unable to tolerate the procedure or unable to sit still during the procedure

B. DATA BASE

1. Subjective Data
   a. History and review of symptoms relevant to the presenting complaint or procedure /surgery to be performed.
   b. Pertinent past medical history, surgical history, family history, hospitalizations, habits, current medications, allergies.

2. Objective Data
   a. Detailed physical exam of the head and neck.

b. The procedure is performed following standard medical technique according to the departmental resources (i.e. specialty guidelines).
c. Laboratory and imaging evaluation, as indicated, relevant to history and exam.
d. All Point of Care Testing (POCT) will be performed according to SFGH POCT policy and procedure 16.20.

C. DIAGNOSIS
Assessment of subjective and objective data to identify disease processes.

D. PLAN
1. Therapeutic Treatment Plan
   a. Patient consent obtained before procedure is performed and obtained according to hospital policy.
   b. Time-out performed per hospital policy.
   c. Diagnostic tests for purposes of disease identification.
   d. Initiation or adjustment of medication per Furnishing/Drug Orders protocol.

2. Patient conditions requiring Attending Consultation
   a. Acute decompensation of patient situation.
   b. Unexplained historical, physical or laboratory findings
   c. Uncommon, unfamiliar, unstable, and complex patient conditions
   d. Upon request of patient, NP, PA or physician
   e. Problem requiring hospital admission or potential hospital admission.

3. Education
   Discharge information and instructions pertaining to applicable treatment regimens and/or further diagnostic work-up.

4. Follow-up
   As appropriate for procedure performed.

E. RECORD KEEPING
Patient visit, consent forms, and other procedure specific documents will be recorded in the medical record and LCR as appropriate.

F. Summary of Prerequisites, Proctoring and Reappointment Competency

Prerequisites: A. The prior experience required for this involves:

1. Observation of an attending performing this procedure on at least 3 occasions.
Proctoring Period: A. Length of proctoring period is until 3 successful observed demonstrations for an experienced provider and 6 for an inexperienced provider. B. Completion of the above specified period of observation and demonstration. C. The evaluator will be an Otolaryngology attending D. Submission of a letter of competency to the Credentialing Committee by the Clinical Service Chief.
Reappointment Competency Documentation: A. Ongoing competency is established via one successful demonstration of manual cerumen disimpaction under ear microscope every 2 years in addition to 1 chart review.

Protocol #8: Procedure: Manual removal of a Foreign Body under Ear Microscope

A. DEFINITION

A foreign body in the ear is any object or structure that does not naturally occur in the ear or does not belong in the ear. Retention of these foreign bodies is associated with infection, hearing loss, otalgia, ear fullness, and discharge. The binocular ear microscope is used to enhance visualization and help make removal of these foreign bodies more successful (Schulze, S. L., Kerschner, J., and Beste, D., 2002).

1. Location to be performed: Outpatient Otolaryngology Clinic, emergency department or inpatient unit.

2. Performance of procedure:
   a. Indications: visualized foreign body in the ear
   b. Precautions: removal of the foreign body can cause trauma to the external auditory canal and/or tympanic membrane, hearing loss, dizziness, bleeding, pain, and/or infection
   c. Contraindications: patients that are unable to tolerate the procedure or unable to sit still during the procedure

B. DATA BASE

1. Subjective Data
   a. History and review of symptoms relevant to the presenting complaint or procedure /surgery to be performed.
   b. Pertinent past medical history, surgical history, family history, hospitalizations, habits, current medications, allergies.

2. Objective Data
   a. Detailed physical exam of the head and neck.
   b. The procedure is performed following standard medical technique according to the departmental resources (i.e. specialty guidelines).
   c. Laboratory and imaging evaluation, as indicated, relevant to history and exam.
   d. All Point of Care Testing (POCT) will be performed according to SFGH POCT policy and procedure 16.20.

C. DIAGNOSIS

Assessment of subjective and objective data to identify disease processes.

D. PLAN

1. Therapeutic Treatment Plan
   a. Patient consent obtained before procedure is performed and obtained according to hospital policy.
   b. Time-out performed per hospital policy.
   c. Diagnostic tests for purposes of disease identification.
   d. Initiation or adjustment of medication per Furnishing/Drug Orders protocol.
   e. Referral to physician, specialty clinics, and supportive services, as needed.

2. Patient conditions requiring Attending Consultation
   a. Acute decompensation of patient situation.
   b. Unexplained historical, physical or laboratory findings
   c. Upon request of patient, NP, PA, or physician
   d. Problem requiring hospital admission or potential hospital admission.

3. Education
   Discharge information and instructions pertaining to applicable treatment regimens and/or further diagnostic work-up.

4. Follow-up
   As appropriate for procedure performed.

E. RECORD KEEPING
Patient visit, consent forms, and other procedure specific documents will be recorded in the medical record and LCR as appropriate.

F. Summary of Prerequisites, Proctoring and Reappointment Competency

Prerequisites: A. The prior experience required for this involves: 1. Observation of an attending performing this procedure on at least 3 occasions.
Proctoring Period: A. Length of proctoring period is until 3 successful observed demonstrations for an experienced provider and 6 for an inexperienced provider. B. Completion of the above specified period of observation and demonstration.

C. The evaluator will be an Otolaryngology attending. D. Submission of a letter of competency to the Credentialing Committee by the Clinical Service Chief.
Reappointment Competency Documentation: A. Ongoing competency is established via one successful demonstration of manual removal of an ear foreign body under ear microscope every 2 years along with 1 chart review.

Protocol #9: Procedures: Debridement of nasal mucous or crusts with use of Rigid Endoscope following endoscopic sinus surgery

A. DEFINITION

Following functional endoscopic sinus surgery, a patient requires regular post operative appointments to debride or remove any secretions, clots, or crusts that may have formed. This is done under visual guidance with rigid nasal endoscopy, a rigid, lighted camera that is passed through the patient's nose. This is done in order to prevent infection, obstructions, and/or scar formation in the immediate post operative period (Lee, J. Y. and Byun, J. Y., 2008).

1. Location to be performed: Outpatient Otolaryngology Clinic, emergency department or inpatient unit.

2. Performance of procedure:
   a. Indications: history of recent endoscopic sinus surgery
   b. Precautions: may trigger nosebleed
   c. Contraindications: patient intolerance of procedure or refusal following thorough explanation of the procedure

B. DATA BASE

1. Subjective Data
   a. History and review of symptoms relevant to the presenting complaint or procedure /surgery to be performed.
   b. Pertinent past medical history, surgical history, family history, hospitalizations, habits, current medications, allergies.

2. Objective Data
   a. Physical exam appropriate to the procedure to be performed.
   b. The procedure is performed following standard medical technique according to the departmental resources (i.e. specialty guidelines).
   c. Laboratory and imaging evaluation, as indicated, relevant to history and exam.
   d. All Point of Care Testing (POCT) will be performed according to SFGH POCT policy and procedure 16.20.

C. DIAGNOSIS

Assessment of subjective and objective data to identify disease processes.

D. PLAN

1. Therapeutic Treatment Plan
   a. Patient consent obtained before procedure is performed and obtained according to hospital policy.
   b. Time-out performed per hospital policy.
   c. Diagnostic tests for purposes of disease identification.
   d. Initiation or adjustment of medication per Furnishing/Drug Orders protocol.

2. Patient conditions requiring Attending Consultation
   a. Acute decompensation of patient situation.
   b. Unexplained historical, physical or laboratory findings
   c. Uncommon, unfamiliar, unstable, and complex patient conditions
   d. Upon request of patient, NP, PA, or physician
   e. Problem requiring hospital admission or potential hospital admission.

3. Education
   Discharge information and instructions pertaining to applicable treatment regimens and/or further diagnostic work-up.

4. Follow-up
   As appropriate for procedure performed.

E. RECORD KEEPING
Patient visit, consent forms, and other procedure specific documents will be recorded in the medical record and LCR as appropriate.

F. Summary of Prerequisites, Proctoring and Reappointment Competency

Prerequisites: 1. The prior experience required for this involves a 3 part training program, elaborated in the next point. 2. The training program for this protocol includes the following: a. Review of nasal and sinus anatomy text-book b. Observation of the proctor performing this procedure on at least 3 occasions c. Practicing on models in the temporal bone lab
Proctoring Period:

1. Length of proctoring period is until 3 successful observed demonstrations for an experienced provider and 6 for an inexperienced provider. 2. The completion of the above ~~3 part~~3-part training program 3. 3 successful demonstrations of post operative sinonasal debridement on live patients for an experienced provider and 6 for an inexperienced provider. 4. Submission of a letter of competency to the Credentialing Committee by the Clinical Service Chief 5. The evaluator will be an attending.
Reappointment Competency Documentation: 1. Ongoing competency is established via one successful demonstration of post operative sinonasal debridement every two years along with 1 chart review.

Protocol #10: Procedure: Nasal Biopsy Obtained under Guidance of Rigid Nasal Endoscopy

A. DEFINITION

As part of the diagnostic work up of a unilateral nasal mass, biopsy should be considered. This can be done in the office setting under visual guidance with rigid nasal endoscopy, a rigid, lighted camera that is passed through the patient's nose.

1. Location to be performed: Outpatient Otolaryngology Clinic, emergency department or inpatient unit.

2. Performance of procedure:
   a. Indications: physical exam revealing a nasal mass suspicious for malignancy
   b. Precautions: may trigger nosebleed
   c. Contraindications: vascular appearing masses either on exam or imaging consistent with an angiomatous tumor or nasal masses in the adolescent patient highly suspected for a juvenile nasopharyngeal angiofibroma (Tami, T. A., 2002)

B. DATA BASE

1. Subjective Data
   a. History and review of symptoms relevant to the presenting complaint or procedure /surgery to be performed.
   b. Pertinent past medical history, surgical history, family history, hospitalizations, habits, current medications, allergies.

2. Objective Data
   a. Physical exam appropriate to the procedure to be performed.
   b. The procedure is performed following standard medical technique according to the departmental resources (i.e. specialty guidelines).
   c. Laboratory and imaging evaluation, as indicated, relevant to history and exam.
   d. All Point of Care Testing (POCT) will be performed according to ZSFG~~H~~ POCT policy and procedure 16.20.

C. DIAGNOSIS

Assessment of subjective and objective data to identify disease processes.

D. PLAN

1. Therapeutic Treatment Plan
   a. Patient consent obtained before procedure is performed and obtained according to hospital policy.
   b. Time-~~-~~out performed per hospital policy.
   c. Diagnostic tests for purposes of disease identification.
   d. Biopsy tissue is sent to pathology
   e. Initiation or adjustment of medication per Furnishing/Drug Orders protocol.
   f. Referral to physician, specialty clinics, and supportive services, as needed.

2. Patient conditions requiring Attending Consultation
   a. Acute decompensation of patient situation.
   b. Unexplained historical, physical or laboratory findings
   c. Uncommon, unfamiliar, unstable, and complex patient conditions
   d. Upon request of patient, NP, PA or physician
   e. Problem requiring hospital admission or potential hospital admission.

3. Education
   Discharge information and instructions pertaining to applicable treatment regimens and/or further diagnostic work-up.

4. Follow-up
   As appropriate for procedure performed.

E. RECORD KEEPING
Patient visit, consent forms, and other procedure specific documents will be recorded in the medical record and LCR as appropriate.

F. Summary of Prerequisites, Proctoring and Reappointment Competency

Prerequisites:

1. The prior experience required for this involves a ~~3 part~~3-part training program, elaborated in the next point.

2. The training program for this protocol includes the following:
   a. Review of nasal and sinus anatomy ~~text book~~textbook
   b. Observation of the proctor performing this procedure on at least 3 occasions

c. Practicing on models in the temporal bone lab
Proctoring Period: 1. Length of proctoring period is until 3 successful observed demonstrations for an experienced provider and 6 for an inexperienced provider. 2. The completion of the above ~~3 part~~3-part training program 3. 3 successful demonstrations of nasal biopsy on live patients for an experienced provider and 6 for an inexperienced provider. 4. Submission of a letter of competency to the Credentialing Committee by the Clinical Service Chief 5. The evaluator will be an Otolaryngology attending.
Reappointment Competency Documentation: 1. Ongoing competency is established via 1 successful demonstration of nasal biopsy every 2 years and 1 chart review.

Protocol #11: Procedure: Punch Biopsy, Incisional Biopsy or Excisional Biopsy less than 5mm

A. DEFINITION

As part of the diagnostic work up of an oral lesion, biopsy should be considered. This can be done in the office setting. After the procedure is discussed with the patient and the patient is consented, lidocaine with epinephrine is injected in and around the intended biopsy location. After the area is thoroughly anesthetized, the biopsy is obtained with either a punch method or with superficial use of a scalpel. Bleeding is then controlled with silver nitrate cauterization and suturing to the site.

1. Location to be performed: Outpatient Otolaryngology Clinic, emergency department or inpatient unit.

2. Performance of procedure:
   a. Indications: physical exam revealing an oral lesion suspicious for malignancy
   b. Precautions: may trigger bleeding
   c. Contraindications: highly vascular appearing masses, patient inability to cooperate, or patient refusal

B. DATA BASE

1. Subjective Data
   a. History and review of symptoms relevant to the presenting complaint or procedure /surgery to be performed.
   b. Pertinent past medical history, surgical history, family history, hospitalizations, habits, current medications, allergies.

2. Objective Data
   a. Physical exam appropriate to the procedure to be performed.
   b. The procedure is performed following standard medical technique according to the departmental resources (i.e. specialty guidelines).
   c. Laboratory and imaging evaluation, as indicated, relevant to history and exam.
   d. All Point of Care Testing (POCT) will be performed according to SFGH POCT policy and procedure 16.20.

C. DIAGNOSIS

Assessment of subjective and objective data to identify disease processes.

D. PLAN

1. Therapeutic Treatment Plan
   a. Patient consent obtained before procedure is performed and obtained according to hospital policy.
   b. Time~~-~~out performed per hospital policy.
   c. Diagnostic tests for purposes of disease identification.
   d. Biopsy tissue is sent to pathology.
   e. Initiation or adjustment of medication per Furnishing/Drug Orders protocol.
   f. Referral to physician, specialty clinics, and supportive services, as needed.

2. Patient conditions requiring Attending Consultation
   a. Acute decompensation of patient situation.
   b. Unexplained historical, physical or laboratory findings
   c. Uncommon, unfamiliar, unstable, and complex patient conditions
   d. Upon request of patient, NP, PA, or physician
   e. Problem requiring hospital admission or potential hospital admission.

3. Education
   Discharge information and instructions pertaining to applicable treatment regimens and/or further diagnostic work-up.

4. Follow-up
   As appropriate for procedure performed.

E. RECORD KEEPING
Patient visit, consent forms, and other procedure specific documents will be recorded in the medical record and LCR as appropriate

F. Summary of Prerequisites, Proctoring and Reappointment Competency

Prerequisites:

1. The prior experience required for this involves a ~~3 part~~3-part training program, elaborated in the next point.

2. The training program for this protocol includes the following:
   a. Review of head and neck anatomy ~~text book~~textbook
   b. Observation of the proctor performing this procedure on at least 3 occasions

c. Practicing on pig parts during a chief resident run workshop
Proctoring Period: 1. Length of proctoring period is until 3 successful observed demonstrations for an experienced provider and 6 for an inexperienced provider. 2. The completion of the above ~~3 part~~3-part training program 3. 3 successful demonstrations of oral biopsy on live patients for an experienced provider and 6 for an inexperienced provider. 4. Submission of a letter of competency to the Credentialing Committee by the Clinical Service Chief 5. The evaluator will be an Otolaryngology attending
Reappointment Competency Documentation: 1. Ongoing competency is established via one successful demonstration of oral biopsy every 2 years and 1 chart review.

Protocol #12: Procedure: Tracheostomy Tube Change

A. DEFINITION

This procedure takes place when a tracheostomy needs to be changed. This may be because the tube is no longer functioning, it has been in place for a long period of time that warrants routine changing of the tube, it has been determined that the patient is safe to undergo weaning and or eventual decannulation, or ~~in order to~~to enable speech.

1. Location to be performed: Outpatient Otolaryngology Clinic, emergency department Inpatient Unit

2. Performance of procedure:
   a. Indications: agreement by an otolaryngology attending, at least a five day post-operative stoma maturity level, ventilation independence, patient ability to control their secretions, a good cough reflex, and reasonable mental status (All the criteria listed must be met before this procedure is considered.)
   b. Precautions: may elicit cough, suction should be available at bedside, the tracheostomy site should be inspected for signs/symptoms of infection and/or granulation tissue
   c. Contraindications: patient poor mental status, less than five days post-operative, poor cough, ventilation dependent, acute respiratory infection, or poor oxygen saturation

B. DATA BASE

1. Subjective Data
   a. History and review of symptoms relevant to the presenting complaint or procedure /surgery to be performed.
   b. Pertinent past medical history, surgical history, family history, hospitalizations, habits, current medications, allergies.

2. Objective Data
   a. Physical exam appropriate to the procedure to be performed.
   b. The procedure is performed following standard medical technique according to the departmental resources (i.e. specialty guidelines).
   c. Laboratory and imaging evaluation, as indicated, relevant to history and exam.
   d. All Point of Care Testing (POCT) will be performed according to SFGH POCT policy and procedure 16.20.

C. DIAGNOSIS
Assessment of subjective and objective data to identify disease processes.

D. PLAN
1. Therapeutic Treatment Plan
   a. Patient consent obtained before procedure is performed and obtained according to hospital policy.
   b. Time-~~-~~out performed per hospital policy.
   c. Diagnostic tests for purposes of disease identification.
   d. Initiation or adjustment of medication per Furnishing/Drug Orders protocol.

2. Patient conditions requiring Attending Consultation
   a. Acute decompensation of patient situation.
   b. Unexplained historical, physical or laboratory findings
   c. Uncommon, unfamiliar, unstable, and complex patient conditions
   d. Upon request of patient, NP, PA, or physician
   e. Problem requiring hospital admission or potential hospital admission.

3. Education
   Discharge information and instructions pertaining to applicable treatment regimens and/or further diagnostic work-up.

4. Follow-up
   As appropriate for procedure performed.

E. RECORD KEEPING
Patient visit, consent forms, and other procedure specific documents will be recorded in the medical record and LCR as appropriate.

F. Summary of Prerequisites, Proctoring and Reappointment Competency

Prerequisites:
1. The prior experience required for this involves a period of both observation and demonstration.

2. The training program for this protocol includes the following:
   a. Review of head and neck anatomy ~~text book~~textbook
   b. Observation of the proctor performing this procedure on at least 3 ~~occasion~~occasions.

Proctoring Period: 1. Length of proctoring period is 3 successful observed demonstrations for an experienced provider and 6 for an inexperienced provider. 2. The completion of the above training 3. 3 successful demonstrations of tracheotomy tube changes on live patients for an experienced provider and 6 for an inexperienced provider. 4. Submission of a letter of competency to the Credentialing Committee by the Clinical Service Chief 5. The evaluator will be an Otolaryngology attending.
Reappointment Competency Documentation: 1. Ongoing competency is established via one successful demonstration of tracheostomy tube change every 2 years and 1 chart review.

Protocol #13: Procedure: Myringotomy with and without tube placement

A. DEFINITION

"Myringotomy" is making an incision in the ear drum to drain fluid and treat Eustachian tube dysfunction. A tube can be placed to keep the incision open so that the middle ear fluid can continue to drain out into the ear canal, and so that medication can be placed into the middle ear in the form of ear drops.

1. Location to be performed: Outpatient Otolaryngology Clinic, emergency department or inpatient units.

2. Performance of procedure:
   a. Indications: otitis media, chronic ear effusion, Eustachian tube dysfunction
   b. Precautions: bleeding, infection, chronic perforation
   c. Contraindications: if fluid in ear is cerebrospinal fluid

B. DATA BASE

1. Subjective Data
   a. History and review of symptoms relevant to the presenting complaint or procedure /surgery to be performed.
   b. Pertinent past medical history, surgical history, family history, hospitalizations, habits, current medications, allergies.

2. Objective Data
   a. Physical exam appropriate to the procedure to be performed.
   b. The procedure is performed following standard medical technique according to the departmental resources (i.e. specialty guidelines).
   c. Laboratory and imaging evaluation, as indicated, relevant to history and exam.
   d. All Point of Care Testing (POCT) will be performed according to SFGH POCT policy and procedure 16.20.

C. DIAGNOSIS

Assessment of subjective and objective data to identify disease processes.

D. PLAN

1. Therapeutic Treatment Plan
   a. Patient consent obtained before procedure is performed and obtained according to hospital policy.
   b. Time-out performed per hospital policy.

c. Diagnostic tests for purposes of disease identification.
d. Initiation or adjustment of medication per Furnishing/Drug Orders protocol.
e. Referral to physician, specialty clinics, and supportive services, as needed.

2. Patient conditions requiring Attending Consultation
   a. Acute decompensation of patient situation.
   b. Unexplained historical, physical or laboratory findings
   c. Uncommon, unfamiliar, unstable, and complex patient conditions
   d. Upon request of patient, NP, PA or physician
   e. Problem requiring hospital admission or potential hospital admission.

3. Education
   Discharge information and instructions pertaining to applicable treatment regimens and/or further diagnostic work-up.

4. Follow-up
   As appropriate for procedure performed.

E. RECORD KEEPING
Patient visit, consent forms, and other procedure specific documents will be recorded in the medical record and LCR as appropriate.

F. Summary of Prerequisites, Proctoring and Reappointment Competency

Prerequisites: A. The prior experience required for this involves a ~~3 part~~3-part training program, elaborated in the next point. B. The training program for this protocol includes the following: 1. Review of ear anatomy ~~text book~~textbook 2. Observation of the proctor performing this procedure on at least 3 occasions
Proctoring Period: 1. Length of proctoring period is 1 month for an experienced NP and 3 months for an inexperienced NP. 2. The completion of the above ~~3 part~~3-part training program 3. 3 successful demonstrations of myringotomy with or without tube placement on live patients for an experienced NP and 6 demonstrations for an inexperienced NP. 4. Submission of a letter of competency to the Credentialing Committee by the Clinical Service Chief 3. The evaluator will be an Otolaryngology attending.

Reappointment Competency Documentation: 1. Ongoing competency is established via 1 successful demonstration of myringotomy with or without tube placement and 1 chart review every 2 years.

Protocol #14: Procedure: Inferior turbinate coblation

A. DEFINITION

The inferior turbinate is a structure in the nose that warms, humidifies, and filters the air that we breathe in. The inferior turbinate can become enlarged, frequently due to allergies. Coblation is radiofrequency ablation that is used to decrease the size of the turbinate so that the nasal airway becomes ~~larger~~larger, and patients experience improvement in their nasal breathing.

1. Location to be performed: Outpatient Otolaryngology Clinic.

2. Performance of procedure:
   a. Indications: rhinitis (nasal obstruction, nasal congestion, nasal drainage)
   b. Precautions: bleeding, infection, scarring
   c. Contraindications: none

B. DATA BASE

1. Subjective Data
   a. History and review of symptoms relevant to the presenting complaint or procedure /surgery to be performed.
   b. Pertinent past medical history, surgical history, family history, hospitalizations, habits, current medications, allergies.

2. Objective Data
   a. Physical exam appropriate to the procedure to be performed.
   b. The procedure is performed following standard medical technique according to the departmental resources (i.e. specialty guidelines).
   c. Laboratory and imaging evaluation, as indicated, relevant to history and exam.
   d. All Point of Care Testing (POCT) will be performed according to SFGH POCT policy and procedure 16.20.

C. DIAGNOSIS

Assessment of subjective and objective data to identify disease processes.

D. PLAN

1. Therapeutic Treatment Plan
   a. Patient consent obtained before procedure is performed and obtained according to hospital policy.
   b. Time--out performed per hospital policy.

c. Diagnostic tests for purposes of disease identification.
d. Initiation or adjustment of medication per Furnishing/Drug Orders protocol.
e. Referral to physician, specialty clinics, and supportive services, as needed.

2. Patient conditions requiring Attending Consultation
   a. Acute decompensation of patient situation.
   b. Unexplained historical, physical or laboratory findings
   c. Uncommon, unfamiliar, unstable, and complex patient conditions
   d. Upon request of patient, NP, PA or physician
   e. Problem requiring hospital admission or potential hospital admission.

3. Education
   Discharge information and instructions pertaining to applicable treatment regimens and/or further diagnostic work-up.

4. Follow-up
   As appropriate for procedure performed.

E. RECORD KEEPING
Patient visit, consent forms, and other procedure specific documents will be recorded in the medical record and LCR as appropriate.

F. Summary of Prerequisites, Proctoring and Reappointment Competency

Prerequisites: A. The prior experience required for this involves a ~~3 part~~3-part training program, elaborated in the next point. B. The training program for this protocol includes the following: 1. Review of nasal anatomy ~~text book~~textbook 2. Observation of the proctor performing this procedure on at least 3 occasions
Proctoring Period: 1. Length of proctoring period is 1 month for an experienced NP and 3 months for an inexperienced NP. 2. The completion of the above ~~3 part~~3-part training program 3. 3 successful demonstrations of turbinate coblation on live patients for an experienced NP and 6 demonstrations for an inexperienced NP. 4. Submission of a letter of competency to the Credentialing Committee by the Clinical Service Chief 3. The evaluator will be an Otolaryngology attending.
Reappointment Competency Documentation: 1. Ongoing competency is established via 1 successful demonstration of turbinate coblation and 1 chart review every 2 years.

Protocol #15: Procedure: Diagnostic ultrasound of the neck

A. DEFINITION

In office ultrasound offers radiologic evaluation of head and neck structures in real time and helps with treatment planning.

1. Location to be performed: Outpatient Otolaryngology Clinic, emergency department, inpatient setting.

2. Performance of procedure:
   a. Indications: neck masses, thyroid exam, lymph node exam, salivary gland exam
   b. Precautions: operator dependent
   c. Contraindications: none

B. DATA BASE

1. Subjective Data
   a. History and review of symptoms relevant to the presenting complaint or procedure /surgery to be performed.
   b. Pertinent past medical history, surgical history, family history, hospitalizations, habits, current medications, allergies.

2. Objective Data
   a. Physical exam appropriate to the procedure to be performed.
   b. The procedure is performed following standard medical technique according to the departmental resources (i.e. specialty guidelines).
   c. Laboratory and imaging evaluation, as indicated, relevant to history and exam.
   d. All Point of Care Testing (POCT) will be performed according to SFGH POCT policy and procedure 16.20.

C. DIAGNOSIS

Assessment of subjective and objective data to identify disease processes.

D. PLAN

1. Therapeutic Treatment Plan
   a. Patient consent obtained before procedure is performed and obtained according to hospital policy.
   b. Time-out performed per hospital policy.
   c. Diagnostic tests for purposes of disease identification.
   d. Initiation or adjustment of medication per Furnishing/Drug Orders protocol.

e. Referral to physician, specialty clinics, and supportive services, as needed.

2. Patient conditions requiring Attending Consultation
   a. Acute decompensation of patient situation.
   b. Unexplained historical, physical or laboratory findings
   c. Uncommon, unfamiliar, unstable, and complex patient conditions
   d. Upon request of patient, NP, PA or physician
   e. Problem requiring hospital admission or potential hospital admission.

3. Education
   Discharge information and instructions pertaining to applicable treatment regimens and/or further diagnostic work-up.

4. Follow-up
   As appropriate for procedure performed.

E. RECORD KEEPING
Patient visit, consent forms, and other procedure specific documents will be recorded in the medical record and LCR as appropriate.

F. Summary of Prerequisites, Proctoring and Reappointment Competency

Prerequisites: A. The prior experience required for this involves a ~~3 part~~3-part training program, elaborated in the next point. B. The training program for this protocol includes the following: 1. Review of neck anatomy ~~text book~~textbook 2. Observation of the proctor performing this procedure on at least 3 occasions
Proctoring Period: 1. Length of proctoring period is 1 month for an experienced NP and 3 months for an inexperienced NP. 2. The completion of the above ~~3 part~~3-part training program 3. 3 successful demonstrations of ultrasound technique on live patients for an experienced NP and 6 demonstrations for an inexperienced NP. 4. Submission of a letter of competency to the Credentialing Committee by the Clinical Service Chief 3. The evaluator will be an Otolaryngology attending.
Reappointment Competency Documentation: 1. Ongoing competency is established via 1 successful demonstration of ultrasound technique and 1 chart review every 2 years.

Protocol #15: Procedure: Ultrasound-guided needle placement

A. DEFINITION

Ultrasound can be used to guide needle placement for biopsy of lesions in the head and neck or drainage of fluid collections in the head and ~~necl~~neck

1. Location to be performed: Outpatient Otolaryngology Clinic, emergency department, inpatient setting.

2. Performance of procedure:
   a. Indications: biopsy or head and neck masses, drainage of fluid collection in the head and neck
   b. Precautions: bleeding, infection, pain
   c. Contraindications: none

B. DATA BASE

1. Subjective Data
   a. History and review of symptoms relevant to the presenting complaint or procedure /surgery to be performed.
   b. Pertinent past medical history, surgical history, family history, hospitalizations, habits, current medications, allergies.

2. Objective Data
   a. Physical exam appropriate to the procedure to be performed.
   b. The procedure is performed following standard medical technique according to the departmental resources (i.e. specialty guidelines).
   c. Laboratory and imaging evaluation, as indicated, relevant to history and exam.
   d. All Point of Care Testing (POCT) will be performed according to SFGH POCT policy and procedure 16.20.

C. DIAGNOSIS

Assessment of subjective and objective data to identify disease processes.

D. PLAN

1. Therapeutic Treatment Plan
   a. Patient consent obtained before procedure is performed and obtained according to hospital policy.
   b. Time~~-~~-out performed per hospital policy.
   c. Diagnostic tests for purposes of disease identification.

d. Initiation or adjustment of medication per Furnishing/Drug Orders protocol.
e. Referral to physician, specialty clinics, and supportive services, as needed.

2. Patient conditions requiring Attending Consultation
   a. Acute decompensation of patient situation.
   b. Unexplained historical, physical or laboratory findings
   c. Uncommon, unfamiliar, unstable, and complex patient conditions
   d. Upon request of patient, NP, PA or physician
   e. Problem requiring hospital admission or potential hospital admission.

3. Education
   Discharge information and instructions pertaining to applicable treatment regimens and/or further diagnostic work-up.

4. Follow-up
   As appropriate for procedure performed.

E. RECORD KEEPING
Patient visit, consent forms, and other procedure specific documents will be recorded in the medical record and LCR as appropriate.

F. Summary of Prerequisites, Proctoring and Reappointment Competency

Prerequisites: A. The prior experience required for this involves a ~~3 part~~3-part training program, elaborated in the next point. B. The training program for this protocol includes the following: 1. Review of head and neck anatomy ~~text book~~textbook 2. Observation of the proctor performing this procedure on at least 3 occasions
Proctoring Period: 1. Length of proctoring period is 1 month for an experienced NP and 3 months for an inexperienced NP. 2. The completion of the above ~~3 part~~3-part training program 3. 3 successful demonstrations of Us-guided fine needle aspiration on live patients for an experienced NP and 6 demonstrations for an inexperienced NP. 4. Submission of a letter of competency to the Credentialing Committee by the Clinical Service Chief 3. The evaluator will be an Otolaryngology attending.

Reappointment Competency Documentation:

1. Ongoing competency is established via 1 successful demonstration of US-guided fine needle aspiration and 1 chart review every 2 years.

Protocol #16: Procedure: Botox injection

A. DEFINITION

Botulinum toxin prevents the release of the neurotransmitter acetylcholine from axon endings at the neuromuscular junction and create paralysis. Botox can be used for various diseases in the head and neck.

1. Location to be performed: Outpatient Otolaryngology Clinic, emergency department, inpatient setting.

2. Performance of procedure:
   a. Indications: sialorrhea, temporomandibular joint disorder, headache
   b. Precautions: bleeding, infection, pain, facial palsy
   c. Contraindications: neuromuscular disorders, allergy to any constituents in the botulinum toxin product, unrealistic expectations

B. DATA BASE

1. Subjective Data
   a. History and review of symptoms relevant to the presenting complaint or procedure /surgery to be performed.
   b. Pertinent past medical history, surgical history, family history, hospitalizations, habits, current medications, allergies.

2. Objective Data
   a. Physical exam appropriate to the procedure to be performed.
   b. The procedure is performed following standard medical technique according to the departmental resources (i.e. specialty guidelines).
   c. Laboratory and imaging evaluation, as indicated, relevant to history and exam.
   d. All Point of Care Testing (POCT) will be performed according to SFGH POCT policy and procedure 16.20.

C. DIAGNOSIS

Assessment of subjective and objective data to identify disease processes.

D. PLAN

1. Therapeutic Treatment Plan
   a. Patient consent obtained before procedure is performed and obtained according to hospital policy.
   b. Time-out performed per hospital policy.
   c. Diagnostic tests for purposes of disease identification.
   d. Initiation or adjustment of medication per Furnishing/Drug Orders protocol.
   e. Referral to physician, specialty clinics, and supportive services, as needed.

2. Patient conditions requiring Attending Consultation
   a. Acute decompensation of patient situation.
   b. Unexplained historical, physical or laboratory findings
   c. Uncommon, unfamiliar, unstable, and complex patient conditions
   d. Upon request of patient, NP, PA or physician
   e. Problem requiring hospital admission or potential hospital admission.

3. Education
   Discharge information and instructions pertaining to applicable treatment regimens and/or further diagnostic work-up.

4. Follow-up
   As appropriate for procedure performed.

E. RECORD KEEPING

Patient visit, consent forms, and other procedure specific documents will be recorded in the medical record and LCR as appropriate.

F. Summary of Prerequisites, Proctoring and Reappointment Competency

Prerequisites: A. The prior experience required for this involves a ~~3 part~~3-part training program, elaborated in the next point. B. The training program for this protocol includes the following: 1. Review of head and neck anatomy ~~text book~~textbook 2. Observation of the proctor performing this procedure on at least 3 occasions
Proctoring Period: 1. Length of proctoring period is 1 month for an experienced NP and 3 months for an inexperienced NP. 2. The completion of the above ~~3 part~~3-part training program 3. 3 successful demonstrations of Botox injection on live patients for an experienced NP and 6 demonstrations for an inexperienced NP. 4. Submission of a letter of competency to the Credentialing Committee by the Clinical Service Chief 3. The evaluator will be an Otolaryngology attending.
Reappointment Competency Documentation: 1. Ongoing competency is established via 1 successful demonstration of Botox injection and 1 chart review every 2 years.