

**Kern Medical Center  
Bakersfield, CA**

**Department of Surgery Handbook  
*of*  
Policies and Procedures**

This handbook is an attempt to bring together in one place all of the information needed by people who work in the Department of Surgery. When policies are described here which are policies of the Medical Center, they are here only for simplicity. In all cases, the official Policy and Procedures Manual of the Medical Center (available within the department office for anyone to examine) shall be the final authority.

March, 2000

## **Acknowledgement**

This handbook was compiled by Dr. Alan Lefor In July 1996 and updated by Dr. Chung in March 2000.

Much of the information in this handbook, especially regarding the organization of the services and resident tasks, was collected by Bill Taylor MD, and simply "pasted" into this handbook.

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## **General Information**

## **Department of Surgery Mission Statement**

*The staff of the Department of Surgery at Kern Medical Center are dedicated to prolonging and enhancing human life through excellence in clinical practice, continuous improvement in medical treatment, teaching and research. We are committed to high professional standards and to providing quality medical care to all who need it, regardless of their ability to pay. We will accomplish this by working in close partnership with each other, our patients, our community and our colleagues.*

## ***Faculty Listing by Service***

### **KMC GENERAL SURGERY**

Jack H. Bloch MD	Chairman, Department of Surgery General and Thoracic Surgery
Charles Brown MD	General / Vascular Surgery
Ray Chung, MD	Program Director in Surgery Trauma and Surgical Critical Care
E. William Taylor	General Surgery Laparoscopic Surgery

### **WHITE SURGERY SERVICE:**

Hormuz Irani MD	Associate Program Director Surgical Oncology / General Surgery
Sandys Tang MD	Vascular / General Surgery
Donald Loos MD	General Surgery
Shepard Palitz MD	General Surgery / Hospital DME
Richard O'Reilly MD	General / Thoracic Surgery

### **GREEN SURGERY SERVICE:**

Marvin Derrick MD	APD, Cardiothoracic Surgery
Bruce Frasier MD	Cardiothoracic Surgery
Neil Arbegast MD	Cardiothoracic Surgery
Sarj Purewal MD	Cardiothoracic Surgery
L. Sowka, MD	Cardiothoracic Surgery

### **ORANGE SURGERY SERVICE:**

Javier Miro MD	APD, Vascular Surgery
Roddie Reed MD	Vascular Surgery

### **BLUE SURGERY SERVICE:**

Nolan Anderson MD	APD, General Surgery
Samuel Shields MD	General Surgery
Oscar Ramos MD	General Surgery

### **UROLOGY**

Albert McBride, MD	Urology
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### **NEUROSURGERY**

Charles Wrobel, MD	Neurosurgery
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William Meyer, MD      Neurosurgery

**PLASTIC SURGERY**

Fernando Prunes, MD      Plastic Surgery

**ORTHOPAEDIC SURGERY**

Daniel D'Amico, MD      Orthopaedic Surgery

E. Amir, MD      Orthopaedic Surgery

Donald Jagger, M.D.      Orthopaedic

**ENT**

Richard Busch, MD      ENT

**UCSD / SD VAMC FACULTY**

AR Moossa, MD      General Surgery

David Hoyt, MD      Trauma Surgery

David Easter, MD      General Surgery, Laparoscopy

Bard Cosman, MD      Colorectal Surgery

John Dunn, MD      Transplant

Nicholas Halasz, MD      General Surgery

John Hansbrough, MD      Burns

Marquis Hart, MD      Transplant

Robert Winchell, MD      Trauma

Anthony Perricone, MD      Cardiac

David Bliss, MD      General Surgery

Okechukwu Ojogho, MD      Transplant

Robert Hye, MD      Vascular

John Sparks, MD      General

**CHLA**

Kathryn Anderson, MD      Pediatric Surgery

Richard Shaul, MD      Pediatric Surgery

**Fresno VCH**

David Hodge, MD      APD, Pediatric Surgery

## ***General Procedures at KMC Department of Surgery***

Staff - Staff call is 24hr at a time, 8am-8am. Contact the Staff on call that day. It's also necessary to check if the patient had another staff on prior admission to maintain that the same staff remains on the case for continuity of care.

On your admit orders and H & P's you must identify the attending Surgeon/Chief Residents/Service.

Two residents (one from each team) are assigned to oncology clinic Wednesday mornings. These can be assigned by C.R. (Chief Resident)/Staff and should be the same resident for the month.

You must document informed consent on the chart before all procedures. A note such as risks, benefits, options discussed with patient whose questions were answered. He/She understands the plan and agrees to the proposed procedure may suffice.

Sick leave/vacation/other -- PLEASE interface with the secretarial staff regarding these items.

Know also where your mail is and pick it up in a timely fashion. If you have any questions, please ask the secretarial staff who will be happy to assist you. Please do not wait until the day before to turn in papers to be typed, or the secretaries may not be able to accommodate you. Preplanning and organization are good keywords to start your internship year.

A patient list database is available on the computer in the resident's lounge. The patient list must be kept up to date. All patients must appear on the list at least once even though the patient may have been discharged before the new list is made. Please leave a patient list taped to the door of each G.S. staff and specialist (If you are rotating on a subspecialty) every morning, and a list on Pat Harvey's desk (first desk as you enter the door). If you have any question using the patient list, please contact Dr. Chung.

If you are assigned a task such as Journal Club, picking and setting up video at Tuesday conference, helping with a core lecture or medical student lecture and you absolutely cannot do it, it is your job to find someone else to cover your assignment.

## ***Affiliated Teaching Hospitals***

The Surgery Residency Program at KMC incorporates a number of hospitals in Southern California to complement the residents' learning experience at KMC.

### **Integrated Hospitals:**

Mercy Hospital (Bakersfield)  
San Joaquin Hospital (Bakersfield)  
Memorial Hospital (Bakersfield)  
Bakersfield Heart Hospital (Bakersfield)  
Delano Regional Medical Center (Delano)

### **Affiliated Hospitals:**

LA Children's Hospital (Los Angeles)  
Fresno Valley Children's Hospital (Fresno)  
San Diego VA Medical Center (San Diego)  
UC San Diego Medical Center (San Diego)

## ***KMC Clinics***

Subspecialty clinic is covered by the appropriate Gold/Red team. Gold and Red team G.S. clinics are covered by their respective teams with Chief Residents in charge. If you are not in the OR or ER, you should be in clinic and please be on time. If you are not in the clinic (GS, ENT, PLS, URO) when you should be please call your Chief Resident and be prepared with a good reason.

Patients previously admitted or consulted upon by the Red team will be seen in Red Clinic. Non-admission ER consults while Red Chief is on call should go to Red Clinic. All other (new referrals) will be placed in clinic according to the last medical record number (even will be Red; odd will be Gold). Screening of charts by attending physicians also uses this system.

When called by the ER to okay a patient for GS clinic, you must decided several things; first of all, is this an elective problem and can it wait 10 days (2 weeks)? If so, tell them to send the chart through GS screening. These will be screened by staff, SARS sent and assigned to a clinic in a timely fashion. If the patient can't waie, then you had beter go down and see the patient yourself. They may need admission. You do have the right to okay a GS clinic visit on a particular date (Monday or Thursday) without screening. However, laying in bed upstairs and okaying every patient for a non-screen visit clogs the clinic and actually delays the patient's care, as many patients who are not screened are sent to the wrong clinic.

You must identify staff and Chief Resident for all operative cases or the schedulers in clinic willnot schedule these patients. Your Chief Resident is probably the best source for this information. Most Chief Residents want to do all of their own scheduling. Check with them first. He/She must know about each case, check your preop orders and write a Chief Resident preop note. The Gann blood form must be discussed with and signed by all patients going to surgery who have a reasonable chance of needing blood (state law). State law mandates you give breast cnacer patients the literature about their options (available in GS clinics) and document this in the chart.

## ***KMC Service Descriptions***

The Surgical Service at KMC is divided into General Surgery, Neurosurgery, and Orthopedics. Neurosurgery and Orthopedics are in themselves independent services from General Surgery with distinct staff. General Surgery residents as well as rotating E.R., F.P., and transitional residents are at times assigned to these rotations.

The General Surgery Service is divided into two teams, each with independent staff and Chief Resident (CR). "Red Service", in addition to "General Surgery" patients also manages the Plastic Surgery and ENT services, staffed by Doctors Prunes and Busch respectively. "Gold Surgery" also manages the Urology Service staffed by Dr. McBride. Residents on Red or Gold will be assigned by the C.R. to manage these subspecialty arms of the G.S. teams. When G.S. residents are assigned to a G.S. subspecialty, they will still have G.S. duties and call. ENT and PLS clinics will be covered by all members of the Red Team and Urology Clinic by all members of the Gold Team, with cross-over assistance as necessary.

Note that the specialty services switch from Red to Gold and vice versa every 6 months in order to provide equality of experience on both teams.

Clinic patients are distributed according to the last digit of the medical record number:

Even - Red  
Odd - Gold

## ***Educational Conferences***

### **MONDAY**

### **TUESDAY – (Every)**

Attending Rounds – 1:00 P.M.

- TUESDAY –**
- 1<sup>st</sup>** Interesting Case Conf. - 12:00 Noon
  - 2<sup>nd</sup>** Radiology Conf. - 12:00 Noon
  - 3<sup>rd</sup>** Interesting Case Conf. - 12:00 Noon
  - 4<sup>th</sup>** Interesting Case Conf. - 12:00 Noon

- WEDNESDAY –**
- 1<sup>st</sup>** Basic Science Conf. - 7:30 A.M.
  - 2<sup>nd</sup>** Oncology Conf. - 7:30 A.M.
  - 3<sup>rd</sup>** Basic Science Conf. Or Professional Core - 7:30 A.M.
  - 4<sup>th</sup>** ICU/Critical Care Conf. - 7:30 A.M.

### **WEDNESDAY - (Every)**

Trauma & Critical Care Round - Noon  
Departmental M & M Conf. 4:00 - 5:00 P.M.  
Surgical Grand Rounds - 5:00 - 6:00 P.M.

### **WEDNESDAY – 2<sup>nd</sup>**

Journal Club - 7:00 P.M.

### **WEDNESDAY - (Every Other)**

UCSD Staff Rounds – 12:00 noon

### **THURSDAY – (Every)**

Pre op round – 5:00 P.M.

### **THURSDAY – (Every 2<sup>nd</sup>)**

Combined ED/Surgery Trauma Conference – 12:00 noon

### **FRIDAY - (EVERY)**

Question Book Session – 12:00 noon  
Attending Rounds – 1:00 P.M.

Conference attendance is not optional and neither is being on time! DON'T BE LATE!

\*During the months of June, July and August, please refer to core curriculum schedule.

Tuesday Conference - Junior residents will be assigned interesting cases (in house or clinic) and topics to be presented at the conference should be concise, typewritten, (or printed neatly) about the disease (pearls about Dx, Rx options) -- less than one page. If you're assigned a topic, talk to Mai in the Surgery Office about getting a Tuesday date. There is also a video educational series we employ, given by an assigned R2-4.

## ***Departmental Staff Meetings***

The Surgery Departmental Staff Meeting takes place quarterly on Wednesday at 7:00 P.M. The meeting is lead by the Chairman of the Department, Dr. Bloch. All faculty members are expected to be present, including faculty at the integrated institutions. The two Chief Residents are also expected to be present.

The topics of discussion during this meeting include but not limit to evaluation of residents by faculty, evaluation of faculty and services by residents and medical students, individual resident performance and progress, evaluation of the program, departmental issues and divisional issues. This is the forum in which information about the department is distributed, problems and issues with the residency program will be discussed, financial issues and administrative issues are being resolved. Minutes will be taken for future reference.

Faculty participation is strongly recommended.

## ***Quality Management Program***

Each year, the Department of Surgery will furnish to the KMC Quality Management Committee a departmental quality improvement plan outlining the area of patient care to be studied and the indicators that will be used in a quality management audit.

From time to time during the course of the year as the audits are completed, the results will be discussed at the quality management portion of the weekly departmental quality review conference, recommendations for improvement will be made and a plan for implementation of necessary change developed. Members of the surgery staff will be delegated responsibility for participation in the planning and auditing process, discussing plans for change and improvement and implementing the recommended changes.

## ***Morbidity and Mortality Conference***

- Residents will discuss all complications
- Interesting cases may also be presented
- While rotating on outside rotations, attendance is still expected.
- Residents are to submit the M & M form to the department office by Monday. Each M & M form should include a recent literature reference.

## ***Surgical Specialties and Subspecialties***

Floor calls go to the corresponding Red or Gold resident on call. ENT/Uro/PLS/E.R./new consults go to the first call who should contact second call and/or subspecialty staff and/or Chief Resident on call as appropriate. All G.S. admissions/new consults will ultimately be cared for by a team whose Chief Resident is on call for that 24 hours. For example, a Red intern on first call may operate on and initially care for a patient with acute appendicitis during his/her call, but if the "Gold" Chief is on call at that time, the patient will be taken care of by the Gold Team after that night. (The continuity of care is led by the Chief Resident.). Please respond promptly to E.R./floor consults (within 30 minutes) and call your Chief Resident. promptly, especially if the patient needs potential operation or is in extremis. We are here to help the guys on the front line. In cases of dispute (near the magic 7:30 a.m. mark) what matters is when the E.R. or floor consulted the first call. So, see the patients ASAP when consulted -- it eliminates potentially hazardous and embarrassing situations for the patient and you (Chief Residents don't like surprises at 7:30 a.m. if avoidable).

### **ENT/PLS NOTE:**

Jaw fractures are divided by these services. If the last digit of the medical record number is even, it goes to PLS; if odd, to ENT service.

## ***On-Call Coverage***

The on-call team consists of a Chief Resident, a senior level (PGY-2 and PGY-3), a junior level (PGY-1) residents and a medical student. There is also an published attending faculty on-call schedule for GS, Urology, Plastics, ENT, Neurosurgery and Orthopedic Surgery.

The junior resident is the first-call person and is accountable for all floor and ER calls. The junior resident is expected to respond to pages promptly and arrive to the ER for consultation within 30 minutes of call. In most instances, the junior resident should perform the necessary H & P, compile a differential diagnosis list, have a basic plan for treatment or further evaluation. A senior resident should then be called promptly for confirmation of the diagnosis and treatment plan. The senior resident will then contact the chief resident or attending surgeon on call for approval of the treatment plan and further suggestions.

When care is needed for a more critical patients or trauma patient, the senior resident should be contacted immediately and evaluation and treatment should be provided jointly with the senior resident. At times, immediate Chief Resident or Attending involvement is necessary.

In Trauma situation, if a Level I Trauma Activation (see Trauma Activation Protocol) is initiated by the ER, immediate respond by the Chief Resident, Senior Resident and Junior Resident as well as the medical student is expected. When arrive at the Trauma and Resuscitation Room, please announce the time of your arrive and your name to the recording nurse. The Trauma Quality Assurance Program is tracking the response time of the 4<sup>th</sup> and 5<sup>th</sup> year residents as well as the trauma resuscitation team.

While on call, the on-call team covers Urology, ENT and Plastic Surgery as well. The chain of command should follow the above mentioned protocol.

## ***Consultations***

Response to consultation should be prompt. The Emergency Department expect consultants to make initial contact with the patient within 30 minutes of initiating the consultation. Response to consults on the floor should be the same. The chain of command is as described above.

Be sure to put the name of the Attending surgeon on the consult form. If a patient is to be admitted to the on-call surgeon, please be sure to put his name first on the admission order follow by the Chief Resident name and Service. This will eliminate confusions regarding the ownership of the patient. Please sign, date and time all documents legibly in accordance with the JCAHO guideline.

If immediate action is required, please be sure to contact the referring physician and family members of the patient as well.

## ***Dress Code***

It is important for us professionals to convey a sense of professionalism and a sense of responsibility to the institution, the community and the population as a whole. The department expects each resident to wear your white lab coat if you are to wear scrubs outside of the operating room. Although surgical caps are acceptable, face masks and shoe covers should be removed before exiting the operating area. Scrubs shirts and pants with blood and other body fluids should be changed promptly before exiting the operating suite. White lab coats with blood stain and other stain should promptly be cleaned. A dirty lab coat is worse than not having a lab coat at all. It conveys a sense of sloppiness and untidiness. It is unprofessional and it carries infectious risks.

Eye protection should be worn during any procedure that carries the risk of body fluid contact with the eyes. Universal precaution should be practiced at all time.

## ***Work-related Accidents and Injuries***

All employees are expected to complete the OSHA requirement of Work Place Safety Instructions during their orientation. All work-related accidents and injuries should be reported promptly. Employee health is available to provide immediate care, referral and follow-up through the Emergency Department Urgent Care Center. Please contact the Program Director immediately.

## ***Tuberculosis Testing***

All employees are expected to have TB skin test annually. Anyone who is PPD positive or has received BCG vaccine should produce prove. The Human Resource Department will assist individuals who cannot receive the PPD skin test.

## ***HIV Precautions***

KMC employees are expected to comply with Universal Precaution to avoid accidental contamination and inoculation of infectious agents. Gloves and protective gear is available throughout the hospital for use. Eye protection should be use whenever there is any risk of contact of patients body fluid.

Any accidental contact or occurrence should be reported immediately. The Human Resource Department, the Urgent Care Center will provide resources to care for employees with such contact. Please also notify the Program Director immediately as well.

## ***Immunization for Hepatitis B, Rubella and Other Infectious Diseases***

Since surgeons are in constant contact with patient's body and body fluid, surgeons are at high risks for contacting various infectious agents. In addition to the practice of Universal Precaution, it is advisable for each surgical resident to obtain immunization for Hepatitis B, Rubella and other Infectious Diseases. The Human Resource and the Urgent Care Center will provide additional information and treatment.

## ***Parking***

Parking is provided for all residents. Certain parking area requires a parking sticker and and gate card. The surgery residents are allowed to park at certain area. Please contact the Pat Harvey or Diane Duclos for information regarding specific area of parking that you may require.

## ***Sexual Harassment***

Sexual harassment is a serious offense and will not be tolerated and will be dealt with immediately according to County procedure. If you feel that you are a subject of such harassment, please contact the Program Director, the Chairman of the Department or the Medical Director of the hospital immediately. A formal investigation will be carried out to resolve the issue.

## ***Computer Security***

There are numerous computers in the department for use. Certain computers are connected to the hospital network which will require specific password to enter. Please be sensitive to the security issue and do not download programs and files into these computer. In addition, the patient database that is being used for daily patient census contains sensitive patient data. It is not to be shared with uninvolved personnel.

## ***Stress Management***

While it is understood that surgical residency is stressful, the Department will make every effort to minimize this stress. While the department strives to provide a relatively low stress, friendly environment for the residents, certain stress may still be too difficult to be managed alone. Residents with problems will stress management will be offered counseling and assistance. Please contact the Program Director immediately if such situation arises. In addition, Dr. Charles Brown is a member of the Employee Wellness Program. Please feel free to contact him as well for suggestion and assistance.

## ***Impaired Physicians***

Kern Medical Center is an equal opportunity employer and will not discriminate against any impaired physicians. Every effort will be made to provide resource for such physicians an equal opportunity for learning and function as a physician. However, patient care should not be jeopardized. If you are in such a group and feel that additional resource is needed, please contact the Program Director, the Chairman of the Department or the Medical Director of the hospital.

Physicians who have substance dependency, including alcoholism, will be offered the opportunity to be treated. However, patient care will not be permitted to suffer in any way because of such problem. The Human Resource Department offers a Employee Assistance Program to deal with such issues. If you require assistance in such situation, please contact the Program Director or the Chairman of the department immediately. If you suspect someone with such a problem, it is vital that you contact the Program Director or the Chairman in order for us to adequately provide assistance to such person. It is also your duty to report such person so that patient safety is not jeopardized.

## ***Sick Leave and Family Sick Leave***

Each employee is provided with sick leave and leave for special situations such as family illness. Please contact the Program Director or the Chairman for such unfortunate situations.

## ***Vacation Leave***

Each resident is allowed 17 vacation days annually. In order to avoid conflicts, please submit vacation requests to department on a timely fashion, preferably before the call schedule is completed.

### ***Educational Leave***

After the PGY-1 year, residents is encouraged to participate in national educational conferences. The Surgery Department has funding to support registration, travel and hotel expenses for each resident three conferences in the PGY-2 to PGY 5 years. You are encouraged to discuss with the Program Director or with any General Surgery Faculty regarding the selection of conferences. An Educational Leave request should be submitted to the department in a timely fashion to avoid scheduling conflict.

### ***Military Leave***

Military leave will need to be discussed and approved on an individual basis. Currently, vacation leave is used for this purpose.

### ***Maternity Leave***

Maternal Leave is provided for all employee of the hospital based on the County rules and allowance. Please discuss this with the Program Director in a timely fashion to facilitate call scheduling.

### ***Other Leaves of Absence***

In special circumstances, a temporary leave of absence is possible. This special arrangement will require approval from the Program Director and Chairman of the Department.

## ***Medical Record Keeping***

JCAHO has strict requirement for the completion of medical records. Each resident is expected to comply with the individual requirement. The following is a list of duty expected from each resident:

- 1) All documents must be dated, timed and signed appropriately.
- 2) H & P must be completed and place in the chart as soon as possible and within 24 hours of admission.
- 3) All operative dictation must be completed on the same day of surgery.
- 4) Post-op check should be carried out by each on-call team and a post-op note should be written.
- 5) The attending involvement must be documented on each note, e.g. patient seen with, patient examined with, cases discussed with, the attending was present during the procedure, etc.
- 6) Verbal Orders must be signed by the resident who gave the verbal order within 24 hours.
- 7) All informed consents for surgery must be accompanied by a note describing the discussion with the patient concerning the risks, benefits and alternatives of the treatment planned.
- 8) Discharge summary and completion of the face sheet must be completed as soon as possible. If a resident has more than five delinquent charts, the residents will be relief of any duty and be sent to the Medical Record Department to complete those delinquent charts. He/She will not be allowed to take part in surgery or patient care until the charts are completed.
- 9) A procedure form must be completed after each bedside procedure. Be sure to document supervising physician, attending physician, service, etc.
- 10) Clinic charts must be reviewed and signed by attending physicians.
- 11) Document each event that took place. It is unacceptable to have a serious complication and yet it was not documented. Remember, if you did something for a patient and you did not document it, it never happened in the eyes of the jury!
- 12) Medical student notes and orders must be co-signed by a resident. H & P done by medical students are not acceptable as the official H & P.

If there is any question concerning the documentation of patient records, please contact the Program Director.

### ***Identification Badges and Hospital Security***

Each resident must carry his/her Identification badges at all time and it should be visible to everyone. The badge also provides electronic entry at various locations. For your protection, the Hospital Security is able to track the time and location of entry at various location as well.

### ***Disaster Response***

See the Department of Surgery Disaster Manual.

### ***Grievance Process***

There is an official grievance policy and a due process at KMC, provided for in the bylaws of the hospital (Article VIII: Hearing and Appellate Review). This document is available in the Graduate Medical Education Office, the Surgery Department Office, the House Staff Office and the Medical Staff offices.

## **Resident Information**

## ***Resident Selection***

Residents are selected via the NRMP process. The KMC Surgery Residency Program only accepts ERAS applications.

Applications are screened according to a number of objective criteria set forth by the Department of Surgery.

Those applicants whose applications demonstrate superior performance will be invited for a personal interview.

Final ranking of applicants takes into account a number of subjective and objective criteria with the goal of matching the most qualified residents who will benefit from the KMC training environment.

## ***Appointment, Reappointment and Advancement***

After the NRMP process, residents who have matched to the KMC Surgery Program will be appointed as a PGY-1 resident (categorical, designated preliminary, and non-designated preliminary). Contracts and other information will be forwarded to the resident from the office of Graduate Medical Education. Appointment of the resident is completed once the signed contract is received back at the Graduate Medical Education office.

Reappointment of residents is based on the performance of the residents. A staff meeting that takes place before the summer will include a discussion of reappointment and advancement of residents by the faculty members at the meeting. The advancement of resident will be based on the performance of the residents, the evaluation of the residents by faculty, and the preparedness of the residents for the next level of training.

## ***Suspension or Termination***

Residents who are not performing adequately will be given ample time and opportunity for remediation. If, following such a time period, their performance continued to be inadequate, then the resident's position will be terminated. Such a step is not taken lightly, and not without extensive aggressive efforts to assist the resident to improve performance.

A formal Appeals Process for termination and Due Process for non-renewal of Resident Contract is available through the office of Graduate Medical Education. Please contact Dr. Nyquist at 326-2168.

## ***Corrective Actions and Probation Status***

If corrective actions or probation status is necessary, the Chairman and the Program Director, in conjunction with the resident in question, will set objectives and time frame, as well as a plan to accomplish the goals and objectives (study plan, practice tests, mock orals, video tape, tutor, counseling, etc.) If the resident is unable to accomplish such set goals, suspension or termination may be necessary.

## ***Resident Job Description and Responsibilities***

See contract provided by the office of Graduate Medical Education.

## ***Resident Work Schedule***

The resident work schedule is designed with the acknowledgement that residency is primarily an educational process, requiring time for independent study and attention to other aspects of life.

Residents will be given a 24 hour period off each week and calls no more than every third night (in hospital call). Post-call residents are given priority to go home after all work is completed and approval from the Chief Resident is obtained.

The County also requires that each resident fills out a time-sheet biweekly.

## ***Call and Rotation Changes***

Vacation requests and call changes will be first discussed with the Chief Resident; then, if appropriate, cleared with staff. Vacation requests should be made at least one month in advance. "I've already bought my tickets..." will NOT be acceptable criteria for vacation approval. Requests should be submitted ASAP before each call schedule is completed by the Chief Resident.

While on Orthopedics and Neurosurgery, vacation and call schedule will be managed by that service. Occasionally, there will be Family Practice resident rotators on subspecialties (ENT, URO, PLS) who will not take call. However, these rotators are responsible for all duties of that particular service (rounds, clinics, consults, admissions, operating rooms). Naturally, there is always help from the corresponding GS service as appropriate and necessary. GS call schedules will be arranged with first call/second call format. There will usually be one intern or rotator and one more experienced GS resident in house and a Chief Resident on home call (this will be changed to Chief Resident taking in house call beginning July 2000). Call is by 24-hour basis 7:30 a.m. to &:30 a.m. ideally, one person from each GS service is on call responding to floor calls for their service. ER calls/new consults will be directed to the "first call" who should always contact the "second call" person at an appropriate time for that patient's level of illness.

Second call in general should see all new ER/floor consultations and always see admissions with the first call (this should be a learning/teaching experience). Second call is expected to assist with "scut" with a low threshold when first call is becoming overloaded. This system only works with mutual respect, commn courtesy, and a professional attitude. The Chief Resident on call should be called with all potential GS admissions and/or complex floor problems by the "second call". The chief resident should respond to all Level One Trauma Activation and assist in directing trauma resuscitation. The timing of the Attending involvement in all cases is at the discretion of the Chief Resident.

## ***On-Call Responsibilities***

The responsibilities of residents on call depend on the level of the residents which include but is not limited to the following:

### **Junior Residents**

- 1) Complete medical record documents as appropriate.
- 2) Post-op check on all freshly post op patients who has been admitted
- 3) Post-op check on outpatients who have not been discharged from the recovery room.
- 4) Complete and check all diagnostic tests that have not been completed during the day.
- 5) Inform the senior resident of abnormal tests so as to device appropriate treatment.
- 6) Respond to all floor and ER consults.
- 7) Perform H & P on all new admissions.
- 8) Involve in operation as appropriate.
- 9) Respond to all calls.
- 10) Communicate with patients and family as appropriate.
- 11) Perform adequate check out to the appropriate resident the next morning.

### **Senior Residents**

- 1) Supervisor Junior Resident and provide support (including rounds and procedures)
- 2) Perform H & P and other documentation as needed.
- 3) Respond to Floor and ER consults.
- 4) Respond to all calls
- 5) Communicate with Chief Resident and Attending
- 6) Communicate with patients and family members.
- 7) Involve in all surgical operations
- 8) Round on all surgical ICU patients and anticipate and treat any potential problems.
- 9) Respond to trauma resuscitation immediately.
- 10) Perform adequate check out to the appropriate resident the next morning.

### **Chief Residents**

- 1) Function as supervisory physician in all aspect of patient care.
- 2) Communicate with patients, family members, and referring physicians of appropriate treatment plans.
- 3) Communicate with Attending as appropriate.
- 4) Involve in all decision making in regard to patient care.
- 5) Involve in all surgical operations during on call.
- 6) Respond to trauma resuscitation immediately.

## ***Resident Assignments***

A master schedule is posted in the Surgery Office which delineate resident rotation throughout the entire academic year. Any request for change has to be approved by the Program Director and Dr. Bill Taylor.

Resident assigned to the Red/Gold Surgery Services will receive individual assignment in regard to the coverage of the subspecialties by the Chief Resident. These residents are expected to cover the patients on the subspecialty services, round with the attendings and be involve in OR, pre- and post-operative care, and respective clinics.

Resident assigned to Neurosurgery, Orthopedics, ICU, Anesthesiology, ER and Outside rotations are to follow the rules set forth by the respective departments.

## ***Special Responsibilities During Outside Rotations***

Residents rotating on services at various Integrated Hospitals and Affiliated Hospitals will need to follow the rules and regulations of the various hospital.

Residents scheduled for rotations at Mercy, San Joaquin, Memorial and Bakersfield Heart Hospitals are required to obtain temporary privileges at these hospitals at least two months in advance. Please contact Diane Duclos for the application in a timely fashion or you will not be allow to start the rotation on time.

While rotating at Mercy, San Joaquin, Memorial, Bakersfield Heart Hospital, and Fresno Valley Children's Hospital are required to return to KMC for Department M & M and Grand Rounds. The residents are expected to turn in the case log and M & M forms by Monday each week and be prepare to present those cases at M & M conference.

While rotating at UCSD and VAMC in San Diego, the residents are expected to attend all conference at these institutions.

While you are at an outside institution, it is important that you document "continuity of care". You are to record all the patients you do following care on in clinic after you have operated on them. A "Continuity of Care" log is available at the Surgery Office. Please submit this form as soon as you have completed the rotation.

## ***Research and Scholarly Activity Expectations***

Although this is not a mandatory requirement for graduation for the program, residents are encouraged and expected to participate in scholarly activity during their residency years. Scholarly activities include research and publication at peer-reviewed journals, presentation at regional and national meetings, and writing book chapters.

The faculty at KMC Department of Surgery usually have ongoing projects and will welcome the involvements of residents. If you have special interest in certain research project, please contact the appropriate faculty member, or discuss the concept with the Program Director.

If you have a paper accepted to a regional or national meeting, the department will provide you time and expense for the presentation.

An elective month is available in the PGY-4 year which can be used as a research month. This, however, needs to be carefully plan in advance. If you are interested in pursuing such an activity, please contact the Program Director at the beginning of you PGY-3 year.

## ***Resident Research***

Resident research is strongly encouraged. Residents can design a project, select a mentor, and undertake the project. Projects are discussed at the monthly Research Conference held in conjunction with Journal Club.

IN keeping with ACGME requirements, the Department of Surgery has an established policy regarding research within the Department.

## **Introduction**

The conduct of research is critically important to the mission of the Department of Surgery. Research supports the delivery of high quality care as well as the education of students, residents, and faculty within the department.

The conduct of clinical research projects is strongly encouraged throughout the training program. There are no facilities for animal or basic science laboratory, bench type research within KMC. Residents who are strongly motivated to pursue such training may seek training elsewhere for extended periods of time and return to the program.

Opportunities to take extended leave will be decided on an individual basis, and are based on manpower needs and limitations within the residency program. Residents from the

General Surgery program are strongly encouraged to avail themselves of research opportunities at UCSD while rotatin there in the PGY-2 year. These rotations could provide an important “connection” for the initiation and/or conduct of clinical or laboratory research.

All clinical studies must be approved by the KMC Institutional Review Board (IRB) according to IRB policy. This *includes* studies that are limited to chart reviews.

KMC has an institutional Research Committee which can serve as a resource for information and guidance in pursuing clinical research within KMC.

## **Background**

As background, below are the sections of the RRC Program Requirements for Residency Education in General Surgery which are relevant to the conduct of research within the Department of Surgery.

Section I.C.7 of the RRC Program Requirements states:

“The program must provide teaching in critical thinking, design of experiments, and evaluation of data as well as in technological advances that relate to surgery and the care of patients with surgical diseases”

Section I.C.8 states:

“The program must encourage participation by the residents in clinical and/or laboratory research”.

Section V.G. states:

“Scholarly Environment

The quality of the educational environment of the parent and integrated institutions is of paramount importance to the program. Staff activity at affiliated institutions cannot account or substitute for the educational environment of the parent and integrated institutions. Adequate documentation of scholarly activity on the part of the program director and the teaching staff at the parent and integrated institutions must be submitted at the time of the program review.

Documentation of scholarly activity is based on:

1. Participation in continuing surgical education
2. Participation in regional or national surgical scientific societies
3. Presentation and publication or scientific studies
4. Demonstration of an active interest in research as it pertains to their own special surgical interests. The RRC will consider documented involvement in the following as indications of the commitment of the staff to research:
  - i. Projects that are funded following peer review
  - ii. Publications in peer reviewed journals
  - iii. Presentations at national and regional scientific meetings
  - iv. Research protocols that have been approved by appropriate institutional committees or other organizations.

While not all members of a teaching staff can be investigators, clinical and/or basic science research must be ongoing in the department of surgery in the parent and integrated institutions. Research on the part of residents is not a substitute for the involvement of the program director and teaching staff. The staff as a whole must document active involvement in all phases of scholarly activity as defined above if they are to be considered adequate to conduct a program of graduate education in surgery.”

### ***Basic Science Education***

Basic Science conference is scheduled for the first Wednesday of each month at 7:30 a.m. In addition, a second Basic Science Conference is schedule for the third Wednesday at 7:30 a.m. except for July, August and September when the core curriculum is taking place at the same time.

There is also a Basic Science Review course offered at Tufts University in New York, two residents and one faculty is allow to attend this course per year. Please contact the Program Director for arrangement and approval.

Basic Science education is also included in discussion during the Friday Board Review Conference, rounds and during surgical procedure.

### ***Curriculum in Surgery***

A Surgical Residency Curriculum adapted from the APDS Document “Surgical Residency Curriculum” is distributed to each resident and faculty. All surgical residents are expected to read the curriculum and refer to the curriculum frequently during each rotation to ascertain the learning goals and objectives of each service is being met. The faculty members are encouraged to follow the curriculum in order to provide uniform teaching to each resident and to fulfill the goals and objectives of the rotation. Any concern, comment or suggestion regarding the curriculum should be directed to the Program Director.

### ***On-Call Quarters***

A separate call room is available for the Chief, Senior and Junior Residents on call. These are not permanent living quarters for individual resident. Please keep these quarters clean and tidy for the next person on call. Housekeeping service is available to empty the trash and replace the sheets. Please vacate the quarter to allow housekeeping personnel to perform their duty. If there is any concern with the housekeeping service, please contact the Program Director immediately.

## ***Compensation***

Compensation is set forth by the Office of Graduate Medical Education and the Administration and is clearly delineated in the Contract.

## ***Personal Record Keeping***

All Surgical Residents are to keep an updated record of his/her operative experience, including bedside procedures.

For the purpose of assessing the individual resident's capability and competency, a departmental policy requires that certain procedures be performed under direct supervision by a senior resident, chief resident or attending physician. The supervising resident or attending will sign off on the procedure after its successful completion. When the adequate number of procedures has been successfully performed, the Program Director will certify the competency of the resident in the performance of such procedures independently.

All surgical procedures should be kept in a log for reporting in the future. It is necessary for all residents to keep excellent record of this as the case log is necessary for your eventual application for the Surgery Board Examination. If a poorly kept record shows that you are lacking in certain cases, you may not be allowed to partake in the Qualifying Examination. The ACGME format is encouraged. Please contact Dr. Charles Brown for a demonstration of the ACGME computer case log program.

Please be advised that the Board also requires a record of your experience in non-operative management of surgical patients (see "other RRC Requirements"). You should keep a log of all patients (from day 1 of your PGY-1 year) whom you have taken care of in the ICU who did not require an operation and all multiple trauma patients who are managed nonoperatively in the ICU.

All these records need to be turned in to Dr. Bill Taylor after each rotation.

In addition to the above record keeping, each resident is also expected to keep track of "continuity of care" while they are rotating outside of the parent institution. Each resident is expected to log the followup care (clinic and office) provided for patients they have operated on at each integrated hospital. A "Continuity of Care Log" is available at the office. Please ask Diane Duclos, Residency Coordinator, for copies. This log is to be turned in to Diane after each outside rotation.

## ***Defined Categories of Resident Experience***

It is extremely important that you familiarize yourself with these forms. It will help you decide what to call a complex case. Learn early how to compute Defined Category and figure yours out frequently (q 3 months) so you know your needs/deficiencies. Updated Defined Category lists are to be given to Dr. Taylor q 6 months. Chief residents should be very aware of deficiencies and surplus of themselves and their partner to properly distribute cases. Note the form has minimum and average numbers. Don't stop at the minimum, but if you get above the average, it is time to share (never forgetting the importance of continuity of care and informed consent). Remember, teaching assistant doesn't count for defined category!

## ***Other RRC Requirements***

Residents from day 1 of their PGY-1 year must keep a log of ICU/Critical Care patients they cared for. Just like Procedure Log need to have sticker and unit number, date, diagnosis, and your level of training.

- 1) ICU/CRIT CARE patients (even if they had operation) (must be in ICU at least 24 hours.
- 2) Multiple trauma patients who has not been operated on by General Surgery.

This will also satisfy the requirement that we document experience in the treatment of various diseases (portal hypertension, pancreatitis, GI bleeding, etc.) On General Surgery rotations, the Chief Residents will record all the cases. On away rotations and ICU rotation at KMC, junior residents should accumulate these patients.

## ***Licensure***

Each resident is expected to obtain an unrestricted California Medical License at the end of the PGY-2 year. This is a state regulation and we must comply with this. If you are not qualify, unwilling or unable to obtain the California Medical License at this time, you will be suspended from active duty until a permanent license is obtained.

## ***Credentialing***

Faculty members are only allowed to perform procedures with proper credentialing according to the bylaws of the Institution. Residents are expected to perform all operations under direct or indirect supervision by faculty member with the appropriate credentialing for such procedures. There are certain bedside procedures, such as central line placement, PA catheters, arterial lines, and minor procedures done under local anesthesia, such as breast biopsy, excision of cysts and I & D of abscesses, can be done by residents with indirect supervision. However, residents who are to perform these procedures must demonstrate appropriate training and competency. A tracking system has been developed to track each resident's experience with each minor procedure. Each resident must perform the minimal number of such procedures under direct supervision by faculty or senior level resident who has shown competency in such procedure. A letter confirming the number and the competency of such resident will be issued by the program director before each resident is allowed to perform such procedures independently.

Each resident must also apply for appropriate privileges at each integrated hospital before they are allowed to participate in patient care at these hospitals. Each resident must plan for the application of these temporary privileges at least two months in advance. Please contact Diane Duclos regarding this.

The following is a sample of the resident credentialing for minor procedures and endoscopic procedures.

## Resident Credentialling for Minor Procedures

In order to accurately document the ability of residents to successfully perform common non-OR procedures, a credentialling system will be instituted.

- All PGY-3 and above residents should be credentialled in Minor Procedures by decree upon institution of this credentialling process.
- All PGY-1 and PGY-2 residents should record their performance of the following procedures:

Procedure	Number of Procedures Required for Unsupervised Conduct
DPL	5
Chest tube	5
Subclavian CVP Line	10
PA Catheter	3
Excision of Subcutaneous Mass	10
IJ Line	5
Arterial Line cutdown/percut	5
Venous cutdown	5
Endotracheal Intubation	10
Flex/Rigid Sigmoidoscopy	5
Breast Biopsy (Needle loc)	10
Hickman/Port Removal	10
Tru-cut Biopsy of a Mass	5
Thyroid Needle Aspiration	5

- Residents will be provided with 3x5 cards for recording the completed procedures. (see attached)
- Once they have completed the stated number of procedures, a letter will be placed in the resident file indicating that they are credentialled to perform the procedure independently.
- Successful completion of a procedure is attested by the initials of a supervising person, either faculty, or a PGY-5 resident already credentialled in that procedure.

## **Resident Credentialing for Endoscopic Procedures**

Resident must perform 5 of the following procedures to be credentialled for independent conduct of the procedures

Esophagogastroduodenoscopy
EGD with Biopsy
PEG Placement
Colonoscopy
Colonoscopy with Bx
Bronchoscopy

Documentation of the conduct of these procedures will consist of dictated operative notes. Submit these to the surgery office once the requisite number have been completed. A letter will then be placed in the resident file stating that credentialing requirements have been met.

## ***Professional Liability Indemnification***

## ***Moonlighting Policy***

Surgical residency is extremely demanding and for the most part it is impossible to perform adequately as a resident while working substantial hours elsewhere. Residents working on the surgical services are prohibited from working elsewhere to the degree that exhaustion interferes with their education. They are specifically prohibited from working the entire night prior to working days here and are prohibited from abusing “sick time” to facilitate working outside the hospital. Within these limits, “moonlighting” is allowed.

Within KMC Department of Surgery, there is opportunity for moonlighting in Neurosurgery. There are specific guidelines developed by Dr. Charles Wrobel, Chief of Neurosurgery. Residents must have completed two months rotation in Neurosurgery and obtain approval from Dr. Wrobel and the Program Director.

## ***Counseling and Mentoring***

### ***Elective Rotations***

During the PGY-4 year, residents are allowed a one- to two-month rotation at outside institution as elective for specific educational opportunity, research and other hands-on experience not available at KMC. Due to the lengthy paperwork involved as well as malpractice coverage, residents are encourage to plan such elective at least six months in advance. Please contact the Program Director as soon as possible so that agreements can be drafted with the involved institution.

### ***Continuity of Care***

Please see “Personal Record Keeping” section on page 34 and “Continuity of care.” Section on page 67.

## ***Performance Evaluations***

To continually improve the educational experience of each surgery resident at KMC and to evaluate the performance of each resident, a regular performance evaluation of residents by faculty and resident evaluation of faculty and service is necessary. After each evaluation form is submitted to the Program Director, the Program Director will review and sign each evaluation. The Program Director will investigate and discuss any inadequate performance with the individual involved and the evaluator who submitted the evaluation.

### **1. Faculty Evaluations of Resident**

Faculty at KMC evaluate residents quarterly. Residents at outside rotations and specialty rotations are evaluated at the end of each rotation. These evaluations are reviewed and signed by the resident and then filed in the resident's folder.

### **2. Faculty Responsibilities regarding Evaluation of Residents**

Faculty is expected to discuss the evaluations with the resident, providing helpful criticisms. Resident evaluations are discussed at least every 3 to 6 months with the resident. Any problems are discussed immediately.

### **3. Resident Evaluations of Faculty**

Staff are evaluated every 6 months by the residents.

### **4. Resident Evaluations of Rotations**

Each rotation will be evaluated by the residents. These evaluations are used to improve and refine the content of each rotation.

### **5. Mock Oral Exams**

These practice oral exams are administered annually and are part of the overall evaluation process as well as providing residents with the chance to practice this important part of their education.

### **6. ABSITE Examination**

This is required, administered annually by the ABS.

### **7. Clinical Skill Assessment**

KMC administers a Clinical Skill Assessment twice yearly and is required by PGY-1 and PGY-2.

### **8. Departmental Written Exam**

Administered twice yearly, prepared by Dr. Taylor.

### **Resident Evaluation Responsibilities**

- evaluate KMC General Surgery Staff q 6mo.
- evaluate staff KMC non-GS (ortho/NS/PLS/URO/ENT/) - q6mo
- evaluate staff GS non-KMC (Orange/Blue/White/Green)- after each rotation
- evaluate rotation KMC GS/ORT/NS/ENT/URO - q6mo
- evaluate rotation KMC Anes/ICU/ER/GYN/UCSD burn/UCSD transplant/ UCSD cardiac/VCH/Mercy/DRMC/SJH vasc/Palm GI/Palm vasc/any other electives ASAP after that elective is completed. If on this rotation there was a particular staff involved, please evaluate this staff if not done already.

### **Rotating RESIDENTS and Medical students MUST:**

- evaluate staff at end of rotation
- evaluate rotation at end of rotation

### **Faculty Evaluation Schedules**

- KMC GS Faculty-must evaluate resident q3mo
- KMC Non GS Faculty-must evaluate resident after each rotation
- Non KMC Faculty must evaluate resident ASAP at the end of the rotation

Note-these evaluation must be discussed with resident and if adverse or excellent, should be discussed with PD.

The results of the evaluations are tabulated and discussed at Staff Meetings. The resident evaluations of faculty and rotations are tabulated in a scrupulously anonymous fashion.

### **Evaluation Instructions**

1. Evaluations should be filled out by all people being educated (medical students, rotators, GS residents, UCSD resident)
2. Rotators (UCSD, med students, FP, ER, TS, etc) must be given the evaluation form early in the rotation and they must fill it out before they leave.
3. Don't forget to give all residents (FP, ER, TS, GS,etc) evaluation forms for any rotation in the Department of Surgery (GS, ENT, URO, PLS, ORT, NS).
4. Don't forget to give evaluation forms to our (GS) residents before they leave for an away rotation and the forms are expected to be turned in within one week of the conclusion of the rotation. To be mailed if necessary.
5. Remember, we want them to fill out both the FACULTY EVALUATION FORM and the ROTATION EVALUATION

6. **KMC GS residents need to fill out GS, ENT, URO, PLS faculty eval and rotation forms each 6mo (MARCH and SEPTEMBER), all other rotators and rotations must be filled out at the end of each rotation.**

7. **Each 6 months (MARCH and SEPTEMBER) GS residents will fill out the form “RESIDENT COMMENTS ON THE PROGRAM”**

8. **Each 6 months R1, R2, med students should eval the chief residents.** Use the faculty eval form and keep it confidential

9. **REMBER-each GS resident leaving KMC or doing a KMC rotation other than GS/ENT/URO/PLS needs to be given, before the rotation starts, faculty eval forms and rotation eval form. Non GS residents, UCSD residents, students must be given these forms on all dept of surg rotations to be turned in within 1 week of the completion of the rotation.**

8. Dr Nyquist will continue to tabulate the raw data (average out the scores and put it onto a readable page). She will also prepare a synopsis of the comments (to maintain *absolute confidentiality*), and this also should be presented at staff meeting with mention in the minutes.

9. Secretaries will develop ongoing tables to adequately and easily track this data. These tables should be reviewed at least twice per year by the program director and chairman and discussed at the staff meeting. Trends up and down indicating strengths and weakness of rotations and individual faculty should be addressed and a plan of action designed. Close minutes of these meetings need to be dictated. Remediation plans must be followed up and updated addressed at future meetings.

## **Evaluation Tables**

### A) FACULTY EVALUATION TABLES

1) NYQUIST-14 items +overall +avg of all items vs Staff for all staff. This is already done for KMC dept surg staff but we will add other staff the residents will eval- (Miro, Irani, Tang, Loos, Anderson, Shields, Ramos, ICU attending, Gauto, Last, etc). Note some rotations, resident won't be able to eval any attending because it may be so diverse (anesthesia); some rotations resident may eval more than one attending (White service). Not all 14 items will be appropriate for all attendings on all rotations. Don't count it as a "0" as this will throw off the avg. This form is useful to compare one faculty to another to make some sense of what a "good score is".

2) Dept Secretaries-will use a **table (to be updated every 6 months) for each faculty member and chief resident.** The Y column will have the 14 items+overall+avg

of all. The X will have the dates of eval and (#residents evaluating that period). ie) 3-8/95(10). The director/chair can then easily see trends over time for each staff.

## B) ROTATION EVALUATION TABLES

A table should be made and **updated each 6months for each rotation**. This table will look similar to each faculties individual table. The Y axis will have the 10 items+avg of all items and the X axis indicates the date and # residents evaluating during that time frame. Rotation to rotation can be compared by comparing table to table but trends are more important.

### Timing of Evaluations

#### KMC

1. General Surg;GS res q 6mo, UCSD/rotator/student q rotation
2. ENT; as above
3. Plastics; as above
4. Urology; as above
5. GYN; after rotation-within 1 week
6. ER; as above
7. Anesthesia; as above
8. ICU/Crit Care; as above
9. Ortho; as above
10. Neurosurg; as above
11. Onc Clinic; as above

#### OUTSIDE

1. Orange after rotation
2. Pediatric Surg (VCH) as above
5. White as above
6. Blue as above
7. Transplant-UCSD as above
8. Burns-UCSD as above
9. Cardiac-UCSD as above
- 10.Other as above

PROGRAM Evaluation by Residents q 6mo by GS residents

The following pages are sample evaluation forms:

**Faculty Evaluation by Residents**

FACULTY NAME \_\_\_\_\_ PERIOD OF EVAL \_\_\_\_\_

RESIDENT NAME (optional) \_\_\_\_\_ LEVEL \_\_\_\_\_

LEVEL OF CONTACT: NONE \_\_\_\_\_ LITTLE \_\_\_\_\_ SPORADIC \_\_\_\_\_

FREQUENT/SUPERFICIAL \_\_\_\_\_ FREQUENT/CLOSE \_\_\_\_\_

Score the below categories from 6(excellent) to 1(unsatisfactory); or N/A if unable to appropriately asses. Please be honest and try to utilize the entire spectrum of scoring (1-6). If you have had minimal contact with a faculty member with regard to the category, please mark "N/A".

- |  |   |   |   |   |   |   |     |
|--|---|---|---|---|---|---|-----|
| 1. Availability-Clinic                               | 6 | 5 | 4 | 3 | 2 | 1 | N/A |
| 2. Availability-OR                                   | 6 | 5 | 4 | 3 | 2 | 1 | N/A |
| 3. Availability-On Call                              | 6 | 5 | 4 | 3 | 2 | 1 | N/A |
| 4. Availability-Rounds                               | 6 | 5 | 4 | 3 | 2 | 1 | N/A |
| 5. Involves Resident in Management Decisions/Pt Care | 6 | 5 | 4 | 3 | 2 | 1 | N/A |
| 6. Involves Resident Actively in Operations          | 6 | 5 | 4 | 3 | 2 | 1 | N/A |
| 7. Quality as a Teacher-OR                           | 6 | 5 | 4 | 3 | 2 | 1 | N/A |
| 8. Quality as a Teacher-Clinic                       | 6 | 5 | 4 | 3 | 2 | 1 | N/A |

9. Quality as a Teacher-Inpatient	6	5	4	3	2	1	N/A
10. Didactic Presentations	6	5	4	3	2	1	N/A
11. Interest in Resident Development	6	5	4	3	2	1	N/A
12. Involved in Resident Scholarly Activity	6	5	4	3	2	1	N/A
13. Attitude and Behavior	6	5	4	3	2	1	N/A
14. Approachability/Communication	6	5	4	3	2	1	N/A
15. Overall Assessment	6	5	4	3	2	1	N/A

COMMENTS:

## Rotation Evaluation

ROTATION/STAFF \_\_\_\_\_ DATE/#MO \_\_\_\_\_

NAME(OPTIONAL) \_\_\_\_\_ HOSPITAL \_\_\_\_\_ LEVEL \_\_\_\_\_

Score the below statements from 6 (strongly agree) to 1 (strongly disagree), or N/A if unable to adequately assess or not applicable to that rotation. Please utilize the entire spectrum of scoring (1-6).

1. The rotation met my educational goals  
6 5 4 3 2 1 N/A
2. The goals/expectations of the rotation were explained/clear  
6 5 4 3 2 1 N/A
3. My perioperative involvement was appropriate  
6 5 4 3 2 1 N/A
4. My intraoperative involvement was appropriate  
6 5 4 3 2 1 N/A
5. Quality of perioperative teaching was excellent  
6 5 4 3 2 1 N/A
6. Quality of intraoperative teaching was excellent  
6 5 4 3 2 1 N/A
7. Requirements/responsibility was appropriate for my level of training  
6 5 4 3 2 1 N/A
8. Service needs of the rotation were secondary to educational needs  
6 5 4 3 2 1 N/A
9. Senior resident or staff help was readily available  
6 5 4 3 2 1 N/A
10. I would highly recommend this rotation to others  
6 5 4 3 2 1 N/A
11. The environment of the facility was conducive to education  
6 5 4 3 2 1 N/A

## **Resident Evaluation of Rotation**

1. Describe the Strengths/Positive Experiences

2. Describe the Weaknesses/Disappointments

3. Specific Suggestions for Improvement

## **Resident Evaluation of the Program**

1. Describe the Strengths/Positive Experiences

2. Describe the Weaknesses/Disappointments

3. Specific Suggestions for Improvement

## ***Moral, Ethical and Humanistic Behavior Expectations***

Surgery is a highly respected profession and surgeons should have a high standard of moral, ethical and humanistic behavior. The department expect all residents to have and continue to develop such high standards.

## ***Responsibilities of the Chief Resident***

The Chief Residents carry with them tremendous responsibilities and expectation. They are the leader of the General Surgery Gold/Red Team. The expectation of the Chief Residents includes but is not limited to the followings. The Chief residents will:

- 1) Provide excellent patient care, including preoperative, operative and post operative care, and follow up care in the clinics.
- 2) Conduct daily rounds and teaching to junior residents and medical students.
- 3) Organize on-call schedules one month in advance.
- 4) Organize all teaching conferences
- 5) Keep appropriate attendance
- 6) Supervision of patient care and procedure performed by junior residents.
- 7) Oversee all aspects of patient care
- 8) Communicate with patient family, referring physicians, consultants and faculty attending physicians.
- 9) Keep track of morbidity and mortality and present cases in M & M conference.
- 10) Exemplify the moral, ethical and compassionate nature of surgeons.

## ***Policy on Impaired Physicians***

Physicians who have difficulty with substances dependency will be offered the opportunity to be treated for their problems. However, patient care will not be permitted to suffer in any way because of a substance dependency. The Surgery Residency Program will provide adequate resources and attempts to assist such resident or faculty physician.

KMC offers Employee Assistance Program to help with such difficulties as alcohol and substance dependency. In addition, the Employee Wellness Program assists individuals with issues related to stress and work-related or personnel-related situations. Dr. Charles Brown is a member of this important program. Any discussion with members of these two programs is strictly confidential and will not be disclosed.

Individual residents with these impairments are encouraged to discuss the situation with the Program Director and/or Dr. Brown.

## **Faculty Information**

## ***Faculty Goals and Objectives***

## ***Policy on Resident Supervision***

The KMC Surgical Residency Program follows the principle that supervision is necessary at all resident levels but recognizes that a delicate balance exists in which graduated responsibility and opportunity to make decisions is vital to the growth and development of surgical judgement by the resident. The principle of graduated responsibility under supervision begins in the PGY-1 year with resident credentialing in critical care skills and progression from specific to general supervision. As residents gain knowledge, proficiency in manual and problem solving skills, and demonstrate acquisition of good judgement, the intensity of supervision decreases to foster independent decision-making.

### **Policies and procedures guaranteeing adequate supervision:**

On each of the surgical service: there is at least one full-time faculty member scheduled to be on-call at all times to ensure and provide adequate resident supervision. Supervision is either direct or indirect, according to the competence and credentialing of the resident, the difficulty of the task, and the judgement of the supervising faculty member.

Explicit written policies and procedures that guarantee adequate supervision for residents at all levels and on all services are formally subscribed to by all faculty in a standard format:

### **Responsibilities of the attending faculty:**

The supervisory faculty has accepted explicit written guidelines concerning supervisory expectations of faculty members as a condition of faculty appointment. The guidelines state that the faculty supervisor will:

1. Accept the responsibility for the surgical resident(s) assigned to his/her patients.
2. Allow the resident(s) to actively participate under his/her supervision and control in the care of their patients, including the performance of procedures, commensurate with the resident's level of training.
3. Recognize that the residents and learners are involved in a program designed to help them master the art and science of surgery. We realize that residents have not reached that point in their careers when they can function without supervision by the surgical faculty attending staff.
4. Recognize the responsibility of each surgical faculty member to assess the level of capability of each resident in each delegated task and to provide an appropriate level of supervision while delegating progressively increasing responsibility commensurate with increasing skill and judgement.
5. Recognize that all responsibilities which a surgical resident assumes are delegated responsibilities and that ultimately the attending surgeon is the physician responsible for the safety and welfare of the patients under their care and for the resident's participation in the management of those patients.

## ***Policy on Supervision of Physician Extenders***

Physician extenders, including physician assistants and nurse practitioners, will be supervised by faculty members based on the rules and regulation of the appropriate state licensing board. The faculty members will obtain the appropriate supervisory permit from the appropriate licensing board.

## ***Patient Care Responsibilities***

The faculty patient care responsibility can be found in its entirety in the Hospital Bylaw. The following is an excerpt from the bylaw:

1. Each hospitalized patient shall be examined daily by the responsible faculty supervisor and resident and appropriate chart notes entered.
2. Each surgical patient admitted to the hospital shall have a complete history and physical examination by the resident reviewed by the faculty supervisor in a brief "staff note".
3. The resident and staff member shall agree upon a treatment plan and document this in the chart.
4. Preoperatively, the resident shall write a preoperative chart note stating the working diagnosis, stage of the disease, evaluation of operability and surgical plan. The faculty supervisor shall review, discuss, and indicate agreement with or alter the plan.
5. Preoperatively, the resident and faculty supervisor shall discuss and decide upon the role of each in the operation.
6. Preoperatively, the resident and faculty supervisor shall discuss with the patient (and family) the risks and benefits of the proposed operation, alternative options, that the resident and attending faculty member will be performing the surgery together and shall obtain informed consent for the procedure from the patient or patient's legal representative. The resident shall document a chart note that the informed consent discussion took place and that the patient agreed to proceed with the proposed surgical treatment.
7. Operatively, the faculty supervisor shall supervise the surgery either directly at the operating table or indirectly (either present in the OR or immediately available in the OR) according to how much operative responsibility the supervisor has decided to delegate to the resident. At the same time, the resident agrees to assess honestly his own abilities and to request appropriate and timely direct help from the faculty.
8. Postoperatively, the faculty supervisor shall oversee the progress of the patient delegating appropriate responsibility to the resident(s) according to his assessment of the resident's knowledge, skill and judgement. Both shall document progress by appropriate notes in the chart.
9. An appropriate level of faculty supervision of the patient's care shall continue during post-hospital followup.
10. Should any litigation arise concerning unfavorable surgical outcome, the faculty supervisor agrees to support and protect the resident(s).

## ***Faculty Teaching Responsibilities***

Faculty members accept the responsibilities of teaching residents and medical student as a condition of their appointment.

**Faculty Responsibilities:** The faculty have accepted explicit written guidelines concerning supervisory expectations as a condition of faculty appointment. These guidelines state that the faculty member will:

1. Accept responsibility for the surgical residents assigned to his/her patients.
2. Allow the residents to actively participate in the care of their patients under his/her supervision, including the conduct of procedures commensurate with the ability and level of training of the resident.
3. Recognize that residents are in a program designed to help them master the art and science of surgery, realizing that residents have not reached the point in their careers when they can function independently.
4. Recognize the responsibility of each surgical faculty member to assess the level of ability of each resident in the conduct of a specific task and to provide an appropriate level of supervision while delegating progressively increasing responsibility commensurate with increasing skill and judgment.
5. Recognize that all responsibilities which a surgical resident assumes are delegated responsibilities and that ultimately the attending surgeon is the responsible physician for the safety and welfare of the patients under their care and for the residents' participation in the management of those patients.

Supervisory policies are part of the Department of Surgery Policies and Procedures Manual.

**Resident Responsibilities:** Residents understand and agree to the supervisory policies as a condition of their employment, which state that:

1. Each hospitalized patient will be examined daily by the responsible faculty member and resident with appropriate chart entries.
2. Each surgical patient admitted to the hospital will have a complete history and physical examination by the resident which is then reviewed and signed by the attending with an accompanying note.
3. The resident and staff member shall agree upon a treatment plan which is documented in the chart.
4. Residents are responsible for writing a preoperative note stating the working diagnosis, stage of disease, evaluation of operability and a surgical plan. This note is reviewed by the attending surgeon and cosigned after any appropriate modifications are made.
5. The intraoperative roles shall be decided upon prior to the operation through a discussion between faculty and residents.

6. Preoperatively, the resident and responsible faculty member will discuss the nature of the planned operation, the risks and benefits of the proposed procedure, and alternative treatments with the patient and family. The patient will be told that the procedure will be conducted as a team effort of the attending surgeon and resident. These discussions are documented in the chart with a preoperative note, as well as by completion of the hospital permit form.
7. In the operating room, the faculty member shall supervise the procedure in accordance with current published Medicare guidelines. Faculty are either directly at the operating table or immediately available in the operating room, according to how much operative responsibility is delegated to the resident at the discretion of the faculty member. Residents must honestly assess their own abilities, and request appropriate and timely direct assistance from the faculty.
8. Postoperatively, the faculty supervisor shall directly oversee the progress of each patient, delegating appropriate responsibility to the residents, according to his/her assessment of the residents' knowledge, skill, and judgement. Both faculty and residents shall document patient progress with appropriate notes in the chart.
9. Posthospital follow-up shall also be supervised by faculty at an appropriate level.
10. Should any litigation arise concerning unfavorable outcome, the faculty member agrees to support and protect the residents.

## ***Expectations Regarding Scholarly Activity***

The ACGME Program Requirement for Surgical Residency clearly specifies the expectation of scholarly activity of the faculty members:

“The quality of the educational environment of the parent and integrated institutions is of paramount importance to the program. Staff activity at affiliated institutions cannot account or substitute for the educational environment of the parent and integrated institutions. Adequate documentation of scholarly activity on the part of the program director and the teaching staff at the parent and integrated institutions must be submitted at the time of the program review. Documentation of scholarly activity is based on

1. participation in continuing surgical education;
2. participation in regional or national surgical scientific societies;
3. presentation and publication of scientific studies; and
4. demonstration of an active interest in research as it pertains to their own special surgical interests. The RRC will consider documented involvement in the following as indications of the commitment of the staff to research:
  - a. Projects that are funded following peer review,
  - b. Publications in peer-reviewed journals,
  - c. Presentations at national and regional scientific meetings, and
  - d. Research protocols that have been approved by appropriate institutional committees or other organizations.

While not all members of a teaching staff can be investigators, clinical and/or basic science research must be ongoing in the department of surgery of the parent and integrated institution(s). Research on the part of residents is not a substitute for the involvement of the program director and teaching staff. The staff as a whole must document active involvement in all phases of scholarly activity as defined above if they are to be considered adequate to conduct a program of graduate education in surgery.”

The faculty of the Department of Surgery is expected to comply with the above requirement and engage in appropriate scholarly activities. The department also expects the faculty to provide opportunity and leadership for residents to engage in scholarly activity appropriate for their training.

### ***Assignment of Administrative and Committee Responsibilities***

Each faculty member, as a condition of their appointment, agree to accept the appropriate administrative and committee responsibilities assigned by the Chairman of the Department of Surgery.

### ***Credentialing and Surgical Privileges***

Each faculty member is expected to be properly credentialed and obtain surgical privileges appropriate for his/her training. The appropriate surgical privileges for each faculty member is delineated by the Credentialing Committee.

### ***Operating Room Block Time***

Operating Room block time is available by service and specialty. Please contact the OR supervisor and the OR Management Committee for additional information.

### ***Periodic Assessment of Competency – Proctoring and Monitoring***

The faculty agrees to the need for periodic assessment of competency if thus determined by the Chairman of the Department of Surgery and the Medical Director. Proctoring and monitoring may be necessary as a result of the assessment.

### ***Policy on Conscious Sedation***

Kern Medical Center has strict criteria and procedure in the conduct of conscious sedation for minor procedures. A preprinted form on conscious sedation must be completed during and after the period of conscious sedation. This form is available in all nursing stations.

## ***Policy on Informed Consent***

Informed consent must be obtained for all non-emergent operations and procedures. The appropriate blanks must be completed and signature must be obtained from the patient or family members of the patient.

A separate note by the resident and/or attending physician documenting that the risks, benefits and alternatives of the proposed procedure have been explained and the possible complications related to the procedure is discussed.

For emergent, life-saving or limb-saving operations that an informed consent cannot be obtained, an extensive note explaining the situation must be documented in the chart prior to the conduction of the emergent operation.

## ***Policy on Patient Restraints***

The hospital has strict criteria and policy on patient restraint, including 24-hour automatic expiration of any physician order of restraint. The resident and staff must reassess the patient's condition to determine the need for continual restraint and rewrite the order for restraint for an additional 24-hour period.

## ***Policy on OR Scheduling***

## *Continuity of Care*

Continuity of Care is assured at KMC by the clinic system. Residents see all patients in the clinic. Residents are expected to see those patients that they will care for and those patients that they operated upon. This holds for all of the services at KMC. Few patients are admitted from “private practice” settings, allowing residents to have a continuity of care level of about 95% on the Red/Gold services and about 80% on specialty rotations.

On the STU rotations, residents must keep accurate continuity of care logs. Failure to keep accurate records will not be tolerated.

1. OUTSIDE ROTATIONS- a table/sheet for each clinic which has all patients names, date, Staff, Dx, Type visit (pre/Postop/Other), operation, and a box for the resident to sign if he sees the patient in clinic. At the end of each outside rotation, the resident ASAP must make a list of all the patients they operated on, date, staff, operation, date of preop and postop visits using the clinic sheets and their op stickers. They will hand the list and the clinic tables (described above) to KMC secretaries who can then add to an ongoing table for each rotation, resident, # months, . Finally, the KMC secretarial data will read e.g. White, 4-5/95, Goldstein(R4), 44(cases), 97%(preop), 72%(postop) This will identify continuity problems for remediation or rotation elimination and let us know after each rotation what cases residents are doing (based on the resident table).. We will then be able to report what percent of the residents overall operative experience is at each local, what the continuity pre and post op is and calculate the total Resident keeps op log/stickers. Clinic Secretary keeps clinic pt log with resident sign in, resident fills in op log table with f/u dates, KMC SECRETARY calculates total cases and f/u and keeps ongoing table and files resident table and clinic secretary raw data. Program director at staff meeting analyzes quarterly the secretarial summary (to check f/u) as well as resident table (to check # good cases).

## ***Curriculum Goals and Objectives***

The APDS “Surgical Residency Curriculum” is used as the basis for the departmental curriculum document, which contains a list of goals and objectives for each rotation within the KMC program.

Residents are expected to familiarize themselves with these goals and objectives before, during and after each rotation. The faculty is expected to provide an educational environment which leads to achievement of the goals of each rotation.

Please refer to the Department of Surgery Curriculum Guide.

## ***Medical Records Responsibilities***

Staff must review and co-sign H&P within 48hr of admission.

Each patient must have a preop note on the day of surgery, written by a resident and co-signed by staff.

Each patient must have a post-op note on the day of surgery (a “NOS: Night of Surgery” note) written by the responsible surgeon, documenting that the patient has been examined and a postop treatment plan initiated.

Daily notes will be written by residents and/or staff to document appropriate postop care.

Dictated op-notes will be completed by the responsible surgeon within 24hr of surgery.

Discharge summaries and op-notes will be reviewed and approved by a signature from each responsible surgery staff member.

Discharge planning will be documented prior to discharge (clinic visit, etc.)

Appropriate follow-up in the clinic will be documented by a note from the responsible team member. Residents will be expected to see patients in clinic that they operated upon (continuity of care).

## ***Defined Categories***

Residents are expected to be aware of the “Defined Categories” of surgical cases. The operative experience must be tracked by the residents, including distribution in the defined categories.

## ***Consults***

Non-emergent surgical floor consults should not be called after 5:00 p.m., that goes for you calling them and them calling you. If an emergency consult is necessary, call the consultant personally and give them a clue how they can help you -- a ward clerk won't know the case and may delay the consult!! Curbsides/favors should always be welcomed in the abstract -- utilize all of your resources and help your colleagues. However, if the consulting team is calling about a specific patient (for example): "Just want to let you know about ...", then a consult is required. All consults are best handled with physician-to-physician verbal communication.

## ***Rounds***

Time will be determined by the Chief Residents or leader of each service. Don't be late, please! Weekend rounds will be determined by Chief Residents, and typically, residents not on call over a weekend need not come in. Special circumstances might arise. Those post-call are expected to round and stay until the oncoming team has things under control. In general, notes are written on rounds to ease the burden of the interns and pre-rounding is not needed.

## ***Resident Vacation Policy***

In the PGY 1,2 and 5 years, residents are expected to take vacation during the Red/Gold rotations. Residents in the PGY-3 and 4 years must schedule vacation with the appropriate Associate Program Director (APD). Vacation requests will be approved in writing by the administrative Chief Resident (KMC rotations) or the APD. Final approval is granted by the Program Director.

Residents from other departments rotating on surgical services may use 3 days of vacation for each 4 week rotation. Requests are submitted in writing.

Consideration is given on an individual basis accounting for number of residents on the service, number of vacation requests, advance notice given, and any special circumstances.

The overall philosophy is that residents should be allowed to use all of their vacation time in order to facilitate their ability to learn and perform at the peak of their ability.

## ***Resident Sick Leave***

Residents are allotted a certain number of days for illness. Faculty must be sensitive to the need of the surgical residents. However, abuse of sick leave time is discouraged and shall be reported to the Program Director immediately.

## ***Faculty Travel Policy***

Faculty member is allowed certain number of professional travel days based on the agreement on their individual contract. Faculty travel requests must be submitted for approval by the Chairman of the Department of Surgery in advance.

## ***Staff Meetings***

Held Quarterly, the PD should have a synopsis of the evaluation of each resident for that three months, present this to the group and invite further comment from each appropriate staff. Close minutes of these verbal evaluations are kept (who was present) and another synopsis of the verbal comment formed and documented. These minutes should include remediation plans as necessary.

Present a table of all scores on in-service, Taylor exam, OSCE exam, mock oral exam. These are reviewed at Staff meeting with documented minutes and plans of action.

Faculty participation is strongly recommended.

## **Department of Surgery Research**

# *KMC Department of Surgery*

## *Research Policy and Curriculum*

In keeping with ACGME requirements, the Department of Surgery has an established policy regarding research within the Department.

Introduction  
Background  
Research Curriculum  
Curriculum Implementation

- **Introduction**

The conduct of research is critically important to the mission of the Department of Surgery. Research supports the delivery of high quality care as well as the education of students, residents, and faculty within the department.

The conduct of clinical research projects is strongly encouraged throughout the training program. There are no facilities for animal or basic laboratory research within KMC. Residents who are strongly motivated to pursue such training may seek training elsewhere for extended periods of time and return to the program. Opportunities to take extended leave will be decided on an individual basis, and are based on manpower needs and limitations within the residency program. Residents from the General Surgery program are strongly encouraged to avail themselves of research opportunities at UCSD while rotating there in the PGY-2 year. These rotations could provide an important “connection” for the initiation and/or conduct of clinical or laboratory research.

All clinical studies must be approved by the KMC Institutional Review Board (IRB) according to IRB policy. This *includes* studies that are limited to chart reviews.

KMC has an institutional Research Committee which can serve as a resource for information and guidance in pursuing clinical research within KMC.

• **Background**

As background, below are the sections of the RRC Program Requirements for Residency Education in General Surgery which are relevant to the conduct of research within the Department of Surgery.

Section I.C.7 of the RRC Program Requirements states:

“The program must provide teaching in critical thinking, design of experiments, and evaluation of data as well as in technological advances that relate to surgery and the care of patients with surgical diseases”

Section I.C.8 states:

“The program must encourage participation by the residents in clinical and/or laboratory research”.

Section V.G states:

“ Scholarly Environment

The quality of the educational environment of the parent and integrated institutions is of paramount importance to the program. Staff activity at affiliated institutions cannot account or substitute for the educational environment of the parent and integrated institutions. Adequate documentation of scholarly activity on the part of the program director and the teaching staff at the parent and integrated institutions must be submitted at the time of the program review. Documentation of scholarly activity is based on:

1. Participation in continuing surgical education
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- **Research Curriculum**

The Department of Surgery has identified a number of issues critical to the development of research by trainees within the department. The following curriculum identifies those issues.

**Key Components of Research Education for Surgeons:**

- Hypothesis Formulation and Experimental Design
- Statistical Analysis of Data
- Computers in Surgery
- Clinical Research and Clinical Trials
- Clinical Outcomes Analysis
- Institutional Committees: IRBs, IACUCs, Radiation Protection
- Preparation of an Abstract and Manuscript
- Literature Interpretation
- Preparing a Talk
- Research Grant Preparation

**Overall Objectives:**

- Demonstrate an understanding of research principles and their application to the practice of general surgery.
- Demonstrate knowledge about the use and application of study designs and statistical methods.
- Demonstrate knowledge of the role of clinical databases in clinical research and patient care.
- Demonstrate the ability to critically evaluate the information provided by drug companies and medical instrument and equipment manufacturers.

## **COMPETENCY-BASED KNOWLEDGE OBJECTIVES**

1. Differentiate between the following study designs:
  - a. Descriptive or case-series
  - b. Case control (retrospective)
  - c. Cross-sectional (prevalence)
  - d. Cohort (prospective/incidence)
  - e. Clinical trial
  - f. Sequential (repeated measures)
  - g. Crossover
2. Discuss the following concepts related to study design:
  - a. Internal versus external validity (generalizability)
  - b. Major threats to internal and external validity
  - c. Randomization, random selection, random assignment
  - d. Inclusion versus exclusion criteria
  - e. Blinding, blocking, stratification
3. Explain the differences between the following scales of measurement:
  - a. Nominal
  - b. Ordinal
  - c. Interval
  - d. Ratio
4. Distinguish between the following techniques/methods for exploring and presenting data.
  - a. Frequency distribution
  - b. Bar chart
  - c. Contingency table
  - d. Histogram
  - e. Frequency polygon
  - f. Scatterplot
5. Distinguish between the following statistics used to summarize or describe data.
  - a. Mean, mode, median
  - b. Range, standard deviation
  - c. Percentile, interquartile range
  - d. Proportion, ratio, rate
6. Interpret the following vital statistics rates:
  - a. Mortality, morbidity, cause-specific mortality rates
  - b. Prevalence, incidence
  - c. Adjusted rates
7. Distinguish between the following measures of relationship between two variables:
  - a. Pearson correlation coefficient
  - b. Coefficient of determination
  - c. Spearman rank correlation
  - d. Relative risk, odds ratio
8. Interpret the following terms and concepts related to drawing inferences from research data.
  - a. Population versus sample
  - b. Population distribution, sampling distribution, standard normal distribution
  - c. Standard error versus standard deviation
  - d. Hypothesis testing, null and alternative (research) hypothesis
  - e. Parametric versus nonparametric tests
  - f. Confidence intervals, confidence limits
  - g. One-tailed versus two-tailed tests
  - h. Level of significance alpha level, P value
  - i. Type 1 error, type II error, power
9. Identify the following tests of significance and concepts related to the comparison of means:
  - a. Independent and paired t-test (parametric tests)
  - b. Wilcoxon rank-sum test (also called the Mann-Whitney U or the Mann-Whitney-Wilcoxon rank-sum test)(nonparametric test)
  - c. Wilcoxon signed-ranks test (nonparametric test)

- d. One-way analysis of variance (ANOVA)
  - e. Two-way ANOVA
  - f. Repeated measures ANOVA
  - g. Statistical interaction
  - h. Planned comparisons
  - i. Posterior or post hoc comparisons such as the Tukey, Scheffe, Newman-Keuls, Bonferroni, and Dunnett procedures
10. Identify the following tests of significance and concepts related to the comparison of proportions:
    - a. Z-approximation test
    - b. Chi-square test
    - c. McNemar test for comparing proportions in paired groups
    - d. Sample size and strength of association in the interpretation of the chi-square statistic
    - e. Fisher's Exact Test
  11. Identify the following tests of significance and concepts related to investigating the relationship between two or more variables:
    - a. t-test for testing the significance of the correlation
    - b. Fisher's Z transformation
    - c. Confidence intervals for the relative risk and odds ratio
    - d. Simple and multiple linear regression
    - e. Standard error of estimate
    - f. Confidence bands for a regression line
    - g. Comparing two regression lines
    - h. Testing the significance of the regression line and the regression coefficients
    - i. Stepwise multiple regression
    - j. Logistic regression
  12. Identify the following concepts related to the analysis of survival data.
    - a. Actuarial or life table analysis versus Kaplan-Meier
    - b. Comparing two survival curves using the Gehan or generalized Wilcoxon test, the logrank test, and the Mantel-Haenszel chi-square test
    - c. Censored observations
    - d. Cox regression
  13. Interpret the following concepts related to evaluating diagnostic tests and procedures:
    - a. Sensitivity and specificity
    - b. Gold standard
    - c. Predictive value of a positive or negative test
    - d. Index of suspicion or prior probability
    - e. Likelihood ratio method
  14. Discuss the following procedures, principles, and concepts related to the ethics of medical research:
    - a. The Declaration of Helsinki (see Troidl reference)
    - b. Informed consent
    - c. Institutional review boards and animal use review committees
    - d. Ethical use of animals in research
    - e. Confidentiality and anonymity concerns
    - f. Truth and accuracy in the publication of research results
  15. Explain the following procedures and concepts related to clinical databases:
    - a. Role of clinical databases in clinical research and outcomes research
    - b. Database terminology such as field, record, query, report generation, ASCII file, computer file, and merging
    - c. Data coding, data entry, and data verification
    - d. Use of standardized databases such as hospital tumor registries or state trauma registries
    - e. Database development

## **COMPETENCY-BASED PERFORMANCE OBJECTIVES**

1. Complete a literature review on a surgical topic using a computer bibliographic database such as MEDLINE.
2. Write a summary of the literature review, including a synthesis of the major findings and a recommendation for surgical practice.
3. Critically evaluate the articles found in the literature review using the following checklist:

### CHECKLIST FOR READING AND CRITICALLY EVALUATING THE LITERATURE

#### **ABSTRACT**

\_\_\_\_ Did the abstract provide an adequate summary of the purpose and results of the study?

#### **INTRODUCTION**

\_\_\_\_ Was the purpose/justification clearly stated, logical, and convincing?

\_\_\_\_ Was the literature review clearly discussed and connected to the present study?

#### **METHODS**

\_\_\_\_ Is the study design clearly defined or clear in context?

\_\_\_\_ Is the study sample(s) clearly defined, including how the sample(s) was(were) chosen?

\_\_\_\_ Are the data collection instruments/strategies adequately described, including any evidence of their reliability and validity?

#### **RESULTS**

\_\_\_\_ Are the characteristics of the study group(s) described?

\_\_\_\_ Do the results relate to the purpose/justification of the study?

\_\_\_\_ Are actual values reported (e.g., means, standard deviations or standard errors, percentages), not just the results of statistical tests (e. g., P values)?

\_\_\_\_ Were all the subjects who entered the study accounted for?

#### **DISCUSSION**

\_\_\_\_ Are the study conclusions clearly supported by the data?

\_\_\_\_ Do the authors extrapolate beyond the data?

\_\_\_\_ Were the study setting and study subjects sufficiently representative so that the results can be generalized to other subjects and to other settings?

\_\_\_\_ Were there any major threats to the internal and external validity of the study that could affect the reported conclusions?

4. Evaluate the accuracy of diagnostic procedures and laboratory tests commonly used in the practice of surgery by identifying their sensitivity, specificity, and predictive value.
5. Develop and implement a computer-based clinical database using a commercially available statistical database package.
6. Identify and prepare a case study suitable for presentation or publication.
7. Design and conduct a surgical research study, utilizing the following activities:
  - a. Select/search for a researchable project, involving an attending or other clinician-mentor
  - b. Search and review the literature
  - c. Formulate hypotheses
  - d. Identify key variables (both predictor and outcome), decide on the optimal level of measurement, create operational definitions, and assess reliability
  - e. Develop a research design
  - f. Identify population and study sample
  - g. Develop sample selection procedures
  - h. Select or develop measures
  - i. Develop study protocol and prepare institutional review board (IRB) proposal
  - j. Collect and analyze data
  - k. Interpret results
  - l. Identify various journal formats and related instructions to authors
  - m. Write paper
  - n. Review techniques for optimal presentation of papers and posters, including related media
  - o. Convert paper into an appropriate presentation
  - p. Deliver the presentation

## **CLINICAL EPIDEMIOLOGY AND OUTCOMES RESEARCH**

### **PART A. CLINICAL EPIDEMIOLOGY**

- Demonstrate understanding of the principles of clinical epidemiology and their application to the practice of general surgery.

### **COMPETENCY-BASED KNOWLEDGE OBJECTIVES:**

1. Explain the discipline of clinical epidemiology to include the study of groups of people and the background evidence needed for clinical decisions in patient care.
2. List the clinical events of primary interest in clinical epidemiology, including: death, disease, disability, discomfort, and dissatisfaction.
3. Distinguish mass screening from case finding.
4. Discuss the following criteria used to determine for which diseases people should be screened:
  - a. Sensitivity
  - b. Specificity
  - c. Positive predictive value; negative predictive value
  - d. Number of false positives
  - e. Test factors (e.g., simplicity, cost, safety, patient acceptability)

5. For a given disease/condition, compare the advantages and disadvantages of applying multiple diagnostic tests all at once versus consecutively.
6. Discuss clinical decision analysis, including:
  - a. Defining the problem, alternative actions, and possible outcomes
  - b. Developing a decision tree to assign probabilities for each outcome
  - c. Assigning a value or utility for each outcome
7. Differentiate risk factors from prognostic factors for a given disease/condition (e.g., for acute myocardial infarction, older age and male gender are both risk factors and prognostic factors, whereas hypertension is a risk factor but hypotension is a prognostic factor).
8. Discuss the following five rates commonly used to predict prognosis:
  - a. Five-year survival
  - b. Case-fatality
  - c. Response
  - d. Remission
  - e. Recurrence
9. Identify locations of potential bias in randomized, controlled clinical trials, including:
  - a. Patient selection
  - b. Patient allocation to study groups
  - c. Patient compliance
  - d. Definition of outcomes
  - e. Generalizability of results
10. Distinguish between clinical significance and statistical significance.
11. Analyze the following situations in which a physician's personal experience is insufficient to establish a relationship between a disease and its cause. Personal experience is insufficient when:
  - a. The disease is common
  - b. The disease has multiple causes
  - c. The disease has a low incidence
  - d. The disease has a long latency period
12. For non-experimental studies, define the following criteria for determining cause and effect:
  - a. Temporality
  - b. Strength of the measure of association
  - c. Presence of a dose/response relationship
  - d. Consistency of results
  - e. Biological plausibility
  - f. Specificity of effect

### **COMPETENCY-BASED PERFORMANCE OBJECTIVES:**

1. Recognize when to apply a specific screening test in a case finding situation.
2. Apply clinical decision analysis to the treatment of a given patient with a given disease.
3. Estimate risk of disease development for a given patient given a history of exposure to specific risk factors.
4. Decide whether a given association is one of cause and effect.

## **PART B: OUTCOMES RESEARCH**

### **COMPETENCY-BASED KNOWLEDGE OBJECTIVES:**

1. Explain the traditional negative clinical outcomes for a given surgical procedure, including death, disease, disability, and complications.
2. Discuss the modern clinical outcomes for a given surgical procedure, including discomfort, dissatisfaction, quality of life, and cost-effectiveness.
3. Identify the most frequently-occurring negative outcome(s) of a given surgical procedure, (e.g., thrombosis following arterial venous prosthetic shunt formation).
4. Compare the following different ways of measuring outcomes for a given surgical procedure:
  - a. Chart reviews
  - b. Clinical evaluations
  - c. Questionnaires
5. Discuss each of the following steps in conducting prospective outcomes research:
  - a. Hypothesis formation
  - b. Computerized literature search
  - c. Selection of a study design
  - d. Estimation of sample size
  - e. Specification of inclusion and exclusion criteria
  - f. Allocation of patients to groups
  - g. Evaluating outcome(s)
  - h. Analyzing data
6. Provide examples of potentially confounding patient variables, including age, sex, race, income, education, occupation, religion, marital status, residence, nationality, disease stage, comorbidities, and complications.
7. Provide examples of potentially confounding treatment variables, including extent of surgery, timing of surgery, anesthetic technique, postsurgical nursing care, drug therapy, chemotherapy, radiotherapy, physical therapy, and nutritional therapy.
8. Describe the following common problems in collecting useful outcomes data.
  - a. Inadequate sample size
  - b. Inaccurate characterization of patient population
  - c. Inappropriate comparison group
  - d. Uncontrolled patient variables
  - e. Uncontrolled treatment variables
  - f. Patient noncompliance

### **COMPETENCY-BASED PERFORMANCE OBJECTIVES:**

1. Demonstrate the ability to review the surgical literature critically.
2. Design a clinical outcomes research study.

- **Curriculum Implementation**

The research curriculum outlined here is implemented within the Department of Surgery by several mechanisms. First, didactic research education takes place within the department in the form of lectures given during a “Basic Science Conference”. In addition, each resident attends a national course, sponsored by the Association for Academic Surgery, called the “Fundamentals of Surgical Research Course”. It is given every July and we send two residents annually, such that by the end of the residency, every resident has attended. The Department of Surgery has a “Research Conference” during which the current status of ongoing clinical research projects is discussed. We also discuss ideas for new studies during that conference.

Much of the research education in the department takes place at the individual level, when a resident conducting a study receives one-on-one guidance from the faculty mentor involved in the study.