UIC – Christ Medical Center Internal Medicine Residency Program

Goals and Objectives

Rotation: General Medical Ward
Supplement for Geriatric Hip Fracture Care Pathway

Site(s): Christ Medical Center

Level(s) of Training: Day acting chief resident (DACR): PGY-2, PGY-3

Rotation Duration: 4 weeks

Purpose: To develop the clinical and communication skills necessary to provide high quality care for geriatric patients with a hip fracture in the role of general medicine consultant including timely preoperative evaluation and optimization of the patient and proactive mitigation of common post-operative complications both in the context of the unique needs of the individual patient.

TEAM STRUCTURE:
General Medical Ward Attending Faculty Physician
PGY-2 or PGY-3 DACR and night acting chief resident (NACR)

SPECIAL CONSIDERATIONS:

- All geriatric patients being admitted through the Christ Medical Center Emergency Department (ED) will be triaged by the DACR or NACR. Any patients with an assigned Family Practice (FP) attending should be offered and signed out to the FP resident service unless they are capped. All other patients will be admitted by the DACR/NACR to his/her general medical ward team.

- It is the responsibility of the ED to initiate the consultation of the appropriate orthopedic service and to notify the assigned attending, if necessary, of the patient’s admission.

- It is the responsibility of the DACR/NACR to evaluate the patient, place appropriate orders including those included in the standardized care pathway, complete a history and physical, and communicate his/her findings and recommendations to the orthopedic surgeon or resident and the operating room. He/she should work with other members of the health care team to achieve the goal of getting all patients into the operating room (OR) within 24 hours of arrival to the ED.

- Each assigned patient admitted by the DACR/NACR should be handed off to the assigned attending by the DACR/NACR after the patient has been optimized for surgery, the orthopedic service notified, and after the patient has a posted time in the OR. The assigned attending can either elect to take over care at that time or defer care to the general medical ward team. If the attending defers, the patient will remain under the care of the DACR and his/her faculty attending physician only.
If an assigned attending contacts the DACR/NACR prior the completion of his/her evaluation and optimization process, that attending can elect to immediately take over care ONLY IF he/she can evaluate the patient in person within 2 hours prior to the tentatively scheduled procedure or within 2 hours of notification, whichever is later. If the assigned attending agrees, the patient’s care should be immediately handed off and no further action taken by the DACR/NACR or his/her faculty attending physician.

All additional goals and objectives contained herein are intended to supplement the DACR/NACR educational experiences on the general medical ward rotation. All foundational expectations, goals, and objectives of this rotation continue to apply.

Learning Objectives: By the end of the rotation, the resident will be able to:

**Patient Care**
- Demonstrate competency in history taking and physical examination skills in for a geriatric patient admitted to the hospital with a hip fracture.
- Be able to synthesize individual patient variables with a standardized care plan to provide high quality and timely care to geriatric patients with an acute hip fracture.
- Assess and provide estimate of perioperative risk for each individual patient.
- Anticipate the post-operative needs of geriatric patients with an acute hip fracture to mitigate common complications.

**Medical Knowledge**
- Acquire and apply the knowledge of pre-operative assessment and optimization.
- Acquire and apply the knowledge of common primary and secondary causes of fragility fractures.
- Interpret results of common diagnostics used in the care of geriatric patients with an acute hip fracture including vitamin D, thyroid function, and EKGs.
- Acquire and apply the knowledge of common post-operative complications in geriatric patients with an acute hip fracture.
- Be familiar with indications for and risks of various procedures to fixate an acute hip fracture.
- Acquire and apply the knowledge of evidence supporting the role of the elements in the standardized care pathway including delirium risk assessment models, secondary prevention of fragility fractures, and prevention of venous thromboembolism.

**Practice-Based Learning and Improvement**
- Consistently engage and target areas for self-improvement and develop an organized process to do so including key result areas for each patient of time to OR, length of stay, and rate of common complications.
- Seek and eagerly accept feedback from all members the team including orthopedic service, primary attending, and faculty attending physician.
Interpersonal and Communication Skills
- Learn to convey written clinical information in an efficient, concise, organized, prioritized manner to each individual member of the health care team including the orthopedic service, primary attending, and faculty attending physician.
- Construct notes which facilitate and formalize thought processes and diagnostic reasoning.
- Construct notes which would help other members of the healthcare team fully understand the individual perioperative risks for each patient and the plan to optimize each.
- Be able to present information to the faculty attending physician in a precise, concise, fluent and organized fashion with minimal use of notes

Professionalism
- Demonstrate respect and compassion in interactions with colleagues, patients and their families, and staff including sensitivity and responsiveness to their race, gender, age, socioeconomic status and other defining characteristics.

Systems-Based Practice
- Practice and become competent in efficient, insightful verbal and written patient hand-offs
- Become familiar with the practice of cardiology for older patients in various settings
- Access and utilize necessary resources within the system to provide optimal patient care, including the application of EBM and cost-conscious strategies
- Appreciate the vital importance of medicine reconciliation, discharge summary preparation and completion, and outpatient primary care and cardiology follow-up within the appropriate timeframe

How Learning Objectives are met:
1. Care of geriatric patients with acute hip fracture as part of a multidisciplinary team in the role of consultant under supervision of faculty attending physician.
2. Physical exam, history taking and diagnostic testing interpretation under supervision of faculty attending physician.
3. Regular focused reading of pathophysiology and evidence supporting various elements of the standardized care pathway.

Evaluation
- Evaluation is completed within the context of the general medicine ward rotation and the observation of and performance of the above objectives will supplement that single end of rotation evaluation. There will not be a separate evaluation pertaining only to the care of geriatric patients with acute hip fracture.

Suggested Readings and other Resources
- Read articles and other references (eg, UpToDate, Harrison’s, MKSAP, e-medicine) that are relevant to the patients you see, including articles generated through literature searches or distributed by faculty attending physicians.
- Examples high yield, high impact articles and sites:
  - Glowacki et al. Brigham Fracture Intervention Team Initiatives for Hospital Patients with Hip Fractures: A Paradigm Shift
Della Rocca et al. Comanagement of Geriatric Patients With Hip Fractures: A Retrospective, Controlled, Cohort Study

2014 ACC/AHA Guideline on Perioperative Cardiovascular Evaluation and Management of Patients Undergoing Noncardiac Surgery

Gupta et al. Development and validation of a risk calculator for prediction of cardiac risk after surgery

http://www.qxmd.com/calculate-online/cardiology/gupta-perioperative-cardiac-risk

http://riskcalculator.facs.org/

AAOS: Management of Hip Fractures in the Elderly


Simunovic et al. Effect of early surgery after hip fracture on mortality and complications: systematic review and meta-analysis

Orosz et al. Association of Timing of Surgery for Hip Fracture and Patient Outcomes

Marcantonio et al. A Clinical Prediction Rule for Delirium after Elective Noncardiac Surgery

Marcantonio et al. Reducing Delirium after Hip Fracture: A Randomized Trial

Sharon Inouye. Delirium in Older Persons

Lyles et al. Zoledronic Acid and Clinical Fractures and Mortality after Hip Fracture (Horizon Recurrent Fracture Trial)

Leboff et al. Occult Vitamin D Deficiency in Postmenopausal US Women With Acute Hip Fracture

Barone et al. Secondary Hyperparathyroidism Due to Hypovitaminosis D Affects Bone Mineral Density Response to Alendronate in Elderly Women with Osteoporosis: A Randomized Controlled Trial

National Osteoporosis Foundation, Clinician’s Guide to Prevention and Treatment of Osteoporosis

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