

Procedure Team Curriculum

Introduction

The following curriculum is intended to offer guidance and description of how the residents will be supervised and evaluated with the use of a resident portfolio.

I. Educational Purpose

The general internist should be able to perform various procedural tasks and exhibit a level of competency particularly in hospitalized patients. Despite one's ultimate career path, a basic level of ability to perform certain procedures is an invaluable tool. A procedure driven rotation offers the resident a higher degree of autonomy in clinical decision-making and patient care. Equally as important is the demonstration that the resident has the know-how and desire to safely use these tools in appropriate settings and patient care.

II. Learning Venue

- A. Rotation Description and Expectations - The Procedure team is a 2-week afternoon-only block where the VA Derm/Subspecialty resident performs procedures based on internal medicine consults. On day of the rotation, the PGY-3 resident will report to the simulation lab at the VA to go through the basic procedures; then await consults. The PGY-3 will arrive at 1:00PM and respond to consults for procedures until 4PM. This will occur from Monday to Friday.

- B. Teaching Methods:
If the resident is already certified in the procedure, this will provide an opportunity to improve proficiency and troubleshooting. The education that occurs on this rotation is primarily from the opportunity of performing an array of procedures. If the resident is not credentialed in the particular procedure at that time they can contact the chief resident, team attending requesting the consult or the pulmonary/critical care team for supervision. This will also provide an opportunity to determine the procedures that may require imaging-guided intervention.

- C. Mix of Diseases:
Procedures will include any invasive procedure that needs to be completed during the mentioned time and include, but not limited to, central lines, thoracentesis, paracentesis, lumbar punctures, arterial punctures, venipunctures, placement of NG tubes, all supervised when appropriate.

III. Method of Evaluation

- A. The learning and competence of the resident's performance during the rotation will be based on:
 - 1. Nursing Evaluations – This is primarily intended to evaluate if appropriate measures were taken ie. Time-out, sterile technique, informed consent, etc.
 - 2. Faculty/Peer Evaluations – Faculty and Peers on the consulting team are strongly encouraged to use concern or praise cards.
 - 3. Patient Evaluations – It is possible that patients, when asked to evaluate their experience, may provide effective feedback to a member (or members) of the procedure team.

Residents will be provided the **opportunity** to achieve knowledge and procedural competency in the following procedures if the resident identifies that the procedure is relevant to future practice:

1. Arterial line insertion
2. Arthrocentesis
3. Central Line Insertion
4. Incision and drainage of an abscess
5. Lumbar puncture
6. Nasogastric intubation
7. Paracentesis
8. Thoracentesis
9. Skin biopsy

Reading lists and other educational resources to be used:

- New England Journal of Medicine Series of Articles and Videos on Clinical Medicine Series
 - **Paracentesis:** N Engl J Med 2006;355:e21;
<http://content.nejm.org/cgi/content/short/355/19/e21>
 - **Central Venous Catheterization:** N Engl J Med 356:e21, May 24, 2007;
<http://content.nejm.org/cgi/video/356/21/e21/>
 - **Thoracentesis:** N Engl J Med 355:e16, October 12, 2006;
<http://content.nejm.org/cgi/content/short/355/15/e16>
 - **Lumbar Punctures:** N Engl J Med 355:e12, September 28, 2006;
<http://content.nejm.org/cgi/content/short/355/13/e12>
 - **Incision and Drainage of an Abscess:** Fitch MT, Manthey DE, McGinnis HD, Nicks BA, Pariyadath M. N Engl J Med 2007;357:e20, November 8, 2007;
<http://content.nejm.org/cgi/video/357/19/e20/>
 - **Arthrocentesis of the Knee:** Thomsen TW, Shen S., Shaffer RW, Setnik GS. N Engl J Med 2006;354:e19, May 11, 2006;
<http://content.nejm.org/cgi/video/354/19/e19/>
 - **Nasogastric Intubation:** Thomsen TW, Shaffer RW, Setnik GS. N Engl J Med 2006;354:e16, April 27, 2006; <http://content.nejm.org/cgi/video/354/17/e16/>
 - **Placement of an Arterial Line:** Tegtmeyer K, Brady G, Lai S, Hodo R, Braner D. N Engl J Med 2006;354:e13, April 13, 2006;
<http://content.nejm.org/cgi/video/354/15/e13/>
- Attached supplemental readings
- Up-To-Date is recommended as a concise peer-reviewed source for on-the-spot information. Residents are encouraged to go to the original literature for more in-depth learning.

Ancillary Educational Materials

Also available on-line:

Harrison's Principle's of Internal Medicine, 14th ed.
Merck Manual, 17th ed.
Guide to Clinical Preventive Services, 2nd ed.
The Cochrane Library
Medline and Grateful Med Databases

IV. Rotation Specific Competencies

PGY-3s should be almost independent in these skills, be able to deal with unexpected events and ambiguous situations, and will demonstrate an increasing ability to teach others

- Patient care

- o Gather accurate information about patients, including performing a thorough history and physical examination
- o Synthesize data into a prioritized problem list and differential diagnosis, then formulate diagnostic and therapeutic plans
- o Monitor and follow up patients appropriately
- o Know the indications, contraindications, & risks of some invasive procedures and competently perform some invasive procedures
- Medical knowledge
 - o Demonstrate an increasing fund of knowledge in the indications, contraindications, risks, proper technique and interpretation of samples from:
 - Arthrocentesis
 - Paracentesis
 - Thoracentesis
 - Central Venous Access
 - o Identify ultrasonographic, and laboratory markers of transudative, exudative, and complicated effusions as well as empyema, and the indications for consultation to obtain definitive management of these problems
 - o Identify the diagnosis and management of catheter- related thrombosis and blood stream infections
- Practice-based learning and improvement
 - o Accept feedback, learn from own errors and develop self-improvement plans
 - o Use information technology to manage information and access on-line medical information
 - o PGY-3s should learn how to use knowledge of study designs and statistical methods to the critical appraisal of clinical studies and apply to the care of patients
- Interpersonal and communication skills
 - o Demonstrate caring and respectful behaviors with patients, families, including those who are angry and frustrated; and all members of the health care team
 - o Counsel and educate patients and their families
 - o Conduct supportive and respectful discussions of informed consent
 - o Facilitate the learning of students and other health care professionals
 - o Demonstrate ability to convey clinical information accurately and concisely in oral presentations and in chart notes
- Professionalism
 - o Demonstrate respect, compassion, and integrity and appropriate concern for the patient's comfort
 - o Demonstrate a commitment to excellence and on-going professional development
 - o Develop an appreciation for the ethical, cultural and socioeconomic dimensions of illness, demonstrating sensitivity and responsiveness to patients' culture, age, gender, and disabilities
 - o Residents should display initiative and leadership; be able to delegate responsibility appropriately
- Systems-based practice
 - o Understand and appreciate the importance of coordinating care with other members of the health care team
 - o Learn the cost-effective use of diagnostic and therapeutic technology to minimize harm, particularly minimizing bloodstream infections and iatrogenic harm from correctable system-based problems.