



**STANFORD**

HOSPITAL & CLINICS

*Stanford University Medical Center*

# Electronic Charge Capture

IT – Revenue Cycle Systems

EWRUG Presentation

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# Objectives

- Background
- Scope
- Benefits
- Challenges
- Implementation Plan

# Background

- It is estimated that any given organization is losing approximately 15% of professional revenue on an annual basis due to missing or lost charges.
- Average Lag Days were too high
- Processes were manual and too laborious
- SHC has the ability to leverage the existing technology to begin moving the organization into the current day and age methods of charge capture.
- Providers were interested in leveraging technology

# Project Baselines-

- Annual charges at \$77 million
- Annual code volume at 187 thousand
- Daily card volume at 250
- Average number of providers per patient at 2.4
- Average Charge lag for IP visits at 19 days
- Average Charge lag for ED Medicine 32 days

# Project Scope

- 2010 Project ED Charge Capture
  - This project transitioned charge capture and coding and charge reconciliation from paper to electronic.
- 2013 Project In Patient Charge Capture
  - The purpose of this project is to transition the charge capture method from paper to electronic for the following types of services:
    - In-patient rounds
      - Admission, Discharges, IP Consults, Subsequent Care, Critical Care
      - Bedside procedures
    - Out-patient rounds (ED, ASC)
      - Consults, Subsequent Care, Observation
    - ED Services (Non ED Physicians)
      - Emergency Room Visits
      - CDU Services

# Preparation

- Obtained “key” physician leadership
- Consulted with Epic on best charge capture solutions and methods
- Consulted with other teaching organizations using an electronic charge capture method
- Interviewed and shadowed SHC Providers and Billing Staff and management on current workflows, opportunities and pain points
- Reviewed all existing Rounding cards for most common CPT codes, including bedside procedures
- Collected Key Performance Indicator Baselines for project measurement & tracking

# Design Challenges

## Hospital Charge Capture

- Finding a design that was not too “clunky” for providers to use
- Auto appending of Department, POS and Bill Area
- Keeping the # of charge sessions worked by billing staff and # of claims sent to carriers at a minimum (Each charge captured electronically = 1 charge session/1 claim vs. 1 charge ticket with 7 DOS = 1 charge session/1 claim)
- Deciphering Impact to existing preference lists in use

## ED Charge Capture

- Reconciliation Reporting for ED
- Auto appending the bill areas ( 4 scenarios)

# IP Navigator Build

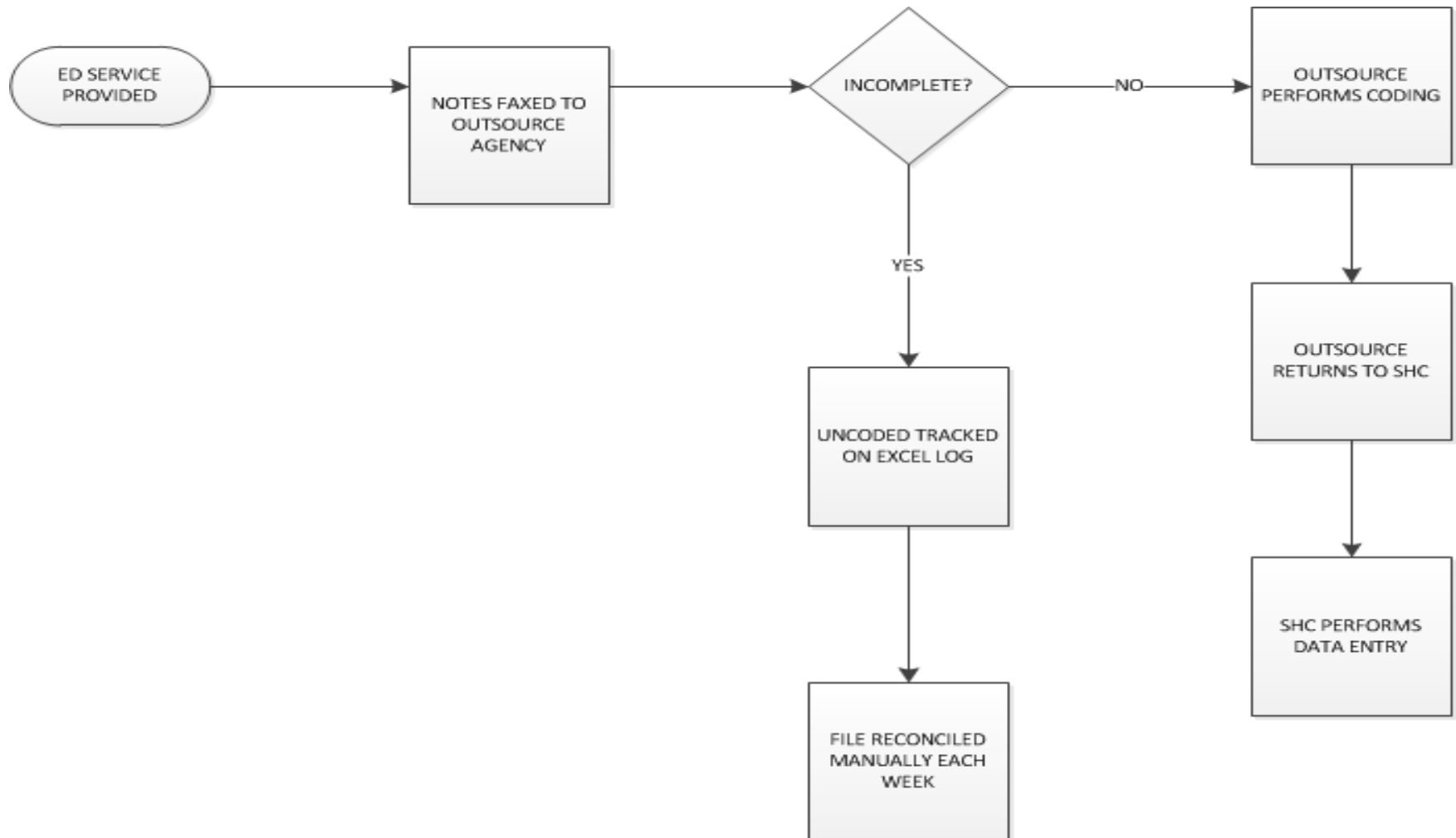
1. Preference List Design
  - Codes & Code Categories (IP, EST, Consults, Bedside procedures)
  - Tailored Default Charge Capture Screen
2. In-Basket
  - Created a “Jump To” labeled “Charge Capture” to take the provider from the IB to the charge capture screen
3. Summary of “My Charges” (reconciliation report)
4. Facility Level Profile Rules
  - Built a IP Preference list Override rule (access)
    - = list of providers (to be removed after pilot)
    - = patient class of IP, Observation, ED
    - = discharge date is less than 90 days
5. Department Profile Build
  - Removed existing preference list overrides
6. Charge Router Build
  - Built a rule a component grouper to group Default Revenue Location
  - Built a rule to swap Default Revenue Location for a Valid DEP
  - Built a rule to auto populate the POS based on patient Status (IP/OP/ED)
  - Built a “5 day Hold” rule to collect and combine charges into one charge session



# Charge Navigator Highlights

- ED Medicine Navigator
  - Coder can access work list & charge entry tool from the In-Basket
  - Coders can code from Chart
- IP Charge Navigator
  - Easy to use
  - Charge Capture button can be accessed from the chart notes
  - One stop for CPT and DXS coding
  - My Charge Summary Report for Charge Capture review.

# Old ED Workflow



# New Workflow - ED Medicine

- Provider Documents Service
- Encounter routed to In-basket upon Admit or Discharge status
- Coder access In-Basket ED Coder pool
- Coder Reviews work list
- Chart is coded
- Charges are entered
- Charges routed to ED Biller WQ (for edits only)
- Charges routed to A/R
- Charges reconciled via ED Reconciliation Report

# ED Charge Capture - In Basket

**In Basket**

New Msg Patient Msg Refresh Edit Pools Settings Search Attach Out Properties Reply Forward Mark As

**ED PB Coders (35)** ED PB Coders 35 unread, 46 total Sort & Filter

Done EDCC Responsible

Status	Patient	Arr. Date	Arr. Ti...	ED Attending	RTN Reason	Responsible	Incomplete Note
Read	Gautham, Test [27667260]	07/31/2013	0551				
New	Kaveri, Test [27667302]	07/31/2013	0623				
New	Test, Graham [27667229]	07/29/2013	1504				
Pend	Thirtyninee, Tangor [27666346]	07/17/2013	0355				
Read	Purple, Goofy [27660976]	07/09/2013	1500				
Read	Test, PORTVAL [27665843]	07/03/2013	1456				
Pend	Fiftyfour, Xrayq [27664192]	07/02/2013	1229	BROWN, I			
Read	Doo, Scooby [27661875]	06/28/2013	1345	BROWN, I			
New	Foure, Foxtrotr [27664523]	06/19/2013	1458	BROWN, I			
New	Test, Chris [27658475]	06/11/2013	1234	BROWN, I			
New	Purple, Pluto [27663541]	06/10/2013	1119				

# Physician Note - for coding

Gautham, Test

**Gautham, Test**

MRN: 27667260  
CSN: 333000011132

Bed: B201A  
Language: German

DOB: 06/23/1991  
Age/Sex: 22 Y / M

Ht: --  
Last Wt: --

Allergies: Unknown: Not on ...  
Code: Not on file

Infection: None  
Isolation: None

Attend Prov: SHARP, C  
FYI

ED Navigator

Snapshot

Patient Summary

Chart Review

Results Review

Flowsheets

Demographics

Chart Completion

FYI

ED Navigator

More Activities

Meds (0):  
None

Allergies (0):  
Not on File

Problems (0):  
None

CC: Acuity: Bed: B201A

Charges

Encounter Summary

Provider Notes

Charge Capture

**ED Physician's Note-10675051**

**Gautham, Test #27667260 (Acct: 50001121) (22 Y M) PCP: MAGGIO, P (650-736-7102) B201A**

Allergies (no verify date)  
(Not on File)

Medical History  
None

Surgical History  
None

Family History  
None

Social History  
None

Lab Sent Times Documentation

Start	Status	Ordering Provider
08/01/13 1415	CBC LAB ONE TIME Ordered	SHARP, CHRISTOPHER D

Medication Administration Report for Gautham, Test as of 08/05/13 0811  
No medications to display

Discharge Orders  
None

Lab Results  
None

Imaging Results  
None

EKG Results  
None

Diagnosis  
None

ED Disposition  
Admit-Inpatient

# ED Navigator

Gautham,Test

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Charge Capture

Charge Capture

Charge Capture Section Information

Default Charge Information

Service Date: 07/31/13 Department: EMERGENCY DEPARTMENT Place of Service: SHC HOSPITAL - ER Billing Provider: Sharp, Christopher D, MD

New Charges

SURGERY/INTEGUMENTARY SYSTEM

SURGERY/MUSCULOSKELETAL SYSTEM

SURGERY/RESPIRATORY SYSTEM

SURGERY/DIGESTIVE SYSTEM

SURGERY/URINARY SYSTEM

SURGERY/MALE GENITAL SYSTEM

SURGERY/FEMALE GENITAL SYSTEM

SURGERY/MATERNITY CARE AND DELIVERY

SURGERY/NERVOUS SYSTEM

SURGERY/EYE AND OCULAR ADNEXA

SURGERY/AUDITORY SYSTEM

RADIOLOGY/DIAGNOSTIC RADIOLOGY (DIAGNOSTIC IMAGING)

RADIOLOGY/DIAGNOSTIC ULTRASOUND

PATHOLOGY AND LABORATORY/CHEMISTRY

PATHOLOGY AND LABORATORY/MICROBIOLOGY

MEDICINE/PSYCHIATRY

MEDICINE/OPHTHALMOLOGY

MEDICINE/CARDIOVASCULAR

MEDICINE/PULMONARY

MEDICINE/OSTEOPATHIC MANIPULATIVE TREATMENT

MEDICINE/SPECIAL SERVICES, PROCEDURES AND REPORTS

MEDICINE/MODERATE (CONSCIOUS) SEDATION

MEDICINE/OTHER SERVICES AND PROCEDURES

OFFICE OR OTHER OUTPATIENT SERVICE

EVALUATION AND MANAGEMENT/HOSPITAL OBSERVATION SERVICES

# New Workflow - Rounding

- Provider completes chart note and selects charge capture button
- Provider selects DOS, CPT, DXS, associates DXS to CPT, selects modifier and bill area (7-10 clicks)
- Provider files charge
- Charge flows to Billing Work Queues if additional information is required to bill.
  - The expectation is that the provider will complete chart notes and charge capture daily.

# IP Charge Capture - Access Notes

Hyperspace - GENERAL MEDICINE SPLTY - POC - PAUL M MAGGIO

**Epic** Home In Basket Schedule Patient Lists MDS Pt Station Chart Telephone Call My Reports

**In Basket**

New Msg Patient Msg Refresh Edit Pools Settings Search Attach Out Display Properties

**Hospital ADT (2)**  
**My Incomplete Notes (11)**  
**My Open Charts (4)**  
**My Open Encounters (1)**  
**Cosign Notes**  
**Chart Completion (39)**  
**Review Reports**

**Cosign Notes** 0 unread, 3 total

Done Addendum Charge Capture Cosign w/o Note Enc

Status	Enc Date	Patient	MRN
Read	04/15/13	Marhold, Testsix	27660927
Author: Sharp, Christopher D, MD Visit Type: Hospital Encounter Note Type: Progress Notes			
Pend	04/15/13	Marhold, Testsix	27660927
Author: Sharp, Christopher D, MD Visit Type: Hospital Encounter Note Type: Progress Notes			
Read	03/26/13	Test, Jessica	27658384
Author: Sharp, Christopher D, MD Visit Type: Hospital Encounter Note Type: Progress Notes			



# Charge Capture – Defaults

Marhold, Testsix MRN: 27660927 CSN: 333000001633 Bed: B304A Language: English DOB: 04/15/1983 Age/Sex: 30 Y / F Ht: 1.727 m (5' 8") Last Wt: 73 kg (160 lb 15 oz) Allergies: Unknown: Not on file Infection: None Isolation: None Attend Prov: SHELTON, A

**Charge Capture**

Charge Capture Section Information

**Default Charge Information**

Service date: 8/5/2013 Department: B3 [2000231]  
Place of service: STANFORD HOSPITAL [110200] Service provider: Maggio, Paul M, MD [S0050344]  
Billing provider: Maggio, Paul M, MD [S0050344] Referring provider:  
Diagnosis:

Diagnosis	Qualifier
<input checked="" type="checkbox"/> Appendicitis [541 (ICD-9-CM)]	
<input checked="" type="checkbox"/> Acute renal failure [584.9 (ICD-9-CM)]	
<input type="checkbox"/> CAD (coronary artery disease) [414.00 (ICD-9-CM)]	
<input type="checkbox"/> CHF (congestive heart failure) [428.0 (ICD-9-CM)]	
<input type="checkbox"/> Suicide risk [300.9 (ICD-9-CM)]	

Other diagnosis:  
Bill area:

Accept Cancel

Marhold, Testsix MRN: 27660927 CSN: 333000001633 Bed: B304A Language: English DOB: 04/15/1983 Age/Sex: 30 Y / F Ht: 1.727 m (5' 8") Last Wt: 73 kg (160 lb 15 oz) Allergies: Unknown: Not on file Infection: None Isolation: None Attend Prov: SHELTON, A

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Charge Capture Section Information

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Billing provider: Maggio, Paul M, MD [S0050344] Referring provider:  
Diagnosis:

Diagnosis	Qualifier
<input checked="" type="checkbox"/> Appendicitis [541 (ICD-9-CM)]	
<input checked="" type="checkbox"/> Acute renal failure [584.9 (ICD-9-CM)]	
<input type="checkbox"/> CAD (coronary artery disease) [414.00 (ICD-9-CM)]	
<input type="checkbox"/> CHF (congestive heart failure) [428.0 (ICD-9-CM)]	
<input type="checkbox"/> Suicide risk [300.9 (ICD-9-CM)]	

Other diagnosis: 784.0

Bill area:

Accept Cancel

# IP-Preference List

Hyperspace - GENERAL MEDICINE SPLTY - POC - PAUL M MAGGIO

Epic Home In Basket Schedule Patient Lists MDS Pt Station Chart Telephone Call My Reports Lane Library Appts Dept Appts View Sched View Only Registration Secure

Marhold, Testsix

**Marhold, Testsix** MRN: 27660927 Bed: B304A DOB: 04/15/1983 Ht: 1.727 m (5' 8") Allergies: Unknown: Not on ... Infection: None Attend Prov:   
 CSN: 333000001633 Language: English Age/Sex: 30 Y / F Last Wt: 73 kg (160 lb 15 oz) Code: Not on file Isolation: None

**Charge Capture** ? Close X

Charge Capture

**Charge Capture**

Charge Capture Section Information

Default Charge Information

Service Date: 08/05/13 Department: B3 Place of Service: STANFORD HOSPITAL Service Provider: Maggio, Paul M, MD Billing Provider: Maggio, Paul M, MD

New Charges

INPATIENT

OUTPATIENT

OBSERVATION SERVICES

PROCEDURES

Charges to Be Filed

File Charges

No charges to display

Inpatient Charges

Refresh Remove Personal Filters Options

Filters Choose Columns Show: Deleted

Description	Charge Code	Code	Dx	Service Date	Service Prov	Billing Prov	Modifiers	Qty	Status
1ST HOSP CARE PR D 30 MIN	99221 CPT®	99221 CPT®		07/26/2013	Maggio, Paul M, MD	Maggio, Paul M, MD		1	Filed X
1ST INPT CONSLTJ 55 MIN	99253 CPT®	99253 CPT®		07/26/2013	Maggio, Paul M, MD	Maggio, Paul M, MD		1	Filed X

Chart Review

Results Review

Intake/Output

Synopsis

Allergies

Problem List

History

Immunizations

Notes

Orders

# My Charge Summary Report

Marhold, Testsix

MRN: 27660927  
CSN: 333000001633

Bed: B304A  
Language: English

DOB: 04/15/1983  
Age/Sex: 30 Y / F

Ht: 1.727 m (5' 8")  
Last Wt: 73 kg (160 lb 15 oz)

Allergies: Unknown: Not on ...  
Code: Not on file

Infection: None  
Isolation: None

Attend Prov: SHELTON, A

Charge Capture

Charge Capture

Instructions

My Charges

IP E/M Guides

OP E/M Guides

Summary of My Charges and Notes

Marhold, Testsix #27660927 (30 Y F) (Adm: 04/15/13)

B3-B304A

My Charges and Notes

8/5/2013  
None

8/4/2013  
None

8/3/2013  
None

8/2/2013  
None

8/1/2013  
None

7/31/2013  
None

7/30/2013  
None

7/29/2013  
None

7/28/2013  
None

7/27/2013  
None

7/26/2013

Code	Description	Service Provider	Billing Provider	Modifiers
99252	1st Inpt Consltj 40 Min	Maggio, Paul M, MD	Maggio, Paul M, MD	
99253	1st Inpt Consltj 55 Min	Maggio, Paul M, MD	Maggio, Paul M, MD	
99221	1st Hosp Care Pr D 30 Min	Maggio, Paul M, MD	Maggio, Paul M, MD	

Note Time	Note Type	Author Name	Service	Author Type	Status
1104	Progress Notes	Fleck, Nanci			Signed
1014	Progress Notes	Maggio, Paul M, MD	General Surgery	Physician	Addendum

# Benefits

- Increase Revenue (lost or unsubmitted charges)
- Increase RVU's
- Reduced Lag days (DOS/Charge Entry)
- Reduced A/R days (date billed/date paid)
- Reduced paperwork (physicians/biller/coders)
- Eliminate Courier Costs
- Reduced Expenses (charge ticket purchases)
- Decrease denials
- More accurate & precise coding
- Easier transition to ICD-10 (dxs calculator vs. paper)
- Increase Participation in PQRI
- Improved HIPAA compliance - Secure Messaging

# Implementation Plan

- Phase 1 – August 1, 2013
  - Roll out to approximately 25 physicians
- Phase 2 – September 2013
  - Roll out to entire SHC Provider Group with expectation that all providers will be 100% converted to electronic charge capture for Hospital rounds by 12/31/13
- Phase 3 - Nursing Home, KDC, Home Visits – Date TBD
- Phase 4 – Surgical Charge Capture – Date TBD
- Future – Haiku, Canto

# Discussion

