SAMPLE VENDOR SCENARIOS

For

Revenue Cycle
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Introduction

ABC Healthcare has begun an administrative cycle system redesign process…

Objectives of vendor scenarios

- To develop process-based scenarios that represent and incorporate the future state vision of ABC Healthcare HealthCare System (ABC Healthcare)

- To develop a working document that incorporates stories, functionality, specifications and considerations for future implementation planning

- To enable ABC Healthcare to evaluate information pertinent to determining which vendor and system/systems will best meet the future vision of ABC Healthcare

How to use the vendor scenarios

As you have seen from the above Table of Contents, this document contains eighteen scenarios which represent the vision of the future ABC Healthcare Revenue Cycle. Below are the parts of this document that will be explained in further detail:

- Category
- Scenario number
- Scenario section number
- Excerpt from ‘The Story of Tom’
- Functionality to be demonstrated
- Specifications and considerations
- Assumptions regarding systems interoperability or integration
- Analytics considerations
- Venues applicable in this scenario
- Modes applicable in this scenario

Category
The scenarios are separated into groups called sub-process categories (e.g. Patient Access Vendor Scenarios, Patient Accounting Vendor Scenarios, etc.)

Scenario number
Each scenario has a number and a description. For example, (Scenario #1 - Account structure, patient profile, insurance processing).

Scenario section number
Each of the scenarios contains ‘section numbers’ for ease in referring to sections of the scenarios. For example, scenario 1 contains four section numbers (i.e. 1.1, 1.2, 1.3, and 1.4). Each section contains an excerpt from ‘The Story of Tom’ followed by ‘Functionality to be demonstrated’ and ‘Specifications and considerations’. At the end of each scenario, there are two tables that describe the ‘Venues’ and ‘Modes’ applicable to the scenario.
Excerpt from ‘The Story of Tom’
Each scenario contains excerpts from The Story of Tom that relate to a specific administrative system functionality requirement. Story excerpts are identified in Bold Blue font to focus the vendors on examples of the specific functionality that is to be demonstrated.

Functionality to be demonstrated and Specification and Considerations
The functionality requirements are listed within sections of each scenario under the subheading of ‘Functionality to be demonstrated’. During the demonstration sessions, vendors should focus the majority of their time and effort on presenting the functionality listed in ‘Functionality to be demonstrated’.

Significant consideration should be given toward demonstrating and explaining the detailed topics listed under the subheading ‘Specifications and considerations’. The items listed in this category are deemed important by the Design Team and should provide vendors with some additional considerations to use during the demonstration in order to convey depth of system functionality. The vendors’ solution will be evaluated with these in mind.

Assumptions regarding systems interoperability or integration
The future Patient Administrative Cycle will consist of significant interoperability and/or integration of the administrative system with the clinical system(s), order entry system(s), ancillary systems, and payer systems. The scenarios assume a significant amount of interoperability and/or integration among these systems. In some scenario sections, the assumptions are identified. It would be beneficial for the vendor to demonstrate any of these system interactions, if possible. In cases where demonstration is not feasible, explanations of interoperability and/or integration are expected.

If this functionality does not exist within the proposed administrative cycle system, the vendor should be explicit about the assumptions used in order to perform the demonstration.

Analytics considerations
The importance of Analytics will continue to increase and offer opportunities to improve the financial performance of the organization. Analytics considerations are called out sporadically throughout the scenarios. The vendor is expected to demonstrate the breadth of their analytics and reporting functionality.

Availability of demonstrated functionality
Following each scenario section number the vendor is required to specify whether the functionality demonstrated is current release, next release, or future release. Immediately prior to the demonstration, the vendor is required to provide ABC Healthcare with a document that stipulates the availability of each scenario section demonstrated.

Venues applicable in this scenario
At the end of each scenario is a table that describes which of the many ABC Healthcare’ continuums of care to consider during the demonstration. The vendor should be able to explain their approach to administrative cycle systems for each of these venues.

Modes applicable in this scenario
At the end of each scenario is a table that describes which modes are represented in the preceding scenario and should be considered during the demonstration. The vendor should be able to explain or demonstrate their overall approach to operating in each of these modes.
Glossary of terms

A glossary of some terms used in this document is provided for clarification.

**A.D.A. compliance** – compliance with American Disabilities Act

**Administrative referral** – payment referral from an HMO or PPO

**Adjustments** – an amount adjusted from the patient account / encounter due to a variance between a negotiated payment amount and total charges

**Advanced Beneficiary Notifications (ABN’s)** – form to notify a patient that Medicare will not make payment for specific service(s), making it the patient’s responsibility

**Care coordination** – clinical related functions provided by staff in order to achieve payer standards for payment and to provide appropriate level of care to patients

**Claim scrubbing** – scrubbing data on the claims

**Clinical system interoperability** – real time interaction between the administrative system and the clinical system

**Denials** – a payer determination to not make a payment on a patient account / encounter

**Encounter data scrubbing** – scrubbing patient data for accuracy and completeness prior to bill production

**Entity** – a separate tax id organization as part of ABC Healthcare’s HealthCare System (e.g. Mass General Hospital, McLean Hospital, Mass General Physicians Organization, etc.)

**EMPI account** – a patient contained in the ABC Healthcare’s Master Patient Index, each identified with a single enterprise number and their medical record number(s)

**Health Savings Account (HSA)** – personal healthcare fund used for payment of health care expenses


**Medical Identification Card (MIC)** – any standard medical identification that contains patient specific information

**Motor vehicle accident (MVA)** – a motor vehicle accident involving a patient

**ABC Healthcare patient portal** – a secure web portal which may or may not be part of the administrative system and allows access to ABC Healthcare’s HealthCare patients

**ABC Healthcare patient profile** – a stored profile with patient preferences accessible and usable by security approved ABC Healthcare staff and a rules processing engine

**Patient account / encounter** – each patient visit or date-specific event at a ABC Healthcare facility

**Patient Service Center** – service oriented group that performs functions to assist patients with accessing care at ABC Healthcare HealthCare

**Pay for Performance (P4P)** – incentive based payer / provider agreement to reward provider for achieving quality outcomes

**Prescription Benefit Management (PBM)** – prescription order pharmaceutical management company

**Same-day patient** – a patient seen within 24 hours of scheduling

**Scripting** – prompting the ABC Healthcare staff person to ask consistent, specific questions

**Skilled Nursing Facility (SNF)** – a sub-acute level of care health facility

**Universal access** – A.D.A compliance

**Unsolicited claim status response** – unprompted publishing of claims status in payer inventory

**Write-offs** – an amount determined to be uncollectible and therefore written off as a bad debt
### Patient Access Vendor Scenarios

#### Scenario #1 - Account structure, patient profile, insurance processing

1.1  
*His mom is very techno-phobic so she calls the Patient Service Center instead of trying to use the computer and a pleasant person helps her choose a physician and a convenient appointment time and location. The Patient Service Center person also has access to enter her demographic and insurance information and estimates what the encounter will cost.*

**Functionality to be demonstrated**  
- Account structure, medical record number schema, EMPI

**Specifications and considerations**  
- Search and select the appropriate patient in the ABC Healthcare Master Patient Index (MPI)  
- View and search across multiple entities  
- Add a new patient and medical record number for someone new to the ABC Healthcare enterprise  
- Security and privacy of confidential patients (e.g. restrictions on view, ability to update)  
- Explain system functionality and process to:  
  - prevent assignment of duplicate medical record numbers for a patient  
  - check for duplicate medical record numbers based on multiple criteria  
  - correct duplicate medical records (e.g. merge, un-merge, delete)

1.2  
*Tom goes online and helps his mother create her ABC Healthcare’ patient profile even though she has not yet seen a ABC Healthcare’ physician.*

**Functionality to be demonstrated**  
- ABC Healthcare’ patient profile

**Specifications and considerations**  
- Demonstrate how the ABC Healthcare’ patient profiles with preferences can be:  
  - accessible via a secure web portal  
  - credit and/or debit card information stored securely  
  - updated information by patients  
  - used by the system  
- Explain how online transactions and messages are passed between the Patient Service Center representatives and the patients using the secure web portal  
- Explain ability to interact with a foreign vendor’s portal application

1.3  
*Tom helped his mom set up her ABC Healthcare’ patient profile online, including her insurance information since she is new to the Boston area.*

**Functionality to be demonstrated**  
- Insurance capture and processing  
- Coordination of Benefits priority determination

**Specifications and considerations**  
- Explanation of how insurances are:  
  - Stored  
  - Viewed  
  - Maintained  
  - Used  
- Ability of rules processing to determine which insurances are appropriate for the encounter  
- Interaction of HIPAA EDI eligibility information with the stored insurances (e.g. ability to update coverage effective dates)
• Ability to periodically perform mass updates from payer databases to the EMPI
• Assignment of appropriate order priority of insurances

1.4
While he is online, Tom decides to update his own ABC Healthcare’s patient profile. He is prompted to review and update his insurance and demographic information. An EDI eligibility transaction is automatically launched to his appropriate payer(s) to validate his insurance. The eligibility response will include determination of coverage and important plan information such as copay, deductible, etc.

Functionality to be demonstrated
• Insurance eligibility and response transactions

Specifications and considerations
• Automatic generation of insurance eligibility transactions
• Authentication process using comparative logic with insurance companies (e.g. subscriber name or social security number or birth date) vs. providers’ data
• Use the insurance response information (e.g. insurance coverage effective dates) to automatically post certain pre-defined data elements to the administrative system and flag certain other data elements for human intervention
• Accept or reject the data received in the HIPAA EDI response transactions with rejections sent to a work queue for follow up
• Explain capability of processing transactions either directly to payers or through clearinghouses
• Provide any lists of payer relationships
• HIPAA EDI eligibility transaction processing occurrence at pre-selected intervals
• Flexibility to compile and send transactions either by payer, or send individually in real-time
• Ability to launch an eligibility inquiry transaction triggered by data entered in the patient portal
• Explain other e-commerce capabilities (e.g. post office, credit checking, health savings, banking relationships, etc.)

Assumptions regarding systems interoperability or integration
• Payer interoperability with administrative system to communicate with payer systems for validation of insurance and demographic data

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### Patient Access Vendor Scenarios
#### Scenario #2 - Scheduling, encounters at ancillary and physician office

2.1 Tom receives a card in the mail from his physician, reminding him to **schedule an appointment for his annual check-up and relevant lab work**. Tom has decided to **make his appointment for his annual physical using the Internet**, rather than over the phone, since his physician’s practice uses online scheduling for follow-up visits and annuals. **He has a choice of several ABC Healthcare’ locations** where his primary care physician (PCP) has office hours. The **online scheduling system only shows Tom choices of dates that are more than 365 days since his last physical, to ensure the visit will be covered.**

*The patient self-scheduling process ensures that Tom schedules the required tests prior to his office visit and with enough lead time so the results are available to his physician.*

#### Functionality to be demonstrated
- Explain how to schedule ancillary tests and appointments (online and telephone) for the enterprise

#### Specifications and considerations
- Scheduling an appointment, via the patient portal and calling the Patient Service Center
- When making a patient appointment, how are the efficiency and timeliness in checking the following:
  - ABC Healthcare’ patient profile
  - convenient locations
  - specific providers for the patient
  - appointment slots
  - venues
  - payer based rule sets to insure appropriate coverage
- Ability to handle unscheduled patients and/or same-day patients
- Ability to provide multiple modes of confirmations and reminder notifications to the patient (e.g. e-mail, web portal, PDA, cell phone, etc.)
- Rules processing to allow only appointment dates for physical >365 days since last physical, reminder notice to patient generated based on >350 days since last physical

#### Assumptions regarding systems interoperability or integration
- Payer interoperability with administrative system to check patients’ payer rule sets
- Legacy scheduling applications (surgery scheduling and other scheduling applications may remain separate) integration with administrative system
- Ability to search and find orders pending on a patient
- Clinical and scheduling system, rules processing interoperability to insure the required tests are scheduled, performed, and resulted prior to the office visit
2.2  
The Patient Service Center processes are essential to Tom’s ability to coordinate multiple providers and services. The “one call does it all” type of environment has become a valuable commodity for the public and everyone knows to call 1-800-CONTACT. The Patient Service Center supports the following administrative processes:

− scheduling
− pre-registration
− insurance verification
− administrative referrals
− resolution of patient statement disputes
− establishment of patient payment plans
− financial counseling services

These administrative services continue to be offered in the entities, but much of the volume has been transferred to the Patient Service Center. If necessary, the Patient Service Center has the knowledge of when it is appropriate to direct patient phone inquiries to the entities.

Functionality to be demonstrated

• Tools and processes to support the functions performed by the Patient Service Center (focus only on highlighted processes, others are addressed elsewhere)

Specifications and considerations

• Integrated and seamless pre-registration process
• Ability during pre-registration and registration to select whether or not to pull forward the insurance from the most recent patient account / encounter
• Ability to add international addresses and alternative addresses
• Ability to manage multiple pre-registrations on the same day with different payers
• Real time calculation and explanation of patient liability amount
• Ability to collect payment of self-pay amounts, patient pay amounts, and prior outstanding balances due
• Rules processing utilized for automated actions based on payer specific referral and authorization requirements (e.g. primary care vs. specialty, provider enrollment, in network vs. out of network)

2.3  
Tom enters the physician office for his scheduled appointment and checks in on a kiosk by following the ABC Healthcare’ authentication process. The system guides him through verification of his registration data and he is prompted about how he would like to take care of his co-payment based on his present insurance coverage. Tom opts to use the credit card on file and the kiosk prints a receipt for Tom.

Functionality to be demonstrated

• Check-in process, supporting both the self-service and full-service modes, including:
  − enterprise patient index search to locate the appropriate EMPI account
  − patient authentication and security
  − validation of data entered against a reliable information source or appropriate edits
  − appointment arrival and patient tracking
  − co-payment collection
  − stored modes of payment (e.g. credit, debit, health savings, etc.)
  − rules enabled explanation displays of amounts owed from prior accounts with multiple payment options
  − online forms and forms library (e.g. privacy notification form, other forms, etc.)
  − electronic signature
Specifications and considerations

- Rules processing to view the patient information, selection of appropriate insurance coverage for the patient account / encounter, identification and collection of any missing account level information to be supplied by the patient at the kiosk
- Explain how to check-in an unscheduled patient
- Credit card information stored securely
- Receipt printing
- Languages from which to choose on kiosks
- Universal access (A.D.A. compliance)

2.4 During Tom’s primary care office visit, the doctor renews a prescription Tom uses occasionally to help him sleep. The drug Tom had been using is not on the formulary of his new health plan. This alert displays for Tom’s physician, and they discuss whether Tom should switch to the best available covered alternative or stay with his current medication but pay out-of-pocket. They decide to go with the formulary medication.

Functionality to be demonstrated

- Ability to provide real time order entry feedback to physicians

Specifications and considerations

- Store and use preferred pharmacy information (e.g. pharmacy name, location, fax number, etc.) from the ABC Healthcare’ patient profile
- Pharmacy benefit and coverage information are documented and available in either payer rule sets or in the ABC Healthcare’ patient profile

Assumptions regarding systems interoperability or integration

- Order entry system interoperability
- Payer and PBM interoperability exists with the administrative system

2.5 The doctor refers Tom to a dermatologist and orders an MRI (which meets ABC Healthcare’ established MRI protocol). The referral will trigger the transfer of Tom’s medical information to the referred specialist and/or the department, and will also automatically submit the administrative referral with the payer. Tom’s PCP appreciates that she no longer has to fill out separate forms for referrals, coding or billing since that information is automatically created as a result of her documentation of Tom’s care.

Functionality to be demonstrated

- Referral management process

Specifications and considerations

- Administratively link the source (PCP) visit with the specialist visit and ancillary visits
- Automatic generation of HIPAA EDI referral transaction to the payer (when required)
- Automatic notification to the referred specialist via multiple modes

Assumptions regarding systems interoperability or integration

- Clinical system interoperability for automatic transfer of clinical documentation to the specialist
- Order entry system interoperability
- Payer rule sets interoperability with administrative system
2.6
On his way out of the office the check-out representative reminds Tom that his prescription will be ready at the pharmacy. She sees that his doctor referred Tom to a dermatologist and ordered an MRI. Tom indicates that he’d like to be able to have both scheduled at locations convenient to his office in downtown Boston rather than his home in Salem. Both visits are scheduled at a time and location convenient for Tom.

The check-out representative advises Tom that since he has not yet met his deductible for the year, he will be responsible for $240.00 for the MRI and for a co-pay for the dermatologist visit. This financial information is displayed on a screen for Tom to see while the check-out representative explains it to him.

Functionality to be demonstrated
• Check-out process

Specifications and considerations
• Interoperability with a standardized charge master
• Ability to explain costs for the completed physician office encounter
• Ability to view prior patient accounts / encounters with outstanding balances
• Ability to provide printed documents and forms at check-out
• Real time access to scheduling

Analytics considerations
• Analytical tools to consistently estimate costs for future services

Assumptions regarding systems interoperability or integration
• Payer interoperability with administrative system to determine deductible amount met

2.7
Tom has reminder emails waiting for him when he returns to his office. Accepting these appointments on his PDA, Tom realizes he has a conflict with the dermatologist appointment. Tom clicks on a link in the e-mail which takes him to the ABC Healthcare’ portal and he is able to reschedule the visit for a different time.

Functionality to be demonstrated
• Appointment notifications, reminders, rescheduling

Specifications and considerations
• Ability to send notifications and reminders via multiple modes (e.g. PDA, e-mail, cell phone, etc.)
• Ability to easily reschedule appointments without making phone calls

Venues applicable in this scenario
X Affiliated / Referring physician
X Physician Organization office
X Hospital based office
X Hospital inpatient
X Emergency department
X Ancillary services
X Mental Health
X Nursing Homes
X Home health
X Rehab inpatient

Modes applicable in this scenario
  Billing Office
  X Online patient portal
  X Onsite – full service
  X Patient Service Center
  X Kiosks
### Patient Access Vendor Scenarios
#### Scenario #3 - Scheduling, encounters at ancillary and specialist

**3.1**  
Prior to the primary care physician office encounter which occurred in Scenario #2, Tom had to have the required diagnostic tests performed and the results available for his physician prior to the appointment in order to receive his annual physical.

When Tom goes to the lab to have his tests done, he can swipe his MIC (or any credit/debit card with a magnetic strip) and enter his PIN at the kiosk which guides him through a patient registration in the system and prints out his itinerary. The itinerary tells him which room to go to for the lab draw and where to go for the EKG.

Tom's identity is verified with a biometric identifier before he is escorted to the treatment room. The system displays a photo of Tom as well.

Tom gets his lab work drawn, but the itinerary indicates that there is a 45-minute wait for the EKG. Because of the 45 minute wait, the kiosk printed out a ‘service-recovery coupon’ that validates his parking and instructs him that the system will send a message to his PDA when the wait time is reduced to 10 minutes.

**Functionality to be demonstrated**
- Account number and patient account / encounter management
- Kiosk check-in, patient authentication, and registration

**Specifications and considerations**
- Ability to minimize the volume of patient account / encounter numbers created
- Administratively linking the related patient accounts / encounters, including:
  - PCP encounter
  - future encounters to specialists, ancillaries, hospitals and sub-acute facilities
  - link this diagnostic / ancillary visit with the source (referring visit) when on different days
- Explain how charges are segmented for physician and hospital, within an entity, and between entities
- Enterprise patient index search abilities to locate the appropriate patient account
- Patient authentication via biometric method with photo display
- Workflow processing to determine when to send message (reduced to a 10 minute wait time) and the correct mode (e.g. PDA, cell phone, etc.)
- Itinerary printing

**Assumptions regarding systems interoperability or integration**
- Clinical interoperability with the administrative system to provide estimated wait times and itinerary information such as room locations
- Ancillary system interoperability with the administrative system to provide wait times

**3.2**  
One day before his scheduled MRI procedure and dermatologist appointments, Tom receives an email alerting him of a new notification in the ABC Healthcare web portal. He enters the web portal to find pre-procedure instructions for 24 hours prior to his scheduled test, as he expected.
Functionality to be demonstrated
- Pre-procedure instructions sent to patients

Specifications and considerations
- Ability to generate reminder notifications to multiple device modes
- Explain the process of sending instructions to patients (e.g. via ABC Healthcare’ patient portal utilizing patient preferences, etc.)

3.3
The following week, Tom receives a portal notification from his physician to discuss the MRI results. His physician relates the bad news to Tom that the growth requires at least an excision or perhaps an amputation of the great toe, but that only a qualified surgeon can decide.

She also refers Tom to another PHS surgical group. After a few more minutes of speaking with Tom about his condition, she transfers Tom to scheduling. The scheduler sees that three surgeons are credentialed for the procedure and helps Tom select one. Two primarily practice at MGH and one primarily practices at Newton-Wellesley. He also sees that Tom is scheduled for a consult with another surgeon regarding the skin lesion on his arm.

Functionality to be demonstrated
- Filtering for appropriate specialty across the enterprise
- Enterprise provider master

Specifications and considerations
- Demonstrate the ability for a scheduler to filter for a provider, based on multiple criteria documented in the provider master

Assumptions regarding systems interoperability or integration
- Order entry system interoperability

3.4
Upon requesting an OR scheduling slot from the OR scheduling system for the procedure, the surgeon is informed it is covered by Tom’s health plan and all appropriate authorization requests (both physician and hospital) are sent to his insurer.

A scheduling representative advises Tom on his financial obligations for the procedure, including the various surgical, anesthesia and hospital charges, explaining what is covered and what Tom’s financial responsibility will be.

Functionality to be demonstrated
- Payer interoperability to obtain necessary clinical authorizations and identify health plan coverages
- Identification of the need for prior authorization / referral at the charge item level by insurance plan code

Specifications and considerations
- Explain the charge segmenting of a surgery patient account / encounter that includes charges for hospital, physician, anesthesia, etc. that may require separate patient accounts per provider
- For the purpose of providing cost estimates and informing patients of which physicians are not included in the estimate, identify the physician services which are included in the price quote
- Ability to attach clinical information with the authorization transaction from a foreign system

Assumptions regarding systems interoperability or integration
- Interoperability of existing OR scheduling application with the administrative system
- Payer interoperability to obtain necessary clinical authorizations and identify health plan coverages

Analytics
- Estimation of charges and explanation of patient liability
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### 4.1

The person pre-registering Tom has access to his profile, which includes demographics, insurance and financial standing, past medical history, any information regarding research protocols he may be on, Personal Injury Protection, etc. Tom is not aware of it but, at this time, **alerts or work queues may be produced and messages automatically sent** for resolution of any outstanding issues such as non-covered charges, outstanding balances, or special high risk patient indicators. A “high risk patient” flag on Tom’s account triggers notification regarding Tom to clinicians, financial counselors, social services and care coordination.

#### Functionality to be demonstrated
- Proactive notification / messaging to departments

#### Specifications and considerations
- Demonstrate ability to trigger automatic notifications based on a flag, indicator, user-defined activity or parameter (e.g. high risk, lack of a health care proxy, lack of a living will in the ABC Healthcare’ profile, etc.)
- Role based alerts based upon established rules
- Explain integration abilities with other systems and communication modalities to send alerts

### 4.2

On the day of the scheduled surgery, **Tom automatically receives a notification that the OR is running on time.** When he arrives, he checks in at a kiosk in the lobby. Instructions and a map are printed out directing Tom to the proper location. Shortly after he arrives at the waiting room, his name is called.

Tom is seen by a nurse who ensures that Tom has complied with the pre-op instructions. Tom also receives a **GPS-capable wrist band with his ABC Healthcare’ Common Identifier Number - “positive ID-ed.”** Tom is required to use a biometric device to verify his identity. This will be used by the care team to confirm his identity when drawing specimens, administering medications and blood and providing other clinical services.

#### Functionality to be demonstrated
- Patient convenience notifications about schedule status
- Patient location tracking

#### Specifications and considerations
- Ability to determine the estimated wait times
- Ability to communicate with the patient using different technologies
- Ability to physically track the patient’s location
- Ability to track patient family members throughout the institution and make contact if necessary

### 4.3

The original date for Tom’s surgery had to be rescheduled due to a conflict on the part of the surgeon.

Tom has his surgery. Unfortunately, an amputation of the left great toe was required. **When Tom was pre-admitted for surgery, a message had gone to the Care Coordination department, so plans for support and follow-up have already begun.** His surgery results in a two day stay as an inpatient, to be followed by an inpatient Rehabilitation stay and eventually home health treatments.

#### Functionality to be demonstrated
- Discharge planning
• Cancelled surgical procedure workflow

Specifications and considerations
• Demonstrate how the system would support discharge planning and case management
• Ability to create work list based upon pre-defined workflows
• Recurring prompting to appropriate people that patient is again present in the facility (i.e. the second notification that Tom is missing a proxy and living will in his ABC Healthcare’ profile)

• Cancelled surgical procedure processes to insure appropriate billing still occurs
• Perform a status change of the account from inpatient to outpatient automatically based on the cancelled procedure so it can be billed for appropriate services provided

4.4
The attending physician orders a transfer to inpatient Rehab to begin one week of post-surgical rehabilitation. Tom has also been referred to limited Home Care for follow-up to monitor the wound care and to assess Tom’s mental state. Again, the relevant information is available to PHS Rehab to pre-populate Tom’s registration. Since he will be utilizing PHS Home Care as well, his information is already on file and his encounter is flagged to begin the pre-registration process. Each of these referrals is initiated electronically and includes insurance verification and service limits. Rehab Services confirms that Tom has moved to the “pending” list from the “watch” list.

Functionality to be demonstrated
• Sub-acute care referral process

Specifications and considerations
• Patient information available to the sub-acute facilities from community and academic facilities
• Even with improved availability of registration data, sub-acute entities must meet appropriate workflow requirements for their entity (e.g. forms completion, such as FAAB, ABN, etc.)
• Demonstrate system features to proactively automate as much as possible for the receiving sub-acute entities
• Workflow and tools to support standardized processes across the enterprise
• Alert generated to another facility indicating a desire to refer the patient as part of a discharge plan

Assumptions regarding systems interoperability or integration
• Clinical documentation (e.g. discharge summary, discharge med, etc.) flows to receiving entities’ clinical system or to the administrative system if clinical systems are non-compatible

Venues applicable in this scenario
- Affiliated / Referring physician
- Physician Organization office
- Hospital based office
- Hospital inpatient
- Emergency department
- Ancillary services
- Mental Health
- Nursing Homes
- Home health
- Rehab inpatient
- Rehab outpatient
- Clinical trials and research
- Corporate / institutional billing
- Packaged services

Modes applicable in this scenario
- Billing Office
- Online patient portal
- Onsite – full service
- Patient Service Center
- Kiosks
## Patient Access Vendor Scenarios
### Scenario #5 - Emergency, inpatient, observation, outpatient therapy

#### 5.1
Tom is driving again and has a serious car accident, which renders him unconscious. The **EMTs find his MIC (Medical Identification Card) and scan it.** Through a link to MAShare (a State database of patients), they are able to identify Tom prior to arrival at the Emergency Department. Allergies, medications and past medical history are available through online communication to the ED clinicians. **However, his sensitive information is suppressed.**

Though Tom’s accident occurred near the General Hospital, the General’s Emergency Department (ED) has exceeded capacity and has made notification that no patients will be accepted for a period of time. Tom is taken to the closest ED which is the Brigham, via ambulance (a non-ABC Healthcare’ service).

**Functionality to be demonstrated**
- Trauma patient identification

**Specifications and considerations**
- Suppression capabilities of user-defined private patient data (e.g. psych, HIV tests, etc.)
- Use of integrated data for patient identification
- Capacity/status notification methods out of the PHS system into the State database
- Advance notification to the hospital by EMS
- Ability to identify, capture, and report on patients for disaster management
- Ability to set indicators on EMPI accounts, patient accounts, and encounters that trigger a warning or informational message (e.g. combative patient)

#### 5.2
**Since this is a motor vehicle accident, the encounter is flagged as a MVA and Tom’s account is automatically entered into a work queue to determine the appropriate insurance coverage (i.e. the auto insurance company providing health coverage).** The rules engine determines which of the stored insurances on Tom’s EMPI account are appropriate for this service, activates all that are appropriate in this encounter and determines the correct coordination of benefits. Once the appropriate payers are correctly identified on this encounter, those insurers are automatically notified and treatment authorizations are obtained. Tom’s primary care physician is also notified.

**Functionality to be demonstrated**
- Flagging certain types of patient accounts / encounters

**Specifications and considerations**
- Demonstrate management of patient accounts / encounters within an account that have an alternative primary insurance
- Authorization process with insurance companies, HIPAA transaction and notifications to appropriate clinical staff to call in clinicals for stay authorization
- Ability to flag (or set an indicator) particular categories of patients to drive workflow
- Automatic assignment of patient accounts / encounters to a work queue for assignment of appropriate insurances
- Ability to identify and flag reportable items (e.g. gunshot wounds, dog bites etc.)
- Automated methods for notification to PCP via multiple modalities (e.g. PDA, e-mail, cell phone, etc.)
- Any methods to receive electronic communications (e.g. accident report from police report, etc.) and attach / link it only to the appropriate patient account / encounter
### 5.3

Tom turns out to have a mild cerebral contusion and needs to be admitted, but there are no appropriate beds at the Brigham. A search is performed of the ABC Healthcare' facilities for an appropriate level of care bed which results in a Medical bed reservation for Tom at the Faulkner. Even though his PCP is at North Shore Medical Center, the PCP was in agreement that the best place for the patient is the Faulkner. Tom is subsequently discharged from the Faulkner after three days in the Medical unit.

#### Functionality to be demonstrated
- Bed management, including:
  - enterprise bed management process
  - infection, isolation
  - acuity flags and ability to evaluate nurse/staff requirements
  - appropriate level of care assignment
  - queue, status, prioritization of patients waiting for a bed
  - pre-determined selection criteria for correct bed at correct facility
  - bed and unit transfers

#### Specifications and considerations
- Utilize the bed management function across all locations to identify the appropriate bed based upon patient and physician preference, and acuity
- Demonstrate any ability to queue patients for most appropriate bed based on patient status / acuity and prioritization of patients waiting for a bed
- Work queues and registration information for the Faulkner automatically populated (as much as possible) from the Brigham ED encounter upon decision to admit to the Faulkner from Brigham ED
- Ability to integrate with other enterprise bed management systems

Assumptions regarding systems interoperability or integration
- Interoperability with nursing acuity systems

### 5.4

A couple of weeks later, Tom experiences abdominal pain. He is greeted at the MGH emergency department, identified and triaged. After examination, the ED physician admits him to Observation status for 24 hours. His status subsequently is changed to an Admitted inpatient. One hour later (and after the midnight census creates room charges), Tom feels fine and is discharged to home. The physician and care coordinator agree to change Tom’s status back to Observation, saying he should not have been admitted as an inpatient.

#### Functionality to be demonstrated
- Patient status changes

#### Specifications and considerations
- Ability to change the patient’s status
- Easily change status of patient and have all data corrected appropriately
- Trigger a notification to care coordination when the patient status changes
- Ability to perform multiple status changes within a patient account / encounter on the same day and over the midnight parameter with no re-work
- Ability to reverse any inpatient charges generated on the patient account / encounter and apply the appropriate observation charges

#### Analytics considerations
- Patient status changes’ effect on statistical data
5.5
Tom shows up for his psychiatric evaluation seriously depressed because of everything that is happening. The psychiatrist enters an inquiry to determine Tom’s insurance plan coverage for mental health services which would include inpatient, residential, partial hospitalization, or ambulatory. He receives a response that Tom’s insurance plan does not cover inpatient therapy, but covers residential, partial hospitalization (coming daily for group therapy), and ambulatory.

Tom and the psychiatrist discuss various treatment options, including costs as well as benefits. The psychiatrist submits an order for partial hospital services which automatically initiates an authorization transaction to Tom’s insurance. A subsequent notification is received that “partial hospitalization” treatments will be covered for three days, followed by step down to “ambulatory” for up to 12 visits.

Functionality to be demonstrated
- Outpatient therapy treatment authorization process
- Counting down authorized outpatient visits and automated prompt to refresh authorization

Specifications and considerations
- Rules processing for payer rule sets
- Ability to generate an eligibility transaction for the specific service type (e.g. mental health, etc.) and the ability to create and invoke rules to respond to the specific benefit plan levels within that response
- Link the authorization numbers to the patient accounts / encounters
- If required, ability to place the authorization number appropriately on the claims
- Ability to generate an alert to the appropriate staff when authorized visits are decremented to a level that threatens ability to be paid for non-authorized visit

Assumptions regarding systems interoperability or integration
- Clinical system interoperability with administration system so the administrative referral process can be accomplished from workflow originating in clinical system
- Payer interoperability exists with the administrative system to determine payer rule sets

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## Patient Access Vendor Scenarios

### Scenario #6 - Packaged services, clinical trials/research, corporate/institutional billing

A significant volume of patient activity in the ABC Healthcare HealthCare System requires specialized billing practices not consistent with the typical billing processes for inpatient, outpatient, and physician service billing. **These specialized billing processes include, but are not limited to: global billing cases, transplant (i.e. recipient/donor), research and clinical trials, reference lab, corporate arrangements, billing between healthcare institutions.**

An essential common factor in these types of special services is the ability to identify properly these services and/or patients and the correct responsible party prior to them receiving services. The identification of these patients (who may be participants in a combination of these special billings) is crucial to having the ability to direct the charges to the appropriate account or fund and receive payment from the correct party.

### 6.1 Packaged Services

Jennifer is a patient at ABC Healthcare HealthCare OB/GYN. Jennifer has a managed care insurance plan that contains contract terms that require varying claims submissions, dependent on the outcome of the case.

Potential donors have their workup performed. If the potential donor is eventually matched to a recipient candidate, an acquisition charge that represents the average cost of the full work up is applied to the recipient’s account and billed to the recipient’s appropriate insurance. Recipient charges are billed appropriately for technical and professional services.

**Functionality to be demonstrated**

- Ability to bill OB charges separately from other GYN charges when they occur on the same day or within the global / reimbursement period
- Ability to identify certain charges that can be billed, while holding other charges for global billing
6.2 Clinical Trials / Research

Tom indicated on his profile in the ABC Healthcare’ portal that he is interested in being considered for pertinent clinical trials. Because of his profile preference and his diagnoses, Tom is identified by the system with as a potential research subject. The primary investigator is notified about Tom and given the name of his PCP.

Since he is now enrolled in the trial, Tom's dermatologist visit will now be covered by the protocol with no additional expense to Tom. All clinically approved clinical trial activity is charged to the appropriate clinical trial account.

Functionality to be demonstrated
• Enterprise recognition of patients participating in clinical trials
• Correct direction of the charges to the appropriate responsible party
• Change charge level data on the patient account / encounter to and from the clinical trial’s responsibility
• Move charges on the patient account / encounter to and from the clinical trial

Specifications and considerations
• Ability of rules engine to view and utilize stored patient profile preferences
• Ability to manage patient account / encounter specific payer information (research grant identification number, institutional billing, corporate billing, etc.)
• Store, maintain, and view all appropriate insurance and special billing information by registration and scheduling staff
• Patient profile data fields to assist in identification of potential patients for clinical trials
• Ability to direct charges to either the appropriate payer and/or the appropriate clinical trial
• Integration and interoperability with the research database for qualification of patients to studies
• Link appropriate payer(s) with individual patient account
• Based on user level security, ability to view all clinical trials that a patient is / has participated in, including effective dates for each trial
• Ability to discount some charges for specific funds
• Subject number when directed to fund instead of patient name, medical record, etc.
• Key data fields being entered trigger automatic correction / routing of charges (or a whole patient account) to the appropriate fund or patient account
• Ability to specify individual charges to move between the patient account and the fund
6.3 Corporate arrangements

**ABC Healthcare HealthCare System has corporate arrangements** for providing physicals and other diagnostic services to a corporation’s employees. These accounts need to be established in a manner to properly identify the employee of the company, bill the corporation (not the employee), and route the result to the employee’s individual medical record.

*In fact, Tom’s mom had some inter-institutional bills during her Skilled Nursing Facility (SNF) stay and they were appropriately billed because the integrated system recognized her as an admitted patient in a PHS SNF, and institutional rules were triggered automatically by the system.*

**Functionality to be demonstrated**
- Corporate arrangements
- Inter-institution billing

**Specifications and considerations**
- Explanation of how to establish a corporate account
- Ability to list patients and charges on a corporate invoice
- Ability to route results to clinical medical record of patient
- Link the result in the medical record to the employee
- Enterprise set up and maintenance for accessibility to multiple locations by the corporations’ employees
- Ability to apply negotiated discounts at the charge level
- Ability to integrate with the existing financial systems to reduce or eliminate many of the steps currently required for inter-institutional billing
- Ability to create inter-institution general ledger transactions

**Venues applicable in this scenario**
- Affiliated / Referring physician
- X Physician Organization office
- X Hospital based office
- X Hospital inpatient
- X Emergency department
- X Ancillary services
- X Mental Health
- X Nursing Homes
- X Home health
- X Rehab inpatient
- X Rehab outpatient
- X Clinical trials and research
- X Corporate / institutional billing
- X Packaged services

**Modes applicable in this scenario**
- X Billing Office
- X Online patient portal
- X Onsite – full service
- X Patient Service Center
- X Kiosks
## Patient Accounting Vendor Scenarios

### Scenario #7 - Insurance processing, claim production and submission

#### 7.1

Many people were involved in the **gathering and updating of data required to get Tom's insurance claims completed and submitted to his insurance carrier**. The staff at PHS facilities as well those in the Patient Service Center captured demographic information, updated insurance information, obtained the required pre-authorizations, and may have assisted in completing the ABN and MSP forms. Along the way, the system performed scrubbing edits to insure completion of encounter data and sent notifications to the most appropriate people in the Patient Service Center, Patient Access, Patient Care Management and the ancillary departments at the most appropriate time to complete required data elements. Tom added information on several occasions by accessing the ABC Healthcare portal and responding to a couple of communications that he received from ABC Healthcare.

The system scrubbed the encounter and patient account data, detected deficient or incorrect required data elements, and sent the issues to work queues for timely resolution. Many people were integral in *streamlining the data capture process, working concurrently with the automated assistance provided by the system*.

**Functionality to be demonstrated**

- Scrubbing patient account / encounter data and claims for professional and facility
- Work queues
- Alerts and notifications regarding deficient or incorrect data

**Specifications and considerations**

- Patient account / encounter data scrubbing at any time and frequency in advance of claim production
- Claim scrubbing multiple times after claim production
- Real-time, proactive scrubbing of claims to insure fast claims production
- Work queue capabilities and tools associated with workflow
- Real time automated work listing of patient accounts / encounters requiring error correction or missing data
- Automatic messaging to appropriate staff for completion of required data elements
- Demonstrate the ability to gather deficient billing data through alerts and notifications in order to reduce the number of handoffs and improve the quality of data

#### 7.2

Since this is a motor vehicle accident, Tom's billing transaction is automatically entered into a work queue to determine the appropriate coverage (i.e. the auto insurance company providing health coverage).

Tom's EMPI account has all of his stored insurance plans (including his health insurances, clinical trial, car insurance, worker's comp, etc.). When he updated his ABC Healthcare' profile through the web portal, he was able to update his insurance information.

**Functionality to be demonstrated**

- Insurance capture and processing for professional and facility
- COB and sequential billing rules for professional and facility
### Specifications and considerations
- Explanation of how insurances are stored, viewed, maintained, used
- Ability of rules processing to determine which insurances are appropriate for the patient account
- Interaction of HIPAA EDI eligibility information with the stored insurances (e.g. ability to update coverage effective dates)
- Automation or tools to avoid manual processes (e.g. insurance buckets, moving balances, changing financial classes, etc.)
- Authentication process using comparative logic with insurance companies (e.g. submit to payer using “and logic”, subscriber name and social security number and birth date)
- Ability to periodically perform mass updates from payer databases to the EMPI
- Assignment of appropriate order priority of insurances (e.g. coordination of benefits rule sets)

### Analytics considerations
- Explain statistics if account and insurance balances move and change within insurance buckets, financial categories change, etc.
- Explain ability to capture a snapshot of the active A/R data and subsequently analyze what occurred to that particular data subset

### Functionality to be demonstrated
- Claims production for all venues and types of claims

### Specifications and considerations
- Explain how claims are automatically generated
- Explain how billing jobs are set up and frequency of claims production
- Explain how data gets applied to the claims (e.g. tax id number, identifiers, etc.)
- Ability to generate a claim as soon as all appropriate and required information is posted
- Ability to generate claims at different intervals based on service type (e.g. Labs and EKGs, PCP office visits, Hospital inpatient, Hospital outpatient, etc.)
- How does the system determine the most appropriate time to produce claims and other bills
- Explain system bill holds (e.g. e-signature bill hold edit awaiting physician sign off, missing diagnosis code, unverified insurance plan code, etc.)
- Ability to generate the appropriate billing format to satisfy specific payer requirements (e.g. when to produce an 837I vs. 837P, when to apply payer specific identifiers, etc.)
- Insurance claims are produced for all applicable providers containing all billable services
- Insurance claims produced with correct physician and the correct identifier present based on payer requirements
- Ability to provide a feed of patient insurance information to providers for billing
- Correct routing of revenue for physicians who may work at multiple entities and multiple locations
- Ability to route patient billing and insurance information to non-ABC Healthcare affiliated providers for billing
- When claims qualify for production, ability to perform an additional audit check to insure that the claim will pass all applicable payer edits
- Tools or processes to manage any exception charges or patient accounts / encounters not yet billed
- Explain production of other bills (e.g. patient bills, detail charges, summary)
- Ability to route same Tax ID claims (e.g. professional vs. technical) to different business office work groups for billing and follow up

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In almost every one of Tom’s healthcare encounters, the appropriate claims were generated by the system and transmitted immediately after his services were provided. On occasion when the scrubber detected deficient data required in the claim, it sent the issues to work queues for timely resolution. Most claims sail through without needing rework because of multiple data scrubs prior to claim production.
Assumptions regarding systems interoperability or integration
• Interoperability with order entry and scheduling systems to make a determination that no further scheduled encounters will occur today so it is appropriate to produce all claims

Analytics considerations
• Report of orders compared to charges
• Audit or rules processing to check for, produce, and process all applicable claims for all services

7.4 Most claims are submitted electronically to the payer on the date of service or the date of inpatient discharge.

Since claims are submitted with the proper data and in compliance with payer claims rules, most pay without any further action. Soon after the claims are transmitted electronically to the insurance companies an electronic acknowledgement transaction is received to verify that the claim was received by the payer. In cases where this verification is not received and posted on the patient account / encounter, the system makes an automatic attempt to re-transmit the claim. If there still is no acknowledgement by the payer, the claim / encounter qualifies to a work queue and gets the appropriate person involved to make sure the claim is electronically “sent to” and “received by” the payer.

Functionality to be demonstrated
• Claims transmission, acknowledgement, re-submission for all venues

Specifications and considerations
• Explanation of HIPAA-compliant EDI claims transmission process
• Ability to transmit directly to the payer or to a clearinghouse
• Ability to perform auto-adjudication of claims with payers that have this capability
• Automatic posting to the administrative system an acknowledgement of accepted (997, file is accepted or rejected) and returned claims (277 or a non-standard claim response report)
• File acknowledgement and posting of claim receipt from payer(s)
• An audit process to track claims produced for all services and all are accepted or not accepted by the payer
• Ability to distribute returned (unaccepted) claims from the payer into work queues
• Explanation of managing the partially rejected file (997)
• Rules processing to re-submit claim automatically
• Ability to receive, store and take action on information received from the payers
• Automated payer interaction to facilitate “lights out” follow-up
• Ability to use foreign EDI tools (e.g. NEHEN)

Venues applicable in this scenario
| Affiliated / Referring physician |
| X | Physician Organization office |
| X | Hospital based office |
| X | Hospital inpatient |
| X | Emergency department |
| X | Ancillary services |
| X | Mental Health |
| X | Nursing Homes |
| X | Home health |
| X | Rehab inpatient |
| X | Rehab outpatient |
| X | Clinical trials and research |
| X | Corporate / institutional billing |

Modes applicable in this scenario
| X | Billing Office |
| Online patient portal |
| Onsite – full service |
| Patient Service Center |
| Kiosks |
Patient Accounting Vendor Scenarios  
Scenario #8 - Insurance follow-up, online account summary, patient statements

### 8.1 Claims status

*The system automatically creates claim status inquiry transactions and transmits them to the payers on appropriate accounts to ensure that a payment has been adjudicated or a payment will be occurring in the near future. The claim status responses are documented in the encounter(s).*

**Functionality to be demonstrated**
- Claim status inquiry and response
- Unsolicited claim status response
- Activities triggered from claim status response

**Specifications and considerations**
- Automatic generation of HIPAA compliant claim status inquiry transactions
- Ability to accept unsolicited response transactions
- Ability to receive, store and take actions based on information received from the payers

### 8.2 Work queues

*When the documented status reveals a payment denial, the system qualifies the patient accounts / encounters into the appropriate work queue to be researched, followed up, and the appropriate action performed.*

*The patient accounts / encounters are organized by categories including, but not limited to: patient accounts determined to be underpaid by the payer according to calculated contract terms, patient accounts that have no further pending insurance, patient accounts identified as the responsibility of the guarantor listed on the account, and patient accounts that are not progressing through the revenue cycle based on ABC Healthcare'- defined criteria.*

**Functionality to be demonstrated**
- Work queues
- Underpayments driven to work queues

**Specifications and considerations**
- Explanation of work queues, including:
  - Timeliness of refreshing work queues
  - Qualification
  - Prioritization
  - Workflow assistance
  - Management of inventory
- Denial status (including line item denials) received from either payer responses or remittances automatically qualify patient accounts / encounters to appropriate work queues
- Ability to perform automatic actions based on payer responses instead of qualifying to queues (e.g. write-offs, balance transfers, key indicator(s) changes)
- Inactive patient accounts / encounters that need re-started in the revenue cycle process
- Ability to drive accounts to work queues if remaining balance plus payment received does not equal total expected payment within certain dollar and/or percent tolerances

**Analytics considerations**
- Underpayment and overpayment calculations and explanation
### 8.3 Denial processing

**Staff work through their system generated work queues that contain patient accounts which were not billed or are not yet paid.** The staff works these “exception accounts” based on the reason they qualified for follow-up.

**Functionality to be demonstrated**
- Denial management tools for workflow assistance and reporting

**Specifications and considerations**
- Ability to perform automatic actions based on payer responses instead of qualifying to queues
- Based upon the denial code or reason, route to the appropriate work queue
- Store denial information in the notes / audit tracking section of the administrative system

**Analytics considerations**
- Ability to request produce reports for use during managed care contract negotiations

### 8.4 Claims attachments

**ABC Healthcare filed the clinical appeals and provided an electronic attachment that included the requested clinical information.**

**Functionality to be demonstrated**
- Clinical appeals
- Claims attachments

**Specifications and considerations**
- Workflow assistance, tools, or automation of the clinical appeals process
- Ability to attach documents to claims and re-submit

**Assumptions regarding systems interoperability or integration**
- Clinical interoperability with the administrative system to attach clinical documentation to claims for re-submission

### 8.5 Online consolidated account summary

**Tom retrieves his first online account summary since his physical.** So much has happened in a month! Yet he is able to follow the account summary that clearly outlines his visits, tests and procedures from all of the ABC Healthcare entities including physician and hospital charges. The summary clearly explains what he has paid out of pocket, what was deducted from his HSA and the new balance, and what is billed to, approved and paid for by his insurer. The account summary also displays a clear message of the total amount Tom owes.

By accessing the ABC Healthcare portal, Tom can view his account summary which indicates clearly each time a claim was produced and transmitted to his insurance carrier by each of his PHS providers. In cases where a payment was made by the insurance, he is able to view the payment amounts, dates, and other important information.

The capability exists to drill down to view detail level charge information and a ABC Healthcare-defined image of the payer’s EOB. He can also see payments that he has made and identify which were made with his credit card, debit card, and HSA.

**Functionality to be demonstrated**
- Online view of an enterprise statement
Specifications and considerations

- Enterprise statement vs. entity statement
- Ability to roll up the information by patient or by guarantor for a single facility or for the enterprise
- Drill down for more detailed information on data fields – point and click
- Explanation of:
  - statement generation
  - messages
  - dunning cycles
- Understandable view of:
  - charges
  - payments (insurance and guarantor)
  - source of payment (HSA, check, cash, credit card, etc.)
  - account balance
  - amount owed by the guarantor
- Information viewable through a fully interactive, secure patient portal
- ABC Healthcare’s staff should have view of the same information as the patient during communications
- ABC Healthcare patient profile preferences for choice of paper statement or online account summary
- Satisfy current HFMA Patient Friendly Billing standards

8.6 Patient statements

Tom’s mother received her ABC Healthcare’s patient statements via the mail. With her passing, Tom is now receiving her mail. He makes a mental note that he must remember to go into her ABC Healthcare profile and change her preference to “electronic notification” for viewing preference of the account summary.

Functionality to be demonstrated

- Patient statements

Specifications and considerations

- Explanation of statement generation, messages and dunning cycles
- Enterprise statement vs. entity statement
- ABC Healthcare patient profile preferences for choice of paper statement and/or online account summary
- Flag deceased patients’ accounts and encounters to trigger activities (e.g. withhold patient statements, generate sympathy correspondence, etc.)
- ABC Healthcare patient profile preferences for choice of paper statement or online account summary
- Satisfy current HFMA Patient Friendly Billing standards

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Clinical trials and research
X Corporate / institutional billing
X Packaged services

### Patient Accounting Vendor Scenarios

#### Scenario #9 - Cash application and reconciliation

9.1
When he completed his Partner’s profile online, Tom selected the option of viewing his account summary on the ABC Healthcare’ patient portal. He likes using this option because of the convenience it offers him to authorize the payment online using any method he chooses (funds transferred electronically from his HSA, his debit card, or his credit card).

The account summary also displays a clear message of the total amount Tom owes. Payment options for him include the ability to pay online, to mail a payment if he chooses to pay by check and a phone number to call if he wishes to pay over the phone instead of online.

**Functionality to be demonstrated**

- Multiple modes for patients to make payments

**Specifications and considerations**

- Workflow for a patient to authorize a payment to be applied to the right patient account(s) in the right entity(s), including prior to all ABC Healthcare entities being on the same administrative system.
- Explain how to store payment information (e.g. debit and credit card information) securely for use across patient accounts
- Workflow and tools to make payment authorization convenient for patients

9.2
The insurance company transmits an electronic funds transfer to a bank and an electronic payment remittance transaction to ABC Healthcare.

The reconciliation process of the cash transaction is efficient and almost all of the inter-ABC Healthcare’ transactions are ready for automatic processing with the supporting banking processes and associated general ledger entries rules dictated by ABC Healthcare.

The bank has become an increasingly important business partner in making the payment posting process more efficient. By working with ABC Healthcare to develop transaction files for electronic fund transfers, lock box payments, online payments, kiosk payments, and health savings account payments, the Bank has helped ABC Healthcare significantly improve and simplify the automatic cash posting and reconciliation process.

**Functionality to be demonstrated**

- Integration with the banking industry
- Posting payments from:
  - payer remittances including payments, contractual adjustments and denials
  - patients (e.g. kiosk, online, mail, etc.)
- Reconciliation process

**Specifications and considerations**

- Banking industry’s ability to contribute to the administrative system’s efficiency of electronic posting and reconciliation processes
- Entity allocation of payments
- General ledger transactions
- Ability to generate all appropriate transactions for inter-institutional cash posting
• Handling and processing of prompt pay or other types of discounts
• Manual posting workflows
• Explain and demonstrate tools and workflow to perform reconciliation

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### 10.1 Scenario #10 - Account resolution

**Jason’s job as a ABC Healthcare’ financial counselor includes helping people understand their financial obligations (often prior to receiving their health care services.)** He was trained to professionally assist people to apply for financial sponsorship or assistance programs, inform incoming patients of what they can expect their bill to be, estimate the amount they may have to pay out of their own pockets, and explain various payment options that are available to them.

*Fortunately for Tom, he possesses the financial well being to pay his co-payments, deductibles, and other financial obligations resulting from the health care he has received. However, for those patients who have difficulty satisfying their financial obligations, PHS professional staff throughout the cycle (front end/admitting, the Patient Service Center and Patient Accounts) have the training and ability to offer assistance to these patients.*

**Functionality to be demonstrated**
- Financial counseling

**Specifications and considerations**
- Tools to assist staff in the projection of estimated financial liability of patients
- Tools to assist staff in determining best financial sponsorship options for patients
- Ability to complete financial applications on-line and branch to or interoperate with other state web sites (e.g. Medicaid application)

### 10.2

**Tom had a few questions and called the Patient Service Center to speak with a ABC Healthcare’ representative who was able to answer his questions and work with Tom to set up a payment plan with suitable terms and arrangements.**

**Functionality to be demonstrated**
- Collections processes and tools
- Work queues functionality for collections

**Specifications and considerations**
- Tools to assist the staff in efficiency and performance related to collection activity (e.g. credit reports, address verification, auto-dialer, etc.)
- Demonstrate establishment of budget accounts at the entity or ABC Healthcare’ consolidated account level
- Tools to assist the staff in determination of best payment options for patients (e.g. financial sponsorship regulations, prioritized options for non-insured, patient payment arrangements, etc.)
- Rules processing for monitoring expected payments from partial payment arrangements
- Automated actions resulting from deficient patient payments
- Statement / web portal processing on arrangement accounts
- Explain how multiple patient accounts at multiple entities is best addressed to insure efficiency for patient when making payments
10.3 Many types of activities are performed regularly in the Business Office in order to get account balances resolved. Particularly in cases where either leftover balances cannot be collected or amounts must be adjusted from the account for a variety of reasons, the Business Office staff must adhere to standard policies and procedures. Conversely, there are cases where the patient or insurance company may pay an excessive amount and have a timely refund processed as a result.

**Functionality to be demonstrated**
- Processing of adjustments

**Specifications and considerations**
- Automatic calculation and posting of adjustments
- Manual postings
- Exceptions from electronic remittance postings
- Administrative
- Small balance
- Automation of adjustments
- Approval process

**Analytics considerations**
- Ability to generate reports for audit purposes

10.4 Many types of activities are performed regularly in the Business Office in order to get account balances resolved. Particularly in cases where either leftover balances cannot be collected or amounts must be adjusted from the account for a variety of reasons, the Business Office staff must adhere to standard policies and procedures. Conversely, there are cases where the patient or insurance company may pay an excessive amount and have a timely refund processed as a result.

**Functionality to be demonstrated**
- Online refund processing

**Specifications and considerations**
- Explain the refund process including:
  - how a check or a transaction is produced
  - how a transaction is posted to the account to create a zero balance as a result of the refund
  - online approvals
  - authorizations
  - audit trails
  - general ledger transactions
  - interaction or integration with PeopleSoft general ledger
  - ability to query guarantors that are due a refund for other patient accounts that have a balance

10.5 Many types of activities are performed regularly in the Business Office in order to get account balances resolved. Particularly in cases where either leftover balances cannot be collected or amounts must be written off from the account for a variety of reasons, the Business Office staff must adhere to standard policies and procedures.

**Functionality to be demonstrated**
- Bad debt processing

**Specifications and considerations**
- Ability to qualify accounts for bad debt processing based upon ABC Healthcare’-defined
qualifications
• Explain any sub-categories of bad debt (e.g. Medicare BD, other)
• Bad debt placement identifiers on the patient account
• Ability to post payments to accounts in bad debt status
• Mapping of recoveries to appropriate general ledger account
• Ability to reinstate an account from Bad Debt back into the active AR

Analytics considerations
• Multiple agencies placement and tracking
• Monitoring and reporting of agency collections activity

10.6
*Tom had a few questions and called the Patient Service Center to speak with an ABC Healthcare representative who was able to answer his questions* and work with Tom to set up a payment plan with suitable terms and arrangements.

Functionality to be demonstrated
• Customer service inquiries

Specifications and considerations
• ABC Healthcare’ staff should have view of the same information as the patient during communications

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Integration Vendor Scenarios  
Scenario #11 - Charge capture, coding

11.1  
Before ending the visit, the system prompts Tom’s PCP to verify if she performed some typical, yet undocumented, activities in order to automate the coding process and capture any applicable charges. She signifies that she read an outside film, important for professional billing.

The medical and clinical staffs were efficient in their clinical documentation, and the system ensured charge capture of several appropriate charges by auto-generating charges based on the clinical documentation and performed the appropriate DRG classification directly from the auto coding process.

Functionality to be demonstrated
- Automated charge capture

Specifications and considerations
- Ability to generate charges automatically based upon the order
- Ability to apply additional charges, diagnoses, G codes, procedure codes and modifiers, if appropriate
- Rules processing to check for appropriate charges
- Rules processing to know if a particular charge or code is present, then another charge should be present. If that charge is not present, then automatically create it or drive it to a work queue

Assumptions regarding systems interoperability or integration
- Order entry system interoperability

11.2  
Before ending the visit, the system prompts Tom’s PCP to verify if she performed some typical, yet undocumented, activities in order to automate the coding process and capture any applicable charges. She signifies that she read an outside film, important for professional billing.

Significant efficiencies have also been gained with regard to interoperability with the electronic health record and administrative system. The Electronic Health Record is supported by sophisticated tools, including standardized documentation templates, rules-based decision making and a centralized standard coding dictionary (e.g. International Coding System, CPT / HCPCS) with crosswalks to older code sets.

Functionality to be demonstrated
- Automated coding from clinical documentation
- Charge capture from clinical documentation

Specifications and considerations
- Describe auto-coding
- Opportunity for physician to review, verify, override and sign off on auto-coding
- Describe centralized standard coding dictionaries and any crosswalks to older code sets
- Clinical data exposed to payer and coding edits
- Ability to distinguish completed procedures from future orders
- Ability to assist in workflow processes
- Describe any available monitoring tools

Assumptions regarding systems interoperability or integration
- Clinical system and electronic health record interoperability with the administration system
11.3 Charge capture via PDA, web entry, database and medical equipment utilization are all methods used for charge capture at ABC Healthcare. A wireless capability also is in use to capture charges from certain pieces of medical equipment when the resource is used.

**Functionality to be demonstrated**
- Modes of charge capture (e.g. data entry, orders, devices, interfaces, etc.)
- Looking for a variety of care settings (not only inpatient and outpatient)

11.4 The system employs natural language processing to assign industry standard diagnostic and procedure codes for services provided, and the coding process supports automatic charge capture in many clinical areas.

**Coding engine has learning abilities, becoming smarter and more accurately assigning coding information.**

**Functionality to be demonstrated**
- Natural language processing

**Specifications and considerations**
- Explain ability to enable automatic charge capture and automatic coding
- Requirement to read components of the health record and transfer it into understandable language (code sets)
- Coding engine progression of intelligence

**Assumptions regarding systems interoperability or integration**
- Clinical system interoperability with the administration system

11.5 The order additionally triggered an authorization transaction to Tom’s insurance resulting in immediate notification to the physician that outpatient therapy will be covered for up to 24 visits.

**Functionality to be demonstrated**
- Payer authorizations automated from an order

**Specifications and considerations**
- Explain how authorizations and charges are automatically created from an order
- Ability to automate authorization request based on an order

**Assumptions regarding systems interoperability or integration**
- Order entry system interoperability

11.6 During Tom’s primary care office visit, the doctor renews a prescription Tom uses occasionally to help him sleep. The drug Tom had been using is not on the formulary of his new health plan. This alert displays for Tom’s physician, and they discuss whether Tom should switch to the best available covered alternative or stay with his current medication but pay out-of-pocket.

**Functionality to be demonstrated**
- Medical Necessity and Advanced Beneficiary Notifications (ABN’s)

**Specifications and considerations**
• Explain the process of checking for medical necessity and the automatic production of ABN's
• Storage and retrieval of ABN's
• E-signature capabilities

Assumptions regarding systems interoperability or integration
• Real time order entry system interoperability

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### Integration Vendor Scenarios

#### Scenario #12 - Care coordination, referrals to facilities

**12.1**

A ABC Healthcare’ staff member prepared the appropriate documentation for a potential SNF referral after talking with the oncologist, and saw that the financial counselor had already taken care of secondary insurance issues by reviewing the integrated patient care management system notations. The referral to skilled nursing was automatically and electronically transmitted to the facility.

Since Tom will be utilizing PHS Home Care, his information is already on file and his patient account is flagged to begin the pre-registration process. Following Home Care, Tom has also been referred to outpatient Rehab to begin one week post-discharge. Again, the relevant information is available to PHS Rehab to pre-populate Tom’s registration. Each of these referrals is initiated electronically and includes insurance verification and service limits.

**Functionality to be demonstrated**
- Referral automation for patient placement in another facility

**Specifications and considerations**
- Ability to do proactive reviews for patient placement and bed availability in ABC Healthcare’ sub-acute facilities
- In advance of admission (upon notification of potential admission) Medicare SNF referral days remaining made available

**Assumptions regarding systems interoperability or integration**
- Payer interoperability exists with the administrative system to determine payer rule sets

**12.2**

The person pre-registering Tom has access to his profile, which includes demographics, insurance and financial standing, past medical history, any information regarding research protocols he may be on, Personal Injury Protection, etc. Tom is not aware of it but, at this time, alerts or work queues may be produced and messages automatically sent for resolution of any outstanding issues such as non-covered charges or outstanding balances. If there are issues, messages will go to financial counselors, social services, care coordination, as appropriate. Flags are triggered in those areas to let the departments know that Tom is a high risk patient; these flags would also print on Tom’s itinerary.

**Functionality to be demonstrated**
- Proactive notification / messaging to departments

**Specifications and considerations**
- Demonstrate abilities to trigger automatic notifications based on a user defined activity or parameter (e.g. high risk patient, level of care changes, etc.)
- Ability to enter and exchange follow up notes and event triggers for those managing the patient regardless of discipline or entity (e.g. financial counselors and social services)
- Tracking of clinical appeals automation (level of care appears during admission or after discharge)
- Role based alerts based upon established rules
- Integration with other systems or communication modalities to send alerts
12.3
Tom has his surgery. Unfortunately, an amputation of the left great toe was required. When Tom was booked for pre-admit for surgery, a message had gone to the Care Coordination department, so plans for support and follow-up have already begun. His surgery results in a two day stay as an inpatient, to be followed by an inpatient Rehabilitation stay and eventually home health treatments.

Functionality to be demonstrated
• Discharge planning

Specifications and considerations
• Demonstrate how the system would support discharge planning
• Ability to create work list based upon pre-defined workflows (e.g. approved length of stay tracking)
• Ability of the system to automate the daily interactions between the provider and the payer (e.g. e-mails, auto-faxes, etc.)
• Store and easily retrieve electronic patient documentation that contains all appropriate electronic signatures present, payer correspondence, other scanned images and clinical data
• Alert generated to another facility indicating a desire to refer the patient as part of a discharge plan
• Transfer of notes and documents to next discipline and/or entity managing the patient
• Ability to view all historical notes from all people involved in the case (e.g. financial counseling activities, utilization review, etc.)

Assumptions regarding systems interoperability or integration
• Clinical interoperability with the administrative system

12.4
The attending physician orders a transfer to inpatient Rehab to begin one week of post-surgical rehabilitation. Tom has also been referred to limited Home Care follow-up both to monitor the wound care and to assess Tom’s mental state. Again, the relevant information is available to PHS Rehab to pre-populate Tom’s registration. Since he will be utilizing PHS Home Care as well, his information is already on file and his patient account is flagged to begin the pre-registration process. Each of these referrals is initiated electronically and includes insurance verification and service limits. Rehab Services confirms that Tom has moved to the “pending” list from the “watch” list.

Functionality to be demonstrated
• Sub-acute care referral (both clinical and insurance referrals) and authorization process

Specifications and considerations
• Interoperability with Home Health
• Workflow based upon the referral process
• Information available across the ABC Healthcare’ health network

12.5
A couple of weeks later, Tom experiences abdominal pain. He is greeted at the MGH emergency department, identified and triaged. After examination, the ED physician admits him to Observation status for 24 hours. His status subsequently is changed to an Admitted inpatient. One hour later (and after the midnight census creates room charges), Tom feels fine and is discharged to home. The physician and care coordinator agree to change Tom’s status back to Observation, saying he should not have been admitted as an inpatient.

Functionality to be demonstrated
• Patient status changes

Specifications and considerations
• Trigger a notification to care coordination when the patient status changes
12.6
The system facilitates automated notifications to Care Coordination and pushes patient information out to those individuals or entities involved in the care plan, within appropriate timeframes, beginning with pre-admission and continuing throughout the continuum of care. The centralized administrative system is valuable in minimizing the number of hand-offs that occur between the entities. When hand-offs do occur, the system’s notification and tracking abilities manage tasks seamlessly and efficiently. The system keeps track of the status of activities completed and upcoming, sending electronic notifications when appropriate to the staff, regardless of the entity in which they work.

Functionality to be demonstrated
• Work lists and workflows
• Facilitating handoffs between departments and entities

Specifications and considerations
• Explain continuity of workflow
• Ability to manage, monitor and track handoffs amongst departments and entities

Assumptions regarding systems interoperability or integration
• Clinical interoperability with the administrative system

12.7
Case Management is a key group of clinically oriented individuals located within each ABC Healthcare’ entity. They perform many different services for patients behind the scenes including working with payers for clinical authorizations, length of stay determinations, reaching agreement on level of care (e.g. ICU versus Med/Surg or Observation versus Inpatient) and also initiate clinical appeals with payers on payment issues related to these activities.

Functionality to be demonstrated
• Ability to add, index, retrieve, attach clinical related documents to the appropriate patient account

Assumptions regarding systems interoperability or integration
• Clinical interoperability with the administrative system

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ABC Healthcare Healthcare is evaluating vendors on both their current capabilities and future strategy. Prior to your demonstration, please describe your strategy for advanced analytical capabilities as described below. Include in this discussion your intentions to build these capabilities as well as your plans to seek a partner for some of these functions.

13.1 XYZ is proposing episodic payments for stroke and oncology patients seen within the ABC Healthcare’ system. ABC Healthcare will receive a single package price for certain disease states (BMT from first high dose chemotherapy through 90 days post transplantation, excluding unrelated services) for all services rendered within the system based on rules defining the episode of care, based partly on the patient’s PCP relationship, with carve-out payments for a few high cost interventions, primarily pharmacy items. The contract also proposes new performance bonuses based on achieving certain outcomes for stroke and oncology patients as well as diabetics. Jill finds the terms generally acceptable but is uncertain about the impact of the episodic terms. Jill e-mails the terms to Bruce, a senior revenue analyst, so that he can model the impact.

**Functionality to be demonstrated**
- Contract terms calculation
- Pay for performance support
- Package pricing
- Multi-entity contract modeling

**Specifications and considerations**
- Model terms for:
  - DRGs
  - APCs
  - APGs for severity of illness
  - Fee Schedules
  - Carve-outs
  - Episodic groupings
  - Level of care and tiered per diems
  - Stop losses by case, day or episode
  - Performance bonuses including qualifying criteria
  - Professional billing
  - RUG III
  - Home health
  - Sub-acute billing
  - Line item adjudication
  - Fee schedules with discounts for similar procedures (e.g. 2 radiology exams on contiguous body parts)
  - Lab paneling
- Describe the data used to model contractual terms
- Describe how multiple data elements may be used to determine the correct insurance plan code
- Ability to model similar terms with different cost structures between entities
- Define carve-outs, episodes, utilization rates – look for instances in existing database subset of charges across all entities, perform what-if’s to the population
- Ability to identify frequency of high cost intervention and frequency of unrelated care
- Ability to perform sensitivity analysis (e.g. 1% increase)
13.2
Bruce accesses the corporate data repository containing claims, transaction and clinical data across all entities. Since the payer rule sets for carve-outs and episode definitions were provided as part of the proposal, Bruce is able to quickly build an analytic model to identify these disease states and to group the patients across the ABC Healthcare’ system with those diseases into the relevant episodes. Bruce is confident in his groupings as the data elements required to identify the episodes are standard elements across the system and are consistently captured in all settings.

However, Bruce knows that XYZ has been marketing new senior programs and has increased its market penetration for people over 65 years old. Looking to the future, Bruce accesses census projections for the Boston area and estimates the effect of the combined aging of the population and XYZ’s increased market share in that demographic.

Functionality to be demonstrated
• Data warehouse capabilities

Specifications and considerations
• Integrated clinical, financial and demographic data
  – Clinical conditions groupings, results
  – Cost information
  – Revenue information
• Epidemic grouping
• Multi-entity modeling capabilities with ability to roll up by sector (business line) and in total
• Access to external data (e.g. normative data) and import it
• Crosswalk or conversion of historical data
• Ability to store 7-10 years of historical data
• Tools for broad report distribution, online analytic capabilities
• Structured and ad hoc reporting tools
• On-line help and metadata layer
• Intuitive workflow or ‘wizards’ to guide casual users

13.3
Bruce models the contract terms using two separate sets of assumptions. First, Bruce applies the proposed terms to XYZ’s historic patient trends. Given XYZ’s history, the contract produces acceptable overall margins. Bruce models the change in the patient makeup and determines that the contract margins will deteriorate over time based on his assumptions. Further, Bruce models the impact at each entity as well as the system impact and estimates that XYZ’s patients will require more sub-acute care in the future and that the margins in this area are unacceptable.

Functionality to be demonstrated
• Modeling (what-if analysis) capabilities, including:
  – cost-volume-profit analysis
  – trend analysis
  – statistical analyses (e.g. correlation, regression, etc.)

Specifications and considerations
• Specify ability of administrative system to either produce or import cost accounting data
• Cost accounting and revenue capabilities
  – multiple pricing and costing techniques
  – multiple cost types or categories
  – multiple indirect allocation techniques
  – ease of maintenance
• Multi-entity modeling
• Multi-year modeling capabilities
• Compare data and expose it to multiple schema
• Ability to store multiple targets (budgets, benchmarks, peer averages, etc.)
• User defined displays and data elements
• User defined patient aggregations across entities and across payers
• User defined consolidations or comparisons

13.4  Jill uses the information from Bruce to prepare a counter offer to XYZ. Faced with the overwhelming supporting data, XYZ begrudgingly accepts the counter proposal. Once the contract has been accepted, Bruce and Jill are able to automatically apply the modeled contract terms to the operational portions of the revenue system, eliminating redundant work and the errors that often occur when business office staff interprets contracts.

Functionality to be demonstrated
• Ability to copy the modeled contract terms to production

Specifications and considerations
• Direct translation of modeled terms to system
• Ability to modify terms and pass back to modeling system
• Terms shared across entities
• Ability to copy terms between contracts and entities

13.5  At mid-year, Russell, the corporate budget analyst responsible for revenue budgeting begins the revenue forecast for the next year. All along, Russell has been recasting the current year forecast based on changes in volume, price intensity and payer mix. When Jill and Bruce noticed the volume and demographic trends partially causing the performance variance with XYZ, Russell was copied on the response to Cynthia. Russell was then able to apply this trend in recasting the short term and long term revenue forecast. When the forecasts are recast, a summary of each entity’s recast is automatically sent to the appropriate CFO as well as an aggregate forecast back to Cynthia.

The system simulation tools provide Russell the ability to ‘grab’ discrete data sets at will and model based on any variable defined in the set. Russell works with Jill, Bruce and other entity representatives to apply known contract changes along with volume projections to the historic data to create an initial revenue forecast. The initial revenue forecast is created at a high level and ‘pushed’ out to the entities to be fine-tuned. The simulation tools allow the data model to be multi tiered so that corporate assumptions can be applied at a high level while the entities model in finer detail.

Functionality to be demonstrated
• Simulation and forecasting

Specifications and considerations
• Model based on any user defined data elements
- rate and/or case mix assumptions
- service mix assumptions
- volume assumptions
- demographic
- clinical descriptive
- financial descriptive
- claims/transaction data
- transaction data
  - Multi-level simulations
  - Multi-variate simulations
  - Identify and push data to appropriate responsible party
  - Time series forecasting and spreading
  - Time series variance analysis
  - Ability to push data down and then aggregate back up to enterprise level
  - Ability to forecast new business models/services
  - Ability to grab user defined history for model base (history may be existing, derived or provided)

13.6

*Periodically, ABC Healthcare’ corporate staff must provide downloaded data to internal users as well as to government or regulatory agencies. Examples of these downloads include:*

- Incidence of key events such as elder abuse, dog bites, TB, etc.
- Monthly inpatient observation case and emergency department data submissions
- Weekly feed of certain diagnoses codes to ED to track epidemiology trends
- Quarterly summaries of patient satisfaction surveys

*Each user needs the data in different formats including, but not limited to, comma delimited, space delimited, fixed length formats. Some data must be sent in multiple files with demographic ‘header’ information in one file and procedures, diagnoses and other transaction data in separate unique files.*

*The system uses its automatic scheduling features to generate these and other downloads on a preset schedule, removing this burden from the corporate analytic staff.*

**Functionality to be demonstrated**

- Support for regulatory reporting, download capabilities

**Specifications and considerations**

- Ability to download data into user defined formats
- Ability to parse data into multiple files
- Ability to save and schedule query criteria for future use
- Ability to use external data translation tables for downloads
- Ability to access external code crosswalks
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Analytics Vendor Scenarios
Scenario #14 - Revenue analysis

14.1
With a single enterprise system using standardized data, consolidated reporting is much more accurate and faster than in the past. Data is consolidated automatically and aggregated for management reporting with little human intervention and no data scrubbing. Cynthia gets her corporate information within 24 hours of the entity CFOs receiving and validating their information. This morning when Cynthia logs on, she is presented with a pane asking her if she would like to see her daily activity reports or her quarterly report cards since the system received an ‘alarm’ regarding the Board meeting on her calendar.

Cynthia looks to her dashboard and asks for a payer view. Cynthia prefers graphical displays so her initial view is of the P4P quality metrics to determine if they may be the cause of not meeting financial targets. Seeing that the P4P quality metrics are satisfactory, Cynthia retrieves a spider chart of 12 key performance indicators she has selected for payer analysis. She sees that the system is achieving targets in 10 of the 12 indicators but red flags appear on 2 of the indicators.

Functionality to be demonstrated
• Automatic data aggregations, dashboard reporting, exception reporting

Specifications and considerations
• User defined aggregations
• Messaging and alerts
• Role based security
• User defined views
• Multiple modalities (tabular, OLAP, graphical, etc.)
• Views based on user context (e.g. date, exception trigger, etc.)
• Exception thresholds set at multiple levels

14.2
The system generated separate e-mails for Jill and Bruce and copied her on the requests for an explanation. In addition to a note from Cynthia asking for an explanation, the system sent preliminary data on the issue to each of them. However, Jill and Bruce have different responsibilities and analytic styles. Bruce is a pure analyst, a self described geek and will do the bulk of the analysis. Bruce prefers his data in tabular format. So, Bruce was sent an OLAP cube with target and actual data and the ability to sort it in the ways that Bruce typically looks at this type of data.

The first flag is for days in AR. ABC Healthcare’s overall days in AR has slipped recently to 28 days from the target of 27. Since cash is king, Cynthia has set the exception threshold to .5 days. Cynthia clicks on the flag and sees that the General has a recent problem that is affecting the entire system. Clicking on the General, Cynthia sees a note from the General’s CFO telling her that foreign self pay is causing the problem and that it was actually just 2 high dollar patients who are causing a short term concern. The General’s CFO was automatically sent an e-mail from Cynthia asking for an explanation for the variance.

Functionality to be demonstrated
• Automatic e-mail generation

Specifications and considerations
• User defined thresholds
• Responsible party designation
• Interoperability with Microsoft Exchange™

14.3
One of Bruce’s responsibilities is AR run out analysis. Bruce combines claims lag analysis with time series In looking at the trends, Bruce has seen some unusual trends in XYZ’s payment rates since the new contract was initiated.

Functionality to be demonstrated
• Accounts receivable analysis, expected to actual payment analysis

Specifications and considerations
• Time series analysis
  – Prior year vs. current year implications as contract terms change
  – Ability to segregate bad debt, free care, denials, etc.
  – Ability to segregate hospital, physician and sub-acute activity
  – Detailed explanation of expected calculations
  – Line item adjudication of professional claims
  – Run out analysis in aggregate or by user defined attributes (financial class, payer, etc.)
  – Ability to correlate transactions to demographics and to array the transactions by posting date, service date, by payer, by aging buckets
  – Calculate historical ratios of actual to expected and net to gross and apply these ratios to current data
  – Lag analysis applied to current claims
• Project future exposure based on historical actual data. View any desired payer population’s behavior patterns by capturing a snapshot of the AR (at any time) and report statistical activity on that population by aging bucket (e.g. transactions by payer, insurance payments, patient cash payments, charity, bad debt, etc.)

14.4
In looking at the trends, Bruce has seen some unusual trends in XYZ’s payment rates since the new contract was initiated. Bruce looked at the data on his own for short time but nothing stood out to him. So, Bruce asked the system to find out what was going on. Using the natural language query capabilities along with pattern recognition technology, Bruce asked ‘why did payment per case from XYZ increase 25% from the average in period 2 and fall 35% in period 4?’ Applying advanced pattern recognition capabilities, Bruce’s problem solving tool looks at all the variable that affect payment rates for XYZ. The system determines that XYZ was initially overpaying for four of the new global rates and then recapturing the overpayment later.

Functionality to be demonstrated
• Natural language query
• Pattern recognition

Specifications and considerations
• Vendor long term analytics strategy
• Business intelligence relationships
• Predictive modeling capabilities
• Root cause analysis
• Ability for system to ‘learn’ from new events such as new terminology or practices
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### Master Files Vendor Scenarios

#### Scenario #15 - Charge master

**15.1 Provide a general explanation of the charge master.**

**Functionality Demonstrated**
- Charge master

**Specifications/Considerations**
- Ability to track stock items / chargeable supplies in phase with charge master, link charges/supplies used with charge codes
- Ability to interoperate with foreign item master (materials management), coordination with MD preference files/OR kit, case cart
- Standardized enterprise, multi-entity charge master containing both physician and hospital charges
- Single setup and maintenance for enterprise charge master
- Communication of changes/adds/deletes
- Pricing driven by enterprise provider master and charge master
- Appropriate classification of entity, provider, and departmental revenue to the General Ledger
- HCPCS, revenue code mapping to the claims and bill forms (vary by entity, payer, etc.)

**Analytics considerations**
- Reporting of statistics by entity and/or payer, and/or in aggregate (ABC Healthcare’ total)

**15.2 The check-out representative advises Tom that since he has not yet met his deductible for the year, he will be responsible for $240.00 for the MRI and for a co-pay for the dermatologist visit. This financial information is displayed on a screen for Tom to see while the check-out representative explains it to him.**

The representative also reviews Tom’s financial obligations for the procedure, including the various surgical, anesthesia and hospital charges, explaining what is covered and what Tom’s financial responsibilities will be.

**Functionality Demonstrated**
- Cost estimation to allow point of service billing and patient cash collection (e.g. hospital, physician, or other services related to care plan)

**15.3 Upon completion of the surgical procedure, the notes are dictated by the physician and transcribed, and all relevant information is available for auto-coding, auto-charging and billing.**

**Home Care and Rehab following surgery - When electronic communication regarding Tom’s status is sent to the surgeon and subsequently signed or electronically acknowledged by the surgeon, billable transactions are generated for both the surgeon and Home Care provider.**

**Functionality Demonstrated**
- Rules processing to insure all charges are generated

**Specifications/Considerations**
- Rules processing should insure that the procedure codes on the account have a corresponding charge for the services provided

**Assumptions regarding systems interoperability or integration**
- OR, order entry, or clinical system interoperability
15.4

Tom is taken to the Brigham ED, unconscious, via ambulance (a non-ABC Healthcare’ service). Tom turns out to have a mild cerebral contusion and is admitted to the hospital’s ICU which is the only available bed. A couple hours following his admission, Tom re-gains consciousness and the attending physician makes a determination to have Tom’s status changed to observation rather than admitted.

Functionality Demonstrated
- Automatic credit of inpatient room charges and appropriate observation charges applied
- Explain the room and bed master as necessary

15.5

Tom is discharged from the Brigham after 12 hours of observation care in the ICU at a Medical rate and transferred to the Faulkner. He awakens quickly and since he is neurologically stable on the day after admission, he is discharged to home.

Functionality Demonstrated
- Appropriate room and board charges for the level of care received

Specifications/Considerations
- Automatic posting of correct charge for level of care received, regardless of bed/unit
- Ability to charge a medical observation rate even when the patient is in an ICU bed

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### Master Files Vendor Scenarios
#### Scenario #16 - Provider master

16.1 When he goes online, Tom soon realizes that he can do all sorts of things on the site – **from selecting a clinician** to obtaining educational materials. **He can find information on specific clinics and departments such as their location with a map or directions**, who to contact with questions, and even typical wait times for some areas.

*He has a choice of several ABC Healthcare’ locations where his primary care physician (PCP) has office hours.* By having his tests done prior to his PCP visit, the test results will be available for him and his physician to review online.

**Functionality Demonstrated**
- Explanation of corporate provider master structure
- Provider master maintenance

**Specifications/Considerations**
- Provider master additions, deletions, and changes ability to automatically send standard maintenance transactions to identified clinical and ancillary systems
- Ability to identify a physicians department, service, specialty and entity specific privileges
- Ability to store unique physician identifiers such as NPI #, License #, etc. as well as site specific identifiers (e.g. local IDs) and different payer numbers as required
- Ability to use a single identifier for each physician (Corporate Provider Master #, UPIN, license number, DEA, etc.)
- Ability to store a physician’s office locations and hospitals where they practice
- Ability to store multiple addresses per physician with the ability to identify the ‘type’ of address (e.g. office/administrative address versus practice address) and which address should be the physician primary address for mailings
- Capability to include affiliated physicians with abilities to include or exclude on filters
- Ability to add user defined fields / flags with abilities to include or exclude on filters
- Attributes of Nurse Practitioners, Residents, and Interns (e.g. links to their attending doctor)
- Explanation of whether other clinicians (care providers) are stored in the Provider Master
- Capture anyone who can be a rendering or billing provider

- Need for integration of data to other applications
- Ability to identify (good matching algorithm) and resolve duplicate records
- Ability to serve as a physician credentialing system
- Ability to receive updated information from an external physician credentialing system
- Standard list of all enterprise credentialed physicians and their locations

**Analytics considerations**
- Generate statistics in aggregate (PHS) and entity specific
- NPSR by MD and/or site of service
- Payer mix and service mix by MD and site of service
The scheduler sees that three surgeons are credentialed for the procedure and helps Tom select one. Two primarily practice at MGH and one primarily practices at Newton-Wellesley. He also sees that Tom is scheduled for a consult with another surgeon regarding the skin lesion on his arm. He tells Tom the names and practice locations of the surgical group and asks if Tom has a preference. Tom uses his cell phone to look up the report cards for all three surgeons. There is no difference in their outcomes, so Tom selects a surgeon at MGH because her location and office hours are most convenient for him.

Functionality Demonstrated
- Single, consolidated view of enterprise providers

Specifications/Considerations
- Demonstrate patient service center's view of providers in the enterprise
- Provide an explanation of how the patient service center would assist a new patient in finding an appropriate physician
- Understanding of privileges by entity

Prior to ordering the MRI, Tom's PCP reviewed the scanned notes from his recent medical visit in Iowa. While not originally part of the official ABC Healthcare' medical record, the system automatically flagged these new documents so that Tom's PCP would review them. These documents are an important part of the justification for Tom’s MRI and an important link in the continuity of Tom’s care. The physician sees the test results from Tom’s MRI and that Tom will be seeing another surgeon at MGH regarding the great toe growth.

Both Tom and his PCP receive notice that Tom may be eligible for a clinical trial. The primary investigator is notified about Tom and given the name of his PCP.

The referral will trigger the transfer of Tom’s medical information to the referred specialist and/or the department. Tom’s PCP appreciates that she no longer has to fill out separate forms for referrals, coding or billing since that information is automatically created as a result of her documentation of Tom’s care. She realizes it is far easier to refer Tom within the ABC Healthcare’ system than outside of the system!

Functionality Demonstrated
- Explain the storage of primary care provider and other providers on a patient’s account and on individual patient accounts
- Routing medical information to providers listed on a patient account, a patient account, and/or order

Specifications/Considerations
- Physician identifier information linked to each patient account, both office visits and hospital patient accounts
- Ability to route medical information to appropriate providers stored in the patient account and/or encounter using various modalities of notification (e.g. e-mail, PDA, etc.)
16.4

Upon requesting an OR scheduling slot for the procedure, the surgeon is informed it is covered by Tom’s health plan and an authorization request is sent to his insurer. Tom ends his visit by seeing a scheduler who informs Tom of several available time slots.

Functionality Demonstrated
- Interface capabilities between foreign OR scheduling systems and Physician Credentialing applications

Specifications/Considerations
- Display for the person scheduling the surgery, the available locations, dates, and times where the physician may perform the surgical procedure

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Master Files Vendor Scenarios
Scenario #17 - Payer master

17.1
Provide a general explanation of the payer master.

Functionality Demonstrated
• Payer master
• Payer master set up and maintenance

Specifications/Considerations
• Explain how to establish and maintain a standardized enterprise payer master
• Automatic notification to identified clinical and ancillary systems of payer master additions, deletions, and changes
• Automatic integration of insurance plan information to the patient portal that is easy for patient population to understand and select their particular insurance plans
• Provide a demonstration of tools, key fields (such as employer) to assist the registrars and business office staff in performing searches and selection of the appropriate payer plan for a patient account
• Explain storage of payer plans on a patient’s account and encounters
• Ability to add user defined fields / flags with abilities to include or exclude on filters
• Ability to have a plan for physician only, hospital only, and both
• Explain how the system manages the different payer types for the multiple services
• Mapping the national payer id to the claims and bill forms
• Different provider numbers, entity numbers (if required)
• Explain the payer master’s interaction with the charge master and other dictionaries
• Explain how the system would know that it can’t use a plan code on particular service types
• Fields for provider numbers, group numbers, state reporting indicators, etc.

Analytics considerations
• Standard list of all enterprise payers
• Statistics by entity, service, etc. and in aggregate for ABC Healthcare
• AR by financial class and/or payer being billed (assuming sequential billing)

17.2
When Tom gets online to make his appointment, he updates his employer and insurance information. His eligibility is automatically checked along with his coverage for preventive care, including his deductibles and co pays.

Functionality Demonstrated
• Patients’ selection of plan codes in the patient portal
• ABC Healthcare’ staff selection of plan codes in the administrative system

Specifications/Considerations
• Explain how patients select plan codes from the patient portal enterprise list
• Explain assignment of other indicators (e.g. financial class, patient type, etc.)
• Patient service center, registration and business office staff selection of appropriate insurance plans for patient accounts and encounters
• Workflow assistance tools
17.3
When Tom goes to the lab to have his tests done, he can swipe his MIC (or any credit/debit card with a magnetic strip) at the kiosk, which guides him through a patient registration in the system and prints out his itinerary.

Functionality Demonstrated
• Automatic insurance plan code selection
• Patient type/Financial Class rules

Specifications/Considerations
• Automatic insurance plan code selection from a magnetic strip or a barcode on any of the following types of identification: MIC, credit/debit card, stored insurances on the patient account, encounter, or patient profile

17.4
During Tom’s visit, the doctor also renews a prescription Tom uses occasionally to help him sleep. The drug Tom had been using is not on the formulary of his new health plan. This alert displays for Tom’s physician, and they discuss whether Tom should switch to the best available covered alternative or stay with his current medication but pay out-of-pocket. They decide to go with the formulary medication.

Functionality Demonstrated
• Plan codes must get to the employer and benefit level

Specifications/Considerations
• Explain how plan codes get identified at the employer and benefit level
• HIPAA transaction, codified rule set, is it native to this system or resident in a foreign system with interoperability

Assumptions regarding systems interoperability or integration
• Payer interoperability with administrative system to view detail coverages of a patient’s plan

17.5
The referral will trigger the transfer of Tom’s medical information to the referred specialist and/or the department, and will also automatically submit the administrative referral with the payer.

Functionality Demonstrated
• Distinguish insurance plans that require an administrative referral

Specifications/Considerations
• By service, charge item and /or site of service
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### Automation Vendor Scenarios

**Scenario #18 - Document Imaging**

#### 18.1

Twenty-four hours before his appointment, the system checked Tom’s profile and verified that his insurance and registration information were still accurate.

Many people were involved in the gathering and updating of data required to get Tom’s insurance claims completed and submitted to his insurance carrier. The staff at PHS facilities as well those in the Patient Service Center captured demographic information, updated insurance information, obtained the required pre-authorizations, and may have assisted in completing the ABN and MSP forms.

**Functionality Demonstrated**
- Explain various capture processes for document management system

**Specifications/Considerations**
- Workflow functionality
- Store, archive, and retrieve images of EDI outputs and responses
- Explain requirements to convert existing and/or new inventory
- Availability to view and store with date specificity
- Direct faxing forms into imaging system
- Remote capture capability
- Explanation of indexing of images
- Explanation of file maintenance, set up, purge process
- Explanation of security system hierarchy, in compliance with HIPAA privacy standards
- "Document type" level of security
- Online Character Recognition (OCR), Intelligent Character Recognition (ICR), bar coding or other text capabilities
- Reports demonstration, including both standard and ad hoc

#### 18.2

The check-out representative advises Tom that since he has not yet met his deductible for the year, he will be responsible for $240.00 for the MRI and for a co-pay for the dermatologist visit. This financial information is displayed on a screen for Tom to see while the check-out representative explains it to him. **He electronically signs that he understands his obligations.**

Tom is seen by a nurse who ensures that Tom has complied with the pre-op instructions. Together, they review the consent form that Tom had a chance to read at home, and **Tom signs the form on the electronic notepad.**

**Functionality Demonstrated**
- Electronic signatures

**Specifications/Considerations**
- Explain how electronic signatures are captured, stored and retrieved with appropriate forms, etc.

#### 18.3

Prior to ordering the MRI, Tom’s PCP reviewed the scanned notes from his recent medical visit in Iowa. While not originally part of the official ABC Healthcare medical record, the system automatically flagged these new documents so that Tom’s PCP would review them. **These documents are an important part of the justification for Tom’s MRI and an important link in the continuity of Tom’s care.** Once Tom’s physician documents that these scanned images have been reviewed, they are accepted as part of Tom’s ABC Healthcare’ medical record.

**Functionality Demonstrated**
### Specifications/Considerations
- Ability to view all relevant imaged detail for the selected account including documents that can be used to justify care
- Inter-operability with clinical systems and electronic health record

### 18.4
*Tom’s identity is verified with a biometric identifier before he is escorted to the treatment room. The system displays a photograph of Tom as well, and his ABC Healthcare Common Identifier Number (which is also his Medical Record Number) so that his identity can easily be confirmed by clinical staff.*

**Functionality Demonstrated**
- Store, index, retrieve photo images

**Specifications/Considerations**
- Standardization of photo images
- Biometric images
- Search and match capability

### 18.5
*After listening to Tom’s fears about his health and assuring him that he has adequate insurance coverage, he recommends that Tom should designate a health care proxy and complete a living will. All this information will be kept in the appropriate place on the ABC Healthcare’s Patient Profile.*

**Functionality Demonstrated**
- Storage, retrieval, acceptance of new items and updates on the patient web portal

### 18.6
*Care Coordination is a key group of clinically oriented individuals located within each ABC Healthcare entity. They perform many different services for patients behind the scenes including working with payers for clinical authorizations, length of stay determinations, reaching agreement on level of care (e.g. ICU versus Med/Surg or Observation versus Inpatient) and also initiate clinical appeals with payers on payment issues related to these activities.*

**Functionality Demonstrated**
- Ability to add, index, retrieve, attach clinical related documents to the appropriate patient account

**Specifications/Considerations**
- Clinical notes, other documentation
- Mass Health application stored with supporting documentation
By accessing his ABC Healthcare’ account via the ABC Healthcare’ portal, Tom can view his account summary which indicates clearly each time a claim was produced and transmitted to his insurance carrier by each of his PHS providers. In cases where a payment was made by the insurance, he is able to view the payment amounts, dates, and other important information including detail charges and a ABC Healthcare’-defined image of the payer’s EOB. He can also see payments that he has made and identify which were made with his credit card, debit card, and HSA.

**Functionality Demonstrated**
- Enterprise wide imaging
- Access to images

**Specifications/Considerations**
- Ability to view all relevant imaged detail for the selected account
- The staff should be able to review the same information as the patient
- The information should be viewable using multiple modalities including the patient portal and the administrative system
- Explain capabilities to interpret raw data into a user friendly format? (e.g. templates for scanning checks, paper remittances, etc.)
- Clinical copies sent to payers

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<td>Onsite – full service</td>
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<tr>
<td>X Hospital inpatient</td>
<td>Patient Service Center</td>
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<tr>
<td>X Emergency department</td>
<td>Kiosks</td>
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<tr>
<td>X Ancillary services</td>
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<tr>
<td>X Mental Health</td>
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<td>X Nursing Homes</td>
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<td>X Home health</td>
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<tr>
<td>X Rehab inpatient</td>
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<tr>
<td>X Rehab outpatient</td>
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<tr>
<td>X Clinical trials and research</td>
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<tr>
<td>X Corporate / institutional billing</td>
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<tr>
<td>X Packaged services</td>
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</table>
# Appendix A: Vendor Demonstration Agenda

<table>
<thead>
<tr>
<th>Day 1</th>
<th>What's Included?</th>
<th>Day 1 - Track 2</th>
<th>What's Included?</th>
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<tbody>
<tr>
<td>9:00 - 9:30</td>
<td>Marketing Introduction to Scenarios</td>
<td></td>
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<tr>
<td>9:30 - 10:30</td>
<td>Access Scenarios: 1 - Account structure, patient profile, insurance processing and eligibility</td>
<td>Access Scenarios: 1 - Account structure, EMPI, insurance processing and eligibility</td>
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<tr>
<td>10:30 - 10:45</td>
<td>Break</td>
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<tr>
<td>12:15 - 1:00</td>
<td>Lunch</td>
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<tr>
<td>1:00 - 3:00</td>
<td>Access Scenarios: 4 - Inpatient, Rehab, Home Health 5 - ED, Inpatient, Outpatient Therapy</td>
<td>Access Scenarios: 4 - Inpatient, Rehab, Home Health 5 - ED, Inpatient, Outpatient Therapy</td>
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<tr>
<td>3:00 - 3:15</td>
<td>Break</td>
<td>Break</td>
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<tr>
<td>4:15 - 5:00</td>
<td>Master File Scenarios: 16 - Provider Master</td>
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<tr>
<td>5:00 - 5:30</td>
<td>Vendor debrief</td>
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<table>
<thead>
<tr>
<th>Day 2</th>
<th>What's Included?</th>
<th>Day 2 - Track 2</th>
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<tr>
<td>8:30 - 9:00</td>
<td>Marketing Introduction to Scenarios</td>
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<td>9:00 - 10:15</td>
<td>Integration Scenarios: 15 - Charge Master</td>
<td>Integration Scenarios: 15 - Charge Master</td>
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<td>10:15 - 10:30</td>
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<tr>
<td>10:30 - 11:30</td>
<td>Integration Scenarios: 11 - Charge Capture, Coding</td>
<td>Integration Scenarios: 11 - Charge Capture, Coding</td>
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<td>12:15 - 1:00</td>
<td>Lunch</td>
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<td>1:00 - 2:45</td>
<td>Patient Accounting Scenarios: 7 - Insurance processing, Claim production &amp; submission</td>
<td>Patient Accounting Scenarios: 7 - Insurance processing, Claim production &amp; submission</td>
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<tr>
<td>2:45 - 3:00</td>
<td>Break</td>
<td>Break</td>
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<tr>
<td>3:00 - 5:00</td>
<td>Patient Accounting Scenarios: 8 - Insurance follow-up, online account summary, statements</td>
<td>Patient Accounting Scenarios: 8 - Insurance follow-up, online account summary, statements</td>
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<tr>
<td>5:00 - 5:30</td>
<td>Vendor debrief</td>
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<th>Day 3</th>
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<th>Day 3 - Track 2</th>
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<tr>
<td>8:30 - 10:30</td>
<td>Track I: Patient Accounting Scenarios: 9 - Cash posting and reconciliation, adjustments, bad debt</td>
<td>8:30 - 9:00 Marketing Introduction to Scenarios</td>
</tr>
<tr>
<td>10:30 - 10:45</td>
<td>Break</td>
<td>9:00 - 10:30 Track II: Analytics Scenarios: 13 - Contract modeling &amp; performance</td>
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<tr>
<td>10:45 - 12:15</td>
<td>Track I: Patient Accounting Scenarios: 6 - Packaged services, clinical trials, transplants, inter-institutional billing</td>
<td>10:45 - 12:15 Track II: Analytics Scenarios: 14 - Revenue analysis</td>
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<td>12:15 - 1:00</td>
<td>Vendor debrief</td>
<td>12:15 - 1:00</td>
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Appendix B: Functionality/Venue Matrix

Please complete this matrix and return to Donna Lawton, via email to dlawton@ABC Healthcare.org, no later than five (5) business days prior to your first demonstration date. Please fill in the matrix stipulating the currency of the software modules proposed for each functionality/venue combination. Use the following software release coding scheme when completing the matrix:

- B Beta
- C Current
- N Next
- F Future
<table>
<thead>
<tr>
<th>Scenario</th>
<th>Acute</th>
<th>Physician Services 1</th>
<th>Sub-acute 2</th>
<th>Psychiatric</th>
<th>Rehab</th>
<th>Home Health</th>
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<tbody>
<tr>
<td><strong>Account structure, patient profile, insurance processing</strong></td>
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<td>1.1 EMPI</td>
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<td>1.2 Partners patient profile</td>
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<td>1.3 Insurance capture and processing</td>
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<td>1.4 Insurance eligibility and response transactions</td>
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<td><strong>Scheduling, encounters at ancillary and physician office</strong></td>
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<td>2.1 Scheduling ancillary tests and appointments (online and telephone) for the enterprise</td>
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<td>2.2 Tools and processes to support the functions performed by the Patient Service Center (i.e. scheduling, pre-registration, insurance verification, administrative referrals, establishment of payment plans, tools for financial counseling)</td>
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<td>Check-in process support of full service mode for enterprise patient index search</td>
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<td>Check-in process support of full service mode for patient authentication and security</td>
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<td>Check-in process support of full service mode for data validation</td>
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<td>Check-in process support of full service mode for appointment arrival and patient tracking</td>
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<td>Check-in process support of full service mode for co-payment collection tools</td>
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<td>Check-in process support of full service mode for stored payment types (e.g. credit, debit, health savings, etc.)</td>
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<td>Check-in process support of full service mode for display of amount owed from prior accounts with multiple payment options</td>
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<td>Check-in process support of full service mode for online forms and forms library (e.g. privacy notification form, other forms, etc.)</td>
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<td>Check-in process support of self-service mode for patient authentication and security</td>
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<td>Check-in process support of self-service mode for data validation</td>
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<td>Check-in process support of self-service mode for appointment arrival and patient tracking</td>
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<td>Check-in process support of self-service mode for co-payment collection tools</td>
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<td>Check-in process support of self-service mode of stored payment types (e.g. credit, debit, health savings, etc.)</td>
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<td>Check-in process support of self-service mode for display of amount owed from prior accounts with multiple payment options</td>
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<td>Check-in process support of self-service mode for online forms and forms library (e.g. privacy notification form, other forms, etc.)</td>
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<td>Check-in process support of self-service mode for electronic signature</td>
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<td>2.4 Ability to provide real time order entry feedback to physicians</td>
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<td>2.5 Tools to support the referral management process</td>
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<td>2.6 Tools to support the check out process</td>
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<td>2.7 Appointment notifications, reminders, re-scheduling</td>
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</table>

Version: B - Beta / C - Current / N - Next / F - Future

1 Physician services (office, inpatient rounding, surgeries, readings / interpretations, etc)
2 Sub-acute (SNFs, Nursing Homes, Stepdown units, etc.)
<table>
<thead>
<tr>
<th>Scenario</th>
<th>Acute</th>
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<th>Psychiatric</th>
<th>Rehab</th>
<th>Home Health</th>
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<td>Kiosk check in</td>
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<td>3.2</td>
<td>Kiosk patient authentication</td>
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<td>Kiosk registration</td>
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<td>3.4</td>
<td>Pre-procedure instructions sent to patients</td>
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<td>3.5</td>
<td>Filtering for appropriate specialty across the enterprise</td>
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<td>3.6</td>
<td>Enterprise provider master</td>
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<td>3.7</td>
<td>Payer interoperability to obtain necessary clinical authorizations and identify health plan coverages</td>
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<td>3.8</td>
<td>Tools to assist with prior authorization / referral at the charge item level by insurance plan code</td>
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<td>4.1</td>
<td>Proactive notification / messaging to departments</td>
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<td>4.2</td>
<td>Patient convenience notifications about schedule status</td>
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<td>4.3</td>
<td>Patient location tracking</td>
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<td>4.4</td>
<td>Cancelled surgical procedure workflow</td>
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<td>4.5</td>
<td>Tools to support sub-acute care referral process</td>
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<td>Trauma patient identification</td>
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<td>Flagging certain types of accounts and encounters</td>
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<td>5.3</td>
<td>Bed management, enterprise bed management process</td>
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<td>5.4</td>
<td>Bed management infection, isolation flags</td>
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<td>5.5</td>
<td>Bed management acuity flags and ability to evaluate nurse / staff requirements</td>
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<td>5.6</td>
<td>Bed management appropriate level of care assignment</td>
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<td>5.7</td>
<td>Bed management queue, status, prioritization of patients waiting for a bed</td>
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<td>5.8</td>
<td>Bed management pre-determined selection criteria for correct bed at correct facility</td>
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<td>5.9</td>
<td>Bed management bed and unit transfers</td>
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<td>5.10</td>
<td>Patient status changes</td>
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<td>5.11</td>
<td>Tools to support outpatient therapy treatment authorization process</td>
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<td>5.12</td>
<td>Counting down authorized outpatient visits and automated prompt to refresh authorization</td>
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<td>6.1</td>
<td>Ability to bill OB charges separately from other GYN charges when they occur on the same day or within the global/reimbursement period</td>
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<td>6.2</td>
<td>Ability to identify certain charges that can be billed, while holding other charges for global billing</td>
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<td>6.3</td>
<td>Enterprise recognition of patients participating in clinical trials</td>
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<td>6.4</td>
<td>Correct direction of the charges to the appropriate responsible party</td>
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<td>6.5</td>
<td>Change charge level data on the encounter to and from the clinical trial’s responsibility</td>
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<td>6.6</td>
<td>Move charges on the encounter to and from the clinical trial</td>
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<td>6.7</td>
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<td>6.8</td>
<td>Inter-institution billing</td>
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<tbody>
<tr>
<td><strong>Insurance processing, claim production and submission</strong></td>
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<tr>
<td>7.1 Scrubbing patient account/encounter data and claims for professional and facility</td>
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<td>7.2 Insurance capture and processing for professional and facility</td>
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<td>7.3 Claims production for all venues and types of claims</td>
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<td>7.4 Claims transmission, acknowledgement, re-submission for all venues</td>
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<td><strong>Insurance follow-up, online account summary, statements</strong></td>
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<td>8.1 Unsolicited claim status response</td>
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<td>8.2 Work queues</td>
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<td>8.3 Denial management tools for workflow assistance and reporting</td>
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<td>8.4 Clinical appeals</td>
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<td>8.5 Online view of a consolidated enterprise statement</td>
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<td>8.6 Patient statements</td>
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<td><strong>Cash application and reconciliation</strong></td>
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<td>9.1 Multiple modes for patients to make payments</td>
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<td>9.6 Posting payments from patients via debit card, credit card, or health savings account</td>
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<td>Charge capture, coding</td>
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<td>11.2 Automated coding from clinical documentation</td>
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<td>13.3 Modeling capabilities, including trend analysis</td>
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<td>16.2 Single, consolidated view of enterprise providers</td>
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<td>17.3 Patients’ selection of plan codes in the patient portal</td>
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<td>17.4 Partners staff selection of plan codes in the administrative system</td>
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<td>17.5 Automatic insurance plan code selection from MIC, credit/debit card, or stored insurances from account</td>
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<td>17.6 Plan codes at the employer and benefit level</td>
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<td>17.7 Distinguish insurance plans that require an administrative referral</td>
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<td>18.1 Availability of various capture processes for document management system</td>
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<td>18.4 Integration to foreign electronic health record</td>
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<td>18.5 Store, index, retrieve photo images</td>
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<td>18.6 Storage and retrieval, acceptance of new items and updates on the patient web portal</td>
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<td>18.8 Availability of user-defined templates for scanning various documents (e.g. checks, remittances, etc.)</td>
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