Swedish Medical Center
General Surgery Residency

Description of Curriculum

The Swedish Medical Center General Surgery Residency program is designed to fulfill the AOA Basic Standards for Residency Training in Surgery. The curriculum is designed following the recommendations of the American College of Osteopathic Surgeons' (ACOS) model curriculum design project. The curriculum, as well as a schedule of required educational meetings and a faculty roster, will be provided to residents at orientation.

In compliance with the ACGME minimum program requirements, the Swedish Medical Center General Surgery Residency requires its residents to obtain competencies in the 6 areas listed below to the level expected of a new practitioner:

1. **Patient Care** that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health
2. **Medical Knowledge** about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioural) sciences and the application of this knowledge to patient care
3. **Practice-Based Learning and Improvement** that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, and improvements in patient care
4. **Interpersonal and Communication Skills** that result in effective information exchange and teaming with patients, their families, and other health professionals
5. **Professionalism**, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population
6. **Systems-Based Practice**, as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.

Core Competencies:

1. Patient Care:

Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. At

each phase of training, residents are expected to acquire progressive proficiency and competence in the following components of patient care.

a. Communicate effectively with patients and their families, and demonstrate a caring and respectful behavior when interacting with patients and their families.
b. Gather essential and accurate information about their patients.
c. Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment.
d. Develop and enact patient management plans.
e. Counsel and educate patients and their families.
f. Use information technology to support patient care decisions and patient education
g. Perform competently all medical and invasive procedures considered essential for the area of practice.
h. Provide health care services aimed at preventing health problems and maintaining health.
i. Work with health care professionals, including those from other disciplines, to provide patient-focused care.

2. **Medical Knowledge:**

Residents must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care. At each phase of training, residents are expected to acquire progressive proficiency and competence in the following components of medical knowledge.

a. Demonstrate knowledge about established and evolving biomedical, clinical, and cognitive (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care.
b. Demonstrate an investigatory and analytic thinking approach to clinical medicine.
c. Know and apply the basic sciences appropriate to their discipline.

3. **Practice-based Learning and Improvement:**

Residents must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning. At each phase of training, residents are expected to acquire progressive proficiency and competence in the following components of practice-based learning and self-improvement.

a. Identify strengths, deficiencies, and limits in one's knowledge and expertise.

b. Set learning and improvement goals.
c. Identify and perform appropriate learning activities.
d. Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement.
e. Incorporate formative evaluation feedback into daily practice.
f. Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems.
g. Use information technology to optimize learning.

4. **Interpersonal and Communication Skills**:
Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals. At each phase of training, residents are expected to acquire progressive proficiency and competence in the following components of interpersonal and communication skills.
a. Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds.
b. Communicate effectively with physicians, other health professionals, and health related agencies.
c. Work effectively as a member or leader of a health care team or other professional group.
d. Act in a consultative role to other physicians and health professionals.
e. Maintain comprehensive, timely, and legible medical records.

5. **Professionalism:**
Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. At each phase of training, residents are expected to acquire progressive proficiency and competence in the following components of professionalism.
a. Demonstrate compassion, integrity, and respect for others.
b. Show responsiveness to patient needs that supersedes self-interest.
c. Establish respect for patient privacy and autonomy.
d. Demonstrate accountability to patients, society and the profession.
e. Show sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.

6. Systems-based Practice:
Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other

resources in the system to provide optimal health care. At each phase of training, residents are expected to acquire progressive proficiency and competence in the following components of systems-based practice.

a. Work effectively in various health care delivery settings and systems relevant to their clinical specialty.
b. Coordinate patient care within the health care system relevant to their clinical
c. Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate.
d. Advocate for quality patient care and optimal patient care systems.
e. Work in inter-professional teams to enhance patient safety and improve patient care quality.
f. Participate in identifying system errors.

What does it actually mean to become competency-based? From the traditional educational unit that was time-based and instructor-centered, the unit of progression becomes a demonstration of specific knowledge and skills and is learner-centered. Most definitions of *competencies* make clear the primacy of professional practice. "A competent clinician is one who is able to perform a clinical skill to a satisfactory standard." The AOA accepts the definition proposed by Epstein and Hundert: "Professional competence is the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values and reflection in daily practice for the benefit of the individual and community being served." Hence, the competency-approach places emphasis on the application and integration of knowledge. Basically, the competency-based approach in residency education asks the question: What do surgeons need to know and be able to do upon completion of this residency?

Below is a summary of the rationale for the key sections outlined in the model curriculum: clinical sciences and skills, associated specialties, and principal surgical areas.

Clinical Sciences and Skills

Development of intra-operative technical skills is a well-recognized component of surgical training. When considering the broad realm of patient care, both within and outside the operating room, an equally important aspect is development of the surgeon's ability to understand and assimilate the clinical sciences and skills. During training, the osteopathic surgical resident must acquire knowledge and skills in all areas of clinical science and skills including shock, incisions, sutures & wound healing, surgical infections, nutrition, blood and blood products, fluids and electrolytes, pain management and laparoscopy. Integration of the clinical sciences

by the surgical resident into all aspects of practice will enhance his or her ability to appropriately diagnose, organize a management plan, perform necessary surgical procedures and care for the postoperative surgical patient in the short and long term.

Surgical residents learn clinical sciences and skills on all clinical rotations and in didactic settings. Knowledge and skills are assessed informally on a daily basis by faculty and attending surgeons. Since these clinical sciences and skills are part of a core curriculum related to each and every principal surgical area, they are grouped together and not repeated in separate surgical areas.

Associated Specialties

Development of professional collaboration is an important component of surgical training. When considering the broad realm of patient care, both within and outside the operating room, the surgeon must understand and be able to use specific concepts and skills related to associated specialties including hematology, oncology, radiology, neurology, anesthesiology, infectious diseases, and internal medicine. Integration of the associated specialties by the surgical resident into all aspects of practice will enhance his or her ability to appropriately diagnose, organize a management plan, perform necessary surgical procedures and care for the postoperative surgical patient in the short and long term. Surgical residents learn associated specialty concepts and skills on all clinical rotations and in didactic settings. Knowledge and skills are assessed informally and on a daily basis by faculty and attending surgeons. Since these associated specialties are part of a core curriculum related to each and every principal surgical area, they are grouped together and not repeated in separate surgical areas.

Principal Surgical Areas

Residents spend much of their training on teams that are responsible for a variety of types of general surgery, rather than on rotations that are specific to one of the principal surgical areas. However, several areas such as rural surgery and ENT have separate rotations, often at a partner institution. The principal areas are the heart of the surgical residency training; therefore, competence in each area is critical. Each of these areas is evaluated monthly by attending physicians and staff.

Didactic Curriculum

Didactic information and knowledge is provided to the resident in a variety of ways and through various avenues. The following list is not all inclusive but it does include those methods commonly utilized in existing programs.**Reading Assignments**

Reading assignments are provided to the resident especially in the first year of the resident's training to make sure the he/she is exposed to appropriate fundamental reading material related to his/her level of training. This can be continued throughout the entire five year training program by providing suggested reading lists of specific texts and specific areas of such texts. However, reading is generally most productive when it is carried out in conjunction with the study of a case at hand and this should be encouraged. It is appropriate to quiz the resident on the specific reading assignments to make certain that his/her assignments are being carried out. The overall plan is designed with a goal of covering the scope of subjects encompassed in the training program over the five year period.

- **Surgical Core Curriculum (SCORE)**

The residency program subscribes to the Surgical Core Curriculum which all residents are required to utilize. This program has over 650 on-line modules which coordinate with self-assessment tools and various videos and supplemental resources geared specifically to the surgical resident. SCORE allows the residency director to monitor each resident's progress through the system. See more details at their website at www.surgicalcore.org.

- **Journal Club**

The purpose of the Journal Club differs from the basic reading assignment. This provides a means where screening of current surgical journals is divided up between the involved physicians, whether they are resident or staff. Summaries or abstracts are presented at a common meeting with time for discussion and interpretation. This provides an easy method for the residents to keep abreast of the current literature. In hospitals with multiple residents this can be accomplished with the residency staff alone, although involvement or at least attendance at meetings by attending staff should be encouraged. This mechanism introduces the resident to the problem of proper assessment of published papers, to make certain that he/she can sift and properly evaluate the pertinent data presented and determine whether the conclusions reached are substantiated by the experimental model and the data presented. It is important that the resident learn early in his/her career to not accept facts at face value in everything that he/she reads. Another valuable facet of this general exposure is to require that the resident abstract in a concise fashion articles from selected and assigned journals as determined be his/her chief. This will be done on a quarterly basis.

Morbidity & Mortality Conferences (M&M)

To be of maximum educational value to the resident, he/she is required to prepare the presentations, assume the role of moderator and direct the discussion of the particular case in question at the monthly department meeting. The teaching value of M&M is well recognized if carried out in an objective manner and not designed to defend therapy. The well-presented PowerPoint M&M presentations include discussion of differential diagnosis, different diagnostic approaches and all acceptable therapeutic approaches. These are worked into the regularly scheduled didactic program or presented from interesting clinical patients in the hospital's CME program.

- **Critical Care Conference and the ED/Trauma Case Conference**

The hospital has a large CME program and there are two regularly scheduled series (RSS) that were developed for trauma and general surgery combined. They include the Critical Care Conference and the ED/Trauma Case Conference. Residents are expected to attend these CME meetings and may be asked to participate in presenting cases or giving lectures. Lectures and case conferences are presented by the surgical and medical staff or from outside the institution where the speakers are available and where topics covered are needed. The resident participates in the lectures and case conferences not only as a listener, but as a lecturer; as his/her ability and training program progresses, residents will be given an increasingly important part in these programs.

- **Departmental Meetings**

Resident attendance is required on the same basis as a staff surgeon at the departmental meetings. It is important the resident learn the political aspect as well as the medical aspect of hospital functions and he/she should develop an understanding of how the governing bodies of the hospital operate. The resident is required to become familiar with the bylaws and rules and regulations of the hospital/medical staff.

- **Preparation of Papers**

The resident is required to prepare at least one paper during his/her residency, suitable for publication. This may be on a subject of the resident's own choosing or interest, or maybe a subject assigned by his/her chief. It is important that the paper represents, as much as possible, the resident's own experience in his/her training, hospital-related to the subject matter of the paper. The primary purpose of the paper is the instructional value in teaching the resident how to prepare a paper on a medical subject so that it would meet the requirements of publication. Since

presentation of an individual case history should only be written up in truly rare cases, not previously covered or minimally covered in the role of literature, it naturally follows that only rarely should a resident be writing on a case history. To avoid this, as well as other problems of an improper subject, the subject matter must be approved by the trainer or chief of the department before the actual writing is started. This will be in conjunction with the Research Department.

- **Outside Surgical Teaching Courses**

The resident is encouraged to obtain various outside surgical postgraduate courses that may be available from time to time. It is essential that those selected be either required or recommended and approved by the chief so that the resident is exposed to those areas of didactic information related to his/her level of training and ability as determined by the trainer. The resident is encouraged to attend the Annual Postgraduate Course in Surgery sponsored by the American College of Osteopathic Surgery /ACS at some time during the training program. Preferably, this will be done in the third year of training so that the resident has accumulated some academic and surgical experience in order to better evaluate and utilize the information presented during that conference.

- **Skills/Simulation Lab Sessions**

We are currently working with Rocky Vista University on this educational opportunity.

- **Mock Oral Exams**

One planned learning activity will be a Mock Oral Exam. Preparation for the exam will include working on test taking skills and to identify areas of core knowledge weakness. This is then discussed with the resident and an action plan with the resident's mentor/advisor is established to improve the deficient areas. Progress on the action plan will be monitored.

- **Research**

Each resident must complete a research project and present at a research conference, preferably the AOA convention or a conference of the state osteopathic society. However, the research project may also be submitted to the American College of Surgeons (ACS) yearly clinical congress or any other allopathic respected journals. This is especially encouraged if the resident is planning to apply to a competitive fellowship program. A robust program of clinical research is ongoing at Swedish Medical Center. Faculty members at the hospital and Rocky Vista University College of Osteopathic Medicine (RVUCOM) are available to assist residents in their research and mentor each resident through

the research process. Projects can be related to continuous quality improvement activities within the department of medicine and/or hospital. Research time is allowed up to one month of an elective and may be utilized as a research elective. Attendance at the hospital's research committee meetings is required.

Rocky Vista University College of Osteopathic Medicine (RVUCOM) is physically located less than 45 minutes away from the hospital and has processes to advance knowledge through research and scholarly contributions. A number of faculty members actively contribute to the advancement of knowledge and the development of osteopathic medicine. The COM has established and funded an Intramural Grant Program to fund one-year pilot/feasibility grants with proposed budgets of up to $10,000 and residents will be able to compete for these grants. Guidelines for the program were developed in coordination with the RVUCOM Research Committee and approved by the administration. The COM encourages and supports its faculty in the production of scholarly activity and research. The Mountain West Research Foundation has been established as a separate non-profit entity to promote research in coordination with COM faculty. An investigational review board (IRB) is available for residents when the need comes to review any grant projects that fall under IRB oversight.

RVUCOM has a research committee that helps facilitate faculty inquiries in the development and establishment of a research culture here at RVUCOM. To facilitate these efforts research seminars were held over the past year, (funded by the Dean's office) to facilitate the exchange of knowledge in potential research opportunities. The COM encourages faculty to collaborate with other academic institutions, residents, and outside entities in the pursuit of scholarly data and research projects. Several faculty members are actively pursuing funding for clinical research related to the field of Osteopathic Manipulative Medicine through the American Osteopathic Foundation.