Basic Scenario - Ambulatory (2.1)

A. PATIENT BACKGROUND

1. A 70 year old male, Mr. Smith, receives notification [DC.2.5.2] from the clinic, both by mail and e-mail (based on his preference) [DC.3.2.3] advising him that he is due for his annual medical exam. His home town is located 200 miles from the clinic, but he has been coming regularly since the age of 60. He has been treated in the past at the clinic for intestinal polyps, hypertension and high cholesterol.

B. FACILITY, PRIMARY PROVIDERS, AND SYSTEMS BACKGROUND

2. Mr. Smith is a patient at the High Plains clinic, a multi-specialty, primary care clinic with Board certified medical specialists in the areas of internal medicine, pulmonary and critical care, gastroenterology, infectious disease, endocrinology, diabetes, and metabolism, and cardiology.

C. PREVISIT PROCESS

3. The scheduling system identifies his previous provider [S.3.4.1] [S.1.6] [S.3.4.2], who is a gastroenterologist and a first appointment is set up for about one month after the phone call. Had he wanted to be seen earlier, the scheduling system would have identified another physician with a similar professional profile in the physician master database [S.3.4.1].

4. The EHRS is used to obtain a patient-provided update of information directly from Mr. Smith [DC.1.1.7.2] [DC.3.2.3]. Mr. Smith may either update computer-generated sheets of information on his previous care which are mailed to him (these are subsequently scanned into the EHRS using OCR or image processing technology), or he may log on through a secure [I.1.1] [I.1.2] [I.1.3.1] [I.1.5] patient portal connection to provide this information directly to the EHRS.

5. Mr. Smith is asked for current complaints, an interim personal medical history (since his last visit) and any changes to his family history or payment information [DC.1.1.4] [DC.1.1.7]. Existing data in the EHRS is used to prompt Mr. Smith and eliminate unnecessary data entry. While logged into the portal, Mr. Smith may see other health maintenance reminders [DC2.5.1] [DC2.5.2] and have an opportunity to send a secure message to his physician [DC3.2.3]. Since he has been seen at the clinic before, he need only update the information that is on file. Mr. Smith’s changes to his history are logged in the EHRS and an audit trail [I.2.2] of previous information is available to the provider.

6. The care provider is assisted by having full historical and updated information available from the EHR [S.3.1.1]. The clinic contacts Mr. Smith’s insurers, Medicare and BCBS.
Supplemental, and informs Mr. Smith of any non-covered services (e.g. enema service), co-pays or deductibles and policies regarding payment of them [S.3.3.2] [S.3.3.3].

C. CARE PROCESS

7. When Mr. Smith arrives, he checks into the clinic at the desk of his primary provider, Dr. Jones. His check-in date and time are noted [S.3.1.2] [S.1.4.2]. Mr. Smith’s physical location [S.1.4.2] is registered in the patient tracking system and his location will be updated as he moves from area to area within the clinic for his appointments.

8. He is then shown to the exam room by the check-in staff and is visited a few minutes later by a nurse, who reviews Mr. Smith’s patient-provided information [DC.1.1.5], noting any changes or corrections which s/he enters into the EHRS using a wireless tablet [DC.1.1.3.2] [DC1.1.3.3] [DC1.1.4] [DC1.1.5] [DC1.1.7.2]. All new information is highlighted. S/he measures Mr. Smith’s weight and height and vital signs which are entered into the EHRS via communication with a medical device [DC.3.2.5].

9. Dr. Jones, meanwhile, has just been returning and urgent phone call to another patient, Mrs. Davis, that was added to his task list [DC.3.1.3] [DC.3.1]. Mrs. Davis is complaining that her anti-fungal medication is causing discomfort. Dr. Jones revises Mrs. Davis treatment plan [DC.1.1.3.3] [DC.1.2.2] [DC.1.3.1] [DC2.3.1.1] and routes a task [DC.3.1.1] to the triage nurse to phone in a new prescription to Mrs. Davis’ neighborhood pharmacy (which is unable to receive prescriptions electronically [DC.3.2.2]). Dr. Jones signs off on the order electronically [I.1.1] [I.1.2] and the EHRS completes his task automatically [DC.3.1].

10. Next Dr. Jones uses the EHRS to review today’s schedule [S.1.6] showing the exam room location of each patient [S.1.4.2]. As he readies himself to greet Mr. Smith, he pauses at the monitor outside the exam room (Dr. Smith doesn’t like tablets) to review Mr. Smith’s data [DC.1.1.1] [DC.1.1.5], including information just added by the nurse [I.2.3]. He reviews Mr. Smith’s patient provided information [S.3.1.1], and the EHRS chart summary [DC.1.1.5] including a list of previous diagnoses [DC.1.1.3.1]. He notes that Mr. Smith has recently been experiencing problems with his vision which Dr. Jones thinks may be associated with macular degeneration. The EHRS offers prompts for tests based on clinical guidelines specific for this patient’s profile [DC.2.1.2] [DC.2.1.3] [DC.2.2.1.2]. One of these, recognizing the colon poly history and interval since last examination, prompts for colonoscopy scheduling [DC.2.2.1].

F. PHYSICIAN ENCOUNTER

11. Dr. Jones enters the room and greets Mr. Smith. They go over the most cogent EHRS data together and discuss his health concerns. Dr. Jones then performs the physical examination and charts his findings in the EHRS [DC.1.1.6] [DC.1.1.7]. He notes Mr. Smith’s blood pressure is higher than previously, but is not sure if this is a result of the tension of the
moment. Mr. Smith complains that he thinks his hypertension medication has been causing dizziness. He would like to know if another medication can be substituted. Dr. Jones refers to his clinic’s formulary and Mr. Smith’s insurance formulary, stored in the EHRS, to determine an appropriate medication [DC.2.3.1] [DC.2.3.1.1] [DC.2.3.1.3] [DC.1.3.2].

12. Dr. Jones checks the clinic guideline for management of chronic hypertension [DC.2.2.1] and then writes a prescription which is conveyed to the clinic’s pharmacy [DC.3.2.2]; a prescription slip is also printed, which Dr. Jones gives to Mr. Smith. Using predefined order sets [DC.1.4.3] developed by the clinic, Dr. Jones enters several additional orders for Mr. Smith, including blood work and an ambulatory blood pressure monitor [DC.1.4.1]. He approves the colonoscopy order [DC.1.4.2]. He also orders a referral to an Ophthalmologist [DC.1.4.4]. The EHRS adds tasks [DC.3.1] for staff members to draw a blood sample, and complete requisitions to the orders system for the blood work, the colonoscopy, and to generate a referral to an ophthalmologist [DC.3.2.1]. Dr. Jones uses a combination of structured data input and free text entry using voice recognition to document his clinical note [DC.1.1.6].

13. After Mr. Smith leaves, the EHRS recommends an E&M code based on documentation entered during the visit [S.3.1.3] [S.3.2.2]. Dr. Jones confirms the E&M code and routes the visit information to a coder in the business office for review and approval [DC.3.1.1]. Once the coder has approved the documentation and level of billing, the information required for charge transactions is sent to the clinic’s billing system via an interface [S.3.3][S.3.1.3].

G. POST ENCOUNTER ACTIVITY

14. After Mr. Smith’s colonoscopy is performed, the results based on biopsy indicate cancerous tissue. Dr. Jones is notified of the results by phone, as well as by an alert in the EHRS indicating an abnormal result [DC.1.4.5] [DC.2.4.2] [DC.2.6.3]. Mr. Smith is notified by Dr. Jones and asked to come in to see Dr. Jones. Mr. Smith prefers surgery and is admitted to the hospital. Mr. Smith’s records are transmitted to the hospital’s EHRS [DC.3.2.1] [I.4.2] [I.5.1].

15. By accessing his list of incomplete tasks [DC.3.1.3], Dr. Jones sees that Mr. Smith’s encounter has not been signed off. He then dismisses the episode by automated signature [I.1.1] [I.1.4] [I.1.7]. A summary of care is sent [DC.3.2.3] -- on paper or electronically -- to Mr. Smith and/or his home town provider, according to Mr. Smith’s wishes. (If all results are in at the time of the patients last visit with the primary provider, this summary could have been provided to the patient at that time.) The summary indicates that in a year, Mr. Smith will be notified to come in for a follow-up colonoscopy and any other care he is to receive on a regular basis, according to approved protocols.

16.
After Mr. Smith’s visit, de-identified information [S.1.5] regarding his diagnoses, procedures and demographics is transmitted [I.5.1] to the clinic’s administrative and management databases and then, in summarized form, to governmental agencies and accrediting organizations, for epidemiological surveillance, population health statistics, regulatory requirements, patient safety monitoring and quality assurance [I.4.2] [I.2.4] [S.3.3.6] [S.2.1.1]. As Mr. Smith has signed an attestation declining to allow his health care information to be used for research purposes, none of his clinical data is transmitted to research databases, unless mandated by law [S.1.5.1].