**Chapter 2**

**Healthcare Delivery Systems**

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**Real-World Case 2.1**

The American healthcare system is a patchwork of not-for-profit and for-profit entities that provide comprehensive diagnostics and treatment services. Marsha, the supervising coder at her local hospital, became a veteran of this system after she noticed neuropathy in her right arm. She first noticed a tingling in her right shoulder and elbow in February and by July the discomfort had increased so that the tingling had become painful throughout the entire length of the arm to such a degree that the arm was almost unusable and she had to take time off from work. She set up an appointment with her family practitioner and was seen seven days later. He ordered x-rays of the arm as well as a cervical MRI. While the x-rays did not show any involvement in the affected joints, the MRI indicated cervical stenosis at the C4–C6 levels. Her physician prescribed pain medication and recommended that she see a neurologist. Her physician ordered a neurological consult, which took place three weeks later. The neurologist performed an assessment, looked over the MRI results, and referred her to a neurosurgeon at another hospital in a major city to the east to have her neck evaluated and fused. Four weeks later she was seen by a neurosurgeon who wanted her to have a cervical CT scan with contrast. The CT confirmed the cervical stenosis. Surgery was set for November 1. The surgery was successful and after six weeks of convalescence she was able to go back to work. Marsha was convinced that she had the best possible care, though the cost was extremely expensive. During the process she was involved with six medical doctors (her family physician, the neurologist, a radiologist to read the MRI scans, the neurosurgeon, another radiologist to evaluate the CT scans, and an anesthesiologist who was present during surgery) and five different facilities (her family physician office, the hospital where the x-rays and MRI were done, the neurologist’s office, the neurosurgeon’s office, and the hospital where the CT scans and the surgery on her cervical spine were conducted). Throughout the entire process Marsha was required to carry her medical record from one facility to another as the family physician and neurologist were not part of the EHR with the local hospital where she worked, nor was her hospital able to electronically share her information with the hospital where the neurosurgeon practiced. She also made sure to check her patient portal at each hospital to verify appointments and to ensure that the correct information was being entered for each of her visits.

# Real-World Case Discussion Questions

1. How could the length of time from diagnosis to surgery have been reduced for Marsha? Her primary care physician could have contacted the neurologist to discuss her case, sharing the MRI results and had the neurologist recommend a consult with the neurosurgeon. The PCP could have then had a telephone consult with the neurosurgeon and received the recommendation of a cervical CT with contrast that the PCP could then share with the neurosurgeon. She could have then seen the neurosurgeon for the recommendation and why and her surgery scheduled sooner.

2. What are ways that Marsha could have shared her information between all of the facilities? Signed releases at all facilities for sharing of information would help in that process, although my experience is even though the releases are signed, the information does not routinely get processed in a timely manner, so it would still need follow-up by the patient.

3. What could her providers have done to make the sharing of information easier for Marsha? Had every encounter cc’d to all the physicians involve in her case.

**Real-World Case 2.2**

A municipal medical center in a city of 100,000 residents decided that they needed to diversify if they were going to survive the ups and downs of the economy. The board of directors met with the chief of the medical staff to determine the best course of action. They mutually decided to emphasize a cradle-to-grave approach by acquitting a few selected physician practices and a local nursing home, starting a home health agency, and creating a hospice unit within the medical center. The board then decided to link all of their new acquisitions to the medical center’s existing EHR but ran into a problem with patient identification for medical record purposes. The issue was that the same patient may have been or were going to be in multiple facilities within the new enterprise. However, at each of the present facilities (physician office, medical center, and nursing home) the same patient would have different medical record numbers. A plan for an enterprise medical record number was needed. The medical center administration decided to bring in the HIM director of the medical center to provide expertise and experience in resolving the problem.

# Real-World Case Discussion Questions

1. How is this situation complicated by not having all of the facilities linked into a common EHR? By not having that “common” medical record number throughout the system, usually each encounter is identified with a new digit.

2. Whom would the HIM director have to work with to make an EMPI project successful? The HIM Director would need to work with Clinical information system, administrative information system, management support system and the data and research system for all facilities involved to make the system work. There are companies that have programs all developed to fully implement these systems. They are costly systems and take an extreme amount of time to build the program that meets the needs of the organization, much education and total buy-in form the board of directors.

3. What are the advantages to all facilities of having a shared health record number? All of the patient records are stored under one number in one place, accessible to all.

# Application Exercises

*Instructions:* Answer the following questions.

1. Break into small groups. Each group will identify a terminal condition for a patient and determine the pathway that that patient will take starting from their family medicine clinic to ending with hospice care. My patient is my mother. Her diseases were diabetes, Chronic Obstructive Pulmonary Disease, Cardiac disease (specifically atrial fibrillation and congestive heart failure, CHF), and Hypertension. She had 5 hospitalizations in a six-week period foe recurring atrial fibrillation and CHF. She was treated by 5 different hospitalists with different theories on what medications would work, so she also has 5 different medication change. Her 5th admission the physician finally admitted that there were no other options for treatment so she was sent home with Hospice care. She lived at home for 5 months with comfort care measured until I was unable to care for her alone. She was then placed in a long term care facility with Hospice, where she lived 2 more months. After her second hospitalization she did go to a skilled facility for rehab where she declined and was sent back to the hospital for her recurring problem.

2. Once the pathways have been determined for your group’s terminal patient, evaluate the process, looking for bottlenecks and places where the patient will feel neglected or treated as a subject rather than as a person. Make suggestions as to how the healthcare delivery system could be improved for their patient. I think she was failed by the health care system for not identifying her terminal illness earlier, where she could have had a better quality of life, even though shorter, by not being placed on Hospice sooner. Had she been place on Hospice sooner, she would not have had to be readmitted 3 more times, then suffer from her inabilities for another 8 months.

3. Complete the following table by detailing the responsibilities of each type of staff member.

Organization of Hospital Services

|  |  |
| --- | --- |
| **Staff Position**  | **Responsibilities**  |
| Board of directors | Successful operation of the hospital. Setting the direction, strategic direction, mission, vision, values, establishing bylaws, selecting qualified administrators, approving organization and makeup of clinical staff and monitoring quality of care. |
| Medical staff | Provide high quality patient care to patients who come to the hospital, diagnosing illness, developing patient-centered treatment plans, provide strategic, operational planning, policy making, operate according to bylaws. |
| Administrative staff | The leader is the CEO who is responsible for implementing the policies and strategic direction set by the Board. Builds an effective management team and coordinates hospital services. The team manages the finances, complying with rules, regulations and laws. Directors and Managers coordinate activities of the units that perform clinical, administrative, and support services for the hospital. |
| Patient care services | Most direct care services are performed by nurses with diverse skill sets to meet the needs of the patient types. Usually led by a Chief Nursing Officer or VP of Nursing who is a member of the Administrative Team.  |
| Diagnostic services  | These services include clinical laboratory services who deal with blood and body fluid analysis and pathology who deals with tissue and surgical specimens, radiology who perform radiological test to assist in diagnosing disease, nuclear medicine and radiation therapy to treat disease, occupational therapy to improve patients’ independent functioning, enhance development, and prevent or decrease their level of disability, physical therapy and rehabilitation to promote optimal health and functioning, and respiratory therapy that involves diagnosis and treatment as well as, medication administration, set-up and monitoring of respiratory equipment. |
| Administrative support services  | Provide business management and clerical services to many hospital departments. |

**Review Quiz**

*Instructions:* For each item, complete the statement correctly or choose the most appropriate answer.

1. Which of the following places an emphasis on treating individual patients at the level of care required by their course of treatment and extends from their primary care providers to specialists and ancillary providers?

a. Continuum of care

b. Integrated delivery systems

c. Case management

d. Integrated delivery networks

2. As of 2014, what percent of the U.S. economy was represented by healthcare spending?

a. 10

b. 17.5

c. 21

d. 26

3. What is the ideal ratio of medical generalist to specialist?

a. 20:80

b. 40:60

c. 60:40

d. 80:20

4. Registered Nurses are only formally educated at the bachelor’s degree.

 a. True

 b. False

5. Which of the following is considered an Allied Health professional?

 a. Physicians

 b. Physician Assistants

 c. Registered Nurses

 d. Licensed Practical Nurses

6. Occupational Therapists are concerned with a patient’s activities of daily living.

 a. True

 b. False

7. Which of the following federal laws created Medicare and Medicaid?

 a. Social Security Act of 1935

 b. Public Law 92-603 of 1972

 c. Public Law 89-97 of 1965

 d. Tax Equity and Fiscal Responsibility Act of 1982

8. Medicare will pay the Medicaid premiums, deductibles, and coinsurance costs for some low-income Medicaid beneficiaries.

 a. True

 b. False

9. What is the name of the process to determine whether medical care provided to a specific patient is necessary according to pre-established objective screening criteria at time frames specified.

 a. Case management

 b. Continuum of care

 c. Quality improvement

 d. Utilization review

10. HITECH was a portion of which bill?

 a. Health Insurance Portability and Accountability Act of 1996

 b. Patient Protection and Affordable Care Act of 2010

 c. American Recovery and Reinvestment Act of 2009

 d. Public Law 98-21 of 1983

11. What is the name of the type of beds in a hospital that are defined by those authorized by the state?

 a. Staffed

 b. Licensed

 c. Regulated

 d. Certified

12. To qualify as a Critical Access Hospital one of the criteria is to be located in a rural area.

 a. True

 b. False

13. One of the functions of the board of directors is to approve the organization and makeup of the clinical staff.

 a. True

 b. False

14. The “C” in CIO stands for:

 a. Corporate

 b. Corporate

 c. Clinical

 d. Chief

15. Health information management departments are considered which of the following?

 a. Rehabilitation Services

 b. Ancillary Support Service

 c. Administrative Support Services

 d. Clinical Support Services

16. Hospital-owned group practices are considered ambulatory care organizations.

 a. True

 b. False

17. One group of patients that prefer treatment at urgent care centers are those whose insurance carriers treat urgent care centers preferentially when compared with physician offices.

 a. True

 b. False

18. Which of the following is the fastest-growing sector to offer services for Medicare recipients?

 a. Urgent care

 b. Long term care

 c. Hospice

 d. Home health

19. Rehabilitation hospitals are categorized as an acute care type of facility in treating patients.

 a. True

 b. False

20. Which of the following is a main goal in treating hospice patients?

 a. Curing the patient of their illness

 b. Relive the family of providing care

 c. Minimize the stress and trauma of death

 d. Reduce the costs for the patient’s family

21. Which of the following is the health profession that focuses on the eyes and related structures?

 a. Occupational therapy

 b. Optometry

 c. Diagnostic sonography

 d. Dietetics

22. Public Law 89-97 of 1965 created a number of amendments to which Act?

 a. Affordable Care Act

 b. Health Insurance Portability and Accountability Act

 c. Social Security Act

 d. Medicare and Medicaid

23. The Office of the National Coordinator for Health Information Technology was created as part of which Act?

 a. Health Insurance Portability and Accountability Act

 b. Social Security Act

 c. Patient Protection and Affordable Care Act

 d. American Recovery and Reinvestment Act

24. Who has the primary responsibility for setting the overall direction of the hospital?

 a. Board of directors

 b. Chief executive officer

 c. Chief financial officer

 d. All employees of the hospital

25. The medical staff operates according to a pre-determined set of policies called \_\_\_\_\_\_\_\_\_\_\_.

 a. Policies and procedures

 b. Medical staff bylaws

 c. Medical staff credentials

 d. Legal guidelines