

# NATIONAL QUALITY FORUM

## Measure Evaluation 4.1 December 2009

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the [evaluation criteria](#) are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

**TAP/Workgroup** (if utilized): Complete all **yellow highlighted** areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

**Note:** If there is no TAP or workgroup, the SC also evaluates the subcriteria (**yellow highlighted areas**).

**Steering Committee:** Complete all **pink** highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

### Evaluation ratings of the extent to which the criteria are met

C = Completely (unquestionably demonstrated to meet the criterion)

P = Partially (demonstrated to partially meet the criterion)

M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)

N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)

NA = Not applicable (only an option for a few subcriteria as indicated)

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| (for NQF staff use) NQF Review #: 1539   | NQF Project: Surgery Endorsement Maintenance 2010 |
| <b>MEASURE DESCRIPTIVE INFORMATION</b>   |   |
| <b>De.1 Measure Title:</b> Platelet Transfusion Indication   |   |
| <b>De.2 Brief description of measure:</b> Percentage of transfused platelet doses (bags) with pre-transfusion platelet count result and clinical indication documented - applicable to inpatients of all ages.   |   |
| <b>1.1-2 Type of Measure:</b> Process  |   |
| <b>De.3 If included in a composite or paired with another measure, please identify composite or paired measure</b><br>PBM-04 is a part of the Patient Blood Management (PBM) measure set: PBM-01 (Transfusion Consent), PBM-02 (RBC Transfusion Indication), PBM-03 (Plasma Transfusion Indication, PBM-05 (Blood Administration Documentation), PBM-06 (Preoperative Anemia Screening), PBM-07 (Preoperative Blood Type Testing and Antibody Screening) |   |
| <b>De.4 National Priority Partners Priority Area:</b> Care coordination, Safety, Overuse   |   |
| <b>De.5 IOM Quality Domain:</b> Effectiveness, Patient-centered, Safety  |   |
| <b>De.6 Consumer Care Need:</b> Getting better, Living with illness  |   |

| CONDITIONS FOR CONSIDERATION BY NQF   |  |
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| Four conditions must be met before proposed measures may be considered and evaluated for suitability as voluntary consensus standards:  | <b>NQF Staff</b>   |
| <b>A.</b> The measure is in the public domain or an intellectual property ( <a href="#">measure steward agreement</a> ) is signed. <i>Public domain only applies to governmental organizations. All non-government organizations must sign a measure steward agreement even if measures are made publicly and freely available.</i><br><b>A.1</b> Do you attest that the measure steward holds intellectual property rights to the measure and the right to use aspects of the measure owned by another entity (e.g., risk model, code set)? <b>Yes</b><br><b>A.2</b> Indicate if Proprietary Measure (as defined in measure steward agreement):<br><b>A.3</b> Measure Steward Agreement: <b>Agreement will be signed and submitted prior to or at the time of measure submission</b><br><b>A.4</b> Measure Steward Agreement attached: | <b>A</b><br><b>Y</b> <input type="checkbox"/><br><b>N</b> <input type="checkbox"/> |

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| B. The measure owner/steward verifies there is an identified responsible entity and process to maintain and update the measure on a schedule that is commensurate with the rate of clinical innovation, but at least every 3 years. <a href="#">Yes, information provided in contact section</a>  | B<br>Y <input type="checkbox"/><br>N <input type="checkbox"/>   |
| C. The intended use of the measure includes <u>both</u> public reporting <u>and</u> quality improvement.<br>► <b>Purpose:</b> <a href="#">Public reporting, Internal quality improvement Accreditation</a>  | C<br>Y <input type="checkbox"/><br>N <input type="checkbox"/>   |
| D. The requested measure submission information is complete. Generally, measures should be fully developed and tested so that all the evaluation criteria have been addressed and information needed to evaluate the measure is provided. Measures that have not been tested are only potentially eligible for a time-limited endorsement and in that case, measure owners must verify that testing will be completed within 12 months of endorsement.<br>D.1 Testing: <a href="#">Yes, fully developed and tested</a><br>D.2 Have NQF-endorsed measures been reviewed to identify if there are similar or related measures?<br><a href="#">Yes</a> | D<br>Y <input type="checkbox"/><br>N <input type="checkbox"/>   |
| (for NQF staff use) Have all conditions for consideration been met?<br>Staff Notes to Steward (if submission returned):   | Met<br>Y <input type="checkbox"/><br>N <input type="checkbox"/> |
| Staff Notes to Reviewers (issues or questions regarding any criteria):  |   |
| Staff Reviewer Name(s):   |   |

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| TAP/Workgroup Reviewer Name:  |  |
| Steering Committee Reviewer Name:   |  |
| <b>1. IMPORTANCE TO MEASURE AND REPORT</b>  |  |
| Extent to which the specific measure focus is important to making significant gains in health care quality (safety, timeliness, effectiveness, efficiency, equity, patient-centeredness) and improving health outcomes for a specific high impact aspect of healthcare where there is variation in or overall poor performance.<br><a href="#">Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria. (evaluation criteria)</a><br>1a. High Impact  | <a href="#">Eval Rating</a>  |
| (for NQF staff use) <a href="#">Specific NPP goal</a> :   |  |
| 1a.1 Demonstrated High Impact Aspect of Healthcare: <a href="#">Frequently performed procedure, Leading cause of morbidity/mortality, Patient/societal consequences of poor quality</a><br>1a.2<br>1a.3 Summary of Evidence of High Impact: <a href="#">Each year 2 million doses of platelets are transfused in the US for various abnormalities of hemostasis. The number of units transfused as a result of an abnormal laboratory value in the absence of impaired hemostasis is unknown, but could be substantial. Platelets are transfused to treat or prevent bleeding associated with thrombocytopenia and/or platelet dysfunction. Platelets given therapeutically should help stop the bleeding, and if given prophylactically, post transfusion platelet counts should be obtained to monitor the response to determine the effectiveness of the transfusion.</a><br>1a.4 Citations for Evidence of High Impact: <a href="#">Roback JD, ed. Technical manual. 16th ed, Bethesda, MD: AABB, 2008. British committee for standards in haematology (1999) guidelines for the administration of blood and blood components and the management of transfused patients. Transfusion Medicine, 9, 227-238. Liumbruno G, Bennardello F, Lattanzio A, et al. (SIMTI) Working Party. Recommendations for the transfusion of plasma and platelets retrieved from the world wide web on October 12, 2010 at http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2689068/?log%24=activity Slichter, SJ. Evidence-based platelet transfusion guidelines. American Society of Hematology 2007: 172-178.</a> | 1a<br>C <input type="checkbox"/><br>P <input type="checkbox"/><br>M <input type="checkbox"/><br>N <input type="checkbox"/> |

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| <p>Guidelines for the use of platelet transfusions. BR J Haematol 2003;122;10-23.<br/>Mintz PD,ed. Transfusion therapy: clinical principles and practice. 3rd ed. Bethesda, MD: AABB 2011.</p>  |  |
| <p><b>1b. Opportunity for Improvement</b></p> <p><b>1b.1 Benefits (improvements in quality) envisioned by use of this measure:</b> Despite nearly two decades of awareness of inconsistent transfusion practices and publication of clinical practice guideline, there has not been improvement in the wide variability of transfusion rates for platelets. Measuring and monitoring patients that receive platelets will provide data that can be used to determine if patients are receiving the best care based on the guidelines.</p> <p><b>1b.2 Summary of data demonstrating performance gap (variation or overall poor performance) across providers:</b><br/>Although most platelet transfusions are given prophylactic ally to patients undergoing chemotherapy, a large number of transfusions are given to “prepare” patients for procedures. This is a common occurrence that is not an evidence-based practice.<br/>One hospital changed their policy of transfusing prophylactic platelets at 20,000/<math>\mu</math>L to a combined approach of considering the platelet count and patient status resulted in the consumption of half of their platelet usage with no apparent increase in hemorrhagic complications. In the recent TRAC study, platelet use for patients undergoing isolated primary coronary artery bypass graft surgery ranged from 0.4% to 90.4% at 408 hospitals.</p> <p><b>1b.3 Citations for data on performance gap:</b><br/>Roback JD, ed. Technical manual. 16th ed, Bethesda, MD: AABB, 2008.<br/>McVay PA, Toy PT. Lack of increased bleeding after paracentesis and thoracentesis in patients with mild coagulation abnormalities. Transfusion 1991;31:164-71.<br/>DeLoughery TG, Liebler JM, Simonds V, Goodnight SH. Invasive line placement in critically ill patients: Do hemostatic defects matter? Transfusion 1996;36:827-31.<br/>Goldfarb G, Lebrech D. Percutaneous cannulation of the internal jugular vein in patients with coagulopathies: An experience based on 1000attempts. Anesthesiology 1982;56:321-3.<br/>Goodnough LT, Tran MH, Yazer MH. Transfusion triggers In Waters, JH, ed. Blood Management Options for Better Patient Care Bethesda, MD; AABBPress 2008.<br/>Guerrero EB, Zhao Y, Obrien SM, Ferguson TB, Peterson ED, et al. Variation in use of blood transfusion in coronary artery bypass graft surgery. JAMA 2010;304(14) 1568-1575.</p> <p><b>1b.4 Summary of Data on disparities by population group:</b><br/>NA</p> <p><b>1b.5 Citations for data on Disparities:</b><br/>NA</p> | <p><b>1b</b></p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p> |
| <p><b>1c. Outcome or Evidence to Support Measure Focus</b></p> <p><b>1c.1 Relationship to Outcomes</b> (<i>For non-outcome measures, briefly describe the relationship to desired outcome. For outcomes, describe why it is relevant to the target population</i>): Transfusion of platelets has been associated with adverse events. Repeated platelet transfusions can cause alloimmunization and platelet refractoriness to future transfusions. Multiple infectious risks are associated with platelet transfusions, so patients should only be exposed to the least amount needed. Collecting data on the transfusion processes of care can reduce variability within hospitals and has been shown to improve patient outcomes.</p> <p><b>1c.2-3. Type of Evidence:</b> Observational study, Evidence-based guideline, Expert opinion, Systematic synthesis of research, Meta-analysis</p> <p><b>1c.4 Summary of Evidence</b> (<i>as described in the criteria; for outcomes, summarize any evidence that healthcare services/care processes influence the outcome</i>):<br/>A retrospective review of 608 patients did not find any increased bleeding in patients with bleeding twice the midpoint of normal or platelet counts of 50 - 99 x 10<sup>9</sup> /L.<br/>A retrospective analysis of 490 intensive care unit (ICU) patients in whom 938 arterial and venous catheters</p>   | <p><b>1c</b></p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p> |

were placed found that preprocedural transfusion did not appear to impact the complication rate. However, 18 of 57 patients that received transfusions were inappropriately prescribed. A higher rate of bleeding was found in medical patients as opposed to trauma or surgery patients with rates of 9%, 1.4% and 0.6% respectively that was attributed to inexperience of medical residents. However, this inexperience did not improve the bleeding rate in a report of 1000 attempts at internal jugular vein cannulations in patients with coagulopathy of liver disease by the medical service group. Hemorrhagic complications occurred in 10 patients with only one requiring surgical repair. Most series examining transfusion before line placement in patients with thrombocytopenia (with or without other coagulopathy, report a low incidence of bleeding complications (= 1% - 6%). It appears that preprocedure or prophylactic platelet transfusion has little impact on subsequent bleeding complications, but operator inexperience was noted as the greatest predictor of bleeding in several series.

**1c.5 Rating of strength/quality of evidence** (also provide narrative description of the rating and by whom):

NA

**1c.6 Method for rating evidence:** NA

**1c.7 Summary of Controversy/Contradictory Evidence:** Unknown

**1c.8 Citations for Evidence** (other than guidelines): Roback JD, ed. Technical manual. 16th ed, Bethesda, MD: AABB, 2008.

McVay PA, Toy PT. Lack of increased bleeding after paracentesis and thoracentesis in patients with mild coagulation abnormalities. Transfusion 1991;31:164-71.

DeLoughery TG, Liebler JM, Simonds V, Goodnight SH. Invasive line placement in critically ill patients: Do hemostatic defects matter? Transfusion 1996;36:827-31.

Goldfarb G, Lebrech D. Percutaneous cannulation of the internal jugular vein in patients with coagulopathies: An experience based on 1000 attempts. Anesthesiology 1982;56:321-3.

Goodnough LT, Tran MH, Yazer MH. Transfusion triggers In Waters, JH, ed. Blood Management Options for Better Patient Care Bethesda, MD; AABB Press 2008.

Guerrero EB, Zhao Y, Obrien SM, Ferguson TB, Peterson ED, et al. Variation in use of blood transfusion in coronary artery bypass graft surgery. JAMA 2010;304(14) 1568-1575.

Hajjar LA, Vincent JL, Galas FRBG, Nakamura RE, Silva CMP, et al. Transfusion requirements after cardiac surgery: the TRACS randomized controlled trial. JAMA 2010; 304(14)1559-1567.

Shander AS, Goodnough LT. Blood transfusion as a quality indicator in cardiac surgery. JAMA 2010;(14)1610-1611.

**1c.9 Quote the Specific guideline recommendation** (including guideline number and/or page number):

It is reasonable to transfuse non-red cell hemostatic blood products based on clinical evidence of bleeding and preferably guided by point-of-care tests that assess hemostatic function in a timely and accurate manner. (#4-2 p. S36).

**1c.10 Clinical Practice Guideline Citation:** Perioperative Blood Transfusion and Blood Conservation in Cardiac Surgery: The Society of Thoracic Surgeons and The Society of Cardiovascular Anesthesiologists Clinical Practice Guideline. Ann. Thorac. Surg., May 2007; 83: S27 - S86.

**1c.11 National Guideline Clearinghouse or other URL:**

<http://www.sts.org/sections/aboutthesociety/practiceguidelines>

**1c.12 Rating of strength of recommendation** (also provide narrative description of the rating and by whom):

Level of evidence is C, Class IIa

**1c.13 Method for rating strength of recommendation** (If different from [USPSTF system](#), also describe rating and how it relates to USPSTF):

The classification system is the same as that used by the Joint Task Force for Guidelines of the American College of Cardiology (ACC) and the American Heart Association (AHA).

Classification of Recommendations

Class I: Conditions for which there is evidence and/or general agreement that a given procedure or

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| <p>treatment is useful and effective.</p> <p>Class II: Conditions for which there is conflicting evidence and/or a divergence of opinion about the usefulness/efficacy of a procedure or treatment.</p> <p>IIa. Weight of evidence/opinion is in favor of usefulness/efficacy</p> <p>IIb. Usefulness/efficacy is less well established by evidence/opinion.</p> <p>Class III: Conditions for which there is evidence and/or general agreement that the procedure/treatment is not useful/effective, and in some cases may be harmful.</p> <p>Level of Evidence</p> <p>Level of Evidence A: Data derived from multiple randomized clinical trials</p> <p>Level of Evidence B: Data derived from a single randomized trial, or non-randomized studies</p> <p>Level of Evidence C: Consensus opinion of experts</p> <p><b>1c.14 Rationale for using this guideline over others:</b></p> <p>This measure set includes elective cardiac surgery patients. This guideline is cited because it supports platelet usage based on clinical evidence and prefers that point-of-care testing is used to assess hemostatic function prior to transfusion.</p> |   |
| <b>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Importance to Measure and Report</i>?</b>   | <b>1</b>  |
| <b>Steering Committee: Was the threshold criterion, <i>Importance to Measure and Report</i>, met?</b><br><b>Rationale:</b>  | <b>1</b><br>Y <input type="checkbox"/><br>N <input type="checkbox"/>  |
| <b>2. SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES</b>  |   |
| Extent to which the measure, <u>as specified</u> , produces consistent (reliable) and credible (valid) results about the quality of care when implemented. ( <a href="#">evaluation criteria</a> )  | <a href="#">Eval</a><br><a href="#">Rating</a>  |
| <b>2a. MEASURE SPECIFICATIONS</b>   |   |
| <b>S.1 Do you have a web page where current detailed measure specifications can be obtained?</b><br><b>S.2 If yes, provide web page URL:</b><br><br><b>2a. Precisely Specified</b>  |   |
| <b>2a.1 Numerator Statement</b> ( <i>Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome</i> ):<br>Number of platelet doses(bags) with pre-transfusion platelet count result and clinical indication documented   |   |
| <b>2a.2 Numerator Time Window</b> ( <i>The time period in which cases are eligible for inclusion in the numerator</i> ):<br>Episode of care   |   |
| <b>2a.3 Numerator Details</b> ( <i>All information required to collect/calculate the numerator, including all codes, logic, and definitions</i> ):<br>The doses(bags)in the numerator are a subset of the denominator doses. The following data elements are collected for the numerator; Clinical Indication for Platelets, Pre-transfusion Platelet Count and Platelet ID. Detailed descriptions are provided in attachment for Section 2a.30.  |   |
| <b>2a.4 Denominator Statement</b> ( <i>Brief, text description of the denominator - target population being measured</i> ):<br>Number of transfused platelet doses (bags) evaluated   |   |
| <b>2a.5 Target population gender:</b> Female, Male<br><b>2a.6 Target population age range:</b> Patients of all ages admitted to hospital  | <b>2a-specs</b><br>C <input type="checkbox"/><br>P <input type="checkbox"/><br>M <input type="checkbox"/><br>N <input type="checkbox"/> |
| <b>2a.7 Denominator Time Window</b> ( <i>The time period in which cases are eligible for inclusion in the denominator</i> ):<br>Episode of Care   |   |

**2a.8 Denominator Details** (All information required to collect/calculate the denominator - the target population being measured - including all codes, logic, and definitions):

Admission Date

Blood Administration Location

Blood Bank Records

ICD-9-CM Principal or Other Procedure Codes

Platelet ID

Pre-transfusion Platelet Count

Detailed descriptions are provided in attachment for Section 2a.30.

**2a.9 Denominator Exclusions** (Brief text description of exclusions from the target population):

**2a.10 Denominator Exclusion Details** (All information required to collect exclusions to the denominator, including all codes, logic, and definitions):

**2a.11 Stratification Details/Variables** (All information required to stratify the measure including the stratification variables, all codes, logic, and definitions):

This measure could be stratified using the data element Blood Administration Location. The definition is the location where the blood transfusion started. Allowable values are: Intraoperative or Non-intraoperative Setting.

**2a.12-13 Risk Adjustment Type:** No risk adjustment necessary

**2a.14 Risk Adjustment Methodology/Variables** (List risk adjustment variables and describe conceptual models, statistical models, or other aspects of model or method):

**2a.15-17 Detailed risk model available Web page URL or attachment:**

**2a.18-19 Type of Score:** Rate/proportion

**2a.20 Interpretation of Score:** Better quality = Higher score

**2a.21 Calculation Algorithm** (Describe the calculation of the measure as a flowchart or series of steps): Algorithms are provided in attachment for Section 2a.30.

**2a.22 Describe the method for discriminating performance** (e.g., significance testing):

During the six-month pilot, the distribution of the hospital rates was reviewed over time.

**2a.23 Sampling (Survey) Methodology** If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate):

For pilot testing, hospitals were requested to submit 10 cases of patients with platelet transfusions that were discharged from the designated six months. Post pilot, the sample size will be based on the number of platelet units transfused per discharge month or quarter.

Hospitals that choose to sample have the option of sampling quarterly or monthly. A hospital may choose to use a larger sample size than required. Hospitals with an initial population size less than the minimum number of doses/bags transfused per quarter/month for the measure, cannot apply sampling to the measure.

**2a.24 Data Source** (Check the source(s) for which the measure is specified and tested)

Documentation of original self-assessment, Paper medical record/flow-sheet, Lab data

**2a.25 Data source/data collection instrument** (Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.):

The Joint Commission developed a web-based data collection tool that was used by hospitals and for reliability testing during the pilot test. When the measures are made part of The Joint Commission's ORYX data collection and reporting program, the data would be collected using contracted Performance Measurement Systems (vendors) that develop data collection tools based on the measure specifications. The tools are verified and tested by Joint Commission staff to confirm the accuracy of the data collection tool with the specifications.

**2a.26-28 Data source/data collection instrument reference web page URL or attachment:** Attachment



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| <p><a href="#">The_Patient Blood_Management_Tool [1]-634279278614826626.pdf</a></p> <p><b>2a.29-31 Data dictionary/code table web page URL or attachment:</b> <a href="#">Attachment PBMSpecifications-634279425608300826.pdf</a></p> <p><b>2a.32-35 Level of Measurement/Analysis</b> (<i>Check the level(s) for which the measure is specified and tested</i>)<br/> <a href="#">Facility/Agency, Can be measured at all levels</a></p> <p><b>2a.36-37 Care Settings</b> (<i>Check the setting(s) for which the measure is specified and tested</i>)<br/> <a href="#">Hospital</a></p> <p><b>2a.38-41 Clinical Services</b> (<i>Healthcare services being measured, check all that apply</i>)<br/> <a href="#">Clinicians: PA/NP/Advanced Practice Nurse, Clinicians: Physicians (MD/DO)</a></p>  |  |
| <b>TESTING/ANALYSIS</b>  |  |
| <p><b>2b. Reliability testing</b></p> <p><b>2b.1 Data/sample</b> (<i>description of data/sample and size</i>): <a href="#">A sample of 194 medical records were reabstracted at 12 randomly selected acute care hospitals of different sizes and locations throughout the country from July through September 2010.</a></p> <p><b>2b.2 Analytic Method</b> (<i>type of reliability &amp; rationale, method for testing</i>):<br/> <a href="#">Hospitals for reliability testing were randomly selected based on multiple characteristics, including region (west, south, north central, northeast), hospital type (teaching/non-teaching, rural/urban), and bed size (0-99, 100-199, 200-299, 300+). The objectives of the reliability site visits included: evaluation of the reliability of the individual measures and associated data elements, assessment of data collection effort including abstraction time and estimated cost, assessment of measure specifications including definitions, abstraction guidelines, etc. and assessment of sampling strategies. To prepare for the reliability site visits, the data collection tool that was used by the pilot hospitals was enhanced and tested. During the reliability site visit, Joint Commission staff re-abstracted a sub-set of records that had been previously submitted by the hospital into the enhanced data collection tool without knowing the measure specific data values that the hospital had submitted. When reabstraction was completed for each record, the results from the hospital and Joint Commission staff were compared and differences adjudicated in the program. Focus group interviews were conducted at each hospital and findings were discussed with each hospital to understand what aspects could be improved. A comparison of calculated indicator rates using data originally abstracted by hospitals and the data that were reabstracted by The Joint Commission staff was adjudicated on each measure and the individual data elements. Statistical analysis utilized Kappa scores and p values.</a></p> <p><b>2b.3 Testing Results</b> (<i>reliability statistics, assessment of adequacy in the context of norms for the test conducted</i>):<br/> <a href="#">The number of originally abstracted denominator events was 33 with a computed original measure rate of 73%. The number of re-abstracted denominator events was 34 with a re-abstracted measure rate of 68%. The absolute difference was 5% with a Kappa score of 0.571. The percent of hospital identified population verified as 99%. The match rate for 51 events for the individual data elements was: Clinical Indication for Platelets 65%, Platelet Event ID 94%, Platelet Event Total Doses 94%, and Pre-transfusion Platelet Count 78%. Measure specifications have been revised to strengthen and provide additional clarity to the data element definitions and abstraction guidelines.</a></p> | <p><b>2b</b></p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p> |
| <p><b>2c. Validity testing</b></p> <p><b>2c.1 Data/sample</b> (<i>description of data/sample and size</i>): <a href="#">Face validity was tested by a total of 63 hospitals of various sizes and geographic locations across the country that represented over 300 individuals during August and May 2009. Measure specifications were sent to the test hospitals for review. In addition, on-site focus interviews were conducted at five hospitals. Criterion validity was evaluated during the reliability site visits mentioned above as well as through an online survey that the participating hospitals completed.</a></p>  | <p><b>2c</b></p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p> |

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| <p><b>2c.2 Analytic Method</b> (<i>type of validity &amp; rationale, method for testing</i>):<br/> The measure information form and the data dictionary were evaluated for face validity. The following parts of the measure information form were evaluated: numerator statement, numerator inclusions, numerator exclusions, denominator statement, denominator inclusions, denominator exclusions and an overall understanding of the measure information form. Each area was scored utilizing a five-point Likert scale. For each data element, the hospitals were asked to comment on the clarity and understanding of the abstraction guidelines and data definitions. In addition, the data dictionary was reviewed for overall understanding, usefulness and clarity utilizing a five-point Likert scale. Qualitative analysis was performed on measure feedback received during the focus group interviews and from the online surveys.</p> <p><b>2c.3 Testing Results</b> (<i>statistical results, assessment of adequacy in the context of norms for the test conducted</i>):<br/> A total of 58 hospitals completed the face validity evaluation and rated the overall understanding of the numerator and denominator statements an average 4.3% that ranked the measure 4th out of the 10 measures. Modifications to improve the understanding and clarity of the measure specifications were made prior to pilot testing based on feedback received from the hospitals during the face validity evaluation. Analysis of the online survey revealed 98% (57/58) of the pilot hospitals recommended moving the measure forward to the pilot test with suggested modifications. Note: For alpha testing, samples of all three blood products were proposed for one measure population.</p> |  |
| <p><b>2d. Exclusions Justified</b></p> <p><b>2d.1 Summary of Evidence supporting exclusion(s):</b></p> <p><b>2d.2 Citations for Evidence:</b></p> <p><b>2d.3 Data/sample</b> (<i>description of data/sample and size</i>):</p> <p><b>2d.4 Analytic Method</b> (<i>type analysis &amp; rationale</i>):</p> <p><b>2d.5 Testing Results</b> (<i>e.g., frequency, variability, sensitivity analyses</i>):</p>   | <p>2d</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p> <p>NA <input type="checkbox"/></p> |
| <p><b>2e. Risk Adjustment for Outcomes/ Resource Use Measures</b></p> <p><b>2e.1 Data/sample</b> (<i>description of data/sample and size</i>):</p> <p><b>2e.2 Analytic Method</b> (<i>type of risk adjustment, analysis, &amp; rationale</i>):</p> <p><b>2e.3 Testing Results</b> (<i>risk model performance metrics</i>):</p> <p><b>2e.4 If outcome or resource use measure is not risk adjusted, provide rationale:</b></p>   | <p>2e</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p> <p>NA <input type="checkbox"/></p> |
| <p><b>2f. Identification of Meaningful Differences in Performance</b></p> <p><b>2f.1 Data/sample from Testing or Current Use</b> (<i>description of data/sample and size</i>): A sample of patients was selected from the eligible measure population. For each patient, a maximum of the first three 'events' (based on transfusion order) that could include up to three units or doses of blood from each of the three types of blood products were used for measurement purposes.</p> <p><b>2f.2 Methods to identify statistically significant and practically/meaningfully differences in performance</b> (<i>type of analysis &amp; rationale</i>):<br/> Z-scores were used to determine hospital measure rates that were significantly different from the overall average.</p>   | <p>2f</p> <p>C <input type="checkbox"/></p> <p>P <input type="checkbox"/></p> <p>M <input type="checkbox"/></p> <p>N <input type="checkbox"/></p>                                    |



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| <b>2f.3 Provide Measure Scores from Testing or Current Use</b> ( <i>description of scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningful differences in performance</i> ):<br>Mean Rate for All Hospitals = 74.9%<br>Overall Rate for All Hospitals = 72.2%<br>Standard Deviation = 24.8%<br>Median Rate for All Hospitals = 83.3%<br>Min. = 13.8%<br>Max. = 100%<br>Lower Quartile = 55.5%<br>Upper Quartile = 100%<br>Z < -2* = 2<br>Z < 2** = 0  |   |
| <b>2g. Comparability of Multiple Data Sources/Methods</b><br><br><b>2g.1 Data/sample</b> ( <i>description of data/sample and size</i> ):<br><br><b>2g.2 Analytic Method</b> ( <i>type of analysis &amp; rationale</i> ):<br><br><b>2g.3 Testing Results</b> ( <i>e.g., correlation statistics, comparison of rankings</i> ):   | 2g<br>C <input type="checkbox"/><br>P <input type="checkbox"/><br>M <input type="checkbox"/><br>N <input type="checkbox"/><br>NA <input type="checkbox"/> |
| <b>2h. Disparities in Care</b><br><br><b>2h.1</b> If measure is stratified, provide stratified results ( <i>scores by stratified categories/cohorts</i> ):<br><br><b>2h.2</b> If disparities have been reported/identified, but measure is not specified to detect disparities, provide follow-up plans:   | 2h<br>C <input type="checkbox"/><br>P <input type="checkbox"/><br>M <input type="checkbox"/><br>N <input type="checkbox"/><br>NA <input type="checkbox"/> |
| <b>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Scientific Acceptability of Measure Properties</i>?</b>  | 2   |
| <b>Steering Committee: Overall, to what extent was the criterion, <i>Scientific Acceptability of Measure Properties</i>, met?</b><br><b>Rationale:</b>   | 2<br>C <input type="checkbox"/><br>P <input type="checkbox"/><br>M <input type="checkbox"/><br>N <input type="checkbox"/>                                 |
| <b>3. USABILITY</b>  |   |
| Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. ( <a href="#">evaluation criteria</a> )   | <a href="#">Eval</a><br><a href="#">Rating</a>  |
| <b>3a. Meaningful, Understandable, and Useful Information</b><br><br><b>3a.1 Current Use:</b> Not in use but testing completed<br><br><b>3a.2 Use in a public reporting initiative</b> (disclosure of performance results to the public at large) ( <i>If used in a public reporting initiative, provide name of initiative(s), locations, Web page URL(s). If not publicly reported, state the plans to achieve public reporting within 3 years</i> ):<br>We intend to incorporate these Patient Blood Management measures into our ORYX initiative with associated public reporting on Quality Check when there is a national call for these measures.<br><br><b>3a.3 If used in other programs/initiatives</b> ( <i>If used in quality improvement or other programs/initiatives, name of initiative(s), locations, Web page URL(s). If not used for QI, state the plans to achieve use for QI within 3 years</i> ):<br>The specifications will be posted on the Joint Commission website for public use in 2011.<br><br><b>Testing of Interpretability</b> ( <i>Testing that demonstrates the results are understood by the potential users for public reporting and quality improvement</i> ) | 3a<br>C <input type="checkbox"/><br>P <input type="checkbox"/><br>M <input type="checkbox"/><br>N <input type="checkbox"/>                                |

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| <b>3a.4 Data/sample</b> ( <i>description of data/sample and size</i> ):<br><br><b>3a.5 Methods</b> ( <i>e.g., focus group, survey, QI project</i> ):<br><br><b>3a.6 Results</b> ( <i>qualitative and/or quantitative results and conclusions</i> ):   |  |
| <b>3b/3c. Relation to other NQF-endorsed measures</b><br><br><b>3b.1 NQF # and Title of similar or related measures:</b>  |  |
| <b>(for NQF staff use) Notes on similar/related <a href="#">endorsed</a> or submitted measures:</b>   |  |
| <b>3b. Harmonization</b><br>If this measure is related to measure(s) already <a href="#">endorsed by NQF</a> (e.g., same topic, but different target population/setting/data source <u>or</u> different topic but same target population):<br><b>3b.2 Are the measure specifications harmonized? If not, why?</b>   | <b>3b</b><br>C <input type="checkbox"/><br>P <input type="checkbox"/><br>M <input type="checkbox"/><br>N <input type="checkbox"/><br>NA <input type="checkbox"/> |
| <b>3c. Distinctive or Additive Value</b><br><b>3c.1 Describe the distinctive, improved, or additive value this measure provides to existing NQF-endorsed measures:</b><br><br><b>5.1 If this measure is similar to measure(s) already endorsed by NQF (i.e., on the same topic and the same target population), Describe why it is a more valid or efficient way to measure quality:</b>  | <b>3c</b><br>C <input type="checkbox"/><br>P <input type="checkbox"/><br>M <input type="checkbox"/><br>N <input type="checkbox"/><br>NA <input type="checkbox"/> |
| <b>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Usability</i>?</b>  | <b>3</b>   |
| <b>Steering Committee: Overall, to what extent was the criterion, <i>Usability</i>, met?</b><br><b>Rationale:</b>   | <b>3</b><br>C <input type="checkbox"/><br>P <input type="checkbox"/><br>M <input type="checkbox"/><br>N <input type="checkbox"/>                                 |
| <b>4. FEASIBILITY</b>   |  |
| Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. ( <a href="#">evaluation criteria</a> )  | <a href="#">Eval</a><br><a href="#">Rating</a>   |
| <b>4a. Data Generated as a Byproduct of Care Processes</b><br><br><b>4a.1-2 How are the data elements that are needed to compute measure scores generated?</b><br>Data generated as byproduct of care processes during care delivery (Data are generated and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition), Coding/abstraction performed by someone other than person obtaining original information (E.g., DRG, ICD-9 codes on claims, chart abstraction for quality measure or registry) | <b>4a</b><br>C <input type="checkbox"/><br>P <input type="checkbox"/><br>M <input type="checkbox"/><br>N <input type="checkbox"/>                                |
| <b>4b. Electronic Sources</b><br><br><b>4b.1 Are all the data elements available electronically?</b> ( <i>elements that are needed to compute measure scores are in defined, computer-readable fields, e.g., electronic health record, electronic claims</i> )<br>No<br><br><b>4b.2 If not, specify the near-term path to achieve electronic capture by most providers.</b><br>The project will begin Phase III in January 2011 to retool the specifications for retrieval from an electronic health record.  | <b>4b</b><br>C <input type="checkbox"/><br>P <input type="checkbox"/><br>M <input type="checkbox"/><br>N <input type="checkbox"/>                                |
| <b>4c. Exclusions</b>   | <b>4c</b>  |

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| <p><b>4c.1 Do the specified exclusions require additional data sources beyond what is required for the numerator and denominator specifications?</b><br/>No</p> <p><b>4c.2 If yes, provide justification.</b></p>  | C <input type="checkbox"/><br>P <input type="checkbox"/><br>M <input type="checkbox"/><br>N <input type="checkbox"/><br>NA <input type="checkbox"/> |
| <p><b>4d. Susceptibility to Inaccuracies, Errors, or Unintended Consequences</b></p> <p><b>4d.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measure and describe how these potential problems could be audited. If audited, provide results.</b></p>  | 4d<br>C <input type="checkbox"/><br>P <input type="checkbox"/><br>M <input type="checkbox"/><br>N <input type="checkbox"/>                          |
| <p><b>4e. Data Collection Strategy/Implementation</b></p> <p><b>4e.1 Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data/missing data, timing/frequency of data collection, patient confidentiality, time/cost of data collection, other feasibility/ implementation issues:</b><br/> Abstraction time for PBM-04 varied based on whether the patient received platelets and the number of doses (bags) transfused to each patient. Fewer platelets were transfused during testing than RBCs, so the extra layer of abstraction by 'event' was not as critical to reliability. However, for consistency, all blood products will be abstracted by unit/dose (bag) and the initial four platelet doses (bags) will be evaluated. There were similar issues related to the difficulty abstractors had in determining how to match the hospital indication with the pilot indication as mentioned for PBM-02 for the data element Clinical Indication for Platelets, but post pilot, hospitals will not have to categorize the indication to a pre-defined list of reasons. Intraoperatively, documentation of a blood transfusion pre-transfusion lab results and clinical indication was lacking in most paper-based records. So, in order to assist hospitals to focus their efforts on areas with low rates of compliance, this measure will be stratified so that hospitals can track results based on administration location. The "closest" platelet count value will be abstracted without a "within 24 hour timeframe" requirement for consistency with the other transfusion measures.<br/> Pilot hospitals were requested to estimate the time to abstract one unit of plasma for the six-month pilot. Twenty hospitals estimated an average time of 30 minutes to abstract a unit of blood with an average cost of \$21-25 per hour. However, these costs do not include the time or cost involved in identifying the patient population, staff training or data collection tool instruction. It should also be noted that the learning curve varied widely due to the staff experience and expertise that were utilized for a 'time-limited' project. Due to the amount of time needed to manually abstract the volume of blood transfusions, we believe that these measures are most suitable for abstraction from an electronic medical record (EHR). Retrieval from an EHR could capture 100% of all units that were transfused and would decrease or eliminate the associated abstraction burden. This method would also improve the identification of patients who received blood since procedure codes to document blood use are not standardized across the country. In the meantime, patients can be identified using blood bank records or procedure codes.<br/> During the 12 reliability site visits, two Joint Commission staff also found that the abstraction time varied widely based on the method of record retrieval (e.g., paper record, scanned record or electronic information) at each hospital and the amount of blood transfused per case. Based on hospital feedback, measure specifications have been revised to strengthen and provide additional clarity to data element definitions and abstraction guidelines. The timing and frequency of data collection will remain monthly or quarterly as it does for the other Joint Commission measure sets. Maintaining patient confidentiality was not an issue during the pilot test, since blinded hospital and patient identifiers are used on all data received by the Joint Commission staff for data quality reviews.</p> <p><b>4e.2 Costs to implement the measure (costs of data collection, fees associated with proprietary measures):</b><br/> The majority of hospitals already have processes in place to abstract measures if the patients are identified using procedure codes. However, some hospitals document total hospital blood use using blood bank records that would have to be cross-referenced by the patient medical record number to determine how much and the type of blood product each patient received which adds to the abstraction burden. After identifying the patients, the time to collect the data elements for this measure from the operative section</p> | 4e<br>C <input type="checkbox"/><br>P <input type="checkbox"/><br>M <input type="checkbox"/><br>N <input type="checkbox"/>                          |

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| <p>of the record would be increased, if available, using manual abstraction.</p> <p>This measure would evaluate the first three doses of platelets regardless of the number transfused. Hospitals with Blood Management or conservation programs may have fewer doses to review and those with efficient or electronic processes to document blood may have lower abstraction costs.</p> <p><b>4e.3 Evidence for costs:</b></p> <p><b>4e.4 Business case documentation:</b> There continues to be considerable unexplained variation in transfusion practices across organizations, products and patient populations. Recent evidence is mounting that demonstrates significant harm from unnecessary blood transfusions. Monitoring transfusions will provide information so hospitals can begin to identify patients who are transfused outside of recommendations. It has been found that hospitals that track blood use at the patient specific level have a higher percentage of appropriate transfusions than those that do not track blood use at that level. Measuring blood use should decrease the amount of blood transfused and improve patient safety.</p> |   |
| <p><b>TAP/Workgroup: What are the strengths and weaknesses in relation to the subcriteria for <i>Feasibility</i>?</b></p>   | <p><b>4</b></p>   |
| <p><b>Steering Committee: Overall, to what extent was the criterion, <i>Feasibility</i>, met?</b><br/> <b>Rationale:</b></p>  | <p><b>4</b><br/> C <input type="checkbox"/><br/> P <input type="checkbox"/><br/> M <input type="checkbox"/><br/> N <input type="checkbox"/></p> |
| <p><b>RECOMMENDATION</b></p>  |   |
| <p><b>(for NQF staff use)</b> Check if measure is untested and only eligible for time-limited endorsement.</p>  | <p>Time-limited<br/> <input type="checkbox"/></p>   |
| <p><b>Steering Committee: Do you recommend for endorsement?</b><br/> <b>Comments:</b></p>   | <p>Y <input type="checkbox"/><br/> N <input type="checkbox"/><br/> A <input type="checkbox"/></p>   |
| <p><b>CONTACT INFORMATION</b></p>   |   |
| <p><b>Co.1 Measure Steward (Intellectual Property Owner)</b><br/> <b>Co.1 <u>Organization</u></b><br/> The Joint Commission, One Renaissance Boulevard., Oakbrook Terrace, Illinois, 60181</p> <p><b>Co.2 <u>Point of Contact</u></b><br/> Jerod M., Loeb, PhD, jloeb@jointcommission.org, 630-792-5920-</p>  |   |
| <p><b>Measure Developer If different from Measure Steward</b><br/> <b>Co.3 <u>Organization</u></b><br/> The Joint Commission, One Renaissance Boulevard., Oakbrook Terrace, Illinois, 60181</p> <p><b>Co.4 <u>Point of Contact</u></b><br/> Harriet, Gammon, MSN, RN, CPHQ, hgammon@jointcommission, 630-792-5926-</p>  |   |
| <p><b>Co.5 Submitter If different from Measure Steward POC</b><br/> Harriet, Gammon, MSN, RN, CPHQ, hgammon@jointcommission, 630-792-5926-, The Joint Commission</p>  |   |
| <p><b>Co.6 Additional organizations that sponsored/participated in measure development</b></p>  |   |
| <p><b>ADDITIONAL INFORMATION</b></p>  |   |
| <p><b>Workgroup/Expert Panel involved in measure development</b><br/> <b>Ad.1 Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.</b><br/> The technical advisory panel determined priority areas in blood management for measure development. They</p>   |   |

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| reviewed public comments and were actively involved in all phases of the project to identify and develop the numerator and denominator statements. Measure recommendations for National Quality Forum endorsement were made after careful review of the pilot results and site feedback.   |
| Ad.2 If adapted, provide name of original measure:<br>Ad.3-5 If adapted, provide original specifications URL or attachment   |
| Measure Developer/Steward Updates and Ongoing Maintenance<br>Ad.6 Year the measure was first released:<br>Ad.7 Month and Year of most recent revision: 12, 2010<br>Ad.8 What is your frequency for review/update of this measure? Biannually<br>Ad.9 When is the next scheduled review/update for this measure? 06, 2011   |
| Ad.10 Copyright statement/disclaimers: No royalty or use fee is required for copying or reprinting this manual, but the following are required as a condition of usage: 1) disclosure that the Specifications Manual is periodically updated, and that the version being copied or reprinted may not be up-to-date when used unless the copier or printer has verified the version to be up-to-date and affirms that, and 2) users participating in Joint Commission accreditation, including performance measures systems, are required to update their software and associated documentation based on the published manual production timelines.<br>Example Acknowledgement: The Specifications Manual for National Hospital Inpatient Quality Measures Patient Blood Management Performance Measure Set is periodically updated by The Joint Commission. Users of the Specifications Manual for National Hospital Inpatient Quality Measures Patient Blood Management Performance Measure Set must update their software and associated documentation based on the published manual production timelines. |
| Ad.11 -13 Additional Information web page URL or attachment: Attachment TAPLISTWEBc-634276990361839498.doc   |
| Date of Submission (MM/DD/YY): 12/29/2010  |

# Patient Blood Management (PBM)

## Set Measures

| Set Measure ID | Measure Short Name                                     |
|----------------|--|
| <u>PBM-01</u>  | Transfusion Consent                                    |
| <u>PBM-02</u>  | RBC Transfusion Indication                             |
| <u>PBM-03</u>  | Plasma Transfusion Indication                          |
| <u>PBM-04</u>  | Platelet Transfusion Indication                        |
| <u>PBM-05</u>  | Blood Administration Documentation                     |
| <u>PBM-06</u>  | Preoperative Anemia Screening                          |
| <u>PBM-07</u>  | Preoperative Blood Type Testing and Antibody Screening |

## Measure Set Specific Data Elements

| Element Name   | Collected For  |
|--|--|
| <u>Admission From Home</u>   | <u>PBM-06</u> ,  |
| <u>Anesthesia Start Date</u>   | <u>PBM-06</u> ,  |
| <u>Blood Administration Location</u>                                       | <u>PBM-02</u> , <u>PBM-03</u> , <u>PBM-04</u> , <u>PBM-05</u> ,                    |
| <u>Blood Bank Records</u>  | <u>PBM-01</u> , <u>PBM-02</u> , <u>PBM-03</u> , <u>PBM-04</u> ,<br><u>PBM-05</u> , |
| <u>Blood ID Number</u>   | <u>PBM-05</u> ,  |
| <u>Blood Type Testing Ordered</u>  | <u>PBM-07</u> ,  |
| <u>Clinical Indication for Plasma</u>                                      | <u>PBM-03</u> ,  |
| <u>Clinical Indication for Platelets</u>                                   | <u>PBM-04</u> ,  |
| <u>Clinical Indication for RBCs</u>  | <u>PBM-02</u> ,  |
| <u>Education Addressed Risks, Benefits and Alternatives to Transfusion</u> | <u>PBM-01</u> ,  |
| <u>Patient ID Verification</u>   | <u>PBM-05</u> ,  |
| <u>Plasma ID</u>   | <u>PBM-03</u> , <u>PBM-05</u> ,  |
| <u>Platelet ID</u>   | <u>PBM-04</u> , <u>PBM-05</u> ,  |
| <u>Pre-transfusion Hematocrit</u>  | <u>PBM-02</u> ,  |
| <u>Pre-transfusion Hemoglobin</u>  | <u>PBM-02</u> ,  |
| <u>Pre-transfusion PT/INR Result</u>                                       | <u>PBM-03</u> ,  |
| <u>Pre-transfusion Platelet Count</u>                                      | <u>PBM-04</u> ,  |
| <u>Preoperative Anemia Screening Date</u>                                  | <u>PBM-06</u> ,  |
| <u>Preoperative Blood Type Testing</u>                                     | <u>PBM-07</u> ,  |
| <u>RBC ID</u>  | <u>PBM-02</u> , <u>PBM-05</u> ,  |
| <u>RBC Unit Exclusions</u>   | <u>PBM-02</u> , <u>PBM-05</u> ,  |
| <u>Surgery Scheduled Timeframe</u>   | <u>PBM-06</u> ,  |
| <u>Transfusion Consent</u>   | <u>PBM-01</u> ,  |
| <u>Transfusion Order</u>   | <u>PBM-05</u> ,  |
| <u>Transfusion Start Date</u>  | <u>PBM-05</u> ,  |
| <u>Transfusion Start Time</u>  | <u>PBM-05</u> ,  |
| <u>Vital Sign Monitoring</u>   | <u>PBM-05</u> ,  |



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# Related Materials

| Document Name                               |
|---|
| <u>z. Appendix E - Miscellaneous Tables</u> |

# Measure Information Form

**Measure Set:** Patient Blood Management(PBM)

**Set Measure ID:** PBM-01

**Performance Measure Name:** Transfusion Consent

**Description:** Patients with a signed consent who received information about the risks, benefits and alternatives of transfusion prior to the initial blood transfusion or the initial transfusion was deemed a medical emergency.

**Rationale:** Planning a discussion with a licensed practitioner regarding the risks, benefits and alternatives of transfusion is an opportunity for the patient to participate in decisions about his or her care. It is a process that takes into consideration, each patient's preferences, clinical needs and provides information in compliance with the regulations and policies of the state and facility. Even though policies related to informed consent may vary among hospitals, all hospitals require some type of consent prior to treatment unless emergency care is needed. The elements of performance for the Joint Commission Standard RI.01.03.01 related to the informed consent process include a discussion about the risks, benefits and alternatives, and a discussion about the risk, if care is not received. This measure is also supported by the Joint Commission's National Patient Safety Goal (NPSG) 13 that encourages patients' active involvement in their own care as a patient safety strategy.

For many years, the American Association of Blood Banks (AABB) organization has supported the consent process for transfusion and has developed several standards such as AABB Standard 5.19.1. AABB requires that at a minimum, a recipient consent for transfusion and that should include; a description of the risks, benefits and treatment alternatives, the opportunity to ask questions and the right to accept or refuse transfusion.

**Type of Measure:** Process

**Improvement Noted As:** Increase in the rate

**Numerator Statement:** Patients with a signed consent who received information about the risks, benefits and alternatives prior to the initial blood transfusion or the initial transfusion was deemed a medical emergency

**Included Populations:** Not applicable

**Excluded Populations:** None

**Data Elements:**

- Education Addressed Risks, Benefits and Alternatives to Transfusion
- Transfusion Consent

**Denominator Statement:** Patients who received red blood cell, plasma or platelet transfusions

**Included Populations:** Discharges with an ICD-9-CM Principal or Other Procedure Codes for transfusion as defined in Appendix A, Table 9.3-9.6 or a transfusion documented from Blood Bank Records.

**Excluded Populations:** None

**Data Elements:**

- Admission Date
- Blood Bank Records
- Discharge Date
- ICD-9-CM Other Procedure Codes
- ICD-9-CM Principal Procedure Code

**Risk Adjustment:** No.

**Data Collection Approach:** Retrospective data collection sources for required data elements include administrative data and medical records. Hospitals that do not use ICD-9-CM procedure codes to document transfusions may use blood bank records to identify the population.

**Data Accuracy:** Variation may exist in the assignment of ICD-9-CM codes and blood bank records; therefore, coding practices and transfusion documentation may require evaluation to ensure consistency.

**Measure Analysis Suggestions:** Hospitals may want to evaluate the cases according to medical or surgical designation that were not included in the numerator in order to determine if the consent was signed and/or if all or only part of the educational components were given or if documentation was insufficient. Based on this information, hospitals may assess the barriers impacting this measure that could be improved.

**Sampling:** Yes. For additional information see the Population and Sampling Specifications Section.

**Data Reported As:** Aggregate rate generated from count data reported as a proportion.

**Selected References:**

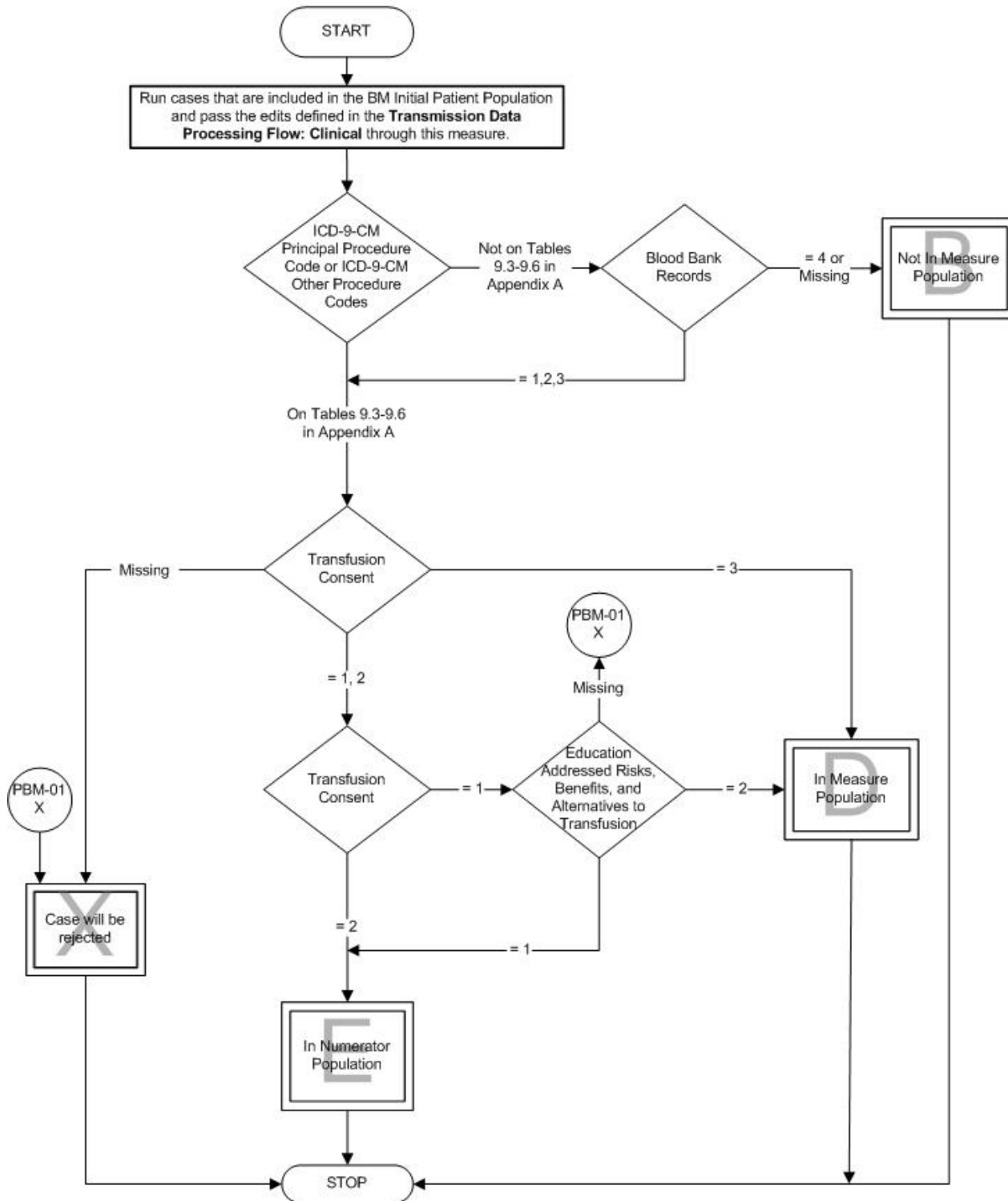
- Speiss BD, Counts RB, Gould SA. Perioperative Transfusion Medicine, Williams and Wilkins; 1998; 201-204.
- Stowell C, Sazama K. Informed Consent in Blood Transfusion and Cellular Therapies: Patients, Donors and Research Subjects. AABB Press; 2007; ISBN #978-1-56395-254-8.
- Burch JW, Uhl L. Guidelines for Informed Consent in Transfusion Medicine. AABB Press; 2006; ISBN #1-56395-146-0.2008.
- Standards for Blood Banks and Transfusion Services, 25th ed. Bethesda, MD: AABB 2008.
- The Joint Commission: Comprehensive Accreditation Manual for Hospitals, 2009. Oakbrook Terrace, IL. Joint Commission Resources, Inc, 2009.
- The Joint Commission, "National Patient Safety Goals (NPSG)", IN: Comprehensive accreditation manual for hospitals, 2009. Oakbrook Terrace, IL; Joint Commission Resources, Inc., 2009, pp. NPSG 1 – NPSG 4.

**Measure Algorithm:**

## PBM-01: Transfusion Consent

**Numerator:** Patients with a signed consent who received information about the risks, benefits and alternatives prior to the initial blood transfusion or the initial transfusion was deemed a medical emergency

**Denominator:** Patients who received red blood cells, platelets or plasma



### Related Topics

# Measure Information Form

**Measure Set:** Patient Blood Management(PBM)

**Set Measure ID:** PBM-02

**Performance Measure Name:** RBC Transfusion Indication

**Description:** The number of transfused red blood cell (RBC) units with a pre-transfusion hemoglobin (hgb) or hematocrit (hct) result and clinical indication documented from patients of all ages who received RBCs.

**Rationale:** Improvement of the safety and quality of care that a hospital provides includes the review of the use of blood and blood products. Despite current evidence and best practice guidelines, clinical practice regarding when to transfuse varies among physicians and institutions even though most would agree that blood products should only be given when the benefits outweigh the harm. Many advocate that transfusion decisions should be based on a clinical assessment and not on laboratory values alone to avoid inappropriate over-or-under transfusion. Measuring whether an “indication for transfusion” and a pre-transfusion laboratory value was documented may improve the utilization of blood components. In addition, implementing such a process may simplify the hospital’s review for appropriateness of the transfusion when auditing records for accreditation and regulatory agencies. In a study by Friedman and Ebrahim, there was a significant correlation between red blood cell transfusions that lacked documentation of the clinical necessity for transfusion and justification of the transfusion.

**Type of Measure:** Process

**Improvement Noted As:** Increase in the rate

**Numerator Statement:** Number of RBC units with pre-transfusion hemoglobin or hematocrit result and clinical indication documented

**Included Populations:** Not applicable

**Excluded Populations:** None

**Data Elements:**

- Clinical Indication for RBCs
- Pre-transfusion Hematocrit
- Pre-transfusion Hemoglobin
- RBC ID

**Denominator Statement:** Number of transfused red blood cell units evaluated

**Included Populations:**

- Discharges with an ICD-9-CM Principal or Other Procedure Codes for transfusion as defined in Appendix A, Tables 9.3 or 9.4 or a RBC transfusion documented from Blood Bank Records.
- The first six RBCs units transfused after hospital arrival

**Excluded Populations:** None

**Data Elements:**

- Admission Date
- Birthdate
- Blood Administration Location
- Blood Bank Records
- Discharge Date
- ICD-9-CM Other Procedure Codes
- ICD-9-CM Principal Procedure Code
- RBC Unit Exclusions

**Risk Adjustment:** No.

**Data Collection Approach:** Retrospective data sources for required data elements include administrative/billing data and medical records. Hospitals that do not use ICD-9-CM procedure codes to document transfusions may use blood bank records to identify the population of patients who received RBCs.

**Data Accuracy:** Variation may exist in the assignment of ICD-9-CM codes and blood bank records; therefore, coding practices and transfusion documentation may require evaluation to ensure consistency.

**Measure Analysis Suggestions:** Hospitals may want to use the data to further evaluate the process for determining the need for blood products based on the clinical indications and correlating it with the pre-transfusion value that was documented. This information may assist hospitals to determine if the patients were transfused appropriately or if efforts should be directed toward additional documentation efforts for monitoring blood product usage. Data may be grouped by service designation or by blood products to identify specific areas for staff review.

**Sampling:** Yes. For additional information see the Population and Sampling Specifications Section.

**Data Reported As:** Aggregate rate generated from count data reported as a proportion.

**Selected References:**

- Friedman MT, Ebrahim A. Adequacy of physician documentation of red blood cell transfusion and correlation with assessment of transfusion appropriateness. Arch Pathol Lab Med. 2006;130: 474-79.
- Corwin HL, Parsonnet KC, Gettinger A. RBC transfusion in the ICU: is there a reason? Chest. 1995;108: 767-771.
- Tobin SN, Campbell DA, Boyce NW. Durability of response to a targeted intervention to modify clinician transfusion practices in a major teaching hospital. MJA. 2001;174:445-448.
- Clinical practice guideline: Red blood cell transfusion in adult trauma and critical care. Crit Care Med 2009 Vol.37, No.12.

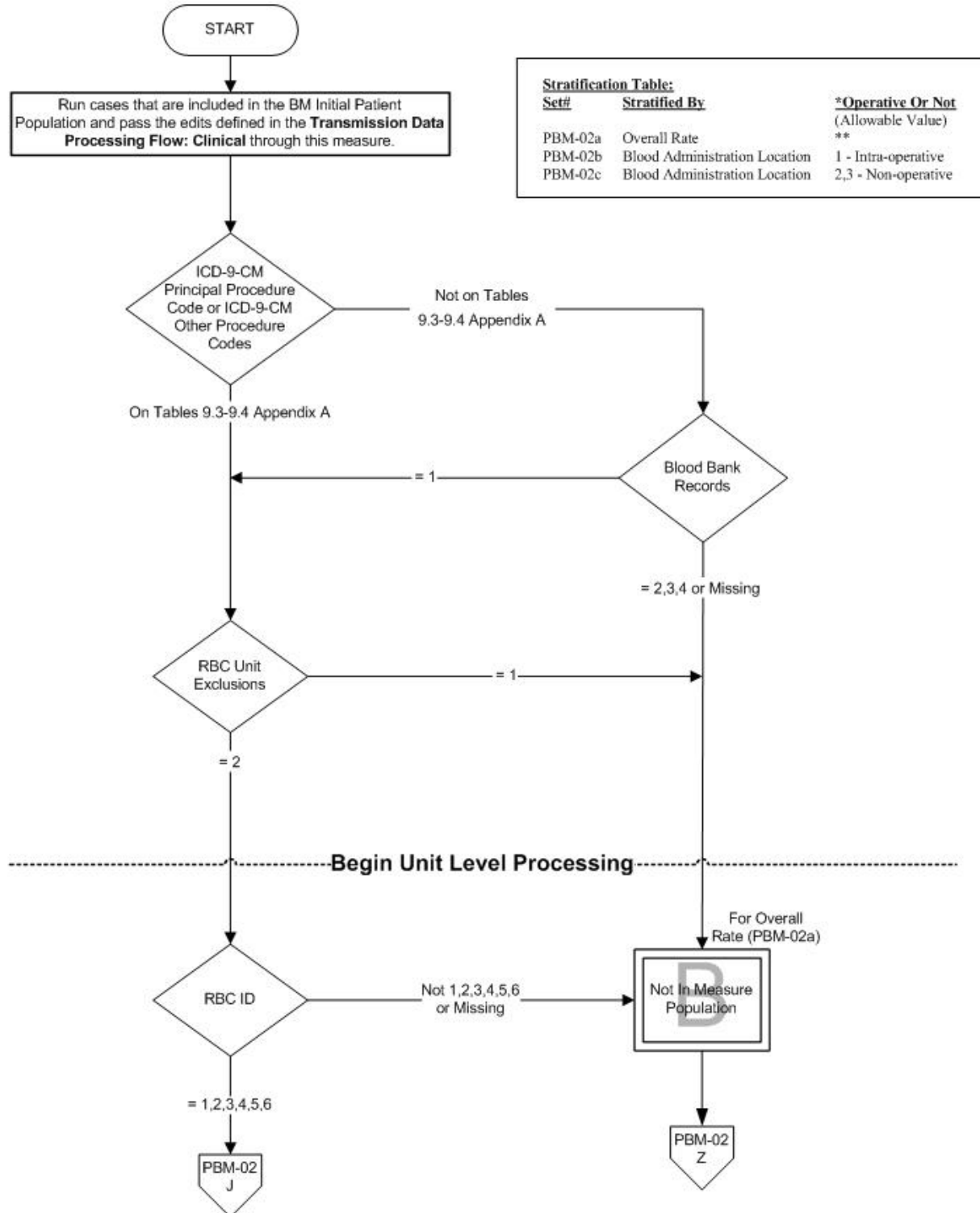
**Measure Algorithm:**

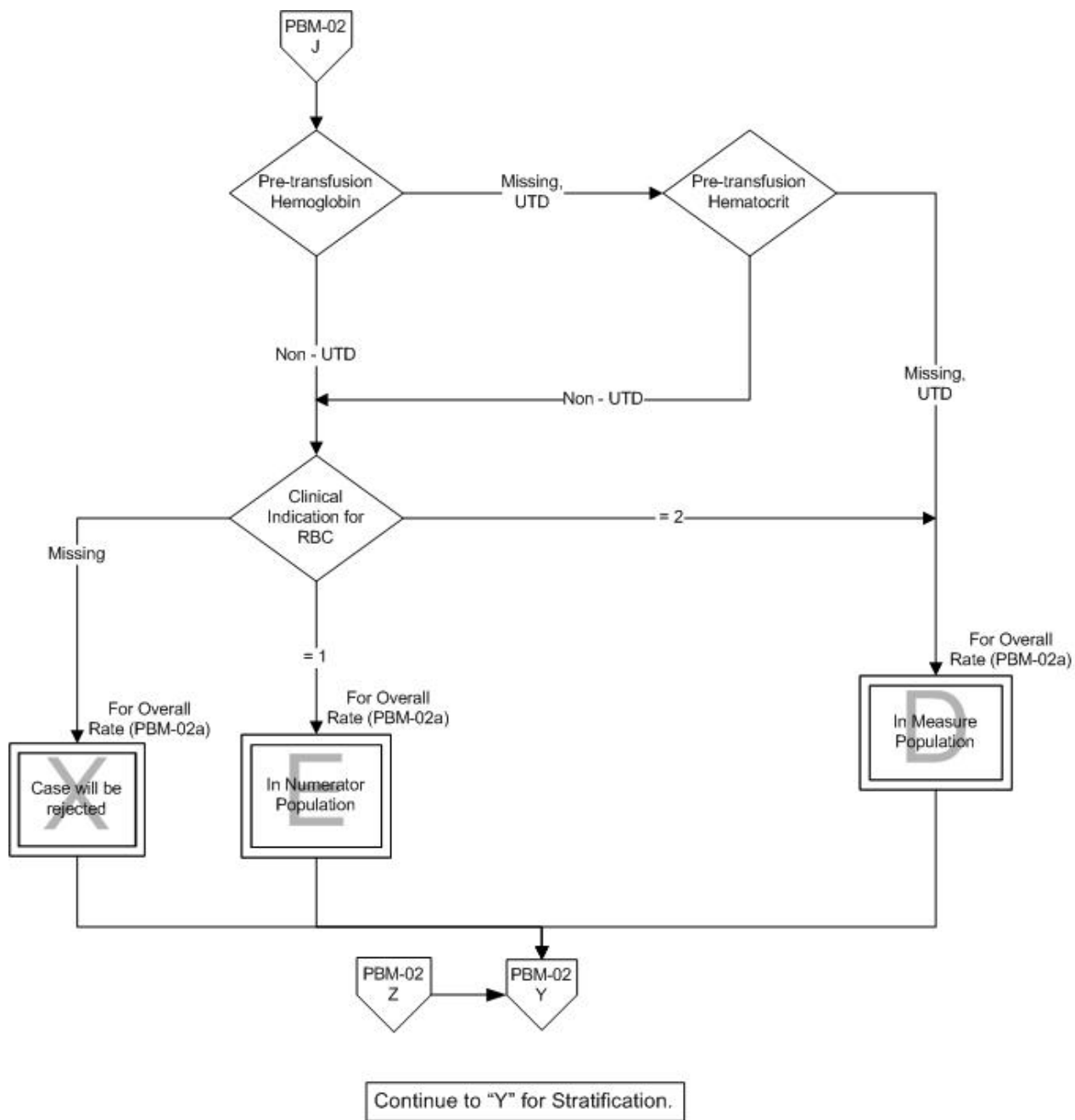


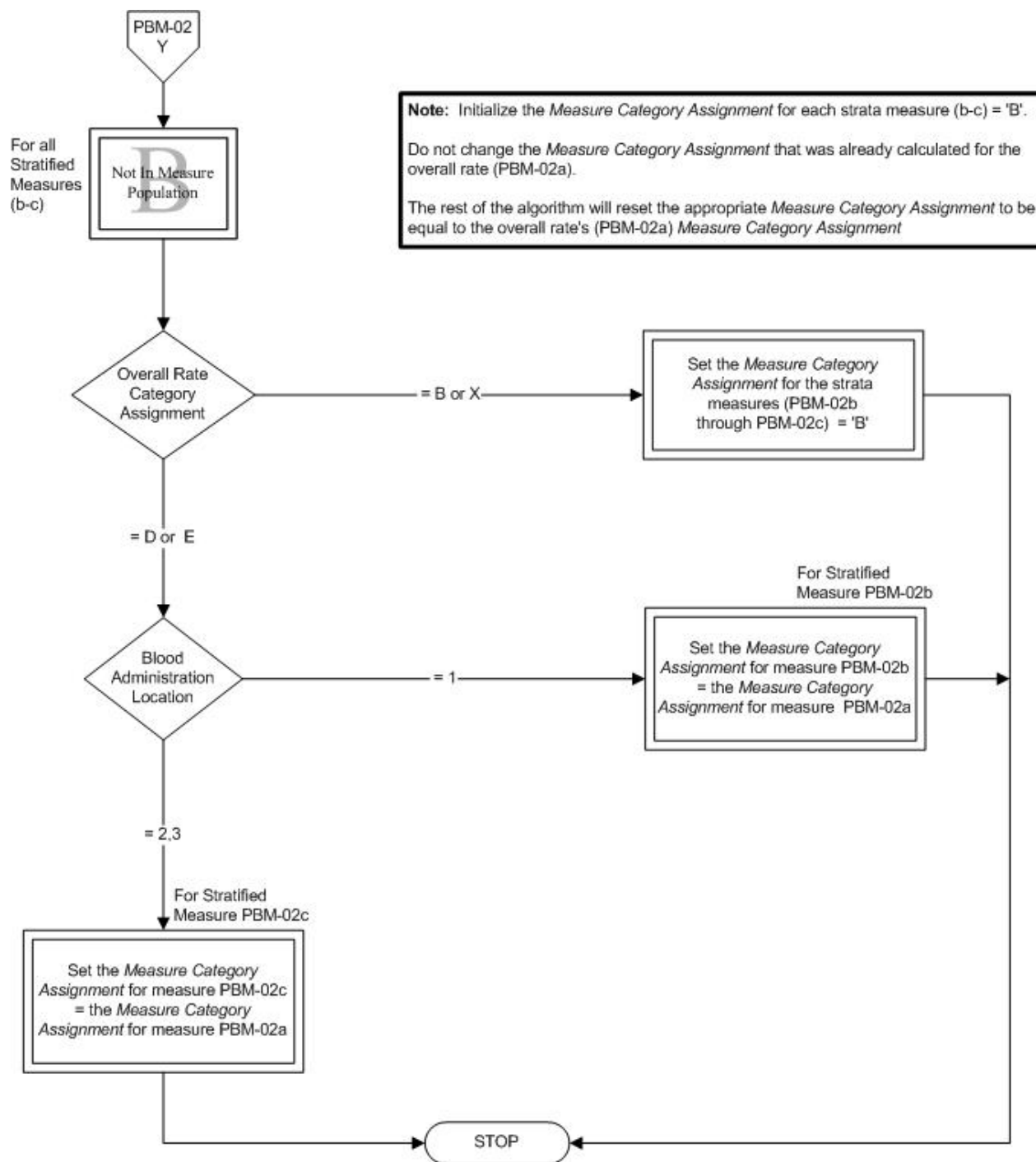
## PBM-02: RBC Transfusion Indication

**Numerator:** Number of RBC units (bags) with pre-transfusion hemoglobin or hematocrit result and clinical indication documented

**Denominator:** Number of transfused red blood cell units evaluated







## Related Topics

# Measure Information Form

**Measure Set:** Patient Blood Management(PBM)

**Set Measure ID:** PBM-03

**Performance Measure Name:** Plasma Transfusion Indication

**Description:** The number of transfused plasma units with a pre-transfusion PT/INR result and clinical indication documented from patients of all ages who received plasma.

**Rationale:** The use of plasma has increased and is disproportionately high compared to other countries with similar levels of health care. Indications for transfusing plasma are very limited, and as a result, published studies often show unjustifiable use of plasma. According to the National Heart Lung and Blood Institute, plasma should be administered only to increase the level of clotting factors in patients with a demonstrated deficiency. If the prothrombin time (PT) and partial thromboplastin time (PTT) are < 1.5 times normal, a plasma transfusion is rarely needed. However, plasma is frequently transfused to patients with mild-to moderate elevations in PT despite numerous studies that have not shown a correlation between the risk of bleeding and mild-to moderate test results. In a study by Wahab et al, transfusion of plasma for mild abnormalities of coagulation values resulted in a partial normalization in a minority of patients, and failed to correct the PT in 99% of the patients. In a 2004 study by Hui, the need to correct prolonged international normalized ratios (INRs) for patients on warfarin emerged as the primary indication for plasma followed by massive transfusions.

**Type of Measure:** Process

**Improvement Noted As:** Increase in the rate

**Numerator Statement:** Number of plasma units with pre-transfusion PT/INR result and clinical indication documented

**Included Populations:** Not applicable

**Excluded Populations:** None

**Data Elements:**

- Clinical Indication for Plasma
- Plasma ID
- Pre-transfusion PT/INR Result

**Denominator Statement:** Number of transfused plasma units evaluated

**Included Populations:**

- Discharges with an ICD-9-CM Principal or Other Procedure Codes for transfusion as defined in Appendix A, Table 9.6 or a plasma transfusion documented from Blood Bank Records
- The first three plasma units transfused from hospital arrival

**Excluded Populations:**

- Discharges with an ICD-9-CM Principal Diagnosis Code of trauma as defined in Appendix A, Table 9.7.

**Data Elements:**

- Admission Date
- Birthdate
- Blood Administration Location
- Blood Bank Records
- Discharge Date
- ICD-9-CM Other Procedure Codes
- ICD-9-CM Principal Diagnosis Code
- ICD-9-CM Principal Procedure Code

**Risk Adjustment:** No.

**Data Collection Approach:** Retrospective data sources for required data elements include administrative/billing data and medical records. Hospitals that do not use ICD-9-CM procedure codes to document transfusions may use blood bank records to identify the population of patients who received plasma.

**Data Accuracy:** Variation may exist in the assignment of ICD-9-CM codes and blood bank records; therefore, coding practices and transfusion documentation may require evaluation to ensure consistency.

**Measure Analysis Suggestions:** Data from this measure may be used to review the type of invasive procedures or surgeries that use plasma in order to further evaluate appropriateness of use.

**Sampling:** Yes. For additional information see the Population and Sampling Specifications Section.

**Data Reported As:** Aggregate rate generated from count data reported as a proportion.

**Selected References:**

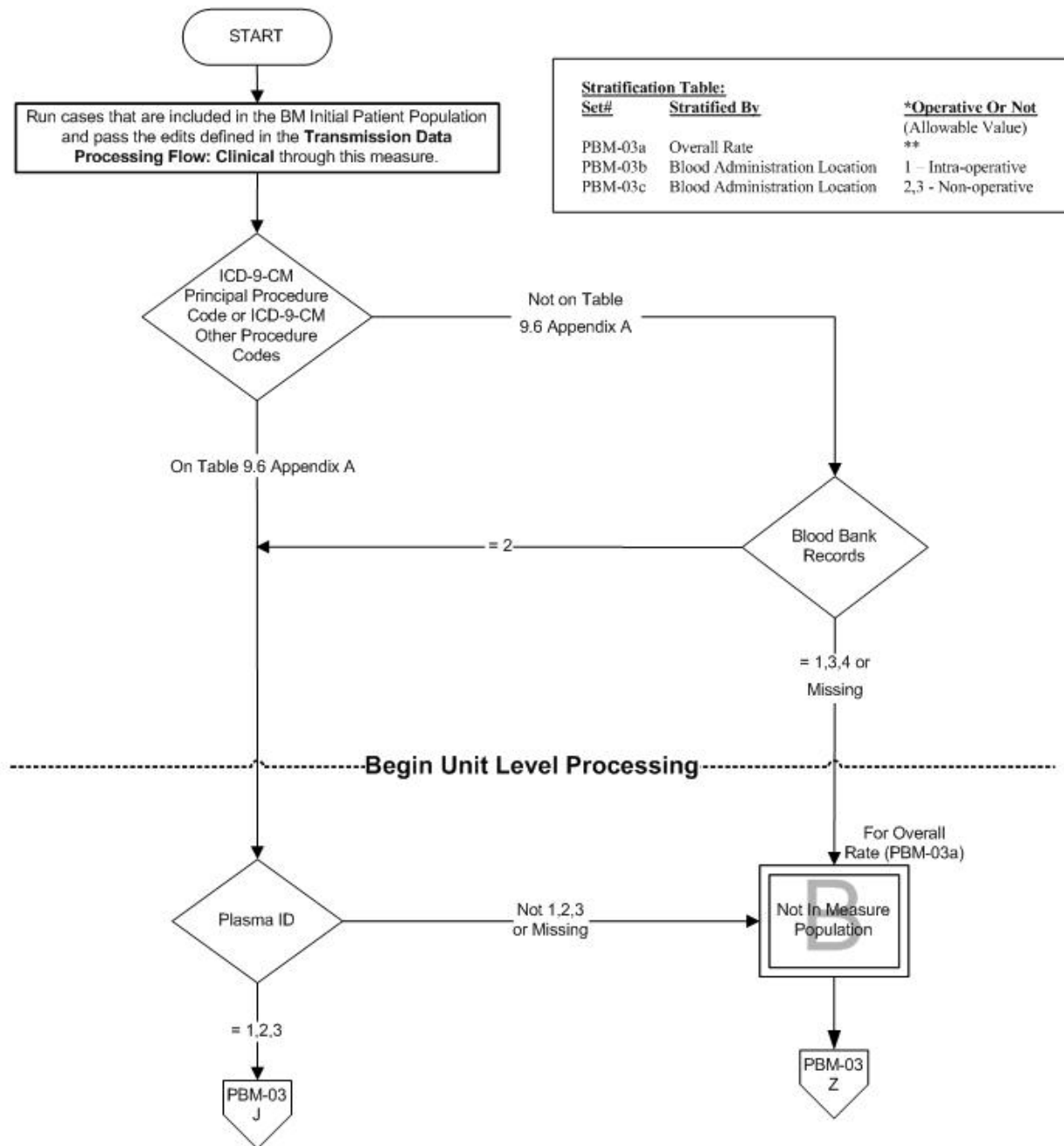
- Hui C, Williams I, Davis K. Clinical audit of the use of fresh-frozen plasma and platelets in a tertiary teaching hospital and the impact of a new transfusion request form. *Int Med J*. 2005;35:283-288.
- Wallis JP, Dzik S. Is fresh frozen plasma overtransfused in the United States? *Transfusion*. 2004;44:1674-75.
- Ardel-Wahab OI, Healy B, Dzik WH. Effect of fresh-frozen plasma transfusion on prothrombin time and bleeding in patients with mild coagulation abnormalities. *Transfusion*. 2006;46:1479-1285.
- Segal J, Dzik WH; Transfusion Medicine/Hemostasis Clinical Trials Network. Paucity of studies to support that abnormal coagulation test results predict bleeding in the setting of invasive procedures: an evidenced-based review. *Transfusion*. 2005;45:1413-25.

**Measure Algorithm:**

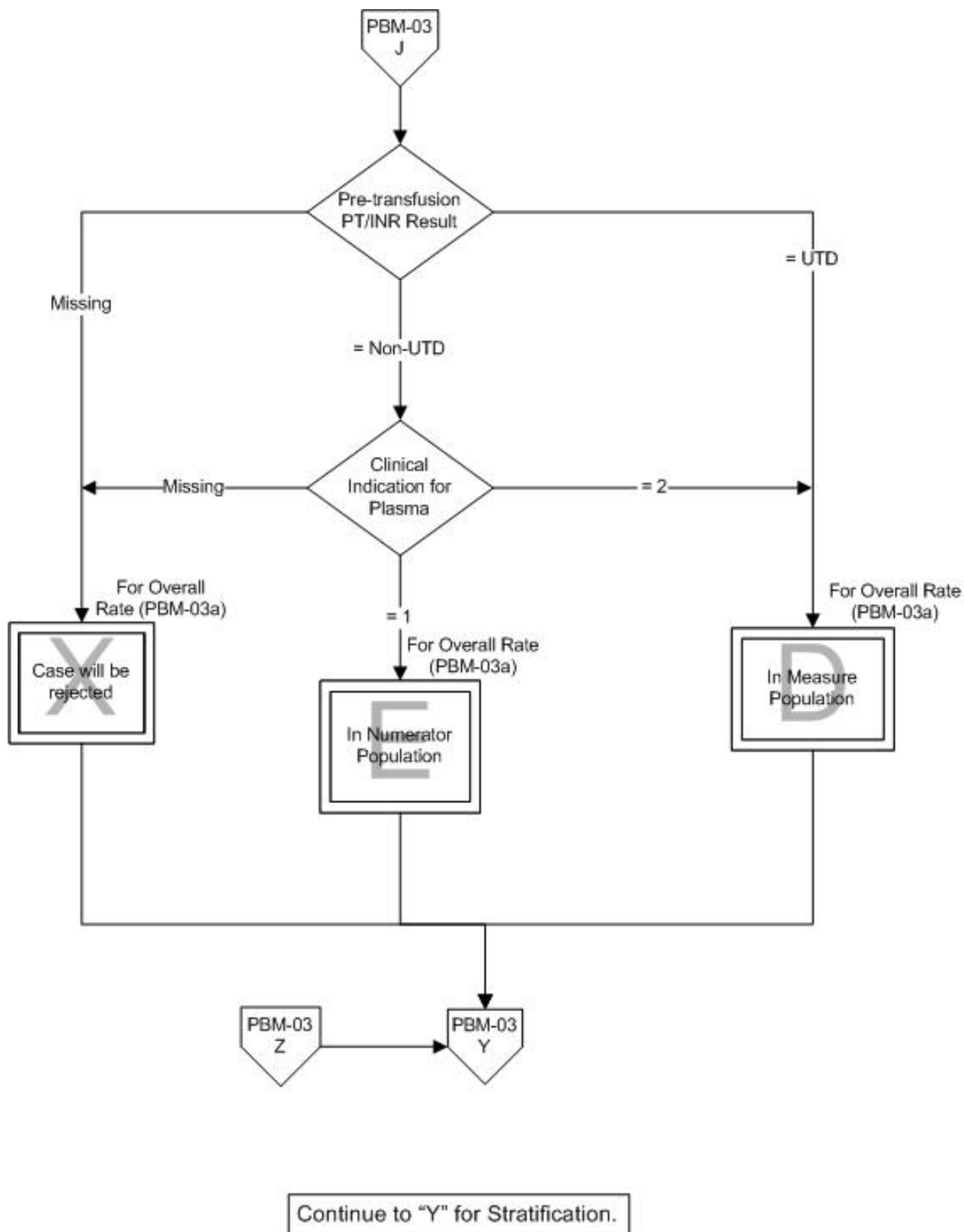
## PBM-03: Plasma Transfusion Indication

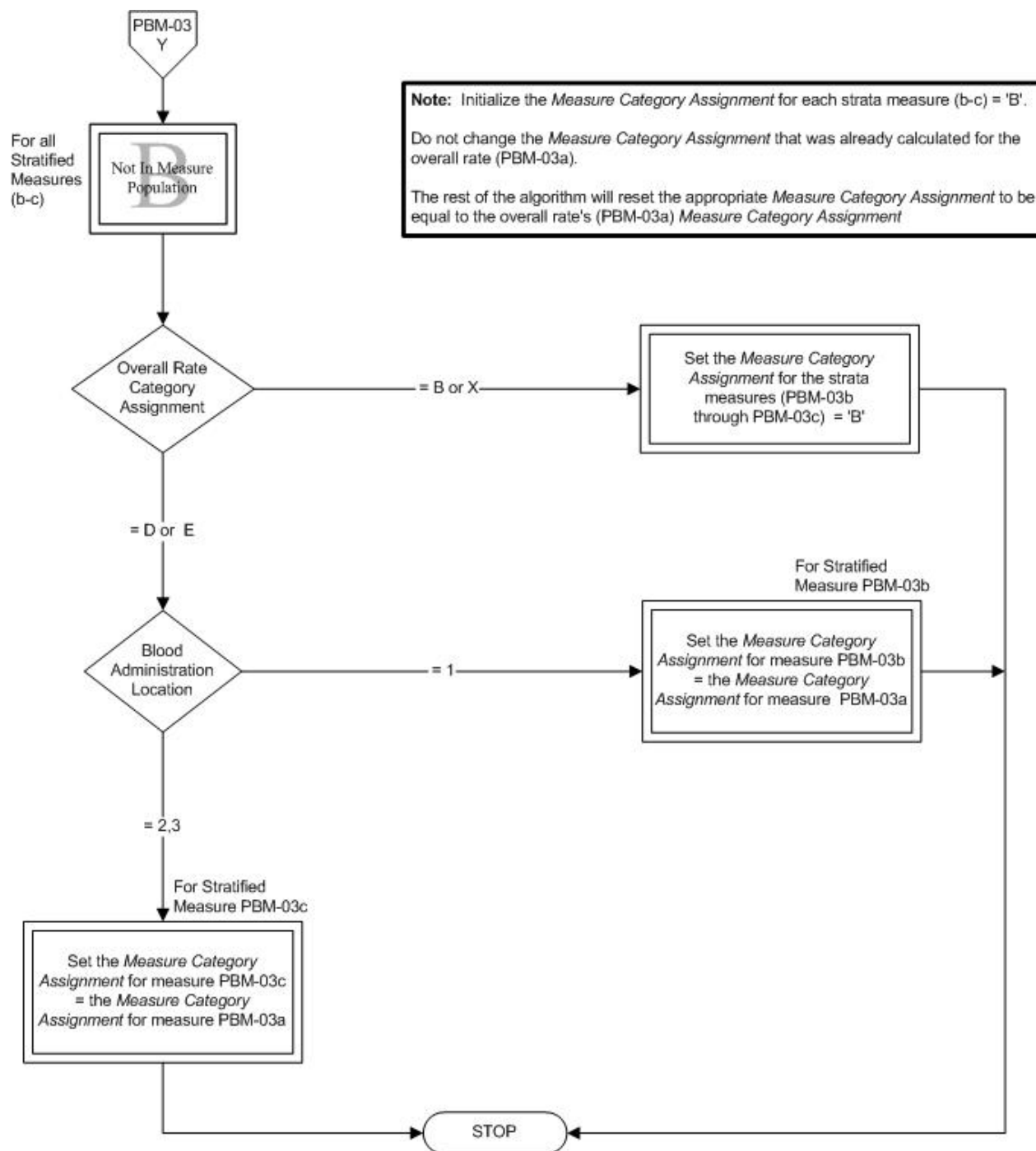
**Numerator:** Number of plasma units with pre-transfusion PT/INR result and clinical indication documented

**Denominator:** Number of transfused plasma units evaluated









## Related Topics

# Measure Information Form

**Measure Set:** Patient Blood Management(PBM)

**Set Measure ID:** PBM-04

**Performance Measure Name:** Platelet Transfusion Indication

**Description:** The number of transfused platelet units with pre-transfusion platelet count and clinical indication documented from patients of all ages who received platelets.

**Rationale:** Platelets are transfused to treat or prevent bleeding associated with thrombocytopenia and/or platelet dysfunction. Platelets given therapeutically should help stop the bleeding, and if given prophylactically, post transfusion platelet counts should be obtained to monitor the response to determine the effectiveness of the transfusion. Repeated platelet transfusions can cause alloimmunization and cause platelet refractoriness to future transfusions. Multiple infectious risks are associated with platelet transfusions so patients should only be exposed to the least amount needed.

**Type of Measure:** Process

**Improvement Noted As:** Increase in the rate

**Numerator Statement:** Number of platelet units with pre-transfusion platelet count result and clinical indication documented

**Included Populations:** Not applicable

**Excluded Populations:** None

**Data Elements:**

- Clinical Indication for Platelets
- Platelet ID
- Pre-transfusion Platelet Count

**Denominator Statement:** Number of transfused platelet units evaluated

**Included Populations:**

- Discharges with an ICD-9-CM Principal or Other Procedure Codes for transfusion as defined in Appendix A, Table 9.5 or a platelet transfusion documented from Blood Bank Records
- The first three platelet units transfused after hospital arrival

**Excluded Populations:** None

**Data Elements:**

- Admission Date
- Blood Administration Location
- Blood Bank Records

- Discharge Date
- ICD-9-CM Other Procedure Codes
- ICD-9-CM Principal Procedure Code

**Risk Adjustment:** No.

**Data Collection Approach:** Retrospective data sources for required data elements include administrative/billing data and medical records. Hospitals that do not use ICD-9-CM procedure codes to document transfusions may use blood bank records to identify the population of patients who received platelets.

**Data Accuracy:** Variation may exist in the assignment of ICD-9-CM codes and blood bank records; therefore, coding practices and transfusion documentation may require evaluation to ensure consistency.

**Measure Analysis Suggestions:** Data from this measure may be used to evaluate the utilization and appropriateness of platelets used by an organization.

**Sampling:** Yes. For additional information see the Population and Sampling Specifications.

**Data Reported As:** Aggregate rate generated from count data reported as a proportion.

**Selected References:**

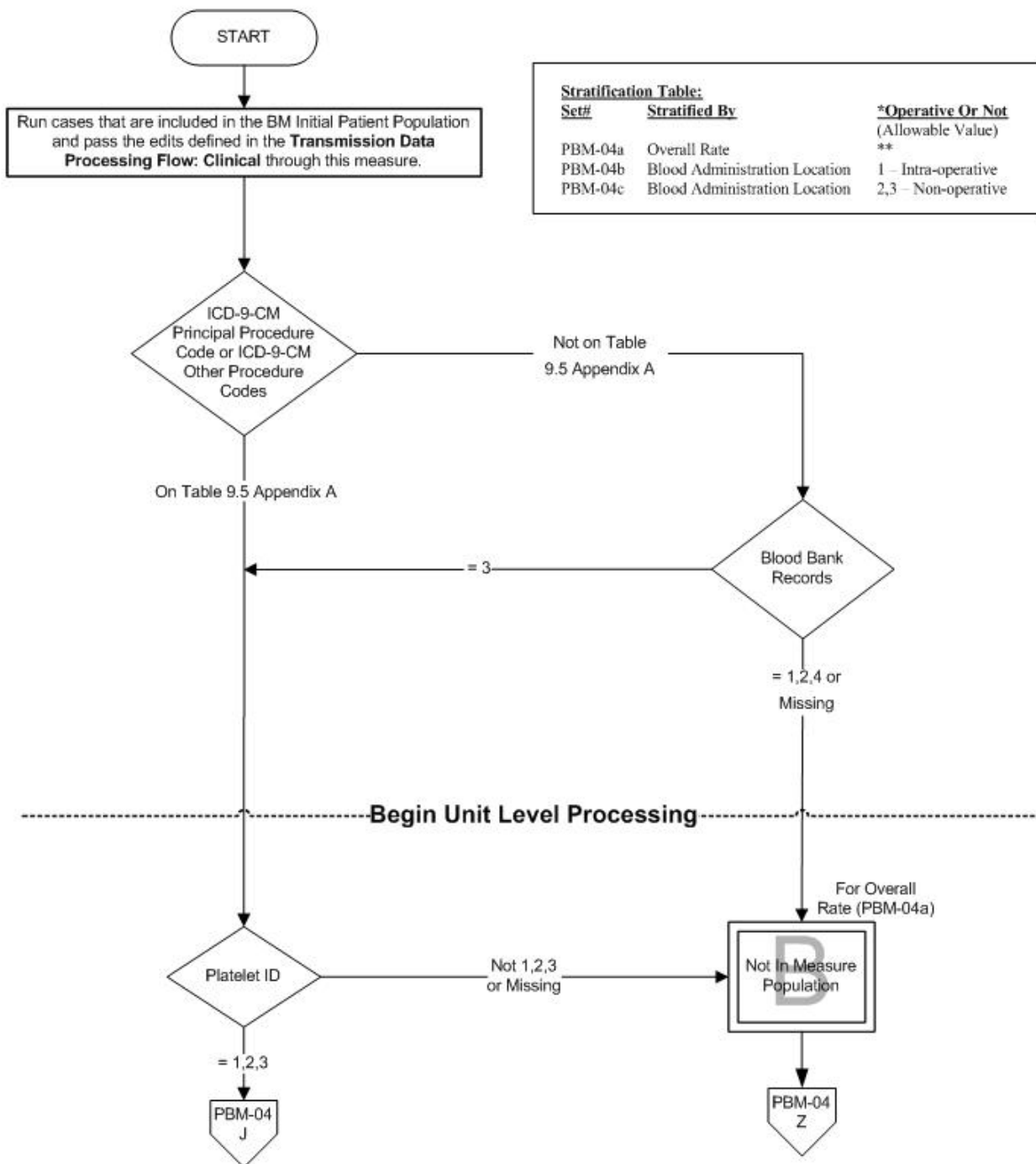
- Garrioch M, Sandbach J, Pirie E, Morrison A, Todd A, Green R. Reducing red cell transfusion by audit, education and a new guideline in a large teaching hospital. *Transfusion Med.* 2004;14:25-31.
- Petrides M. Red cell transfusion “trigger”: A review. *Southern Med J.* 2003; 96:664-667.
- Roback JD, ed. Technical manual. 16th ed, Bethesda, MD: AABB, 2008.
- BR J Haematol 1998, 101:609 - 617.

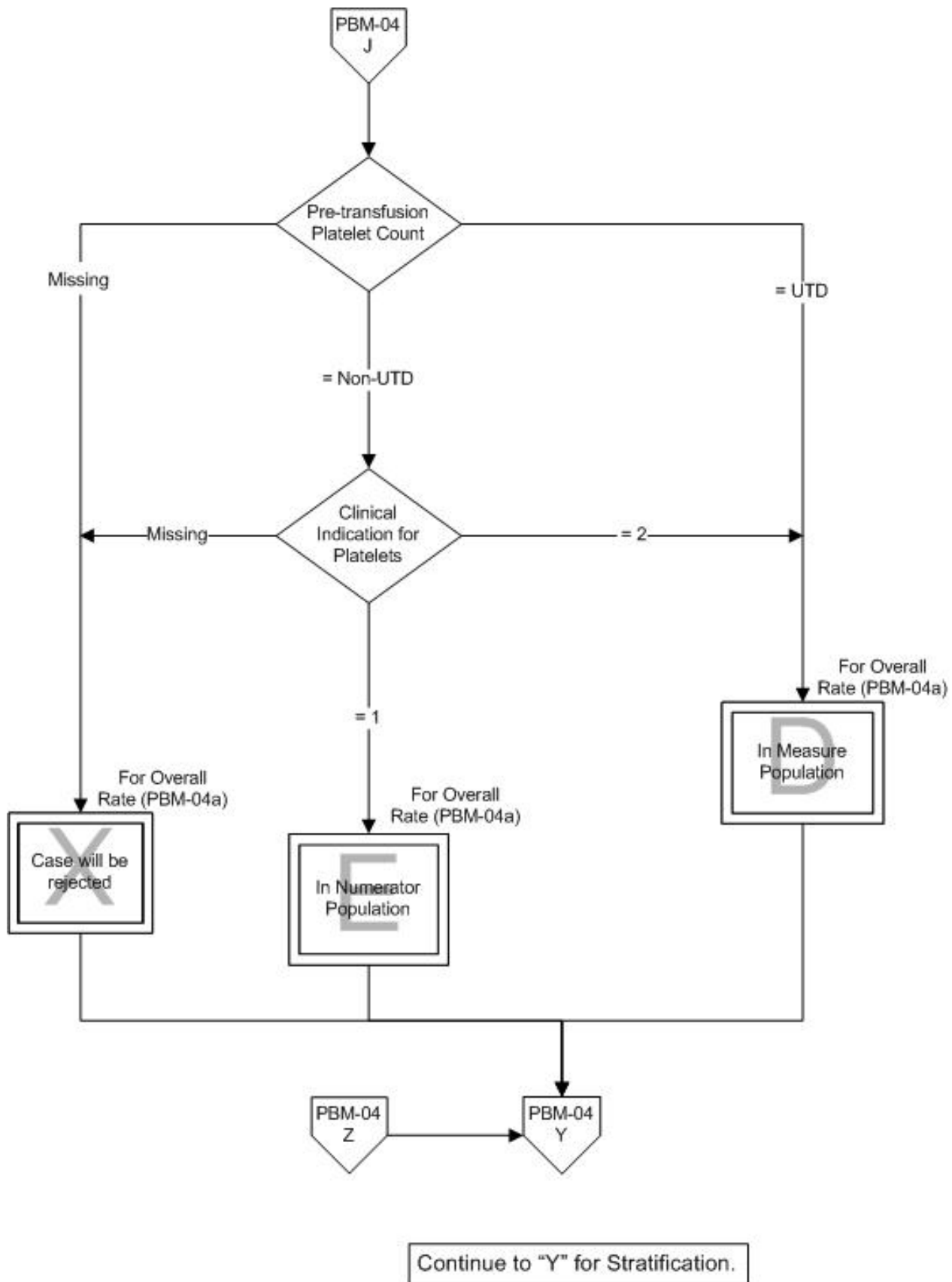
**Measure Algorithm:**

## PBM-04: Platelet Transfusion Indication

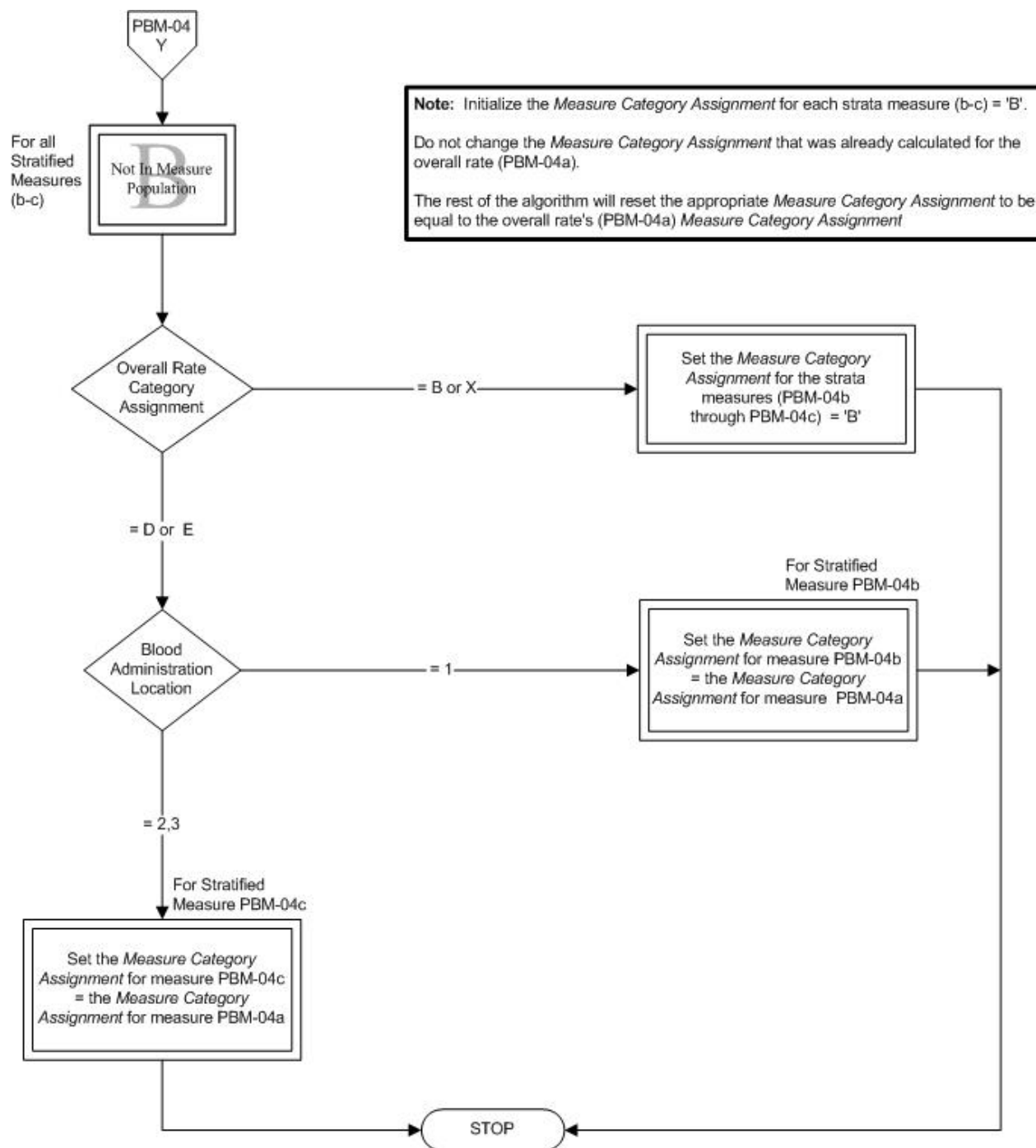
**Numerator:** Number of platelet doses with pre-transfusion platelet count result and clinical indication documented

**Denominator:** Number of transfused platelet units evaluated









## Related Topics

# Measure Information Form

**Measure Set:** Patient Blood Management(PBM)

**Set Measure ID:** PBM-05

**Performance Measure Name:** Blood Administration Documentation

**Description:** The number of transfused red blood cells, plasma or platelet transfusion units/doses (bags) that had documentation of the following: patient identification and an order to transfuse (Blood ID Number) confirmed prior to the initiation of transfusion, transfusion start date and time, and blood pressure, pulse and temperature recorded at specific intervals.

**Rationale:** Since the majority of blood units are transfused in hospitals, specific policies and procedures have been developed by each hospital to address documentation of blood administration standards in accordance with their state and federal regulations. Though documentation components vary among organizations, identification of the patient and confirmation of the order to transfuse are common indicators used for all blood products since incomplete patient identification could result in an adverse outcome. Prior to administering blood or blood products, patient identification by two identifiers is required by numerous organizations including the AABB Standard 5.19.3, and the Joint Commission National Patient Safety Goal (NPSG) 1. In addition, numerous organizations require or advise that the licensed staff confirm that there is a transfusion order as directed by the AABB Standard 5.19.6 and the elements of performance for the Joint Commission NPSG.01.01.01.

Patient monitoring during the transfusion is an important component related to patient safety. The first 10 to 15 minutes of the transfusion are considered the most critical to assess for a potential transfusion reaction and close observation during this time is recommended in the AABB Primer. Monitoring of vital signs at baseline, during and at the completion of the transfusion in addition to observation are used to assess the patient's condition for any changes.

**Type of Measure:** Process

**Improvement Noted As:** Increase in the rate

**Numerator Statement:** Number of units/doses (bags) with documentation for all of the following:

- patient identification and transfusion order (Blood ID Number) confirmed prior to the initiation of transfusion
- transfusion start date and time
- blood pressure, pulse and temperature recorded pre, during and post transfusion

**Included Populations:** Not applicable

**Excluded Populations:** None

**Data Elements:**

- Blood ID Number
- Patient ID Verification
- Plasma ID

- Platelet ID
- RBC ID
- Transfusion Order
- Transfusion Start Date
- Transfusion Start Time
- Vital Sign Monitoring

**Denominator Statement:** Number of transfused red blood cells, plasma or platelet units/doses (bags) evaluated

**Included Populations:**

- Discharges with an ICD-9-CM Principal or Other Procedure Codes for transfusion as defined in Appendix A, Table 9.3-9.6 or a transfusion documented from Blood Bank Records

**Excluded Populations:**

- Units used in massive transfusion protocols
- Uncrossmatched units
- Units used to prime equipment

**Data Elements:**

- Admission Date
- Birthdate
- Blood Administration Location
- Blood Bank Records
- Discharge Date
- ICD-9-CM Other Procedure Codes
- ICD-9-CM Principal Procedure Code
- RBC Unit Exclusions

**Risk Adjustment:** No.

**Data Collection Approach:** Retrospective data sources for required data elements include administrative/billing data and medical records. Hospitals that do not use ICD-9-CM procedure codes to document transfusions may use blood bank records to identify the population.

**Data Accuracy:** Variation may exist in the assignment of ICD-9-CM codes and blood bank records; therefore, coding practices and transfusion documentation may require evaluation to ensure consistency.

**Measure Analysis Suggestions:** The data from this measure may be used to evaluate the adherence to organizational policies and procedures for blood administration for each of the blood products. Data could be evaluated by unit or service in order to identify areas for staff education. The data could also be used during accreditation surveys to document the hospital's efforts to improve the accuracy of patient identification when administering blood related to the Joint Commission National Patient Safety Goal #1.

**Sampling:** Yes. For additional information see the Population and Sampling Specifications.

**Data Reported As:** Aggregate rate generated from count data reported as a proportion.

**Selected References:**

- Whitsett CF, Robichaux MG. Assessment of blood administration procedures: problems identified by direct observation and administrative incident reporting. *Transfusion*. 2001;41:581-86.
- Saxena S, Ramer L, Shulman IA. A comprehensive assessment program to improve blood-administering practices using the FOCUS-PDCA model. *Transfusion*. 2004; 44:1350-56.
- Novis DA, Miller KA, Howanitz PJ, Renner SW, Walsh MK; College of American Pathologists. Audit of transfusion procedures in 660 hospitals. A College of American Pathologists Q-Probes study of patient identification and vital sign monitoring frequencies in 16494 transfusions. *Arch Pathol Lab Med*. 2003;127:541-8.
- Roback JD, ed. Technical manual. 16th ed, Bethesda, MD: AABB, 2008.
- The Joint Commission: Comprehensive Accreditation Manual for Hospitals, 2009. Oakbrook Terrace, IL; Joint Commission Resources, Inc., 2009.
- The Joint Commission, "National Patient Safety Goals (NPSG)", IN: Comprehensive accreditation manual for hospitals, 2009. Oakbrook Terrace, IL; Joint Commission Resources, Inc., 2009, pp. NPSG 1 – NPSG 4.
- AABB Primer of Blood Administration. Revised August 2008. Bethesda, Maryland. [Available at [http://www.aabb.org/Content/Professional\\_Development/Education\\_and\\_Training\\_Material/edtr](http://www.aabb.org/Content/Professional_Development/Education_and_Training_Material/edtr) (accessed November 2009).]

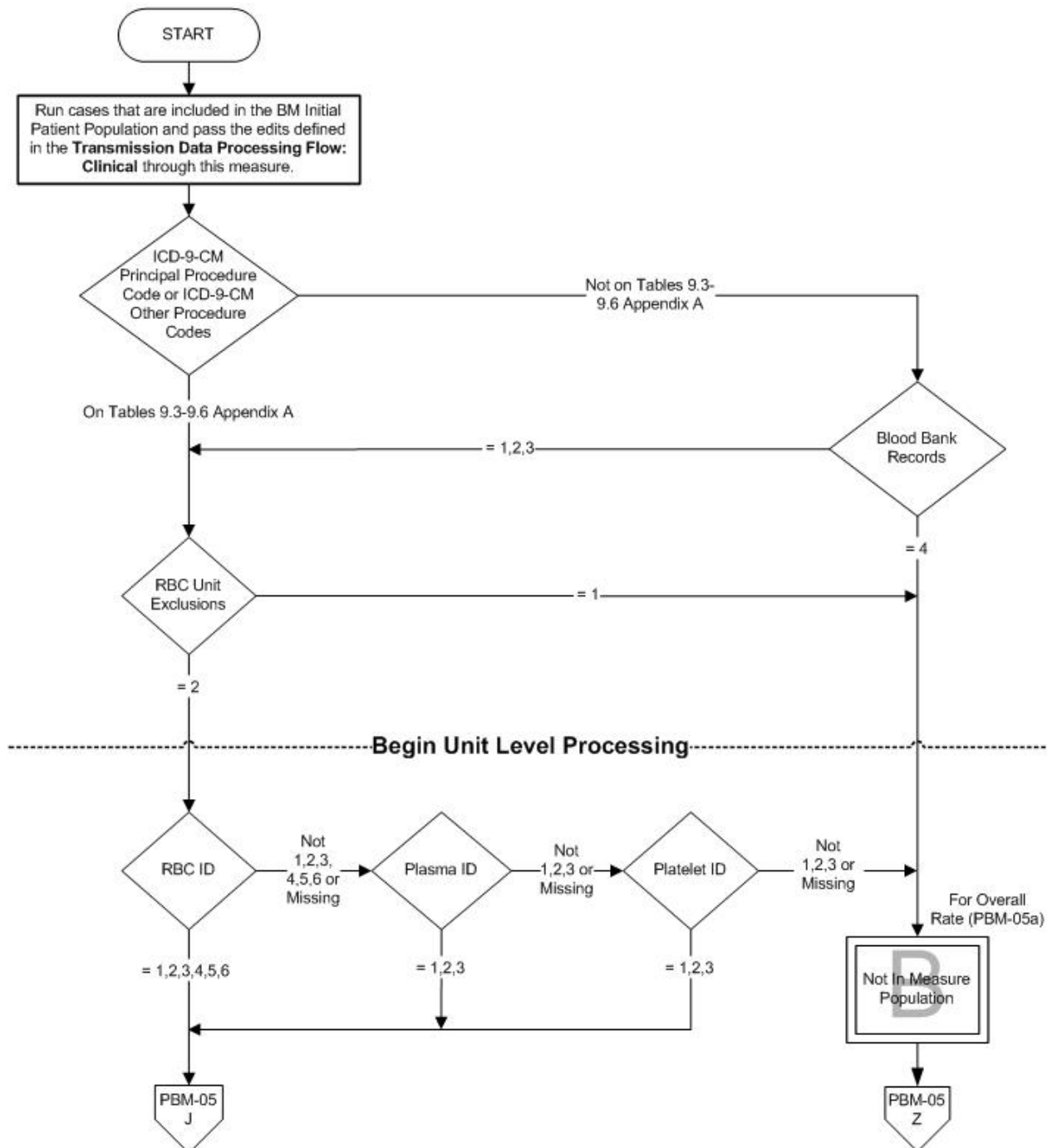
### **Measure Algorithm:**

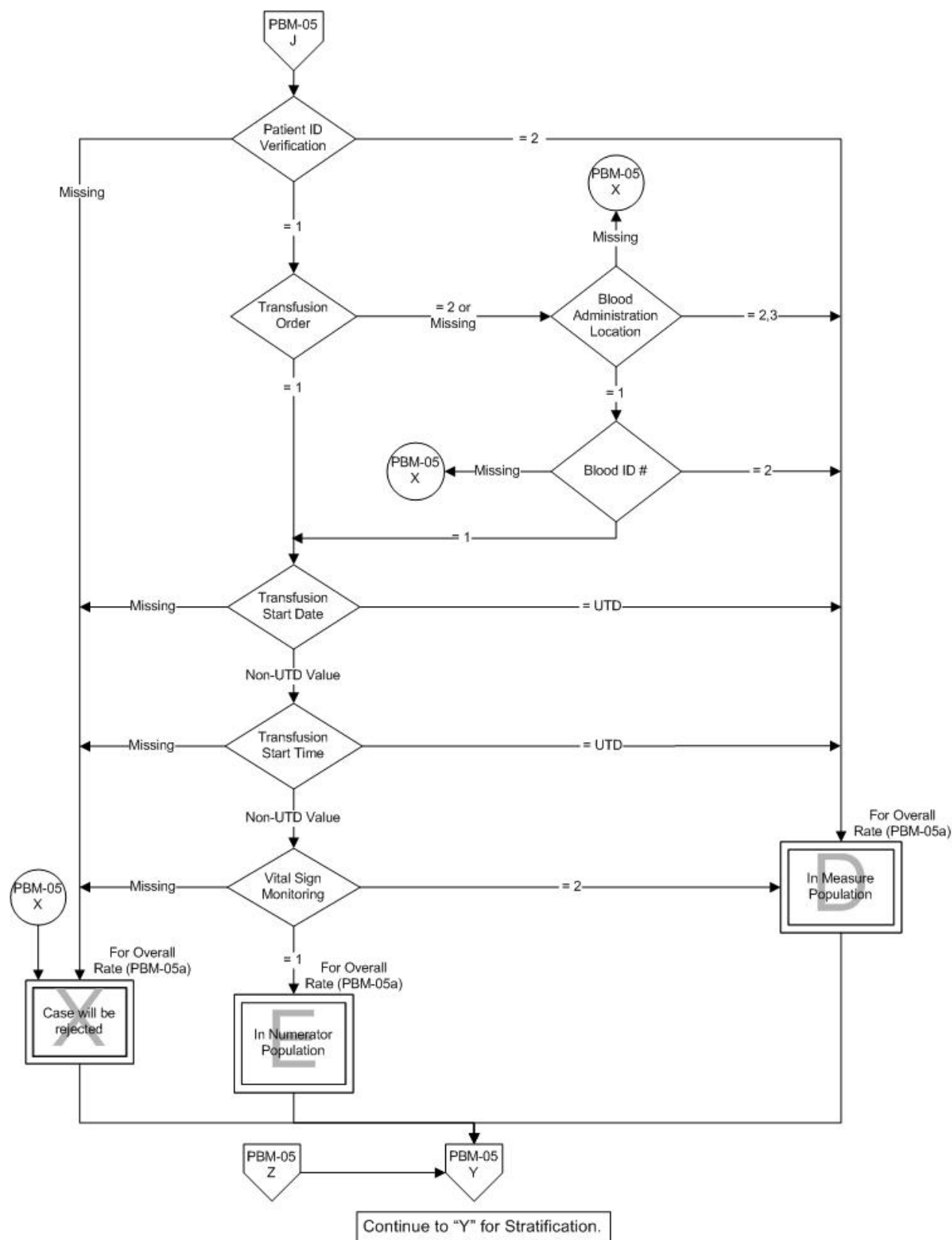
## PBM-05: Blood Administration Documentation

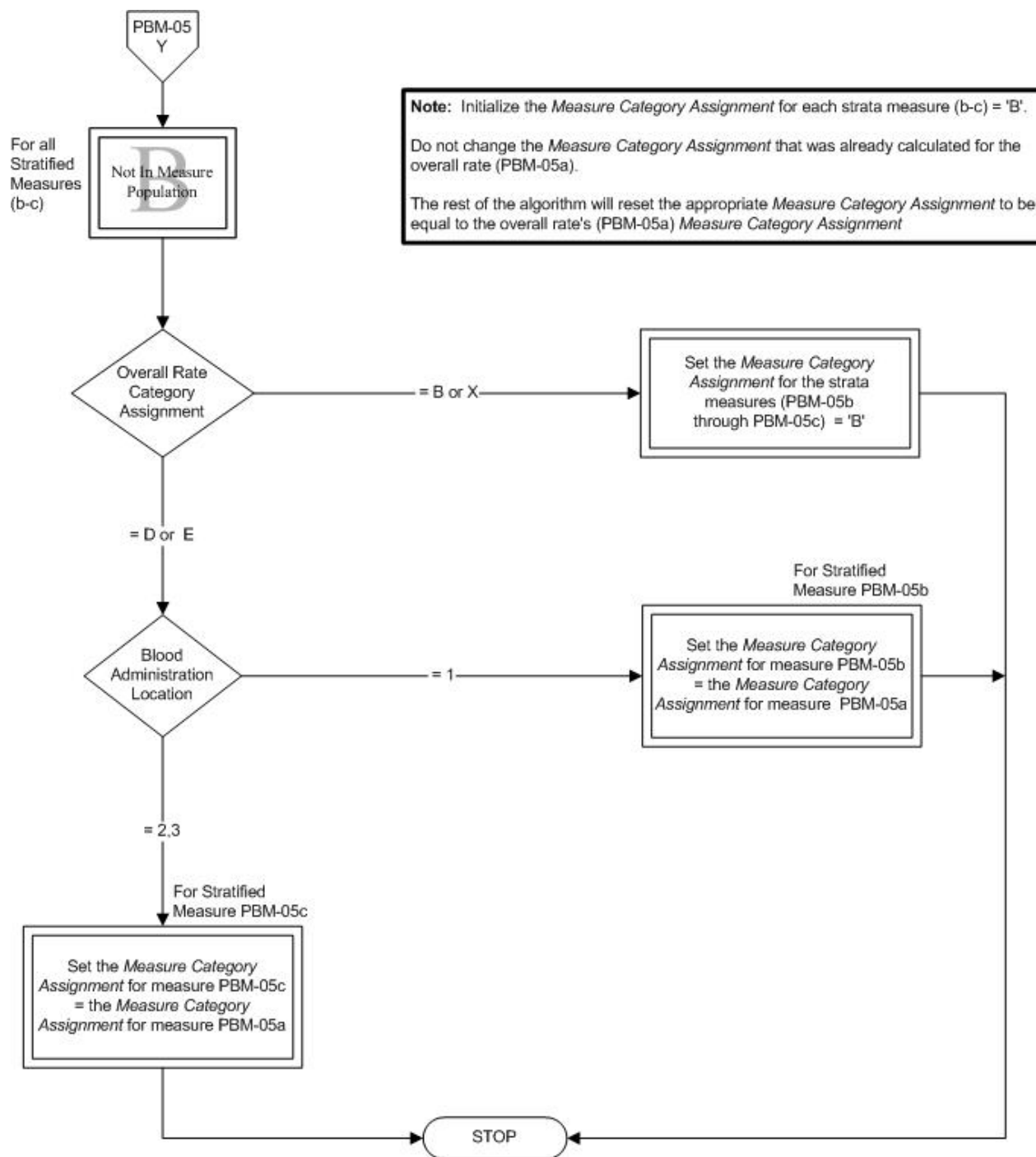
**Numerator:** Number of blood transfusion units (bags) or doses with documentation for all of the following:

- patient identification (ID) and transfusion order (blood ID number) confirmed prior to the initiation of blood
- date and time of transfusion
- blood pressure, pulse and temperature recorded pre, during and post transfusion

**Denominator:** Number of transfused red blood cells, plasma and platelet units (bags) or doses evaluated







## Related Topics

# Measure Information Form

**Measure Set:** Patient Blood Management(PBM)

**Set Measure ID:** PBM-06

**Performance Measure Name:** Preoperative Anemia Screening

**Description:** Selected elective orthopedic, cardiac and hysterectomy surgical patients with documentation of preoperative anemia screening date 14 – 45 days before surgery start date for procedures scheduled 14 or more days before surgery.

**Rationale:** Development of formal protocols for preoperative testing of hemoglobin (hgb) for potential high-blood loss elective surgeries could be used to identify and intervene for optimal management of blood resources. Preoperative anemia often goes unrecognized and untreated unless tests are ordered in advance of a planned surgery. Early recognition of anemia offers patients an opportunity to receive the most appropriate transfusion-sparing strategy, and avoid the risk of a potential transfusion. Researchers have shown that preoperative hgb and hematocrit can be used as predictors of outcome for specific types of patients such as cardiac artery bypass graft or orthopedic surgery. In a study by Salido, orthopedic patients with a preoperative hemoglobin <13 g/dL had four times the risk of transfusion than those with a hemoglobin level between 13 g/dL and 15 g/dL.

**Type of Measure:** Process

**Improvement Noted As:** Increase in the rate

**Numerator Statement:** Patients with preoperative anemia screening 14 - 45 days before Anesthesia Start Date

**Included Populations:** Not applicable

**Excluded Populations:** None

**Data Elements:**

- Preoperative Anemia Screening Date

**Denominator Statement:** Selected elective surgical patients

**Included Populations:**

- Discharges with an ICD-9-CM Principal Procedure Codes of selected surgeries as defined in Appendix A, Tables 2.2, 5.01, 5.02, 5.08, 5.11, 5.22, 5.23, 9.1 or 9.2.

**Excluded Populations:**

- Patients less than 18 years of age
- Patients with surgery scheduled less than 14 days before Anesthesia Start Date
- Patients not admitted from home

**Data Elements:**



- Admission Date
- Admission From Home
- Birthdate
- Discharge Date
- ICD-9-CM Principal Procedure Code
- ICD-9-CM Principal Procedure Date
- Surgery Scheduled Timeframe

**Risk Adjustment:** No.

**Data Collection Approach:** Retrospective data sources for required data elements include administrative data and medical records.

**Data Accuracy:** Variation may exist in the assignment of ICD-9-CM codes; therefore, coding practices may require evaluation to ensure consistency.

**Measure Analysis Suggestions:** These data may be used to evaluate specific patient groups at high risk for a blood transfusion that did not have their pre-operative hemoglobin and/or transfusion testing completed and/or documented prior to surgery. The data could be further analyzed based on physician or type of procedure. Patients who are not included in the numerator could be tracked to see if there were any adverse outcomes due to the lack of preoperative anemia screening.

**Sampling:** Yes. For additional information see the Population and Sampling Specifications Section.

**Data Reported As:** Aggregate rate generated from count data reported as a proportion.

**Selected References:** \* Roback JD, ed. Technical manual. 16th ed, Bethesda, MD: AABB, 2008.

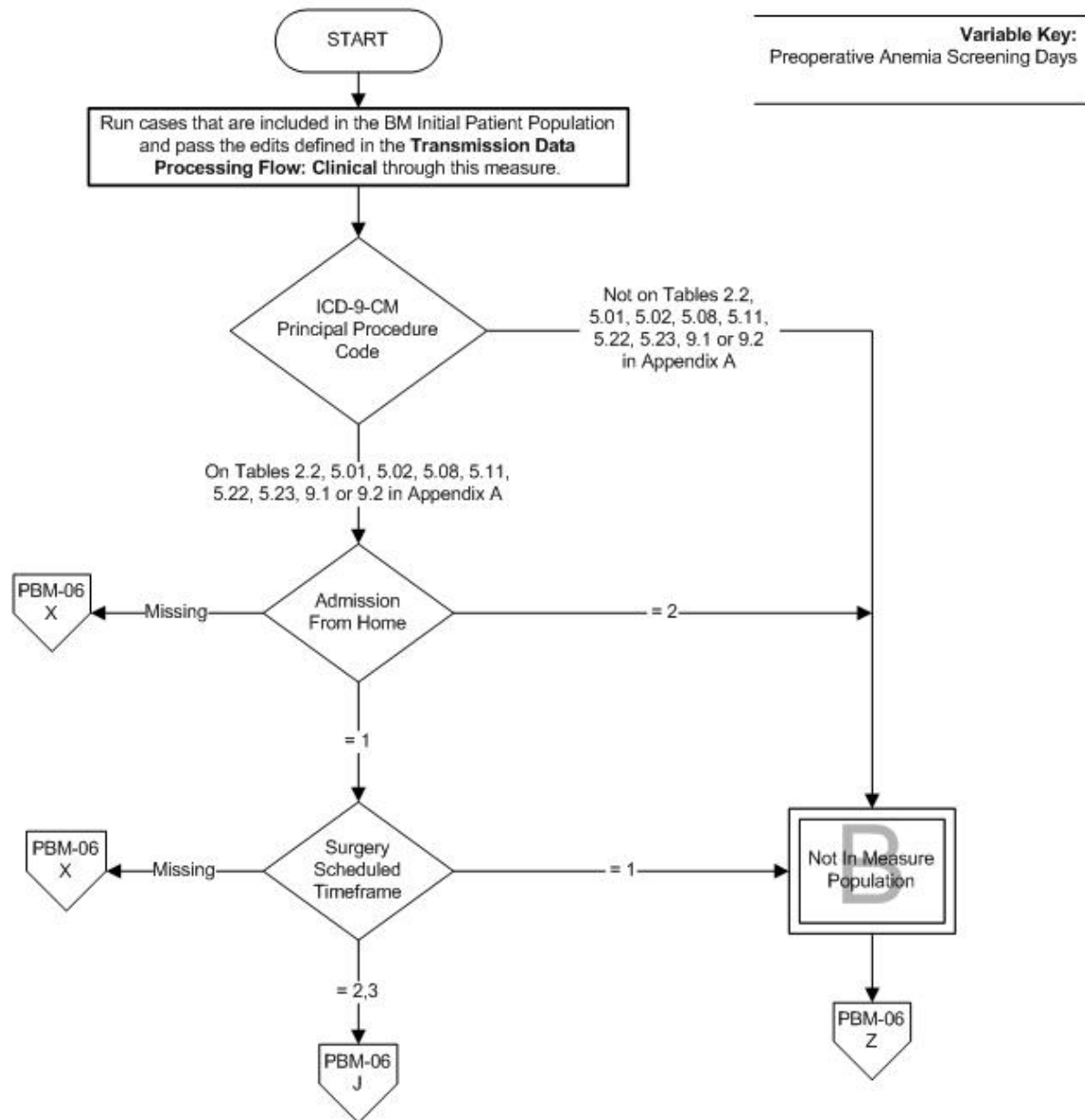
- Salido JA, Martin LA, Gomez LA, et al. Preoperative hemoglobin levels and the need for transfusion after prosthetic hip and knee surgery; analysis of predictive factors. J Bone Joint Surg. 2002;84: 216-20.
- Rady MY, Ryan T, Starr NJ. Perioperative determinants of morbidity and mortality in elderly patients undergoing cardiac surgery. Crit Care Med. 1998;26: 225-235.
- Magovern JA, Sakert T, Magovern GJ et al. A model that predicts morbidity and mortality after coronary artery bypass graft surgery. J Am Coll Cardiol. 1996;28: 1147-1153.
- Campbell DA, Henderson WG, Englesbe, MJ, Hall BL, O'Reilly M, Bratzler D et al. Surgical site infection prevention: the importance of operative duration and blood transfusion-results of the first american college of surgeons –national surgical quality improvement program best practices initiative. J AM Coll Surg 2008;207:810-820.

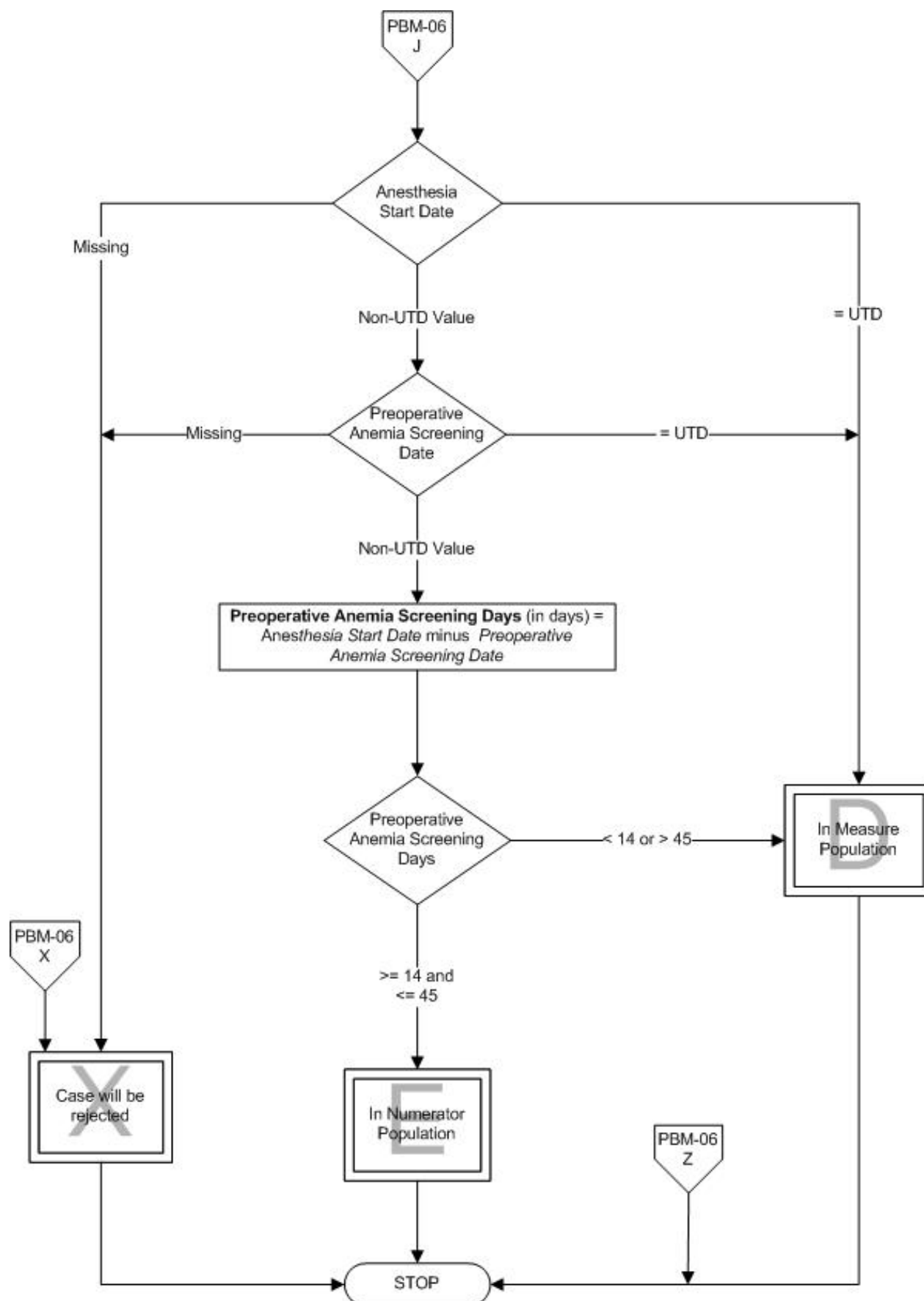
**Measure Algorithm:**

## PBM-06: Preoperative Anemia Screening

**Numerator:** Patients with documentation of preoperative anemia screening 14 - 45 days before Anesthesia Start Date

**Denominator:** Selected elective surgical patients





## Related Topics

# Measure Information Form

**Measure Set:** Patient Blood Management(PBM)

**Set Measure ID:** PBM-07

**Performance Measure Name:** Preoperative Blood Type Testing and Antibody Screening

**Description:** Selected elective orthopedic, cardiac and hysterectomy surgical patients who had preoperative blood type testing and antibody screening (type and screen or type and crossmatch) completed prior to surgery start time if ordered preoperatively.

**Rationale:** Hospitals need to ensure that sufficient compatible blood is available for each scheduled procedure. Since about 3% of specimens have a serologic finding that requires further investigation that may cause a delay in the availability of the blood, patient screening of ABO group and Rh type should be collected in sufficient time to complete all pretransfusion testing before surgery begins. According to the Joint Commission's Pre-publication National Patient Safety Goal UP.01.01.01 for 2010, a preprocedure verification process should be conducted to identify items that must be available for the procedure and use a standardized list to verify their availability. Documentation of any required blood products for the procedure is required. Development of formal protocols to ensure that patients have blood testing completed prior to surgery start time for potential high-blood loss elective surgeries may optimize management of blood resources and maximize patient safety.

**Type of Measure:** Process

**Improvement Noted As:** Increase in the rate

**Numerator Statement:** Patients with preoperative type and crossmatch or type and screen completed prior to surgery start time

**Included Populations:** Not applicable

**Excluded Populations:** None

**Data Elements:**

- Preoperative Blood Type Testing

**Denominator Statement:** Selected elective surgical patients

**Included Populations:**

- Discharges with an ICD-9-CM Principal Procedure Code of selected surgeries as defined in Appendix A, Tables 2.2, 5.01, 5.02, 5.08, 5.11, 5.22, 5.23, 9.1 or 9.2.

**Excluded Populations:**

- Patients less than 18 years of age
- Patients with type and screen or type and crossmatch ordered preoperatively

**Data Elements:**

- Admission Date
- Birthdate
- Blood Type Testing Ordered
- Discharge Date
- ICD-9-CM Principal Procedure Code

**Risk Adjustment:** No.

**Data Collection Approach:** Retrospective data collection sources for required data elements include administrative data and medical records.

**Data Accuracy:** Variation may exist in the assignment of ICD-9-CM codes; therefore, coding practices may require evaluation to ensure consistency.

**Measure Analysis Suggestions:** These data may be used to evaluate specific patient groups at high risk for a blood transfusion that did not have pre-operative transfusion testing completed and/or documented prior to surgery start time. The data could be further analyzed based on physician or type of procedure. Patients who are not included in the numerator could be tracked to see if there were any adverse outcomes due to the lack of preoperative testing.

**Sampling:** Yes. For additional information see the Population and Sampling Specifications.

**Data Reported As:** Aggregate rate generated from count data reported as a proportion.

**Selected References:** \* Saxena S, Nelson JM, Osby M, Shah M, Kempf R, Shulman IA. Ensuring timely completion of type and screen testing and the verification of ABO/Rh status for elective surgical patients. Arch Pathol Lab Med. 2007;131:576-81.

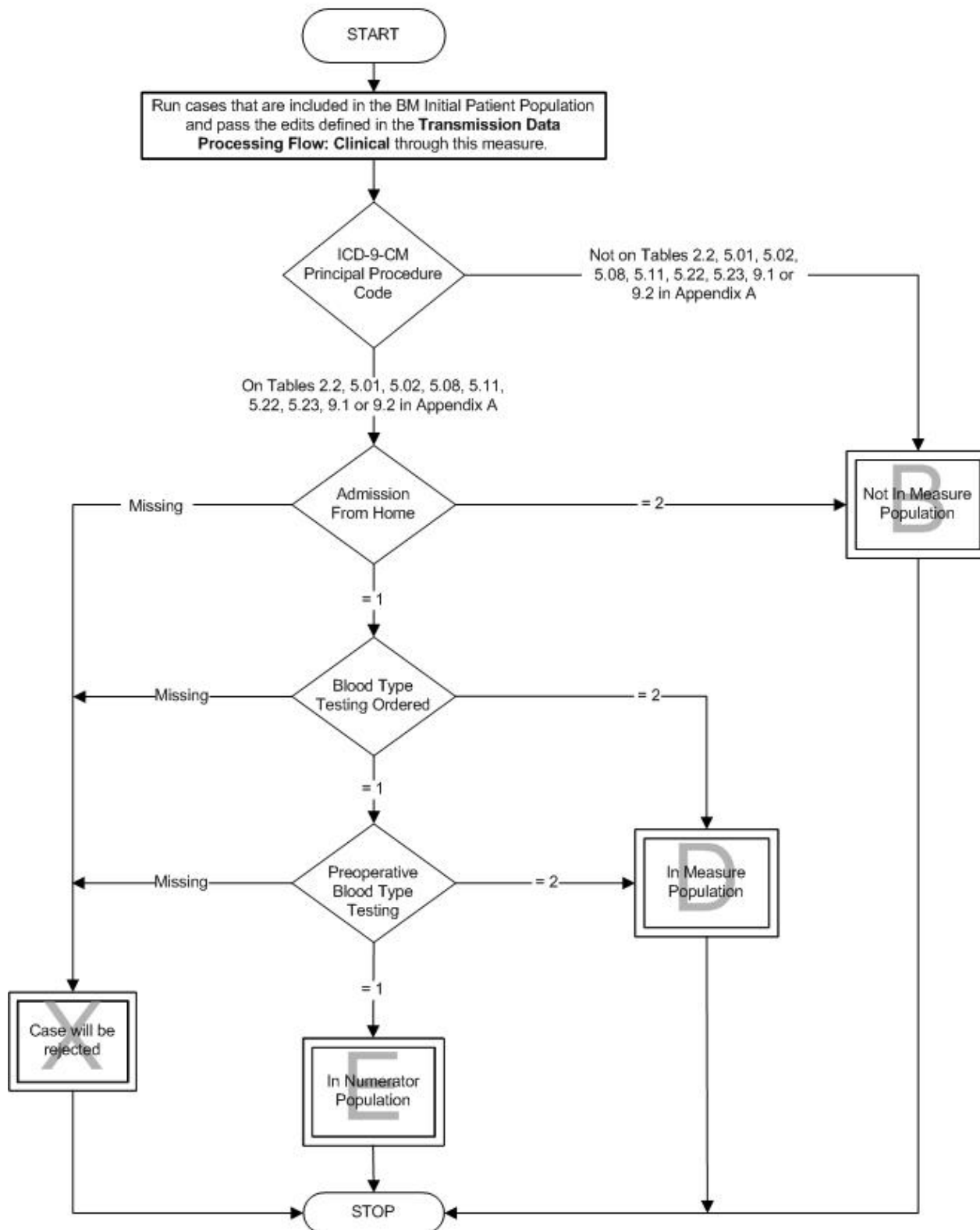
- Friedberg RC, Jones BA, Walsh MK. Type and screen completion for scheduled surgical procedures. A College of American Pathologists Q-Probes study of 8941 type and screen tests in 108 institutions. Arch Pathol Lab Med. 2003;127:533-40.
- Roback JD, ed. Technical manual. 16th ed, Bethesda, MD: AABB, 2008.
- Magovern JA, Sakert T, Magovern GJ et al. A model that predicts morbidity and mortality after coronary artery bypass graft surgery. J Am Coll Cardiol. 1996;28: 1147-1153.
- The Joint Commission 2010 National Patient Safety Goals, Oakbrook Terrace, IL [Available at [http://www.jointcommission.org/NR/rdonlyres/868C9E07-037F-433D-8858-0D5FAA4322F2/0/RevisedChapter\\_HAP\\_NPSG\\_20090924.pdf](http://www.jointcommission.org/NR/rdonlyres/868C9E07-037F-433D-8858-0D5FAA4322F2/0/RevisedChapter_HAP_NPSG_20090924.pdf) (accessed January 27, 2010).]

**Measure Algorithm:**

## PBM-07: Preoperative Blood Type Testing and Antibody Screening

**Numerator:** Patients with documentation of preoperative type and crossmatch or type and screen completed prior to Anesthesia Start Time

**Denominator:** Selected elective surgical patients



### Related Topics

**Data Element Name:** *Admission From Home*

**Collected For:** PBM-06,

**Definition:** Patient was admitted for the pre-scheduled elective surgery procedure from home.

**Suggested Data Collection Question:** Was the patient admitted from home?

**Format:**  
**Length:** 1  
**Type:** Alphanumeric  
**Occurs:** 1

**Allowable Values:**

- 1 Patient was admitted from home.
- 2 Patient was not admitted from home or unable to determine from medical record documentation.

**Notes for Abstraction:**

- Patients who have to stay overnight at a location other than their primary residence due to long distance travel for procedure are considered admitted from home.

**Suggested Data Sources:**

- Face sheet
- Nursing admission assessment
- Physician's notes
- Preop checklist

**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |

|  |   |
|--|---|
| <b>Data Element Name:</b>                  | <i>Anesthesia Start Date</i>  |
| <b>Collected For:</b>                      | <u>PBM-06</u> ,   |
| <b>Definition:</b>                         | The date the anesthesia for the procedure started.  |
| <b>Suggested Data Collection Question:</b> | On what date did the anesthesia for the procedure start?  |
| <b>Format:</b>                             | <b>Length:</b> 10 – MM-DD-YYYY (includes dashes)<br><b>Type:</b> Date<br><b>Occurs:</b> 1   |
| <b>Allowable Values:</b>                   | MM-DD-YYYY<br><br>MM = Month (01-12)<br>DD = Day (01-31)<br>YYYY = Year (2001-Current Year)<br>Leave Blank if Unable to Determine   |
| <b>Notes for Abstraction:</b>              | <p>If the Anesthesia Start Date cannot be determined from medical record documentation, enter UTD. When the date documented is obviously invalid (not a valid format/range [12-39-20xx] or after the Discharge Date or Anesthesia End Date) and no other documentation can be found that provides the correct information, the abstractor should select “UTD.”</p> <p>Example: Patient expires on 02-12-20xx and documentation indicates the Anesthesia Start Date was 03-12-20xx. Other documentation in the medical record supports the date of death as being accurate, but no other documentation of the Anesthesia Start Date can be found. Since the Anesthesia Start Date is outside of the parameter for care (after the Discharge Date [death]) and no other documentation is found, the abstractor should leave blank.</p> <p>If the Anesthesia Start Date is incorrect (in error) but it is a valid date and the correct date can be supported with other documentation in the medical record, the correct date may be entered. If supporting documentation of the correct date cannot be found, the medical record must be abstracted as documented or at “face value.”</p> <p>Examples: The anesthesia form is dated 12-10-2007, but other documentation in the medical record supports that the correct date was 12-10-2009. Enter the correct date of 12-10-2009 as the Anesthesia Start Date.</p> <p>An Anesthesia End Date of 11-20-20xx is documented but the Anesthesia Start Date is documented as 11-10-20xx. If no other documentation can be found to support another Anesthesia Start Date, then it must be abstracted as 11-10-20xx because the date is not considered invalid or outside the parameter of care.</p> |



**Suggested Data Sources:**

Other Suggested Sources:

- Intraoperative record
- Circulator record
- Post-anesthesia evaluation record
- Operating room notes

**Additional Notes:** Suggested Data Sources:

Note: The anesthesia record is the priority data source for this data element, if a valid Anesthesia Start Date is found on the anesthesia record, use that date. If a valid date is not on the anesthesia record, other suggested data sources may be used in no particular order to determine the Anesthesia Start Date.

Priority Source:

- Anesthesia record

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |

**Data Element Name:** *Blood Administration Location*

**Collected For:** PBM-02, PBM-03, PBM-04, PBM-05,

**Definition:** The hospital setting (intraoperative or non-intraoperative) where the blood product began infusing.

**Suggested Data Collection Question:** In what setting did the blood product begin infusing?

**Format:**           **Length:** 1  
                          **Type:** Alphanumeric  
                          **Occurs:** 1-12

**Allowable Values:**

- 1 Intraoperative setting
- 2 Non-intraoperative setting
- 3 Unable to determine

**Notes for Abstraction:**

- Select setting for each unit transfused based on the physical location of the patient.
- Intraoperative setting is anytime during the operation.
- Non-intraoperative setting is any area outside of the operating room. For example, setting such as the intensive care unit, surgical floor or emergency room.

**Suggested Data Sources:**

- Anesthesia record
- Emergency department record
- Nursing notes
- Nursing flow sheet
- Nursing admission assessment
- Progress notes
- Physician's notes
- Operative notes
- Operating room notes
- Operative report
- Procedure notes
- ICU notes
- PACU/recovery room record

Blood Administration Documentation Sheet

**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |

**Data Element Name:** *Blood Bank Records*

**Collected For:** PBM-01, PBM-02, PBM-03, PBM-04, PBM-05,

**Definition:** Documentation that the patient received red blood cells (RBCs), plasma or platelets after hospital arrival.

**Suggested Data Collection Question:** Was there documentation that the patient received RBCs, plasma or platelets after hospital arrival?

**Format:**  
**Length:** 1  
**Type:** Alphanumeric  
**Occurs:** 1-12

**Allowable Values:**

Select all that apply: 1 RBCs

2 Plasma

3 Platelets

4 None of the above or unable to determine from medical record documentation

**Notes for Abstraction:**

- Include transfusions given in the emergency room or observation area.

**Suggested Data Sources:** Blood Bank Records

**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
|           |           |

**Data Element Name:** *Blood ID Number*

**Collected For:** PBM-05,

**Definition:** Documentation of the actual blood bank identification number in the intraoperative record for the unit that was transfused.

**Suggested Data Collection Question:** Was there documentation of a blood bank identification number for the unit or dose of blood transfused during surgery?

**Format:**  
**Length:** 1  
**Type:** Alphanumeric  
**Occurs:** 1

**Allowable Values:**

- 1 There is documentation of a blood bank identification number for the unit that was transfused.
- 2 There is no documentation of a blood bank identification number for the unit that was transfused or unable to determine from medical record documentation.

**Notes for Abstraction:**

**Suggested Data Sources:**

- Anesthesia record
- Operative report

Blood administration record

**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |

**Data Element Name:** *Blood Type Testing Ordered*

**Collected For:** PBM-07,

**Definition:** A type and screen and/or type and crossmatch was ordered preoperatively for the elective surgery.

**Suggested Data Collection Question:** Was a type and screen and/or type and crossmatch ordered preoperatively?

**Format:**  
**Length:** 1  
**Type:** Alphanumeric  
**Occurs:** 1

**Allowable Values:**

- 1 A type and screen and/or type and crossmatch was ordered preoperatively.
- 2 A type and screen and/or type and crossmatch was not ordered preoperatively or unable to determine

**Notes for Abstraction:**

**Suggested Data Sources:**

- Physician orders
- Preop checklist

**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |

**Data Element Name:** *Clinical Indication for Plasma*

**Collected For:** PBM-03,

**Definition:** Documentation by the physician/advance practice nurse/physician assistant or (physician/APN/PA) of the clinical indication for the plasma transfusion unit.

**Suggested Data Collection Question:** Was there a clinical indication documented by the physician/APN/PA for the transfused plasma unit?

**Format:**  
**Length:** 1  
**Type:** Numeric  
**Occurs:** 1 - 3

**Allowable Values:**

- 1 There was a clinical indication documented by the physician/APN/PA for the transfused plasma unit.
- 2 There was no documentation of a clinical indication for the transfusion or unable to determine from the medical record.

**Notes for Abstraction:**

- The clinical indication for the transfusion must be documented within 24 hours after the start of the transfusion.
- Select the first four plasma transfusion units closest to hospital arrival for abstraction.

**Suggested Data Sources:**

**ONLY PHYSICIAN/APN/PA DOCUMENTATION OF THE CLINICAL INDICATION FOR ADMINISTERING BLOOD:**

- Anesthesia record
- Consultation notes
- Emergency department record
- Physician orders
- Progress notes

**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |

**Data Element Name:** *Clinical Indication for Platelets*

**Collected For:** PBM-04,

**Definition:** Documentation by the physician/advance practice nurse/physician assistant (physician/APN/PA) of the clinical indication for the transfused platelet unit.

**Suggested Data Collection Question:** Was there a clinical indication documented by the physician/APN/PA for the transfused platelet unit?

**Format:**  
**Length:** 1  
**Type:** Numeric  
**Occurs:** 1 - 3

**Allowable Values:**

- 1 There was a clinical indication documented by the physician/APN/PA for the transfused platelet unit.
- 2 There was no documentation of clinical indication for the platelet transfusion or unable to determine from the medical record

**Notes for Abstraction:**

- The clinical indication for the transfusion must be documented within 24 hours after the start of the transfusion.
- Select the first three units transfused after hospital arrival for abstraction.

**Suggested Data Sources:**

**ONLY PHYSICIAN/APN/PA DOCUMENTATION OF THE CLINICAL INDICATION FOR ADMINISTERING PLASMA:**

- Anesthesia record
- Consultation notes
- Emergency department record
- Physician orders
- Progress notes

**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |



**Data Element Name:** *Clinical Indication for RBCs*

**Collected For:** PBM-02,

**Definition:** Documentation by the physician/advance practice nurse/physician assistant (physician/APN/PA) of the clinical indication for the transfused red blood cell (RBCs) unit.

**Suggested Data Collection Question:** Was there a clinical indication documented by the physician/APN/PA for the transfused RBC unit?

**Format:**  
**Length:** 1  
**Type:** Numeric  
**Occurs:** 1 - 6

**Allowable Values:**

- 1 There was a clinical indication documented by the physician/APN/PA for the transfused RBC unit.
- 2 There was no clinical indication documented by the physician/APN/PA for the transfused RBC unit or unable to determine from medical record documentation.

**Notes for Abstraction:**

- The clinical indication for the transfusion must be documented within 24 hours after the start of the transfusion.
- Select the first six RBC transfusion units after hospital arrival for abstraction.

**Suggested Data Sources:**

**ONLY PHYSICIAN/APN/PA DOCUMENTATION OF THE CLINICAL INDICATION FOR ADMINISTERING RBCs:**

- Anesthesia record
- Consultation notes
- Emergency department record
- Operative notes
- Physician orders
- Progress notes

**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |

|  |   |
|--|---|
| <b>Data Element Name:</b>                  | <i>Education Addressed Risks, Benefits and Alternatives to Transfusion</i>  |
| <b>Collected For:</b>                      | <u>PBM-01</u> ,   |
| <b>Definition:</b>                         | Documentation that information addressing risks, benefits and alternatives to transfusion was given to the patient/caregiver prior to the initial transfusion or the initial transfusion was deemed a medical emergency after hospital arrival.   |
| <b>Suggested Data Collection Question:</b> | Was there documentation that information regarding risks, benefits and alternatives to transfusion was given to the patient/caregiver prior to the initial transfusion event or was the initial transfusion deemed a medical emergency after hospital arrival?  |
| <b>Format:</b>                             | <b>Length:</b> 1<br><b>Type:</b> Numeric<br><b>Occurs:</b> 1  |
| <b>Allowable Values:</b>                   | <ol style="list-style-type: none"> <li>1 Information addressing the risks, benefits and alternatives to transfusion was given to the patient/caregiver prior to the initial transfusion after hospital arrival.</li> <li>2 Information addressing the risks, benefits and alternatives to transfusion was not given to the patient/caregiver prior to the initial transfusion after hospital arrival or unable to determine from medical record documentation.</li> </ol> |
| <b>Notes for Abstraction:</b>              | <ul style="list-style-type: none"> <li>• Use only documentation provided in the medical record.</li> <li>• If the patient refused information about risks, benefits and alternatives to transfusion, select “1.”</li> <li>• The caregiver is defined as the patient’s family or any other person (e.g., guardian) who will be responsible for care of the patient.</li> </ul>   |
| <b>Suggested Data Sources:</b>             | <ul style="list-style-type: none"> <li>• Consultation notes</li> <li>• Emergency department record</li> <li>• History and physical</li> <li>• Nursing notes</li> <li>• Progress notes</li> <li>• Operative notes</li> <li>• Admission forms</li> <li>• Consent form</li> <li>• Emergency department record</li> <li>• Progress notes</li> <li>• Nursing notes</li> </ul>  |
| <b>Additional Notes:</b>                   |   |

**Guidelines for Abstraction:**

| <b>Inclusion</b> | <b>Exclusion</b> |
|------------------|------------------|
| None             | None             |

|  |   |
|--|---|
| <b>Data Element Name:</b>                  | <i>Patient ID Verification</i>  |
| <b>Collected For:</b>                      | <u>PBM-05</u> ,   |
| <b>Definition:</b>                         | Documentation that two unique patient identifiers were checked during a two-person verification process (or the use of automated identification technology may be used in place of one of the individuals) prior to the administration of the transfusion unit/dose (bag).  |
| <b>Suggested Data Collection Question:</b> | Was there documentation that two unique patient identifiers were checked or automated identification was used in place of one person during the verification process prior to the administration of the blood transfusion unit/dose (bag)?  |
| <b>Format:</b>                             | <b>Length:</b> 1<br><b>Type:</b> Numeric<br><b>Occurs:</b> 1 - 12   |
| <b>Allowable Values:</b>                   | <ol style="list-style-type: none"> <li>1 There was documentation that two unique patient identifiers were checked during the two person verification process or an automated identification system was used in place of one of the individuals prior to the administration of the transfusion unit/dose (bag).</li> <li>2 There was no documentation that two unique patient identifiers or automated identification were used during the two-person identification check prior to the administration of the transfusion unit/dose (bag) or unable to determine from medical record documentation.</li> </ol>   |
| <b>Notes for Abstraction:</b>              | <ul style="list-style-type: none"> <li>• <i>Patient ID Verification</i> must be associated with the blood product and RBC ID that was selected for abstraction.</li> <li>• <i>Patient ID Verification</i> can be documented by the signature of two persons that attest that two unique patient identifiers were checked to verify the identification of the patient prior to the transfusion or the signature of one person and an automated identification device.</li> <li>• Patient identifiers that could be used include; name, date of birth, patient identification number or unique identifier given at the time the crossmatch was drawn.</li> <li>• The patient room number should not be used to identify the patient.</li> </ul> |
| <b>Suggested Data Sources:</b>             | <ul style="list-style-type: none"> <li>• Anesthesia record</li> <li>• Emergency department record</li> <li>• Nursing notes</li> <li>• Progress notes</li> <li>• Physician's notes</li> <li>• Operative notes</li> <li>• Operative report</li> <li>• Procedure notes</li> <li>• PACU/recovery room record</li> </ul>   |

- Blood administration form

**Additional Notes:**

**Guidelines for Abstraction:**

| <b>Inclusion</b> | <b>Exclusion</b> |
|------------------|------------------|
| None             | None             |

**Data Element Name:** *Plasma ID*

**Collected For:** PBM-03, PBM-05,

**Definition:** The number assigned to designate whether the plasma unit was the first, second or third unit transfused after hospital arrival.

**Suggested Data Collection Question:** What number was assigned to the plasma unit selected for abstraction?

**Format:**  
**Length:** 1  
**Type:** Numeric  
**Occurs:** 1 - 3

**Allowable Values:**

- 1 First Plasma Unit
- 2 Second Plasma Unit
- 3 Third Plasma Unit

**Notes for Abstraction:**

- The abstractor assigns a plasma identification (ID) number for each unit evaluated.
- Each allowable value is only used one time and is determined by the order in which it was administered.
- Abstract up to three plasma transfusion units per patient.
- Include plasma transfusions administered after hospital arrival.

**Suggested Data Sources:**

- Anesthesia record
- Emergency department record
- Progress notes
- Operative notes
- Blood administration form
- Blood bank records

**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |

**Data Element Name:** *Platelet ID*

**Collected For:** PBM-04, PBM-05,

**Definition:** The number assigned to designate whether the platelet unit was the first, second or third unit that was transfused after hospital arrival.

**Suggested Data Collection Question:** What number was assigned to the platelet unit selected for abstraction?

**Format:**  
**Length:** 2  
**Type:** Numeric  
**Occurs:** 1 - 3

**Allowable Values:**

- 1 First Platelet Unit
- 2 Second Platelet Unit
- 3 Third Platelet Unit

**Notes for Abstraction:**

- The abstractor assigns a platelet identification (ID) number for each unit evaluated.
- Each allowable value is only used one time and is determined by the order in which it was administered.
- Abstract up to three platelet units per patient
- Include platelet transfusions administered after hospital arrival.

**Suggested Data Sources:**

- Anesthesia record
- Emergency department record
- Progress notes
- Operative notes
- Blood administration form
- Blood bank records

**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |

**Data Element Name:** *Pre-transfusion Hematocrit*

**Collected For:** PBM-02,

**Definition:** Documentation of the closest hematocrit (hct) completed prior to the RBC transfusion.

**Suggested Data Collection Question:** What was documented as the closest pre-transfusion hct prior to the RBC transfusion?

**Format:**  
**Length:** 4  
**Type:** Alphanumeric  
**Occurs:** 1 - 6

**Allowable Values:**

Enter the patient's closest hematocrit result (number only, reported in percent) performed prior to each RBC transfusion.

**UTD** = Unable to Determine

- For abstraction, select either the pre-transfusion hematocrit or the hemoglobin result; both are not required.
- Select the result associated with the RBC ID selected for abstraction.
- When recording the allowable value for hematocrit, input 23.00 if the patient's hematocrit is 23%.

**Notes for Abstraction:**

**Suggested Data Sources:**

- Consultation notes
- Emergency department record
- History and physical
- Laboratory report
- Progress notes
- Operative report
- Blood administration form

**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |



**Data Element Name:** *Pre-transfusion Hemoglobin*

**Collected For:** PBM-02,

**Definition:** Documentation of the closest hemoglobin (hgb) completed prior to the RBC transfusion.

**Suggested Data Collection Question:** What was documented as the closest pre-transfusion hgb prior to the RBC transfusion?

**Format:**  
**Length:** 4  
**Type:** Alphanumeric  
**Occurs:** 1 - 6

**Allowable Values:**

Enter the patient's closest hemoglobin result reported in g/dL performed prior to transfusion.

**UTD** = Unable to Determine

- For abstraction, select either the pre-transfusion hematocrit or the hemoglobin result; both are not required.
- Select the hemoglobin result that is associated with the RBC ID selected for abstraction.
- If the hemoglobin result is 9.9 g/dL, enter 9.9.

**Notes for Abstraction:**

**Suggested Data Sources:**

- Consultation notes
- Emergency department record
- History and physical
- Laboratory report
- Progress notes
- Operative report
- Blood administration form

**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |

**Data Element Name:** *Pre-transfusion PT/INR Result*

**Collected For:** PBM-03,

**Definition:** Documentation of PT/INR result completed prior to the plasma transfusion.

**Suggested Data Collection Question:** What was the PT/INR result completed prior to the plasma transfusion.

**Format:**  
**Length:** 1 - 5  
**Type:** Alphanumeric  
**Occurs:** 1 - 3

**Allowable Values:**  
Enter the closest PT/INR result to the plasma transfusion.  
  
UTD = Unable to determine

**Notes for Abstraction:**

- Enter the PT/INR result that is associated with the plasma ID selected for abstraction.
- An allowable value should be entered with one decimal. For example, a PT/INR of 1.5 should be entered as written. INR values over 10 should be entered as 10.00.

**Suggested Data Sources:**

**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |

**Data Element Name:** *Pre-transfusion Platelet Count*

**Collected For:** PBM-04,

**Definition:** Documentation of the closest platelet count completed prior to the platelet transfusion.

**Suggested Data Collection Question:** What was the closest platelet count documented prior to the platelet transfusion?

**Format:**  
**Length:** 1 - 5  
**Type:** Alphanumeric  
**Occurs:** 1 - 3

**Allowable Values:**

Enter the patient's closest platelet count result, in  $10^9/\mu\text{L}$  performed prior to the platelet transfusion selected for abstraction.

**UTD** = Unable to Determine

**Note:**

- Select the platelet count result that is associated with the Platelet ID selected for abstraction.
- An allowable value for a platelet count result should be entered as '11.00' for a platelet count of 11,000.

**Notes for Abstraction:**

**Suggested Data Sources:**

- Anesthesia record
- Consultation notes
- Emergency department record
- History and physical
- Laboratory report
- Progress notes
- Operative report
- Blood administration form

**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |

**Data Element Name:** *Preoperative Anemia Screening Date*

**Collected For:** PBM-06,

**Definition:** The date that preoperative anemia screening or a hemoglobin (hgb) or hematocrit (hct) result was completed.

**Suggested Data Collection Question:** What date was preoperative anemia screening or a hgb or hct result completed?

**Format:** **Length:** 10 - MM-DD-YYYY (includes dashes)  
**Type:** Date  
**Occurs:** 1

**Allowable Values:**

MM-DD-YYYY

MM = Month (01-12)  
DD = Day (01-31)  
YYYY = Year (2001-Current Year)  
UTD

**Notes for Abstraction:**

- Select the *Preoperative Anemia Screening Date* associated with the elective surgical procedure selected for abstraction. *Preoperative Transfusion Testing*.
- The medical record must be abstracted as documented (taken at "face value"). When the date documented is obviously in error (not a valid date/format) and no other documentation is found that provides this information, the abstractor should select UTD.
- Example: Documentation indicates the Preoperative Anemia Screening Date was 03-42-2008. No other documentation in the medical record provides a valid date. Since the Preoperative Anemia Screening Date is outside of the range listed in the Allowable Values for "Day," it is not a valid date, and the abstractor should select UTD.

**Suggested Data Sources:**

- Nursing notes
- Progress notes
- Preop checklist
- Pre-arrival laboratory reports

**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |

**Data Element Name:** *Preoperative Blood Type Testing*

**Collected For:** PBM-07,

**Definition:** Documentation that a type and screen or type and crossmatch was completed prior to anesthesia start time.

**Suggested Data Collection Question:** Was there documentation of a type and screen or type and crossmatch completed prior to anesthesia start time?

**Format:**  
**Length:** 1  
**Type:** Numeric  
**Occurs:** 1

**Allowable Values:**

- 1 There is documentation that a type and screen or type and crossmatch was completed prior to anesthesia start time.
- 2 There is no documentation that a type and screen or type and crossmatch was completed prior to anesthesia start time or unable to determine from medical record documentation.

**Notes for Abstraction:**

- If type and screen and type and crossmatch were completed prior to the surgical procedure, select "1".
- Anesthesia Start Time is the same as surgery start time.

**Suggested Data Sources:**

- Consultation notes
- History and physical
- Progress notes
- Preop checklist
- Pre-arrival laboratory reports

**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |

**Data Element Name:** *RBC ID*

**Collected For:** PBM-02, PBM-05,

**Definition:** The number assigned to designate whether the RBC transfusion was the first through the sixth RBC transfusion unit that was transfused after hospital arrival.

**Suggested Data Collection Question:** What RBC unit was selected for abstraction?

**Format:**  
**Length:** 1  
**Type:** Numeric  
**Occurs:** 1 - 6

**Allowable Values:**

- 1 First RBC Unit
- 2 Second RBC Unit
- 3 Third RBC Unit
- 4 Fourth RBC Unit
- 5 Fifth RBC Unit
- 6 Sixth RBC Unit

**Notes for Abstraction:**

- The abstractor assigns a RBC identification (ID) number for each unit evaluated.
- Each allowable value is used only one time and is determined by the order in which it was administered.
- Abstract up to six RBC transfusion units per patient.
- Include RBC transfusions administered after hospital arrival.

**Suggested Data Sources:**

- Anesthesia record
- Emergency department record
- Progress notes
- Operative notes
- Operative report
- Medication administration record (MAR)
- Blood administration form
- Blood bank records

**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
|-----------|-----------|

|      |      |
|------|------|
| None | None |
|------|------|

|  |  |
|--|--|
| <b>Data Element Name:</b>                  | <i>RBC Unit Exclusions</i>   |
| <b>Collected For:</b>                      | <u>PBM-02</u> , <u>PBM-05</u> ,  |
| <b>Definition:</b>                         | Red blood cell (RBC) units that are excluded from abstraction. The following RBC units excluded from abstraction are; units used for a massive transfusion protocol or documentation of hemorrhagic shock, uncrossmatched units given during an emergency situation and units used to prime equipment for treatment.   |
| <b>Suggested Data Collection Question:</b> | Was this unit transfused for a massive transfusion protocol, hemorrhagic shock, uncrossmatched or used to prime equipment?   |
| <b>Format:</b>                             | <b>Length:</b> 1   |
|  | <b>Type:</b> Alphanumeric  |
|  | <b>Occurs:</b> 1-6   |
| <b>Allowable Values:</b>                   | <ol style="list-style-type: none"> <li>1. There was documentation that this unit was transfused for a massive transfusion protocol, hemorrhagic shock, uncrossmatched or used to prime equipment</li> <li>1. There was no documentation that this unit was transfused for a massive transfusion protocol, hemorrhagic shock, uncrossmatched or used to prime equipment or unable to determine from medical record documentation.</li> </ol>              |
| <b>Notes for Abstraction:</b>              | <ul style="list-style-type: none"> <li>• If the initial six units transfused are excluded due to the exclusion criteria, abstract the next six units that were transfused. If the patient only received RBC units that are excluded, then no RBC units should be abstracted.</li> </ul>  |
| <b>Suggested Data Sources:</b>             | <ul style="list-style-type: none"> <li>• Anesthesia record</li> <li>• Circulation record</li> <li>• Emergency department record</li> <li>• Laboratory report</li> <li>• Nursing notes</li> <li>• Nursing flow sheet</li> <li>• Progress notes</li> <li>• Physician orders</li> <li>• Physician's notes</li> <li>• Operative notes</li> <li>• Operating room notes</li> <li>• Operative report</li> <li>• Procedure notes</li> <li>• ICU notes</li> </ul> |



**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |

**Data Element Name:** *Surgery Scheduled Timeframe*

**Collected For:** PBM-06,

**Definition:** The elective surgery was scheduled in less than 14 days from the planned surgery start date.

**Suggested Data Collection Question:** Was the elective surgery scheduled in less than 14 days from the planned surgery?

**Format:**  
**Length:** 1  
**Type:** Alphanumeric  
**Occurs:** 1

**Allowable Values:**

- 1 There was documentation that the elective surgery was scheduled in less than 14 days from the planned surgery.
- 2 There was no documentation that the elective surgery was scheduled in less than 14 days from the planned surgery or unable to determine from medical record documentation.

**Notes for Abstraction:**

**Suggested Data Sources:**

- Preop checklist

Preoperative paperwork

**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |

**Data Element Name:** *Transfusion Consent*

**Collected For:** PBM-01,

**Definition:** Documentation of a signed consent **prior** to the first transfusion of RBCs, platelets or plasma.

**Suggested Data Collection Question:** Was there documentation of a signed consent **prior** to the first blood transfusion?

**Format:**  
**Length:** 1  
**Type:** Numeric  
**Occurs:** 1

**Allowable Values:**

- 1 There was documentation of a signed consent prior to the first blood transfusion.
- 2 The first blood transfusion was deemed a medical emergency.
- 3 There was no documentation of a blood transfusion consent prior to the first blood transfusion or unable to determine from medical record documentation.

**Notes for Abstraction:**

- The consent may be signed by the patient or caregiver.
- If organizations require a consent prior to every transfusion, then review the record for the first transfusion to answer this data element.
- For hospitals that use a general consent for treatment that includes transfusions, select “Yes”.
- If a patient receives chronic transfusions and a previous consent is acceptable for a defined timeframe within the institution, select “1” if the consent is valid.

**Suggested Data Sources:**

- Emergency department record
- History and physical
- Nursing notes
- Progress notes
- Operative notes
- Consent form

**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |

**Data Element Name:** *Transfusion Order*

**Collected For:** PBM-05,

**Definition:** An order to transfuse was written by the physician/advance practice nurse/physician assistant (physician/APN/PA) **prior** to the initiation of the transfusion.

**Suggested Data Collection Question:** Was there documentation of an order to transfuse **prior** to the transfusion?

**Format:**  
**Length:** 1  
**Type:** Numeric  
**Occurs:** 1 - 12

**Allowable Values:**

- 1 There was documentation of an order to transfuse prior to transfusion.
- 2 There was no documentation of an order to transfuse prior to transfusion or unable to determine from medical record documentation.

**Notes for Abstraction:**

- A verbal or telephone order that was written prior to the transfusion is acceptable.
- The Transfusion Order must be associated with the blood product unit ID that was selected for abstraction.
- Note: Transfusion Order may apply to more than one unit/dose (bag). For example: An order written to "Transfuse two doses of platelets" would apply to both bags that were administered.

**Suggested Data Sources:**

**ONLY PHYSICIAN/APN/PA DOCUMENTATION OF THE ORDER TO TRANSFUSE:**

- Anesthesia record
- Consultation notes
- Emergency department record
- Operative notes
- Physician orders
- Progress notes

**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |



|  |  |
|--|--|
| <b>Data Element Name:</b>                  | <i>Transfusion Start Date</i>  |
| <b>Collected For:</b>                      | <u>PBM-05</u> ,  |
| <b>Definition:</b>                         | The date that the blood transfusion unit/dose (bag) was administered.  |
| <b>Suggested Data Collection Question:</b> | What is the date that the blood transfusion unit/dose (bag) was administered?  |
| <b>Format:</b>                             | <b>Length:</b> 10 – MM-DD-YYYY (includes dashes)<br><b>Type:</b> Date<br><b>Occurs:</b> 1 - 12   |
| <b>Allowable Values:</b>                   | MM-DD-YYYY<br><br>MM = Month (01-12)<br>DD = Day (01-31)<br>YYYY = Year (2001-Current Year)<br>UTD   |
| <b>Notes for Abstraction:</b>              | <ul style="list-style-type: none"> <li>• Abstract the Transfusion Date associated with the Transfusion Start Time of the unit/dose (bag) from the blood product ID selected for abstraction.</li> <li>• Some of the dates of the transfusion units may be the same date. Record a transfusion date for each unit abstracted up to three units for plasma or platelets or up to six units for RBCs.</li> <li>• The medical record must be abstracted as documented (taken at “face value”). When the date documented is obviously in error (not a valid date/format) and no other documentation is found that provides this information, the abstractor should select UTD. Example: Documentation indicates the Transfusion Start Date was 03-42-2008. No other documentation in the medical record provides a valid date. Since the Transfusion Start Date is outside of the range listed in the Allowable Values for “Day,” it is not a valid date and the abstractor should select UTD.</li> </ul> |
| <b>Suggested Data Sources:</b>             | <ul style="list-style-type: none"> <li>• Anesthesia record</li> <li>• Emergency department record</li> <li>• Nursing notes</li> <li>• Progress notes</li> <li>• Operative notes</li> <li>• Blood administration record</li> </ul>  |

**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |

|  |   |
|--|---|
| <b>Data Element Name:</b>                  | <i>Transfusion Start Time</i>   |
| <b>Collected For:</b>                      | <u>PBM-05</u> ,   |
| <b>Definition:</b>                         | The start time (military time) of the unit/dose (bag) of RBCs, plasma or platelets that was administered.   |
| <b>Suggested Data Collection Question:</b> | What was the start time of the blood unit/dose (bag) administration?  |
| <b>Format:</b>                             | <b>Length:</b> 5 - HH:MM (with or without colon) or UTD<br><b>Type:</b> Time<br><b>Occurs:</b> 1 - 12   |
| <b>Allowable Values:</b>                   | <p>Select the Transfusion Start Time associated with the Transfusion Start Date of the unit/dose (bag) from the associated blood product ID being abstracted.</p> <p>HH = Hour (00-23)<br/> MM = Minutes (00-59)<br/> UTD = Unable to Determine</p>   |
| <b>Notes for Abstraction:</b>              | <p>Time must be recorded in military time format. With the exception of Midnight and Noon:</p> <ul style="list-style-type: none"> <li>• If the time is in the a.m., conversion is not required</li> <li>• If the time is in the p.m., add 12 to the clock time hour</li> </ul> <p>Examples:<br/> Midnight - 00:00      Noon - 12:00<br/> 5:31 am - 05:31      5:31pm - 17:31<br/> 11:59 am - 11:59      11:59pm - 23:59</p> <ul style="list-style-type: none"> <li>• For times that include “seconds,” remove the seconds and record the time as is. Example: 15:00:35 would be recorded as 15:00</li> <li>• If more than one Transfusion Start Time is documented, use the earliest time documented.</li> <li>• The medical record must be abstracted as documented (taken at “face value”). When the time documented is obviously in error (not a valid format/range) and no other documentation is found that provides this information, the abstractor should select “UTD.”</li> <li>• Example: Documentation indicates the Transfusion Start Time was 3300. Since the Transfusion Start Time is outside of the range in the Allowable Values for “Hour,” it is not a valid time and the abstractor should select “UTD.”</li> </ul> |
| <b>Suggested Data Sources:</b>             | <ul style="list-style-type: none"> <li>• Anesthesia record</li> </ul>   |



- Emergency department record
- Nursing notes
- Operative notes
- Operative report
- Blood administration form

**Additional Notes:**

Select the Transfusion Start Time associated with the Transfusion Start Date of the unit/dose (bag) from the blood product ID identified for abstraction.

Time must be recorded in military time format.  
With the exception of Midnight and Noon:

- If the time is in the a.m., conversion is not required
- If the time is in the p.m., add 12 to the clock time hour.

The medical record must be abstracted as documented (taken at “face value”). When the time documented is obviously in error (not a valid format/range) and no other documentation is found that provides this information, the abstractor should select “UTD.”

Example:

Documentation indicates the Transfusion Start Time was 3300. Since the Transfusion Start Time is outside of the range in the Allowable Values for “Hour,” it is not a valid time and the abstractor should select “UTD.”

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |

**Data Element Name:** *Vital Sign Monitoring*

**Collected For:** PBM-05,

**Definition:** Documentation of blood pressure (BP), pulse and temperature monitored at specific intervals for the transfusion. The intervals are:

- Pre-transfusion, within 15 minutes of the initiation of the transfusion and within one hour of transfusion completion

**Suggested Data Collection Question:** Was there documentation of BP and temperature monitored for all of the specified intervals for the transfusion?

**Format:** **Length:** 2  
**Type:** Numeric  
**Occurs:** 1 -12

**Allowable Values:**

- 1 There was documentation for all of the BP, pulse and temperature monitoring intervals for the transfusion.
- 2 There was no documentation for all of the blood pressure, pulse and temperature monitoring intervals for the transfusion or unable to determine from medical record documentation.

**Notes for Abstraction:**

- All vital signs must be recorded at the following times: pre-transfusion, within 15 minutes of the initiation of the transfusion and within one hour of transfusion completion. To select "1", all recordings must be documented.
- The pre-transfusion BP, pulse and temperature must be within one hour of the Transfusion Start Time. Vitals documented at the start of the transfusion are considered "within one hour of transfusion initiation".
- For blood that may be transfused within 15 minutes, select "1" if the pre-transfusion and the within one hour of transfusion completion vitals are documented.
- Vitals documented at the completion of the transfusion are considered "within one hour of transfusion completion".
- The "unit" or "dose" information for the Vital Sign Monitoring data element must be associated with the blood product ID that was selected for abstraction.

**Suggested Data Sources:**

- Anesthesia record
- Consultation notes
- Emergency department record
- Nursing notes
- Progress notes
- Operative notes

**Additional Notes:**

**Guidelines for Abstraction:**

| Inclusion | Exclusion |
|-----------|-----------|
| None      | None      |

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### ICD-9-CM Diagnosis and Procedure Code Tables

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| <b>Table 2.2 Left Ventricular Assistive Device (LVAD) and Heart Transplant</b> |  |                          |
|--|--|--------------------------|
| Code   | ICD-9-CM Description   | Shortened Description    |
| 33.6   | Combined heart-lung transplantation  | COMB HEART/LUNG TRANSPLA |
| 37.51  | Heart transplantation  | HEART TRANSPLANTATION    |
| 37.52  | Implantation of total replacement heart system   | IMPLANT TOT REP HRT SYS  |
| 37.53  | Replacement or repair of thoracic unit of total replacement heart system               | REPL/REP THORAC UNIT HRT |
| 37.54  | Replacement or repair of other implantable component of total replacement heart system | REPL/REP OTH TOT HRT SYS |
| 37.62  | Insertion of non-implantable heart assist system                                       | INS NON-IMPL HRT ASSIST  |
| 37.63  | Repair of heart assist system  | REPAIR HEART ASSIST SYS  |
| 37.64  | Removal of heart assist system   | REMOVE HEART ASSIST SYS  |
| 37.65  | Implant of external heart assist system  | IMP EXT HRT ASSIST SYST  |
| 37.66  | Insertion of implantable heart assist system   | IMPLANTABLE HRT ASSIST   |
| 37.68  | Insertion of percutaneous external heart assist device                                 | PERCUTAN HRT ASSIST SYST |

| <b>Table 5.01 Coronary Artery Bypass Graft (CABG)</b> |   |                            |
|---|---|----------------------------|
| Code  | ICD-9-CM Description  | Shortened Description      |
| 36.10   | Aortocoronary bypass for heart revascularization, not otherwise specified | AORTOCORONARY BYPASS NOS   |
| 36.11   | (Aorto)coronary bypass of one coronary artery                             | (AORTO)COR BYPAS-1 COR ART |
| 36.12   | (Aorto)coronary bypass of two coronary arteries                           | (AORTO)COR BYPAS-2 COR ART |
| 36.13   | (Aorto)coronary bypass of three coronary arteries                         | (AORTO)COR BYPAS-3 COR ART |
| 36.14   | (Aorto)coronary bypass of four coronary arteries                          | (AORT)COR BYPAS-4+ COR ART |
| 36.15   | Single internal mammary-coronary artery bypass                            | 1 INT MAM-COR ART BYPASS   |
| 36.16   | Double internal mammary-coronary artery bypass                            | 2 INT MAM-COR ART BYPASS   |
| 36.17   | Abdominal-coronary artery bypass  | ABD-CORON ARTERY BYPASS    |
| 36.19   | Other bypass anastomosis for heart revascularization                      | HRT REVAS BYPS ANAS NEC    |

| <b>Table 5.02 Other Cardiac Surgery</b> |  |                          |
|---|--|--------------------------|
| Code                                    | ICD-9-CM Description   | Shortened Description    |
| 35.10                                   | Open heart valvuloplasty, without replacement, unspecified valve | OPEN VALVULOPLASTY NOS   |
| 35.11                                   | Open heart valvuloplasty of aortic valve without replacement     | OPN AORTIC VALVULOPLASTY |
| 35.12                                   | Open heart valvuloplasty of mitral valve without replacement     | OPN MITRAL VALVULOPLASTY |
| 35.13                                   | Open heart valvuloplasty of pulmonary valve without replacement  | OPN PULMON VALVULOPLASTY |
| 35.14                                   | Open heart valvuloplasty of tricuspid valve without              | OPN TRICUS               |

## Appendix A

### ICD-9-CM Diagnosis and Procedure Code Tables

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|       | replacement  | VALVULOPLASTY                |
| 35.20 | Replacement of unspecified heart valve                                       | REPLACE HEART VALVE NOS      |
| 35.21 | Replacement of aortic valve with tissue graft                                | REPLACE AORT VALV-TISSUE     |
| 35.22 | Other replacement of aortic valve  | REPLACE AORTIC VALVE<br>NEC  |
| 35.23 | Replacement of mitral valve with tissue graft                                | REPLACE MITR VALV-TISSUE     |
| 35.24 | Other replacement of mitral valve  | REPLACE MITRAL VALVE NEC     |
| 35.25 | Replacement of pulmonary valve with tissue graft                             | REPLACE PULM VALV-TISSUE     |
| 35.26 | Other replacement of pulmonary valve   | REPLACE PULMON VALVE<br>NEC  |
| 35.27 | Replacement of tricuspid valve with tissue graft                             | REPLACE TRIC VALV-TISSUE     |
| 35.28 | Other replacement of tricuspid valve   | REPLACE TRICUSP VALV NEC     |
| 35.31 | Operations on papillary muscle   | PAPILLARY MUSCLE OPS         |
| 35.32 | Operations on chordae tendineae  | CHORDAE TENDINEAE OPS        |
| 35.33 | Annuloplasty   | ANNULOPLASTY                 |
| 35.34 | Infundibulectomy   | INFUNDIBULECTOMY             |
| 35.35 | Operations on trabeculae carneae cordis                                      | TRABECUL CARNEAE CORD<br>OP  |
| 35.39 | Operations on other structures adjacent to valves of heart                   | TISS ADJ TO VALV OPS NEC     |
| 35.42 | Creation of septal defect in heart   | CREATE SEPTAL DEFECT         |
| 35.50 | Repair of unspecified septal defect of heart with prosthesis                 | PROSTH REP HRT SEPTA<br>NOS  |
| 35.51 | Repair of atrial septal defect with prosthesis, open technique               | PROS REP ATRIAL DEF-OPN      |
| 35.53 | Repair of ventricular septal defect with prosthesis, open technique          | PROS REP VENTRIC DEF-<br>OPN |
| 35.54 | Repair of endocardial defect with prosthesis                                 | PROS REP ENDOCAR<br>CUSHION  |
| 35.60 | Repair of unspecified septal defect with tissue graft                        | GRFT REPAIR HRT SEPT NOS     |
| 35.61 | Repair of atrial septal defect with tissue graft                             | GRAFT REPAIR ATRIAL DEF      |
| 35.62 | Repair of ventricular septal defect with tissue graft                        | GRAFT REPAIR VENTRIC DEF     |
| 35.63 | Repair of endocardial cushion defect with tissue graft                       | GRFT REP ENDOCAR<br>CUSHION  |
| 35.70 | Other and unspecified repair of unspecified septal defect of heart           | HEART SEPTA REPAIR NOS       |
| 35.72 | Other and unspecified repair of ventricular septal defect                    | VENTR SEPTA DEF REP NEC      |
| 35.73 | Other and unspecified repair of endocardial cushion defect                   | ENDOCAR CUSHION REP<br>NEC   |
| 35.81 | Total repair of tetralogy of Fallot  | TOT REPAIR TETRAL FALLOT     |
| 35.82 | Total repair of total anomalous pulmonary venous connection                  | TOTAL REPAIR OF TAPVC        |
| 35.83 | Total repair of truncus arteriosus   | TOT REP TRUNCUS<br>ARTERIOS  |
| 35.84 | Total correction of transposition of great vessels, not elsewhere classified | TOT COR TRANSPOS GRT<br>VES  |
| 35.91 | Interatrial transposition of venous return                                   | INTERAT VEN RETRN<br>TRANSP  |

## Appendix A

### ICD-9-CM Diagnosis and Procedure Code Tables

|       |  |                          |
|-------|--|--------------------------|
| 35.92 | Creation of conduit between right ventricle and pulmonary artery | CONDUIT RT VENT-PUL ART  |
| 35.93 | Creation of conduit between left ventricle and aorta             | CONDUIT LEFT VENTR-AORTA |
| 35.94 | Creation of conduit between atrium and pulmonary artery          | CONDUIT ARTIUM-PULM ART  |
| 35.98 | Other operations on septa of heart                               | OTHER HEART SEPTA OPS    |
| 35.99 | Other operations on valves of heart                              | OTHER HEART VALVE OPS    |

| <b>Table 5.08 Vascular Surgery</b> |   |                          |
|------------------------------------|---|--------------------------|
| Code                               | ICD-9-CM Description                                      | Shortened Description    |
| 38.14                              | Endarterectomy, aorta                                     | ENDARTERECTOMY OF AORTA  |
| 38.16                              | Endarterectomy, abdominal arteries                        | ABDOMINAL ENDARTERECTOMY |
| 38.18                              | Endarterectomy, lower limb arteries                       | LOWER LIMB ENDARTERECT   |
| 38.34                              | Resection of vessel with anastomosis, aorta               | AORTA RESECTION & ANAST  |
| 38.36                              | Resection of vessel with anastomosis, abdominal arteries  | ABD VESSEL RESECT/ANAST  |
| 38.37                              | Resection of vessel with anastomosis, abdominal veins     | ABD VEIN RESECT & ANAST  |
| 38.44                              | Resection of vessel with replacement, aorta, abdominal    | RESECT ABDOM             |
| 38.48                              | Resection of vessel with replacement, lower limb arteries | LEG ARTERY RESEC W REPLA |
| 38.49                              | Resection of vessel with replacement, lower limb veins    | LEG VEIN RESECT W REPLAC |
| 38.64                              | Other excision of vessels, aorta, abdominal               | EXCISION OF AORTA        |
| 39.25                              | Aorta-iliac-femoral bypass                                | AORTA-ILIAC-FEMOR BYPASS |
| 39.26                              | Other intra-abdominal vascular shunt or bypass            | INTRA-ABDOMIN SHUNT NEC  |
| 39.29                              | Other (peripheral) vascular shunt or bypass               | VASC SHUNT & BYPASS NEC  |

| <b>Table 5.11 Cardiac Surgery</b> |   |                           |
|-----------------------------------|---|---------------------------|
| Code                              | ICD-9-CM Description  | Shortened Description     |
| 35.10                             | Open heart valvuloplasty without replacement, unspecified valve | OPEN VALVULOPLASTY NOS    |
| 35.11                             | Open heart valvuloplasty of aortic valve without replacement    | OPN AORTIC VALVULOPLASTY  |
| 35.12                             | Open heart valvuloplasty of mitral valve without replacement    | OPNMITRAL VALVULOPLASTY   |
| 35.13                             | Open heart valvuloplasty of pulmonary valve without replacement | OPN PULMON VALVULOPLASTY  |
| 35.14                             | Open heart valvuloplasty of tricuspid valve without replacement | OPN TRICUS VALVULOPLASTY  |
| 35.20                             | Replacement of unspecified heart valve                          | REPLACE HEART VALVE NOS   |
| 35.21                             | Replacement of aortic valve with tissue graft                   | REPLACE AORT VALVE-TISSUE |
| 35.22                             | Other replacement of aortic valve                               | REPLACE AORT VALVE NEC    |

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### ICD-9-CM Diagnosis and Procedure Code Tables

|       |   |                           |
|-------|---|---------------------------|
| 35.23 | Replacement of mitral valve with tissue graft                       | REPLACE MITR VALVE-TISSUE |
| 35.24 | Other replacement of mitral valve                                   | REPLACE MITRAL VALVE NEC  |
| 35.25 | Replacement of pulmonary valve with tissue graft                    | REPLACE PULM VALV-TISSUE  |
| 35.26 | Other replacement of pulmonary valve                                | REPLACE PULMON VALVE NEC  |
| 35.27 | Replacement of tricuspid valve with tissue graft                    | REPLACE TRICUSP VALV NEC  |
| 35.28 | Other replacement of tricuspid valve                                | REPLACE TRICUSP VALV NEC  |
| 35.31 | Operations on papillary muscle                                      | PAPILLARY MUSCLE OPS      |
| 35.32 | Operations on chordae tendineae                                     | CHORDAE TENDINEAE OPS     |
| 35.33 | Annuloplasty  | ANNULOPLASTY              |
| 35.34 | Infundibulectomy  | INFUNDIBULECTOMY          |
| 35.35 | Operations of trabeculae carneae cordis                             | TRABECUL CARNEAE CORD OP  |
| 35.39 | Operations on other structures adjacent to valves of heart          | TISS ADJ TO VALV OPS NEC  |
| 35.42 | Creation of septal defect in heart                                  | CREATE SEPTAL DEFECT      |
| 35.50 | Repair of unspecified septal defect of heart with prosthesis        | PROSTH REP HRT SEPTA NOS  |
| 35.51 | Repair of atrial septal defect with prosthesis, open technique      | PROS REP ATRIAL DEF-OPN   |
| 35.53 | Repair of ventricular septal defect with prosthesis, open technique | PROS REP VENTRIC DEF-OPN  |
| 35.54 | Repair of endocardial cushion defect with prosthesis                | PROS REP ENDOCAR CUSHION  |
| 35.60 | Repair of unspecified septal defect of heart with tissue graft      | GRFT REPAIR HRT SEPT NOS  |
| 35.61 | Repair of atrial septal defect with tissue graft                    | GRAFT REPAIR ATRIAL DEF   |
| 35.62 | Repair of ventricular septal defect with tissue graft               | GRAFT REPAIR VENTRIC DEF  |
| 35.63 | Repair of endocardial cushion defect with tissue graft              | GRFT REP ENDOCAR CUSHION  |
| 35.70 | Other and unspecified repair of unspecified septal defect of heart  | HEART SEPTA REPAIR NOS    |
| 35.71 | Other and unspecified repair of atrial septal defect                | ATRIA SEPTA DEF REP NEC   |
| 35.72 | Other and unspecified repair of ventricular septal defect           | VENTR SEPTA DEF REP NEC   |
| 35.73 | Other and unspecified repair of endocardial cushion defect          | ENDOCAR CUSHION REP NEC   |
| 35.81 | Total repair of tetralogy of Fallot                                 | TOT REPAIR TETRAL FALLOT  |
| 35.82 | Total repair of total anomalous pulmonary venous connection         | TOTAL REPAIR OF TAPVC     |
| 35.83 | Total repair of truncus arteriosus                                  | TOT REP TRUNCUS ARTERIOS  |

| Table 5.11 Cardiac Surgery (cont.) |                      |                       |
|------------------------------------|----------------------|-----------------------|
| Code                               | ICD-9-CM Description | Shortened Description |



## Appendix A

### ICD-9-CM Diagnosis and Procedure Code Tables

|       |  |                            |
|-------|--|----------------------------|
| 35.84 | Total connection of transposition of great vessels, not elsewhere classified | TOT COR TRANSPS GRT VES    |
| 35.91 | Interatrial transposition of venous return                                   | INTERAT VEN RETRN TRANSP   |
| 35.92 | Creation of conduit between right ventricle and pulmonary artery             | CONDUIT RT VENT-PUL ART    |
| 35.93 | Creation of conduit between left ventricle and aorta                         | CONDUIT LEFT VENTR-AORTA   |
| 35.94 | Creation of conduit between atrium and pulmonary artery                      | CONDUIT ARTIUM-PULM ART    |
| 35.98 | Other operations on septa of heart   | OTHER HEART SEPTA OPS      |
| 35.99 | Other operations on valves of heart  | OTHER HEART VALVE OPS      |
| 36.03 | Open chest coronary artery angioplasty                                       | OPEN CORONRY ANGIOPLASTY   |
| 36.10 | Aortocoronary bypass for heart revascularization, not otherwise specified    | AORTOCORONARY BYPASS NOS   |
| 36.11 | Aortocoronary bypass of one coronary artery                                  | AORTOCOR BYPASS-1 COR ART  |
| 36.12 | Aortocoronary bypass of two coronary arteries                                | AORTOCOR BYPASS-2 COR ART  |
| 36.13 | Aortocoronary bypass of three coronary arteries                              | AORTOCOR BYPASS-3 COR ART  |
| 36.14 | Aortocoronary bypass of four or more coronary arteries                       | AORTOCOR BYPASS-4+ COR ART |
| 36.15 | Single internal mammary-coronary artery bypass                               | 1 INT MAM-COR ART BYPASS   |
| 36.16 | Double internal mammary-coronary artery bypass                               | 2 INT MAM-COR ART BYPASS   |
| 36.17 | Abdominal-coronary artery bypass   | ABD-CORON ARTERY BYPASS    |
| 36.19 | Other bypass anastomosis for heart revascularization                         | HRT REVAS BYPS ANAS NEC    |
| 36.31 | Open chest transmyocardial revascularization                                 | OPEN CHEST TRANS REVASC    |
| 36.32 | Other transmyocardial revascularization                                      | OTH TRANSMYO REVASCULAR    |
| 36.39 | Other heart revascularization  | OTH REVASCULAR             |
| 36.91 | Repair of aneurysm of coronary vessel  | CORON VESS ANEURYSM REP    |
| 36.99 | Other operations on vessels of heart   | HEART VESSEL OP NEC        |
| 37.10 | Incision of heart, not otherwise specified                                   | INCISION OF HEART NOS      |
| 37.11 | Cardiotomy   | CARDIOTOMY                 |
| 37.31 | Pericardiectomy  | PERICARDIECTOMY            |
| 37.32 | Excision of aneurysm of heart  | HEART ANEURYSM EXCISION    |
| 37.33 | Excision or destruction of other lesion or tissue of heart, open approach    | EXC/DEST HRT LESION OPEN   |
| 37.35 | Partial ventriculectomy  | PARTIAL VENTRICULECTOMY    |
| 37.41 | Implantation of prosthetic cardiac support device around the heart           | IMPL CARDIAC SUPPORT DEV   |
| 37.49 | Other repair of heart and pericardium  | HEART/PERICARD REPR NEC    |
| 37.51 | Heart transplantation  | HEART TRANSPLANTATION      |

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### ICD-9-CM Diagnosis and Procedure Code Tables

|       |   |                          |
|-------|---|--------------------------|
| 37.52 | Implantation of total replacement heart system                                      | IMPLANT TOT REP HRT SYS  |
| 37.53 | Replacement or repair of thoracic unit of total replacement heart system            | REPL/REP THORAC UNIT HRT |
| 37.54 | Replacement or repair of other implants component of total replacement heart system | REPL/REP OTH TOT HRT SYS |
| 37.62 | Insertion of non-implantable heart assist system                                    | INS NON-IMPL HRT ASSIST  |
| 37.63 | Repair of heart assist system   | REPAIR HEART ASSIST SYS  |
| 37.64 | Removal of heart assist system  | REMOVE HEART ASSIST SYS  |
| 37.66 | Insertion of implantable heart assist system  | IMPLANTABLE HRT ASSIST   |
| 37.67 | Implantation of cardiomyostimulation system   | IMP CARDIOMYOSTIMUL SYS  |

| <b>Table 5.22 Elective Hip Replacement</b> |  |                          |
|--|--|--------------------------|
| Code                                       | ICD-9-CM Description   | Shortened Description    |
| 00.70                                      | Revision of hip replacement, both acetabular and femoral components    | REV HIP REPL-ACETAB/FEM  |
| 00.71                                      | Revision of hip replacement, acetabular component                      | REV HIP REPL-ACETAB COMP |
| 00.72                                      | Revision of hip replacement, femoral component                         | REV HIP REPL-FEM COMP    |
| 00.73                                      | Revision of hip replacement, acetabular liner and/or femoral head only | REV HIP REPL-LINER/HEAD  |
| 00.77                                      | Hip bearing surface, ceramic-on-polyethylene                           | HIP SURFACE, CERMC/POLY  |
| 00.85                                      | Resurfacing hip, total, acetabulum and femoral head                    | RESRF HIP,TOTAL-ACET/FEM |
| 00.86                                      | Resurfacing hip, partial, femoral head                                 | RESRF HIP,PART-FEM HEAD  |
| 00.87                                      | Resurfacing hip, partial, acetabulum                                   | RESRF HIP,PART-ACETABLUM |
| 81.51                                      | Total hip replacement  | TOTAL HIP REPLACEMENT    |
| 81.52                                      | Partial hip replacement  | PARTIAL HIP REPLACEMENT  |
| 81.53                                      | Revision of hip replacement  | REVISE HIP REPLACEMENT   |

| <b>Table 5.23 Elective Total Knee Replacement</b> |   |                          |
|---|---|--------------------------|
| Code  | ICD-9-CM Description                                      | Shortened Description    |
| 00.80   | Revision of knee replacement, total (all components)      | REV KNEE REPLACENT-TOTAL |
| 00.81   | Revision of knee replacement, tibial component            | REV KNEE REPL-TIBIA COMP |
| 00.82   | Revision of knee replacement, femoral component           | REV KNEE REPL-FEMUR COMP |
| 00.83   | Revision of knee replacement, patellar component          | REV KNEE REPLACE-PATELLA |
| 00.84   | Revision of total knee replacement, tibial insert (liner) | REV KNEE REPL-TIBIA LIN  |
| 81.54   | Total knee replacement                                    | TOTAL KNEE REPLACEMENT   |
| 81.55   | Revision of knee replacement                              | REVISE KNEE REPLACEMENT  |

## Appendix A

### ICD-9-CM Diagnosis and Procedure Code Tables

| <b>Table 9.1 Elective Cardiac Surgery (Selected Codes from Table 5.25)</b> |  |                          |
|--|--|--------------------------|
| Code   | ICD-9-CM Description   | Shortened Description    |
| 35.71  | Other and unspecified repair of atrial septal defect                                     | ATRIA SEPTA DEF REP NEC  |
| 36.03  | Open chest coronary artery angioplasty   | OPEN CORONRY ANGIOPLASTY |
| 36.31  | Open chest transmyocardial revascularization   | OPEN CHEST TRANS REVASC  |
| 36.32  | Other transmyocardial revascularization  | OTH TRANSMYO REVASCULAR  |
| 36.39  | Other heart revascularization  | OTH HEART REVASCULAR     |
| 36.91  | Repair of aneurysm of coronary vessel  | CORON VESS ANEURYSM REP  |
| 36.99  | Other operations on vessels of heart   | HEART VESSEL OP NEC      |
| 37.10  | Incision of heart, not otherwise specified   | INCISION OF HEART NOS    |
| 37.11  | Cardiotomy   | CARDIOTOMY               |
| 37.32  | Excision of aneurysm of heart  | HEART ANEURYSM EXCISION  |
| 37.33  | Excision or destruction of other lesion or tissue of heart, open approach                | EXC/DEST HRT LESION OPEN |
| 37.35  | Partial ventriculectomy  | PARTIAL VENTRICULECTOMY  |
| 37.36  | Excision or destruction of left atrial appendage (LAA)                                   | EXC LEFT ATRIAL APPENDAG |
| 37.41  | Implantation of prosthetic cardiac support device around the heart                       | IMPL CARDIAC SUPPORT DEV |
| 37.49  | Other repair of heart and pericardium  | HEART/PERICARD REPR NEC  |
| 37.51  | Heart transplantation  | HEART TRANSPLANTATION    |
| 37.52  | Implantation of total internal biventricular heart replacement system                    | IMP TOT INT BI HT RP SYS |
| 37.53  | Replacement or repair of thoracic unit of (total) replacement heart system               | REPL/REP THR UNT TOT HRT |
| 37.54  | Replacement or repair of other implantable component of (total) replacement heart system | REPL/REP OTH TOT HRT SYS |
| 37.55  | Removal of internal biventricular heart replacement system                               | REM INT BIVENT HRT SYS   |
| 37.60  | Implantation or insertion of biventricular external heart assist system                  | IMP BIVN EXT HRT AST SYS |
| 37.62  | Insertion of temporary non-implantable extracorporeal circulatory assist device          | INSRT NON-IMPL CIRC DEV  |
| 37.63  | Repair of heart assist system  | REPAIR HEART ASSIST SYS  |
| 37.64  | Removal of external heart assist system(s) or device(s)                                  | REMVE EXT HRT ASSIST SYS |
| 37.66  | Insertion of implantable heart assist system   | IMPLANTABLE HRT ASSIST   |
| 37.67  | Implantation of cardiomyostimulation system  | IMP CARDIOMYOSTIMUL SYS  |

| <b>Table 9.2 Elective Gynecological</b> |  |                          |
|---|--|--------------------------|
| Code                                    | ICD-9-CM Description   | Shortened Description    |
| 68.31                                   | Other incision and excision of uterus, subtotal abdominal hysterectomy, other incision and excision of uterus, laparoscopic supracervical hysterectomy [LSH] | Lap scervic hysterectomy |
| 68.39                                   | Other incision and excision of uterus, subtotal abdominal hysterectomy, other incision and excision of uterus, other and unspecified subtotal                | Subtotl abd hyst NEC/NOS |

## Appendix A

### ICD-9-CM Diagnosis and Procedure Code Tables

|       |   |                          |
|-------|---|--------------------------|
|       | abdominal hysterectomy  |                          |
| 68.41 | Other incision and excision of uterus, total abdominal hysterectomy, laparoscopic total abdominal hysterectomy          | Lap total abdominal hyst |
| 68.49 | Other incision and excision of uterus, total abdominal hysterectomy, other and unspecified total abdominal hysterectomy | Total abd hyst NEC/NOS   |
| 68.51 | Vaginal hysterectomy, laparoscopically assisted vaginal hysterectomy [LAVH]   | Lap ast vag hysterectomy |
| 68.59 | Vaginal hysterectomy, other and unspecified vaginal hysterectomy  | Vag hysterectomy NEC/NOS |
| 68.61 | Radical abdominal hysterectomy, laparoscopic radical abdominal hysterectomy   | Lap radical abdomnl hyst |
| 68.69 | Radical abdominal hysterectomy, other and unspecified radical abdominal hysterectomy                                    | Radical abd hyst NEC/NOS |
| 68.71 | Radical vaginal hysterectomy, laparoscopic radical vaginal hysterectomy [LRVH]  | Lap radical vaginal hyst |
| 68.79 | Radical vaginal hysterectomy, other and unspecified radical vaginal hysterectomy  | Radical vag hyst NEC/NOS |
| 68.9  | Other and unspecified hysterectomy  | Hysterectomy NEC/NOS     |

| <b>Table 9.3 Previously Donated Autologous Transfusion</b> |  |                          |
|--|--|--------------------------|
| Code   | ICD-9-CM Description   | Shortened Description    |
| 99.02  | Other nonoperative procedures, transfusion of blood and blood components, transfusion of previously collected autologous blood | TRANSFUS PREV AUTO BLOOD |

| <b>Table 9.4 Packed Red Blood Cell Transfusion</b> |   |                         |
|--|---|-------------------------|
| Code   | ICD-9-CM Description  | Shortened Description   |
| 99.04  | Other nonoperative procedures, transfusion of blood and blood components, transfusion of packed cells | PACKED CELL TRANSFUSION |

| <b>Table 9.5 Platelet Transfusion</b> |  |                       |
|---------------------------------------|--|-----------------------|
| Code                                  | ICD-9-CM Description   | Shortened Description |
| 99.05                                 | Other nonoperative procedures, transfusion of blood and blood components, transfusion of platelets | PLATELET TRANSFUSION  |

| <b>Table 9.6 Plasma Transfusion</b> |  |                       |
|-------------------------------------|--|-----------------------|
| Code                                | ICD-9-CM Description   | Shortened Description |
| 99.07                               | Other nonoperative procedures, transfusion of blood and blood components, transfusion of other serum | SERUM TRANSFUSION NEC |

## Appendix A

### ICD-9-CM Diagnosis and Procedure Code Tables

| <b>Table 9.7 Trauma</b> |   |                          |
|-------------------------|---|--------------------------|
| Code                    | ICD-9-CM Description  | Shortened Description    |
| 800                     | Fracture of vault of skull  | CLOSED SKULL VAULT FX    |
| 801                     | Fracture of base of skull   | CLOS SKULL BASE FRACTURE |
| 802                     | Fracture of face bones  | NASAL BONE FX-CLOSED     |
| 803                     | Other and unqualified skull fractures   | CLOSE SKULL FRACTURE NEC |
| 804                     | Multiple fractures involving skull or face with other bones   | CL SKUL FX W OTH BONE FX |
| 805                     | Fracture of vertebral column without mention of spinal cord injury  | FX CERVICAL VERT NOS-CL  |
| 806                     | Fracture of vertebral column with spinal cord injury  | C1-C4 FX-CL/CORD INJ NOS |
| 807                     | Fracture of rib(s), sternum, larynx, and trachea  | FRACTURE RIB NOS-CLOSED  |
| 808                     | Fracture of pelvis  | FRACTURE ACETABULUM-CLOS |
| 809                     | Ill-defined fractures of bones of trunk   | FRACTURE TRUNK BONE-CLOS |
| 810                     | Fracture of clavicle  | FX CLAVICLE NOS-CLOSED   |
| 811                     | Fracture of scapula   | FX SCAPULA NOS-CLOSED    |
| 812                     | Fracture of humerus   | FX UP END HUMERUS NOS-CL |
| 813                     | Fracture of radius and ulna   | FX UPPER FOREARM NOS-CL  |
| 814                     | Fracture of carpal bones(s)   | FX CARPAL BONE NOS-CLOSE |
| 815                     | Fracture of metacarpal bones(s)   | FX METACARPAL NOS-CLOSED |
| 816                     | Fracture of one or more phalanges of hands  | FX PHALANX, HAND NOS-CL  |
| 817                     | Multiple fractures of hand bones  | MULTIPLE FX HAND-CLOSED  |
| 818                     | Ill-defined fractures of upper limb   | FX ARM MULT/NOS-CLOSED   |
| 819                     | Multiple fractures involving both upper limbs, and upper limb with rib(s) and sternum                           | FX ARMS W RIB/STERNUM-CL |
| 820                     | Fracture of neck of femur   | FX FEMUR INTRCAPS NOS-CL |
| 821                     | Fracture of other and unspecified parts of femur  | FX FEMUR NOS-CLOSED      |
| 822                     | Fracture of patella   | FRACTURE PATELLA-CLOSED  |
| 823                     | Fracture of tibia and fibula  | FX UPPER END TIBIA-CLOSE |
| 824                     | Fracture of ankle   | FX MEDIAL MALLEOLUS-CLOS |
| 825                     | Fracture of one or more tarsal and metatarsal bones   | FRACTURE CALCANEUS-CLOSE |
| 826                     | Fracture of one or more phalanges of foot   | FX PHALANX, FOOT-CLOSED  |
| 827                     | Other, multiple, and ill-defined fractures of lower limb  | FX LOWER LIMB NEC-CLOSED |
| 828                     | Multiple fractures involving both lower limbs, lower with upper limb, and lower limb(s) with rib(s) and sternum | FX LEGS W ARM/RIB-CLOSED |
| 829                     | Fracture of unspecified bones   | FRACTURE NOS-CLOSED      |
| 830                     | Dislocation of jaw  | DISLOCATION JAW-CLOSED   |
| 831                     | Dislocation of shoulder   | DISLOC SHOULDER NOS-     |

## Appendix A

### ICD-9-CM Diagnosis and Procedure Code Tables

|     |   |                          |
|-----|---|--------------------------|
|     |   | CLOS                     |
| 832 | Dislocation of elbow  | DISLOCAT ELBOW NOS-CLOSE |
| 833 | Dislocation of wrist  | DISLOC WRIST NOS-CLOSED  |
| 834 | Dislocation of finger   | DISL FINGER NOS-CLOSED   |
| 835 | Dislocation of hip  | DISLOCAT HIP NOS-CLOSED  |
| 836 | Dislocation of knee   | TEAR MED MENISC KNEE-CUR |
| 837 | Dislocation of ankle  | DISLOCATION ANKLE-CLOSED |
| 838 | Dislocation of foot   | DISLOCAT FOOT NOS-CLOSED |
| 839 | Other, multiple, and ill-defined dislocations                       | DISLOC CERV VERT NOS-CL  |
| 840 | Sprains and strains of shoulder and upper arm                       | SPRAIN ACROMIOCLAVICULAR |
| 841 | Sprains and strains of elbow and forearm                            | SPRAIN RADIAL COLLAT LIG |
| 842 | Sprains and strains of wrist and hand                               | SPRAIN OF WRIST NOS      |
| 843 | Sprains and strains of hip and thigh                                | SPRAIN ILIOFEMORAL       |
| 844 | Sprains and strains of knee and leg                                 | SPRAIN LATERAL COLL LIG  |
| 845 | Sprains and strains of ankle and foot                               | SPRAIN OF ANKLE NOS      |
| 846 | Sprains and strains of sacroiliac region                            | SPRAIN LUMBOSACRAL       |
| 847 | Sprains and strains of other and unspecified parts of back          | SPRAIN OF NECK           |
| 848 | Other and ill-defined sprains and strains                           | SPRAIN OF NASAL SEPTUM   |
| 850 | Concussion  | CONCUSSION W/O COMA      |
| 851 | Cerebral laceration and contusion                                   | CEREBRAL CORTX CONTUSION |
| 852 | Subarachnoid, subdural, and extradural hemorrhage, following injury | TRAUM SUBARACHNOID HEM   |
| 853 | Other and unspecified intracranial hemorrhage following injury      | TRAUMATIC BRAIN HEM NEC  |
| 854 | Intracranial injury of other and unspecified nature                 | BRAIN INJURY NEC         |
| 860 | Traumatic pneumothorax and hemothorax                               | TRAUM PNEUMOTHORAX-CLOSE |
| 861 | Injury to heart and lung  | HEART INJURY NOS-CLOSED  |
| 862 | Injury to other and unspecified intrathoracic organs                | DIAPHRAGM INJURY-CLOSED  |
| 863 | Injury to gastrointestinal tract                                    | STOMACH INJURY-CLOSED    |
| 864 | Injury to liver   | LIVER INJURY NOS-CLOSED  |
| 865 | Injury to spleen  | SPLEEN INJURY NOS-CLOSED |
| 866 | Injury to kidney  | KIDNEY INJURY NOS-CLOSED |
| 867 | Injury to pelvic organs   | BLADDER/URETHRA INJ-CLOS |
| 868 | Injury to other intra-abdominal organs                              | INTRA-ABDOM INJ NOS-CLOS |
| 869 | Internal injury to unspecified or ill-defined organs                | INTERNAL INJ NOS-CLOSED  |
| 870 | Open wound of ocular adnexa   | LAC EYELID SKN/PERIOCLUR |
| 871 | Open wound of eyeball   | OCULAR LAC W/O PROLAPSE  |
| 872 | Open wound of ear   | OPN WOUND EXTERN EAR     |

## Appendix A

### ICD-9-CM Diagnosis and Procedure Code Tables

|     |   |                             |
|-----|---|-----------------------------|
|     |   | NOS                         |
| 873 | Other open wound of head  | OPEN WOUND OF SCALP         |
| 874 | Open wound of neck  | OPN WND LARYNX W<br>TRACHEA |
| 875 | Open wound of chest (wall)  | OPEN WOUND OF CHEST         |
| 876 | Open wound of back  | OPEN WOUND OF BACK          |
| 877 | Open wound of buttock   | OPEN WOUND OF BUTTOCK       |
| 878 | Open wound of genital organs (external), including traumatic amputation | OPEN WOUND OF PENIS         |
| 879 | Open wound of other and unspecified sites, except limbs                 | OPEN WOUND OF BREAST        |
| 880 | Open wound of shoulder and upper arm                                    | OPEN WOUND OF SHOULDER      |
| 881 | Open wound of elbow, forearm, and wrist                                 | OPEN WOUND OF FOREARM       |
| 882 | Open wound of hand except finger(s) alone                               | OPEN WOUND OF HAND          |
| 883 | Open wound of finger(s)   | OPEN WOUND OF FINGER        |
| 884 | Multiple and unspecified open wound of upper limb                       | OPEN WOUND ARM<br>MULT/NOS  |
| 885 | Traumatic amputation of thumb (complete) (partial)                      | AMPUTATION THUMB            |
| 886 | Traumatic amputation of other finger(s) (complete) (partial)            | AMPUTATION FINGER           |
| 887 | Traumatic amputation of arm and hand (complete) (partial)               | AMPUT BELOW ELB, UNILAT     |
| 890 | Open wound of hip and thigh   | OPEN WOUND OF HIP/THIGH     |
| 891 | Open wound of knee, leg [except thigh], and ankle                       | OPEN WND KNEE/LEG/ANKLE     |
| 892 | Open wound of foot except toe(s) alone                                  | OPEN WOUND OF FOOT          |
| 893 | Open wound of toe(s)  | OPEN WOUND OF TOE           |
| 894 | Multiple and unspecified open wound of lower limb                       | OPEN WOUND OF LEG NEC       |
| 895 | Traumatic amputation of toe(s) (complete) (partial)                     | AMPUTATION TOE              |
| 896 | Traumatic amputation of foot (complete) (partial)                       | AMPUTATION FOOT, UNILAT     |
| 897 | Traumatic amputation of leg(s) (complete) (partial)                     | AMPUT BELOW KNEE, UNILAT    |
| 900 | Injury to blood vessels of head and neck                                | INJUR CAROTID ARTERY NOS    |
| 901 | Injury to blood vessels of thorax                                       | INJURY THORACIC AORTA       |
| 902 | Injury to blood vessels of abdomen and pelvis                           | INJURY ABDOMINAL AORTA      |
| 903 | Injury to blood vessels of upper extremity                              | INJ AXILLARY VESSEL NOS     |
| 904 | Injury to blood vessels of lower extremity and unspecified sites        | INJ COMMON FEMORAL<br>ARTER |
| 905 | Late effects of musculoskeletal and connective tissue injuries          | LATE EFFEC SKULL/FACE FX    |
| 906 | Late effects of injuries to skin and subcutaneous tissues               | LT EFF OPN WND HEAD/TRNK    |
| 907 | Late effects of injuries to the nervous system                          | LT EFF INTRACRANIAL INJ     |
| 908 | Late effects of other and unspecified injuries                          | LATE EFF INT INJUR CHEST    |
| 909 | Late effects of other and unspecified external causes                   | LATE EFF DRUG POISONING     |
| 910 | Superficial injury of face, neck, and scalp except eye                  | ABRASION HEAD               |
| 911 | Superficial injury of trunk   | ABRASION TRUNK              |
| 912 | Superficial injury of shoulder and upper arm                            | ABRASION SHOULDER/ARM       |

## Appendix A

### ICD-9-CM Diagnosis and Procedure Code Tables

|     |   |                             |
|-----|---|-----------------------------|
| 913 | Superficial injury of elbow, forearm, and wrist               | ABRASION FOREARM            |
| 914 | Superficial injury of hand(s) except finger(s) alone          | ABRASION HAND               |
| 915 | Superficial injury of finger(s)                               | ABRASION FINGER             |
| 916 | Superficial injury of hip, thigh, leg, and ankle              | ABRASION HIP & LEG          |
| 917 | Superficial injury of foot and toe(s)                         | ABRASION FOOT & TOE         |
| 918 | Superficial injury of eye and adnexa                          | SUPERFIC INJ PERIOCLAR      |
| 919 | Superficial injury of other, multiple, and unspecified sites  | ABRASION NEC                |
| 920 | Contusion of face, scalp, and neck except eye(s)              | CONTUSION<br>FACE/SCALP/NCK |
| 921 | Contusion of eye and adnexa                                   | BLACK EYE NOS               |
| 922 | Contusion of trunk  | CONTUSION OF BREAST         |
| 923 | Contusion of upper limb                                       | CONTUSION SHOULDER REG      |
| 924 | Contusion of lower limb and of other and unspecified sites    | CONTUSION OF THIGH          |
| 925 | Crushing injury of face, scalp, and neck                      |                             |
| 926 | Crushing injury of trunk                                      | CRUSH INJ EXT GENITALIA     |
| 927 | Crushing injury of upper limb                                 | CRUSH INJ SHOULDER REG      |
| 928 | Crushing injury of lower limb                                 | CRUSHING INJURY THIGH       |
| 929 | Crushing injury of multiple and unspecified sites             | CRUSH INJ MULT SITE NEC     |
| 930 | Foreign body on external eye                                  | CORNEAL FOREIGN BODY        |
| 931 | Foreign body in ear   | FOREIGN BODY IN EAR         |
| 932 | Foreign body in nose  | FOREIGN BODY IN NOSE        |
| 933 | Foreign body in pharynx and larynx                            | FOREIGN BODY IN PHARYNX     |
| 934 | Foreign body in trachea, bronchus, and lung                   | FOREIGN BODY IN TRACHEA     |
| 935 | Foreign body in mouth, esophagus, and stomach                 | FOREIGN BODY IN MOUTH       |
| 936 | Foreign body in intestine and colon                           | FB IN INTESTINE & COLON     |
| 937 | Foreign body in anus and rectum                               | FOREIGN BODY<br>ANUS/RECTUM |
| 938 | Foreign body in digestive system, unspecified                 | FOREIGN BODY GI NOS         |
| 939 | Foreign body in genitourinary tract                           | FB BLADDER & URETHRA        |
| 940 | Burn confined to eye and adnexa                               | CHEMICAL BURN<br>PERIOCLAR  |
| 941 | Burn of face, head, and neck                                  | BURN NOS HEAD-UNSPEC        |
| 942 | Burn of trunk   | BURN NOS TRUNK-UNSPEC       |
| 943 | Burn of upper limb, except wrist and hand                     | BURN NOS ARM-UNSPEC         |
| 944 | Burn of wrist(s) and hand(s)                                  | BURN NOS HAND-UNSPEC        |
| 945 | Burn of lower limb(s)   | BURN NOS LEG-UNSPEC         |
| 946 | Burns of multiple specified sites                             | BURN NOS MULTIPLE SITE      |
| 947 | Burn of internal organs                                       | BURN OF MOUTH & PHARYNX     |
| 948 | Burns classified according to extent of body surface involved | BDY BRN < 10%/3D DEG NOS    |
| 949 | Burn, unspecified   | BURN NOS                    |
| 950 | Injury to optic nerve and pathways                            | OPTIC NERVE INJURY          |
| 951 | Injury to other cranial nerve(s)                              | INJURY OCULOMOTOR<br>NERVE  |
| 952 | Spinal cord injury without evidence of spinal bone injury     | C1-C4 SPIN CORD INJ NOS     |



## Appendix A

### ICD-9-CM Diagnosis and Procedure Code Tables

|     |  |                          |
|-----|--|--------------------------|
| 953 | Injury to nerve roots and spinal plexus  | CERVICAL ROOT INJURY     |
| 954 | Injury to other nerve(s) of trunk, excluding shoulder and pelvic girdles   | INJ CERV SYMPATH NERVE   |
| 955 | Injury to peripheral nerve(s) of shoulder girdle and upper limb  | INJURY AXILLARY NERVE    |
| 956 | Injury to peripheral nerve(s), of pelvic girdle and lower limb   | INJURY SCIATIC NERVE     |
| 957 | Injury to other and unspecified nerves   | INJ SUPERF NERV HEAD/NCK |
| 958 | Certain early complications of trauma  | AIR EMBOLISM             |
| 959 | Injury, other and unspecified  |                          |
| 960 | Poisoning by antibiotics   | POISONING-PENICILLINS    |
| 961 | Poisoning by other anti-infectives   | POISONING-SULFONAMIDES   |
| 962 | Poisoning by hormones and synthetic substitutes  | POIS-CORTICOSTEROIDS     |
| 963 | Poisoning by primarily systemic agents   | POIS-ANTIALLRG/ANTIEMET  |
| 964 | Poisoning by agents primarily affecting blood constituents   | POISONING-IRON/COMPOUNDS |
| 965 | Poisoning by analgesics, antipyretics, and antirheumatics  | POISONING-OPIUM NOS      |
| 966 | Poisoning by anticonvulsants and anti-Parkinsonism drugs   | POISON-OXAZOLIDINE DERIV |
| 967 | Poisoning by sedatives and hypnotics   | POISONING-BARBITURATES   |
| 968 | Poisoning by other central nervous system depressants and anesthetics  | POIS-CNS MUSCLE DEPRESS  |
| 969 | Poisoning by psychotropic agents   | POISON-ANTIDEPRESNT NOS  |
| 970 | Poisoning by central nervous system stimulants   | POISONING-ANALEPTICS     |
| 971 | Poisoning by drugs primarily affecting the autonomic nervous system  | POIS-PARASYMPATHOMIMETIC |
| 972 | Poisoning by agents primarily affecting the cardiovascular system  | POIS-CARD RHYTHM REGULAT |
| 973 | Poisoning by agents primarily affecting the gastrointestinal system  | POIS-ANTACID/ANTIGASTRIC |
| 974 | Poisoning by water, mineral, and uric acid metabolism drugs  | POIS-MERCURIAL DIURETICS |
| 975 | Poisoning by agents primarily acting on the smooth and skeletal muscles and respiratory system                               | POISONING-OXYTOCIC AGENT |
| 976 | Poisoning by agents primarily affecting skin and mucous membrane, ophthalmological, otorhinolaryngological, and dental drugs | POIS-LOCAL ANTI-INFECT   |
| 977 | Poisoning by other and unspecified drugs and medicinal substances  | POISONING-DIETETICS      |
| 978 | Poisoning by bacterial vaccines  | POISONING-BCG VACCINE    |
| 979 | Poisoning by other vaccines and biological substances  | POISON-SMALLPOX VACCINE  |
| 980 | Toxic effect of alcohol  | TOXIC EFF ETHYL ALCOHOL  |
| 981 | Toxic effect of petroleum products   | TOXIC EFF PETROLEUM PROD |
| 982 | Toxic effect of solvents other than petroleum-based  | TOXIC EFFECT BENZENE     |
| 983 | Toxic effect of corrosive aromatics, acids, and caustic alkalis  | TOX EFF CORROSIVE AROMAT |

## Appendix A

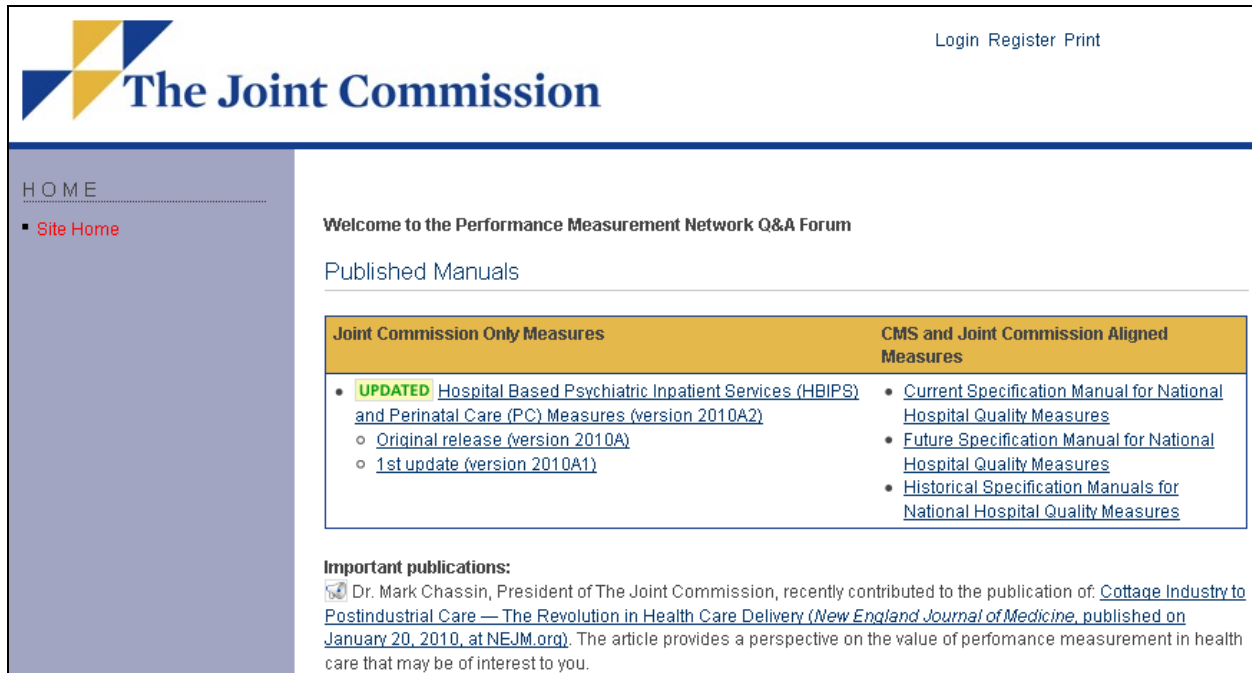
### ICD-9-CM Diagnosis and Procedure Code Tables

|     |  |                             |
|-----|--|-----------------------------|
| 984 | Toxic effect of lead and its compounds (including fumes)                 | TX EFF INORG LEAD<br>COMPND |
| 985 | Toxic effect of other metals   | TOXIC EFFECT MERCURY        |
| 986 | Toxic effect of carbon monoxide  | TOX EFF CARBON MONOXIDE     |
| 987 | Toxic effect of other gases, fumes, or vapors                            | TOXIC EFF LIQ PETROL GAS    |
| 988 | Toxic effect of noxious substances eaten as food                         | TOXIC EFF FISH/SHELLFISH    |
| 989 | Toxic effect of other substances, chiefly nonmedicinal as to source      | TOXIC EFFECT CYANIDES       |
| 990 | Effects of radiation, unspecified  | EFFECTS RADIATION NOS       |
| 991 | Effects of reduced temperature   | FROSTBITE OF FACE           |
| 992 | Effects of heat and light  | HEAT STROKE & SUNSTROKE     |
| 993 | Effects of air pressure  | BAROTRAUMA, OTITIC          |
| 994 | Effects of other external causes   | EFFECTS OF LIGHTNING        |
| 995 | Certain adverse effects not elsewhere classified                         | ANAPHYLACTIC SHOCK          |
| 996 | Complications peculiar to certain specified procedures                   | MALFUNC CARD DEV/GRF<br>NOS |
| 997 | Complications affecting specified body systems, not elsewhere classified | NERVOUS SYST COMPLC<br>NOS  |
| 998 | Other complications of procedures, not elsewhere classified              | POSTOPERATIVE SHOCK         |
| 999 | Complications of medical care, not elsewhere classified                  | GENERALIZED VACCINIA        |

# Navigating the Blood Management Project Data Collection Tool

## How to Log In and Get Started

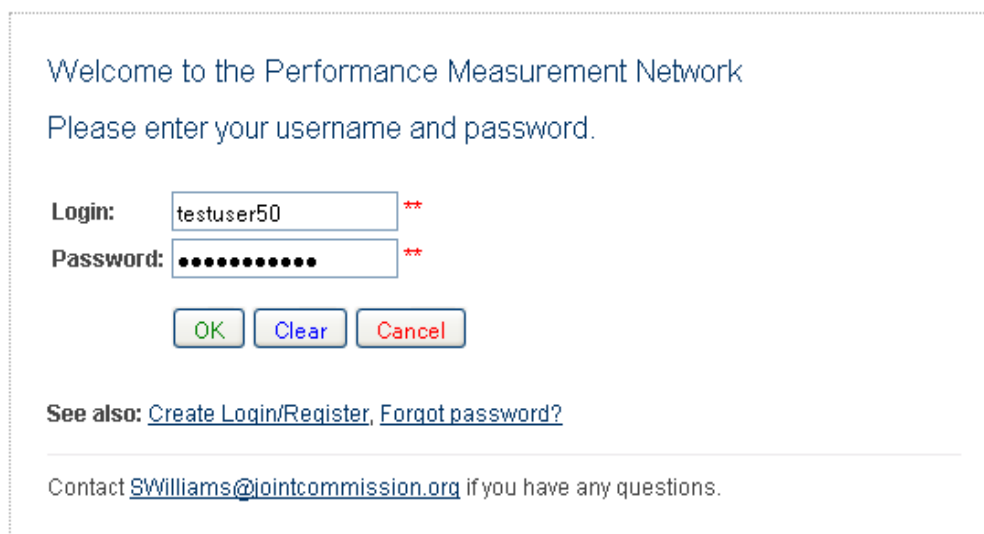
- 1) Once you have registered and received your confirmation to submit data for the Blood Management Project, you may access the project website at:  
<http://manual.jointcommission.org>
- 2) Click on “Login” in the upper right hand corner.



The screenshot shows the homepage of The Joint Commission. The header includes the logo and the text "The Joint Commission" with links for "Login", "Register", and "Print". A sidebar on the left contains a "HOME" section with a link to "Site Home". The main content area features a "Welcome to the Performance Measurement Network Q&A Forum" message, a "Published Manuals" section, and a table with two columns: "Joint Commission Only Measures" and "CMS and Joint Commission Aligned Measures". The table lists various manuals, including "Hospital Based Psychiatric Inpatient Services (HBIPS) and Perinatal Care (PC) Measures (version 2010A2)" and "Current Specification Manual for National Hospital Quality Measures". Below the table, there is a section for "Important publications" mentioning a contribution by Dr. Mark Chassin to the *New England Journal of Medicine*.

| Joint Commission Only Measures   | CMS and Joint Commission Aligned Measures  |
|--|--|
| <ul style="list-style-type: none"><li>• <b>UPDATED</b> <a href="#">Hospital Based Psychiatric Inpatient Services (HBIPS) and Perinatal Care (PC) Measures (version 2010A2)</a><ul style="list-style-type: none"><li>◦ <a href="#">Original release (version 2010A)</a></li><li>◦ <a href="#">1st update (version 2010A1)</a></li></ul></li></ul> | <ul style="list-style-type: none"><li>• <a href="#">Current Specification Manual for National Hospital Quality Measures</a></li><li>• <a href="#">Future Specification Manual for National Hospital Quality Measures</a></li><li>• <a href="#">Historical Specification Manuals for National Hospital Quality Measures</a></li></ul> |

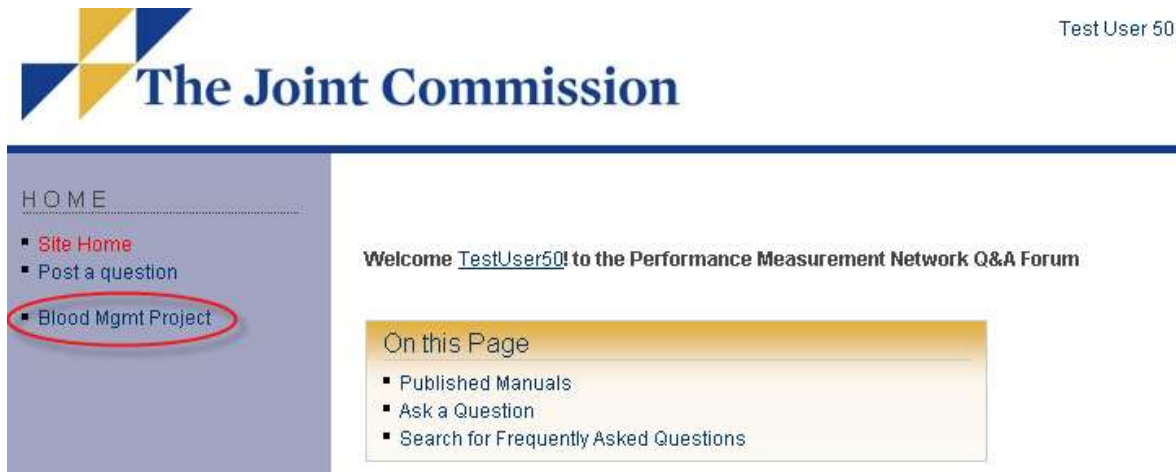
- 3) Enter your Login and Password and click “ok”.



The login form is titled "Welcome to the Performance Measurement Network" and asks the user to "Please enter your username and password." It contains two input fields: "Login:" with the text "testuser50" and "Password:" with masked characters. Both fields have a red double asterisk (\*\*) to the right. Below the fields are three buttons: "OK", "Clear", and "Cancel". At the bottom, there is a link "See also: [Create Login/Register](#), [Forgot password?](#)" and a contact email "Contact [SWilliams@jointcommission.org](mailto:SWilliams@jointcommission.org) if you have any questions."

## Navigating the Blood Management Project Data Collection Tool

- 4) Welcome to the Performance Measurement Network. Select the “Blood Mgmt Project” link from the left hand navigation bar.



The screenshot shows the homepage of The Joint Commission's Performance Measurement Network Q&A Forum. The header includes the Joint Commission logo and the text "The Joint Commission". The user is logged in as "Test User 50". The left navigation bar has a "HOME" section with links: "Site Home", "Post a question", and "Blood Mgmt Project" (which is circled in red). The main content area welcomes "TestUser50!" and lists "On this Page" links: "Published Manuals", "Ask a Question", and "Search for Frequently Asked Questions".

- 5) You are now on the Blood Management Project Page. You will see your hospital(s) listed here. In the Project Help section, you will find a link to the measure specifications, an example of the import file template, and other material intended to assist you with your participation in this project. Please click on the hospital name to enter blood management data.



The screenshot shows the "Blood Management Project" page. The header includes the Joint Commission logo and the text "The Joint Commission". The user is logged in as "Test User 50" with links for "Logout" and "Print". The left navigation bar has a "BLOODMGMTPROJ" section with links: "Site Home", "Post a question", and "Blood Mgmt Project" (which is highlighted in red). The main content area is titled "Web Home for Blood Management Project" and lists "Your Hospitals:" with a link to "Sample Staff Hospital - Smalltown, NC" (which is being clicked by a mouse cursor). Below this is a section for "Blood Management Project Help, News and Announcements" with a link to "Measures and Data Dictionary". At the bottom, it says "If you have any questions, contact Harriet Gammon".

## Navigating the Blood Management Project Data Collection Tool

6) You are now on your hospital page. From this page, you can:

- update your hospital demographic information
- enter new records
- import new records
- view and update existing records
- add RBC, Plasma and Platelet events
- mark records as “complete”
- review records that have been completed
- view import attachments

Each function will be discussed in detail below.

**The Joint Commission**

Test User 50 Logout Print  
Edit Attach Move Raw Diff More

BLOODMGMTPROJ

- Site Home
- Post a question
- Blood Mgmt Project

Sample Staff Hospital

333 Somewhere Place, Smalltown, NC 28605  
Health Care Organization ID: 44444  
Contact Person: Pleasant Contact  
Phone: (828) 260-5555  
Email: [someone@smalltown.us](mailto:someone@smalltown.us)

Submitted Data

[Show all Records \(including complete\)](#)

| UBCI    | Birthdate  | Admitted   | Discharged | Completed  |
|---------|------------|------------|------------|---|
| 333333  | 03-03-1983 | 02-02-2010 | 02-05-2010 |            |
| 333331  | 05-01-2001 | 01-01-2010 | 01-10-2010 |            |
| 333334  | 05-01-2001 | 01-01-2010 | 01-10-2010 |            |
| 333332  | 03-03-1983 | 02-02-2010 | 02-05-2010 |            |
| 333335  | 05-01-2001 | 01-01-2010 | 01-10-2010 |            |
| 1234567 | 12-30-2008 | 01-26-2010 | 02-02-2010 |            |
| 2223    | 05/01/01   | 01/01/10   | 01/10/10   |            |
| 333336  | 03-03-1983 | 02-02-2010 | 02-05-2010 |            |

 [Enter New Client Record](#)

Import Data

Steps for importing base data set using a properly formatted Excel spreadsheet:

1. Save the file that is to be imported with the EXACT Name: "import.xls".
2. Click the link:  [Import](#) and follow the instructions to select and upload your "import.xls" file.
3. Once you have uploaded the file,  [Click here](#) to finish the upload process.

# Navigating the Blood Management Project Data Collection Tool

## Updating your Hospital Demographic Information

a) To update your hospital's demographic information, click the "Edit" link, Fill out the form that appears, and click the "Save" button at the bottom of the form.

The screenshot shows the top section of the application. On the left is the 'it Commission' logo. On the right, there is a user menu with links: 'Test User 50', 'Logout', 'Print', 'Edit', 'Attach', 'Move', 'Raw', 'Diffs', and 'More'. A mouse cursor is hovering over the 'Edit' link. Below the header, the 'Sample Staff Hospital' information is displayed:

Sample Staff Hospital  
333 Somewhere Place, Smalltown, NC 28605  
Health Care Organization ID: 44444  
Contact Person: Pleasant Contact  
Phone: (828) 260-5555  
Email: [someone@smalltown.us](mailto:someone@smalltown.us)

You will be directed to the Edit form, and you can change your hospital's contact details here. Click "Save" to save your changes, or "Cancel" to exit without saving.

The screenshot shows the 'Edit Hospital Demographic Information' form. It has a yellow sidebar on the left with labels for each field. The fields are as follows:

|                 |                      |
|-----------------|----------------------|
| Address:        | 333 Somewhere Place  |
| City:           | Smalltown            |
| State:          | NC                   |
| Zip Code:       | 28605                |
| Contact Person: | Pleasant Contact     |
| Contact Phone:  | (828) 260-5555       |
| Contact Email:  | someone@smalltown.us |

At the bottom of the form, there are five buttons: 'Save', 'Save and Continue', 'Preview', 'Change form', and 'Cancel'. A mouse cursor is hovering over the 'Save' button.

# Navigating the Blood Management Project Data Collection Tool



## Importing Records

a) To import data, click on the “Import” link on your hospital home page. The template for this import file can be found on the project home page.

### Import Data

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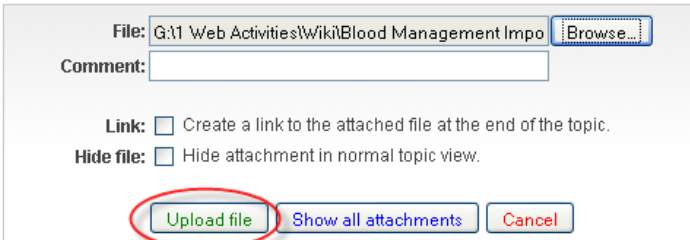
Steps for importing base data set using a properly formatted Excel spreadsheet:

1. Save the file that is to be imported with the EXACT Name: “import.xls”.
2. Click the link  [Import](#) and follow the instructions to select and upload your “import.xls” file.
3. Once you have uploaded the file,  [Click here](#) to finish the upload process.
  - a. Once the import has been completed, you will need to click your web browser's "Back" button and then "Refresh" the web page before you will see your new data records.

b) Click on “browse” to find and select your import file (which must be named “import.xls”), and click on “Upload File”. You do not need to check the checkboxes, but you may want to add a comment to keep track of your imports (e.g., April 2010 discharges; 51 records)

### Attach file to Sample Staff Hospital

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c) Once you have uploaded your file, you will need to click on the “Click here” link to finish the upload process. You’ll then need to click your browser’s “Back” button and “Refresh” your hospital page.

### Import Data

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Steps for importing base data set using a properly formatted Excel spreadsheet:

1. Save the file that is to be imported with the EXACT Name: “import.xls”.
2. Click the link:  [Import](#) and follow the instructions to select and upload your “import.xls” file.
3. Once you have uploaded the file,  [Click here](#) to finish the upload process.
  - a. Once the import has been completed, you will need to click your web browser's "Back" button and then "Refresh" the web page before you will see your new data records.

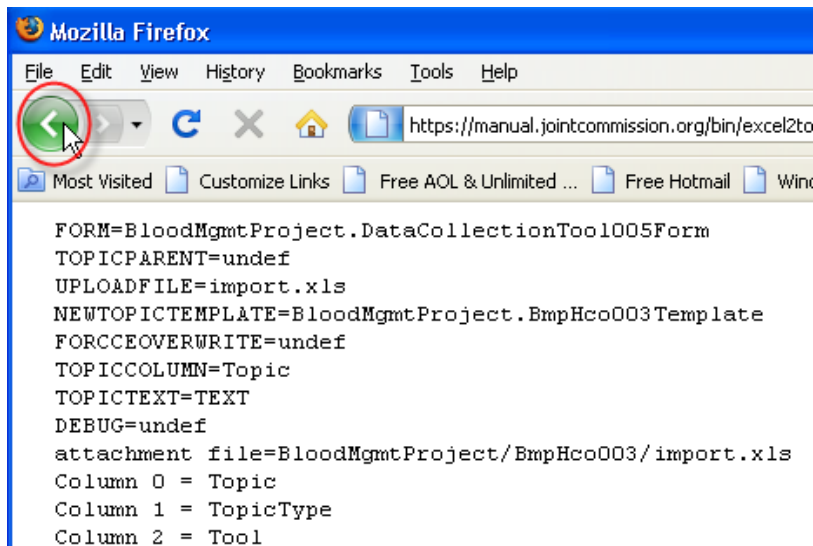
d) You may notice a form at the bottom of your hospital page. It displays the most recently imported file. This area will only be used to verify that your import was successful (note the date, time and comments to ensure that it represents the file you imported).

## Navigating the Blood Management Project Data Collection Tool

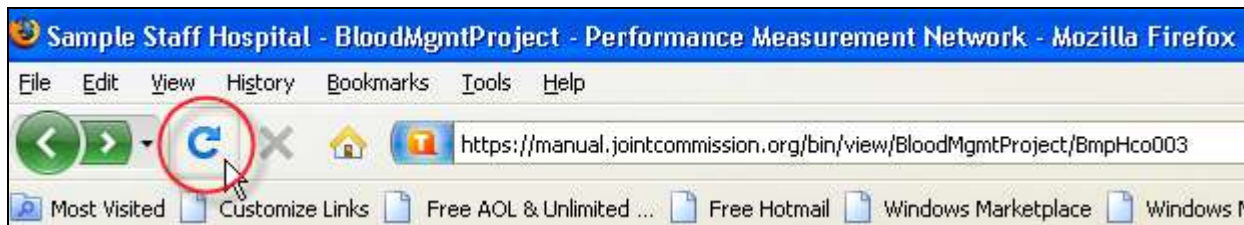
Attachments ▾

| Attachment   | Action      | Size   | Date                | Who           |
|--|-------------|--------|---------------------|---------------|
|  import.xls | props, move | 55.0 K | 22 Feb 2010 - 08:20 | ScottWilliams |
| Monday 2/22 test of import   |             |        |                     |               |

e) Your uploaded records are shown here (in a rather unappealing format!) and you will need to click on your browser's "Back" button to return to your hospital home page.



f) You are now back on your hospital's home page. Please click on your browser's "Refresh" button to view the records you just imported. Your records have been imported, but you will not be able to see them until the page is refreshed (or you navigate away from it and then back to it).




g) Your uploaded files should now be viewable in the "Submitted Data" section of your hospital home page.



## Navigating the Blood Management Project Data Collection Tool

[Show all Records \(including complete\)](#)

| UBCI    | Birthdate  | Admitted   | Discharged | Completed  |
|---------|------------|------------|------------|---|
| 333333  | 03-03-1983 | 02-02-2010 | 02-05-2010 | <input type="checkbox"/>  |
| 333331  | 05-01-2001 | 01-01-2010 | 01-10-2010 | <input type="checkbox"/>  |
| 555555  | 04-04-1974 | 07-04-2009 | 07-07-2009 | <input type="checkbox"/>  |
| 333332  | 03-03-1983 | 02-02-2010 | 02-05-2010 | <input type="checkbox"/>  |
| 333335  | 05-01-2001 | 01-01-2010 | 01-10-2010 | <input type="checkbox"/>  |
| 1234567 | 12-30-2008 | 01-26-2010 | 02-02-2010 | <input type="checkbox"/>  |
| 2223    | 05/01/01   | 01/01/10   | 01/10/10   | <input type="checkbox"/>  |
| 333336  | 03-03-1983 | 02-02-2010 | 02-05-2010 | <input type="checkbox"/>  |
| 555556  | 12-09-1970 | 08-08-2009 | 08-12-2009 | <input type="checkbox"/>  |

## Navigating the Blood Management Project Data Collection Tool

### Enter New Records (without using the file import)

a) To enter a new record, click on the “Enter New Client Record” link (right below the data record table).



b) You are now viewing the data collection tool for Blood Management. Enter data for the client record. Note: hovering over the green “i” next to a data element will show you the question and allowable values associated with that data element as well as a link to the data element page.

**Draft Data Collection Tool**

Unique Blinded Case Identifier:  i

Admission Date:  MM-DD-YYYY i

Birthdate:  MM-DD-YYYY i

Discharge Date:  MM-DD-YYYY i

Discharge Status:  i

Sex: ☐ M ☐ F ☐ U i

ICD-9-CM Principal Diagnosis Code:  i

**ICD-9-CM Other Diagnosis Codes**

ICD-9-CM Other Diagnosis Codes:  i

[Add another response](#)

ICD-9-CM Principal Procedure Code:  i

ICD-9-CM Principal Procedure Date:  i

**ICD-9-CM Other Procedure Codes/Dates**

ICD-9-CM Other Procedure Codes:  i

ICD-9-CM Other Procedure Dates:  i

[Add another response](#)

Elective Surgery: ☐ 1 ☐ 2 i

Transfusion Consent: ☐ 1 ☐ 2 ☐ 3 i

Education Addressed Risks, Benefits And Alternatives To Transfusion: ☐ 1 ☐ 2 i

Preoperative Blood Type Testing: ☐ Y ☐ N i

Preoperative Anemia Screening: ☐ 1 ☐ 2 ☐ 3 i

Preoperative Anemia Screening Data:  MM-DD-YYYY or UTD i

Anesthesia Start Date:  i

c) Once you have completed data entry for this record, click on “Save Data Record”.











## Navigating the Blood Management Project Data Collection Tool

### To View and Update Existing Records

a) There are two ways to view the list of submitted records. The default view is of all incomplete records. If you would like to view all records, including completed (locked) records, click the link “Show all Records (including complete)”.

View of the default setting showing a list of only incomplete records:
















[Show all Records \(including complete\)](#)

| UBCI    | Birthdate  | Admitted   | Discharged | Completed  |
|---------|------------|------------|------------|---|
| 333333  | 03-03-1983 | 02-02-2010 | 02-05-2010 |            |
| 333331  | 05-01-2001 | 01-01-2010 | 01-10-2010 |            |
| 555555  | 04-04-1974 | 07-04-2009 | 07-07-2009 |            |
| 333332  | 03-03-1983 | 02-02-2010 | 02-05-2010 |            |
| 333335  | 05-01-2001 | 01-01-2010 | 01-10-2010 |            |
| 1234567 | 12-30-2008 | 01-26-2010 | 02-02-2010 |            |
| 2223    | 05/01/01   | 01/01/10   | 01/10/10   |            |
| 333336  | 03-03-1983 | 02-02-2010 | 02-05-2010 |            |
| 555556  | 12-09-1970 | 08-08-2009 | 08-12-2009 |            |

View of alternate setting showing list of all records (both incomplete and complete). To return the default setting, click the link “Show Incomplete Records Only”

## Navigating the Blood Management Project Data Collection Tool

Show incomplete Records Only

| UBCI     | Birthdate  | Admitted   | Discharged | Completed  |
|----------|------------|------------|------------|---|
| 333333   | 03-03-1983 | 02-02-2010 | 02-05-2010 |            |
| 333331   | 05-01-2001 | 01-01-2010 | 01-10-2010 |            |
| 555555   | 04-04-1974 | 07-04-2009 | 07-07-2009 |            |
| 333332   | 03-03-1983 | 02-02-2010 | 02-05-2010 |            |
| 1234567  | 12-30-2008 | 01-26-2010 | 02-02-2010 |            |
| 333335   | 05-01-2001 | 01-01-2010 | 01-10-2010 |            |
| 333336   | 03-03-1983 | 02-02-2010 | 02-05-2010 |            |
| 2223     | 05/01/01   | 01/01/10   | 01/10/10   |            |
| 555556   | 12-09-1970 | 08-08-2009 | 08-12-2009 |            |
| 333334   | 05-01-2001 | 01-01-2010 | 01-10-2010 |            |
| 99999999 | 01-01-1901 | 11-11-2010 | 11-15-2010 |            |
| 4445     | 03/03/83   | 02/02/10   | 02/05/10   |            |
| 444555   | 03/03/83   | 02/02/10   | 02/05/10   |            |
| 2224     | 05/01/01   | 01/01/10   | 01/10/10   |            |

b) To view or update data in an existing record, click on the UBCI number. This will create a drop down that includes all of the information for that client record. You can contract the drop down by clicking on the “-“or expand by clicking on the “+” before the different sections.

## Navigating the Blood Management Project Data Collection Tool

| 1234567  | 12-30-2008 | 01-26-2010 | 02-02-2010 |
|--|------------|------------|------------|
| <div> <input type="checkbox"/> <b>General and other patient-level data elements</b> </div> |            |            |            |
| Discharge Status 01  |            |            |            |
| Sex M  |            |            |            |
| ICD-9-CM Principal Diagnosis Code 49301  |            |            |            |
| ICD-9-CM Other Diagnosis Codes   |            |            |            |
| ICD-9-CM Principal Procedure Code 7301   |            |            |            |
| ICD-9-CM Principal Procedure Date 01-25-2010   |            |            |            |
| ICD-9-CM Other Procedure Codes   |            |            |            |
| ICD-9-CM Other Procedure Dates   |            |            |            |
| Transfusion Consent  |            |            |            |
| Education Addressed Risks, Benefits and Alternatives to Transfusion                        |            |            |            |
| Elective Surgery   |            |            |            |
| Anesthesia Start Date  |            |            |            |
| Preoperative Anemia Screening Date   |            |            |            |
| Preoperative Anemia Screening  |            |            |            |
| Preoperative Blood Type Testing  |            |            |            |
| <div> <input type="checkbox"/> <b>Measure Set Specific Data Elements</b> </div>            |            |            |            |
| <div> <input type="checkbox"/> <b>RBC Event(s)</b> </div>                                  |            |            |            |
| <div> <a href="#">Add RBC Event record (3 left)</a> </div>                                 |            |            |            |
| <div> <input type="checkbox"/> <b>Plasma Event(s)</b> </div>                               |            |            |            |
| <div> <a href="#">Add Plasma Event record (3 left)</a> </div>                              |            |            |            |
| <div> <input type="checkbox"/> <b>Platelet Event(s)</b> </div>                             |            |            |            |
| <div> <a href="#">Add Platelet Event record (3 left)</a> </div>                            |            |            |            |

c) To edit the “General and other patient-level data elements”, click on the pencil icon.

| 1234567  | 12-30-2008 | 01-26-2010 | 02-02-2010 |
|--|------------|------------|------------|
| <div> <input type="checkbox"/> <b>General and other patient-level data elements</b> </div> |            |            |            |
| Discharge Status 01  |            |            |            |
| Sex M  |            |            |            |
| ICD-9-CM Principal Diagnosis Code 49301  |            |            |            |
| ICD-9-CM Other Diagnosis Codes   |            |            |            |
| ICD-9-CM Principal Procedure Code 7301   |            |            |            |
| ICD-9-CM Principal Procedure Date 01-25-2010   |            |            |            |
| ICD-9-CM Other Procedure Codes   |            |            |            |


d) Make changes to the “General and other patient-level data elements” and click “Save” when you are done.


## Navigating the Blood Management Project Data Collection Tool


▼ Form Data   ► Permissions


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**Draft Data Collection Tool**


Unique Blinded Case Identifier  


Admission Date  MM-DD-YYYY 

Birthdate  


Discharge Date  

Discharge Status  

Sex ☒ M ☐ F ☐ U 

ICD-9-CM Principal Diagnosis Code  

**ICD-9-CM Other Diagnosis Codes**

ICD-9-CM Other Diagnosis Codes  

**Save**   Save and Continue   Preview   Change form   Cancel   ☐ New Revision

## Navigating the Blood Management Project Data Collection Tool

### Add RBC Events and BM Unit Level Data Elements

a) To add a RBC event (NOTE: you can add up to three RBC events), click on the “Add RBC Event Record” Link.

The screenshot shows a patient record header with ID 333331 and dates 05-01-2001, 01-01-2010, and 01-10-2010. Below the header is a tree view of data elements. The 'Measure Set Specific Data Elements' section is expanded, showing 'RBC Event(s)', 'Plasma Event(s)', and 'Platelet Event(s)'. The 'Add RBC Event record (3 left)' link is highlighted with a red box.

b) Enter data for RBC Event 1 and click “Save Data Record”

The 'RBC Event' form contains the following fields:

- RBC Event ID: Radio buttons for 1 (selected), 2, and 3.
- RBC Event Total Doses: Text input field.
- Clinical Indication For RBCs: Dropdown menu with 'Select...'.
- Pre-transfusion Hemoglobin: Text input field.
- Pre-transfusion Hematocrit: Text input field.
- Surgical Procedure: Radio buttons for 1 and 2.

Save Data Record

c) Data for “RBC Event 1” is now included with this client record. To edit the RBC Event data that you just entered, click on the pencil icon next to the event. To add unit level data for RBC Event 1, click on the “Add BM Unit Level Data Elements Record” link. (NOTE: you can add up to three BM Unit Level Records)

## Navigating the Blood Management Project Data Collection Tool

333331      05-01-2001      01-01-2010      01-10-2010

- ⊕ General and other patient-level data elements
- ⊖ Measure Set Specific Data Elements
  - ⊖ RBC Event(s)
    - ⊖ RBC Event 1 

|                              |    |
|------------------------------|----|
| RBC Event ID                 | 1  |
| RBC Event Total Doses        | 2  |
| Clinical Indication for RBCs | 1  |
| Pre-transfusion Hemoglobin   | 8  |
| Pre-transfusion Hematocrit   | 21 |
| Surgical Procedure           | 1  |
    - ⊖ BM Unit Level Data Elements(s)
      - [Add BM Unit Level Data Elements record \(3 left\)](#)
    - [Add RBC Event record \(2 left\)](#)
  - ⊖ Plasma Event(s)
    - [Add Plasma Event record \(3 left\)](#)
  - ⊖ Platelet Event(s)
    - [Add Platelet Event record \(3 left\)](#)

d) Enter data for the BM Unit Level Record for RBC Event 1 and click “Save Data Record”

**BM Unit Level Data Elements**

Transfusion Start Date

Transfusion Start Time

Transfusion Order ☐ Y ☐ N

Patient ID Verification ☐ 1 ☐ 2

Vital Sign Monitoring ☐ 1 ☐ 2

[Save Data Record](#)

e) Data for “BM Unit 1” for “RBC Event 1” is now included with this client record. To edit the BM unit data that you just entered, click on the pencil icon. To add another BM Unit for RBC Event 1, click on “Add BM Unit Level Data Elements Record” link. To add another RBC Event, click on “Add RBC Event Record”.



## Navigating the Blood Management Project Data Collection Tool

| 333331   | 05-01-2001 | 01-01-2010 | 01-10-2010 |
|--|------------|------------|------------|
| <input checked="" type="checkbox"/> <b>General and other patient-level data elements</b> |            |            |            |
| <input checked="" type="checkbox"/> <b>Measure Set Specific Data Elements</b>            |            |            |            |
| <input checked="" type="checkbox"/> <b>RBC Event(s)</b>                                  |            |            |            |
| <input checked="" type="checkbox"/> <b>RBC Event 1</b>                                   |            |            |            |
| RBC Event ID   |            |            | 1          |
| RBC Event Total Doses  |            |            | 2          |
| Clinical Indication for RBCs   |            |            | 1          |
| Pre-transfusion Hemoglobin   |            |            | 8          |
| Pre-transfusion Hematocrit   |            |            | 21         |
| Surgical Procedure   |            |            | 1          |
| <input checked="" type="checkbox"/> <b>BM Unit Level Data Elements(s)</b>                |            |            |            |
| <input checked="" type="checkbox"/> <b>BM Unit Level Data Elements 1</b>                 |            |            |            |
| Transfusion Start Date   |            |            | 03-03-2010 |
| Transfusion Start Time   |            |            | 11:00      |
| Transfusion Order  |            |            | Y          |
| Patient ID Verification  |            |            | 1          |
| Vital Sign Monitoring  |            |            | 1          |
| <a href="#">Add BM Unit Level Data Elements record (2 left)</a>                          |            |            |            |
| <a href="#">Add RBC Event record (2 left)</a>  |            |            |            |
| <input checked="" type="checkbox"/> <b>Plasma Event(s)</b>                               |            |            |            |
| <a href="#">Add Plasma Event record (3 left)</a>   |            |            |            |
| <input checked="" type="checkbox"/> <b>Platelet Event(s)</b>                             |            |            |            |
| <a href="#">Add Platelet Event record (3 left)</a>                                       |            |            |            |

## Navigating the Blood Management Project Data Collection Tool

### Add Plasma Events and BM Unit Level Data Elements

a) To add a Plasma event, click on the “Add Plasma Event Record” Link

|        |            |            |            |
|--------|------------|------------|------------|
| 333331 | 05-01-2001 | 01-01-2010 | 01-10-2010 |
|--------|------------|------------|------------|

- General and other patient-level data elements
- Measure Set Specific Data Elements
  - RBC Event(s)
    - [Add RBC Event record \(3 left\)](#)
  - Plasma Event(s)
    - [Add Plasma Event record \(3 left\)](#)
  - Platelet Event(s)
    - [Add Platelet Event record \(3 left\)](#)

b) Enter data for Plasma Event 1 and click “Save Data Record”

**Plasma Event**

Plasma Event ID ☐ 1 ☐ 2 ☐ 3

Plasma Event Total Doses

Clinical Indication For Plasma

Pre-transfusion Laboratory Testing ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

[Save Data Record](#)

## Navigating the Blood Management Project Data Collection Tool

c) Data for “Plasma Event 1” is now included with this client record. To edit the Plasma Event data that you just entered, click on the pencil icon next to the event. To add unit level data for Plasma Event 1, click on the “Add BM Unit Level Data Elements Record” link. (NOTE: you can add up to three BM Unit Level Records)

| 333331  | 05-01-2001 | 01-01-2010 | 01-10-2010 |
|---|------------|------------|------------|
| + General and other patient-level data elements                 |            |            |            |
| [-] Measure Set Specific Data Elements                          |            |            |            |
| + RBC Event(s)  |            |            |            |
| [-] Plasma Event(s)   |            |            |            |
| [-] Plasma Event 1  |            |            |            |
| Plasma Event ID   |            |            | 1          |
| Plasma Event Total Doses  |            |            | 2          |
| Clinical Indication for Plasma                                  |            |            | 1          |
| Pre-transfusion Laboratory Testing                              |            |            | 2          |
| [-] BM Unit Level Data Elements(s)                              |            |            |            |
| <a href="#">Add BM Unit Level Data Elements record (3 left)</a> |            |            |            |
| <a href="#">Add Plasma Event record (2 left)</a>                |            |            |            |
| [-] Platelet Event(s)   |            |            |            |
| <a href="#">Add Platelet Event record (3 left)</a>              |            |            |            |

d) Enter data for the BM Unit Level Record for Plasma Event 1 and click “Save Data Record”

**BM Unit Level Data Elements**

Transfusion Start Date

Transfusion Start Time

Transfusion Order ☐ Y ☐ N

Patient ID Verification ☐ 1 ☐ 2

Vital Sign Monitoring ☐ 1 ☐ 2

## Navigating the Blood Management Project Data Collection Tool

e) Data for “BM Unit Level 1” for “Plasma Event 1” is now included with this client record. To edit the BM unit data that you just entered, click on the pencil icon. To add another BM Unit for Plasma Event 1, click on “Add BM Unit Level Data Elements Record” link. To add another Plasma Event, click on “Add Plasma Event Record”.

| 333331  | 05-01-2001 | 01-01-2010 | 01-10-2010 |
|---|------------|------------|------------|
| <div> <div>+</div> <b>General and other patient-level data elements</b> <div>✎</div> </div> |            |            |            |
| <div> <div>+</div> <b>Measure Set Specific Data Elements</b> </div>                         |            |            |            |
| <div> <div>+</div> <b>RBC Event(s)</b> </div>   |            |            |            |
| <div> <div>+</div> <b>Plasma Event(s)</b> </div>  |            |            |            |
| <div> <div>+</div> <b>Plasma Event 1</b> <div>✎</div> </div>                                |            |            |            |
| Plasma Event ID   |            |            | 1          |
| Plasma Event Total Doses  |            |            | 2          |
| Clinical Indication for Plasma  |            |            | 1          |
| Pre-transfusion Laboratory Testing  |            |            | 2          |
| <div> <div>+</div> <b>BM Unit Level Data Elements(s)</b> </div>                             |            |            |            |
| <div> <div>+</div> <b>BM Unit Level Data Elements 1</b> <div>✎</div> </div>                 |            |            |            |
| Transfusion Start Date  |            |            | 03-03-2010 |
| Transfusion Start Time  |            |            | 11:00      |
| Transfusion Order   |            |            | Y          |
| Patient ID Verification   |            |            | 1          |
| Vital Sign Monitoring   |            |            | 1          |
| <a href="#">Add BM Unit Level Data Elements record (2 left)</a>                             |            |            | ←          |
| <a href="#">Add Plasma Event record (2 left)</a>  |            |            | ←          |
| <div> <div>+</div> <b>Platelet Event(s)</b> </div>  |            |            |            |
| <a href="#">Add Platelet Event record (3 left)</a>  |            |            |            |

# Navigating the Blood Management Project Data Collection Tool

## Add Platelet Events and BM Unit Level Data Elements

a) To add a Platelet event, click on the “Add Platelet Event Record” Link

|        |            |            |            |
|--------|------------|------------|------------|
| 333331 | 05-01-2001 | 01-01-2010 | 01-10-2010 |
|--------|------------|------------|------------|

- General and other patient-level data elements
- Measure Set Specific Data Elements
  - RBC Event(s)
    - [Add RBC Event record \(3 left\)](#)
  - Plasma Event(s)
    - [Add Plasma Event record \(3 left\)](#)
  - Platelet Event(s)
    - [Add Platelet Event record \(3 left\)](#)

b) Enter data for Platelet Event 1 and click “Save Data Record”

**Platelet Event**

Platelet Event ID ☐ 1 ☐ 2 ☐ 3

Platelet Event Total Doses

Clinical Indication For Platelets

Pre-transfusion Platelet Count

Pre-transfusion Platelet Testing ☐ 1 ☐ 2

[Save Data Record](#)

## Navigating the Blood Management Project Data Collection Tool

c) Data for “Platelet Event 1” is now included with this client record. To edit the Platelet Event data that you just entered, click on the pencil icon next to the event. To add unit level data for Platelet Event 1, click on the “Add BM Unit Level Data Elements Record” link. (NOTE: you can add up to three BM Unit Level Records)

|        |            |            |            |
|--------|------------|------------|------------|
| 333331 | 05-01-2001 | 01-01-2010 | 01-10-2010 |
|--------|------------|------------|------------|

- ☒ General and other patient-level data elements
- ☒ Measure Set Specific Data Elements
  - ☒ RBC Event(s)
  - ☒ Plasma Event(s)
  - ☒ Platelet Event(s)
    - ☒ Platelet Event 1

|                                   |     |
|-----------------------------------|-----|
| Platelet Event ID                 | 1   |
| Platelet Event Total Doses        | 3   |
| Clinical Indication for Platelets | 1   |
| Pre-transfusion Platelet Count    | 100 |
| Pre-transfusion Platelet Testing  | 1   |
    - ☒ BM Unit Level Data Elements(s)
      - [Add BM Unit Level Data Elements record \(3 left\)](#)
      - [Add Platelet Event record \(2 left\)](#)

d) Enter data for the BM Unit Level Record for Platelet Event 1 and click “Save Data Record”

**BM Unit Level Data Elements**

Transfusion Start Date

Transfusion Start Time

Transfusion Order ☐ Y ☐ N

Patient ID Verification ☐ 1 ☐ 2

Vital Sign Monitoring ☐ 1 ☐ 2

Save Data Record

## Navigating the Blood Management Project Data Collection Tool

e) Data for “BM Unit Level 1” for “Platelet Event 1” is now included with this client record. To edit the BM unit data that you just entered, click on the pencil icon. To add another BM Unit for Platelet Event 1, click on “Add BM Unit Level Data Elements Record” link. To add another Platelet Event, click on “Add Platelet Event Record”.

| 333331   | 05-01-2001 | 01-01-2010 | 01-10-2010 |
|--|------------|------------|------------|
| <div> <div>+</div> <b>General and other patient-level data elements</b> <div></div> </div> |            |            |            |
| <div> <div>-</div> <b>Measure Set Specific Data Elements</b> </div>                        |            |            |            |
| <div> <div>+</div> <b>RBC Event(s)</b> </div>  |            |            |            |
| <div> <div>+</div> <b>Plasma Event(s)</b> </div>   |            |            |            |
| <div> <div>-</div> <b>Platelet Event(s)</b> </div>   |            |            |            |
| <div> <div>-</div> <b>Platelet Event 1</b> <div></div> </div>                              |            |            |            |
| Platelet Event ID  |            |            | 1          |
| Platelet Event Total Doses   |            |            | 3          |
| Clinical Indication for Platelets  |            |            | 1          |
| Pre-transfusion Platelet Count   |            |            | 100        |
| Pre-transfusion Platelet Testing   |            |            | 1          |
| <div> <div>-</div> <b>BM Unit Level Data Elements(s)</b> </div>                            |            |            |            |
| <div> <div>-</div> <b>BM Unit Level Data Elements 1</b> <div></div> </div>                 |            |            |            |
| Transfusion Start Date   |            |            | 03-03-2010 |
| Transfusion Start Time   |            |            | 11:00      |
| Transfusion Order  |            |            | Y          |
| Patient ID Verification  |            |            | 1          |
| Vital Sign Monitoring  |            |            | 1          |
| <div> <div></div> <a href="#">Add BM Unit Level Data Elements record (2 left)</a> </div>   |            |            |            |
| <div> <div></div> <a href="#">Add Platelet Event record (2 left)</a> </div>                |            |            |            |

## Navigating the Blood Management Project Data Collection Tool

### Marking Records As “Complete”

a) Once you are done entering and editing data for a record, you will need to mark the record as complete. **Please note: Once you check the box for a record under “Complete” you are BOTH marking the record as complete AND locking that record for any further editing.** When you click on the checkbox, the record will “disappear” from view. Do not be alarmed. The default view of the table is to only show incomplete records. To view the record you just completed, click on the link to “Show all Records (including complete)”

| <a href="#">Show all Records (including complete)</a> |            |            |            |   |
|---|------------|------------|------------|---|
| UBCI  | Birthdate  | Admitted   | Discharged | Completed  |
| 333333  | 03-03-1983 | 02-02-2010 | 02-05-2010 | <input type="checkbox"/>  |
| 333331  | 05-01-2001 | 01-01-2010 | 01-10-2010 | <input type="checkbox"/>  |
| 555555  | 04-04-1974 | 07-04-2009 | 07-07-2009 | <input type="checkbox"/>  |
| 333332  | 03-03-1983 | 02-02-2010 | 02-05-2010 | <input type="checkbox"/>  |
| 333335  | 05-01-2001 | 01-01-2010 | 01-10-2010 | <input checked="" type="checkbox"/>   |
| 1234567   | 12-30-2008 | 01-26-2010 | 02-02-2010 | <input type="checkbox"/>  |
| 2223  | 05/01/01   | 01/01/10   | 01/10/10   | <input type="checkbox"/>  |
| 333336  | 03-03-1983 | 02-02-2010 | 02-05-2010 | <input type="checkbox"/>  |
| 555556  | 12-09-1970 | 08-08-2009 | 08-12-2009 | <input type="checkbox"/>  |



## Navigating the Blood Management Project Data Collection Tool

### Reviewing Records That Have Been Completed

a) To review a record that has been marked complete, switch the view on your hospital home page by clicking on the “Show all Records (including complete)” link.

















Submitted Data

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[Show all Records \(including complete\)](#)


b) In this view you can see all records both complete and incomplete. Completed records are now LOCKED and can not be edited.

[Show incomplete Records Only](#)

| UBCI     | Birthdate  | Admitted   | Discharged | Completed    |
|----------|------------|------------|------------|---|
| 333333   | 03-03-1983 | 02-02-2010 | 02-05-2010 |    |
| 333331   | 05-01-2001 | 01-01-2010 | 01-10-2010 |    |
| 555555   | 04-04-1974 | 07-04-2009 | 07-07-2009 |    |
| 333332   | 03-03-1983 | 02-02-2010 | 02-05-2010 |    |
| 1234567  | 12-30-2008 | 01-26-2010 | 02-02-2010 |    |
| 333335   | 05-01-2001 | 01-01-2010 | 01-10-2010 |    |
| 333336   | 03-03-1983 | 02-02-2010 | 02-05-2010 |    |
| 2223     | 05/01/01   | 01/01/10   | 01/10/10   |   |
| 555556   | 12-09-1970 | 08-08-2009 | 08-12-2009 |    |
| 333334   | 05-01-2001 | 01-01-2010 | 01-10-2010 |   |
| 99999999 | 01-01-1901 | 11-11-2010 | 11-15-2010 |    |
| 4445     | 03/03/83   | 02/02/10   | 02/05/10   |    |
| 444555   | 03/03/83   | 02/02/10   | 02/05/10   |    |
| 2224     | 05/01/01   | 01/01/10   | 01/10/10   |    |

b) If, for any reason, you need to unlock a record, you will need to send an e-mail to the project leader, Harriet Gammon. To send your e-mail request, click on the “lock” icon, and an e-mail form should appear. It will be addressed to Harriet, and the subject line will contain a reference to the specific record.

 To...

 Cc...

Subject:

c) In your e-mail, please briefly explain why the record needs to be unlocked (e.g., Accidentally clicked the “Complete” checkbox).

|  |
|--|
| <p><b>PATIENT BLOOD MANAGEMENT PERFORMANCE MEASURES<br/>PROJECT - Technical Advisory Panel</b></p> |
|--|

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Breese, IL

|   |
|---|
| <p><b>PATIENT BLOOD MANAGEMENT PERFORMANCE MEASURES</b><br/><b>PROJECT - Technical Advisory Panel</b></p> |
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