CURRICULUM ON SYSTEMS-BASED PRACTICE
MSU INTERNAL MEDICINE RESIDENCY PROGRAM

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I. **Educational Purpose and Goals**

Physicians practice in a complex healthcare system. Healthcare system members include other healthcare professionals, business organizations, special interest organizations, patients and other “consumers”, and numerous governmental and private sector personnel. Factors impacting the healthcare system include resource allocation, cost, quality measurement, systems improvement, systems communication, and organization management. Our goal is to train physicians who are able to comprehend these system complexities, work well within the system, advocate for and lead system improvements, and assist patients in their successful navigation of systems. These essential skills are categorized under Systems Based Practice (SBP).

II. **Principal Teaching Methods**

a. Multidisciplinary Morning Report: The Firm Case Manager leads a discussion about availability and utilization of health care resources once per rotation for residents on Firm and Night Float.

b. Biopsychosocial rounds occur every two weeks for Firm and Night Float residents. These morning reports are supervised by a specially trained faculty member.

c. Supervised Direct Patient Care Activities are monitored by faculty, the Firm Case Manager and peer residents, with assessment of SBP skills longitudinally throughout rotations.

   i. The Firm Case Manager cares for the majority of patients admitted to the MSU Firm general medicine service. She has consistent and repeated contact with every resident, and is able to supervise his or her longitudinal progress with SBP skills. The Firm Case Manager directly observes residents during case management teaching sessions, family meetings, bedside discharge management discussions, hospice placement discussions, and other system interactions. The Firm Case Manager works directly with residents during development and implementation of discharge plans. She also works with residents to improve appropriate
utilization of multidisciplinary patient care protocols.
ii. Faculty promotes resident SBP skills during rotations.
iii. Residents are expected to coordinate care with nurses and other consultant teams involved in the care of the patient.
iv. Preceptor faculty and clinic staff promotes resident SBP skills during clinic rotations/continuity clinic.

d. Didactic Lectures are periodically scheduled on particular elements of SBP during standard mandatory and special conferences. Examples include:
   i. Multidisciplinary discussion of “code” team interactions
   ii. Healthcare quality
   iii. Morbidity and Mortality conferences focused on system errors
   iv. Hospice placement and palliative care options
   v. Health Services Research related didactics
   vi. Patient Safety
   vii. E&M coding and documentation
   viii. Understanding insurance

e. Committee and institutional participation: Voluntary and elected positions on a variety of committees are available to residents, including: Code Committee, Pulmonary Program Management Group; MSU IM Residency Training Evaluation Committee; MSU Graduate Medical Education Committee; Sparrow Hospital Graduate Medical Education Committee; Sparrow Hospital Palliative Care Committee; Sparrow Hospital Ethics Committee; Sparrow Hospital CHF Committee; Internal Review Committees for city-wide Residency Programs, and other healthcare associated committees on ad hoc basis.

f. Community service: Residents are assigned to staff a discharge clinic at CareFree Medical twice per month to help improve the overall health of community. The care free clinic serves patients who are uninsured and unable to afford care. This service helps reduce readmission rate and assist residents in better understanding the process of transition of care. Residents are encouraged to volunteer for community organizations when possible.

g. Residents are required to participate in quality improvement projects.

III. Educational Content
a. Topic Mix – All patients are affected by systems of care; this longitudinal curriculum applies to all supervised patient interactions:
   i. Working with multidisciplinary teams, case managers, and patient support services personnel
   ii. Healthcare quality and quality improvement theory/methods
iii. Physician performance measures
iv. Healthcare delivery systems and alternative levels of care
v. Healthcare cost awareness and risk benefit analysis
vi. Resource allocation and utilization review
vii. Inpatient/outpatient care coordination
viii. Hospital transfer processes
ix. Nursing home placement and transfer processes
x. Continuing care resources for after-hospital care
xi. Hospice and palliative care systems
xii. Working with guardians and patient advocates for incapacitated persons
xiii. Billing, coding, and appropriate reimbursement documentation
xiv. Medicare, Medicaid, VA, and other governmental benefits
xv. Durable medical equipment appropriation and management, including IV systems
xvi. Resources for geriatric, high risk, terminally ill, disabled, and chronically ill patients
xvii. Resources for alcoholic, drug dependent, and other addicted patients
xviii. Participation in identifying system errors and reporting for purpose of continuous improvement.

b. Patient characteristics – Geriatric patients, underserved populations and patients requiring significant continuing care services are highlighted in the Firm Case Manager teaching sessions and the Firm inpatient care activities. In the ambulatory setting, patients are weighted toward underinsured and low-income populations, with a significant percentage requiring coordinated care from social service and allied care professionals.

c. Learning venues:
   i. Direct patient care in inpatient, extended care facilities and ambulatory settings
   ii. Interaction with Consultants
   iii. Firm Case Manager conferences and interactions during inpatient Firm rotations
   iv. Ancillary services interacted with
      1. Case Management prominent formal teaching role
      2. Performance improvement specialists
      3. Nursing staff
      4. Physical and Respiratory Therapy
      5. Office administrative personnel
      6. Numerous other ancillary staff

d. Structure of rotation
i. The Firm Case Manager provides didactics on SBP during Tuesday multidisciplinary morning report the first week of each Firm rotation. She also interacts with residents during morning report and weekday rounds. From February 2015, the FIRM Case manager will also meet each FIRM team once during the second and fourth week for morning rounds to provide feedback.

ii. Special conferences regarding Systems Based Practice are scheduled periodically during the Thursday afternoon teaching block.

iii. Direct Patient Care rotations throughout the 3 training years include Systems-Based Practice interactions.

IV. Principal Ancillary Educational Materials
   The Firm Case Manager in development of weekly didactics utilizes the following resources. Some specific readings or web-based exercises may be assigned to residents from these or other sources.


   c. Centers for Medicare & Medicaid Services Coverage Issues Manual – Section 60 DME

   d. Medicare Resident & New Physician Training Manual by Centers for Medicare & Medicaid Services

   e. Federal Benefits for Veterans & Dependents Guide

   f. Healthcare Management Advisors, Inc

V. Methods of Evaluation
   a. Resident Performance
      i. Global evaluations – faculty, peers, case manager. Faculty, and peers complete resident rotation evaluations and quarterly continuity clinic evaluations, including assessment of competency in Patient Care. The evaluations are shared with the resident, are available for on-line review by the resident at their convenience, and are available to the residency office for internal review. Evaluations are part of the resident file and are incorporated into the semiannual performance review for directed resident feedback.
a. **Program and Faculty Performance**
   
   Upon completion of all block rotations, residents complete a service evaluation form commenting on the faculty, facilities, and service experience. In addition, they are asked to comment on the case management specialist’s educational performance and professional communication abilities. These evaluations are sent to the residency office for review and the attending faculty physician receives anonymous periodic copies of completed evaluations. The Training and Evaluation Committee reviews results annually.

II. **Institutional Resources: Strengths and Limitations**

   a. **Strengths** – Employment of a dedicated Case Manager for the teaching service allows a continuous longitudinal curriculum with graduated, SBP-focused teaching sessions. This also allows residents to develop a positive team-type relationship with a case manager.

   b. **Limitations** – SBP curriculum is more loosely organized for the ambulatory teaching venue.

III. **Rotation Specific Competency Objectives**

   a. **Systems Based Practice** - Residents must 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. Residents are expected to:
      
      i. **Reflect on how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements affect their own practice.**

      1. **By completion of the R1 year, residents should:**
         a. display ability to work well within their core clinical team, including non-physicians involved in the care of their patients.
         b. provide and document care in a timely and thorough manner to facilitate analysis of practice patterns and use of information by other health care professionals.

      2. **By completion of R2, residents must also be able to:**
         a. work well within multidisciplinary teams, coordinating multi-specialty care and effectively working with case management and nursing in team settings such as family meetings and large team discussions.
         b. reflect understanding of external regulations and expectations and acknowledge effects of these
elements on their own practice.

ii. Know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources.
   1. By completion of the R1 year, residents must be able to describe medical delivery systems used to provide care for patients.
   2. By completion of the R2 year, residents should be able to:
      a. utilize medical delivery systems safely and efficiently for patient care, including alternative, ambulatory, rehabilitation, and other continuing care resources;
      b. describe methods of controlling health care costs and allocating resources.

iii. Practice cost-effective health care and resource allocation that does not compromise quality of care.
   1. By conclusion of the R1 year, residents must reflect sensitivity to costs and be able to incorporate fundamental cost-effective analysis into care approaches, minimizing unnecessary care.

iv. Advocate for quality patient care and assist patients in dealing with system complexities.
   1. By completion of R1, residents must identify, implement, document, and monitor established local patient care plans consistent with nationally published clinical practice guidelines.
   2. Throughout the R1 year, residents must demonstrate dedication to high quality patient care.
   3. By completion of R2, residents must also demonstrate ability to effectively guide patients through the complex health care environment.

v. Know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance.
   1. By completion of R1, residents must:
      a. demonstrate the ability to regularly and effectively work with the academic case manager, social workers, nurses, and other health care professionals to assess, coordinate, and improve patient care.
      b. describe the benefits of such partnering activities on the operation of the health care system.
   2. By completion of R2, residents must also demonstrate ability to regularly and effectively work with case managers, utilization review personnel, physician assistants, ambulatory practice office managers, and other
providers within the larger health care system.