

Orthopaedic Trauma

Year

R-1
R-3
R-5

Location

Miami Valley Hospital (MVH)

Duration

2 Months (R-1)
3 Months (R-3)
4 Months (R-5)

Faculty

Michael J. Prayson, MD – Orthopaedic Trauma Director
James C. Binski, MD
Richard T. Laughlin, MD
Timothy F. Peters, DO
Frederick M. Reeve, MD
Shelli A. Powell, MD
Joseph D. DiCicco, III, DO
Michael A. Herbenick, MD
L. Joseph Rubino, III, MD

Description

The resident will rotate and work at MVH, the only Level 1 Trauma Center in the Dayton Ohio Region. In addition to the clinical (emergency room, floor and private office) and operative responsibilities, the residents will actively participate in the Orthopaedic Medical/Surgical Clinic – General/Fracture Division on Tuesday mornings. Night call will be at MVH and depending on level of residency will be in-house or at home. All duty hour restrictions are to be followed. This rotation involves the full spectrum of isolated and polytraumatic conditions in the adult population. It is focused on the appendicular injuries along with pelvic injuries as hand and spine are covered by separate services. Additionally, soft tissue injuries, chronic conditions (malunion, nonunion and infections) will be managed on this rotation. The resident will experience initial evaluation, examination and diagnostic studies to develop diagnoses and treatment plans (both operative and nonoperative).

Educational Objectives

1. To understand the principles for initial evaluation and stabilization (medical and orthopaedic) of polytraumatized patients.
2. To understand the multidisciplinary interaction and cooperation in treatment of polytraumatized patients.
3. To understand the orthopaedic surgeon's role in the initial management of the trauma patient.
4. To understand the nature of high energy injuries relative to the fracture care (zone of injury, handling of soft tissues, need for continual reassessment, etc.).
5. To understand the management of isolated traumatic injuries and how it is similar and different from polytrauma care.
6. To understand the principles of orthopaedic trauma assessment along with options of surgical intervention for fracture stabilization and prioritization of fracture treatment.
7. To understand the postoperative management, rehabilitation and appropriate follow-up of orthopaedic fractures.
8. To understand the management of complications and sequelae related to orthopaedic trauma care such as infection, nonunion, malunion and failure of fixation.
9. To perform and assist in surgical procedures for orthopaedic fractures.
10. To understand the equipment needed for operative intervention of orthopaedic fractures.
11. To recognize injuries requiring timely intervention (open fractures, infections, compartment syndrome, neurovascular compromise, etc.).
12. To competently critique the orthopaedic trauma literature at the department journal club.

Competencies

Patient Care

Residents must provide care that is compassionate, appropriate and effective for the treatment of health problems and specifically orthopaedic fractures on this rotation. Residents are expected to:

- Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families.
- Gather essential and accurate information about the patient.
- Thoroughly make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment.
- Develop and carry out patient management plans, counsel and educate patients and their families.
- Use information technology to support patient care decisions and patient education.
- Perform competently all invasive procedures considered essential in orthopaedic fracture care.
- Provide healthcare services aimed at preventing health problems/sequelae/complications and maintaining interactions with other healthcare professionals, including those from other disciplines, to provide comprehensive patient-focused care.

Medical Knowledge

Residents must demonstrate established and evolving knowledge pertinent to patient care, specifically orthopaedic fracture care. Residents are expected to:

- Demonstrate an investigatory and analytical thinking approach to clinical situations.
- Know and apply basic and clinically-supportive sciences appropriate to orthopaedic trauma care.

Interpersonal and Communication Skills

Residents must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, patients' families, and professional associates. Residents are expected to:

- Demonstrate honest, open, civil and effective communication with patients, staff, and colleagues (medical students, residents and attendings).
- Create and sustain a therapeutic and ethically sound relationship with patients.
- Use effective listening skills.
- Elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills.
- Work effectively with others as a member or leader of a healthcare team or other professional group.
- Be open to constructive criticism and adapt this into their daily practice and interactions with patients and others.

Professionalism

Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population. Residents are expected to:

- Demonstrate respect, compassion and integrity.
- Demonstrate a responsiveness to the needs of patients and society that supersedes self-interest.
- Be accountable to patients, society and the profession.
- Commit to excellence and ongoing professional development.
- Demonstrate a commitment to ethical principles pertaining to:
 - Provision or withholding of clinical care.
 - Confidentiality of patient information.
 - Informed consent.
 - Business practices.
- Demonstrate sensitivity and responsiveness to patient culture, age, gender and disabilities.

Practice-Based Learning and Improvement

Residents must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices. Residents are expected to:

- Analyze practice experience and perform practice-based improvement activities using a systematic methodology.
- Locate, appraise, and assimilate evidence from scientific studies related to their patient's health problems.
- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness.
- Use information technology to manage information, access online medical information and support their education.
- Facilitate the learning of students, junior residents and other healthcare professionals.

System-Based Practice

Residents must demonstrate an awareness of and responsiveness to the larger context and system of healthcare and the ability to effectively call on system resources to provide care that is of optimal value. Residents are expected to:

- Understand how their patient care and other professional practices affect other healthcare professionals, the healthcare organization and the larger society, and how these elements of the system affect their own practice.
- Know how types of medical practice and delivery systems differ from one another, including methods of controlling healthcare costs and allocating resources.
- Practice cost-effective healthcare and resource allocation that does not compromise quality of care.
- Advocate for quality patient care and assist patients in dealing with system complexities.
- Know how to partner with healthcare managers and healthcare providers to assess, coordinate, and improve healthcare and overall system performance.

General Schedule

MONDAY	6:00 a.m.	Orthopaedic rounds on trauma service patients
	7:00 a.m.	Conference – MVH 2200 Conference Room
	8:00 a.m.	Additional floor work, emergency department care and orthopaedic trauma surgeries
TUESDAY	6:00 a.m.	Orthopaedic rounds on trauma service patients
	7:00 a.m.	Conference – MVH 2200 Conference Room
	8:00 a.m.-12N	Orthopaedic Med/Surg Clinic – General/Fracture
	8:00 a.m.-5:00 p.m.	Emergency department care as needed
	12N-5:00 p.m.	Orthopaedic trauma surgeries
WEDNESDAY	6:00 a.m.	Orthopaedic rounds on trauma service patients
	6:50 a.m.	Grand Rounds – MVH CHE-1813
	8:00 a.m.	Additional floor work, emergency department care as needed and orthopaedic trauma surgical cases
THURSDAY	6:00 a.m.	Orthopaedic rounds on trauma service patients
	7:00 a.m.	Conference – MVH 2200 Conference Room
	8:00 a.m.	Patient Office and/or orthopaedic trauma surgical cases
FRIDAY	6:00 a.m.	Orthopaedic rounds on trauma service patients
	6:30 a.m.	Children’s Conference – Children’s Medical Center
	8:00 a.m.	Additional floor work, emergency department care as needed and orthopaedic trauma surgical cases; educational activity as needed

Reference List

- Surgical Exposures in Orthopaedics (Hoppenfeld and DeBoer)
- Rockwood and Greene’s Fractures in Adults
- OKU Trauma
- Campbell’s Operative Orthopaedics
- Journal of Orthopaedic Trauma
- Journal of the American Academy of Orthopaedic Surgeons

Evaluation

1. Review goals and objectives with attendings at beginning of rotations.
2. Mid-rotation feedback.
3. End of rotation written evaluation turned in to residency coordinator (both attending and resident).
4. Quarterly meetings (with assigned mentor or program director).
5. Duty hours and OP logs must be up-to-date at end of rotation.