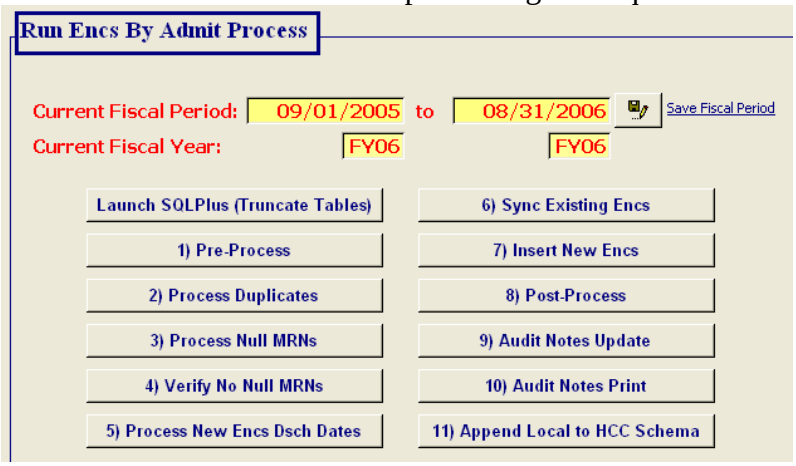
A. Background/Purpose of Encs by Admit Process:

1. Daily HCC receives charge detail, payment detail, and adjustments from CARE (Hosp/Clinic only, MDA; not PBS/PRS). However HCC does not receive the demographic (MRN, name, etc), payor hiearchy, and diagnosis related information. This information comes when the bill drops; and the information is not received in instances where the bill never drops. Encs by Admit was created as a work-around to be able to query by admit date, discharge date and MRN.

B. Automation and Changes Implemented to Process:

1. Created general-named tables to use in processing (not having a time indicator in the name such as FYxx, Qrtrxx, or Monthxx) to eliminate the need to create, index and optimize new tables every processing run due the period changing. Two main tables will house processed data in HCC: ENCS_BY_ADM_ALL and ENCS_BY_ADM_CY.
2. Added Date Inserted and Date Updated date/time stamp fields and Tot Chg Amt to HCC and Access tables.
3. Added sync audit tables to access database to track current and historical updates to fields per processing run (sync type field indicator, date/time stamps, old value, new value fields created to capture details of the update).
4. Added current and archive process counts tables to capture counts of records prior to beginning of process run and counts of records processed after process run per date-stamp run summarized by fiscal year and admit date month-year with a control sub-count of New encounters added.
5. Added audit notes table to capture comments and reconciliation notes on processing runs.
6. Added current fiscal period table to control what records should be included in encs_by_adm_cy and to facilitate automatic notifications when a new current year begins (compared to system date).
7. Added process log table to capture sequencing steps of the current process run.
8. Added automated reports (main reports are qued for direct print to default printer, some open in print preview, per applicable sequence step): Audit Notes, Control Counts, Detail - Encounters Added, Detail - Encounters Flagged As Out Of Sync, Detail - Encounters Flagged As Out Of Sync_Summary, Most Recent Sync – Detail, Most Recent Sync – Summaries, Process Counts by FY, Process Counts by FY – Archive, Process Counts by MoYr, Process Counts by MoYr – Archive, Process Log.
9. Added form interface to facilitate auto processing via sequenced macro groups:



10. Added conditions to macro processing sequencing steps. Some steps run only if it identifies applicable encounters (ie. if there are not encounters that are duplicates, none of those sequencing steps run).
11. Modified criteria to pull encounters in patient account table that are missing from HCC. New criteria is admit date '>= 9/1/1999'. It eliminates the need to update the query every time fiscal periods change and it also pulls encounters having the null/unknown admit date of 1/1/9999 (previous admit date criteria of 'Between 9/1/1999 And 8/31/20xx' excludes encounters that would have an admit date 9/1/9999). Note: the encs_by_adm_ all table will contain encounters having admit date 1/1/9999; the encs_by_adm_cy table will not contain encounters having admit date 1/1/9999.

12. Modified fix null mrns criteria/process. Created additional levels (automated comparisons) of identifying an applicable mrn. The first level does a 'whole' name with birthday match against univ_pt_dim, the second level does a 'first' name with 'last' name with birthday match against univ_pt_dim, the third level does a 'last' name with birthday match against univ_pt_dim, the last level does a 'whole' name with birthday match against pt_acct encounters without null mrns.
13. Discontinued using criteria per step14e…. where discharge date 'is null'. Since all encounters coming over from pt_acct table do not have a null/empty discharge date, using the 'is null' criteria renders the update query not actually running an update.
14. Added queries to also update out of sync discharge dates for 30x, 40x, and 50x encounters, out of sync MRNs, and out of sync charge amounts.
15. Process to run third Thursday of the month.

C. <u>Summary Methodology:</u>

1. Launch SQLPlus (Truncate Tables):
    i. HCC mcoleman_t_encs_by_adm_all and mcoleman_t_encs_by_adm_all schema tables are truncated.
2. 1) Pre-Process:
    i. Capture pre-process counts from local_ encs_by_adm_all
    ii. Print pre-process reports
    iii. Pull encounters from pt_acct table missing in HCC (local_ encs_by_adm_all)
3. 2) Process Duplicates:
    i. Identify and fix duplicate encounters (runs conditionally)
4. 3) Process Null MRNs:
    i. Identify and fix null mrns (runs conditionally). Various Levels of identifying an applicable mrn. The first level does a 'whole' name with birthday match against univ_pt_dim, the second level does a 'first' name with 'last' name with birthday match against univ_pt_dim, the third level does a 'last' name with birthday match against univ_pt_dim, the last level does a 'whole' name with birthday match against pt_acct encounters without null mrns. Remaining nulls (if any, most cases there will not be) are researched via Care and updated manually.
5. 4) Verify No Null MRNs:
    i. Query print out (should be null records) of final check there are indeed no encounters with null mrns.
6. 5) Process New Encs Dsch Dates:
    i. Queries sync discharge date per below assumptions:
        - HCC 10 (Outpatient) and 60 (Mcare repetitive cases billed monthly) Encs should have a discharge date that's the end of month of Admit Date
        - HCC 20 (Ambulatory/Surgery) Encs having a pt acct discharge date of 1/1/9999 should have a discharge date that's equal to the pt acct Admit Date (if the admit date is also 1/1/9999, the discharge date will be 1/1/9999)
        - HCC 20 (Ambulatory/Surgery) Encs NOT having a pt acct discharge date of 1/1/9999 should have a discharge date that's equal to the pt acct Discharge Date
        - HCC 30 (Referrals), 40 (Packages pricings, 2nd opionions, cash suspended cases), and 50 (Research accts) encs should have a dsch date that's equal to pt acct disch date
        - HCC 90 (Inpatients) encs should have a dsch date equal to dsch date in pt acct table
7. 6) Sync Existing Encs:
    i. Discharge dates are synced per above assumptions
    ii. Admit date is synced to equal pt_acct admit date (not synced to equal 1/1/9999)
    iii. Init_FC is synced to equal pt_acct init_fc.
    iv. Charge amt is synced to equal pt_acct charge amount
    v. MRN is synced to equal pt_acct mrn

8. 7) Insert New Encs:
    i. New encounters are loaded into local_ encs_by_adm_all
9. 8) Post-Process:
    i. Capture post-process counts from local_ encs_by_adm_all
    ii. Print post-process reports
10. 9) Audit Notes Update:
    i. Update audit notes/process comments
11. 10) Audit Notes Print:
    i. Print audit notes
12. 11) Append Local to HCC Schema:
    i. Append local_ encs_by_adm_all encounters to truncated HCC mcoleman_t_encs_by_adm_all and mcoleman_t_encs_by_adm_all schema tables
    ii. Print process log
13. A request is sent to AFS to copy mcoleman_t_encs_by_adm_all and mcoleman_t_encs_by_adm_cy tables to Rptg (previous MDA) schema.

Process for Loading the Encs_By_Adm_All and Encs_By_Adm_FY##_#QS tables

Data Function	Step	Directions	Script Location
Mine	1	Query EIW for current period to load. Always query for FY to-date (9/1 thru end of current period desired).	R:\HCC\HCC Dictionary & Procedures\HCC Procedures\Encs_By_Adm Tables\HCC Encs_by_adm_fy## Creation.mdb/Step01-EIW PT_ACCT FY
Clean	2	Remove any bad duplicate encounters from this list. A) Copy result set into Excel. B) Look up in CARE/PTIQ to determine valid data.	R:\HCC\HCC Dictionary & Procedures\HCC Procedures\Encs_By_Adm Tables\HCC Encs_by_adm_fy## Creation.mdb/Step02-Find duplicates for EIW FY TBL and Step02_opt-Delete Bad Dup Records in EIW_FY TBL
	3	Clean any discharge dates on dup encs beginning with 90- and 20- only.	R:\HCC\HCC Dictionary & Procedures\HCC Procedures\Encs_By_Adm Tables\HCC Encs_by_adm_fy## Creation.mdb/Step03-Update Bad Dup Records in EIW_FY TBL_Dsch_Dt
	4	Fill in any missing MRN's not found in PT_ACCT table.	R:\HCC\HCC Dictionary & Procedures\HCC Procedures\Encs_By_Adm Tables\HCC Encs_by_adm_fy## Creation.mdb/… Step04a-Find Null MRNs Step04b-Find Null MRNs Step04c-Fix Null MRNs Step04d-Fix Null MRNs
Stock	5	Create new HCC table "Encs_By_Adm_FY##_#QS" with Enc No as primary key.	R:\HCC\HCC Dictionary & Procedures\HCC Procedures\Encs_By_Adm Tables\HCC Encs_by_adm_fy## Creation.mdb/Step05-Create Table in SQLPLUS (not MSAccess)
	6	Load new HCC table via MS Access ODBC.	R:\HCC\HCC Dictionary & Procedures\HCC Procedures\Encs_By_Adm Tables\HCC Encs_by_adm_fy## Creation.mdb/Step06-Load Encs_By_Adm
Refine	7	Clean up OP (10- and 60- encounters) discharge dates.	R:\HCC\HCC Dictionary & Procedures\HCC Procedures\Encs_By_Adm Tables\HCC Encs_by_adm_fy## Creation.mdb/Step07- Plug Discharge_Date for 10- and 60- Encs and Step07b- Plug Discharge_Date for 10- and 60- Encs
	8	Delete from HCC Encs_By_Adm_All table all enc's found in Encs_By_Adm_FY##_#QS table.	R:\HCC\HCC Dictionary & Procedures\HCC Procedures\Encs_By_Adm Tables\HCC Encs_by_adm_fy## Creation.mdb/Step08-Delete Encs_ALL Records with Adm_Dt in Current FY
Stock	9	Remove all indexes on Encs_By_Adm_All table EXCEPT for primary key. (Improves processing speed of next step (load) drastically)	SQL commands. Can use confirmindex.sql to find names of indexes to drop. Currently they are named I2_encs_by_adm_all thru i5_encs_by_adm_all.
Stock	10	Load HCC Encs_By_Adm_All table by joining with Encs_By_Adm_FY##_#QS table.	Edit "insert_encs_by_adm_all2.sql" in $hcc_hosp directory from Unix. Then run this script. This is faster than inserting from MS Access.
Refine	11	Clean Encs_By_Adm_All table to clean any fields that have become out of synch with EIW.	R:\HCC\HCC Dictionary & Procedures\HCC Procedures\Encs_By_Adm Tables\HCC Encs_by_adm_fy## Creation.mdb/ (all remaining steps): Step10-EIW PT_ACCT FY00-Current Step11-Compare FY00-Current Encs EIW and HCC using _ALL Step12-Insert Encs found in EIW but not HCC Encs_All table Step12b- Confirm Missing Encs Added Step13-Compare EIW and HCC Encs_ALL-AdmDt Step13b-Update Encs_All Admit_Date Step14-Compare EIW and HCC Encs_ALL-DschDt Step14a-Compare EIW and HCC Encs_ALL-DschDt-20 Enc Filter Step14b-Update Encs_All Dsch_Date-20_Encs Step14c-Update Encs_All Dsch_Date-90_Encs Step15-Compare EIW and HCC Encs_ALL-Init_FC Step15b-Update Encs_All Init_FC
Reconcile	12	Reconcile number of records added to Encs_All table to total count.	R:\HCC\HCC Dictionary & Procedures\HCC Procedures\Encs_By_Adm Tables\Creation of Encs_By_Adm_All-Record counts.xls; tab "Record Count Conf-FY05_4qs" (creating new tab for applicable period). Run the following queries to refresh counts by FY: Step16-Update Encs_All Counts Step16b-Update Encs_All Counts Step16c-Update Encs_All Counts Step16d-Update Encs_All Counts Step16e-Update Encs_All Counts Step16f-Update Encs_All Counts Step16g-Update Encs_All Counts; and Step17-Encs found in HCC Encs_All but not EIW table
Index	13	Create new indexes for the Encs_By_Adm_FY##_#QS table to mirror those on the Encs_By_Adm_All table.	R:\HCC\HCC Dictionary & Procedures\HCC Procedures\Encs_By_Adm Tables\Creation of Encs_By_Adm_All-Record counts.xls; tab "Indexes & Optimization"
Optimize	14	Run statistics for both Encs_By_Adm tables.	R:\HCC\HCC Dictionary & Procedures\HCC Procedures\Encs_By_Adm Tables\Creation of Encs_By_Adm_All-Record counts.xls; tab "Indexes & Optimization"

```
SQL> create table mcoleman.T_ENCS_BY_ADM_ALL
  2  as
  3  select *
  4  from mda.encs_by_adm_all
  5  where idb_init_fc = 'xx'
  6  ;

Table created.

SQL> commit;

Commit complete.

SQL> create table mcoleman.T_ENCS_BY_ADM_CY
  2  as
  3  select *
  4  from mda.encs_by_adm_fy06
  5  where idb_init_fc = 'xx'
  6  ;

Table created.

SQL> commit;

Commit complete.
```

```
SQL>  select ic.index_name i_name, ic.column_name col_name, ic.column_position col_pos,
ix.uniqueness uniq
  2   from user_indexes ix, user_ind_columns ic
  3   where ic.index_name = ix.index_name
  4  and ic.table_name = 'ENCOUNTER_CHARGE_DETAIL';



SQL>  select ic.index_name i_name, ic.column_name col_name, ic.column_position col_pos,
ix.uniqueness uniq
  2   from user_indexes ix, user_ind_columns ic
  3   where ic.index_name = ix.index_name
  4  and ic.table_name = 'T_ENCS_BY_ADM_ALL';

INDEX_NAME
------------------------------
COLUMN_NAME
--------------------------------------------------------------------------------
   COL_POS UNIQUENES
---------- ---------
ENC_NO_IDX
ENCOUNTER_NO
         1 NONUNIQUE


SQL>
```

SQL*Plus: Release 8.1.7.0.0 - Production on Thu Feb 9 09:55:13 2006

Connected to:
Oracle9i Enterprise Edition Release 9.2.0.6.0 - 64bit Production
JServer Release 9.2.0.6.0 - Production

```
SQL> create table encs_by_adm_fy06
  2  as
  3  select * from encs_by_adm_all
  4  where rownum = 1;

Table created.

SQL> truncate table encs_by_adm_fy06;

Table truncated.

SQL> select count(*) from encs_by_adm_fy06;

  COUNT(*)
----------
         0
```