



NSQIP/CICSP ENHANCEMENTS 2004

RELEASE NOTES

SR*3*125

Version 3.0
August 2004

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Introduction

This project enhances the Surgery Risk Assessment module of the *VISTA* Surgery application, with the addition and deletion of fields, as well as updated user prompt directions as requested by the National Surgical Quality Improvement Program (NSQIP) Executive Committee. It brings the Veterans Affairs (VA) NSQIP module more in line with the data being collected in the private sector. It also updates the Continuous Improvement in Cardiac Surgery Program (CICSP) module.

The purpose of the Surgery Risk Assessment module is to facilitate data entry of both pre-operative and post-operative patient information pertaining to surgical risk assessments, and to transmit the data to a national database. Although all surgical risk data are transmitted to the national database, the cardiac and non-cardiac programs have separate executive committees, and cardiac risks are assessed and tracked separately from non-cardiac surgical risks.

Clinical nurse reviewers enter both pre-operative and post-operative patient data into the electronic data collection instrument in the *VISTA* Surgery Risk Assessment module for both programs. Various reports and screen displays give the local medical center staff a mechanism for tracking and evaluating surgical risk and operative mortality at the local level, while transmission to the national database allows for the statistical analysis of trends and quality improvement on a national scale.

Project Enhancements

The software will provide the following enhancements:

- Update description fields within the Data Dictionary (DD) to provide more detailed and current data element definitions.
- Add new data elements to data entry options.
- Restore data elements that were previously eliminated, but are now flagged for re-inclusion.
- Update transmissions to the National NSQIP and CICSP databases.

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Surgery Enhancements

This section lists the changes made to the *VISTA* Surgery application. The enhanced data collection instrument now includes data elements related to new surgical procedures and technological advances, allowing reviewers to assess the risks, mortality, and morbidity associated with the new practices. Improved online user help (updated data dictionaries) provide clinical nurse reviewers immediate detailed and current online assistance during data entry, improving the quality of data.



The *Update Operations as Unrelated/Related to Death* [SRO DEATH RELATED] option has been removed from the Surgery Risk Assessment Menu.

The updates are described in the following two sections: NSQIP Enhancements and CICSP Enhancements.

NSQIP Enhancements

The NSQIP Enhancements include data dictionary updates, option modifications, and data transmission updates.

Field Updates

The following are new fields in the SURGERY file (#130) created to support this project.

- GASTROINTESTINAL (Y/N) field (#486)
- PREOPERATIVE INR field (#487)
- PREOPERATIVE INR, DATE field (#487.1)
- ORGAN/SPACE SSI field (#488)
- OTHER WOUND OCCURRENCE field (#489)
- PRE-ILLNESS FUNCTIONAL STATUS field (#492)

The following fields in the SURGERY file (#130) have been modified.

Field Name and Number	Description of Change
IN/OUT-PATIENT STATUS field (#.011)	Updated data dictionary for NSQIP.
MAJOR/MINOR field (#.03)	Updated data dictionary for NSQIP.
CASE SCHEDULE TYPE field (#.035)	Updated data dictionary for NSQIP.
SURGERY SPECIALTY field (#.04)	Updated data dictionary for NSQIP.
TIME PAT IN OR field (#.205)	Updated data dictionary for NSQIP.
ANES CARE START TIME field (#.21)	Updated data dictionary for NSQIP.
TIME OPERATION BEGAN field (#.22)	Updated data dictionary for NSQIP.
TIME OPERATION ENDS field (#.23)	Updated data dictionary for NSQIP.
TIME PAT OUT OR field (#.232)	Updated data dictionary for NSQIP.
ANES CARE END TIME field (#.24)	Updated data dictionary for NSQIP.

Field Name and Number	Description of Change
WOUND CLASSIFICATION field (#1.09)	Updated data dictionary for NSQIP.
ASA CLASS field (#1.13)	Updated data dictionary for NSQIP.
PAC(U) DISCH TIME field (1.18)	Updated data dictionary for NSQIP.
PRINCIPAL PROCEDURE field (#26)	Updated data dictionary for NSQIP.
PRINCIPAL PROCEDURE CODE field (#27)	Updated data dictionary for NSQIP.
CONCURRENT CASE field (#35)	Updated data dictionary for NSQIP.
PRIN DIAGNOSIS CODE field (#66)	Updated data dictionary for NSQIP.
REASON FOR NO ASSESSMENT field (#102)	Updated data dictionary for NSQIP.
CURRENT SMOKER field (#202)	Updated data dictionary for NSQIP and CICSP.
PACK/YEARS field (#202.1)	Updated data dictionary for NSQIP.
HISTORY OF COPD field (#203)	Updated data dictionary for NSQIP and CICSP.
VENTILATOR DEPENDENT field (#204)	Updated data dictionary for NSQIP.
HYPERTENSION REQUIRING MEDS (#208)	Updated data dictionary for NSQIP.
CURRENTLY ON DIALYSIS field (#211)	Updated data dictionary for NSQIP.
ASCITES field (#212)	Updated data dictionary for NSQIP.
ESOPHAGEAL VARICES field (#213)	Updated data dictionary for NSQIP.
PGY OF PRIMARY SURGEON field (#214)	Updated data dictionary for NSQIP.
WEIGHT LOSS > 10% field (#215)	Updated data dictionary for NSQIP.
BLEEDING DISORDERS field (#216)	Updated data dictionary for NSQIP.
TRANSFUSION > 4 RBC UNITS field (#217)	Updated data dictionary for NSQIP.
OPEN WOUND field (#218)	Updated data dictionary for NSQIP.
PREOPERATIVE SEPSIS field (#218.1)	Updated data dictionary for NSQIP.
PREVIOUS PTCA PROCEDURE field (#220)	Updated data dictionary for NSQIP.
HEIGHT field (#236)	Updated data dictionary for NSQIP and CICSP.
WEIGHT field (#237)	Updated data dictionary for NSQIP and CICSP.
DNR STATUS field (#238)	Updated data dictionary for NSQIP.
FUNCTIONAL HEALTH STATUS field (#240)	Updated data dictionary for NSQIP and CICSP.
ETOH > 2 DRINKS/DAY field (#246)	Updated data dictionary for NSQIP.
LENGTH OF POST-OP STAY field (#247)	Updated data dictionary for NSQIP.
SUPERFICIAL INCISIONAL SSI field (#248)	Updated data dictionary for NSQIP.
DEEP INCISIONAL SSI field (#249)	Updated data dictionary for NSQIP.
SYSTEMIC SEPSIS field (#250)	Updated data dictionary for NSQIP.
PNEUMONIA field (#251)	Updated data dictionary for NSQIP.
PULMONARY EMBOLISM field (#252)	Updated data dictionary for NSQIP.
OTHER RESPIRATORY OCCURRENCE field (#253)	Updated data dictionary for NSQIP.
ACUTE RENAL FAILURE field (#254)	Updated data dictionary for NSQIP and CICSP.
URINARY TRACT INFECTION field (#255)	Updated data dictionary for NSQIP.
STROKE/CVA field (#256)	Updated data dictionary for NSQIP.
POSTOP BLEEDING/TRANSFUSIONS field (#257)	Updated data dictionary for NSQIP.
MYOCARDIAL INFARCTION field (#258)	Updated data dictionary for NSQIP.
GRAFT/PROSTHESIS/FLAP FAILURE field (#261)	Updated data dictionary for NSQIP.
RETURN TO OR WITHIN 30 DAYS field (#262)	Updated data dictionary for NSQIP.

Field Name and Number	Description of Change
DVT/THROMBOPHLEBITIS field (#263)	Updated data dictionary for NSQIP.
PREVIOUS CARDIAC SURGERY field (#266)	Updated data dictionary for NSQIP.
ON VENTILATOR >48 HOURS field (#285)	Updated data dictionary for NSQIP.
OTHER URINARY TRACT OCCURRENCE field (#286)	Updated data dictionary for NSQIP.
PERIPHERAL NERVE INJURY field (#287)	Updated data dictionary for NSQIP.
DYSPNEA field (#325)	Updated data dictionary for NSQIP.
CURRENT PNEUMONIA field (#326)	Updated data dictionary for NSQIP.
RENAL FAILURE field (#328)	Updated data dictionary for NSQIP.
REVASCLARIZATION/AMPUTATION field (#329)	Updated data dictionary for NSQIP.
REST PAIN/GANGRENE field (#330)	Updated data dictionary for NSQIP.
IMPAIRED SENSORIUM field (#332)	Updated data dictionary for NSQIP.
COMA field (#333)	Updated data dictionary for NSQIP.
HISTORY OF TIA'S field (#334)	Updated data dictionary for NSQIP.
CVA/STROKE WITH NEURO DEFICIT field (#335)	Updated data dictionary for NSQIP.
CVA/STROKE - NO NEURO DEFICIT field (#336)	Updated data dictionary for NSQIP.
DISSEMINATED CANCER field (#338)	Updated data dictionary for NSQIP.
CHEMOTHERAPY IN LAST 30 DAYS field (#338.1)	Updated data dictionary for NSQIP.
RADIOTHERAPY IN LAST 90 DAYS field (#338.2)	Updated data dictionary for NSQIP.
STEROID USE FOR CHRONIC COND. field (#339)	Updated data dictionary for NSQIP.
INTRAOP RBC UNITS TRANSFUSED field (#340)	Updated data dictionary for NSQIP.
OTHER CNS OCCURRENCE field (#343)	Updated data dictionary for NSQIP.
OTHER CARDIAC OCCURRENCE field (#344)	Updated data dictionary for NSQIP.
DIABETES field (#346)	Updated data dictionary for NSQIP.
PERIOPERATIVE MI field (#385)	Updated data dictionary for NSQIP and CICSP.
OTHER OCCURRENCES field (#392)	Updated data dictionary for NSQIP.
HISTORY OF MI field (#394)	Updated data dictionary for NSQIP.
ANGINA ONE MONTH PRIOR field (#395)	Updated data dictionary for NSQIP.
CHF WITHIN ONE MONTH field (#396)	Updated data dictionary for NSQIP.
QUADRIPLEGIA (Y/N) field (#398)	Updated data dictionary for NSQIP.
PARAPLEGIA (Y/N) field (#399)	Updated data dictionary for NSQIP.
HEMIPLEGIA/HEMIPARESIS (Y/N) field (#400)	Updated data dictionary for NSQIP.
TUMOR INVOLVING CNS (Y/N) field (#401)	Updated data dictionary for NSQIP.
WOUND DISRUPTION field (#404)	Updated data dictionary for NSQIP.
RENAL INSUFFICIENCY field (#409)	Updated data dictionary for NSQIP.
COMA > 24 HOURS POSTOP field (#410)	Updated data dictionary for NSQIP.
CARDIAC ARREST REQ CPR field (#411)	Updated data dictionary for NSQIP and CICSP.
UNPLANNED INTUBATION (Y/N) field (#412)	Updated data dictionary for NSQIP.
TRANSFER STATUS field (#413)	Updated data dictionary for NSQIP.

Field Name and Number	Description of Change
HOSPITAL ADMISSION DATE field (#418)	Updated data dictionary for NSQIP.
HOSPITAL DISCHARGE DATE field (#419)	Updated data dictionary for NSQIP.
ADMISSION/TRANSFER DATE field (#420)	Updated data dictionary for NSQIP.
DISCHARGE/TRANSFER DATE field (#421)	Updated data dictionary for NSQIP.
OBSERVATION ADMISSION DATE field (#452)	Updated data dictionary for NSQIP.
OBSERVATION DISCHARGE DATE field (#453)	Updated data dictionary for NSQIP.
OBSERVATION TREATING SPECIALTY field (#454)	Updated data dictionary for NSQIP.
MALLAMPATI SCALE field (#901.1)	Updated data dictionary for NSQIP.

Option Updates

The following options have been modified as described.

- The *Preoperative Information (Enter/Edit)* [SROA PREOP DATA] option and the *Print a Surgery Risk Assessment* [SROA Print Assessment] option now prompt the user for these fields:
 - Previous PTCA (percutaneous transluminal coronary artery angioplasty)
 - Previous cardiac surgery
 - History of angina within 1 month prior to surgery
 - Hypertension requiring medication
 - History of revascularization/amputation for peripheral vascular disease
 - Rest pain/gangrene
 - Height
 - Weight
 - Esophageal varices
 - Myocardial infarction: within 1 month prior to surgery
 - Quadriplegia
 - Paraplegia
- Three prompts in the *Preoperative Information (Enter/Edit)* [SROA PREOP DATA] option are modified to specify the data being collected. (For example, the word ‘severe’ is added to the prompt for “COPD”, so that the new prompt is ‘History of severe COPD’.)
- In the *Non-Cardiac Assessment Information (Enter/Edit)* option, the data entry/edit screens are rearranged so that they are in accordance with NSQIP guidelines.

Data Transmissions

The data transmissions to the national database will also include the new data elements and/or codes for NSQIP.

CICSP Enhancements

The CICSP enhancements include DD updates, option modifications, and data transmission updates.

Field Updates

The following are new fields in the SURGERY file (#130) created to support this project.

- HOMELESS field (#473)
- PREOP CIRCULATORY DEVICE field (#474)
- DIABETES (CARDIAC) field (#475)
- PROCEDURE TYPE field (#476)
- AORTIC STENOSIS field (#477)
- RE-DO LAD STENOSIS field (#478)
- RE-DO RT CORONARY STENOSIS field (#479)
- RE-DO CIRCUMFLEX STENOSIS field (#480)
- BRIDGE TO TRANSPLANT/DEVICE field (#481)
- MAZE PROCEDURE field (#482)
- TMR field (#483)
- OTHER CT PROCEDURE field (#484)
- PRIOR HEART SURGERIES field (#485)
- REPEAT VENTILATOR W/IN 30 DAYS field (#490)
- OTHER NON-CT PROCEDURES field (#491)

The following are new fields in the POSTOP OCCURRENCE file (#130.22) created to support this project.

- SEPSIS CATEGORY field (#7)
- CPB STATUS field (#8)

The following fields in the SURGERY file (#130) have been modified.

Field Name and Number	Description of Change
CURRENT SMOKER field (#202)	Updated data dictionary for NSQIP and CICSP.
CARDIOMEGALY field (#209)	Updated data dictionary for CICSP.
PREOPERATIVE HEMOGLOBIN field (#219)	Updated data dictionary for CICSP.
PREOPERATIVE SERUM CREATININE field (#223)	Updated data dictionary for CICSP.
PREOPERATIVE SERUM ALBUMIN field (#225)	Updated data dictionary for CICSP.
FUNCTIONAL HEALTH STATUS field (#240)	Updated data dictionary for NSQIP and CICSP.
FEV1 field (#347)	Updated data dictionary for CICSP.
PULMONARY RALES field (#348)	Updated data dictionary for CICSP.
ACTIVE ENDOCARDITIS field (#349)	Updated data dictionary for CICSP.
ACUTE RENAL FAILURE field (#254)	Updated data dictionary for NSQIP and CICSP.
PCI field (#351)	Updated data dictionary for CICSP.
NUM OF PRIOR HEART SURGERIES field (#352)	Updated data dictionary for CICSP.
LVEDP field (#357)	Updated data dictionary for CICSP.
AORTIC SYSTOLIC PRESSURE field (#358)	Updated data dictionary for CICSP.
PA SYSTOLIC PRESSURE field (#359)	Updated data dictionary for CICSP.
PAW MEAN PRESSURE field (#360)	Updated data dictionary for CICSP.
LEFT MAIN STENOSIS field (#361)	Updated data dictionary for CICSP.
LAD STENOSIS field (#362.1)	Updated data dictionary for CICSP.
RIGHT CORONARY STENOSIS field (#362.2)	Updated data dictionary for CICSP.
CIRCUMFLEX STENOSIS field (#362.3)	Updated data dictionary for CICSP.
LV CONTRACTION SCORE field (#363)	Updated data dictionary for CICSP.
AORTIC VALVE REPLACEMENT field (#367)	Updated data dictionary for CICSP.
MITRAL VALVE REPLACEMENT field (#368)	Updated data dictionary for CICSP.
VALVE REPAIR field (#370)	Updated data dictionary for CICSP.
GREAT VESSEL REPAIR field (#372)	Updated data dictionary for CICSP.
CARDIAC TRANSPLANT field (#373)	Updated data dictionary for CICSP.
OTHER TUMOR RESECTION field (#379)	Updated data dictionary for CICSP.
OTHER CARDIAC PROCEDURES field (#383.1)	Updated data dictionary for CICSP.
PERIOPERATIVE MI field (#385)	Updated data dictionary for NSQIP and CICSP.
ENDOCARDITIS field (#386)	Updated data dictionary for CICSP.
MEDIASTINITIS field (#388)	Updated data dictionary for CICSP.
REOPERATION FOR BLEEDING field (#389)	Updated data dictionary for CICSP.
STROKE field (#390)	Updated data dictionary for CICSP.
REPEAT CARDIAC SURG PROCEDURE field (#391)	Updated data dictionary for CICSP.
CARDIAC ARREST REQ CPR field (#411)	Updated data dictionary for NSQIP and CICSP.
CARDIAC SURGICAL PRIORITY field (#414)	Updated data dictionary for CICSP.
MITRAL REGURGITATION field (#415)	Updated data dictionary for CICSP.
NUMBER WITH OTHER CONDUIT field (#416)	Updated data dictionary for CICSP.
HDL (CARDIAC) field (#457)	Updated data dictionary for CICSP.

Field Name and Number	Description of Change
HDL, DATE field (#457.1)	Updated data dictionary for CICSP.
SERUM TRIGLYCERIDE (CARDIAC) field (#458)	Updated data dictionary for CICSP.
SERUM TRIGLYCERIDE, DATE (CAR) field (#458.1)	Updated data dictionary for CICSP.
SERUM POTASSIUM (CARDIAC) field (#459)	Updated data dictionary for CICSP.
SERUM POTASSIUM DATE (CARDIAC) field (#459.1)	Updated data dictionary for CICSP.
SERUM BILIRUBIN (CARDIAC) field (#460)	Updated data dictionary for CICSP.
SERUM BILIRUBIN DATE (CARDIAC) field (#460.1)	Updated data dictionary for CICSP.
LDL (CARDIAC) field (#461)	Updated data dictionary for CICSP.
LDL, DATE (CARDIAC) field (#461.1)	Updated data dictionary for CICSP.
TOTAL CHOLESTEROL (CARDIAC) field (#462)	Updated data dictionary for CICSP.
TOTAL CHOLESTEROL, DATE field (#462.1)	Updated data dictionary for CICSP.
HYPERTENSION field (#463)	Updated data dictionary for CICSP.
TRACHEOSTOMY field (#466)	Updated data dictionary for CICSP.
NEW MECHANICAL CIRCULATORY field (#467)	Updated data dictionary for CICSP.
CONVERT FROM OFF PUMP TO CPB field (#469)	Updated data dictionary for CICSP.
D/T PATIENT EXTUBATED field (#470)	Updated data dictionary for CICSP.
D/T PATIENT DISCH FROM ICU field (#471)	Updated data dictionary for CICSP.
CARDIAC SURG PERFORMED NON-VA field (#472)	Updated data dictionary for CICSP.

Option Updates

The following options have been added or modified as described.

- The *Update Operations as Unrelated/Related to Death* [SROA DEATH RELATED] option has been removed from the *Surgery Risk Assessment Menu* [SROA RISK ASSESSMENT] option. This option continues to be available through the *Chief of Surgery Menu* [SROA CHIEF] option.
- The *Laboratory Test Results (Enter/Edit)* [SROA LAB-CARDIAC] option was added to the *Cardiac Risk Assessment Information (Enter/Edit)* [SROA CARDIAC ENTER/EDIT] menu, and allows the user to enter or edit imported laboratory data.
- The *Outcome Information (Enter/Edit)* [SROA CARDIAC-OUTCOMES] option was added to the *Cardiac Risk Assessment Information (Enter/Edit)* [SROA CARDIAC ENTER/EDIT] menu, and allows the user to enter or edit outcome information for cardiac procedures.
- The *Clinical Information (Enter/Edit)* [SROA CLINICAL INFORMATION] option has added the following new prompts for data entry:
 - Number prior heart surgeries
 - Prior Heart Surgeries
 - Diabetes
 - Preop Circulatory Device
- The Clinical Information screen also includes these changes:
 - The fields Creatinine, Hemoglobin, and Serum Albumin are moved from this screen to the Preoperative Laboratory Results screen. Creatinine has changed to Serum Creatinine.
 - The field PTCA is renamed to PCI.
- The *Cardiac Catheterization and Angiographic Data* [SROA CATHERIZATION] option has added the following new prompts for data entry:
 - Procedure type
 - Aortic Stenosis
 - Re-do LAD Stenosis
 - Re-do Right Coronary Stenosis
 - Re-do Circumflex Stenosis
- The menu text for *Cardiac Procedures Requiring CPB (Enter/Edit)* [SROA CARDIAC PROCEDURES] option has changed to *Cardiac Procedures Operative Data (Enter/Edit)* [SROA CARDIAC PROCEDURES] option. It has added the following new prompts for data entry:
 - Bridge to transplant/Device
 - MAZE procedure
 - TMR
 - Other CT procedures
 - Other Non-CT Procedures

- The *Print a Surgery Risk Assessment* [SROA PRINT ASSESSMENT] option now conforms to the CICSP guidance. This includes new fields, updated field titles, and these new sections:
 - CLINICAL INFORMATION
 - OUTCOMES
 - SOCIOECONOMIC, ETHNICITY, AND RACE
 - DETAILED DISCHARGE INFORMATION
 - DETAILED LABORATORY INFORMATION – PREOPERATIVE VALUES ASSESSED AT PATIENT DISCHARGE

Data Transmissions

The data transmissions to the CICSP database now include the new data elements.

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