



**Weill Cornell Medicine**



**New York-Presbyterian**

# **T.W.I.S.T.**

# **Automating Research Billing Procedures**

**Research Approval Workflow  
EPIC Optimization**

**Presented by**

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# Research Approval Workflow EPIC Optimization

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April 25, 2017  
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# Topics

- Epic Modules
- Clinical Research Workflow Overview
- Subject Enrollment Process
- Linking Encounters to a Research Study
  - Encounters and Transactions
  - Automated linking for procedures in a linked encounter
- Research Approval Workflow Optimization
- Research Workqueue Training

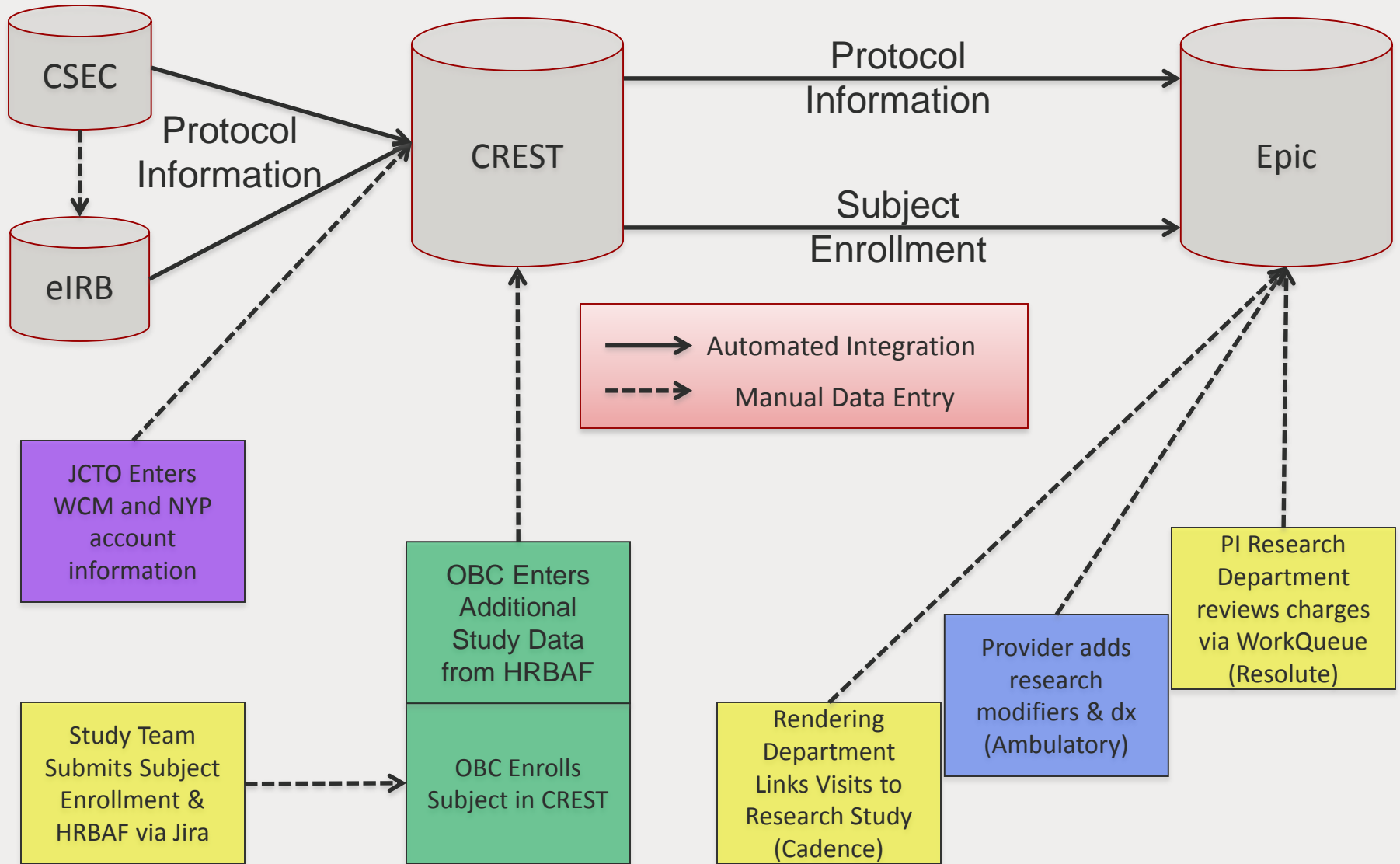
# Epic System Modules

**Epic Cadence** is the scheduling module for outpatient clinics.

**EpicCare Ambulatory** is one of the main and largest components of EpicCare. Clinicians can document visits, place orders, view results, etc.

**Epic Resolute** is the billing and financial tracking system.

# Clinical Research Workflow Diagram



# Subject Enrollment Process

- Patient is identified as a potential research subject.
- Subject provides informed consent.
- Study team submits the informed consent form and HRBAF to the Office of Billing Compliance (OBC) via the Jira ticketing system.
- OBC team creates an enrollment record for the subject in **Clinical Research Enrollment & Subject Tracking (CREST)** system.
- Once enrolled, CREST sends the study information to the subject's Epic record.
  - Only studies with billable risks will flow over to Epic.
  - Study information is found in the Research Studies Activity.

# Research Studies Activity

In this activity you can see information about both active and historical study information. The information includes:

**Study Name**

**IRB number**

**Principal Investigator**

**NCT number**

**Start Date (enrollment date)**

**End Date (if applicable)**

**Off Study Reason**

**Study Description (Sponsor Type)**

Snapshot	+ Add	
Demographics	Enrolled	
<b>Research Stud...</b>	<b>A Phase 1a/1b Multicenter, Single-Arm, O</b>	
Care Teams	Study Code: 1504016093	Start Date: 01/11/2017
Chart Review	Principal Investigator: Ruben Niesvizky, MD	IRB #: 1504016093
Results Review	NCT #: 02400242	
Review Flows...	<b>Study Description</b> Industry	
History	<b>Associated Encounters</b>	
Enter/Edit Res...	> 01/25/2017 Office Visit - Completed	WCMC HEM ONC MYELOMA OXFORD SUITE 300 Roger N Pearse, MD
Letters	> 02/01/2017 Office Visit - Completed	WCMC HEM ONC MYELOMA OXFORD SUITE 300 Ruben Niesvizky, MD
FYI	> 02/08/2017 Office Visit - Completed	WCMC HEM ONC MYELOMA OXFORD SUITE 300 Ruben Niesvizky, MD
	> 02/21/2017 Office Visit - Completed	WCMC HEM ONC MYELOMA OXFORD SUITE 300 Roger N Pearse, MD
	> 03/21/2017 Office Visit - Completed	WCMC HEM ONC MYELOMA OXFORD SUITE 300 Ruben Niesvizky, MD
	> 04/06/2017 Office Visit - Completed	WCMC HEM ONC MYELOMA OXFORD SUITE 300 Ruben Niesvizky, MD
	<b>RV-MM-PI-0458</b>	
	Study Code: 0909010623	Start Date: 07/05/2011
	Principal Investigator: Roger N Pearse, MD	IRB #: 0909010623
	NCT #: 01054196	
	<b>Study Description</b> Industry	
	<b>Associated Encounters</b>	
	> 11/25/2015 Office Visit - Completed	WCMC HEM ONC MYELOMA OXFORD SUITE 300 Roger N Pearse, MD
	> 07/18/2016 Office Visit - Completed	WCMC HEM ONC MYELOMA OXFORD SUITE 300 Roger N Pearse, MD
	> 09/21/2016 Office Visit - Completed	WCMC HEM ONC MYELOMA OXFORD SUITE 300 Ruben Niesvizky, MD
	> 01/25/2017 Office Visit - Completed	WCMC HEM ONC MYELOMA OXFORD SUITE 300 Roger N Pearse, MD
	<b>Non-Compliant</b>	
	Proteolix PX-171-006	
	Study Code: 0802009669	Start Date: 08/31/2009
	End Date: 07/05/2011	Principal Investigator: Ruben Niesvizky, MD
	IRB #: 0802009669	NCT #: 00603447
	<b>Study Description</b> Industry	

# Linking to a Research Study

- All study related visits and procedures must be linked to the research study in Epic.
- Linking can be done by a scheduler or a provider.
- For visits within the PI department, the Study Team should work with the schedulers to notify them when a visit should be linked to the study.
- For visits outside the PI department, the order (paper or electronic) must include the IRB number. If the procedure is billable to the study, then the study account number (or grant number) must also be included. This information can be provided by the Study Team.
- For screening visits, providers must keep the encounter open until the subject is enrolled with OBC. The screening visit must be linked to the study before closing the encounter.



# Scheduler's View in Cadence

**Registration**

Appt Desk   PCP   Audit Trail   Claim Info   Benefits   Pt Prefs   Patient FYI   Family Lookup   Reg History   Cvg Eligibility

**Visit Info**

Visit account:

Acct ID	Account Name	Sts	Typ	FC	Balance	Contract	Expires	Claim
[REDACTED]	[REDACTED]		P/F	Managed Care	0.00			

Visit coverage:

Cvg ID	Payor	Plan	Subscriber
5846099	AETNA HEALTH PLANS	AETNA POS	[REDACTED]
5846130	UNITED HEALTHCARE	ABC EMPLOYEES PLAN/UNITED HEALTHCARE	[REDACTED]

Do not bill insurance

Visit claim:

Private Encounter?    Accident Related?

Billing Flag:    Contract:

**Preferred Pharmacy**

Pharmacy Preferences: 

1
---

**Research Study**

**Research Studies List is currently read-only.**

This encounter can't be used to link visits to research study enrollments. To link visits to research study enrollments, access this subcomponent through a non-registration contact.

# Provider's View in Ambulatory

The screenshot displays the Epic Ambulatory interface. At the top, the navigation bar includes icons for Home, Schedule, In Basket, Chart, Encounter, Telephone Call, Patient Lists, Phone Book, and Links. Below this, a patient's name is partially visible, along with the location 'Weill Cornell CO...' and the PCP Name 'Scott Klares'. The primary insurance is listed as 'CIGNA HE...'. The main content area is titled 'Research Studies' and features a search bar with the text 'Add a new study to list' and an 'Add' button. To the right of the search bar are filters for 'Show: Inactive', 'Pre-consent', and 'Deleted'. The list of studies shows one entry: 'A Phase 1a/1b Multicenter, Single-Arm, O'. This entry includes the Study Code '1504016093', NCT #: '02400242', and a 'Study Description' section with the word 'Industry'. The Principal Investigator is listed as 'RUBEN NIESVIZKY, MD'. A red box highlights the 'Link to Encounter' button next to the study name. The left sidebar contains several menu items: 'SnapShot', 'Chart Review', 'Research Stud...', 'Visit Data', 'OCM', and 'Plan'.

**Research Studies** ? Resize Close X

Show:  Inactive  Pre-consent  Deleted

Enrolled

**A Phase 1a/1b Multicenter, Single-Arm, O** **Link to Encounter** **NIESVIZKY, RUBEN on 4...**

Study Code: 1504016093  
NCT #: 02400242  
Principal Investigator: Ruben Niesvizky, MD

Study Description  
Industry

# Z00.6 Diagnosis Code

With the release of ICD-10, the new diagnosis code is **Z00.6** (previously V70.7).  
Z00.6 = Encounter for examination for normal comparison and control in clinical research program

The screenshot displays the Epic EMR interface. At the top, the navigation bar includes 'Home', 'Schedule', 'In Basket', 'Chart', 'Encounter', 'Telephone Call', 'Patient Lists', and 'Phone Book'. The patient's PCP Name is Duane M. Smith, and the primary insurance is Medicare Part B. The 'Plan' section is active, showing 'BestPractice' and various tabs like 'Problem List', 'Visit Diagnoses', 'SmartSets', 'Meds & Orders', and 'Quality Measures'. The 'Visit Diagnoses' section is highlighted with a red box and contains the code 'Z00.6' in a text input field, followed by an 'Add' button and dropdown menus for 'Previous' and 'Problems'. Below this, the 'SmartSets' section has a search field and an 'Add' button. The 'Medications & Orders' section is partially visible at the bottom.

# Adding Research Modifiers and Validations

- Provider must add research modifiers before closing the encounter
- Q0 - Investigational clinical service provided in a clinical research study that is in an approved clinical research study.
- Q1 – Routine clinical service provided in a clinical research study that is in an approved clinical research study.
- BG – “Bill Grant” -- Any procedure that is research specific and billable to the study

FYI: None  
Home: [redacted]  
Work: None  
Cell: None  
Weill Cornell CONNECT: Inactive  
Pt Comm Pref: None  
PCP Name: [redacted]  
Care Team: [redacted]  
Pharmacy: [redacted]  
Primary Ins.: [redacted]  
Allergies: No Known Allergies  
BMI: [redacted]  
BSA: [redacted]

### Wrap-Up

? Actions Resize

#### References

#### Snapshot

Patient Instructions LOS Charge Capture Follow-up After Visit Summary



#### Chart Review

Research Stud...



#### Visit Data

OCM

Patient Messa...



#### Plan

Oncology Hist...



#### Treatments

MAR



#### Wrap-Up



#### Communication

### Level of Service

Chemo E5 BM Bx Consult Fellows 5  
Study btx Study E5 Stdy BM Bx New Fellows 4  
Fellow New

LOS: OFFICE/OUTPT VISIT, EST, LVL V [99215] CPT(R)

Modifiers: Q1 +

Additional E/M codes: Click to add

Billing area: [input field]

### Charge Capture

Service Date: 4/13/2017 Department: WCMC HEM ONC MYE Place of Service: WCMC HEM/ONC-MYE Service Provider: [redacted]  
Billing Provider: Adriana Rossi, MD

## Close Visit Validation

When a provider closes an encounter in Epic that is “linked” to a research study, the system checks for the appropriate modifier and/or diagnosis code. Either of the following are required to close the encounter:

- **Q0 or Q1 modifier AND Z00.6 diagnosis code**

**OR**

- **BG modifier (Z00.6 diagnosis code not required)**

# Research Workqueues

- Research charges that are linked to a study, have the Z00.6 diagnosis code, and research modifier are routed to a Research Workqueue (WQ) in Epic.
- Charges are routed to the PI's academic department WQ.
  - Example – If an Echocardiogram is scheduled as part of an oncology trial, Cardiology will link the Echo and add the Q1/BG modifier. The charge will appear in the Hematology Oncology Research Workqueue to be reviewed.
- All clinical departments have a WCM WQ and a WCINYP WQ.

# Displaying Study Columns in the WQ

Default WQ view does not display PI Name or Study Name  
To add these columns, click “Column Actions” and select the additional columns.

The screenshot shows a data table with columns: PI Name, Study Name, Provider, Location, Department, Sess Amount, and Modifier List. A red box highlights the 'Column Actions' button in the top right corner. A 'Columns' dialog box is open in the foreground, listing various columns with checkboxes. The 'PI Name' and 'Study Name' checkboxes are highlighted with a red box. The dialog also includes 'Move Up', 'Move Down', 'Show', and 'Hide' buttons.

PI Name	Study Name	Provider	Location	Department	Sess Amount	Modifier List
	Gilead GS US 312-0117	OKIN, PETER	WCMC CARDIAC GRAP...	WCMC CARDIAC GRAPHI...	35.44	
	Gilead GS US 312-0117	OKIN, PETER	WCMC CARDIAC GRAP...	WCMC CARDIAC GRAPHI...	35.44	
	Gilead GS US 312-0117	KLIGFIELD, P...	WCMC CARDIAC GRAP...	WCMC CARDIAC GRAPHI...	35.44	
	Gilead GS US 312-0117	KLIGFIELD, P...	WCMC CARDIAC GRAP...	WCMC CARDIAC GRAPHI...	35.44	
	Gilead GS US 312-0117	OKIN, PETER	WCMC CARDIAC GRAP...	WCMC CARDIAC GRAPHI...	35.44	
	IMMU-132	KLIGFIELD, P...	WCMC CARDIAC GRAP...	WCMC CARDIAC GRAPHI...	17.49	BG
OCEAN, ALLYSON J	IMMU-132	SAXENA, AS...	WCMC HEM/ONC - STA...	WCMC HEM ONC STARR ...	223.39	Q1
		OKIN, PETER	WCMC CARDIAC GRAP...	WCMC CARDIAC GRAPHI...	35.44	
TAGAWA, SC		TAGAWA, S...	WCMC HEM/ONC - STA...	WCMC HEM ONC STARR ...	265.14	Q1,25
		KLIGFIELD, P...	WCMC CARDIAC GRAP...	WCMC CARDIAC GRAPHI...	17.49	BG
		OKIN, PETER	WCMC CARDIAC GRAP...	WCMC CARDIAC GRAPHI...	17.49	BG
		NIESVIZKY, ...	WCMC HEM/ONC-MYEL...	WCMC HEM ONC MYELO...	450.00	Q1
		PE&PSE RO	WCMC HEM/ONC-MYEL	WCMC HEM ONC MYELO	450.00	Q1

**Columns**

Check the columns that you would like visible in this view. Use the move up and move down buttons to reorder the columns however you like.

- [Icon]
- Svc Date
- Patient
- Account
- Coverage
- PI Name
- Study Name
- Provider

Buttons: Move Up, Move Down, Show, Hide



# Research Encounter Linkage Modification

- Encounters may contain multiple procedures (CPT codes)
- Currently when an encounter is “linked,” not all of the procedures are “linked.”
- Each CPT code within a charge session/encounter needs to be assigned one of the following statuses:
  - a. Bill to the Study (BG)
  - b. Standard of Care (Q1 or Q0)
  - c. Not Research Related (NONRES)
- Modification live in EPIC April 21, 2017

# Research Encounter Linkage Prior to Modification

WEILL CORNELL MED... Insurance: 0.00 Undistributed: 0.00  
Self-pay: 0.00 Bad debt: 0.00  
Work: None  
Mobile: None

Charge Entry - TAR: 81015589 ? Resize

Encounter Rep... Charge Review Chg Entry

Encounter Details (1)

Enc form: 5495311 Patient: [REDACTED]  
Account: [REDACTED] Svc date: [REDACTED] Visit: [REDACTED]  
Coverage: [REDACTED] DBI Claim info: [REDACTED] Select  
Svc prov: [REDACTED] Bill prov: [REDACTED]  
Department: WCMC IBD CENTER STICH POS: WCMC IBD CENTER JRC [3064]  
Referral: [REDACTED] View Ref src: [REDACTED]  
Price cntr: [REDACTED] Reimb cntr: [REDACTED]

Diagnoses (2) Primary: ICD-10-CM Alternate: ICD-9-CM Show

Code	Description	Qualifier
1 K51.019	Ulcerative (chronic) pancolitis with unspecified complications	Active [1]
2		

Encounter is related to research study GA28950: PHASE III STUDY OF EFFICACY AND SAFETY OF ETROLIZUMAB DURING INDUCTION AND MAINTENANCE IN PATIENTS WITH MODERATE TO SEVERE ACTIVE UCREFRACTOR

Charges (3)

Code	Description	Svc Date	Modifier	Diagnosis	Qty	Amount	Self-pay	Cvd
1 99214	OFFICE/OUTPT VISIT,EST,LEVL IV	[REDACTED]	BG	1	1	300.00	300.00	N
2								

Research Study

Research-related

Study: [REDACTED]  
 Show only active enrolled studies

Protocol: [REDACTED]  
Treatment day: [REDACTED]  
Modifier type: [REDACTED]  
Bill to:  Patient/Insurance  Study

Not research-related

Accept Cancel

Automatically defaults to "Not Research Related"

# Research Linkage After Modification

- Transaction will automatically be linked based on the associated encounter linkage

WEILL CORNELL MED... Insurance: 0.00 Undistributed: 0.00  
 Work: None Self-pay: 0.00 Bad debt: 0.00  
 Mobile: None

Charge Entry - TAR: 81015589

Encounter Rep... Charge Review Chg Entry

**Encounter Details (1)**

Enc form: 5495311 Patient: [REDACTED]  
 Account: [REDACTED] Svc date: [REDACTED] Visit: [REDACTED]  
 Coverage: [REDACTED]  DBI Claim info: [REDACTED] Select  
 Svc prov: [REDACTED] Bill prov: [REDACTED] (1)  
 Department: [REDACTED] POS: WCMC IBD CENTER JRC [3064]  
 Referral: [REDACTED] View Ref src: [REDACTED] (1)  
 Price cntr: [REDACTED] Reimb cntr: [REDACTED]

**Diagnoses (2)** Primary: ICD-10-CM Alternate: ICD-9-CM

Code	Description	Quali
1 K51.019	Ulcerative (chronic) pancolitis with unspecified complications	Activ
2		

Encounter is related to research study GA28950: PHASE III STUDY OF EFFICACY AND SAFETY OF ETROLIZUMAB DURING INDUCTION AND MAINTENANCE IN PATIENTS SEVERE ACTIVE UCREFRACTOR

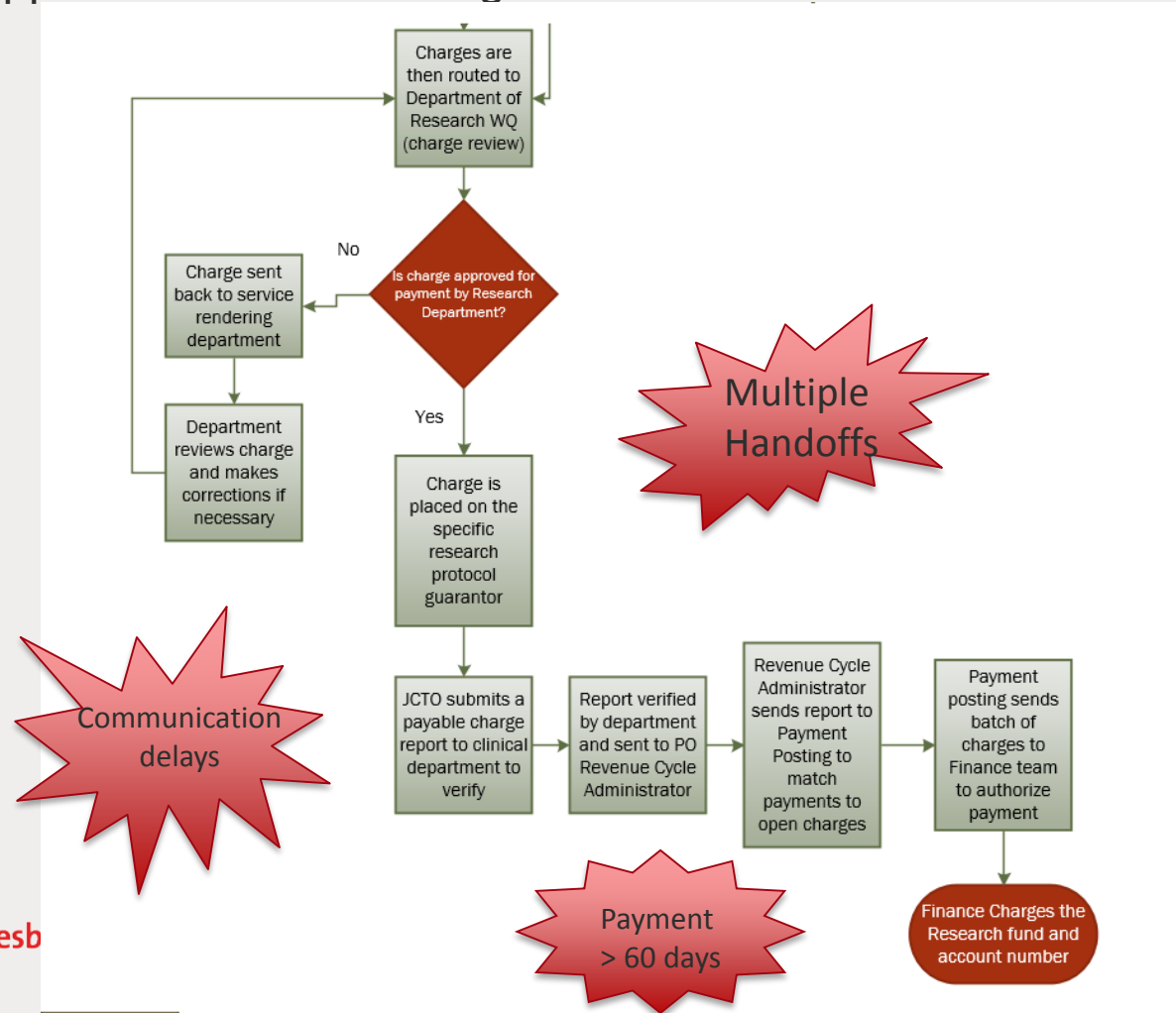
**Charges (3)**

Code	Description	Svc Date	Modifier	Diagnosis	Qty	A
1 99214	OFFICE/OUTPT VISIT EST.LEVL IV	[REDACTED]	BG	1	1	
2	Pricing Contract: RSH - SPONSOR INITIATED FEE SCHEDULE [12] Processed through Charge Router from EpicCare Do Not Bill Insurance Research Study: GA28950: PHASE III STUDY OF EFFICACY AND SAFETY OF ETROLIZUMAB DURING INDUCTION AND MAINTENANCE IN PATIENTS WITH MODERATE TO SEVERE ACTIVE UCREFRACTOR					

# Research Approval Workflow Optimization

- In June 2017 EPIC will be updated to automate the process of applying payment to approved research charges.

## Current State:

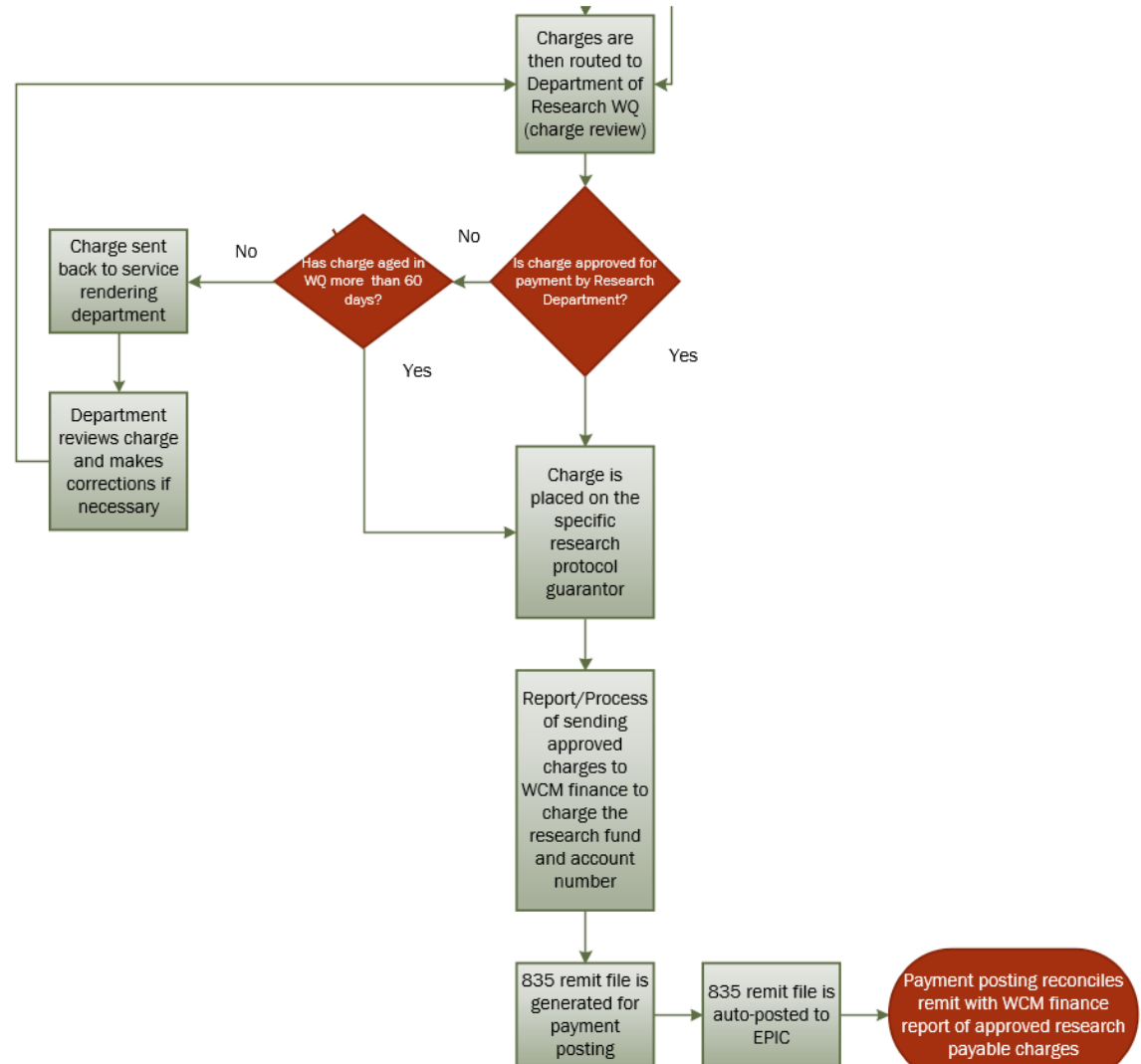


# Research Approval Workflow Optimization

## Future State:

### Goals:

- Reduce handoffs
- Streamline communication
- Timely Payment of Research Charges
- Elimination of numerous excel spreadsheets



# Research Approval Workflow Optimization

The image shows a software dialog box titled "Transaction Details" with a close button (X) in the top right corner. The dialog contains several input fields, each with a small icon to its right: a magnifying glass for search, a calendar for dates, and a document for text entry. The fields are: "Hx/Ex/MDM:", "Proc/Risk/Reason:", "Bene Agrmnt 1=Yes,2=No:", "Procedure by Physician:", "Coder's Name:", "Addendum Completed?:", "Charge Reviewed?:", "Rad Onc 'From' Date:", "Rad Onc 'Thru' Date:", and "Research Reviewed:". The "Research Reviewed?" field is highlighted with a red rectangle. A red callout bubble points to this field with the text: "You must enter the word Reviewed in the Research Reviewed field." At the bottom of the dialog, the "Accept" button is circled in red.

When a research charge is marked as “reviewed”, it is authorized to be paid.

# Research Fee Schedule Updates

- On April 19, 2017 the research fee schedule was updated to generate fees based on location.
- Prior to update, only office based fees were generating for services performed, impacting departments that performed services in the inpatient setting.
- PI Research Departments no longer have to update fees to the correct amount if services are performed in the inpatient setting. EPIC will automatically default to correct fee based on location.

# Research Approval Workflow Optimization

## Key Points:

- The research fee schedule will now populate fees based on location (inpatient vs. outpatient)
- PI Research Departments must update charges that are billed as “standard of care” – auto-linking of encounters will link all associated transactions as study.
- When a research charge is marked as “reviewed”, it is authorized to be paid.



# Access to Research Workqueuees

Training is required before issuing access to the Research WQs.

“Research – Charge Review WQ” training can be scheduled on the Epic Training Signup SharePoint site.

Upcoming training sessions:

## ▲ Class Type : Research - Charge Review WQ (3)

Research - Charge Review WQ	4/28/2017	1:00 PM to 4:00 PM	Oz Training Room	14	<a href="#">Sign up for Training</a>
Research - Charge Review WQ	5/5/2017	1:00 PM to 5:00 PM	Oz Training Room	16	<a href="#">Sign up for Training</a>
Research - Charge Review WQ	6/2/2017	1:00 PM to 4:00 PM	Oz Training Room	16	<a href="#">Sign up for Training</a>

# FAQs

- **Who should manage the charges in the Research WQ?**
  - The people managing the research WQ should be familiar with the study procedures, budget and HRBAF.  
Departments determine access to these workqueuees

# FAQs

- Which study account will be charged for the research procedures?
  - For industry funded clinical trials, the study accounts created by the JCTO are pushed into CREST and Epic. For federally funded and department funded studies, the accounts are requested from the departments and manually entered into CREST.

# FAQs

- **Can a visit be linked after the encounter is closed?**
  - If a charge is in EPIC without a link to a study or missing research modifiers, the charge can be corrected using the “research correct” function in transaction inquiry. Details are in the research-charge review WQ job aide.

# FAQs

- Who do I contact with WQ errors?
  - Contact [support@med.cornell.edu](mailto:support@med.cornell.edu)

# FAQs

- **What is the expected turnaround time for subject enrollments to be processed by OBC?**
  - In general, OBC closes tickets within 24 hours of receipt. If an enrollment requires immediate processing, please contact OBC directly.

# FAQs

- What if the charge fee differs from what was budgeted?
  - The fee schedule should be utilized when negotiating budgets.

# Questions?

TOPIC	OFFICE TO CONTACT	CONTACT INFORMATION
Epic	Physician Org Helpdesk	support@med.cornell.edu
OBC – Jira	Office of Billing Compliance	Doret Debarros dod2010@med.cornell.edu
Clinical Trial Operations	JCTO	JCTOoperations@med.cornell.edu
Research Workqueue	Physician Organization	support@med.cornell.edu