



Association for the
Advancement of
Blood & Biotherapies

Billing Guide for Blood Products and Related Services



August 2023

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I. Introduction

AABB is pleased to provide this comprehensive *Billing Guide for Blood Products and Related Services*. The 2023 version of the guide was overseen by the AABB Coding and Reimbursement Committee. It was produced with support received through a generous grant from the Commonwealth Transfusion Foundation. The Commonwealth Transfusion Foundation is a nonprofit, private foundation whose mission is to inspire and champion research and education that optimizes clinical outcomes in transfusion medicine and ensures a safe and sustainable blood supply for the United States.

AABB prepared this guide to help hospitals and other providers understand the key coding, billing and reimbursement issues for blood-related care, so that they can submit accurate claims and receive appropriate reimbursement—both now and in the future. It is important to keep in mind that information in this guide (accurate as of August 2023) may change with the passage of time. Links provided in the reference list are more likely to contain up-to-date information in the future.

The seven major sections in the guide contain critical information:

- General overviews of coverage, coding and reimbursement.
- Details on the rules (and exceptions) surrounding billing for blood products and transfusion services.
- Details on both the hospital inpatient and hospital outpatient settings.
- Other important topics and issues related to blood reimbursement.

In addition, the nine appendices address specific situations such as: billing for molecular testing, therapeutic apheresis, physician services and blood derivatives; reimbursement in nonhospital settings; and handling rejected or denied claims.

Because Medicare plays a predominant role in reimbursing blood products, most of the information in this guide is based on Medicare blood billing guidelines. Although many other payers tend to use Medicare's guidelines as a basis for their own policies, the billing requirements of other payers may vary. Providers should contact their local commercial insurers and Medicaid plans for specific information on their coverage, coding, and payment policies.

Although this guide includes high-level discussions of Medicare's hospital inpatient and hospital outpatient prospective payment systems (in Sections VI and VII, respectively), most of the guide content focuses on specific aspects of blood billing and reimbursement. Readers who wish to increase their understanding of Medicare's hospital payment systems are encouraged to review the educational resources available at CMS's MLN website¹ (<https://www.cms.gov/outreach-and-education/medicare-learning-network-mln/mlngeninfo>) and MedPAC's Payment Basics website² (<https://www.medpac.gov/document-type/payment-basic/>).



For more information

- MLN Educational Tool - Medicare payment systems³: <https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/html/medicare-payment-systems.html>
- MedPAC Payment Basics - hospital inpatient⁴: https://www.medpac.gov/wp-content/uploads/2021/11/MedPAC_Payment_Basics_22_hospital_FINAL_SEC.pdf
- MedPAC Payment Basics - hospital outpatient⁵: https://www.medpac.gov/wp-content/uploads/2022/10/MedPAC_Payment_Basics_22_OPD_FINAL_SEC_v3.pdf



Using This Billing Guide

This guide is provided for informational purposes only and the content is subject to change. Health care providers are responsible for determinations regarding whether to furnish a specific product or service based on clinical appropriateness. In addition, providers must determine the most appropriate and proper way in which to code and bill for all products and services that they provide to patients. Neither AABB nor the Commonwealth Transfusion Foundation can guarantee success in obtaining insurance payments. Third-party payment for medical products and services is affected by numerous factors, not all of which can be anticipated or resolved by AABB or the Commonwealth Transfusion Foundation.

Readers are advised to confirm payer policies before acting on the subject matter of this guide. This guide is provided without any warranty, express or implied, as to its legal effect, completeness, accuracy, timeliness or applicability to any individual circumstances. In no event shall AABB, its Coding and Reimbursement Committee or the Commonwealth Transfusion Foundation be liable for any damages arising out of the use of the guide.

II. Importance of Accurate Billing and Charge Reporting

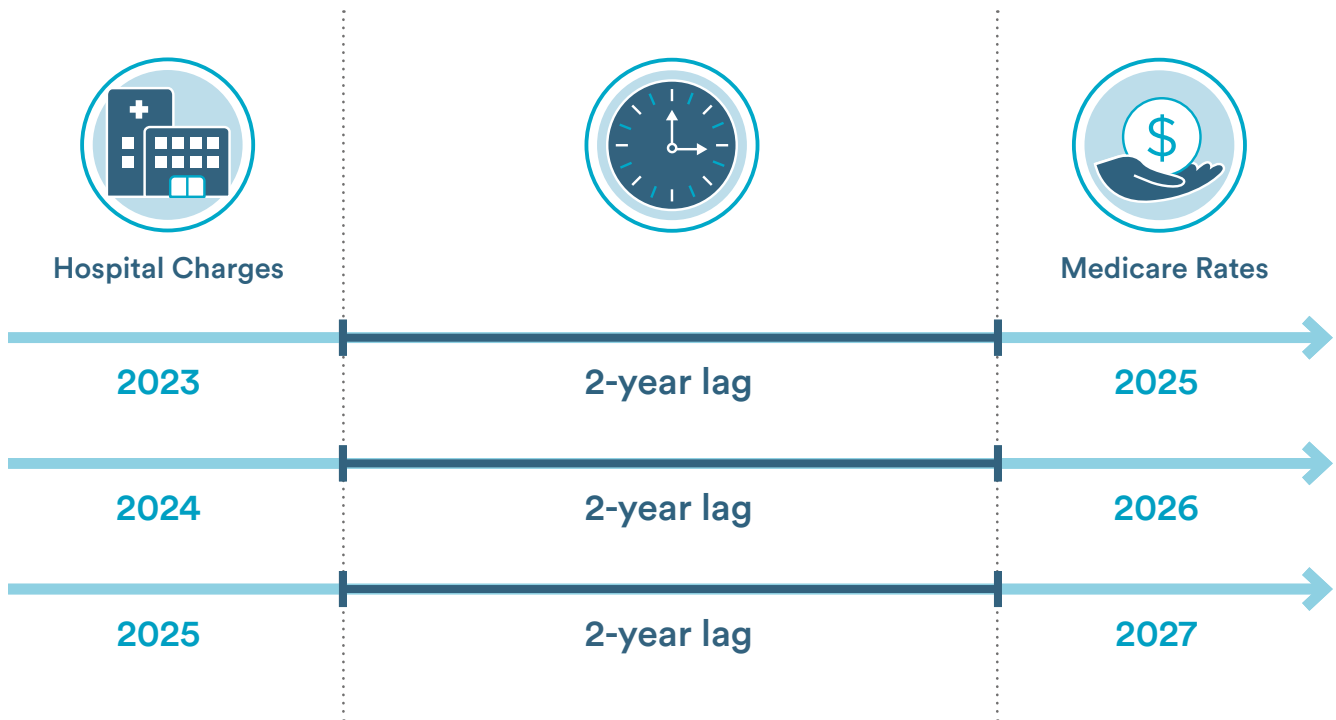


Important Terms: Processing Costs vs Product Costs

An understanding of the difference between blood processing costs vs blood product costs is critical to billing and reimbursement. In this guide, terms such as “blood,” “blood product” and “blood unit” refer to the costs of blood processing, as opposed to costs of the blood product, unless otherwise indicated. Section IV explains this issue in detail.

Under Medicare’s hospital inpatient and hospital outpatient prospective payment systems, as well as most payment methods used by non-Medicare payers, reimbursement is tied directly to correct coding and billing. Facilities must report products and services properly in order to receive appropriate payment. This is especially true of blood and blood products. There are now more types of blood products available than ever before, and the coding and billing requirements for these products and related services have become increasingly complex.

The Centers for Medicare and Medicaid Services (CMS) uses the charges that facilities report on claim forms to set future Medicare hospital payment rates for covered services. Specifically, the charges that hospitals submit during a given year generally will be reflected in Medicare payment rates two years later, as illustrated in the diagram below.



The charge-based nature of Medicare's ratesetting process makes it crucial for hospitals to set appropriate charges for blood products, to report these charges consistently on claim forms, and to bill for blood products using the correct codes and units of service.

At a minimum, hospital charges for blood units should cover at least the acquisition cost of the unit—that is, the blood processing fee paid to the blood supplier. These charges also should include an appropriate markup that reflects additional costs incurred internally by each facility (such as costs related to storage, processing, handling, overhead, and other expenses) once a hospital receives a blood unit.

In addition to reporting appropriate charges, it is important for hospitals to properly report blood-related costs in their Medicare cost reports. For blood products carrying only a processing fee, CMS instructs hospitals to report the direct expenses incurred for processing, storing and transfusing blood products (including the processing fees charged by blood suppliers) in the Blood Storing, Processing, & Transfusing cost center (Worksheet B, Part I, column 0, Line 63).^{6,7}



Reporting proper charges now will help to ensure that future Medicare payment rates reflect more accurately the true costs of blood products and related services.

III. Overview of Coverage and Reimbursement

Before determining how to bill for a particular patient, providers must understand which blood-related products and services will be covered by payers. Coverage policies for hospital and physician services typically relate to whether the patient’s condition or proposed course of treatment is *medically necessary* and, therefore, eligible for reimbursement under that patient’s health plan. In the case of Medicare, “coverage is limited to items and services that are reasonable and necessary for the diagnosis or treatment of an illness or injury (and within the scope of a Medicare benefit category).”⁸



Important Terms: Coverage vs Payment

Coverage does not always result in separate payment. Under all-inclusive “bundled” payments, blood products and related services typically are covered but not paid separately.

Medically necessary transfusion of blood, regardless of type, generally is a Medicare-covered service in the hospital inpatient and hospital outpatient settings.⁹ However, it is important to distinguish between coverage and payment.

Bundled payment is especially common in the hospital inpatient setting. For example, Medicare’s coverage policy for blood transfusions states that “under the prospective payment system (PPS), the diagnosis related group (DRG) payment to the hospital includes all covered blood and blood processing expenses, whether or not the blood is eventually used.”⁹

To a lesser extent, bundling also occurs under Medicare’s hospital outpatient PPS. Although blood products and transfusion procedures are usually paid separately in the hospital outpatient department when coverage requirements are met, many blood-related laboratory services are often subject to bundled payment policies in this setting.

Medicare’s coverage policy for blood transfusions is known as a national coverage determination (NCD). CMS also has published NCDs for other blood-related services, including therapeutic apheresis, photopheresis, stem cell transplantation and the use of blood-derived products for chronic nonhealing wounds.¹⁰ All Medicare NCDs can be found on the CMS coverage website at: <https://www.cms.gov/medicare-coverage-database/indexes/ncd-alphabetical-index.aspx>.¹¹



Because CMS uses hospital charges to set future Medicare payment rates, it is crucial for facilities to submit charges for all covered products and services—even those products and services that are not paid separately.

Note: Providers should review the applicable Medicare NCDs to be aware of coverage restrictions that may apply to various blood-related services.

IV. Billing for Blood Processing

According to CMS, most hospitals “obtain blood or blood products from community blood banks that charge only for processing and storage, and not for the blood itself.”¹² When a hospital obtains blood from one of these suppliers, Medicare recognizes a processing fee charged to the hospital by the supplier, not a charge for the blood itself. This distinction is important, because Medicare’s billing requirements are different for blood *processing* costs vs blood *product* costs.



When billing only for blood processing, hospitals should report charges for blood units using revenue code 0390 (Administration, Processing and Storage for Blood and Blood Components—General Classification).



Certain aspects of blood billing—specifically, revenue code 038X (Blood and Blood Components), modifier BL (Special acquisition of blood and blood products), the Medicare blood deductible, and value codes—apply *only* in situations when a hospital charges *for the blood itself*. These aspects of blood billing do *not* apply to blood obtained from a supplier that charges only for processing and storage.

Note: When billing only for blood processing, hospitals should *not* use revenue code 038X, modifier BL, or blood-related value codes, and should *not* apply the Medicare blood deductible.

Because most hospitals obtain blood products from suppliers that charge only for processing and storage (as explained above), the remainder of this billing guide is intended for providers that bill only for blood processing, and not for the blood itself.

It is very uncommon for hospitals to bill for blood *product* costs (as opposed to billing only for processing costs). However, readers who think that this may apply to their facilities are encouraged to contact AABB at advocacy@aabb.org to request additional information.

Important Note Regarding Unused Blood

Although Medicare allows hospitals to bill for blood processing costs for units that are transfused to patients, it does *not* allow hospitals to bill for processing and storage costs for units that are not transfused. This means that hospitals may not submit processing charges for unused blood units on claims for services rendered to patients. Instead, facilities are instructed to report the processing and storage costs for unused blood units under cost centers for blood on the hospital’s Medicare Cost Report.¹³

However, hospitals are permitted to bill for certain medically necessary laboratory services related to a specific patient, even if the blood is not transfused. For example, in a scenario where blood units are crossmatched for a specific patient but the units are not transfused, the hospital could report charges for the crossmatching services but would not be able to report processing charges for the unused blood units.



Hospitals are never allowed to bill for unused blood.



V. Coding Overview

In order for the Medicare program to track blood-related costs and account for these costs in its annual hospital payment updates, providers must code for blood processing and related services consistently and accurately.

When reporting services under Medicare, hospitals use the following coding systems:

- International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) diagnosis codes.
- International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) procedure codes.
- Revenue codes.
- Healthcare Common Procedure Coding System (HCPCS) codes.
- Current Procedural Terminology (CPT) codes.

These types of codes are described below.

ICD-10-CM Diagnosis Codes

Used by: Hospitals (inpatient and outpatient), physicians (in all settings), physician offices and most other settings of care

All hospital claims must include at least one ICD-10-CM diagnosis code to describe the patient's condition. Because there are many possible circumstances that may require a blood transfusion, blood products can be billed with a variety of diagnosis codes. Also, providers frequently report more than one diagnosis code for a single transfusion patient.

Providers should consult a current ICD-10-CM manual to determine which diagnosis code(s) best reflect(s) the condition of any specific patient for whom a claim is submitted. All codes must be supported with adequate documentation in the medical record.

ICD-10-PCS Procedure Codes

Used by: Hospitals (inpatient only)

Hospitals report inpatient services using ICD-10-PCS procedure codes.

Note: ICD-10-PCS procedure codes are *not* used outside of the hospital inpatient setting.



i Only through correct coding and charge reporting can CMS clearly understand the costs associated with various procedures and products and adjust the corresponding Medicare payment rates accordingly.

Under the ICD-10-PCS, there are more than 100 different procedure codes describing various types of transfusions. These codes can be found in the 302 series of ICD-10-PCS, which includes the following categories:

Code Category	Description
3023	Transfusion / Peripheral Vein Example: 30233N1 - <i>Transfusion of Nonautologous Red Blood Cells into Peripheral Vein, Percutaneous Approach</i>
3024	Transfusion / Central Vein Example: 30243R1 - <i>Transfusion of Nonautologous Platelets into Central Vein, Percutaneous Approach</i>
3027	Transfusion / Products of Conception, Circulatory Example: 30277N1 - <i>Transfusion of Nonautologous Red Blood Cells into Products of Conception, Circulatory, Via Natural or Artificial Opening</i>
3028	Transfusion / Vein Example: 30283B1 - <i>Transfusion of Nonautologous 4-Factor Prothrombin Complex Concentrate into Vein, Percutaneous Approach</i>

The above ICD-10-PCS codes do not represent an exhaustive list of possible procedures. Providers should consult a current ICD-10-PCS manual to determine which procedure code(s) appropriately describe(s) the service(s) rendered to the patient, as the above codes may not be appropriate for all patients. Depending on the services provided and the patient's condition, one or more nonspecific codes may be appropriate. All codes must be supported with adequate documentation in the medical record.

Revenue Codes

Used by: Hospitals (inpatient and outpatient)

All hospital facility claims must include a revenue code for each charge line item. Revenue codes are four-digit codes that allow hospitals to attribute supplies and services to specific cost centers within the facility. Each supply or service provided during a patient's hospital inpatient stay or hospital outpatient visit must be associated with a revenue code.

The following are examples of revenue codes that are relevant to blood products, blood transfusions, and patient-specific laboratory services performed on blood units (such as crossmatching):

- **Revenue code 0390** (Administration, Processing, and Storage for Blood and Blood Components—General Classification) for transfused blood products carrying only a processing fee.
- **Revenue code 0391** (Administration, Processing, and Storage for Blood and Blood Components—Administration [e.g., transfusions]) for the transfusion procedure (if the transfusion is reported as a separate line item).
- **Revenue code series 030X** (Laboratory) for patient-specific laboratory services performed on blood units (if the service is reported as a separate line item)—for example, antigen typing.




Providers should select the appropriate revenue codes for the services rendered to the patient, as the above codes may not be appropriate for all patients.

HCPCS Codes

Used by: Hospitals (outpatient), physician offices, certain other settings of care

Medicare requires that hospital outpatient departments report many biologicals, drugs, devices, supplies, and certain services using alphanumeric HCPCS codes. Transfused blood products are described by HCPCS P-codes. When reporting blood processing charges on claims in the hospital outpatient setting, providers should select the HCPCS P-code that reflects the specific type of blood product transfused to the patient. For example, processing charges for leukocyte-reduced red blood cells (RBCs)—the most commonly transfused type of blood product—would be reported with HCPCS code P9016 (Red blood cells, leukocytes reduced, each unit).



Revenue code series 038X (Blood and Blood Components) applies to blood product costs and should not be used when hospitals are charging only for blood processing (and not for the blood itself).

Note: For a complete list of blood product P-codes, please refer to Appendix I.

Providers should select the appropriate HCPCS code(s) to describe the product(s) transfused. All codes must be supported with adequate documentation in the medical record.

CPT Codes

Used by: Hospitals (outpatient), physicians (in all settings), physician offices, certain other settings of care

Hospital outpatient departments use CPT codes to report most procedures on claims. The CPT codes listed below describe various types of blood transfusions.

CPT Code	Description
36430	Transfusion, blood or blood components
36440	Push transfusion, blood, 2 years or under
36450	Exchange transfusion, blood, newborn
36455	Exchange transfusion, blood, other than newborn
36456	Partial exchange transfusion, blood, plasma, or crystalloid necessitating the skill of a physician or other qualified health care professional, newborn
36460	Transfusion, intrauterine, fetal

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Note: CPT code 36430 is the mostly commonly used CPT code for transfusion procedures.

CPT codes also are used to report many other types of blood-related services discussed later in this guide, including molecular pathology tests, therapeutic apheresis, and blood bank physician services. In addition, codes for many patient-specific laboratory services performed on blood units (such as crossmatching) can be found in the Transfusion Medicine code series of the Pathology and Laboratory section of the CPT manual, which consists of CPT codes 86850-86999.

CPT and HCPCS codes may be subject to various types of coding edits, such as National Correct Coding Initiative (NCCI) Procedure-to-Procedure (PTP) edits and Medically Unlikely Edits (MUEs), which are intended to prevent inappropriate utilization of services. More information on coding edits can be found in Appendix D.

The above CPT codes do not represent an exhaustive list of all possible procedures. Providers should consult a current CPT manual to determine which CPT code(s), if any, appropriately describe the service(s) rendered to the patient, as the above codes may not be appropriate for all patients. The American Medical Association (AMA)—the organization that updates and maintains CPT codes—instructs providers to select a CPT code with a descriptor “that accurately identifies the service performed,” rather than a code “that merely approximates the service provided.” In the absence of a specific code that accurately identifies a service, providers should “report the service using the appropriate unlisted procedure or service code.”¹⁴ All codes must be supported with adequate documentation in the medical record.

VI. Medicare Reimbursement for Blood Products and Related Services: Hospital Inpatient Setting

Overview

Medicare reimburses for inpatient admissions using the hospital inpatient prospective payment system (IPPS), which is based on Medicare severity diagnosis-related groups (MS-DRGs). Under IPPS, each hospital inpatient case is assigned to one of more than 700 MS-DRGs based on the patient's diagnosis(es) and the procedure(s) performed. The MS-DRG provides a fixed, hospital-specific payment that is intended to cover nearly all costs incurred during the hospital inpatient stay. MS-DRG payment rates are adjusted for each hospital to reflect geographic differences in hospital labor costs, disproportionate share burden and teaching status.

Note: MS-DRG payments do *not* cover the costs of physician services, as physicians are reimbursed separately for their professional services under the Medicare physician fee schedule.

Payment for Blood Products and Related Services

As with most other biologicals, drugs, and supplies, Medicare does not provide separate payment for blood products when used in the hospital inpatient setting; rather, reimbursement for blood products is bundled into the MS-DRG payment rate for the inpatient stay.

Additionally, transfusion procedures usually do not affect MS-DRG assignment; instead, a case involving a transfusion generally will be assigned to an MS-DRG based on the other procedures or diagnoses on the claim. For this reason, MS-DRG assignments and payment rates for inpatient stays involving blood transfusions can vary greatly depending on the specifics of a particular case.

Coding and Billing for Blood Products and Related Services

Medicare hospital inpatient claims for blood products, transfusions and related services should include the following types of codes:

Type of Code	Billing Guidance
ICD-10-CM Diagnosis Code	<ul style="list-style-type: none"> Report appropriate ICD-10-CM code(s) to describe the patient's condition Diagnosis coding will vary by patient
ICD-10-PCS Procedure Code	<ul style="list-style-type: none"> Report appropriate ICD-10-PCS code for the transfusion procedure (see previous section for a discussion of transfusion ICD-10-PCS codes) Report ICD-10-PCS code(s) for other procedure(s) as appropriate ICD-10-PCS codes may not be available for all services (for example, many laboratory services do not have ICD-10-PCS codes)
Revenue Code	<ul style="list-style-type: none"> Report appropriate revenue code for each charge line item Use revenue code 0390 to report processing charges for transfused blood units (remember: hospitals are never allowed to bill for unused blood) Use revenue code 0391 to report charges for transfusion procedure (if reported as a separate line item)* Revenue code series 030X can be used to report charges for patient-specific laboratory services performed on blood units (if applicable)

*According to CMS, whether an inpatient transfusion procedure should be reported as a separate charge line item depends on the type of cost center in which the transfusion is performed. If an inpatient transfusion is performed in an ancillary cost center, such as the operating room or emergency room, the charge for the transfusion procedure should be reported as a separate line item under revenue code 0391. For inpatient transfusions performed in a routine cost center, such as room and board, CMS provides the following guidance: "The provider must consider the established practice of the same class of providers in the same State as to whether to include blood transfusion in the routine service charge (for both Medicare and non-Medicare patients)."¹⁵

Note: Regardless of whether the transfusion procedure is billed as a separate line item, hospitals should separately report processing charges for transfused blood units using revenue code 0390.

Hospitals generally do not use CPT and HCPCS codes when billing inpatient charges to Medicare. Although many facilities may use CPT and HCPCS codes in the inpatient setting for their own internal purposes, these codes are not included on hospital inpatient claims submitted to Medicare. (An exception is hemophilia clotting factors; Medicare accepts HCPCS codes on inpatient claims in certain circumstances. More detail appears in Appendix C.) Instead, hospitals report inpatient charges on Medicare claims using only revenue codes. CPT and HCPCS codes play an important role in hospital outpatient billing, which is discussed in the next section.

VII. Medicare Reimbursement for Blood Products and Related Services: Hospital Outpatient Setting

Overview

Medicare reimburses for most hospital outpatient services using the hospital outpatient prospective payment system (OPPS), which is based on ambulatory payment classifications (APCs). Under OPPS, separately payable items and services are assigned to APC groups based on the CPT and HCPCS codes reported on the hospital claim. Each APC is associated with a fixed payment amount, which is intended to cover the facility's costs for services provided in the hospital outpatient setting.

OPPS allows for payment for multiple APCs during a single hospital outpatient visit. APC payments for procedures (but not for blood products) are adjusted for each geographic region to reflect local differences in labor costs. In addition to receiving Medicare's portion of the APC payment, hospitals also receive a set copayment from the patient.

Note: APC payments do *not* cover the costs of physician services, as physicians are reimbursed separately for their professional services under the Medicare physician fee schedule.

Payment for Blood Products and Related Services

Blood product HCPCS P-codes and transfusion CPT codes are assigned to their own APCs under OPPS. This means that when a transfusion is performed in the hospital outpatient setting, facilities are able to receive an APC payment for the blood units as well as an APC payment for the transfusion procedure. Hospitals also use CPT codes to report patient-specific laboratory services performed on blood units (when an appropriate code is available), although these services are often bundled (ie, not paid separately) when billed with a transfusion procedure.

Coding and Billing for Blood Products and Related Services

Hospital outpatient departments must code correctly in order to receive appropriate reimbursement. Over the years, CMS has published detailed Medicare billing guidelines for blood products, transfusions and related services in the hospital outpatient setting; these OPPS guidelines are the basis for much of the information presented in this section.

Medicare hospital outpatient claims for blood products, transfusions and related services should include the following types of codes:

- ICD-10-CM diagnosis code(s) to describe the patient's condition.
- HCPCS P-code(s) for transfused blood unit(s).
- CPT code(s) for transfusion procedure and patient-specific laboratory services performed on blood units (if applicable).
- Revenue code for each charge line item.

HCPCS P-codes, CPT codes, and revenue codes are discussed in more detail throughout this section.

Core Blood Billing Guidelines

In 2001, CMS published basic OPPS blood billing instructions that are still in place today.^{16,17} These instructions, referred to as Medicare’s “core blood billing guidelines,” state that whenever a transfusion takes place in the hospital outpatient department, the claim must include a minimum of two line items: a HCPCS code for the blood product, and a CPT code for the transfusion procedure. If applicable, CPT codes for patient-specific laboratory services can be billed as additional line items. More detail on these core blood billing guidelines appears in the table below.

Product or Service	OPPS Billing Guidelines
Blood product	<ul style="list-style-type: none">• Bill for blood processing under revenue code 0390 and use the product-specific P-code to bill for the number of units transfused
Transfusion procedure	<ul style="list-style-type: none">• Bill under revenue code 0391 and report the appropriate CPT code (eg, 36430)• CMS allows the transfusion procedure to be billed once per day
Patient-specific laboratory services performed on blood units	<ul style="list-style-type: none">• Bill under revenue code series 030X (Laboratory) or 031X (Laboratory, Pathological) and report the specific CPT codes (if available) for blood typing, crossmatching, and other laboratory services related to the patient who receives the blood

In subsequent years, CMS has greatly expanded the scope of its OPPS blood billing guidelines, but the core billing guidelines from 2001 (summarized above) remain intact.



Billing for the Transfusion Procedure

As described in the table above, the transfusion procedure should always be billed as a separate line item using the applicable CPT code along with revenue code 0391.

The OPPS blood billing guidelines include two important requirements related to the transfusion procedure:

1. Whenever hospitals bill for a transfusion CPT code, the claim must also include a blood product HCPCS P-code in order to be paid.
2. Hospitals should report the transfusion CPT code only once, regardless of the number of blood units or the different types of blood products transfused.¹⁸

Both of these requirements are enforced through coding edits, which are discussed in detail in Appendix D.



Transfusion CPT code 36430 should be billed *only once*.

Billing for Different Types of Blood Products

To be in compliance with CMS hospital outpatient blood billing guidelines, facilities should select the HCPCS P-code that describes the processing attributes of the specific type of units being transfused. Selecting the proper HCPCS code also helps to ensure that hospitals receive appropriate reimbursement for blood processing under OPSS; in its blood billing guidelines, CMS states the following: “There are specific blood HCPCS codes for blood products that have been processed in varying ways, and these codes are intended to make payment for the variable resource costs of blood products that have been processed differently.”¹²

Note: Regardless of which blood product P-code is used, hospitals that bill only for blood processing (and not for the blood itself) should always report the P-code with revenue code 0390.

Because there are more than 30 blood product P-codes, it is not possible for this document to discuss every potential blood billing scenario involving different types of blood products.

Instead, the focus is on the specific types of blood products that CMS addresses in its OPSS blood billing guidelines: irradiated units, split units, frozen and thawed units, autologous units and directed donor units. CMS billing instructions for each of these blood products are summarized below.

Irradiated Units. When billing for irradiated units that are transfused, hospitals should use an irradiated HCPCS P-code if such a code is available, and should not bill separately for the irradiation. However, if there is no irradiated P-code that describes the units being transfused, then it would be appropriate to bill the irradiation CPT code 86945 (Irradiation of blood product, each unit) in addition to the applicable P-code for the blood units.¹⁹

Note: It is *never* appropriate to bill the irradiation CPT code 86945 in addition to an irradiated HCPCS P-code, as that would be considered double billing.

If an irradiated unit is intended for a specific patient but is not transfused, hospitals may bill for the irradiation using CPT code 86945, but may not bill for the blood product P-code or the transfusion CPT code. The date of service for CPT code 86945 must be the date on which the decision not to use the blood was made and indicated in the patient’s medical record.¹³

Note: If a hospital bills CPT code 86945 for the irradiation associated with an unused unit as described above, but the irradiated unit is later transfused to a different patient, the unit would have to be treated as nonirradiated for billing purposes (ie, it would not be appropriate to bill either the irradiation CPT code or an irradiated P-code to the patient who ultimately receives the unit).

Frozen and Thawed Units. If a P-code that describes a frozen and/or thawed blood product is available and a transfusion takes place, hospitals should use the appropriate frozen/thawed P-code, and should not bill separately for freezing or thawing services. If a frozen/thawed P-code does not exist, OPSS providers may bill the appropriate freezing and/or thawing CPT code(s) in addition to the applicable blood product P-code. The available CPT codes for freezing and thawing of blood products are listed below:

- 86927 - Fresh frozen plasma, thawing, each unit
- 86930 - Frozen blood, each unit; freezing (includes preparation)
- 86931 - Frozen blood, each unit; thawing
- 86932 - Frozen blood, each unit; freezing (includes preparation) and thawing



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The billing guidelines discussed in this section apply only to the hospital *outpatient* setting. CPT and HCPCS codes are generally not used on hospital inpatient claims.

Note: CMS provides a table that indicates whether freezing and/or thawing is separately billable for each blood product P-code. A reproduction of this table appears in Appendix E.

If a frozen/thawed blood product is intended for a specific patient but is not transfused, hospitals may bill for the appropriate freezing and/or thawing CPT code(s), but may not bill for the blood product P-code or the transfusion CPT code. The date of service for the freezing/thawing CPT code(s) should be the date when the hospital is certain the blood will not be transfused.²⁰

Split Units. When a patient receives a transfusion of a split unit of blood, OPPS providers should bill HCPCS code P9011 (Blood, split unit) for the split unit. The splitting CPT code 86985 (Splitting of blood or blood products, each unit) also should be billed for each splitting procedure performed.²¹

CPT code 86985 often is billed for all but one of the patients who receive portions of the same unit. For example, if a unit is split into two partial units and each partial unit is transfused to a different patient, CPT code 86985 would only be billed to one of the two patients because the splitting procedure was only performed once.

Note: HCPCS code P9011 applies to all types of split units (eg, RBCs, platelets, whole blood, plasma, etc).

If a unit is split for a specific patient but is not transfused, hospitals may bill for the splitting using CPT code 86985, but may not bill for the split unit P-code or the transfusion CPT code. The date of service for CPT code 86985 must be the date on which the decision not to use the blood was made and indicated in the patient's medical record.¹³

Billing for Autologous Blood. There is no HCPCS P-code that specifically describes autologous blood products. If autologous units are transfused, hospitals should bill for the units using whichever P-code would normally apply if the units were not autologous. In this situation, it would not be appropriate to use the autologous processing CPT code 86890 (Autologous blood or blood component, collection processing and storage; predeposited).

Hospitals are permitted to bill autologous processing CPT code 86890 only if the autologous units are not transfused. (As with any scenario involving blood that is not transfused, it would not be appropriate to bill for the blood product HCPCS P-code or the transfusion CPT code.) The units of service for CPT code 86890 should equal the number of autologous units collected but not transfused. Because billing CPT code 86890 is appropriate only when autologous blood is not used, the date of service should be when the hospital is certain the units will not be transfused, rather than the date the units were collected or received from the blood supplier.²²

Note: Autologous blood is rarely intended for use in the hospital outpatient setting; therefore, there are likely to be limited instances in which the guidance herein would apply.

Directed Donor Blood. There is no HCPCS P-code that specifically describes directed donor blood products. If directed donor units are transfused, hospitals should bill for the units using whichever P-code would normally apply if the units were not directed donor. If a directed donor unit is not transfused, it would not be appropriate to bill for the blood product P-code or the transfusion CPT code, and there is no CPT code that can be used to bill for the additional costs and resources associated with directed donor blood.²²

Billing for Laboratory Services

When appropriate, patient-specific laboratory services performed on blood units (such as crossmatching) can be billed as separate line items using the appropriate CPT code (if available) along with revenue code series 030X or 031X.

Note: CPT codes for many patient-specific laboratory services performed on blood units can be found in the Transfusion Medicine code series of the Pathology and Laboratory section of the CPT manual, which consists of CPT codes 86850-86999.

In order to determine whether it is appropriate to bill separately for patient-specific laboratory services performed on transfused blood units, it is important to consider the following questions:

1. **Is the laboratory service already included in the HCPCS code for the blood units?**
 - Hospitals should not bill separately for laboratory services that already are described by a product-specific P-code; instead, the cost of the laboratory service should be included in the hospital's processing charge for the blood unit.
 - Irradiation, freezing/thawing, and leukocyte reduction are examples of laboratory services that are often included in blood product HCPCS codes.
2. **If the laboratory service is not included in the HCPCS code for the unit, is there a CPT code that accurately describes the service?**
 - For some laboratory services, an appropriate CPT code may not be available.
 - If a laboratory service does not have a CPT code, hospitals should not bill separately for the service; instead, the cost of the laboratory service should be included in the hospital's processing charge for the blood unit.
 - Examples of laboratory services without a CPT code include (*but* are not limited to): search fees, special requests, call-in fees, rare unit charges, import fees, and after-hour charges.

Note: If a patient-specific laboratory service is *not* included in the HCPCS code for the transfused blood units, and is described by a specific CPT code, then it would generally be appropriate to bill for the laboratory service as a separate line item (in addition to the blood units and the transfusion procedure), using the appropriate CPT code along with revenue code series 030X or 031X.

Laboratory Services Performed on Unused Blood Units. Hospitals may bill for most patient-specific laboratory services even if blood units are not transfused. In this scenario, it would not be appropriate to bill for the blood product P-code or the transfusion CPT code, but the hospital could bill the CPT code that describes the laboratory service (if such a code is available).

Pathogen Testing for Platelets. Although laboratory services are almost always reported with CPT codes (when a specific code is available), there are a few exceptions. One such exception is HCPCS code P9100 (Pathogen test[s] for platelets). In contrast to other P-codes, P9100 is not a blood product code; rather, P9100 is a testing code that is used to report certain types of pathogen tests for platelets.

It is not appropriate to use HCPCS code P9100 for standard pathogen testing performed on all platelet units. According to CMS, the code "should be reported to describe the test used for the detection of bacterial contamination in platelets as well as any other test that may be used to detect pathogen contamination.... [the code] should not be used for reporting donation testing for infectious agents such as viruses."²³

Note: Until 2021, the only type of pathogen testing described by HCPCS code P9100 was rapid bacterial testing of platelets. The use of P9100 has since expanded to also include large volume delayed sampling (LVDS) testing, which major U.S. blood centers began implementing for platelets in 2021.²⁴

As with other laboratory testing codes, P9100 should be billed in addition to the appropriate blood product P-code when units are transfused. If pathogen-tested platelets are ordered for a specific patient but are not transfused, hospitals would not be able to bill the P-code for the platelet units or the transfusion CPT code, but could still bill P9100 for the pathogen testing. As with other types of laboratory tests performed on blood units, it is recommended that hospitals report P9100 with revenue code series 030X or 031X.

Note: HCPCS code P9100 should *not* be used to report pathogen reduction of platelets. Instead, when pathogen-reduced units are transfused, the units should be billed using HCPCS code P9073 (Platelets, pheresis, pathogen reduced, each unit), which includes pathogen reduction.

Summary

The key “takeaway” messages from the OPPS billing guidance discussed in this section include the following:

- **ICD-10-CM Diagnosis Code**
 - Report appropriate ICD-10-CM code(s) to describe the patient’s condition.
 - Diagnosis coding will vary by patient.
- **CPT Code**
 - Report appropriate CPT code for the transfusion procedure (eg, 36430).
 - Report CPT code(s) for patient-specific laboratory service(s) performed on blood units (if applicable).
 - Report CPT code(s) for other procedure(s) as appropriate.
 - CPT codes may not be available for all services.
 - Bill the transfusion CPT code only once.
- **HCPCS Code**
 - Use HCPCS P-code to report blood processing charges for transfused blood units (remember: hospitals are never allowed to bill for unused blood).
 - Select the P-code that describes the type of units transfused.
 - Bill for each unit transfused.
 - Use HCPCS code P9100 in addition to the applicable platelet P-code to bill for LVDS or rapid bacterial testing (remember: P9100 is a testing code and not a product code).
- **Revenue Code**
 - Report appropriate revenue code for each charge line item.
 - Each CPT and HCPCS code must be reported with a revenue code.
 - Use revenue code 0390 with applicable HCPCS P-code to report processing charges for transfused blood units.
 - Use revenue code 0391 with appropriate CPT code (eg, 36430) to report charges for transfusion procedure.
 - Revenue code series 030X or 031X can be used with appropriate CPT code to report charges for patient-specific laboratory services performed on blood units (if applicable).



i Readers who seek more detailed information are encouraged to use the CMS resources provided in the text and listed in the references at the end of this guide after the appendices.

Appendix A. Billing for Molecular Testing

When billing for molecular pathology services, code selection is generally based on the specific analyte being tested. Each molecular pathology CPT code includes all analytical services required to perform the test (eg, DNA extraction, purification, amplification, etc). The types of CPT codes that are relevant to transfusion-related molecular tests include Tier 1, Tier 2 and proprietary laboratory analyses (PLA) codes. These types of codes are discussed below. Also highlighted are two other important topics related to billing for molecular testing: MolDX Z-codes and Medicare’s laboratory date of service (DOS) exception.



This Appendix is intended to provide a high-level overview of molecular pathology coding; for detailed coding information for molecular tests, please refer to a current CPT manual.

Tier 1 Molecular Pathology Procedures

Tier 1 molecular pathology codes represent gene-specific and genomic procedures that have demonstrated a high level of utilization. In the CPT manual, the Tier 1 Molecular Pathology Procedures section consists of CPT codes 81105 to 81383. Each Tier 1 CPT code represents a specific molecular test.

Blood-Specific Example Tier 1 CPT codes 81105-81112 describe various types of human platelet antigen (HPA) genotyping tests:	
CPT Code	Description
81105	<i>Human Platelet Antigen 1 genotyping (HPA-1), ITGB3 (integrin, beta 3 [platelet glycoprotein IIIa], antigen CD61 [GPIIIa])</i> (eg, neonatal alloimmune thrombocytopenia [NAIT], posttransfusion purpura) gene analysis, common variant, HPA-1a/b (L33P)
81106	<i>Human Platelet Antigen 2 genotyping (HPA-2), GP1BA (glycoprotein Ib [platelet], alpha polypeptide [GPIIb])</i> (eg, neonatal alloimmune thrombocytopenia [NAIT], posttransfusion purpura) gene analysis, common variant, HPA-2a/b (T145M)
81107	<i>Human Platelet Antigen 3 genotyping (HPA-3), ITGA2B (integrin, alpha 2b [platelet glycoprotein IIb of IIb/IIIa complex], antigen CD41 [GPIIb])</i> (eg, neonatal alloimmune thrombocytopenia [NAIT], posttransfusion purpura) gene analysis, common variant, HPA-3a/b (I843S)
81108	<i>Human Platelet Antigen 4 genotyping (HPA-4), ITGB3 (integrin, beta 3 [platelet glycoprotein IIIa], antigen CD61 [GPIIIa])</i> (eg, neonatal alloimmune thrombocytopenia [NAIT], posttransfusion purpura) gene analysis, common variant, HPA-4a/b (R143Q)

Blood-Specific Example Tier 1 CPT codes 81105-81112 describe various types of human platelet antigen (HPA) genotyping tests:	
CPT Code	Description
81009	<i>Human Platelet Antigen 5 genotyping (HPA-5), ITGA2 (integrin, alpha 2 [CD49B, alpha 2 subunit of VLA-2 receptor] [GPIa])</i> (eg, neonatal alloimmune thrombocytopenia [NAIT], posttransfusion purpura) gene analysis, common variant, eg, HPA-5a/b (K505E)
81110	<i>Human Platelet Antigen 6 genotyping (HPA-6w), ITGB3 (integrin, beta 3 [platelet glycoprotein IIIa, antigen CD61] [GPIIIa])</i> (eg, neonatal alloimmune thrombocytopenia [NAIT], posttransfusion purpura) gene analysis, common variant, HPA-6a/b (R489Q)
81111	<i>Human Platelet Antigen 9 genotyping (HPA-9w), ITGA2B (integrin, alpha 2b [platelet glycoprotein IIb of IIb/IIIa complex, antigen CD41] [GPIIb])</i> (eg, neonatal alloimmune thrombocytopenia [NAIT], posttransfusion purpura) gene analysis, common variant, HPA-9a/b (V837M)
81112	<i>Human Platelet Antigen 15 genotyping (HPA-15), CD109 (CD109 molecule)</i> (eg, neonatal alloimmune thrombocytopenia [NAIT], posttransfusion purpura) gene analysis, common variant, HPA-15a/b (S682Y)

Tier 2 Molecular Pathology Procedures

Tier 2 molecular pathology codes (CPT codes 81400-81408) are used to report molecular tests that are not listed in the Tier 1 series of codes (discussed above). Tier 2 codes are broadly defined and generally represent tests that are less frequently performed than Tier 1 tests. Tier 2 codes are arranged into levels based on the technical resources and interpretive work required to perform a test.

Each Tier 2 CPT code is used to report a variety of molecular pathology tests. The table below lists the Tier 2 molecular pathology CPT codes and the approximate number of tests that fall under each code.

CPT Code	Description (abbreviated)*	Approximate Number of Tests†
81400	Molecular pathology procedure, Level 1	>20
81401	Molecular pathology procedure, Level 2	>50
81402	Molecular pathology procedure, Level 3	8
81403	Molecular pathology procedure, Level 4	>30
81404	Molecular pathology procedure, Level 5	>80
81405	Molecular pathology procedure, Level 6	>130
81406	Molecular pathology procedure, Level 7	>150
81407	Molecular pathology procedure, Level 8	>30
81408	Molecular pathology procedure, Level 9	>20

* Please refer to a current CPT manual for the full code descriptors.

† The approximate number of tests for each code is based on information for the codes in the 2023 CPT manual; these numbers are provided only for illustrative purposes and are subject to change.

The CPT manual lists the individual tests (based on the analyte tested [eg, RHD]) that can be reported with each Tier 2 CPT code. If a molecular test is not listed under a Tier 2 code in the CPT manual (and is not represented by a Tier 1 code or other CPT code), then it should be reported using the unlisted CPT code 81479 (Unlisted molecular pathology procedure).

Note: The lists of tests assigned to Tier 2 codes can change from year to year. Therefore, it is important to always consult a current CPT manual to determine whether the use of a Tier 2 code would be appropriate for a given test.



Blood-Specific Example

There are several PLA codes for immunohematology tests. One example, the PreciseType HEA test, is reported using PLA code 0001U (Red cell antigen typing, DNA, human erythrocyte antigen gene analysis of 35 antigens from 11 blood groups, using whole blood, common red cell alleles reported).

Proprietary Laboratory Analyses (PLA)

PLA codes, which can be found at the end of the Pathology and Laboratory section of the CPT manual, are alphanumeric CPT codes for laboratories or manufacturers that wish to more specifically identify their test.

Note: The lists of tests assigned a PLA code changes quarterly. Therefore, it is important to always consult the AMA website to determine whether the use of a PLA code is required for a given test.

The CPT manual states that if a PLA code describes a proprietary test, providers must use that code to report the test: “The service should not be reported with any other CPT code(s) and other CPT code(s) should not be used to report services that may be reported with that specific PLA code.”²⁵

MolDX Z-Codes

The Molecular Diagnostic Services Program (MolDX) is a Medicare program operated by Palmetto GBA, a Medicare Administrative Contractor (MAC), to establish coverage and reimbursement policies for molecular pathology tests. The MolDX program was developed in 2011 and applies to more than half of the states and multiple territories in the United States. Hospitals in these MolDX states and territories must report a DEX Z-code identifier in addition to a CPT code whenever they bill Medicare for a molecular pathology test. Failure to submit a Z-code identifier will result in claim rejection. In order to obtain Z-code identifiers, hospitals must register in the DEX Diagnostics Exchange and submit information on their molecular tests, even if the test is purchased from a manufacturer that has already been assigned a Z-code.

More information on Z-codes and MolDX, including whether a hospital is in a state or territory that is subject to the Medicare MolDX program, is available at <https://www.palmettogba.com/moldx>.²⁶

Note: Certain commercial payers and Medicare Advantage plans have begun to require the use of DEX Z-codes for molecular tests. According to Palmetto GBA, participating payers will notify providers if they are subject to Z-code requirements. For additional information, please visit <https://www.dexzcodes.com>.^{27,28}

Blood Bank Exclusion from Laboratory Date of Service (DOS) Exception

In general, Medicare’s laboratory DOS exception for molecular pathology tests or tests designated by CMS as advanced diagnostic laboratory tests (ADLTs) requires that the date of service for the test be the date that the test was performed if certain criteria are satisfied. As a result, the laboratory that performed the test is required to bill Medicare directly. However, CMS explicitly excluded molecular pathology testing performed by blood banks and blood centers from the laboratory DOS exception: “Under [the] final policy, molecular pathology testing performed by blood banks or centers on a specimen collected during a hospital outpatient encounter is never subject to the laboratory DOS exception....”²⁹ Thus, hospitals may bill Medicare for such molecular pathology testing performed by blood banks and blood centers.²⁹

Note: As with other patient-specific laboratory tests that blood suppliers perform on blood units intended for transfusion (such as crossmatching), hospitals should bill Medicare “under arrangements” for molecular pathology testing that is performed by blood suppliers.

Appendix B. Billing for Other Blood-Related Services

The main sections of this billing guide discuss billing for transfusion procedures and patient-specific laboratory services performed on blood units. This appendix focuses on billing for two other types of blood-related services that are frequently a source of reimbursement questions: therapeutic apheresis and blood bank physician services.

Note: CMS has published national coverage determinations (NCDs) for certain blood-related services, including therapeutic apheresis, photopheresis, stem cell transplantation, and the use of blood-derived products for chronic nonhealing wounds.¹⁰ Providers should review the applicable Medicare NCDs to be aware of coverage restrictions that may apply to various blood-related services.

Coding for Therapeutic Apheresis

The available CPT codes for therapeutic apheresis are listed below:

CPT Code	Description
36511	Therapeutic apheresis; for white cells
36512	Therapeutic apheresis; for red cells
36513	Therapeutic apheresis; for platelets
36514	Therapeutic apheresis; for plasmapheresis
36516	Therapeutic apheresis; with extracorporeal immunoadsorption, selective adsorption, or selective filtration and plasma reinfusion
36522	Photopheresis, extracorporeal

The appropriate revenue code for therapeutic apheresis services may vary. Hospitals should use a revenue code that reflects the cost center in which the therapeutic apheresis service is performed.

When therapeutic apheresis services are performed in the hospital setting, the physician would submit a separate claim for his or her professional services. The same CPT codes would apply to physician services, but the physician would not report a revenue code. (Revenue codes are not used on physician claim forms.)

Note: The American Society for Apheresis (ASFA) provides a detailed Reimbursement Guide for therapeutic apheresis at: <https://www.apheresis.org/page/ApheresisReimburse>.³⁰

Coding for Blood Bank Physician Services

There are three CPT codes that describe blood bank physician services:

CPT Code	Description
86077	Blood bank physician services; difficult crossmatch and/or evaluation of irregular antibody(s), interpretation, and written report
86078	Blood bank physician services; investigation of transfusion reaction including suspicion of transmissible disease, interpretation, and written report
86079	Blood bank physician services; authorization for deviation from standard blood banking procedures (eg, use of outdated blood, transfusion of Rh-incompatible units), with written report

Although CPT codes 86077-86079 describe physician services, it is appropriate for hospitals to report these codes on the facility's claim form when the services are performed in the hospital outpatient setting. The physician would submit a separate claim form (using the same CPT codes, but no revenue code) to bill for his or her professional services.

Note: It is important to note that all of the CPT codes listed here require a written report, and two of the three codes also require interpretation of the report.

Hospitals should use a revenue code that reflects the cost center in which the blood bank physician service is performed. Potentially relevant revenue code series for these services include 030X (Laboratory) or 031X (Laboratory, Pathological).

Appendix C. Billing for Blood Derivatives

Although most of this guide focuses on blood products and services associated with blood transfusions, hospitals sometimes have billing questions about other types of products and services. This appendix discusses billing for “blood derivatives,” which include products such as hemophilia clotting factors, intravenous immune globulin (IVIG) and albumin. Unless otherwise indicated, the billing information in this appendix applies to the Medicare hospital outpatient prospective payment system (OPPS).

Note: In general, Medicare treats blood derivatives like drugs and biologicals for reimbursement purposes. This means that billing for these products is different from billing for transfused blood products.

Coding for Blood Derivative Products

HCPCS Codes

Most blood derivative products, including hemophilia clotting factors and IVIG, are not billed with HCPCS P-codes; rather, these products are billed with HCPCS J-codes and (to a lesser extent) Q-codes and C-codes.

Albumin is billed with HCPCS P-codes (specifically, codes P9041 and P9045-P9047), but this is the only similarity with transfused blood products; in all other respects, Medicare treats albumin like a drug or biological.

Note: Providers should review the complete HCPCS code set to determine the appropriate code for the specific blood derivative product administered to the patient.

Revenue Code

Hospitals should use revenue code 0636 (Drugs Requiring Detailed Coding) in addition to the appropriate HCPCS code when billing for blood derivatives under OPPS.



Because blood derivatives are not classified by Medicare as transfused blood products, hospitals should not use revenue code 0390 to bill for these products. Revenue code 0390 should only be used to report processing charges for transfused blood units.



Coding for Administration Services

As with other drugs and biologicals, the administration services associated with blood derivative products should be reported with the appropriate drug administration CPT code(s); it would not be appropriate to report these services using a transfusion CPT code. Drug administration services (excluding chemotherapy) can be found in the 96360-96379 series of CPT codes.

Note: Providers should consult a current CPT manual to determine which CPT code(s), if any, appropriately describe the specific service(s) rendered to the patient.

Special Medicare Policy for Hemophilia Clotting Factors Used in the Inpatient Setting

Under the hospital inpatient prospective payment system (IPPS), Medicare provides separate payment for hemophilia clotting factors (in addition to the MS-DRG payment for the inpatient stay) if specific requirements are met. As a result of this payment policy, special billing requirements apply when hemophilia clotting factors are used in the hospital inpatient setting. Specifically, facilities should bill for hemophilia clotting factors on Medicare hospital inpatient claims using the appropriate HCPCS code (usually a J-code, but sometimes a Q-code) along with revenue code 0636.

Note: Although HCPCS codes are generally not used on hospital inpatient claims, hemophilia clotting factors represent an important exception.

It is important to note that Medicare provides separate payment for clotting factors in the inpatient setting only if the hospital claim includes a hemophilia diagnosis from the D66 through D68.4 range of ICD-10-CM codes.³¹ If a clotting factor is billed on an inpatient claim with a different diagnosis code, Medicare would still provide the MS-DRG payment for the inpatient stay, but there would be no additional payment for the clotting factor.

Appendix D. Coding Edits

The term “coding edits” refers to payers’ use of automated claims processing logic to ensure appropriate payment for items and services. Coding edits can be used to identify billing errors, and to enforce coding rules, coverage requirements, and other reimbursement policies.

For example, CMS’s Outpatient Code Editor (OCE) includes coding edits designed to operationalize various billing and coding rules under OPps, such as the requirement that a claim for a transfusion CPT code must also include a blood product HCPCS P-code in order to be paid.³²

Another important source of coding edits in the hospital outpatient setting is the National Correct Coding Initiative (NCCI). Two types of NCCI edits are discussed below with examples of how the edits affect billing for blood products and related services.



Blood-Specific Example

NCCI edits prevent certain non-irradiated blood product P-codes from being paid when billed on the same Medicare hospital outpatient claim as an irradiated blood product P-code.³³

Procedure-to-Procedure (PTP) Edits

NCCI PTP edits—which often are referred to as “NCCI edits” or “CCI edits”—are combinations of CPT or HCPCS codes that should not be reported together on Medicare claims for the same beneficiary on the same date of service. If multiple codes affected by an NCCI edit are billed together, Medicare generally will pay for only one of the codes.

For some NCCI edits, CMS may allow providers to report the codes together when an appropriate modifier is used to indicate that the services are “separate and distinct.” For other NCCI edits, a modifier may not be allowed because the codes should never be reported together for the same beneficiary on the same date of service.

NCCI edits are updated quarterly. The latest version of NCCI edits is available on the CMS website at: <https://www.cms.gov/Medicare/Coding/NationalCorrectCodInitEd/NCCI-Coding-Edits>.³⁴ A detailed discussion on the use of modifiers in the context of NCCI edits can be found at: <https://www.cms.gov/files/document/mln1783722-proper-use-modifiers-59-xp-xs-and-xu.pdf>.³⁵

Medically Unlikely Edits (MUEs)

Whereas NCCI PTP edits identify combinations of codes that should not be reported together, MUEs specify the maximum allowed number of billing units for an individual CPT or HCPCS code. If a provider bills more units of a code than the value specified by the MUE for the same beneficiary on the same date of service, then all of the units of the code will be denied. (Although MUEs are part of the NCCI, they often are referred to as just “MUEs”; the term “NCCI edits” typically refers to PTP edits.)

As with NCCI PTP edits, MUEs are updated quarterly. Although most MUE values are published on the CMS website, some MUEs are kept confidential. The latest version of publicly available MUEs is available at: <https://www.cms.gov/Medicare/Coding/NationalCorrectCodInitEd/MUE>.³⁷

Blood-Specific Example

The transfusion CPT code 36430 has an MUE value of 1, which is why it is important to bill CPT code 36430 only once, regardless of the number of blood units or the different types of blood products transfused. In addition, many laboratory codes in the transfusion medicine series (CPT codes 86850-86999) have an MUE; the specific MUE value for these services varies by code.³⁶

Appendix E. Billing for Frozen and Thawed Blood and Blood Products

The following table¹³ indicates whether freezing and/or thawing is separately billable for each blood product P-code under the Medicare hospital outpatient prospective payment system (OPPS).

HCPCS*	Short Descriptor†	Billing of Freezing/Thawing‡
P9010	Whole blood for transfusion	Freezing and thawing are separately billable
P9011	Blood split unit	Freezing and thawing are separately billable
P9012	Cryoprecipitate each unit	Freezing and thawing codes not separately billable
P9016	RBCs leukocytes reduced (LR)	Alternative P-code for frozen/thawed product available
P9017	Plasma 1 donor frz w/in 8 hr	Freezing and thawing codes not separately billable
P9019	Platelets, each unit	Freezing and thawing are separately billable
P9020	Platelet-rich plasma unit	Freezing and thawing are separately billable
P9021	Red blood cells unit	Alternative P-code for frozen/thawed product available
P9022	Washed red blood cells unit	Freezing and thawing are separately billable
P9023	Frozen plasma, pooled, sd	Freezing and thawing codes not separately billable
P9031	Platelets LR	Freezing and thawing are separately billable
P9032	Platelets, irradiated	Freezing and thawing are separately billable
P9033	Platelets leukoreduced, irrad	Freezing and thawing are separately billable
P9034	Platelets, pheresis	Freezing and thawing are separately billable
P9035	Platelet pheres leukoreduced	Freezing and thawing are separately billable
P9036	Platelet pheresis irradiated	Freezing and thawing are separately billable
P9037	Plate pheres leukoredu irrad	Freezing and thawing are separately billable
P9038	RBCs irradiated	Freezing and thawing are separately billable
P9039	RBCs deglycerolized	Freezing and thawing codes not separately billable
P9040	RBCs LR, irradiated	Alternative P-code for frozen/thawed product available
P9043	Plasma protein fract, 5%, 50ml	Concept not applicable
P9044	Cryoprecipitate-reduced plasma	Freezing and thawing codes not separately billable
P9048	Plasma protein fract	Concept not applicable
P9050	Granulocytes, pheresis unit	Concept not applicable
P9051	Blood, l/r, cmv-neg	Freezing and thawing are separately billable
P9052	Platelets, hla-m, l/r, unit	Freezing and thawing are separately billable
P9053	Plt pher, l/r, cmv-neg, irr	Freezing and thawing are separately billable

*HCPCS codes P9025, P9026, P9070, P9071, P9073, and P9099 are not listed because these codes were created after publication of the source table by CMS.

†Complete HCPCS descriptors appear in Appendix I.

‡Emphasis in original.

RBCs = red blood cells; SD = solvent/detergent; CMV = cytomegalovirus

HCPCS*	Short Descriptor†	Billing of Freezing/Thawing‡
P9054	Blood, l/r, froz/degly/wash	Freezing and thawing codes not separately billable
P9055	Plt, aph/pher, l/r, cmv-neg	Freezing and thawing are separately billable
P9056	Blood, l/r, irradiated	Freezing and thawing are separately billable
P9057	RBCs, frz/deg/wash, l/r, irradiat	Freezing and thawing codes not separately billable
P9058	RBCs, l/r, cmv-neg, irradiat	Freezing and thawing are separately billable
P9059	Plasma, frz between 8-24	Freezing and thawing codes not separately billable
P9060	Fr frz Plasma donor retested	Freezing and thawing codes not separately billable

*HCPCS codes P9025, P9026, P9070, P9071, P9073, and P9099 are not listed because these codes were created after publication of the source table by CMS.

†Complete HCPCS descriptors appear in Appendix I.

‡Emphasis in original.

RBCs = red blood cells; SD = solvent/detergent; CMV = cytomegalovirus

Appendix F. Blood Reimbursement in Nonhospital Settings

The information in the main sections of this billing guide is intended specifically for acute care hospitals; Medicare's reimbursement policies and billing requirements for other types of providers may vary. Reimbursement for blood products and blood-related services in certain nonhospital settings of care is described below, along with important considerations related to scenarios in which a hospital provides blood units to an outside entity.

Note: Reimbursement or billing questions related to a specific nonhospital setting of care should be directed to the local Medicare administrative contractor (MAC) or the applicable payer.

Physician Offices

In general, Medicare policies should allow for blood products and transfusion procedures to be paid separately in the physician office setting. However, over the years, some providers have encountered challenges when billing for blood transfusions in this setting. For example, because physician offices do not use revenue codes, local MACs may sometimes have difficulty differentiating between blood processing charges and blood product charges, which could result in the blood deductible being applied incorrectly to claims that reflect only blood processing charges. (Unlike in the hospital setting, it is not possible for offices to use revenue code 0390 to indicate that charges are only for blood processing and not for the blood itself.) Also, CMS does not have national payment rates for blood products transfused in the office setting, so reimbursement amounts may vary from one local MAC to another.

Note: Due to the issues described here, physician offices attempting to bill for blood transfusions should be prepared to deal with potential claim rejections/denials and requests for additional information from the local MAC.

Cancer Centers

For Medicare billing and reimbursement purposes, cancer centers are generally considered to be hospital outpatient departments or physician offices, depending on whether they are hospital-based or freestanding facilities. For hospital-based cancer centers, the information in the main sections of this billing guide (with the exception of the hospital inpatient section) should apply. For freestanding cancer centers, please refer to the physician office information provided above.

Dialysis Centers

Medicare reimburses for dialysis services using the end-stage renal disease (ESRD) prospective payment system (PPS). Under this system, hospital-based and independent dialysis facilities receive a bundled payment rate that is intended to cover most ESRD-related items and services.³⁸ Although reimbursement for transfusion procedures and other blood-related services is included in the payment bundle, Medicare does provide separate payment for blood products in the dialysis center setting.³⁹

Note: Dialysis facilities should report processing charges for blood units using HCPCS P-codes and revenue code 0390.

Long-Term Care (LTC) Facilities

In general, Medicare does not pay separately for blood products or transfusion procedures in LTC settings.

- Long-Term Acute Care Hospitals (LTCHs): LTCHs are reimbursed under a PPS that is based on MS-DRGs (called MS-LTC-DRGs). In this setting, reimbursement for blood products and blood-related services is bundled into the MS-LTC-DRG payment rate for the LTCH stay.⁴⁰
- Skilled Nursing Facilities (SNFs): For Medicare beneficiaries in a Part A-covered SNF stay, reimbursement for most products and services—including blood products and transfusion procedures—are included in daily payments made to facilities under the SNF PPS.⁴¹ For a Medicare beneficiary in a non-covered SNF stay (for example, if the patient's Part A benefits have been exhausted), blood products and related services may be eligible for reimbursement under Part B⁴²; in these instances, providers should check with their local Medicare contractor to determine applicable policies.
- Non-Skilled Nursing Homes: Medicare generally does not cover stays in non-skilled nursing homes; coverage in these facilities will vary depending on the source of the patient's insurance (many nursing home patients qualify for Medicaid).
- Hospice: Under the hospice benefit, Medicare pays a daily rate intended to cover costs that hospices incur in furnishing palliative services according to a patient's treatment plan. Blood transfusions related to the patient's terminal illness would be included in this daily payment rate.⁴³

Hospitals Providing Blood Units to an Outside Entity

In situations where a hospital provides blood units to an outside entity (such as a dialysis center or cancer center), it is recommended that the outside entity and the hospital enter into an arrangement under which:

- The outside entity pays the hospital for the blood processing charges for the units.
- The outside entity (not the hospital) bills Medicare directly for both the blood processing charges and the transfusion procedure (if appropriate).

It would be problematic if the original hospital (rather than the outside entity) were to bill Medicare for the processing charges for the blood units, because the hospital likely would be unable to determine if the blood was ultimately transfused (and hospitals may never bill Medicare for unused blood). In addition, hospitals could experience claims-processing issues if they submit processing charges for blood units without a record of a transfusion procedure.

Appendix G. Dealing with Rejected or Denied Claims

This section provides general suggestions for dealing with claims that have been rejected or denied.



Important Terms: Rejection vs Denial

A *rejection* generally means that a claim was returned as unable to be processed due to missing or invalid information. A *denial* occurs when there is sufficient information for a claim to be processed, but the payer makes a determination not to pay for the claim based on the information provided (for example, due to noncoverage).

When faced with a rejected or denied claim, hospitals first need to determine the reason the claim was not paid, and then take appropriate action to address the rejection or denial.

Determine the Reason for the Rejection or Denial

There are various reasons why a payer may reject or deny payment of a claim. Examples of common reasons for claim rejections or denials include the following:

- Missing, incomplete, or incorrect information.
- Invalid code or modifier.
- Improper units of service.
- Noncovered item or service (eg, lack of medical necessity, not a covered benefit, etc).
- Noncompliant with claim filing time limit (eg, 12 months after the date of service for Medicare).

Determining the reason why a claim was not paid is vitally important, because this will inform what type of action should be taken to address the rejection or denial (discussed below).

The payer's remittance advice (RA) or similar document will generally include reason and/or remark codes that provide information on how each line item of a claim was adjudicated. For example, if a CPT or HCPCS code on a Medicare claim was denied due to an MUE (discussed in Appendix D), the RA likely would include a reason or remark code for that line item indicating "Number of Days or Units of Service Exceeds Acceptable Maximum" (or similar language).

Note: Questions about the reason for a rejection or denial of a particular claim should be directed to the local Medicare administrative contractor (MAC) or the applicable payer.

Take Appropriate Action

Once the reason for nonpayment of a claim is identified, the appropriate action can be taken to address the rejection or denial. For example, if a claim was rejected due to an invalid code, this can usually be resolved by resubmitting the claim with the correct code. In contrast, if a claim was denied due to an MUE or noncovered service, then the only option may be to submit a formal appeal justifying the medical necessity of the service.

In some cases, if a provider believes that a denial is attributable to a minor error or omission, that provider may be able to request a “reopening,” which (if granted) would allow the provider to correct the error/omission rather than submitting a formal appeal.

When taking action to address a rejection or denial, it is important to be aware of and adhere to any applicable filing time limits. For example, the time limit for filing a first-level Medicare appeal (called a “redetermination”) is 120 days from receipt of the of the original determination (eg, the RA). The time limits for other types of Medicare appeals will vary, as will the time limits for filing appeals with other types of payers.

Note: Those who are unsure of the appropriate action to take to address the rejection or denial of a specific claim, or have questions about the applicable time limit for filing an appeal, should contact the local MAC or the applicable payer to request more information.

Recommended Best Practices

The best strategy for dealing with claim rejections or denials is to reduce the likelihood of billing errors occurring in the first place. The following best practices for Medicare blood billing, which are based on the information and concepts discussed in this billing guide, can help reduce errors:

- Do whatever is necessary to comply with Medicare blood billing guidelines; manual workarounds may sometimes be required to ensure compliance.
- Make sure that your Medicare hospital outpatient claims for transfusions include both a blood product P-code and a transfusion CPT code.
- Use the same date of service for the blood product and the transfusion procedure (date of service = date of transfusion).
- Always use revenue code 0390 to report charges for blood units; do not use revenue code 030X or the BL modifier, and do not apply the Medicare blood deductible. (This assumes the hospital bills only for blood processing, and not for the blood itself.)
- Never bill for unused blood units.
- Bill the transfusion CPT code only once.
- Be aware of any coding edits that may apply (eg, MUEs specifying a maximum number of units for a code, or NCCI PTP edits preventing certain combinations of codes from being billed together).
- Make sure the applicable code is used for the date of service.
- Never double-bill (eg, it would not be appropriate to report irradiation CPT code 86945 in addition to an irradiated P-code for the same unit).



Importance of Interdepartmental Communication

It is important to track the status of blood-related claims, in order to identify those claims that are being denied or rejected. In hospitals and health systems, this often requires coordination across multiple departments. Therefore, it is recommended that an ongoing means of communication be established between the blood bank or laboratory and other relevant departments involved in the hospital’s revenue cycle process, such as finance/billing and medical records/health information management.

Appendix H. List of Abbreviations

ADLT	Advanced Diagnostic Laboratory Tests
AMA	American Medical Association
APC	Ambulatory Payment Classification
ASFA	American Society for Apheresis
CMS	Centers for Medicare and Medicaid Services
CPT	Current Procedural Terminology
DOS	Date of Service
DRG	Diagnosis-Related Group
ESRD	End-Stage Renal Disease
HCPCS	Healthcare Common Procedure Coding System
HEA	Human Erythrocyte Antigen
HPA	Human Platelet Antigen
ICD-10-CM	International Classification of Diseases, Tenth Revision, Clinical Modification
ICD-10-PCS	International Classification of Disease, Tenth Revision, Procedure Coding System
IPPS	Medicare Hospital Inpatient Prospective Payment System
IVIG	Intravenous Immune Globulin
LTC	Long-Term Care
LTCH	Long-Term Acute-Care Hospital
LVDS	Large Volume Delayed Sampling
MAC	Medicare Administrator Contractor
MedPAC	Medicare Payment Advisory Commission
MLN	Medicare Learning Network
MS-DRG	Medicare Severity Diagnosis-Related Group
MS-LTC-DRG	Medicare Severity Long-Term-Care Diagnosis-Related Group
MUE	Medically Unlikely Edit
NCCI	National Correct Coding Initiative
NCD	National Coverage Determination
OCE	Outpatient Code Editor
OPPS	Medicare Hospital Outpatient Prospective Payment System
PLA	Proprietary Laboratory Analyses (type of CPT code)
PPS	Prospective Payment System
PTP	Procedure-to-Procedure (type of NCCI edit)
RA	Remittance Advice
SNF	Skilled Nursing Facility

Appendix I. List of HCPCS P-Codes for Blood and Blood Products*

HCPCS	Description
P9010	Blood (whole), for transfusion, per unit
P9011	Blood, split unit
P9012	Cryoprecipitate, each unit
P9016	Red blood cells, leukocytes reduced, each unit
P9017	Fresh frozen plasma (single-donor), frozen within 8 hours of collection, each unit
P9019	Platelets, each unit
P9020	Platelet-rich plasma, each unit
P9021	Red blood cells, each unit
P9022	Red blood cells, washed, each unit
P9023	Plasma, pooled multiple donor, solvent/detergent treated, frozen, each unit
P9025	Plasma, cryoprecipitate reduced, pathogen reduced, each unit
P9026	Cryoprecipitated fibrinogen complex, pathogen reduced, each unit
P9031	Platelets, leukoreduced, each unit
P9032	Platelets, irradiated, each unit
P9033	Platelets, leukoreduced, irradiated, each unit
P9034	Platelets, pheresis, each unit
P9035	Platelets, pheresis, leukoreduced, each unit
P9036	Platelets, pheresis, irradiated, each unit
P9037	Platelets, pheresis, leukoreduced, irradiated, each unit
P9038	Red blood cells, irradiated, each unit
P9039	Red blood cells, deglycerolized, each unit
P9040	Red blood cells, leukoreduced, irradiated, each unit
P9041	Infusion, albumin (human), 5%, 50 mL
P9043	Infusion, plasma protein fraction (human), 5%, 50 mL
P9044	Plasma, cryoprecipitate reduced, each unit
P9045	Infusion, albumin (human), 5%, 250 mL
P9046	Infusion, albumin (human), 25%, 20 mL
P9047	Infusion, albumin (human), 25%, 50 mL
P9048	Infusion, plasma protein fraction (human), 5%, 250 mL
P9050	Granulocytes, pheresis, each unit [†]
P9051	Whole blood or red blood cells, leukoreduced, CMV-negative, each unit

* The coding information in this table is current as of August 2023.

HCPCS	Description
P9052	Platelets, HLA-matched leukocytes reduced, apheresis/pheresis, each unit
P9053	Platelets, pheresis, leukocytes reduced, CMV-negative, irradiated, each unit
P9054	Whole blood or RBCs, leukocytes reduced, frozen, deglycerolized, washed, each unit
P9055	Platelets, leukocytes reduced, CMV-negative, apheresis/pheresis, each unit
P9056	Whole blood, leukocytes reduced, irradiated, each unit
P9057	RBCs, frozen/deglycerolized/washed, leukocytes reduced, irradiated, each unit
P9058	RBCs, leukocytes reduced, CMV-negative, irradiated, each unit
P9059	Fresh frozen plasma between 8 and 24 hours after collection, each unit
P9060	Fresh frozen plasma, donor retested, each unit
P9070	Plasma, pooled multiple donor, pathogen reduced, frozen, each unit
P9071	Plasma (single-donor), pathogen reduced, frozen, each unit
P9073	Platelets, pheresis, pathogen-reduced, each unit
P9099	Blood component or product not otherwise classified
P9100	Pathogen test(s) for platelets [‡]

[‡]P9100 is a testing code and not a product code.

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