ZSFG CHIEF OF STAFF ACTION ITEMS
Presented to the JCC-ZSFG July 23, 2024
July 2024 MEC Meetings

Clinical Service Rules and Regulations

- Neurosurgery Rules & Regulations (summary of changes)
- Neurosurgery Rules & Regulations (with tracked changes)
- Neurosurgery Rules & Regulations (clean version)

Credentials Committee

- Standardized Procedures-None
- Delineation of Privileges Lists and Summary of Changes:
    1. Pediatrics-*Revision*
    2. Family & Community Medicine-*Addition of Privileges*

City and County of San Francisco

Department of Public Health

London Breed
Mayor

Zuckerberg San Francisco General Hospital and Trauma Center

Mary P. Mercer, MD,
Chief of Staff

Medical Executive Committee (MEC)
Summary of Changes

Document Name:	*ZSFG Clinical Service Rules and Regulations*
Clinical Service :	*Neurosurgery*
Date of last approval:	*2022*
Summary of R&R updates:	
Update #1:	*Page 1: Date 2024*
Update #2:	*Page 4: addition of the following, "insertion of Subdural Evacuating Port System (SEPS), lumbar puncture, insertion of lumbar subarachnoid drains,"*
Update #3:	*Page 7: deleted, "In addition, medical students meet on Wednesday and Friday mornings for organized patient-centered discussion with a designated neurosurgical attending physician from full-time to clinical faculty."*
Update #4:	*Page 7: changed "two" to "three" PGY-1 physicians*
Update #5:	*Page 10: changed "insure" to "ensure"*
Update #6	*Page 18: changed "BUILDING 1, ROOM 101" to "IN PRIDE HALL"*
Update #7	*Page 20: changed "insures" to "ensures"*

Medical Staff Services Department
Zuckerberg San Francisco General Hospital and Trauma Center
1001 Potrero Avenue | Building 20 | 3rd Floor | Suite 2300 | San Francisco, CA 94110
Telephone (628) 206-2342 | Fax (628) 206-2360

NEUROSURGERY CLINICAL SERVICE RULES AND REGULATIONS

2024~~2~~

Zuckerberg San Francisco General Hospital & Trauma Center
1001 Potrero Avenue
San Francisco, CA 94110

NEUROSURGERY CLINICAL SERVICE
RULES AND REGULATIONS
TABLE OF CONTENTS

I. NEUROSURGERY CLINICAL SERVICE ORGANIZATION 2

A. SCOPE OF SERVICE 2

B. MEMBERSHIP REQUIREMENTS 2

C. ORGANIZATION AND STAFFING OF NEUROSURGERY CLINICAL SERVICE 2

II. CREDENTIALING 4

A. NEW APPOINTMENTS 4

B. REAPPOINTMENTS 4

C. PRACTITIONER PERFORMANCE PROFILES 5

D. AFFILIATED PROFESSIONALS 5

E. STAFF CATEGORIES 5

III. DELINEATION OF PRIVILEGES 5

A. DEVELOPMENT OF PRIVILEGE CRITERIA 5

B. ANNUAL REVIEW OF CLINICAL SERVICE PRIVILEGE REQUEST FORM 5

C. CLINICAL PRIVILEGES AND MODIFICATIONS/CHANGES TO CLINICAL PRIVILEGES 6

D. TEMPORARY PRIVILEGES 6

IV. PROCTORING AND MONITORING 6

A. REQUIREMENTS 6

B. ADDITIONAL PRIVILEGES 6

C. REMOVAL OF PRIVILEGES 7

V. EDUCATION OF MEDICAL STAFF 7

VI. NEUROSURGERY CLINICAL SERVICE HOUSESTAFF TRAINING PROGRAM AND SUPERVISION *(REFER TO CHN WEBSITE FOR HOUSESTAFF COMPETENCIES LINK.)* 7

A. ROLE, RESPONSIBILITY AND PATIENT CARE ACTIVITY OF THE HOUSE STAFF ... 8

B. RESIDENT EVALUATION PROCESS 9

C. PATIENT CARE ORDERS 9

VII. NEUROSURGERY CLINICAL SERVICE CONSULTATION CRITERIA 9

VIII. DISCIPLINARY ACTION 10

IX. PERFORMANCE IMPROVEMENT PATIENT SAFETY (PIPS) AND UTILIZATION MANAGEMENT 10

A. GOALS AND OBJECTIVES 10

B. MEDICAL RECORDS 10

C. INFORMED CONSENT 11

D. CLINICAL INDICATORS 11

E. CLINICAL SERVICE PRACTITIONERS PERFORMANCE PROFILES 11

F. MONITORING & EVALUATION OF APPRORIATENESS OF PATIENT CARE SERVICES 11

G. MONITORING & EVALUATION OF PROFESSIONAL PERFORMANCE 11

X. MEETING REQUIREMENTS 12

XI. ADOPTION AND ADMENDMENT 12

APPENDIX A NEUROSURGERY PRIVILEGE REQUEST FORM 13

APPENDIX B NEUROSURG PERFORMANCE IMPROVEMENT AND PATIENT SAFETY (PIPS) PLAN 16

APPENDIX C NEUROSURGERY HOUSESTAFF MANUAL 18

APPENDIX D. CHIEF OF NEUROSURGERY SERVICE JOB DESCRIPTION 19

APPENDIX E. CHIEF OF CLINICAL SERVICE JOB DESCRIPTION 20

I. NEUROSURGERY CLINICAL SERVICE ORGANIZATION

A. SCOPE OF SERVICE

The Neurosurgery Service at Zuckerberg San Francisco General Hospital & Trauma Center is an integral part of the Department of Neurological Surgery at The University of California, San Francisco. The Service serves a broad community of patients and their physicians through the maintenance and continuing development of capacity for the management of surgical disorders of the nervous system with a special emphasis on Neurotrauma and Neurocritical care. While problems associated with acute and severe illness and injury are addressed daily, the range of conditions treated includes chronic and degenerative diseases of the brain, spine, and peripheral nerves. Excellence in patient care is dependent on vigorous interaction with neurological, radiological and other expert ZSFG colleagues.

The Rules and Regulations of the Neurosurgery Clinical Service correspond to the standards and requirements set forth in the ZSFG Medical Staff Bylaws, Rules and Regulations.

Standards of professional clinical practice are those applicable to all full- and part-time faculty members of the Department of Neurological Surgery of the University of California, San Francisco.

B. MEMBERSHIP REQUIREMENTS

Membership on the Medical Staff of Zuckerberg San Francisco General Hospital & Trauma Center is a privilege that 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.

1. Board Eligible or Board Certified by ABNS Neurological Surgery (may be waived at the recommendation of the Chief of Neurosurgery)
2. Current California medical licensure
3. Current DEA certification
4 CPR/ACLS/BCLS/ATLS is encouraged

C. ORGANIZATION and STAFFING OF NEUROSURGERY CLINICAL SERVICE

The members of the Neurosurgery Service are:

Chief of Service
Chief of the Clinical Service
Members of the Attending Neurosurgical Staff

1. Chief of Service

Responsibilities (Refer to Appendix D for job description):

a. Overall direction of the clinical, administrative, teaching, and research activities of the Neurosurgery Clinical Service.

b. Review and recommendation of all new appointments, request for privileges, and reappointments.

c. Appointment of the remaining officers of the neurosurgery clinical service and of committee members.

d. Financial affairs of the Neurosurgery Clinical Service.

e. Attendance at the Medical Executive Committee, the Chiefs of Service meetings, and other meetings as called from time to time by the Executive Administrator or the Chief of Staff.

f. Disciplinary actions as necessary, as set forth in the ZSFG Medical Staff and Rules and Regulations.

2. Chief of Clinical Service

Responsibilities (Refer to Appendix D for job description):

a. Overall direction of the clinical operations and teaching activities of the Neurosurgery Clinical Service.

b. Review and recommendation of all new clinical fellow appointments.

c. Coordination and attendance at the Neurosurgery Clinical Staff meeting, and other meetings as called from time to time by the Executive Administrator or the Chief of Staff.

d. Disciplinary actions as necessary for clinical staff, as set forth in the ZSFG Medical Staff and Rules and Regulations.

Attending Physician Responsibilities

Responsibilities include:

a. Overall direction of clinical care is the responsibility of the attending staff of the Neurosurgery Clinical Service. In order to discharge that responsibility, close supervision and active participation in decision-making is required.

b. All neurosurgical procedures performed in the operating theater will be supervised by an attending neurosurgeon who is physically present during the case. Most procedures can be started by the Neurosurgery Chief Resident without the direct physical supervision of a Neurosurgical Attending provided he/she has previously discussed patient preoperative assessment, surgical approach, and patient positioning with the responsible Neurosurgical Attending. When the Chief Resident performs any procedure for the first time, the responsible attending must be in the room from the beginning. Particularly complex procedures or instances where the Attending and Chief Resident are unfamiliar with each other will also require attending supervision from the beginning of the case.

c. Under certain conditions, it will be necessary for the Chief Resident to start a procedure prior to the physical presence of an Attending. This situation applies mainly to emergency neurosurgical procedures for trauma occurring after regular working hours. The vast majority of these procedures are straightforward and there should be no difficulty for a Chief Resident to begin these on his/her own after discussing the case with an

Attending Neurosurgeon. Nevertheless, the physical presence of an attending is required during the critical portion of the operation.

d. All elective cases require that the Attending Neurosurgeon be in-house while the patient is in the operating room (OR) and he/she be physically present in the OR during the important aspects of the procedure. For some procedures, such as lumbar discectomy or stereotactic brain biopsy, the actual physical involvement of the attending neurosurgeon may be minimal. Nevertheless, direct supervision by an attending neurosurgeon who is physically in the operating theater is also required during the more important aspects of these procedures.

e. The degree to which a neurosurgical attending actively participates in a surgical procedure will be in proportion to its complexity and the capabilities of the Chief Resident. As such, a greater degree of attending participation is expected for extra- or intracranial vascular surgery, complex tumor surgery or for spinal procedures involving complex instrumentation.

g. Procedures performed outside the operating theater may sometimes be performed without the direct physical supervision of an Attending Neurosurgeon provided he/she has discussed the patient preoperative assessment, imaging, and details of the procedure. These include placement of a HALO cervicothoracic orthosis, insertion of intraparenchymal or intraventricular intracranial pressure monitors, advanced neuromonitors (brain tissue oxygen, cerebral blood flow, microdialysis), **insertion of Subdural Evacuating Port System (SEPS), lumbar puncture, insertion of lumbar subarachnoid drains,** insertion of routine intravascular monitoring lines (e.g., central venous pressure lines, pulmonary capillary wedge pressure lines, arterial lines, or jugular venous saturation monitoring lines), and tapping of ventricular access (Ommaya) or ventriculoperitoneal shunt reservoirs. In addition, closure of non-complicated, post-traumatic wounds (both in the operating theater and outside) may be performed in an unsupervised fashion by the neurosurgical chief resident when performed as a service to the trauma team or emergency department.

Formatted: Font: Bold

II. CREDENTIALING

A. NEW APPOINTMENTS

The process of application for membership to the Medical Staff of ZSFG through the Neurosurgery Clinical Service is in accordance with ZSFG Medical Staff Article II, *Medical Staff Membership*, Rules and Regulations as well as these Clinical Service Rules and Regulations.

B. REAPPOINTMENTS

The process of reappointment to the Medical Staff of ZSFG through the Neurosurgery Clinical Service is in accordance with ZSFG Medical Staff Bylaws, Rules and Regulations.

1. Modification of Clinical Service

Changes in patterns of practice within the Neurosurgery Service, whether occasioned by clinical or fiscal or other constraints or whether by expansion of service through new competence or new facilities, require discussion and approval by the Service. This specifically includes new operative or other technical procedures and approaches.

2. Staff Status Change

The process for Staff Status Change for members of the Neurosurgery Services is in accordance with ZSFG Medical Staff Bylaws, Rules and Regulations.

3. Modification/Changes to Privileges

The process for Modification/Change to Privileges for members of the Neurosurgery Service is in accordance with ZSFG Medical Staff Bylaws, Rules and Regulations.

C. PRACTITIONER PERFORMANCE PROFILES

The attending neurosurgeons of the Neurosurgery Service include full-time University employees and non-compensated members of the UCSF Neurosurgery Department's clinical faculty. In other cases they must be board eligible or board certified in neurological surgery and must meet the standards, and abide by the regulations of the University of California School of Medicine. All patient care matters pertaining to attending physicians, individually or as a group, are addressed as they arise, in regular Neurosurgery Service meetings. Specific events, including incident reports and occurrences with potential or actual legal implications, are reviewed in association with the UCSF Risk Management Office at ZSFG.

D. AFFILIATED PROFESSIONALS

The process of appointment and reappointment of the Affiliated Professionals to ZSFG through the Neurosurgery Clinical Service is in accordance with ZSFG Medical Staff Bylaws, Rules and Regulations, as well as these Clinical Service Rules and Regulations.

E. STAFF CATEGORIES

The Neurosurgery Clinical Service fall into the same staff categories which are described in Article III- *Categories of the Medical Staff* of the ZSFG Medical Staff Bylaws, Rules and Regulations.

III. DELINEATION OF PRIVILEGES

A. DEVELOPMENT OF PRIVILEGE CRITERIA

Neurosurgery Clinical Service privileges are developed in accordance with ZSFG Medical Staff Bylaws, Rules and Regulations as well as these Clinical Service Rules and Regulations. Refer to Appendix A.

B. ANNUAL REVIEW OF CLINICAL SERVICE PRIVILEGE REQUEST FORM

The Neurosurgery Clinical Service Privilege Request Form shall be reviewed annually

C. CLINICAL PRIVILEGES AND MODIFICATIONS/CHANGES TO CLINICAL PRIVILEGES

Neurosurgery Clinical Service privileges shall be authorized in accordance with the ZSFG Medical Staff Bylaws, Rules and Regulations as well as these Clinical Service Rules and Regulations. All requests for clinical privileges will be evaluated and approved by the Chief of the Neurosurgery Clinical Service.

Privileges to practice in the Neurosurgery Clinical Service will be commensurate with clinical training and documentation of an acceptable standard of clinical practice.

Privileges are delineated by consensus of the active members of the Neurosurgery Clinical Service and are recommended for approval by the Chief of Neurosurgery, subject to the recommended approval of the Credentials Committee of the Medical Staff and the Governing Body.

Individual privileges are subject to review and revision at an initial appointment, throughout the period of proctoring, at the time of reappointment, at the time as judged necessary by the Chief of Service, or at any time recommended by two thirds of the Service's active staff.

D. TEMPORARY PRIVILEGES

Temporary Privileges shall be authorized in accordance with the ZSFG Medical Staff Bylaws.

IV. PROCTORING AND MONITORING

A. REQUIREMENTS

Monitoring (proctoring) requirements for the Neurosurgery Clinical Service shall be the responsibility of the Chief of the Service. Such requirements shall include, as a minimum, the successful management by each proctored physician of six (6) clinical cases, including surgical therapy and all pre- and post-operative care and the interval to final outcome. Assessment is based on review of all pertinent records including inpatient and outpatient documents, incorporating critical care, operative, and pathologic data. All areas of concern or uncertainty in performance assessment will be addressed by such further review of additional cases as the Chief of Service determines to be required for such assurance, and the areas of performance meeting such additional examination necessary will be discussed with the proctored physician.

Additionally, continuous review of clinical cases through detailed morbidity and mortality analyses, identifying in each case the responsible attending physician, provides an ongoing process of monitoring of all Neurosurgery Service attending physicians, and includes documentation of all analyses and discussions on a regular basis. All sources of data are used in identification of problems, risks and practice trends.

B. ADDITIONAL PRIVILEGES

Requests for additional privileges for the Neurosurgery Clinical Service shall be in accordance with ZSFG Medical Staff Bylaws.

C. REMOVAL OF PRIVILEGES

Requests for removal of privileges for the Neurosurgery Clinical Service shall be in accordance with ZSFG Medical Staff Bylaws.

V. EDUCATION OF MEDICAL STAFF

Education is considered a prime function of the Neurosurgery Service of Zuckerberg San Francisco General Hospital as an academic component of the Department of Neurological Surgery of the University of California, San Francisco. It is not simply a necessary by-product of clinical activity. The process of education applies to all medical persons whether within school of postgraduate training, or board certified and beyond. Daily rounds include residents, fellows, interns (PGY-1), attending physicians, clinical nurse specialists, and students, as well as associated staff including representatives of speech pathology, physical therapy, and social services, and other participants. Discussion of each case permits involvement and input by each of these persons as various aspects are addressed. Specific examples include detailed critical care/advanced physiology discussions with Critical Care and Neuro-vascular specialists on the one hand, and discussion of efficient and effective patient placement in rehabilitation or other programs on the other. Prior to or during daily clinical rounds review of all new and otherwise pertinent radiographic data is conducted with discussion of a number of relevant clinical and scientific points.

Education also includes a weekly neuroradiology conference attended by neurosurgical, neurological and radiologic faculty and housestaff members, and by medical students. Regular focused conferences include spine, trauma, and neurology/neurosurgery meetings in which topics are reviewed after preparation, often incorporating bibliographic sources. ~~In addition, medical students meet on Wednesday and Friday mornings for organized patient-centered discussion with a designated neurosurgical attending physician from full-time to clinical faculty.~~ The Neurosurgery Service contributes to the education of neurosurgeons, neurologists, and other specialists, including primary care physicians, through both formal and informal exchange of ideas and experience. Members of the clinical faculty are encouraged to spend day-long intervals of time with staff and ~~housestaff~~housestaff on the Service, contributing to their own learning and enhancement of advanced skills in diagnosis and therapy. The ZSFG Neurosurgery faculty participates on a weekly (or more frequent) basis in UCSF Neurosurgical rounds, Neuro-radiological rounds, and research progress meetings. When possible they also participate in other special conferences including pediatric neurosurgery, vascular surgery, and neuropathology sessions. Medical students are invited to observe neurosurgical operations and participate under supervision in case management in the intensive care units, the wards and the outpatient clinic. They are actively encouraged to learn through association with physicians who do likewise.

VI. NEUROSURGERY CLINICAL SERVICE HOUSESTAFF TRAINING PROGRAM AND SUPERVISION *(Refer to CHN Website for Housestaff Competencies link.)*

The members of the housestaff participating in the activities of the ZSFG Neurosurgery Service vary somewhat in number and level of experience, but usually include ~~two~~ three PGY-1 physicians and one intermediate level UCSF Neurosurgical resident serving as Chief Resident. All function under the continuing, daily supervision of qualified attending neurosurgeons who are ultimately responsible for all aspects of the safety and welfare of every patient. The interns referred to are usually, but not always, members of the ZSFG general or specialty surgical services' housestaff. They may be supplemented by a more senior resident from any surgical specialty.

Zuckerberg San Francisco General Hospital & Trauma Center offers an important complex of experiences for the neurosurgical resident assigned. Through relative autonomy and progressing responsibility he or she develops diagnostic, operative, physiologic and pharmacologic, and other essential skills, especially in relation to acute, severe illness or injury. The Neurosurgery Service is mindful of the need for constant supervision of every resident during the process of rapid development of clinical competence and confidence and acts accordingly through in-person direction of every operative procedure and every clinical case during daily, and often more frequent, focused rounds. It is the policy of the Neurosurgery Service that every patient admission, every consultation, and every significant clinical change in hospitalized patients is discussed by the neurosurgical resident with the responsible faculty neurosurgeon. A small number of procedures may be performed by a resident after attending approval. These are limited to placement of intracranial pressure monitors, advanced neuromonitors, access lines and lumbar drains, as examples. With such practical exceptions no neurosurgical procedures are conducted without the physical presence of an attending neurosurgeon. This invariable rule applies to night-time emergencies with the same force as an elective day-time operation. On alternate weekends and on some other occasions a neurosurgical resident assigned elsewhere in the UC program covers for the ZSFG chief resident. All of the same policies continue to apply.

The goal of the Neurosurgery Service with respect to resident training has two objectives, each fully consistent with the other when properly organized and vigorously pursued; the safe, effective, and compassionate care of patients, and the development to the maximum extent possible of resident competence.

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

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

1. Role of Resident Within the Service

The service consists of one Chief Resident and three interns (PGY 1). The interns shall field all primary calls regarding in-house patients and take first call for consults and emergency room admissions. In addition, the interns shall write all admission orders, transfer orders and dictate discharge and transfer summaries for the service in addition to pre-rounding on service patients and consults prior to morning rounds. Interns are expected to consult frequently with the Chief Resident with any and all patient-care issues. Furthermore, the interns are required to immediately contact the Chief resident regarding all consults and emergency room admissions.

The Chief Resident shall take primary responsibility for the running of the clinical service. This includes supervision of the interns, maintenance of the surgical schedule, scheduling cases, and participating in all neurosurgical operations. The Chief Resident is expected to consult frequently with the responsible Attending with any and all patient-care issues. Furthermore, the Chief Resident shall contact the responsible attending regarding all neurosurgical consults and emergency room admissions upon completion of the initial evaluation. In addition, he/she shall discuss all surgical cases with the responsible attending prior to making the final surgical decision.

2. House Staff Supervision

Supervision of the house staff shall be the responsibility of the service attending as well as the Chief of Service. The service attending shall round with the house staff on a daily basis allowing the Chief Resident to run rounds and to formulate the patient care-plan. However, the service attending has the responsibility to modify such plan as he/she may deem appropriate while discussing the change in an instructional manner. Surgical supervision shall be as stated in sections I.C.3.a-f.

Progressive patient-care involvement and independence of action shall be left at the discretion of the supervising attending and the Chief of Service.

B. RESIDENT EVALUATION PROCESS

Informal evaluation shall be done on a daily basis with emphasis placed on house-staff and medical student instruction. Formal evaluation shall be done on a monthly basis for interns via the UCSF computerized evaluation system. The Chief Resident shall be evaluated at the end of his/her rotation (4-6 months) via the UCSF Department of Neurosurgery resident evaluation form. These are submitted to the Residency Program Director of Neurosurgery. Formal feedback to the interns is done through the UCSF Department of Surgery. Formal feedback to the Chief Resident is done through the office of the Residency Program Director of the UCSF Department of Neurosurgery. Informal feedback is done via face-to-face discussion between the Chief of Service and the Chief Resident or intern.

C. PATIENT CARE ORDERS

At the beginning of their rotation, all residents and interns shall be given a copy of both the Neurosurgery House Staff Manual and Guidelines for the Critical Care Management of Severe Head Injury which address guidelines for patient care, orders, and neurological and neurosurgical assessment. Proper order writing and patient care issues will be re-enforced on daily rounds and conferences. Housestaff are expected to independently write orders for step-down unit and regular ward patients under general patient-care guidelines discussed on daily rounds. All new orders or changes in patient-care plan for ICU patients must be discussed with the Chief Resident. He/she shall then discuss these with the attending prior to their implementation.

VII. NEUROSURGERY CLINICAL SERVICE CONSULTATION CRITERIA

The Neurosurgery Service provides consultation on both urgent and routine bases on behalf of any requesting service. Such requests frequently originate in the Emergency Department, ICU, Operating Room or other acute care sites. The importance of prompt response is recognized by a policy that requests for consultation will be answered immediately, in cases described as unstable, changing, or unclear, and as soon as practicable in all other cases, including relatively minor or stable conditions. In this sense, no consultation is considered “routine” or unimportant. In the case of severe or undiagnosed problems the resident immediately discusses the case with the responsible attending neurosurgeon, at any hour, and in any matter of doubt about diagnosis or therapy the attending neurosurgeon personally sees the patient immediately. The attending neurosurgeon is called for discussion and approval at some time during the consultation process in every case. The Neurosurgery Service also serves as an information resource for physicians calling from acute care facilities.

VIII. DISCIPLINARY ACTION

The Zuckerberg San Francisco General Hospital & Trauma Center Medical Staff Bylaws, Rules and Regulations will govern all disciplinary action involving members of the ZSFG Neurosurgery Clinical Service.

IX. PERFORMANCE IMPROVEMENT PATIENT SAFETY (PIPS) AND UTILIZATION MANAGEMENT

A. GOALS AND OBJECTIVES

1. To ~~insure~~ensure appropriate care and safety of all patients receiving care in the department

2. To minimize morbidity and mortality as well as to avoid unnecessary days of inpatient care.

3. The Chief of Service is responsible for ensuring solutions to quality care issues. As necessary, assistance is invited from other departments, the PIPS Committee or the appropriate administrative committee or organization.

4. The Neurosurgery Clinical Service is committed to the highest possible standard of clinical practice. The Neurosurgery Performance Improvement and Patient Safety program is detailed in the document, Performance Improvement and Patient Safety Plan, Attachment ~~-~~B.

B. MEDICAL RECORDS

1. The members of the Neurosurgery Clinical Service are committed to the maintenance of complete, accurate and timely medical records. The requirements as set forth in the ZSFG Medical Staff Bylaws, Rules and Regulations define the minimum standards for medical records in Neurosurgery.

2. Operative Records
   Dictated operative reports will contain all of the following, at a minimum:
   a) preoperative diagnosis
   b) postoperative diagnosis
   c) operative procedures performed
   d) operating team
   e) major findings
   f) succinct description of the operation performed, such that an individual trained in the procedure would understand the techniques employed.
   g) complications
   h) estimate of blood loss
   i) listing of specimens sent

   Dictated operative reports are required for all major and minor operative procedures performed in the operating suite.

3. Discharge Summaries
   Dictated discharge summaries will contain a succinct description of the reasons for hospitalization, the course of treatment, complications of treatment, condition on

discharge and plans for continuous care post-hospitalization. Dictated discharge summaries will be completed on all patients in the hospital for more than 48 hours. Patients hospitalized less than 48 hours may have a handwritten or dictated discharge summary at the discretion of the treating resident or attending physician.

C. INFORMED CONSENT

1. All decisions for treatment should involve the active participation of the patient, and should be made after appropriate discussions of risks, benefits, and alternatives.
2. Documentation of "Informed Consent" on Medical Staff-approved forms is required for all surgical procedures performed in the operating room.
3. Documentation of patient consent will be provided by a signed Operative Consent Form as well as by a Preoperative Note in the progress notes by the operating surgeon detailing:

    a) The goal of the procedure to be performed.
    b) Alternative therapies
    c) Complications that may be reasonably anticipated or associated with the procedure
    d) The likelihood of success with the procedure

D. CLINICAL INDICATORS

Clinical Indicators, including head trauma hospital admissions requirements, are addressed in the monthly comprehensive Morbidity and Mortality reviews conducted by the UCSF Neurosurgery Department and with separate analysis of all aspects of patient care at each of the four teaching hospitals specifically including ZSFG at each monthly conference.

E. CLINICAL SERVICE PRACTITIONERS PERFORMANCE PROFILES

The attending neurosurgeons of the Neurosurgery Service include full-time University employees and non-compensated members of the UCSF Neurosurgery Department's clinical faculty. In other cases they must be board eligible or board certified in neurological surgery and must meet the standards, and abide by the regulations of the University of California School of Medicine. Specific events, including incident reports and occurrences with potential or actual legal implications are reviewed in association with the UCSF Risk Management Office at ZSFG.

F. MONITORING & EVALUATION OF APPRORIATENESS OF PATIENT CARE SERVICES

All aspects of patient care including outpatient, in-hospital, consultative, diagnostic, and operative management matters are discussed and reviewed on a continuing basis. Daily bedside, weekly in neurosurgery meetings (whenever indicated) and monthly in relation to all morbidity, death and outcome issues.

G. MONITORING & EVALUATION OF PROFESSIONAL PERFORMANCE

1. Physicians

Attending physician performance is assessed as a part of the mechanism noted on a continuing basis. In addition, active participation in Neurosurgery Service meetings,

medical records maintenance, other administrative activities and productions, interaction with non-clinical staff members are expected.

2. **Housestaff**
   The performance of the housestaff assigned to the Neurosurgical Service is monitored by daily observations in rounds and in all clinical activities. Evaluation includes completion of performance assessment forms, with additional comments, submitted to the UCSF School of Medicine.

3. **Affiliated Professionals**
   The work of research nurses and research associates engaged in clinical trials and scientific efforts is assessed on an ongoing basis. As currently planned such staff will include a clinical nurse specialist who will coordinate the many daily clinical activities of the Neurosurgery Service.

4. **ZSFG Employees other than Affiliated Professionals**
   The performance of non-clinical employees is assessed by the Administrative Analyst, in coordination with the Chief of Service, with submission of summaries to the management services officer responsible for service-wide administration.

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 Neurosurgery Clinical Services 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. ADOPTION AND ADMENDMENT

The Neurosurgery Clinical Service Rules and Regulations will be adopted and revised by a majority vote of all Active members of the Neurosurgery Service annually at a quarterly held Neurosurgery Clinical Service Meeting.

APPENDIX A NEUROSURGERY PRIVILEGE REQUEST FORM

Privileges for Zuckerberg San Francisco General Hospital

Requested Approved

Applicant: Please initial the privileges you are requesting in the Requested column.
Service Chief: Please initial the privileges you are approving in the Approved column.

20 NEUROSURGERY

_____ _____ **20.00 NEUROSURGERY PRIVILEGES**
MINIMUM CRITERIA: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Neurological Surgery.

_____ _____ **20.10 CRANIOTOMY OR CRANIECTOMY - BURR HOLES**
_____ _____ 20.11 Aneurysms, Arteriovenous malformations
_____ _____ 20.12 Tumors: primary/secondary, Intra/extra-axial, intraventricular, supra/infratentorial
_____ _____ 20.13 Hematomas, Infection
_____ _____ 20.14 Congenital Anomalies
_____ _____ 20.15 Cranial Nerve Decompression
_____ _____ 20.16 Intracranial Infections
_____ _____ 20.17 Transnasal Surgery for Tumors, CSF leak, Infection
_____ _____ 20.18 Shunt Procedures

_____ _____ **20.20 SPINAL**
_____ _____ 20.21 Laminectomy or laminotomy for disc infection, stenosis, trauma, tumor, vascular anomaly
_____ _____ 20.22 Anterior vertebral approach with or without fusion
_____ _____ 20.23 Anterior Cervical Instrumentation
_____ _____ 20.24 Posterior Cervical -Instrumentation
_____ _____ 20.25 Anterior Thoracolumbar Instrumentation
_____ _____ 20.26 Posterior Thoracolumbar Instrumentation

_____ _____ **20.30 PERIPHERAL NERVE: Peripheral Nerve Neurolyses, Decompression, Repair**

_____ _____ **20.40 TRACHEOSTOMY**

_____ _____ **20.50 INTRACRANIAL & EXTRACRANIAL REVASCULARIZATION**
MINIMUM CRITERIA: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Neurological Surgery. Based on demonstrated competence, with documentation of focused experience.
SCOPE: Includes all Extracranial Vascular Procedures and Microvascular Anastomosis

_____ _____ **20.60 FUNCTIONAL & STEREOTACTIC SURGERY**
MINIMUM CRITERIA: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Neurological Surgery. Based on demonstrated competence, with documentation of focused experience.
_____ _____ 20.61 Stereotactic cranial or spinal recording, stimulation or ablative procedures
_____ _____ 20.62 Stereotactic Biopsy or Irradiation
_____ _____ 20.63 Percutaneous or Open Spinal Ablative Procedures
_____ _____ 20.64 Implantation of spinal or peripheral nerve stimulation devices
_____ _____ 20.65 Ventricular and spinal fluid studies
_____ _____ 20.66 Intraoperative Angiography
_____ _____ 20.67 Intracranial Pressure Monitoring

_____ _____ **20.70 CENTRAL VENOUS ACCESS PROCEDURES**
MINIMUM CRITERIA: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Neurological Surgery. Based on

demonstrated competence, with documentation of focused experience.
SCOPE: Insertion of central venous access lines, Swan Ganz Catheters, Triple Lumen Catheters, Jugular Venous Saturation Monitoring

______ ______ **20.80 NEUROSONOLOGY**

MINIMUM CRITERIA: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Neurological Surgery including formal training in the basic principles and clinical application of Neurosonology; or a minimum of 40 hours of Category I Training in courses approved by the ACGME and documentation of supervised interpretation of a minimum of 100 Neurosonology Studies. Verification of a passing score by the American Society of Neuroimaging (ASN) Neurosonology Examination.

______ ______ 20.81 Perform Ultrasound examination for the diagnosis and management of cerebrovascular disease and head injury

______ ______ 20.82 Interpretation of studies

______ ______ **20.90 ACUTE TRAUMA SURGERY**

20 NEUROSURGERY
20.90 Acute Trauma Surgery
SCOPE: On-call trauma coverage for the comprehensive neurosurgical management of the acutely injured trauma patient.
CRITIERA: 1. Completion of ACGME-approved residency with Board certification/eligibility in Neurological Surgery. 2. Availability, clinical performance and continuing medical education consistent with current standards for neurosurgeons surgeons at Level One Trauma Centers specified by the California Code of Regulations (Title 22) and the American College of Surgeons.

______ ______ **30.00 DIAGNOSTIC RADIOLOGY: FLUOROSCOPY**

MINIMUM CRITERIA: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Neurological Surgery. Current X-Ray/Fluoroscopy Certificate.

I hereby request clinical privileges as indicated above.

____ ________________
Applicant date

FOR DEPARTMENTAL USE:

_____ Proctors have been assigned for the newly granted privileges.

_____ Proctoring requirements have been satisfied.

_____ Medications requiring DEA certification may be prescribed by this provider.

_____ Medications requiring DEA certification will not be prescribed by this provider.

_____ CPR certification is required.

_____ CPR certification is not required.

Zuckerberg San Francisco General Hospital & Trauma Center
1001 Potrero Avenue
San Francisco, CA 94110

APPROVED BY:

____ ______________
Division Chief date

____ ______________
Service Chief date

APPENDIX B NEUROSURGERY PERFORMANCE IMPROVEMENT AND PATIENT SAFETY (PIPS) PLAN

I. **Goals and Objectives**

A. To assure that all patients receive appropriate and timely care with respect to their diagnostic and therapy, including surgical treatment where appropriate.

B. To minimize to the fullest extent possible both morbidity and mortality.

C. To prevent unnecessary in-patient days.

II. Responsibility

The Chief of the Neurosurgery Service has the overall responsibility for the program. Initiation, implementation, and follow-up of patient care evaluation activities may be delegated to another staff member.

III. Components of the Performance Improvement and Patient Safety (PIPS)

A. The quality and appropriateness of care on the Neurosurgery Service area assessed by the following:

1. Morbidity and mortality review
2. Complications review including incidence of infections
3. Surgical case review without specimens
4. Housestaff evaluations
5. Chart reviews
6. Attending staff reappointment review
7. Clinical Service monthly meetings which include patient care
8. Incident reports and risk-management cases related to the clinical practice are responded to promptly since they are almost always based on complications of clinical events already documented in the minutes of the monthly Morbidity and Mortality Review. Search of the clinical records for additional details may also be necessary. This documentation is the mechanism by which adverse patterns and trends may be identified, in which case the following remedial actions are implemented:

   a) In-service education and training program,
   b) New revised policies and procedures
   c) Staffing changes or equipment changes

IV. Reporting

Evidence of all Neurosurgery Service performance improvement and patient safety activities will be maintained in the Service and reported during monthly Neurosurgery Service staff meetings. Minutes of the meetings will be forwarded to the QM office monthly.

V. Correction

The Chief of the Neurosurgery Service will be responsible for assuring the correction of interservice/committee patient-care issues. Assistance from the Q&UM Office will be requested when certain problems cross service/committee boundaries and/or when the Service is unable to correct the problem.

VI. Peer Review

Appraisal of Service and individual patterns of patient care as determined by reviews and evaluations conducted by the Neurosurgery Service, e.g., complication rates, housestaff reviews, and hospital committees/programs (e.g., Performance Improvement & Patient Safety, Infection Control), will be used by the Chief of the Service in the medical staff reappointment process and delineation of privileges. Patterns of care will be discussed during the monthly service meeting.

VII. Admission Policy for Patients with Head Trauma

Head-injury patients with either of the following:

a. New abnormality on CT scan of the head, or
b. Abnormal neurological exam not entirely attributable to intoxication or other obvious process, with negative CT

Will be admitted by the Chief Resident unless a neurosurgical-attending physician who has examined the patient and reviewed the scan writes a note that discharge is safe.

VIII. Service Policy: Level-One Trauma Designation

The Neurosurgery Service at the Zuckerberg San Francisco General Hospital supports the American College of Surgeons trauma designation criteria and procedures and maintains its service in compliance with Level-One Trauma criteria.

A housestaff member of the Neurosurgery Service is in-house 24 hours a day to respond immediately to the Emergency Clinical Service for cases involving trauma to the nervous system. A senior neurosurgical resident is immediately available from outside the hospital for additional consultation and for all cases requiring surgery. Minor cases such as wound debridement and scalp laceration repair do not require attending coverage.

The Neurosurgery Service is organized separately from the Trauma Service, but coordinates its activities closely with the Trauma Service. The Neurosurgery Service participates routinely in Trauma Quality Improvement proceedings and maintains its own independent Performance Improvement and Patient Safety Program.

Neurosurgery actively participates with a variety of other services at ZSFG through weekly joint conferences with Neurology and with Neuro-radiology, and monthly multidisciplinary conferences regarding trauma care at ZSFG. Faculty members of the Neurosurgery Service routinely teach principles of neuro-trauma care to other services within the Hospital.

Zuckerberg San Francisco General Hospital & Trauma Center
1001 Potrero Avenue
San Francisco, CA 94110

APPENDIX C NEUROSURGERY HOUSESTAFF MANUAL
MAINTAINED IN NEUROSURGERY ADMIN OFFICE ~~BUILDING 1, ROOM 101~~IN PRIDE HALL

APPENDIX D CHIEF OF NEUROSURGERY SERVICE JOB DESCRIPTION

Chief of Neurosurgery ~~Clinical~~ Service

Position Summary:

The Chief of the Neurosurgery Service directs and coordinates the Service's clinical, administrative, 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 Neurosurgery Clinical Service reports directly to the Associate Dean and the University of California, San Francisco (UCSF) Department Chair. The Chief is reviewed not less than every four years by a committee appointed by the Chief of Staff. Reappointment of the Chief occurs upon recommendation by the Chief of Staff, in consultation with the Associate 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 Neurosurgery 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 the Neurosurgery 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 E CHIEF OF CLINICAL SERVICE JOB DESCRIPTION

Chief of the Clinical Service

Position Summary:

The Chief of the Clinical Service directs and coordinates the Service's clinical and educational 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 Clinical Chief also ~~insures~~ensures 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 the Clinical Service reports directly to the Chief of the Neurosurgery Service and the University of California, San Francisco Department Chair. The Clinical Chief maintains working relationships clinical staff, fellows, residents, medical school trainees, and with other clinical departments.

Position Qualifications:

The Chief of the 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 Neurosurgery Clinical Service include the following:

Serving as the leader of the Neurosurgery Clinical Service. Overseeing and directing daily clinical activities including staffing and supervision of clinical staff and trainees. Coordination and scheduling of attending clinical coverage for the service. Participation in performance improvement and patient safety programs.

Serving as the leader of the neurosurgery clinical education at ZSFG. Overseeing and directing the ZSFG/UCSF Neurotrauma Fellowship. Oversight, coordination, and scheduling of trainee clinical education activities.

Performing all other duties and functions spelled out in the ZSFG Medical Staff Bylaws.

NEUROSURGERY CLINICAL SERVICE
RULES AND REGULATIONS

2024

Zuckerberg San Francisco General Hospital & Trauma Center
1001 Potrero Avenue
San Francisco, CA 94110

NEUROSURGERY CLINICAL SERVICE RULES AND REGULATIONS

TABLE OF CONTENTS

I. NEUROSURGERY CLINICAL SERVICE ORGANIZATION ... 2

A. SCOPE OF SERVICE ... 2

B. MEMBERSHIP REQUIREMENTS ... 2

C. ORGANIZATION AND STAFFING OF NEUROSURGERY CLINICAL SERVICE ... 2

II. CREDENTIALING ... 4

A. NEW APPOINTMENTS ... 4

B. REAPPOINTMENTS ... 4

C. PRACTITIONER PERFORMANCE PROFILES ... 5

D. AFFILIATED PROFESSIONALS ... 5

E. STAFF CATEGORIES ... 5

III. DELINEATION OF PRIVILEGES ... 5

A. DEVELOPMENT OF PRIVILEGE CRITERIA ... 5

B. ANNUAL REVIEW OF CLINICAL SERVICE PRIVILEGE REQUEST FORM ... 5

C. CLINICAL PRIVILEGES AND MODIFICATIONS/CHANGES TO CLINICAL PRIVILEGES ... 6

D. TEMPORARY PRIVILEGES ... 6

IV. PROCTORING AND MONITORING ... 6

A. REQUIREMENTS ... 6

B. ADDITIONAL PRIVILEGES ... 6

C. REMOVAL OF PRIVILEGES ... 7

V. EDUCATION OF MEDICAL STAFF ... 7

VI. NEUROSURGERY CLINICAL SERVICE HOUSESTAFF TRAINING PROGRAM AND SUPERVISION *(REFER TO CHN WEBSITE FOR HOUSESTAFF COMPETENCIES LINK.)* ... 7

A. ROLE, RESPONSIBILITY AND PATIENT CARE ACTIVITY OF THE HOUSE STAFF ... 8

B. RESIDENT EVALUATION PROCESS ... 9

C. PATIENT CARE ORDERS 9

VII. NEUROSURGERY CLINICAL SERVICE CONSULTATION CRITERIA 9

VIII. DISCIPLINARY ACTION 9

IX. PERFORMANCE IMPROVEMENT PATIENT SAFETY (PIPS) AND UTILIZATION MANAGEMENT 10

A. GOALS AND OBJECTIVES 10

B. MEDICAL RECORDS 10

C. INFORMED CONSENT 11

D. CLINICAL INDICATORS 11

E. CLINICAL SERVICE PRACTITIONERS PERFORMANCE PROFILES 11

F. MONITORING & EVALUATION OF APPRORIATENESS OF PATIENT CARE SERVICES 11

G. MONITORING & EVALUATION OF PROFESSIONAL PERFORMANCE 11

X. MEETING REQUIREMENTS 12

XI. ADOPTION AND ADMENDMENT 12

APPENDIX A NEUROSURGERY PRIVILEGE REQUEST FORM 13

APPENDIX B NEUROSURG PERFORMANCE IMPROVEMENT AND PATIENT SAFETY (PIPS) PLAN 16

APPENDIX C NEUROSURGERY HOUSESTAFF MANUAL 18

APPENDIX D. CHIEF OF NEUROSURGERY SERVICE JOB DESCRIPTION 19

APPENDIX E. CHIEF OF CLINICAL SERVICE JOB DESCRIPTION 20

I. NEUROSURGERY CLINICAL SERVICE ORGANIZATION

A. SCOPE OF SERVICE

The Neurosurgery Service at Zuckerberg San Francisco General Hospital & Trauma Center is an integral part of the Department of Neurological Surgery at The University of California, San Francisco. The Service serves a broad community of patients and their physicians through the maintenance and continuing development of capacity for the management of surgical disorders of the nervous system with a special emphasis on Neurotrauma and Neurocritical care. While problems associated with acute and severe illness and injury are addressed daily, the range of conditions treated includes chronic and degenerative diseases of the brain, spine, and peripheral nerves. Excellence in patient care is dependent on vigorous interaction with neurological, radiological and other expert ZSFG colleagues.

The Rules and Regulations of the Neurosurgery Clinical Service correspond to the standards and requirements set forth in the ZSFG Medical Staff Bylaws, Rules and Regulations.

Standards of professional clinical practice are those applicable to all full- and part-time faculty members of the Department of Neurological Surgery of the University of California, San Francisco.

B. MEMBERSHIP REQUIREMENTS

Membership on the Medical Staff of Zuckerberg San Francisco General Hospital & Trauma Center is a privilege that 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.

1. Board Eligible or Board Certified by ABNS Neurological Surgery (may be waived at the recommendation of the Chief of Neurosurgery)
2. Current California medical licensure
3. Current DEA certification
4 CPR/ACLS/BCLS/ATLS is encouraged

C. ORGANIZATION and STAFFING OF NEUROSURGERY CLINICAL SERVICE

The members of the Neurosurgery Service are:

Chief of Service
Chief of the Clinical Service
Members of the Attending Neurosurgical Staff

1. Chief of Service

Responsibilities (Refer to Appendix D for job description):

a. Overall direction of the clinical, administrative, teaching, and research activities of the Neurosurgery Clinical Service.

b. Review and recommendation of all new appointments, request for privileges, and reappointments.

c. Appointment of the remaining officers of the neurosurgery clinical service and of committee members.

d. Financial affairs of the Neurosurgery Clinical Service.

e. Attendance at the Medical Executive Committee, the Chiefs of Service meetings, and other meetings as called from time to time by the Executive Administrator or the Chief of Staff.

f. Disciplinary actions as necessary, as set forth in the ZSFG Medical Staff and Rules and Regulations.

2. Chief of Clinical Service

Responsibilities (Refer to Appendix D for job description):

a. Overall direction of the clinical operations and teaching activities of the Neurosurgery Clinical Service.

b. Review and recommendation of all new clinical fellow appointments.

c. Coordination and attendance at the Neurosurgery Clinical Staff meeting, and other meetings as called from time to time by the Executive Administrator or the Chief of Staff.

d. Disciplinary actions as necessary for clinical staff, as set forth in the ZSFG Medical Staff and Rules and Regulations.

Attending Physician Responsibilities

Responsibilities include:

a. Overall direction of clinical care is the responsibility of the attending staff of the Neurosurgery Clinical Service. In order to discharge that responsibility, close supervision and active participation in decision-making is required.

b. All neurosurgical procedures performed in the operating theater will be supervised by an attending neurosurgeon who is physically present during the case. Most procedures can be started by the Neurosurgery Chief Resident without the direct physical supervision of a Neurosurgical Attending provided he/she has previously discussed patient preoperative assessment, surgical approach, and patient positioning with the responsible Neurosurgical Attending. When the Chief Resident performs any procedure for the first time, the responsible attending must be in the room from the beginning. Particularly complex procedures or instances where the Attending and Chief Resident are unfamiliar with each other will also require attending supervision from the beginning of the case.

c. Under certain conditions, it will be necessary for the Chief Resident to start a procedure prior to the physical presence of an Attending. This situation applies mainly to emergency neurosurgical procedures for trauma occurring after regular working hours. The vast majority of these procedures are straightforward and there should be no difficulty for a Chief Resident to begin these on his/her own after discussing the case with an

Attending Neurosurgeon. Nevertheless, the physical presence of an attending is required during the critical portion of the operation.

d. All elective cases require that the Attending Neurosurgeon be in-house while the patient is in the operating room (OR) and he/she be physically present in the OR during the important aspects of the procedure. For some procedures, such as lumbar discectomy or stereotactic brain biopsy, the actual physical involvement of the attending neurosurgeon may be minimal. Nevertheless, direct supervision by an attending neurosurgeon who is physically in the operating theater is also required during the more important aspects of these procedures.

e. The degree to which a neurosurgical attending actively participates in a surgical procedure will be in proportion to its complexity and the capabilities of the Chief Resident. As such, a greater degree of attending participation is expected for extra- or intracranial vascular surgery, complex tumor surgery or for spinal procedures involving complex instrumentation.

g. Procedures performed outside the operating theater may sometimes be performed without the direct physical supervision of an Attending Neurosurgeon provided he/she has discussed the patient preoperative assessment, imaging, and details of the procedure. These include placement of a HALO cervicothoracic orthosis, insertion of intraparenchymal or intraventricular intracranial pressure monitors, advanced neuromonitors (brain tissue oxygen, cerebral blood flow, microdialysis), insertion of Subdural Evacuating Port System (SEPS), lumbar puncture, insertion of lumbar subarachnoid drains, insertion of routine intravascular monitoring lines (e.g., central venous pressure lines, pulmonary capillary wedge pressure lines, arterial lines, or jugular venous saturation monitoring lines), and tapping of ventricular access (Ommaya) or ventriculoperitoneal shunt reservoirs. In addition, closure of non-complicated, post-traumatic wounds (both in the operating theater and outside) may be performed in an unsupervised fashion by the neurosurgical chief resident when performed as a service to the trauma team or emergency department.

II. CREDENTIALING

A. NEW APPOINTMENTS

The process of application for membership to the Medical Staff of ZSFG through the Neurosurgery Clinical Service is in accordance with ZSFG Medical Staff Article II, *Medical Staff Membership*, Rules and Regulations as well as these Clinical Service Rules and Regulations.

B. REAPPOINTMENTS

The process of reappointment to the Medical Staff of ZSFG through the Neurosurgery Clinical Service is in accordance with ZSFG Medical Staff Bylaws, Rules and Regulations.

1. Modification of Clinical Service

Changes in patterns of practice within the Neurosurgery Service, whether occasioned by clinical or fiscal or other constraints or whether by expansion of service through new competence or new facilities, require discussion and approval by the Service. This specifically includes new operative or other technical procedures and approaches.

2. Staff Status Change

The process for Staff Status Change for members of the Neurosurgery Services is in accordance with ZSFG Medical Staff Bylaws, Rules and Regulations.

3. Modification/Changes to Privileges

The process for Modification/Change to Privileges for members of the Neurosurgery Service is in accordance with ZSFG Medical Staff Bylaws, Rules and Regulations.

C. PRACTITIONER PERFORMANCE PROFILES

The attending neurosurgeons of the Neurosurgery Service include full-time University employees and non-compensated members of the UCSF Neurosurgery Department's clinical faculty. In other cases they must be board eligible or board certified in neurological surgery and must meet the standards, and abide by the regulations of the University of California School of Medicine. All patient care matters pertaining to attending physicians, individually or as a group, are addressed as they arise, in regular Neurosurgery Service meetings. Specific events, including incident reports and occurrences with potential or actual legal implications, are reviewed in association with the UCSF Risk Management Office at ZSFG.

D. AFFILIATED PROFESSIONALS

The process of appointment and reappointment of the Affiliated Professionals to ZSFG through the Neurosurgery Clinical Service is in accordance with ZSFG Medical Staff Bylaws, Rules and Regulations, as well as these Clinical Service Rules and Regulations.

E. STAFF CATEGORIES

The Neurosurgery Clinical Service fall into the same staff categories which are described in Article III- *Categories of the Medical Staff* of the ZSFG Medical Staff Bylaws, Rules and Regulations.

III. DELINEATION OF PRIVILEGES

A. DEVELOPMENT OF PRIVILEGE CRITERIA

Neurosurgery Clinical Service privileges are developed in accordance with ZSFG Medical Staff Bylaws, Rules and Regulations as well as these Clinical Service Rules and Regulations. Refer to Appendix A.

B. ANNUAL REVIEW OF CLINICAL SERVICE PRIVILEGE REQUEST FORM

The Neurosurgery Clinical Service Privilege Request Form shall be reviewed annually

C. CLINICAL PRIVILEGES AND MODIFICATIONS/CHANGES TO CLINICAL PRIVILEGES

Neurosurgery Clinical Service privileges shall be authorized in accordance with the ZSFG Medical Staff Bylaws, Rules and Regulations as well as these Clinical Service Rules and Regulations. All requests for clinical privileges will be evaluated and approved by the Chief of the Neurosurgery Clinical Service.

Privileges to practice in the Neurosurgery Clinical Service will be commensurate with clinical training and documentation of an acceptable standard of clinical practice.

Privileges are delineated by consensus of the active members of the Neurosurgery Clinical Service and are recommended for approval by the Chief of Neurosurgery, subject to the recommended approval of the Credentials Committee of the Medical Staff and the Governing Body.

Individual privileges are subject to review and revision at an initial appointment, throughout the period of proctoring, at the time of reappointment, at the time as judged necessary by the Chief of Service, or at any time recommended by two thirds of the Service's active staff.

D. TEMPORARY PRIVILEGES

Temporary Privileges shall be authorized in accordance with the ZSFG Medical Staff Bylaws.

IV. PROCTORING AND MONITORING

A. REQUIREMENTS

Monitoring (proctoring) requirements for the Neurosurgery Clinical Service shall be the responsibility of the Chief of the Service. Such requirements shall include, as a minimum, the successful management by each proctored physician of six (6) clinical cases, including surgical therapy and all pre- and post-operative care and the interval to final outcome. Assessment is based on review of all pertinent records including inpatient and outpatient documents, incorporating critical care, operative, and pathologic data. All areas of concern or uncertainty in performance assessment will be addressed by such further review of additional cases as the Chief of Service determines to be required for such assurance, and the areas of performance meeting such additional examination necessary will be discussed with the proctored physician.

Additionally, continuous review of clinical cases through detailed morbidity and mortality analyses, identifying in each case the responsible attending physician, provides an ongoing process of monitoring of all Neurosurgery Service attending physicians, and includes documentation of all analyses and discussions on a regular basis. All sources of data are used in identification of problems, risks and practice trends.

B. ADDITIONAL PRIVILEGES

Requests for additional privileges for the Neurosurgery Clinical Service shall be in accordance with ZSFG Medical Staff Bylaws.

C. REMOVAL OF PRIVILEGES

Requests for removal of privileges for the Neurosurgery Clinical Service shall be in accordance with ZSFG Medical Staff Bylaws.

V. EDUCATION OF MEDICAL STAFF

Education is considered a prime function of the Neurosurgery Service of Zuckerberg San Francisco General Hospital as an academic component of the Department of Neurological Surgery of the University of California, San Francisco. It is not simply a necessary by-product of clinical activity. The process of education applies to all medical persons whether within school of postgraduate training, or board certified and beyond. Daily rounds include residents, fellows, interns (PGY-1), attending physicians, clinical nurse specialists, and students, as well as associated staff including representatives of speech pathology, physical therapy, and social services, and other participants. Discussion of each case permits involvement and input by each of these persons as various aspects are addressed. Specific examples include detailed critical care/advanced physiology discussions with Critical Care and Neuro-vascular specialists on the one hand, and discussion of efficient and effective patient placement in rehabilitation or other programs on the other. Prior to or during daily clinical rounds review of all new and otherwise pertinent radiographic data is conducted with discussion of a number of relevant clinical and scientific points.

Education also includes a weekly neuroradiology conference attended by neurosurgical, neurological and radiologic faculty and housestaff members, and by medical students. Regular focused conferences include spine, trauma, and neurology/neurosurgery meetings in which topics are reviewed after preparation, often incorporating bibliographic sources. The Neurosurgery Service contributes to the education of neurosurgeons, neurologists, and other specialists, including primary care physicians, through both formal and informal exchange of ideas and experience. Members of the clinical faculty are encouraged to spend day-long intervals of time with staff and housestaff on the Service, contributing to their own learning and enhancement of advanced skills in diagnosis and therapy. The ZSFG Neurosurgery faculty participates on a weekly (or more frequent) basis in UCSF Neurosurgical rounds, Neuro-radiological rounds, and research progress meetings. When possible they also participate in other special conferences including pediatric neurosurgery, vascular surgery, and neuropathology sessions. Medical students are invited to observe neurosurgical operations and participate under supervision in case management in the intensive care units, the wards and the outpatient clinic. They are actively encouraged to learn through association with physicians who do likewise.

VI. NEUROSURGERY CLINICAL SERVICE HOUSESTAFF TRAINING PROGRAM AND SUPERVISION *(Refer to CHN Website for Housestaff Competencies link.)*

The members of the housestaff participating in the activities of the ZSFG Neurosurgery Service vary somewhat in number and level of experience, but usually include three PGY-1 physicians and one intermediate level UCSF Neurosurgical resident serving as Chief Resident. All function under the continuing, daily supervision of qualified attending neurosurgeons who are ultimately responsible for all aspects of the safety and welfare of every patient. The interns referred to are usually, but not always, members of the ZSFG general or specialty surgical services' housestaff. They may be supplemented by a more senior resident from any surgical specialty.

Zuckerberg San Francisco General Hospital & Trauma Center offers an important complex of experiences for the neurosurgical resident assigned. Through relative autonomy and progressing responsibility he or she develops diagnostic, operative, physiologic and pharmacologic, and other

essential skills, especially in relation to acute, severe illness or injury. The Neurosurgery Service is mindful of the need for constant supervision of every resident during the process of rapid development of clinical competence and confidence and acts accordingly through in-person direction of every operative procedure and every clinical case during daily, and often more frequent, focused rounds. It is the policy of the Neurosurgery Service that every patient admission, every consultation, and every significant clinical change in hospitalized patients is discussed by the neurosurgical resident with the responsible faculty neurosurgeon. A small number of procedures may be performed by a resident after attending approval. These are limited to placement of intracranial pressure monitors, advanced neuromonitors, access lines and lumbar drains, as examples. With such practical exceptions no neurosurgical procedures are conducted without the physical presence of an attending neurosurgeon. This invariable rule applies to night-time emergencies with the same force as an elective day-time operation. On alternate weekends and on some other occasions a neurosurgical resident assigned elsewhere in the UC program covers for the ZSFG chief resident. All of the same policies continue to apply.

The goal of the Neurosurgery Service with respect to resident training has two objectives, each fully consistent with the other when properly organized and vigorously pursued; the safe, effective, and compassionate care of patients, and the development to the maximum extent possible of resident competence.

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

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

1. Role of Resident Within the Service

The service consists of one Chief Resident and three interns (PGY 1). The interns shall field all primary calls regarding in-house patients and take first call for consults and emergency room admissions. In addition, the interns shall write all admission orders, transfer orders and dictate discharge and transfer summaries for the service in addition to pre-rounding on service patients and consults prior to morning rounds. Interns are expected to consult frequently with the Chief Resident with any and all patient-care issues. Furthermore, the interns are required to immediately contact the Chief resident regarding all consults and emergency room admissions.

The Chief Resident shall take primary responsibility for the running of the clinical service. This includes supervision of the interns, maintenance of the surgical schedule, scheduling cases, and participating in all neurosurgical operations. The Chief Resident is expected to consult frequently with the responsible Attending with any and all patient-care issues. Furthermore, the Chief Resident shall contact the responsible attending regarding all neurosurgical consults and emergency room admissions upon completion of the initial evaluation. In addition, he/she shall discuss all surgical cases with the responsible attending prior to making the final surgical decision.

2. House Staff Supervision

Supervision of the house staff shall be the responsibility of the service attending as well as the Chief of Service. The service attending shall round with the house staff on a daily basis allowing the Chief Resident to run rounds and to formulate the patient care-plan. However, the service attending has the responsibility to modify such plan as he/she may

deem appropriate while discussing the change in an instructional manner. Surgical supervision shall be as stated in sections I.C.3.a-f.

Progressive patient-care involvement and independence of action shall be left at the discretion of the supervising attending and the Chief of Service.

B. RESIDENT EVALUATION PROCESS

Informal evaluation shall be done on a daily basis with emphasis placed on house-staff and medical student instruction. Formal evaluation shall be done on a monthly basis for interns via the UCSF computerized evaluation system. The Chief Resident shall be evaluated at the end of his/her rotation (4-6 months) via the UCSF Department of Neurosurgery resident evaluation form. These are submitted to the Residency Program Director of Neurosurgery. Formal feedback to the interns is done through the UCSF Department of Surgery. Formal feedback to the Chief Resident is done through the office of the Residency Program Director of the UCSF Department of Neurosurgery. Informal feedback is done via face-to-face discussion between the Chief of Service and the Chief Resident or intern.

C. PATIENT CARE ORDERS

At the beginning of their rotation, all residents and interns shall be given a copy of both the Neurosurgery House Staff Manual and Guidelines for the Critical Care Management of Severe Head Injury which address guidelines for patient care, orders, and neurological and neurosurgical assessment. Proper order writing and patient care issues will be re-enforced on daily rounds and conferences. Housestaff are expected to independently write orders for step-down unit and regular ward patients under general patient-care guidelines discussed on daily rounds. All new orders or changes in patient-care plan for ICU patients must be discussed with the Chief Resident. He/she shall then discuss these with the attending prior to their implementation.

VII. NEUROSURGERY CLINICAL SERVICE CONSULTATION CRITERIA

The Neurosurgery Service provides consultation on both urgent and routine bases on behalf of any requesting service. Such requests frequently originate in the Emergency Department, ICU, Operating Room or other acute care sites. The importance of prompt response is recognized by a policy that requests for consultation will be answered immediately, in cases described as unstable, changing, or unclear, and as soon as practicable in all other cases, including relatively minor or stable conditions. In this sense, no consultation is considered “routine” or unimportant. In the case of severe or undiagnosed problems the resident immediately discusses the case with the responsible attending neurosurgeon, at any hour, and in any matter of doubt about diagnosis or therapy the attending neurosurgeon personally sees the patient immediately. The attending neurosurgeon is called for discussion and approval at some time during the consultation process in every case. The Neurosurgery Service also serves as an information resource for physicians calling from acute care facilities.

VIII. DISCIPLINARY ACTION

The Zuckerberg San Francisco General Hospital & Trauma Center Medical Staff Bylaws, Rules and Regulations will govern all disciplinary action involving members of the ZSFG Neurosurgery Clinical Service.

IX. PERFORMANCE IMPROVEMENT PATIENT SAFETY (PIPS) AND UTILIZATION MANAGEMENT

A. GOALS AND OBJECTIVES

1. To ensure appropriate care and safety of all patients receiving care in the department

2. To minimize morbidity and mortality as well as to avoid unnecessary days of inpatient care.

3. The Chief of Service is responsible for ensuring solutions to quality care issues. As necessary, assistance is invited from other departments, the PIPS Committee or the appropriate administrative committee or organization.

4. The Neurosurgery Clinical Service is committed to the highest possible standard of clinical practice. The Neurosurgery Performance Improvement and Patient Safety program is detailed in the document, Performance Improvement and Patient Safety Plan, Attachment B.

B. MEDICAL RECORDS

1. The members of the Neurosurgery Clinical Service are committed to the maintenance of complete, accurate and timely medical records. The requirements as set forth in the ZSFG Medical Staff Bylaws, Rules and Regulations define the minimum standards for medical records in Neurosurgery.

2. Operative Records
   Dictated operative reports will contain all of the following, at a minimum:
   a) preoperative diagnosis
   b) postoperative diagnosis
   c) operative procedures performed
   d) operating team
   e) major findings
   f) succinct description of the operation performed, such that an individual trained in the procedure would understand the techniques employed.
   g) complications
   h) estimate of blood loss
   i) listing of specimens sent

   Dictated operative reports are required for all major and minor operative procedures performed in the operating suite.

3. Discharge Summaries
   Dictated discharge summaries will contain a succinct description of the reasons for hospitalization, the course of treatment, complications of treatment, condition on discharge and plans for continuous care post-hospitalization. Dictated discharge summaries will be completed on all patients in the hospital for more than 48 hours. Patients hospitalized less than 48 hours may have a handwritten or dictated discharge summary at the discretion of the treating resident or attending physician.

C. INFORMED CONSENT

1. All decisions for treatment should involve the active participation of the patient, and should be made after appropriate discussions of risks, benefits, and alternatives.
2. Documentation of "Informed Consent" on Medical Staff-approved forms is required for all surgical procedures performed in the operating room.
3. Documentation of patient consent will be provided by a signed Operative Consent Form as well as by a Preoperative Note in the progress notes by the operating surgeon detailing:

   a) The goal of the procedure to be performed.
   b) Alternative therapies
   c) Complications that may be reasonably anticipated or associated with the procedure
   d) The likelihood of success with the procedure

D. CLINICAL INDICATORS

Clinical Indicators, including head trauma hospital admissions requirements, are addressed in the monthly comprehensive Morbidity and Mortality reviews conducted by the UCSF Neurosurgery Department and with separate analysis of all aspects of patient care at each of the four teaching hospitals specifically including ZSFG at each monthly conference.

E. CLINICAL SERVICE PRACTITIONERS PERFORMANCE PROFILES

The attending neurosurgeons of the Neurosurgery Service include full-time University employees and non-compensated members of the UCSF Neurosurgery Department's clinical faculty. In other cases they must be board eligible or board certified in neurological surgery and must meet the standards, and abide by the regulations of the University of California School of Medicine. Specific events, including incident reports and occurrences with potential or actual legal implications are reviewed in association with the UCSF Risk Management Office at ZSFG.

F. MONITORING & EVALUATION OF APPRORIATENESS OF PATIENT CARE SERVICES

All aspects of patient care including outpatient, in-hospital, consultative, diagnostic, and operative management matters are discussed and reviewed on a continuing basis. Daily bedside, weekly in neurosurgery meetings (whenever indicated) and monthly in relation to all morbidity, death and outcome issues.

G. MONITORING & EVALUATION OF PROFESSIONAL PERFORMANCE

1. Physicians
Attending physician performance is assessed as a part of the mechanism noted on a continuing basis. In addition, active participation in Neurosurgery Service meetings, medical records maintenance, other administrative activities and productions, interaction with non-clinical staff members are expected.

2. Housestaff
The performance of the housestaff assigned to the Neurosurgical Service is monitored by daily observations in rounds and in all clinical activities. Evaluation

includes completion of performance assessment forms, with additional comments, submitted to the UCSF School of Medicine.

3. **Affiliated Professionals**
The work of research nurses and research associates engaged in clinical trials and scientific efforts is assessed on an ongoing basis. As currently planned such staff will include a clinical nurse specialist who will coordinate the many daily clinical activities of the Neurosurgery Service.

4. **ZSFG Employees other than Affiliated Professionals**
The performance of non-clinical employees is assessed by the Administrative Analyst, in coordination with the Chief of Service, with submission of summaries to the management services officer responsible for service-wide administration.

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 Neurosurgery Clinical Services 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. ADOPTION AND ADMENDMENT

The Neurosurgery Clinical Service Rules and Regulations will be adopted and revised by a majority vote of all Active members of the Neurosurgery Service annually at a quarterly held Neurosurgery Clinical Service Meeting.

APPENDIX A NEUROSURGERY PRIVILEGE REQUEST FORM

Privileges for Zuckerberg San Francisco General Hospital

Requested Approved

Applicant: Please initial the privileges you are requesting in the Requested column.
Service Chief: Please initial the privileges you are approving in the Approved column.

20 NEUROSURGERY

______ ______ **20.00 NEUROSURGERY PRIVILEGES**
MINIMUM CRITERIA: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Neurological Surgery.

______ ______ **20.10 CRANIOTOMY OR CRANIECTOMY - BURR HOLES**
______ ______ 20.11 Aneurysms, Arteriovenous malformations
______ ______ 20.12 Tumors: primary/secondary, Intra/extra-axial, intraventricular, supra/infratentorial
______ ______ 20.13 Hematomas, Infection
______ ______ 20.14 Congenital Anomalies
______ ______ 20.15 Cranial Nerve Decompression
______ ______ 20.16 Intracranial Infections
______ ______ 20.17 Transnasal Surgery for Tumors, CSF leak, Infection
______ ______ 20.18 Shunt Procedures

______ ______ **20.20 SPINAL**
______ ______ 20.21 Laminectomy or laminotomy for disc infection, stenosis, trauma, tumor, vascular anomaly
______ ______ 20.22 Anterior vertebral approach with or without fusion
______ ______ 20.23 Anterior Cervical Instrumentation
______ ______ 20.24 Posterior Cervical Instrumentation
______ ______ 20.25 Anterior Thoracolumbar Instrumentation
______ ______ 20.26 Posterior Thoracolumbar Instrumentation

______ ______ **20.30 PERIPHERAL NERVE: Peripheral Nerve Neurolyses, Decompression, Repair**

______ ______ **20.40 TRACHEOSTOMY**

______ ______ **20.50 INTRACRANIAL & EXTRACRANIAL REVASCULARIZATION**
MINIMUM CRITERIA: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Neurological Surgery. Based on demonstrated competence, with documentation of focused experience.
SCOPE: Includes all Extracranial Vascular Procedures and Microvascular Anastomosis

______ ______ **20.60 FUNCTIONAL & STEREOTACTIC SURGERY**
MINIMUM CRITERIA: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Neurological Surgery. Based on demonstrated competence, with documentation of focused experience.
______ ______ 20.61 Stereotactic cranial or spinal recording, stimulation or ablative procedures
______ ______ 20.62 Stereotactic Biopsy or Irradiation
______ ______ 20.63 Percutaneous or Open Spinal Ablative Procedures
______ ______ 20.64 Implantation of spinal or peripheral nerve stimulation devices
______ ______ 20.65 Ventricular and spinal fluid studies
______ ______ 20.66 Intraoperative Angiography
______ ______ 20.67 Intracranial Pressure Monitoring

______ ______ **20.70 CENTRAL VENOUS ACCESS PROCEDURES**
MINIMUM CRITERIA: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Neurological Surgery. Based on

demonstrated competence, with documentation of focused experience.
SCOPE: Insertion of central venous access lines, Swan Ganz Catheters, Triple Lumen Catheters, Jugular Venous Saturation Monitoring

______ ______ **20.80 NEUROSONOLOGY**

MINIMUM CRITERIA: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Neurological Surgery including formal training in the basic principles and clinical application of Neurosonology; or a minimum of 40 hours of Category I Training in courses approved by the ACGME and documentation of supervised interpretation of a minimum of 100 Neurosonology Studies. Verification of a passing score by the American Society of Neuroimaging (ASN) Neurosonology Examination.

______ ______ 20.81 Perform Ultrasound examination for the diagnosis and management of cerebrovascular disease and head injury

______ ______ 20.82 Interpretation of studies

______ ______ **20.90 ACUTE TRAUMA SURGERY**

20 NEUROSURGERY
20.90 Acute Trauma Surgery
SCOPE: On-call trauma coverage for the comprehensive neurosurgical management of the acutely injured trauma patient.
CRITIERA: 1. Completion of ACGME-approved residency with Board certification/eligibility in Neurological Surgery. 2. Availability, clinical performance and continuing medical education consistent with current standards for neurosurgeons surgeons at Level One Trauma Centers specified by the California Code of Regulations (Title 22) and the American College of Surgeons.

______ ______ **30.00 DIAGNOSTIC RADIOLOGY: FLUOROSCOPY**

MINIMUM CRITERIA: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Neurological Surgery. Current X-Ray/Fluoroscopy Certificate.

I hereby request clinical privileges as indicated above.

____ ________________
Applicant date

FOR DEPARTMENTAL USE:

_____ Proctors have been assigned for the newly granted privileges.

_____ Proctoring requirements have been satisfied.

_____ Medications requiring DEA certification may be prescribed by this provider.

_____ Medications requiring DEA certification will not be prescribed by this provider.

_____ CPR certification is required.

_____ CPR certification is not required.

APPROVED BY:

____ ____________________

Division Chief date

____ ____________________

Service Chief date

APPENDIX B NEUROSURGERY PERFORMANCE IMPROVEMENT AND PATIENT SAFETY (PIPS) PLAN

I. **Goals and Objectives**

A. To assure that all patients receive appropriate and timely care with respect to their diagnostic and therapy, including surgical treatment where appropriate.

B. To minimize to the fullest extent possible both morbidity and mortality.

C. To prevent unnecessary in-patient days.

II. Responsibility

The Chief of the Neurosurgery Service has the overall responsibility for the program. Initiation, implementation, and follow-up of patient care evaluation activities may be delegated to another staff member.

III. Components of the Performance Improvement and Patient Safety (PIPS)

A. The quality and appropriateness of care on the Neurosurgery Service area assessed by the following:

1. Morbidity and mortality review
2. Complications review including incidence of infections
3. Surgical case review without specimens
4. Housestaff evaluations
5. Chart reviews
6. Attending staff reappointment review
7. Clinical Service monthly meetings which include patient care
8. Incident reports and risk-management cases related to the clinical practice are responded to promptly since they are almost always based on complications of clinical events already documented in the minutes of the monthly Morbidity and Mortality Review. Search of the clinical records for additional details may also be necessary. This documentation is the mechanism by which adverse patterns and trends may be identified, in which case the following remedial actions are implemented:

   a) In-service education and training program,
   b) New revised policies and procedures
   c) Staffing changes or equipment changes

IV. Reporting

Evidence of all Neurosurgery Service performance improvement and patient safety activities will be maintained in the Service and reported during monthly Neurosurgery Service staff meetings. Minutes of the meetings will be forwarded to the QM office monthly.

V. Correction

The Chief of the Neurosurgery Service will be responsible for assuring the correction of interservice/committee patient-care issues. Assistance from the Q&UM Office will be requested when certain problems cross service/committee boundaries and/or when the Service is unable to correct the problem.

VI. Peer Review

Appraisal of Service and individual patterns of patient care as determined by reviews and evaluations conducted by the Neurosurgery Service, e.g., complication rates, housestaff reviews, and hospital committees/programs (e.g., Performance Improvement & Patient Safety, Infection Control), will be used by the Chief of the Service in the medical staff reappointment process and delineation of privileges. Patterns of care will be discussed during the monthly service meeting.

VII. Admission Policy for Patients with Head Trauma

Head-injury patients with either of the following:

a. New abnormality on CT scan of the head, or
b. Abnormal neurological exam not entirely attributable to intoxication or other obvious process, with negative CT

Will be admitted by the Chief Resident unless a neurosurgical-attending physician who has examined the patient and reviewed the scan writes a note that discharge is safe.

VIII. Service Policy: Level-One Trauma Designation

The Neurosurgery Service at the Zuckerberg San Francisco General Hospital supports the American College of Surgeons trauma designation criteria and procedures and maintains its service in compliance with Level-One Trauma criteria.

A housestaff member of the Neurosurgery Service is in-house 24 hours a day to respond immediately to the Emergency Clinical Service for cases involving trauma to the nervous system. A senior neurosurgical resident is immediately available from outside the hospital for additional consultation and for all cases requiring surgery. Minor cases such as wound debridement and scalp laceration repair do not require attending coverage.

The Neurosurgery Service is organized separately from the Trauma Service, but coordinates its activities closely with the Trauma Service. The Neurosurgery Service participates routinely in Trauma Quality Improvement proceedings and maintains its own independent Performance Improvement and Patient Safety Program.

Neurosurgery actively participates with a variety of other services at ZSFG through weekly joint conferences with Neurology and with Neuro-radiology, and monthly multidisciplinary conferences regarding trauma care at ZSFG. Faculty members of the Neurosurgery Service routinely teach principles of neuro-trauma care to other services within the Hospital.

APPENDIX C NEUROSURGERY HOUSESTAFF MANUAL
MAINTAINED IN NEUROSURGERY ADMIN OFFICE IN PRIDE HALL

APPENDIX D CHIEF OF NEUROSURGERY SERVICE JOB DESCRIPTION

Chief of Neurosurgery Service

Position Summary:

The Chief of the Neurosurgery Service directs and coordinates the Service's clinical, administrative, 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 Neurosurgery Clinical Service reports directly to the Associate Dean and the University of California, San Francisco (UCSF) Department Chair. The Chief is reviewed not less than every four years by a committee appointed by the Chief of Staff. Reappointment of the Chief occurs upon recommendation by the Chief of Staff, in consultation with the Associate 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 Neurosurgery 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 the Neurosurgery 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 E CHIEF OF CLINICAL SERVICE JOB DESCRIPTION

Chief of the Clinical Service

Position Summary:

The Chief of the Clinical Service directs and coordinates the Service's clinical and educational 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 Clinical Chief also ensures 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 the Clinical Service reports directly to the Chief of the Neurosurgery Service and the University of California, San Francisco Department Chair. The Clinical Chief maintains working relationships clinical staff, fellows, residents, medical school trainees, and with other clinical departments.

Position Qualifications:

The Chief of the 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 Neurosurgery Clinical Service include the following:

Serving as the leader of the Neurosurgery Clinical Service. Overseeing and directing daily clinical activities including staffing and supervision of clinical staff and trainees. Coordination and scheduling of attending clinical coverage for the service. Participation in performance improvement and patient safety programs.

Serving as the leader of the neurosurgery clinical education at ZSFG. Overseeing and directing the ZSFG/UCSF Neurotrauma Fellowship. Oversight, coordination, and scheduling of trainee clinical education activities.

Performing all other duties and functions spelled out in the ZSFG Medical Staff Bylaws.

MS.08.01.03: Summary of Changes

Current	Revision
Delineation Of Privileges – Pediatrics **32.23 CIRCUMCISION** PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pediatrics. Documentation of additional training/experience PROCTORING: Review of 5 cases. REAPPOINTMENT: Review of 3 cases.	**Delineation Of Privileges – Pediatrics** **32.23 CIRCUMCISION** PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pediatrics or American Board of Family Medicine. Documentation of proficiency from a Residency program with at least 5 cases, OR, documentation of previous privileges at another hospital with at least 5 cases, OR, minimum of 5 cases performed with assistance from a supervising attending with circumcision privileges, until provider and supervisor determine the provider can perform under proctoring. PROCTORING: Direct observation of 3 independently performed cases (consecutive/concurrent). REAPPOINTMENT: Review of 3 cases.
Delineation Of Privileges – Family & Community Medicine	**Addition of Privileges** **Delineation Of Privileges – Family & Community Medicine** **32.23 CIRCUMCISION** PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pediatrics or American Board of Family Medicine. Documentation of proficiency from a Residency program with at least 5 cases, OR, documentation of previous privileges at another hospital with at least 5 cases, OR, minimum of 5 cases performed with assistance from a supervising attending with circumcision privileges, until provider and supervisor determine the provider can perform under proctoring. PROCTORING: Direct observation of 3 independently performed cases (consecutive/concurrent). REAPPOINTMENT: Review of 3 cases.

Delineation Of Privileges

Pediatrics 2021

Provider Name:

Privilege	Status	Approved

PEDIATRICS 2021

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

32.10 CORE PRIVILEGES ___
Admit, work-up and provide treatment and consultative services to pediatric patients in the ambulatory and inpatient (non-ICU) setting; including lumbar punctures.

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

PROCTORING: Review of 5 cases.

REAPPOINTMENT: Review of 3 cases.

32.11 PEDIATRIC HOSPITALIST PRIVILEGE ___
Admit, work-up and provide treatment and consultative services to pediatric patients in the ED and all inpatient settings. Privileges include diagnostic and therapeutic treatment interventions, and procedures, including lumbar puncture.

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pediatrics. Current PALS certification by the American Heart Association.

PROCTORING: Review of 5 cases.

REAPPOINTMENT: Review of 3 cases.

32.20 SPECIAL PEDIATRIC PRIVILEGES ___

32.21.1 CENTRAL LINE PLACEMENT ___

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pediatrics or Pediatric Critical Care Medicine.

PROCTORING: Review of 3 cases.

REAPPOINTMENT: Review of 2 cases.

32.22 LASER SURGERY ___
Removal of congenital and acquired lesions (tattoos, hemangiomas, pigmented lesions)

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pediatrics. Appropriate training, completion of the laser safety module prepared by the ZSFGH Laser Safety Committee and baseline eye examination within the previous 1 year.

PROCTORING: 2 observed procedures

REAPPOINTMENT: 2 cases in the previous two years

32.23 CIRCUMCISION ___

Privilege	Status	Approved

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pediatrics or American Board of Family Medicine. Documentation of proficiency from a Residency program with at least 5 cases, OR, documentation of previous privileges at another hospital with at least 5 cases, OR, minimum of 5 cases performed with assistance from a supervising attending with circumcision privileges, until provider and supervisor determine the provider can perform under proctoring.

PROCTORING: Direct observation of 3 independently performed cases (consecutive/concurrent).

REAPPOINTMENT: Review of 3 cases.

32.24 PROCEDURAL SEDATION ___

PREREQUISITES: The physician must possess the appropriate residency or clinical experience (read Hospital Policy 19.8 SEDATION) and have completed the procedural sedation test as evidenced by a satisfactory score on the examination. Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pediatrics and has completed at least one of the following:

- Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Emergency Medicine or Anesthesia or,
- Management of 10 pediatric airways via BVM or ETT per year in the preceding 2 years or,
- Current BLS, NRP, or PALS certification (age appropriate) by the American Heart Association

PROCTORING: Review of 5 cases (completed training within the last 5 years)

REAPPOINTMENT: Completion of the procedural sedation test as evidenced by a satisfactory score on the examination, and has completed at least one of the following:

- Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Emergency Medicine or Anesthesia or,
- Management of 10 pediatric airways via BVM or ETT per year for the preceding 2 years or,
- Current BLS, NPR, or PALS certification (age appropriate) by the American Heart Association

32.25 INSERTION OF INTRAUTERINE DEVICE (IUD) ___

PREREQUISITES: Currently board admissible, board certified or re-certified by the American Board of Pediatrics, American Board of Pediatrics in Adolescent Medicine, or special dispensation from the chief of service for equivalent training. Documentation of appropriate additional training.

PROCTORING: 2 observed procedures.

REAPPOINTMENT: 2 cases in the previous 2 years.

32.26 CARE OF NEWBORNS ___

Management of well and sick neonatal patients in conjunction with the Attending Neonatologist. Includes attendance at high-risk deliveries, neonatal resuscitation and stabilization, diagnostic and therapeutic treatment, interventions, and procedures.

Privilege	Status	Approved

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pediatrics. Current NRP certification by the American Heart Association.

PROCTORING: Review of 5 cases

REAPPOINTMENT: Review of 3 cases

32.40 PEDIATRIC SUBSPECIALTY PRIVILEGES ___
Patient management, including diagnostic and therapeutic treatment, procedures and interventions.

32.41 ADOLESCENT MEDICINE ___
Provide comprehensive primary preventive care, including family planning, evaluations, assessment, and management of chronic diseases common to adolescents and young adults.

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pediatrics in Adolescent Medicine or special dispensation from the chief of service for equivalent training.

PROCTORING: Review of 5 cases.

REAPPOINTMENT: Review of 3 cases.

32.42 ALLERGY AND IMMUNOLOGY ___
Work-up, diagnose, consult, treat and interpret clinical findings of pediatric patients with allergy or immunologic diseases in the ambulatory and inpatient settings. Core privileges include allergy skin testing and interpretation.

PREREQUISITES: Currently Board Admissible, Board Certified, Re-Certified by the American Board of Pediatrics or a subspecialty board of Pediatrics and the American Board of Allergy and Immunology or special dispensation from the chief of service for equivalent training.

PROCTORING: Review of 5 cases.

REAPPOINTMENT: Review of 3 cases.

32.43 PEDIATRIC CARDIOLOGY ___
Work-up, diagnose, consult, treat and interpret clinical findings of pediatric patients with cardiovascular disease; and electrocardiography interpretation including signal averaged ECG in the ambulatory and inpatient settings.

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pediatrics in Pediatric Cardiology, or special dispensation from the chief of service for equivalent training.

PROCTORING: Review of 5 cases.

REAPPOINTMENT: Review of 3 cases.

32.44 CHILD ABUSE ___
Work-up, diagnose, consult, treat and interpret clinical findings of pediatric patients with suspected child abuse in the ambulatory and inpatient settings. Core privileges include forensic physical and/or sexual abuse exams using colonoscopy, or other photo documentation of injuries.

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pediatrics in Child Abuse, or special dispensation from the chief of service for equivalent training.

PROCTORING: Review of 5 cases.

REAPPOINTMENT: Review of 3 cases.

Delineation Of Privileges

Pediatrics 2021

Provider Name:

Privilege	Status	Approved

32.45 PEDIATRIC DERMATOLOGY
Work-up, diagnose, consult, treat and interpret clinical findings of pediatric patients with dermatologic diseases in the ambulatory and inpatient settings. Core privileges include skin biopsy and interpretation of results. ___

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Dermatology in Pediatric Dermatology, or special dispensation from the chief of service for equivalent training.

PROCTORING: Review of 5 cases.

REAPPOINTMENT: Review of 3 cases.

32.46 GENETICS
Work-up, diagnose, consult, treat and interpret clinical findings of pediatric patients with genetics diseases in the ambulatory and inpatient settings. ___

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pediatrics and the American Board of Medical Genetics, or special dispensation from the chief of service for equivalent training or a member of the Service prior to 10/17/00.

PROCTORING: Review of 5 cases.

REAPPOINTMENT: Review of 3 cases.

32.47 PEDIATRIC GASTROENTEROLOGY
Work-up, diagnose, consult, treat and interpret clinical findings of pediatric patients with gastroenterology diseases in the ambulatory and inpatient settings. ___

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pediatrics in Pediatric Gastroenterology, or special dispensation from the chief of service for equivalent training.

PROCTORING: Review of 5 cases.

REAPPOINTMENT: Review of 3 cases.

32.48 PEDIATRIC INFECTIOUS DISEASE
Work-up, diagnose, consult, treat and interpret clinical findings of pediatric patients with infectious diseases in the ambulatory and inpatient settings. ___

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pediatrics in Pediatric Infectious Disease, or special dispensation from the chief of service for equivalent training.

PROCTORING: Review of 5 cases.

REAPPOINTMENT: Review of 3 cases.

32.49 NEONATOLOGY/PERINATAL
Management of critically ill newborns including diagnostic and therapeutic treatment, procedures and interventions, umbilical arterial and umbilical venous line placement, neonatal intensive care, neonatal resuscitation, ventilator management including conventional and high-frequency ventilators, inhaled Nitric Oxide (NO), endotracheal intubation, lumbar puncture, tube thoracostomy for pneumothorax, thoracentesis, paracentesis, pericardial tube placement for pneumopericardium, surfactant administration, parenteral nutrition, bladder tap, exchange transfusion ___

Provider Name:

Privilege	Status	Approved

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pediatrics in Neonatology.

PROCTORING: Review of 5 cases.

REAPPOINTMENT: Review of 3 cases.

32.49.1 Peripherally Inserted Central Catheter (PICC) Line Placement ___

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pediatrics or a member of Service prior to 10/17/00. Documentation of additional training/experience

PROCTORING: Review of 5 cases.

REAPPOINTMENT: Review of 3 cases.

32.50 PEDIATRIC NEUROLOGY ___
Work-up, diagnose, consult, treat and interpret clinical findings of pediatric patients in the ambulatory and inpatient settings with neurology diseases.

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Psychiatry and Neurology with special qualifications in Child Neurology, or special dispensation from the chief of service for equivalent training.

PROCTORING: Review of 5 cases.

REAPPOINTMENT: Review of 3 cases.

32.70 LIMITED PRIVILEGES ___

32.71 EXAM ONLY ___
The physician shall perform exams on patients for teaching purposes for residents or medical students. The physician will have no involvement in the clinical care of patients.

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

PROCTORING: Observation of 2 teaching sessions.

REAPPOINTMENT: Observation of 2 teaching sessions.

32.90 CTSI (CLINICAL AND TRANSLATIONAL SCIENCE INSTITUTE) - CLINICAL RESEARCH ___
Admit and follow pediatric 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

I hereby request clinical privileges as indicated above.

______________________________ ______________
Applicant Date

Delineation Of Privileges

Pediatrics 2021

Provider Name:

Privilege	Status	Approved

APPROVED BY

Service Chief ______________________ Date ______________

Delineation Of Privileges

Family And Community Medicine 2022

Provider Name:

Privilege	Status	Approved

FCM FAMILY AND COMMUNITY MEDICINE 2022
(07/2022 MEC & JCC)

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.

14.00 OUTPATIENT CLINIC PRIVILEGES ___

14.01 AMBULATORY CARE PRIVILEGES FOR FAMILY MEDICINE PREPARED PHYSICIANS ___
Perform basic procedures within the usual and customary scope of Family Medicine; diagnosis, management, treatment, preventive care, and minor procedures for patients of all ages in the Family Health Center (FHC), FHC satellites, or the patient's home. All procedures requiring anesthesia to be performed under local anesthesia. May refer patients for admission to the appropriate Inpatient Service, and may write informational notes in the SFGH inpatient medical record.

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

PROCTORING: Review of 5 cases.

REAPPOINTMENT: Review of 3 cases.

14.02 AMBULATORY CARE PRIVILEGES FOR INTERNAL MEDICINE OR EMERGENCY MEDICINE PREPARED PHYSICIANS ___
Perform basic procedures within the usual and customary scope of Internal Medicine or Emergency Medicine; diagnosis, management, treatment, preventive care, and minor procedures for adult patients in the Family Health Center (FHC), FHC satellites, or the patient's home. All procedures requiring anesthesia to be performed under local anesthesia. May refer patients for admission to the appropriate Inpatient Service and may write informational notes in the SFGH inpatient medical record.

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Internal Medicine, the American Board of Emergency Medicine.

PROCTORING: Review of 5 cases.

REAPPOINTMENT: Review of 3 cases.

14.03 BEHAVIORAL HEALTH CENTER PRIVILEGES ___
Performs basic procedures within the usual and customary scope of Family Medicine or Internal Medicine; diagnosis, management, treatment, preventive care, and minor procedures for adult patients in the Behavioral Health Center.

Concurrence of Behavioral Health Center Medical Director required:

______________________________ ______________
Signature, Behavioral Health Ctr Medical Director Date

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-certified by the American Board of Family Medicine, or the American Board of Internal Medicine.

PROCTORING: Review of 5 cases

REAPPOINTMENT: Review of 3 cases

14.10 INPATIENT CARE PRIVILEGES ___
Admit and be responsible for hospitalized adults. Admissions may include medical, surgical, gynecological, and neurological problems, and medical complications in pregnant patients with obstetric consultation. May also follow patients admitted to critical care units in a consultative capacity.

Delineation Of Privileges
Family And Community Medicine 2022

Provider Name:

Privilege	Status	Approved

14.11 FAMILY MEDICINE INPATIENT SERVICE PRIVILEGES ___
Perform basic procedures within the usual and customary scope of Family Medicine; diagnosis, management, treatment, preventive care, and minor procedures for hospitalized adults.

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

PROCTORING: Review of 5 cases.

REAPPOINTMENT: Review of 3 cases.

14.12 SKILLED NURSING FACILITY CARE PRIVILEGES ___
Perform basic procedures within the usual and customary scope of Family Medicine or Internal Medicine; diagnosis, management, treatment, preventive care, and minor procedures for adult patients in the SFGH Skilled Nursing Facility (SNF).

Concurrence of Skilled Nursing Facility Medical required:

______________________________ ______________
Signature, Skilled Nursing Facility Medical Director Date

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified byt the American Board of Family Medicine, the American Board of Internal Medicine.

PROCTORING: Review of 5 cases.

REAPPOINTMENT: Review of 3 cases.

14.13 NURSERY PRIVILEGES ___
Render care to well newborns, including admitting and performing routine evaluations and management.

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

PROCTORING: Case review for 3 newborn admissions

REAPPOINTMENT: Case review of 2 newborn admissions

14.20 PERINATAL PRIVILEGES ___
Render care to women during the perinatal period, including specific privileges 14.21 through 14.27, if requested and approved below:

14.21 NORMAL VAGINAL DELIVERY ___
Including administration of local anesthesia, performance of episiotomy, and repair of lacerations other than those involving the rectal sphincter.

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

PROCTORING: Case review and direct observation of a minimum of 3 deliveries.

REAPPOINTMENT: Review of 3 cases.

14.22 VACUUM ASSISTED DELIVERIES (OB CONSULTATION REQUIRED) ___

Concurrence of the Chief of OB/Gyn required:

______________________________ ______________
Signature, chief of OB/GYN Date

Delineation Of Privileges

Family And Community Medicine 2022

Provider Name:

Privilege	Status	Approved

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

PROCTORING: For applicants with documentation of prior successful performance of a minimum of 25 vacuum assisted deliveries: case review and direct observation of a minimum of 2 deliveries using vacuum assistance. For applicants with documentation of fewer than 25 vacuum assisted deliveries: case review and direct observation of 5 deliveries using vacuum assistance.

REAPPOINTMENT: Case review of 1 delivery using vacuum assistance.

14.23 FIRST ASSIST IN CESAREAN DELIVERY (OBSTETRICS CONSULTATION REQUIRED) ___

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Family Medicine and documentation of prior successful performance of a minimum of 25 Cesarean deliveries.

PROCTORING: Case review and direct observation of 5 Cesarean deliveries.

REAPPOINTMENT: Case review of 1 Cesarean delivery.

Concurrence of the Chief of OB/Gyn required:

__________________________________ ____________________

Signature, Chief of OB/GYN Date

14.24 ULTRASOUND IN PREGNANCY ___

Limited to determination of fetal gestational age, confirmation of presentation, placenta location, amniotic fluid adequacy, and confirmation of fetal heart rate.

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Family Medicine and documentation of a minimum of 8 hours instruction and didactic training in ultrasound technology and imaging.

PROCTORING: For applicants with documentation of satisfactory performance of at least 25 ultrasounds in pregnancy at another institution (Residency or Medical Staff): case review and direct observation of 5 ultrasounds in pregnancy. For applicants without documentation: case review and direct observation of 25 ultrasounds in pregnancy.

REAPPOINTMENT: Case review of 2 ultrasound images.

14.25 External Cephalic Version ___

PREREQUISITES: Currently admissible, certified, or recertified by the American Board of Family Medicine; active FCM Cesarean delivery privileges; and documentation of a minimum of 2 procedures.

PROCTORING: Concurrent review of 2 cases.

REAPPOINTMENT: Case reviews done in accordance with Obstetrics and Gynecology department quality improvement process.

14.26 CESAREAN DELIVERY ___

Privilege	Status	Approved

PREREQUISITES: Currently admissible, certified, or recertified by the American Board of Family Medicine; completion of 12-month fellowship including training in operative obstetrics; and documentation of a minimum of 50 Cesarean deliveries or active Cesarean delivery privileges within the last 5 years.

PROCTORING: Concurrent review of 5 Cesarean deliveries.

REAPPOINTMENT: Satisfactory performance of a minimum of 10 Cesarean deliveries in 2 years. Case reviews done in accordance with Obstetrics and Gynecology department quality improvement process.

Concurrence of the Obstetrics and Gynecology Service Chief required.

____
Signature, Obstetrics and Gynecology Service Chief

14.27 POSTPARTUM STERILIZATION ___

Prerequisites: Currently admissible, certified, or recertified by the American Board of Family Medicine; and documentation of a minimum of 10 procedures within the last 2 years.

Proctoring: Concurrent review of 2 cases.

Reappointment: Case reviews done in accordance with Obstetrics and Gynecology department quality improvement process.

<u>14.30 SPECIAL PRIVILEGES</u> ___

Physicians may apply for each of the following procedural privileges separately based on qualifications and scope of practice.

14.31 LUMBAR PUNCTURE ___

<u>PREREQUISITES:</u> Physicians must have FCM Basic Privileges (14.00), Inpatient Care Privileges (14.10), Skilled Nursing Facility (14.12), or Limited Privileges (14.40).

<u>PROCTORING:</u> Review of 2 cases, one of which may be performed on a simulated model.

<u>REAPPOINTMENT:</u> Review of 2 cases, one of which may be performed on a simulated model.

14.32 PARACENTESIS ___

<u>PREREQUISITES:</u> Physicians must have FCM Basic Privileges (14.00), Inpatient Care Privileges (14.10), Skilled Nursing Facility (14.12), or Limited Privileges (14.40).

<u>PROCTORING:</u> Review of 2 cases, one of which may be performed on a simulated model.

<u>REAPPOINTMENT:</u> Review of 2 cases, one of which may be performed on a simulated model.

14.33 THORACENTESIS ___

<u>PREREQUISITES:</u> Physicians must have FCM Basic Privileges (14.00), Inpatient Care Privileges (14.10), Skilled Nursing Facility (14.12), or Limited Privileges (14.40).

<u>PROCTORING:</u> Review of 2 cases, one of which may be performed on a simulated model.

<u>REAPPOINTMENT:</u> Review of 2 cases, one of which may be performed on a simulated model.

14.34 PLACEMENT OF CENTRAL VENOUS CATHETER, INCLUDING FEMORAL VENOUS CATHETER ___

Delineation Of Privileges

Family And Community Medicine 2022

Provider Name:

Privilege	Status	Approved

PREREQUISITES: Physicians must have FCM Basic Privileges (14.00), Inpatient Care Privileges (14.10), Skilled Nursing Facility (14.12), or Limited Privileges (14.40).

PROCTORING: Review of 2 cases, one of which may be performed on a simulated model.

REAPPOINTMENT: Review of 2 cases, one of which may be performed on a simulated model.

14.35 INTRAUTERINE PROCEDURES ___

PREREQUISITES: Physicians must have FCM Basic Privileges (14.00), Inpatient Care Privileges (14.10), Skilled Nursing Facility (14.12), or Limited Privileges (14.40).

PROCTORING: Review of 2 cases.

REAPPOINTMENT: Review of 2 cases.

a. Endometrial Biopsy ___

b. Insertion Of Intrauterine Device (IUD) ___

14.36 SURGICAL TERMINATION OF FIRST TRIMESTER INTRAUTERINE PREGNANCY ___
Perform surgical abortions in the first trimester of pregnancy at appropriate facilities at SFGH.

PREREQUISITES: Currently Board Admissible, Board Certified or Re-Certified by the American Board of Family Medicine. Completion of at least 20 hours of formal training in surgical abortion, including first trimester ultrasound for confirmation of intrauterine pregnancy and determination of gestational age, during residency or a CME program, and documentation of 50 procedures.

PROCTORING: Case review of 3 surgical terminations.

REAPPOINTMENT: Case review of 2 terminations.

14.37 VASECTOMY ___

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Family Medicine. Completion, as a licensed physician, of a minimum of 20 vasectomy procedures under supervision of a privileged and Board Certified Urologist or Family Physician.

PROCTORING: Review of 5 cases.

REAPPOINTMENT: Review of 3 cases.

32.23 CIRCUMCISION ___

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pediatrics or American Board of Family Medicine. Documentation of proficiency from a Residency program with at least 5 cases, OR, documentation of previous privileges at another hospital with at least 5 cases, OR, minimum of 5 cases performed with assistance from a supervising attending with circumcision privileges, until provider and supervisor determine the provider can perform under proctoring.Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pediatrics. Documentation of additional training/experience

PROCTORING: Direct observation of 3 independently performed cases (consecutive/concurrent).Review of 5 cases.

REAPPOINTMENT: Review of 3 cases.

14.40 LIMITED AMBULATORY CARE PRIVILEGES ___

Provider Name:

Privilege	Status	Approved

14.41 ACUPUNCTURE ___
Perform acupuncture, acupressure, and moxibustion in the Family Medicine Inpatient Service, Family Health Center (FHC), Skilled Nursing Facility, FHC Satellites and in the patient's home.

PREREQUISITES: Successful completion, by a licensed physician of at least 200-hours instruction and didactic training course given by a UC or other nationally recognized university.

PROCTORING: 5 direct observations and 5 cases to be reviewed by a medical staff member who maintains unproctored status for Acupuncture Privileges within the CHN/SFGH system. Direct observations and chart reviews may be on the same patient or on different patients. A summary monitoring report will be sent to the respective Clinical Service to be forwarded to the appropriate committees for privileging recommendation.

REAPPOINTMENT: Review of 5 cases by a medical staff member who maintains unproctored status for Acupuncture Privileges within the CHN/SFGH system. A summary monitoring report will be sent to the respective Clinical Service to be forwarded to the appropriate committees for reappointment recommendation.

14.42 DENTISTRY ___
Provide professional dental services to hospital and clinic patients; instruct patients in correct oral hygiene and dental care; treat mouth diseases; refer cases requiring oral surgery and medical attention to proper department.

PREREQUISITES: Requiring completion of the curriculum of an approved school of dentistry and possession of the DDS degree. Requires possession of a valid license to practice dentistry issued by the State Board of Dental Examiners.

PROCTORING: Review of 5 cases.

REAPPOINTMENT: Review of 3 cases.

14.43 CLINICAL PSYCHOLOGY ___
Provide individual and family counseling and therapy.

PREREQUISITES: Clinical Psychologists must hold a doctoral degree in Psychology from an approved APA accredited program, and must be licensed on the basis of the doctorate degree in Psychology by the State of California, Board of Psychology.

PROCTORING: Review of 5 cases.

REAPPOINTMENT: Review of 3 cases.

14.44 ALLERGY AND IMMUNOLOGY ___
Work-up, diagnose, consult, treat, and interpret clinical findings of adult and pediatric patients in the ambulatory setting with allergy or immunologic diseases. Core privileges include allergy skin testing and interpretation.

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by the American Board of Pediatrics or American Board of Internal Medicine and the American Board of Allergy and Immunology or special dispensation from the chief of service for equivalent training.

PROCTORING: Review of 5 cases.

REAPPOINTMENT: Review of 3 cases.

14.50 WAIVED TESTING ___
Privileges in this category relate to common tests that do not involve an instrument and are typically performed by providers at the bedside or point of care. By obtaining and maintaining waived testing privileges, providers satisfy competency expectations for waived testing by The Joint Commission.

Provider Name:

Privilege	Status	Approved

PREREQUISITES: Currently Board Admissible, Board Certified, or Re-Certified by an American Board in Emergency Medicine, Family Community Medicine, Medicine, Pediatrics, Obstetrics/Gynecology, or General Surgery.

PROCTORING: By the Chief of the Laboratory Medicine Service or designee until successful completion of a web-based competency assessment tool is documented for each requested waived testing privilege.

REAPPOINTMENT: Renewal of privileges requires every two years documentation of successful completion of a web-based competency assessment tool for each waived testing privilege for which renewal is requested.

a. Fecal Occult Blood Testing (Hemoccult®) ___

b. Vaginal Ph Testing (Ph Paper) ___

c. Urine Chemistrip® Testing ___

d. Urine Pregnancy Test (Sp® Brand Rapid Test) ___

14.60 STRAIN-COUNTERSTRAIN MANIPULATIVE MEDICINE PRIVILEGE ___
Perform manipulation principally for the purpose of relief of primarily muscular pain on the Family Medicine Inpatient Service, Family Health Center, Skilled Nursing Facility, FHC satellites, and in the patient's home.

PREREQUISITES: Successful completion, by a licensed physician, of at least 30-hours instruction and didactic training course designed for health care professionals and authorized to provide CME or CE credits. In addition, five hours of supervised clinical practice, either during or after residency or completion of training in a Doctor of Osteopathy training program.

PROCTORING: 5 direct observations and 5 cases to be reviewed by a SFGH medical staff member who either maintains Strain-Counterstrain privileges or is a Doctor of Osteopathy who has received training in the Strain-Counterstrain technique.

REAPPOINTMENT: Review of five 5 cases.

14.70 CTSI (CLINICAL 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

14.80 ADDICTION MEDICINE ___
Provide addiction medicine consultative services and treatment to patients in the inpatient and ambulatory settings.

Delineation Of Privileges

Family And Community Medicine 2022

Provider Name:

Privilege	Status	Approved

PREREQUISITES: Currently board admissible, certified, or re-certified by the American Board of Addiction Medicine OR by the American Board of Preventative Medicine Addiction Medicine Subspecialty and board admissible, certified or re-certified by the American Board of Internal Medicine, an Internal Medicine Subspecialty, American Board of Family Medicine, American Board of Pediatrics, American Board of Psychiatry and Neurology, or American Board of Emergency Medicine. Approval of the Director of the Addiction Medicine Service required for all applicants.

PROCTORING: Review of 5 cases. Review to be performed by Addiction Medicine Service Director or designee.

REAPPOINTMENT: Review of 3 cases. Review to be performed by Addiction Medicine Service Director or designee.

Addiction Medicine Director/Designee ____________ Date ____________

I hereby request clinical privileges as indicated above.

Applicant ____________ Date ____________

APPROVED BY

Division Chief ____________ Date ____________

Service Chief ____________ Date ____________

ZSFG Neurosurgery Service Report

2023 - 2024

Geoffrey Manley, MD, PhD
on behalf of the ZSFG Neurosurgery Team

Our Goals……..

Provide 24/7 neurosurgical care to patients of ZSFG/SFHN and the Bay Area

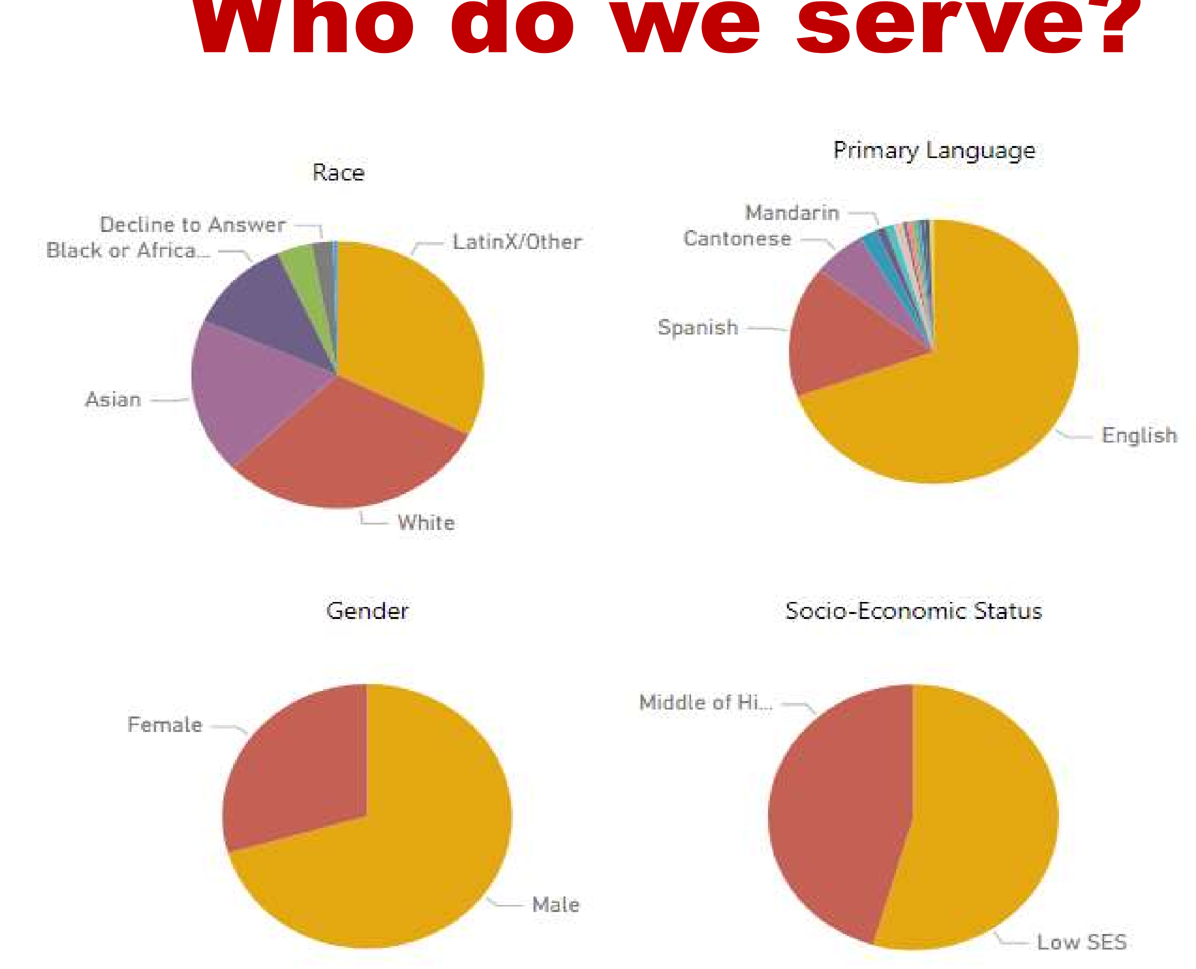
Deliver the most advanced care for patients with brain and spinal cord injury

To translate basic neuroscience into clinical practice

Train the next generation of neurotrauma clinicians and scientists

Transform neurotrauma care worldwide

Who do we serve?



Scope of Clinical Services

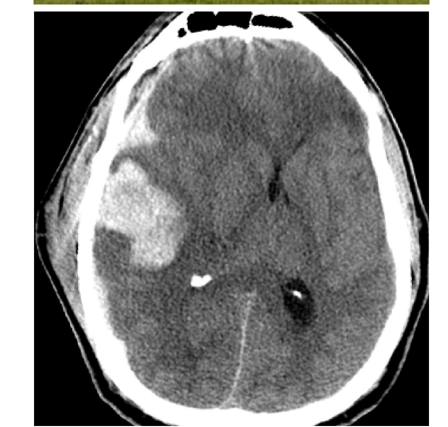
- **Inpatient Services**
  - Traumatic brain, spine and other neurosurgical emergencies
  - Neurocritical Care – Partnership with Neurology
  - Elective/Consult

- **24/7/365**
  - Attending rounds every day and sees ALL patients
  - Attending reviews all consults/studies– improve flow in ED
  - Comprehensive documentation with real-time monitoring – billing/DRGs

Clinical Services – Trauma

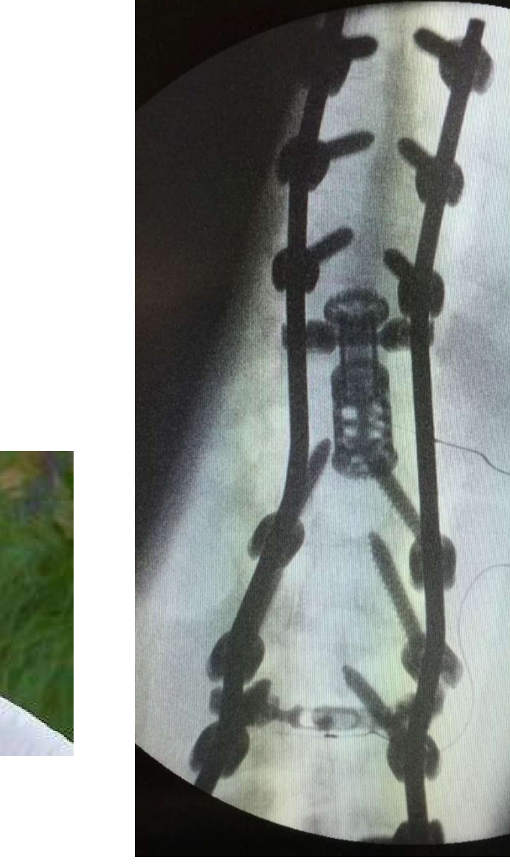
- **Traumatic Brain Injury**
  - From Concussion to Coma
  - Neurocritical Care and Surgical Treatment
  - Non-Operative Treatment

- **Spine and Spinal Cord Injury**
  - Neurocritical Care and Surgical Treatment
  - Non-Operative Treatment

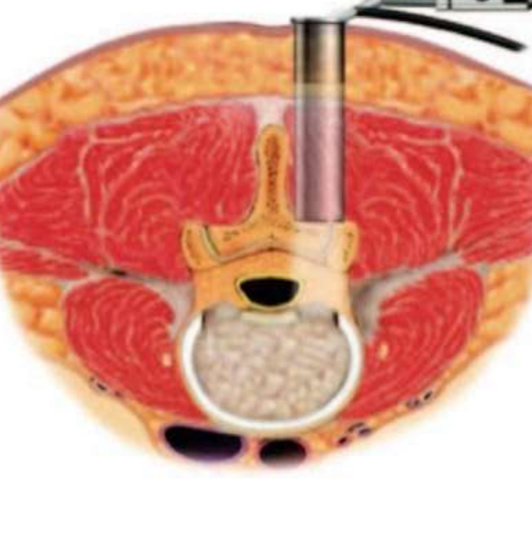


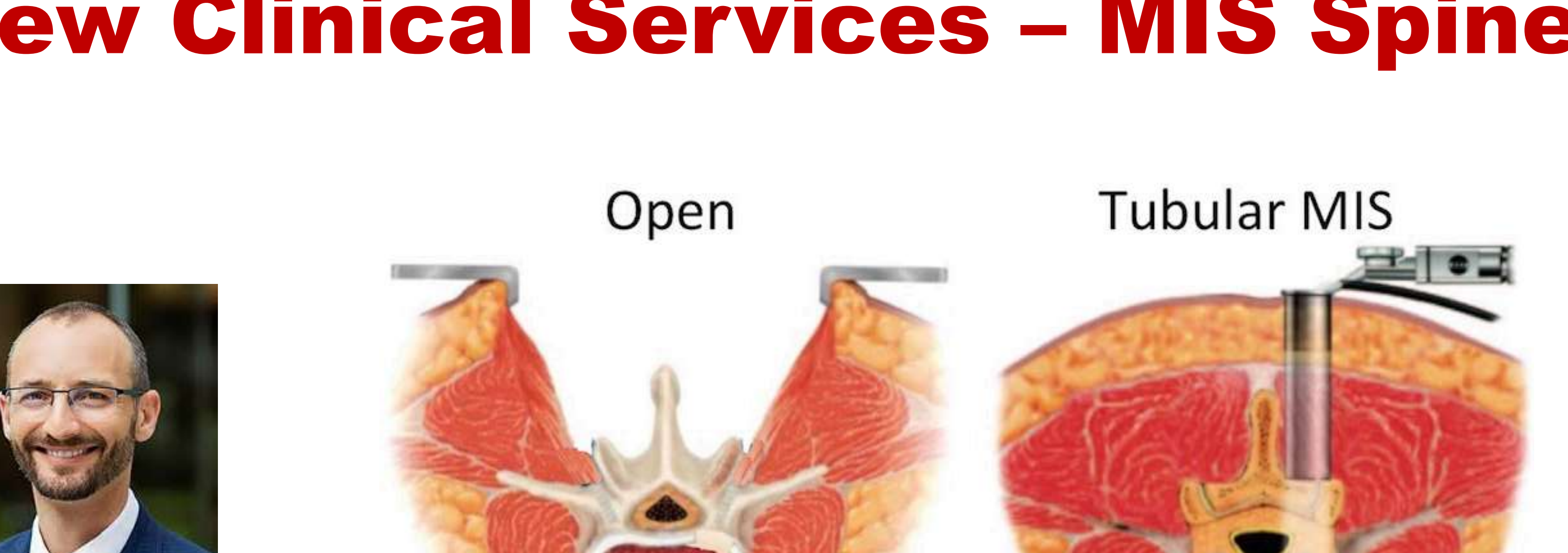
Clinical Services – Non-trauma

- **Craniocerebral**
  - Tumors
  - Aneurysms
  - Vascular Malformations
  - Intra- / Extra- Cranial Ischemic Disease
- **Spinal**
  - Degenerative
  - Deformity
  - Tumors



New Clinical Services – MIS Spine





Median LOS 4 days

Median LOS Zero days

New Clinical Services – MIS Spine

DATE	PROCEDURE	LOS	COMP
1/27/2023	MIS Lami	0	
3/1/2023	MIS Lami	0	
5/3/2023	MIS Lami	0	
5/5/2023	MIS Lami	0	
5/12/2023	MIS Lami	2	CSF Leak
7/11/2023	MIS MCD	3 (ER, PT)	
8/4/2023	MIS MCD	0	
9/15/2023	MIS Lami	1 (Social)	
10/15/2023	MIS Lami	0	
10/25/2023	MIS Lami	0	
10/27/2023	MIS Lami	0	
3/24/2024	MIS MCD	3 (ER, PT)	
5/31/2024	MIS Lami	0	
6/24/2024	MIS Lami	0	

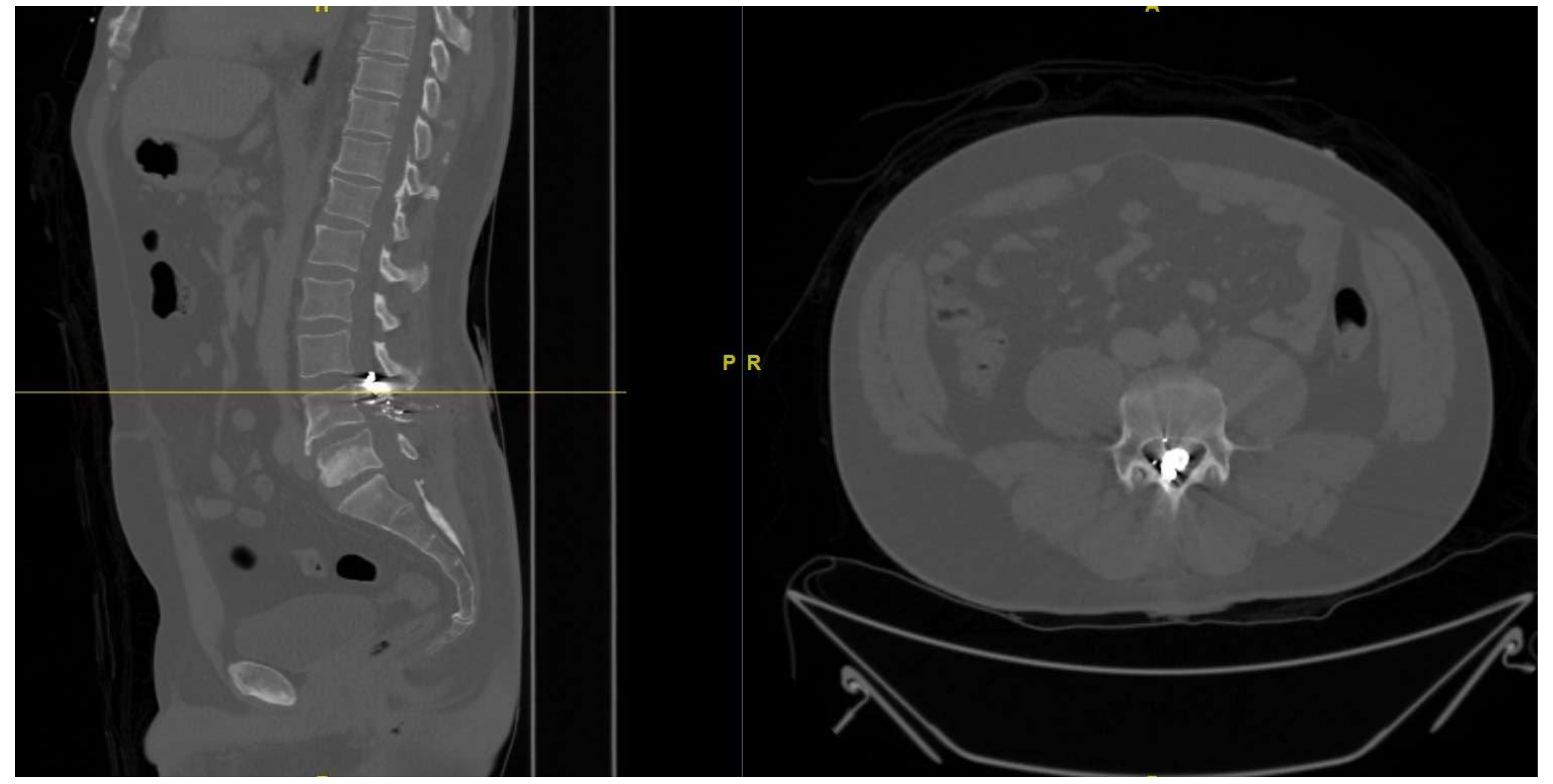
Traditional: 56 Hosp Days

MIS: 9 Days

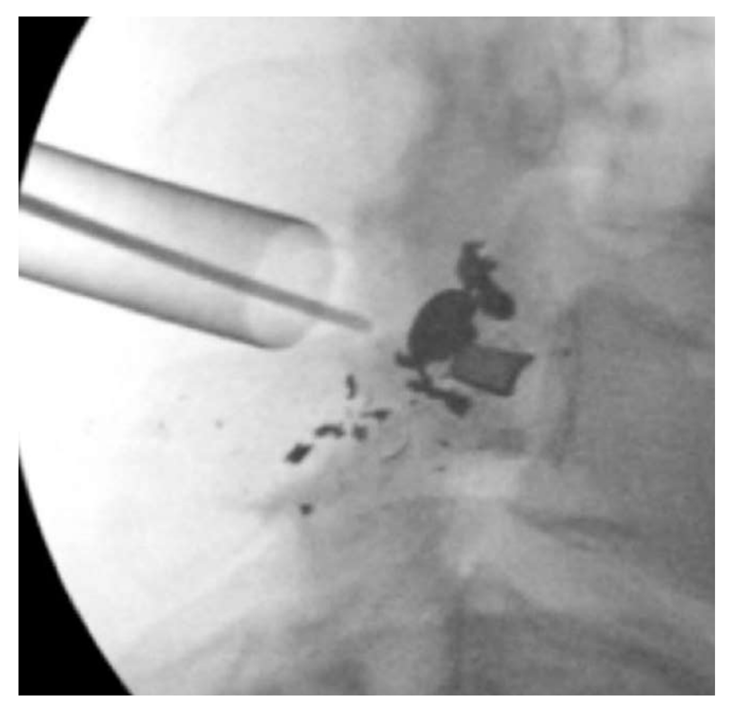
84% Reduction in LOS

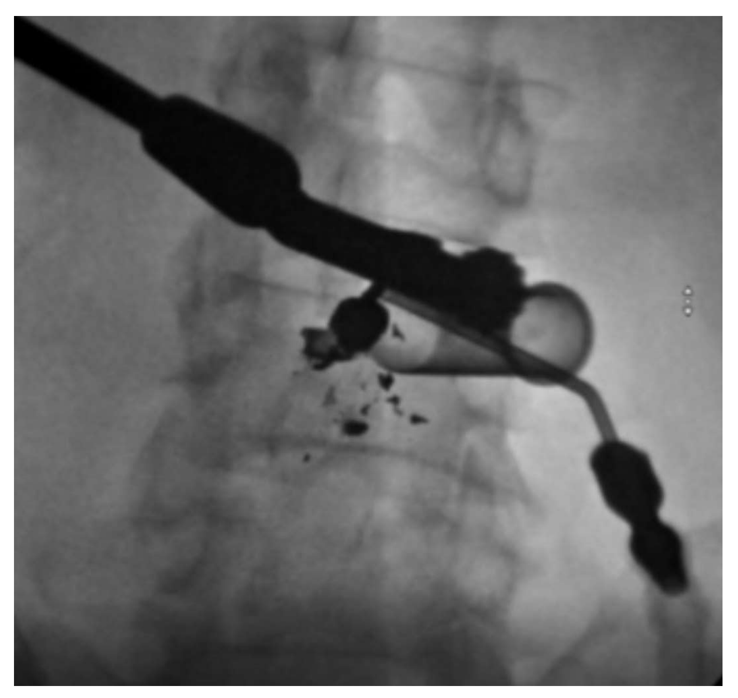
We need an MIS Instrument Set

MIS Spine - Trauma



MIS Spine - Trauma





Clinical Services – Ambulatory

- **Clinics**

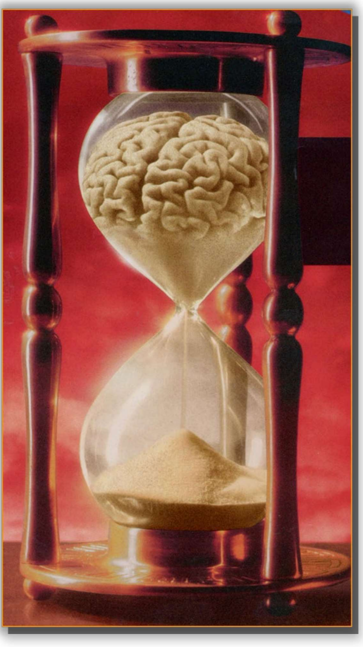
  - 4M Clinic - Tuesdays (2-3 Attendings, NPs, +/- resident)

    Not a "resident" clinic

  - TBI Clinic – Twice a month

Scope of Clinical Service

- **Trauma and Emergency Neurosurgery Call**
  - 8,760 hours a year Primary Call (24/7) **High Intensity**
    - 8,760 hours a year Back-Up Call (24/7) **2-3 times/month**



"One Service" Model

One Attending – One NSG Resident – One Intern
With Back-Up and NP support

- **Operations and Major Procedures (2023)**
  - 405 Cases (380 in 2021), 6% increase since 2021
- **Consults (2023)**
  - 2,190 (2,136 in 2020), Avg 6/day (range 0-16)
- **Inpatient Service**
  - Average 20 to 25 inpatients, with 5-7 of these in the ICU
- **Critical Care (2023)** – 1,825 encounters

ZSFG Neurosurgery Staff

ZSFG 2024 Exceptional Advanced Practice Provider Award
Twyila Lay, NP

Faculty and Fellows

- **Attending Staff (FTE)**
  - Michael Huang 1.0 FTE
  - Anthony DiGiorgio 1.0 FTE
  - Geoff Manley 0.5 FTE
  - Phiroz Tarapore 0.52 FTE
  - Rajiv Saigal 0.28 FTE
- **Fellows**
  - John Kanter
  - Phil Bonney

Estimated "Right Size" is 4.5 – 5.3 FTE

3.28 FTE for FY24

78 Hours of Call per FTE a Week

Clinical Care and PI Activities

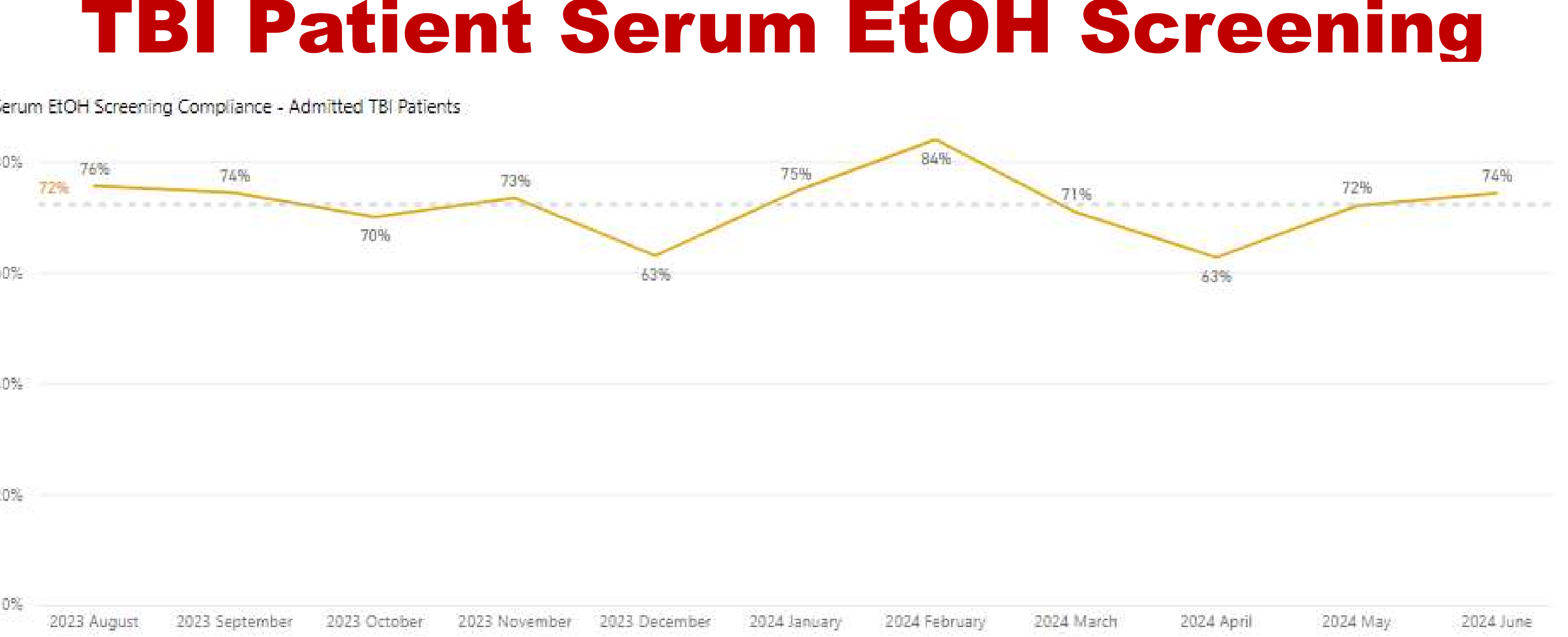
First in the Nation to receive Joint Commission Certification for Traumatic Brain Injury

THE JOINT COMMISSION
NATIONAL QUALITY APPROVAL

2011 2013

2016 2018 2020

TBI Patient Serum EtOH Screening



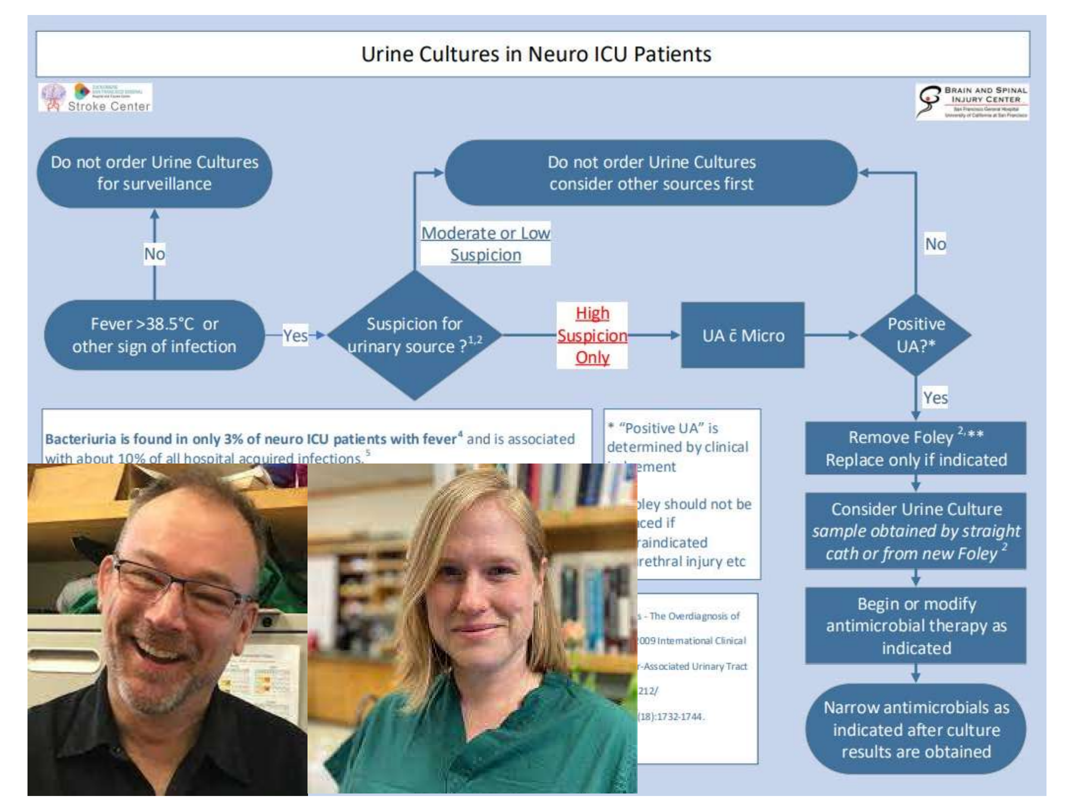
74% of admitted patients with TBI screened for EtOH

Alcohol Use Disorder Screening and Brief Intervention Performed by Addiction Medicine for At Risk TBI Patients

Year	SBI_compliance	Count of SBI_COMPLETED
2024	92%	12
May		1
April	100%	3
March	100%	3
February	100%	2
January	100%	3
2023	83%	18
December	75%	4
November	100%	6
October	80%	5
September	50%	2
August	100%	1
Total	87%	30

- Mean preperformance substantially improved from last period
  - **2022-2023 = 76%**
  - **2023-2024 = 89%**
- The Addiction Care Team continues to be an excellent partner in this initiative.

Efforts to Reduce CAUTI



CAUTI REDUCED: Partnered with Neurology to operationalize an evidence-based urine culture protocol to reduce overdiagnosis of CAUTI

Total CAUTI for NSU and Neurocritical Care was 4 cases in FY 2023-2024
Down from 7 cases last FY

Prevention

STROKE AWARENESS

300+
Tote bags given away with BE FAST information

224
Stroke surveys administered using motivational interviewing

BLOOD PRESSURE

26
Blood Pressure Screenings

81%

81%
Blood pressure readings were in the Hypertensive range

TBI PREVENTION

80
Helmets given away

28
Volunteers

10
Departments within ZSFG represented
Plus other community partners

Fitted and gave away 80 pediatric bicycle helmets

More than 100 adult helmets have been distributed from the ED

Partnership with with Nursing and Education

Promoting Excellence in Neuro Care

- Neuro Education
  - New RN grad, ED RN and ICU RN training
- Ongoing Bedside Education/Support
  - Bedside Chats
  - Debrief and Healing
- NeuroTrauma Symposium
  - Nearly 20 years
  - Scheduled December 9, 2024
- Acute traumatic SCI
  - Partnered with ED and ICU nursing to improve care

New Neurotrauma Activation – Spinal Cord Injury – “Code SCI”

Single Order in EPIC

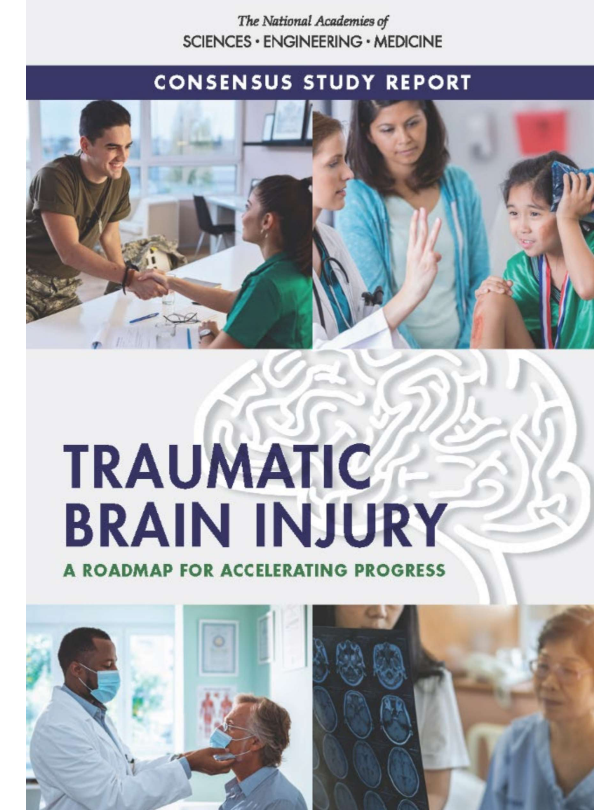
- **Trauma patient with tetra- or paraplegia**
  - No chronic or confounding cause
- **Alert Teams**
  - Radiology, ICU, Spine Surgery, Neurosurgery
- **Patient Care**
  - MAP Goals, Spinal Perfusion Pressure Management, A-line, Foley, DVT prophylaxis

New Acute Care Neurosurgery Division

ACUTE CARE NETWORK:

Mission: Replicate and scale ZSFG standardized acute neurosurgery program to all levels of trauma at our network sites.

Goal: Develop clear and informed treatment protocols and support program implementation at each network site



Consensus study released February 2022

Roadmap of eight recommendations to advance care and research

RECOMMENDATIONS

1. **Create** and implement an **updated classification system** for TBI.

2. **Integrate acute** and **long-term** person- and family-centered **management** of TBI.

3. **Reduce** unwarranted **variability** and **gaps** in administrative and clinical **care guidance** to assure high quality care for TBI.

4. **Enhance awareness** and **identification of TBI** by healthcare providers and the public.

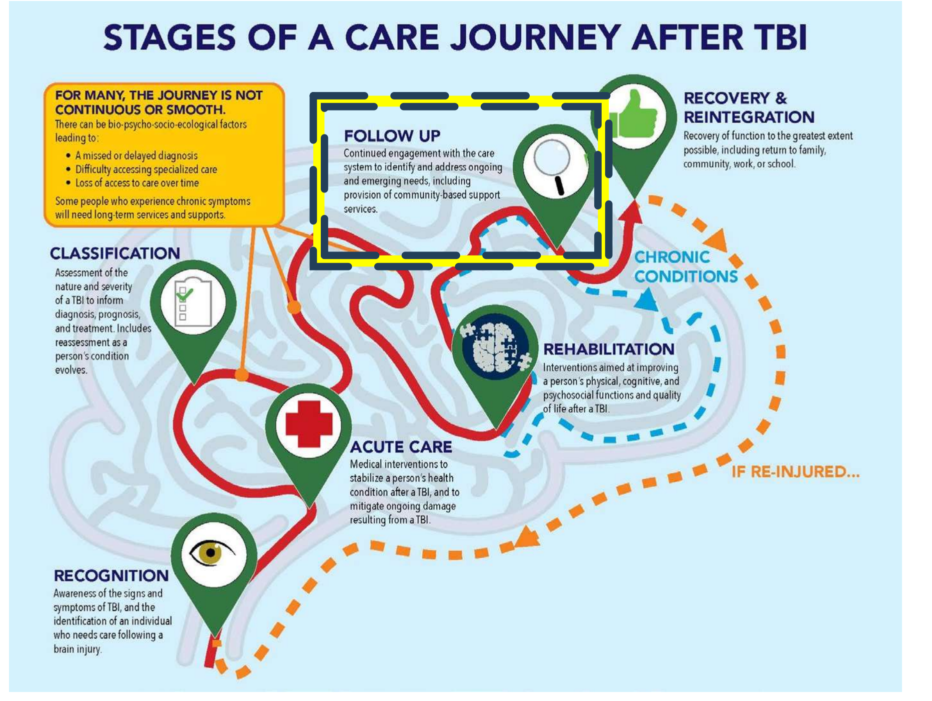
5. **Establish** and reinforce local and regional **integrated care delivery systems** for TBI.

6. **Integrate** the TBI system of **care** with TBI **research** into a **learning system.**

7. **Improve** the quality and **expand** the range of **TBI studies** and **study designs.**

8. **Create** and **promulgate** a **national framework** and **plan** for improvement of TBI care.

NASEM Action Collaborative on TBI Care



The Action Collaborative on TBI Care, in association with the National Academies of Science, Engineering, and Medicine (NASEM), was formed to address the substantial gap in systems of care for post-acute TBI. This initiative brings together an international panel of experts, community stakeholders, and TBI survivors to re-imagine TBI care.

Mission: Create a nationwide, accessible, equitable, sustainable, and evidence-based system of post-acute TBI care

Goal: Build a network of replicable post-acute TBI neurospecialty outpatient clinical care programs that improve TBI treatment and outcomes.

NASEM Action Collaborative Working Groups

1. **Follow up Care:**
   - Goal: (1) Identify core elements of a best practice model for post-acute, and (2) Enhance patient capture, access, and flow by establishing a best practice model of follow-up care to optimize TBI outcomes
2. **Clinical Practice Guidelines:**
   - Goal: Enhance support for community-based health professionals through evidence-based clinical management recommendations for optimizing the recovery and wellness of people with TBI. Provide list of prioritized guideline topics and actionable recommendations.
3. **TBI Educational Materials and Discharge Instructions:**
   - Goal: Improve the educational materials provided to patients after a TBI. These materials include discharge instructional handouts and videos, symptom-based recovery tips, and work- and school-based accommodations templates and instructions.
4. **Clinical Components:**
   - Goal: Define clinical resources and operational elements of a multidisciplinary TBI clinic

TBI Educational Materials and Discharge Instructions

Group Leads: **Odette Harris, MD, MPH and Kelly Sarmiento, MPH**

Goal: Improve adult educational materials and discharge instructions provided to patients after a TBI

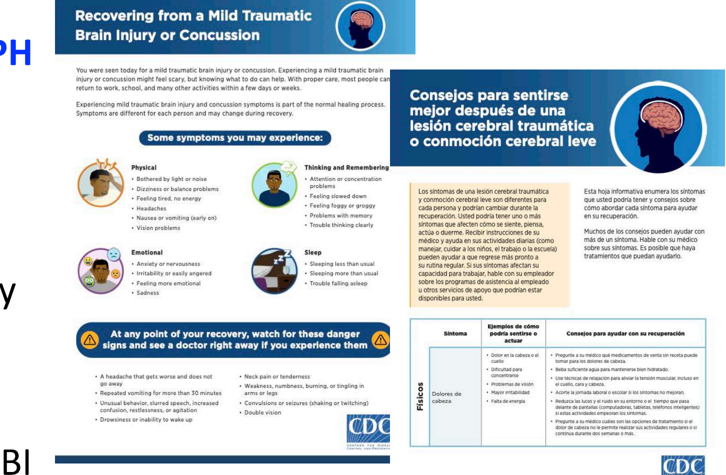
Group updates:

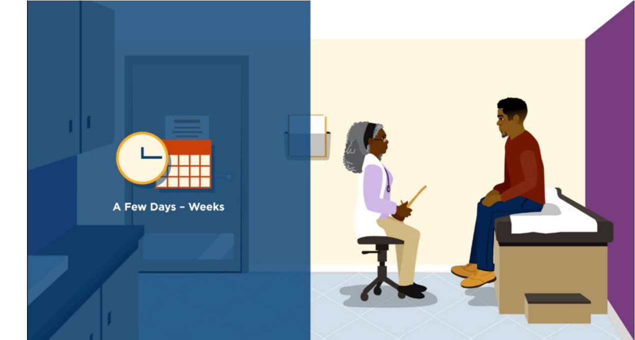
✓ Created (1) discharge instructions (2) symptom-based recovery tips (3) return to work instructions

✓ Created video-based version of the discharge instructions

✓ Received feedback from the Action Collaborative, additional TBI experts, and received clearance from CDC

❑ **Develop partnerships and strategies to disseminate and implement these materials**





Find more information at
cdc.gov/Traumatic-Brain-Injury

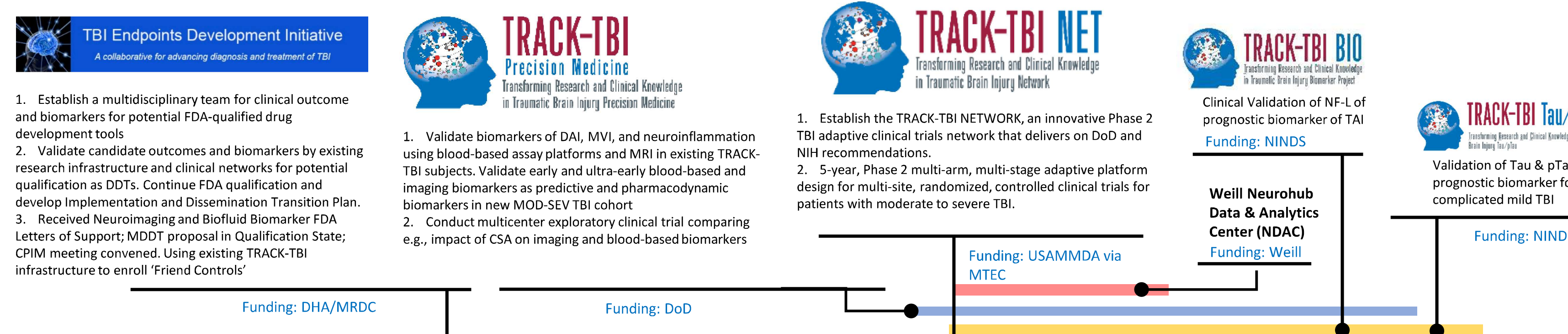
Research

Total Funding: > $ 100 Million

- New DoD: + $ 27 Million
- NIH: $ 11.4 Million
- VA: $ 8.8 Million
- Industry: $ 47 Million
- Philanthropy: $ 5 Million

TRACK-TBI Team

International Team Science



TBI Endpoints Development Initiative

A collaborative for advancing diagnosis and treatment of TBI

1. Establish a multidisciplinary team for clinical outcome and biomarkers for potential FDA-qualified drug development tools
2. Validate candidate outcomes and biomarkers by existing research infrastructure and clinical networks for potential qualification as DDTs. Continue FDA qualification and develop Implementation and Dissemination Transition Plan.
3. Received Neuroimaging and Biofluid Biomarker FDA Letters of Support; MDDT proposal in Qualification State; CPIM meeting convened. Using existing TRACK-TBI infrastructure to enroll 'Friend Controls'

Funding: DHA/MRDC

TRACK-TBI Precision Medicine

Transforming Research and Clinical Knowledge in Traumatic Brain Injury Precision Medicine

1. Validate biomarkers of DAI, MVI, and neuroinflammation using blood-based assay platforms and MRI in existing TRACK-TBI subjects. Validate early and ultra-early blood-based and imaging biomarkers as predictive and pharmacodynamic biomarkers in new MOD-SEV TBI cohort
2. Conduct multicenter exploratory clinical trial comparing e.g., impact of CSA on imaging and blood-based biomarkers

Funding: DoD

TRACK-TBI NET

Transforming Research and Clinical Knowledge in Traumatic Brain Injury Network

1. Establish the TRACK-TBI NETWORK, an innovative Phase 2 TBI adaptive clinical trials network that delivers on DoD and NIH recommendations.
2. 5-year, Phase 2 multi-arm, multi-stage adaptive platform design for multi-site, randomized, controlled clinical trials for patients with moderate to severe TBI.

Funding: USAMMDA via MTEC

TRACK-TBI BIO

Transforming Research and Clinical Knowledge in Traumatic Brain Injury Biomarker Project

Clinical Validation of NF-L of prognostic biomarker of TAI

Funding: NINDS

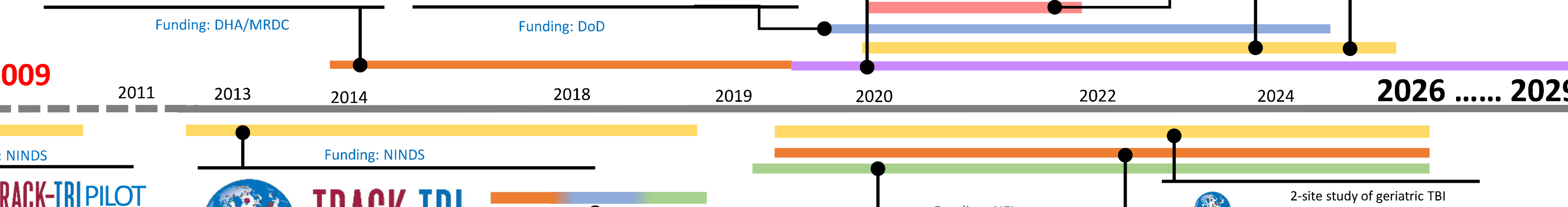
Weill Neurohub Data & Analytics Center (NDAC)

Funding: Weill

TRACK-TBI Tau/pTau

Validation of Tau & pTau as prognostic biomarker for complicated mild TBI

Funding: NINDS



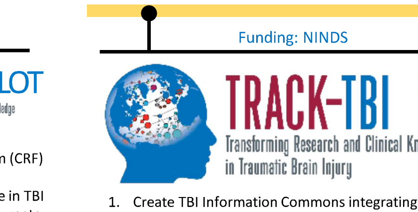
Funding: NINDS

TRACK-TBI PILOT

Transforming Research and Clinical Knowledge in Traumatic Brain Injury

1. Modular Case Report Form (CRF) with web-based data entry, automated data checks for use in TBI consistent with the project to create NINDS Common Data Elements (TBI-CDE).
2. Test modular TBI-CDE in a prospective observational study and to use this experience to fine tune and improve the system.
3. Create TBI-CDE Neuroimaging and Biospecimen data repositories.
4. Make the standardized formats for data collection in TBI widely available with open source access.

Funding: NINDS



TRACK-TBI

Transforming Research and Clinical Knowledge in Traumatic Brain Injury

1. Create TBI Information Commons integrating clinical, imaging, proteomic, genomic, and outcome biomarkers from subjects across the age and injury spectra, and provides analytic tools and resources to support TBI research.
2. Validate imaging, proteomic, and genetic biomarkers for classification of TBI for selection and stratification of patients for clinical trials, contribute to development of a new taxonomy for TBI.
3. Evaluate a flexible outcome assessment battery of TBI common data elements that enables assessment of multiple outcome domains across all phases of recovery and at all levels of severity.
4. Determine which tests, treatments, and services are effective and appropriate for which TBI patients, and use this evidence to recommend practices that offer the best value.

Funding: NFL

TRACK-TBI LONG

Transforming Research and Clinical Knowledge in Traumatic Brain Injury Longitudinal

1. Characterize the long-term effects of TBI in the TRACK-TBI cohort for evidence of neurodegenerative disease, psychiatric disease, and post-traumatic disorders to identify those at risk for these unfavorable long-term outcomes.
2. Characterize the relationship of imaging biomarkers to the long-term trajectory of neurocognitive/psychological function in TBI.
3. Characterize the relationship of proteomic biomarkers to the long-term trajectory of neurocognitive/psychological function in TBI.

TRACK-TBI GERI

2-site study of geriatric TBI investigating clinical outcomes and predictors as well as diagnostic prognostic biomarkers Funding: NINDS

TRACK-TBI EPI

Transforming Research and Clinical Knowledge in Traumatic Brain Injury Epileptogenesis

Funding: DHA/MRDC

1. Extend follow-up of TRACK-TBI participants from 1 to 5 yrs.
2. Extend follow-up period of the TRACK-TBI affiliated studies.
3. Conduct specialist epileptologist evaluation for all TBI patients who screen positive for PTEo 2 years.
4. Measure candidate blood biomarkers.

Spreading Depolarization II (U Cinn /Hartings)

1. Develop single-process methods for automated bedside detection of spreading depolarizations
2. Determine incidence of spreading depolarizations and if they are associated with worse neurologic outcome

Funding: DHA/MRDC

Department of Energy (DOE) / Nat'l Labs Collaboration

Utilize DOE Artificial Intelligence and high-performance computing to operationalize Precision Medicine approaches

Funding: DOE

High Definition Fiber Tracking (UPMC / Okonkwo)

1. Perform advanced HDFT on subset of TRACK-TBI subjects
2. Create a Biospecimen Repository of samples collected from 3000 TRACK-TBI subjects
3. Create a Bioinformatics Core that will accelerate input of TRACK-TBI data into FITBIR

Funding; Naval Health Research Center

Abbott

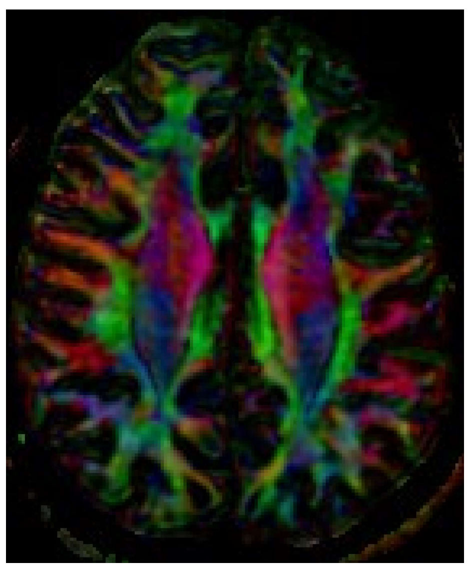
iSTAT
Partnership with Abbott to test prototype TBI point-of-care device

Aid in Diagnosis (AiDx)
Expanding the indications for the use of the TBI Blood Test as a diagnostic aid in pediatrics & adults

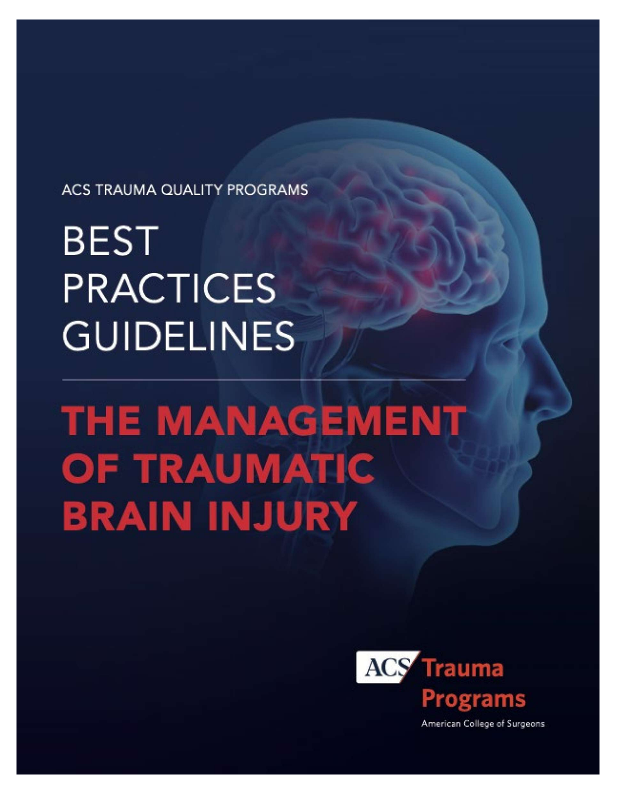
Alinity i TBI Test Fresh Sample Testing
Evaluate the performance of the Abbott TBI Test with the Alinity *i* instrument system in fresh collected plasma specimens

Clinical Evaluation of the i-STAT TBI Test
Assist in determining need for CT in GCS 13-15 using fresh collected plasma and whole blood specimens

How does this help our patients ?



2024 – Updated ACS Trauma Quality Improvement Program (TQIP) TBI Guidelines

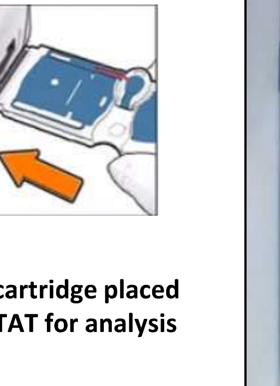


Introduction
Triage and Transport
Basic Assessment
Imaging
Blood-based Biomarkers
Goals of Treatment
Intracranial Pressure Monitoring
Tiered Management of Intracranial Pressure
Neuromonitoring
Surgical Management
Nutritional Support
Ventilation and Tracheostomy
Timing of Extracranial Procedures
Management of Associated Blunt Cerebrovascular Injury
Timing of Pharmacologic Venous Thromboembolism Prophylaxis
Pharmacological Management
Prognostic Assessment and Family Communication
Post-traumatic Epilepsy
Management of TBI Patients with GCS 13-15
Outcome Assessment
Rehabilitation for TBI
Education and Follow Up
Integration and Implementation of the Guidelines

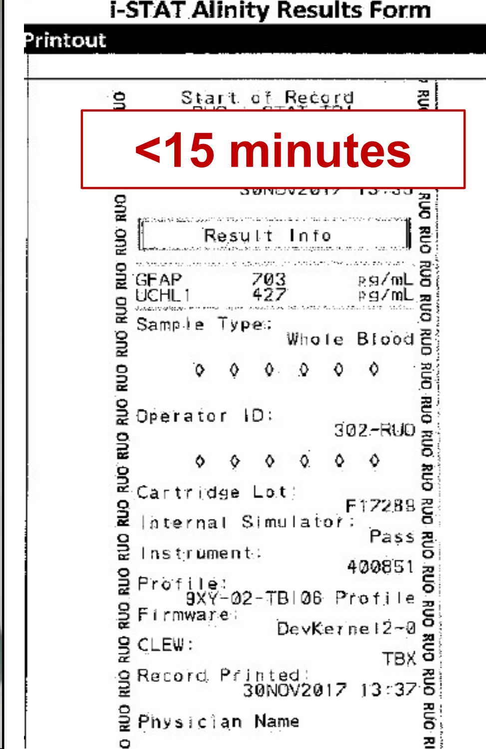
Blood Based Biomarkers: Rule-Out CT

3 FDA Clearances to Rule-Out the Need for CT in TBI

Blood Based Biomarkers: Rule-Out CT – ZSFG Evaluation



Assay cartridge placed
into iSTAT for analysis



i-STAT Alinity Results Form

Printout

Start of Record

<15 minutes

Result Info

GFAP	703	pg/mL
UCHL1	427	pg/mL

Sample Type: Whole Blood

Operator ID: 302-RUO

Cartridge Lot: F17288

Internal Simulator: Pass

Instrument: 400851

Profile: 9XY-02-TBI06 Profile

Firmware: DevKernel2-0

CLEW: TBX

Record Printed: 30NOV2017 13:37

Physician Name

This independent evaluation was paid for by Emergency Medicine departmental funds with support from Lab Medicine and Neurosurgery

Blood Based Biomarkers: Rule-Out CT

100 Patients with CT Scan Ordered Enrolled

19% Not Elevated

13 patients with abnormalities (CT+)

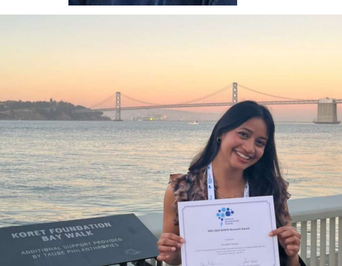
Not elevated	GFAP
Mean	< 30

Of elevated, mean/median GFAP, UCH-L1

Elevated	GFAP
Mean	202.0625

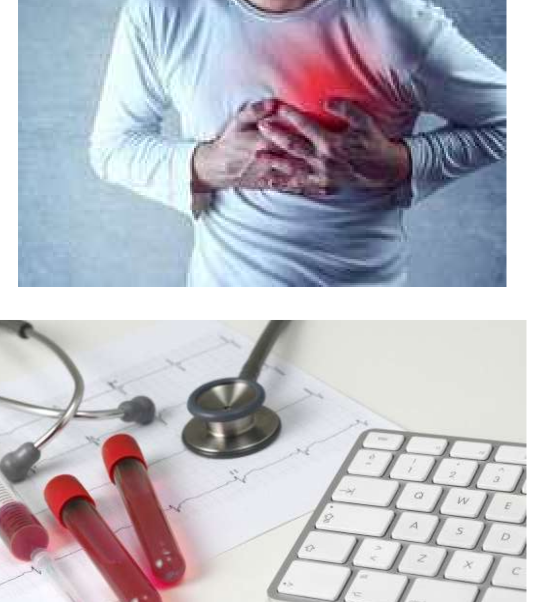
Of positive CT, mean/median GFAP, UCH-L1

Positive CT	GFAP
Mean	785.7

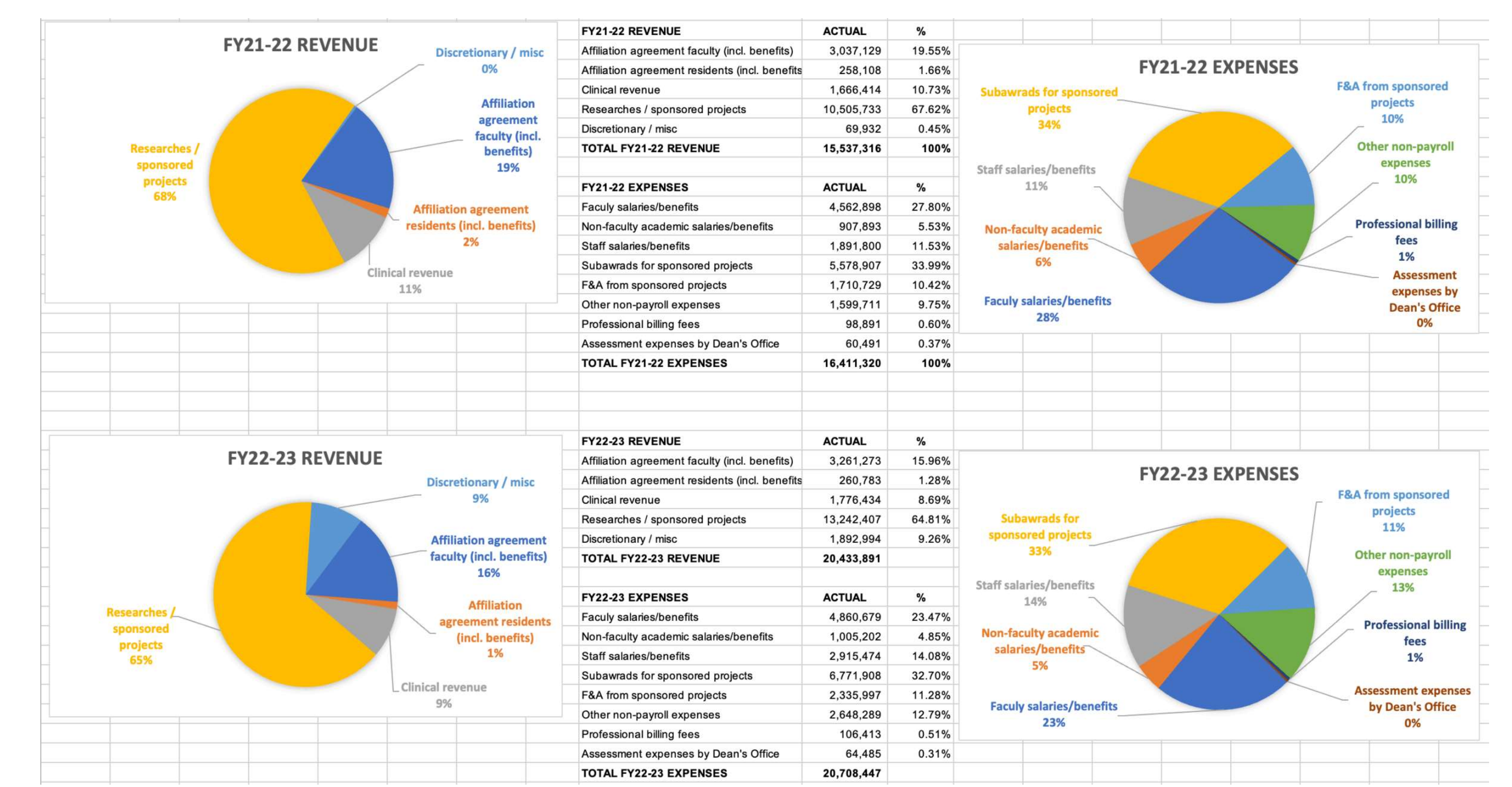


Shraddha Pandey

Paving the Way for a New Era for TBI Triage and Treatment



ZSFG Neurosurgery | Revenue / Expenses FY 2022-2023



FY21-22 REVENUE	ACTUAL	%
Affiliation agreement faculty (incl. benefits)	3,037,129	19.55%
Affiliation agreement residents (incl. benefits	258,108	1.66%
Clinical revenue	1,666,414	10.73%
Researches / sponsored projects	10,505,733	67.62%
Discretionary / misc	69,932	0.45%
TOTAL FY21-22 REVENUE	**15,537,316**	**100%**

FY21-22 EXPENSES	ACTUAL	%
Faculy salaries/benefits	4,562,898	27.80%
Non-faculty academic salaries/benefits	907,893	5.53%
Staff salaries/benefits	1,891,800	11.53%
Subawrads for sponsored projects	5,578,907	33.99%
F&A from sponsored projects	1,710,729	10.42%
Other non-payroll expenses	1,599,711	9.75%
Professional billing fees	98,891	0.60%
Assessment expenses by Dean's Office	60,491	0.37%
TOTAL FY21-22 EXPENSES	**16,411,320**	**100%**

FY22-23 REVENUE	ACTUAL	%
Affiliation agreement faculty (incl. benefits)	3,261,273	15.96%
Affiliation agreement residents (incl. benefits	260,783	1.28%
Clinical revenue	1,776,434	8.69%
Researches / sponsored projects	13,242,407	64.81%
Discretionary / misc	1,892,994	9.26%
TOTAL FY22-23 REVENUE	**20,433,891**	

FY22-23 EXPENSES	ACTUAL	%
Faculy salaries/benefits	4,860,679	23.47%
Non-faculty academic salaries/benefits	1,005,202	4.85%
Staff salaries/benefits	2,915,474	14.08%
Subawrads for sponsored projects	6,771,908	32.70%
F&A from sponsored projects	2,335,997	11.28%
Other non-payroll expenses	2,648,289	12.79%
Professional billing fees	106,413	0.51%
Assessment expenses by Dean's Office	64,485	0.31%
TOTAL FY22-23 EXPENSES	**20,708,447**	

Challenges

- Retention and recruitment of faculty
- Resources for clinical programs
  - Minimally invasive spine instruments
  - TBI follow up and post-acute care
  - Support for TBI biomarker testing

- Defining ZSFG's role in regional trauma care