South Nassau
COMMUNITIES HOSPITAL

Computer Assisted Coding
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Goals and Objectives

- To share South Nassau's experience with implementing a Computer Assisted Coding solution
- To provide areas of focus when investigating and selecting a product
- Lesson learned
- CAC Benefits

A little bit about us

- 455 acute care beds
- Service Include:

Internal Medicine	Family Medicine
OB/GYN	Genetic Counseling
Behavioral Health	Pediatrics
Pediatric Cardiology	Pediatric Gastroenterology
Cardiology	Interventional Cardiology
Oncology	Urogynecology
Orthopedics	Neurosurgery
Maternal Fetal Medicine	Radiation Oncology
Dialysis	Wound care
Sleep Medicine	Trauma and 2 Emergency Rooms
Imaging	Cardiovascular
TCU-Transitional Care Unit	

HIM Department

Staffed 42 employees

- CDI
- Inpatient and Outpatient Coding include some professional billing coding
- Birth Registry
- Patient Portal Enrollment and Management
- Scanning
- Release of Information
- Regulatory Documentation Monitoring and Reporting
- EMR Downtime support
- Documentation Management
- SPARCS Reporting

Application Used Prior to CAC Implementation

- META PowerAbstract: CDI
- 3M HDM: Coding
- Allscripts Sunrise Clinical Manager
- META Powersign with interface from transcription vendor
- PWC SMART: coding auditing

Why Computer Assisted Coding

- CDI and Coding were on two different platforms
- ICD-10 preparation
  - EMR implementation relatively new at the time; the medical record didn't read like a book.
  - Staffing concerns
    - Reduction in productivity
      - Staff was coding 10 charts a day on a good day. What would the productivity be after ICD-10?
  - DNFB (Discharge Not Final Billed)
    - Bad times: $25 million with 1000 cases not coded.
    - What impact would this have on cash flow?

Project

- **Budget/Investigation of Application Questions**
  - What are your current platforms for coding and CDI?
    - Are you happy with the current platforms?
    - When is your contract up for renewal?
    - Are you prepared to implement a brand new system?
  - What is your expected timeline for implementation?
  - How much of your medical record is electronic?
    - Scanned?
    - Originated in the EMR?
  - IT Support
    - Do you have a project management team?
    - Do you have someone within your organization that builds interface?
  - Equipment
    - How old is your equipment?

Project

- **Budget/Investigation of Application Questions**
  SNCH Answers to Questions below
  - What are your current platforms for coding and CDI?

    Coding and CDI were completely different platforms which didn't speak to each other
    - Are you happy with the current platforms? ***Coding platform***
    - When is your contract up for renewal? **In the middle**
    - Are you prepared to implement a brand new system? ***No***
  - What is your expected timeline for implementation? ***Goal was to implemented prior to ICD-10***
  - How much of your medical record is electronic? ***More than 95%***

    Important documents needed for coding were in EMR

    At the time we didn't have a scanning solution
    - Scanned?
    - Originated in the EMR?

Project

- IT Support
  - Do you have a project management team?

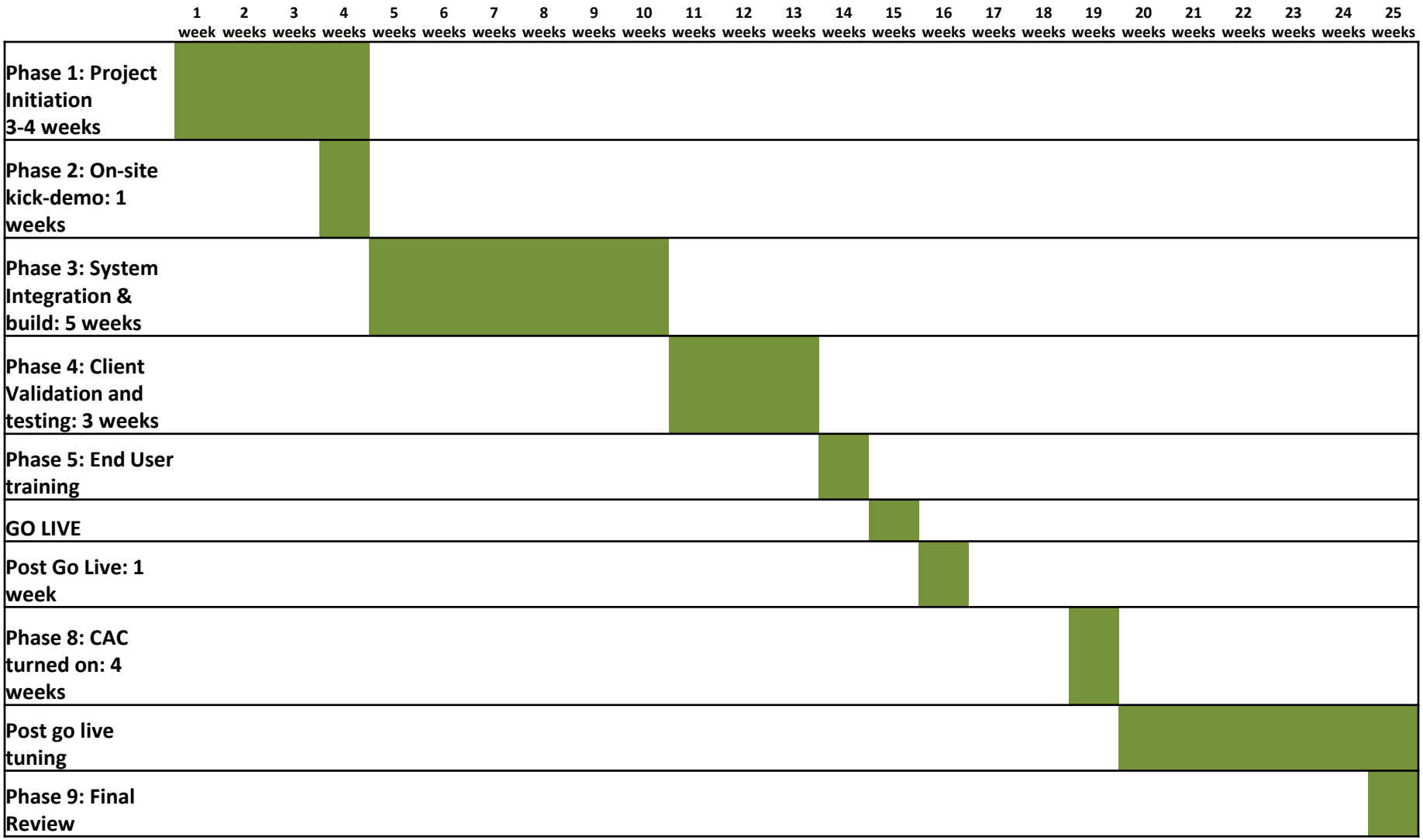
  No we had to contract services out

  - Do you have someone within your organization that builds interface? ***No***
- Equipment
  - How old is your equipment? ***Old and needed to be replaced***

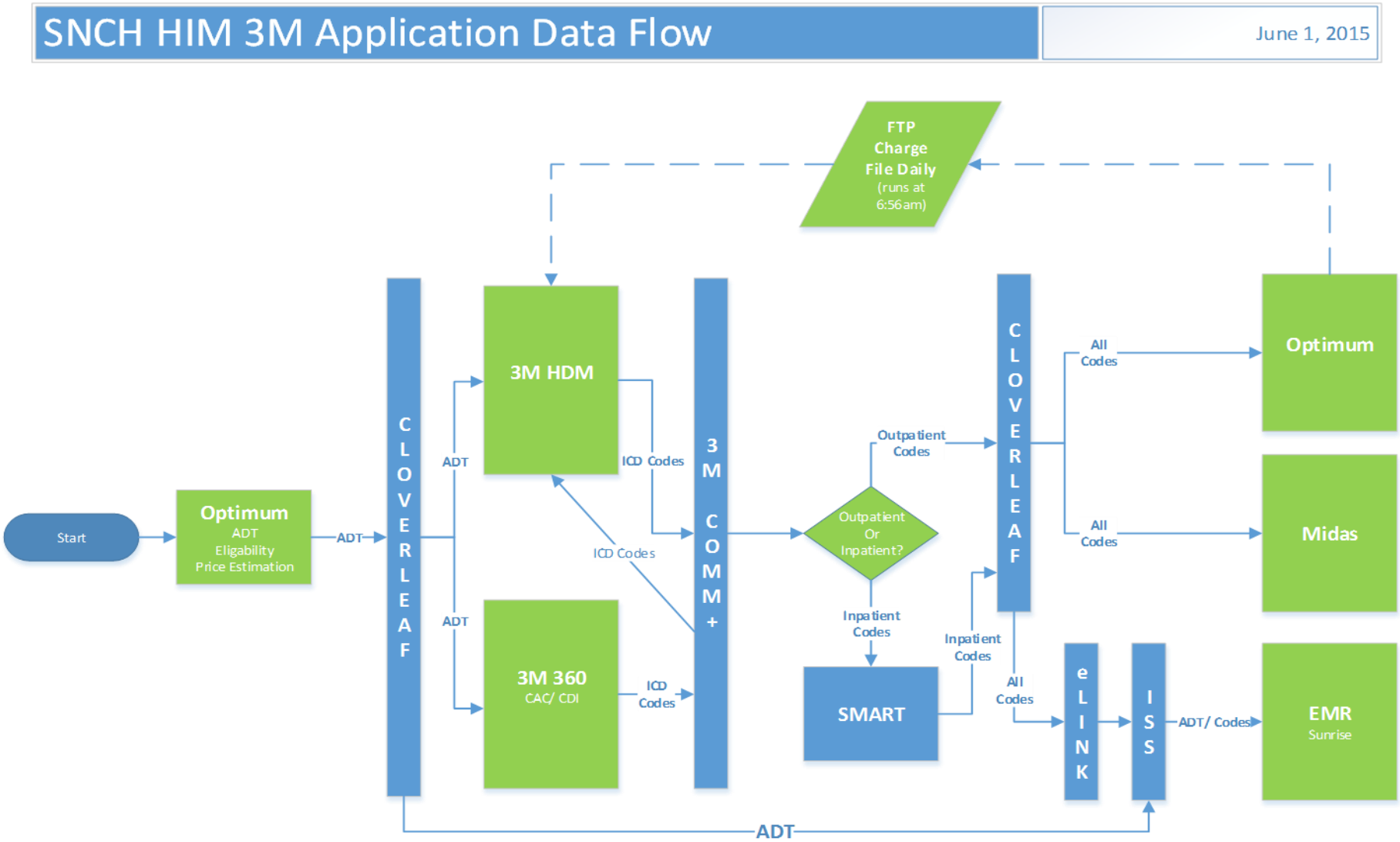
Our story and lessons learned

- Our objective was to pull together the CDI and coding workflow
- Provide a tool for staff to utilize after ICD-10 implementation
- Our IT department was small so many services needed to contracted out to a third party
- In the middle of the project we realized not enough equipment was order to the vendor required specifications which delayed the project
- SNCH requested implementation to be completed within 6 months; actual timeline was 1 year

Timeline

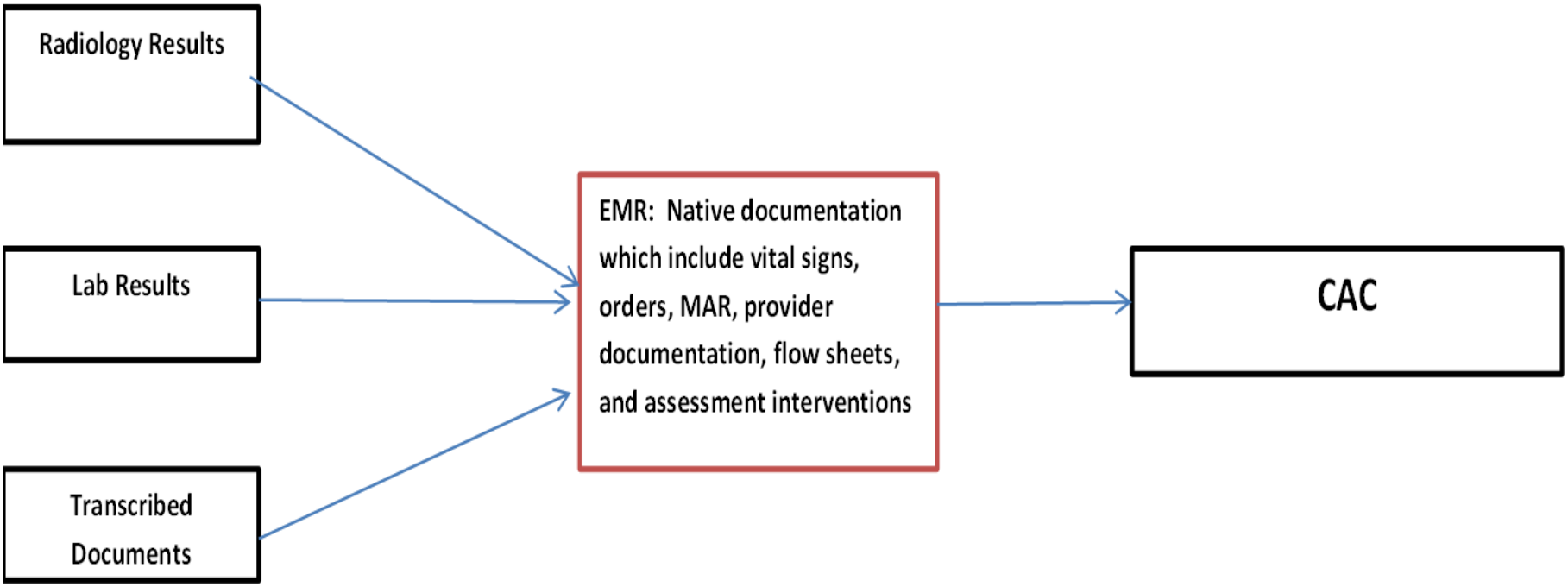

1 week
2 weeks
3 weeks
4 weeks
5 weeks
6 weeks
7 weeks
8 weeks
9 weeks
10 weeks
11 weeks
12 weeks
13 weeks
14 weeks
15 weeks
16 weeks
17 weeks
18 weeks
19 weeks
20 weeks
21 weeks
22 weeks
23 weeks
24 weeks
25 weeks
Phase 1: Project Initiation 3-4 weeks
Phase 2: On-site kick-demo: 1 weeks
Phase 3: System Integration & build: 5 weeks
Phase 4: Client Validation and testing: 3 weeks
Phase 5: End User training
GO LIVE
Post Go Live: 1 week
Phase 8: CAC turned on: 4 weeks
Post go live tuning
Phase 9: Final Review

3M Application Flow Chart



3M Application Flow Chart

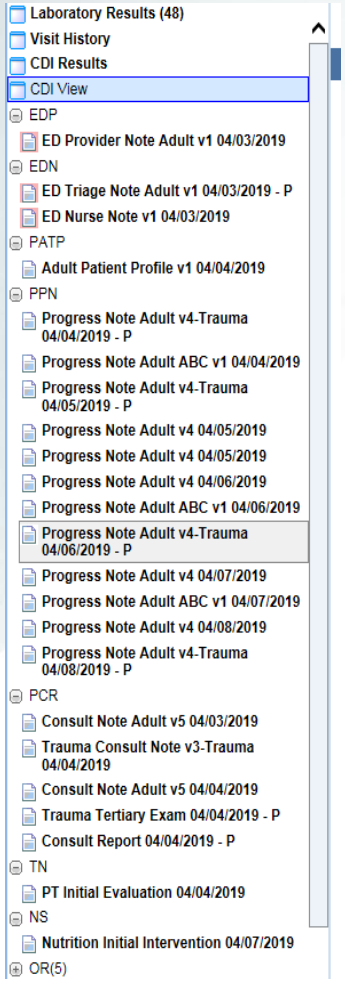
- CAC data flow
  - Results and documentation in EMR flow thru Ensemble interface into CAC



Design and Development

- What document do you need interface into the CAC application?
- Coding leadership team will need to identify all the documents that are important for complete coding
- What types of HL7 messages can the application accept and can your EMR accommodate the messages?
- After implementation, how will new documents or changes be made to the system?
- Scanned forms might require a separate interface into the CAC system

Sample View

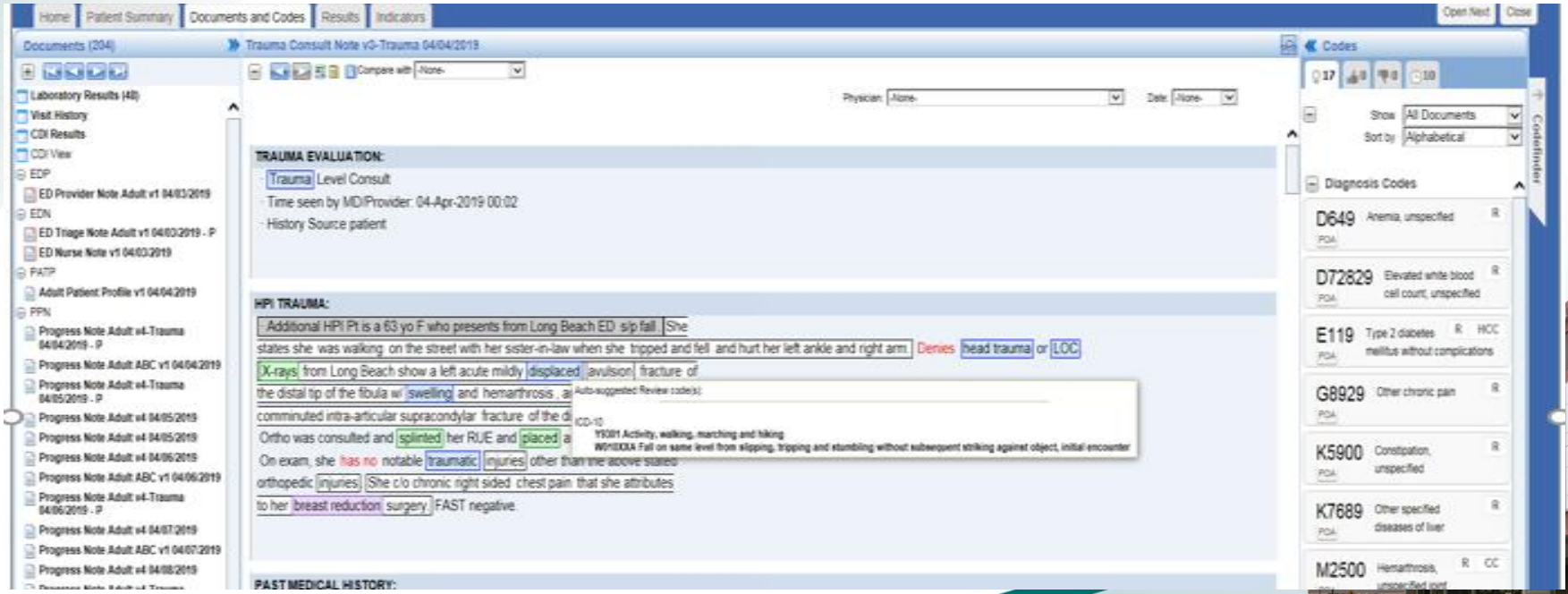


Each document is assigned to a folder and the specific coding guidelines are linked to the folder. i.e physician documentation vs nursing

Sample View

· Additional HPI Pt is a 63 yo F who presents from Long Beach ED s/p fall . She
states she was walking on the street with her sister-in-law when she tripped and fell and hurt her left ankle and right arm. Denies head trauma or LOC.
X-rays from Long Beach show a left acute mildly displaced avulsion fracture of
the distal tip of the fibula w/ swelling and hemarthrosis , and an acute
comminuted intra-articular supracondylar fracture of the distal right humerus.
Ortho was consulted and splinted her RUE and placed an air cast on her L ankle.
On exam, she has no notable traumatic injuries other than the above stated
orthopedic injuries. She c/o chronic right sided chest pain that she attributes
to her breast reduction surgery. FAST negative.

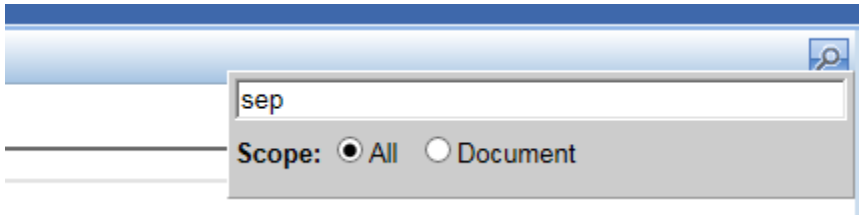
- If the staff hovers over the word string, codes will appear

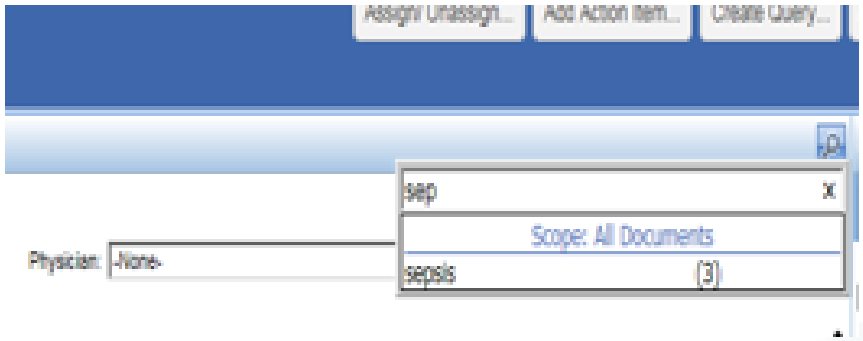


Sample View

Diagnosis Codes

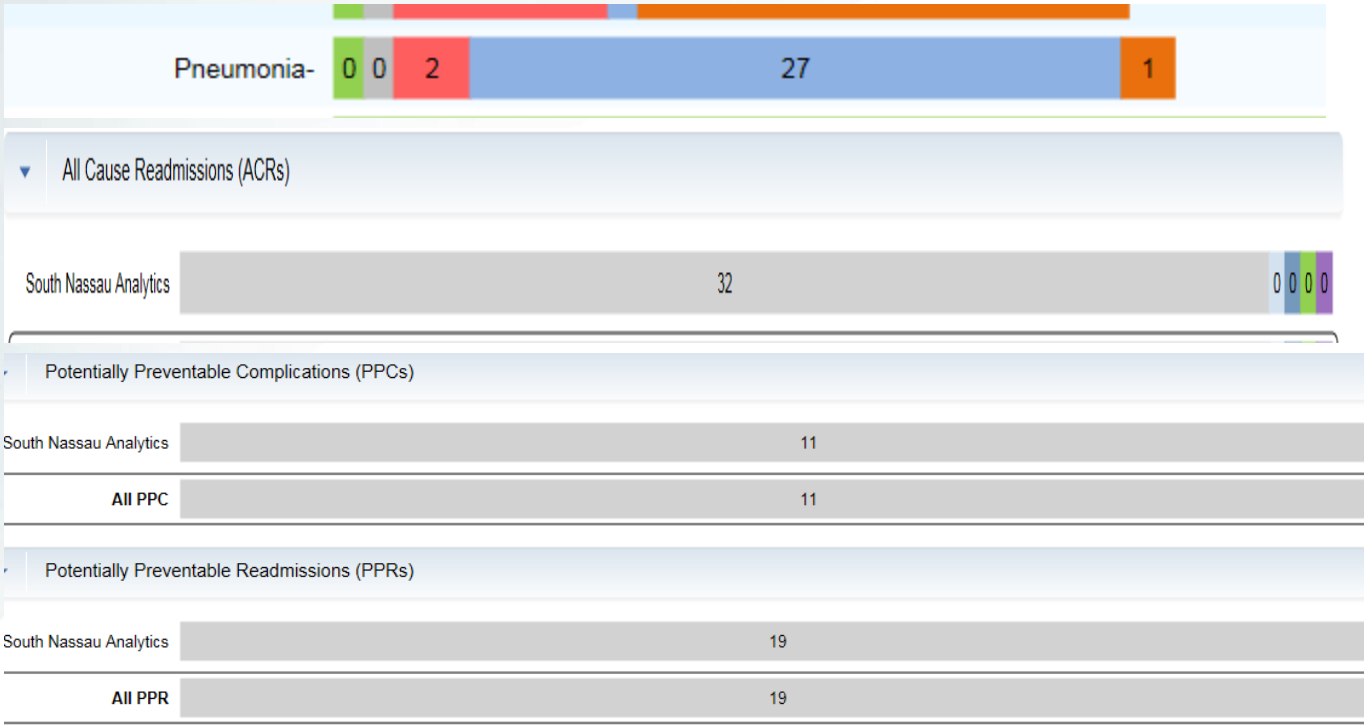
D649 POA	Anemia, unspecified	R	
D72829 POA	Elevated white blood cell count, unspecified	R	
E119 POA	Type 2 diabetes mellitus without complications	R	HCC
G8929 POA	Other chronic pain	R	
K5900 POA	Constipation, unspecified	R	
K7689 POA	Other specified diseases of liver	R	
M2500 POA	Hemarthrosis, unspecified joint	R	CC
S42411A POA	Displaced simple supracondylar fracture without intercondylar fracture of right humerus, initial encounter for closed fracture	R	CC
S42493A POA	Other displaced fracture of lower end of unspecified humerus, initial encounter for closed fracture	R	CC
S82832A POA	Other fracture of upper and lower end of left fibula, initial encounter for closed fracture	R	





Good tool for copy/ paste auditing

Sample View



In addition to coding, what other departments are able to utilize the system?

Testing and Staff Training

- Identify super users to test the system
  - System will need to be tested every time a new document is created in the EMR
  - System patches and regulatory updates: how often will this occur
    - Is there a downtime and for how long?
- Utilize the staff testing during the training

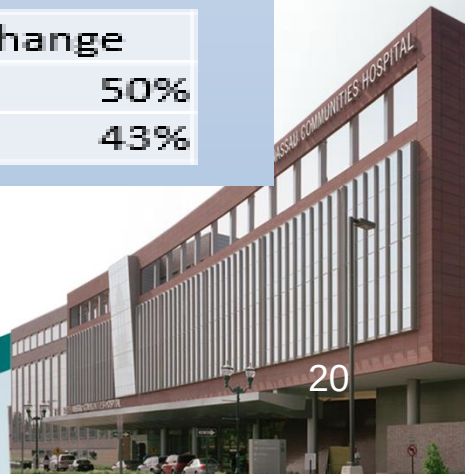
Go live and Measuring Success

Measuring Success

Coders	Before	After	% of Change
Coder A	17	18	5%
Coder B	15	15	0
Coder C	13	15	13%
Coder D	16	23	30%

Initial Reviews	Before	After	% of Change
CDI Specialist A	7	14	50%
CDI Specialist B	8	14	43%

ICD-9 codes



Go live and Measuring Success

- Post ICD-10
  - Coder's productivity: 15 charts on average
  - CDI: 10 Initial reviews

Reports

- Case Mix: working and post discharge
  - Helpful for CMI prediction and analysis
- Working and Final DRG Listing
- Review Activity
  - Measures query agreement rates
  - Measures query TAT for answering
- Provider Queries
- Query Impact
  - Identifies the financial impact of every query generated
- Autosuggest codes precision
  - How well the system is autosuggesting the codes
- Autosuggest codes entry method
  - Which method the coders are utilizing for code assignment
- Coder/CDI Productivity

Current Applications

- 3M 360: CDI and Coding
- Allscripts: Sunrise Clinical Manager
- Allscripts: Ambulatory
- Iprocedures: Anesthesia documentation
- Allscripts: Sunrise Surgical
- Allscripts: Careport: utilized by Case management

Current Applications-continues

- Hyland onbase: scanning solution
- Xsolis: Case Management uses for medical necessity- assigns wellness score based on documentation from EMR
  - HIM is using predictor DRG

Current workflow

Patient Admitted and provider starts documenting in the EMR → Documentation is interfaced into 3M 360 and Xsolis → CDI or Concurrent Coder reviews the documentation in 3M 360 and then checks Xsolis for predictive DRG

↓

The coder can accept the codes assigned by CDI/ concurrent coder or code the case themself ← Provider responds to the query and the patient is discharged ← Coder will select the best DRG that represents the current state of the patient. If Xsolis doesn't display a predictive DRG then the case is reviewed by CDI and queried

↓

If the DRG assignment doesn't match the CDI DRG, the coder must give a reason why. → After DRG is finalized, the case follows the billing process

Maintenance

- Forms/EMR Committee
  - Meets once a month to review new or revised documentation requests
  - If approved the request is made by HIM via change control request
  - Prioritization Committee reviews all requests and assigns build priority for EMR team
- Documentation is built in the EMR and tested in the CAC system prior to going live for end user
- Updates and patches are pushed out monthly
  - Downtime is usually again 5 hours because the system must be backed-up

Thank you

Questions or assistance

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