

Medicare Modernization of Payment Software

What's Changed?

- Added information on the updated versions of HH PPS Grouper software (v04.1.23), MCE, and MS-DRG Grouper (page 2)
- Added information on the completion of Conversion of the I/OCE (page 3)
- Updated Java Conversion Schedule Summary table (pages 4 and 5)

You'll find substantive content updates in dark red.

This fact sheet is for providers submitting institutional claims to Medicare Administrative Contractors (MACs). It's primarily for software vendors and others who support you with claims processing systems. If you use a software vendor, it's important that your vendor knows about this modernization update.

CMS has modernized its grouping and code editor software. Medicare processes all Original Medicare institutional claims through at least 1 of 3 sub-systems within the Fiscal Intermediary Shared System (FISS):

- The Medicare Code Editor (MCE)
- The Inpatient Grouper (MS-DRG)
- The Integrated Outpatient Code Editor (I/OCE)

Until recently, these sub-systems used an outdated programming language (Assembler) that's difficult to extend, maintain, support, and test. Modernizing these programs will protect us from future quality and integration risks.

We expanded this modernization effort to include these additional software products:

- The Inpatient Rehabilitation Facility (IRF) Case-Mix Group (CMG) Grouper
- The Skilled Nursing Facility (SNF) Patient Driven Payment Model (PDPM) Grouper
- Java Pricers
- Web Pricers

In 2018, we did a project to test the ability of replacing the Assembler MS-DRG Grouper program with a Java Version of Grouper. The project was successful, integrating the Java module into the CICS COBOL mainframe environment of FISS. We identified best practices for software that can run in a multi-threaded, shared Java Virtual Machine (JVM) environment. This allows Medicare data centers that run this software to improve the flexibility of their own systems to better use this software. Based on this success, we've converted all Assembler-based grouping and code editor software to Java Versions.

Java Home Health Grouper

The Java-based home health (HH) Grouper in FISS generates the Health Insurance Prospective Payment System (HIPPS) code we use for payment of Medicare HH claims. As a result, we no longer maintain the HH Grouper in QIES. Home health agencies (HHAs) may use the HH Grouper as part of their billing software to calculate accounts receivable amounts. To support this function, find the Java source code for the HH Grouper on the [Home Health PPS Grouper Software](#) webpage.

The April 2023 release of the HH PPS Grouper software (v04.1.23) is available in the [“Downloads” Section](#). The **v04.1.23** software update includes:

- Addition, deletion, or modification of new ICD-10-CM diagnosis codes effective April 1, 2023, including updates to clinical group assignments
- Updates to External Cause of Injury codes with additions and deletions, as applicable
- Updates to Unacceptable Principal Diagnosis (PDX) codes with additions and deletions, as applicable
- Return Code Changes: Modification of RC 03 and RC 05 descriptions

Conversion of MCE and MS-DRG Grouper

The conversion of the inpatient claim software, the MCE and MS-DRG Grouper, was completed after the completion of HH implementation. Since these 2 programs work in accordance with processing of Inpatient Prospective Payment System (IPPS) claims, there were efficiencies in converting them at the same time.

We released an updated version of the ICD-10 MS-DRG Grouper Software and MCE ICD-10 Software along with the ICD-10 Definitions of Medicare Code Edits File **Version 40.0**. Find the files on the [MS-DRG Classifications and Software](#) webpage by scrolling down to the MS-DRG Definitions Manual and Software section.

The ICD-10 MS-DRG Grouper, Version 40.0, software package was effective for discharges on or after October 1, 2022. The Grouper assigns each case into an MS-DRG based on the reported diagnosis and procedure codes and demographic information (age, sex, and discharge status). The ICD-10 MCE Version 40.0 uses edits for the ICD-10 codes reported to confirm correct coding on claims for discharges on or after October 1, 2022.

Note: The MCE Version continues to match the Grouper Version.

Conversion of the I/OCE

We implemented the first Java-only version of the IOCE, Version 24.1, in Medicare claims processing systems in April 2023. The prior test version, Java Version v.24.0, was posted on the [Test Versions IOCE](#) webpage. The parallel release of v.24.0 in MF and Java Versions was to give users additional opportunity to familiarize themselves with the Java Version. We'll post all future Java-only releases of I/OCE, v.24.1 and later, on the main [IOCE Release](#) webpage.

IRF CMG Grouper

Before FY 2021, we distributed the IRF CMG Grouper software as a Dynamic Linked Library (DLL) download package. This program runs in the iQIES and the iQIES User Tool to calculate HIPPS codes from IRF Patient Assessment Instrument (IRF-PAI) assessments. We report these back to the IRF on their IRF-PAI validation reports. It's also available to your billing software vendors to incorporate into their products. We converted this program to Java for FY 2021. Your vendors should be using the Java version of the IRF CMG Grouper for IRF-PAI assessments with discharge dates on and after October 1, 2020. [CMG Version 5.20 Final](#), effective October 1, 2022, replaces the v5.10.

SNF PDPM Grouper

Before FY 2022, we distributed the SNF PDPM Grouper software as a DLL download package. This program runs in the QIES/Assessment Submission and Processing (ASAP) system to calculate HIPPS codes from Minimum Data Set (MDS) assessments. We report these HIPPS codes to the SNF on their MDS validation reports. The program is also available to provider billing software vendors to incorporate into their products. We converted this program to Java for FY 2022. Your vendors should be using the Java Version of the SNF PDPM Grouper for MDS assessments with Assessment Reference Dates (ARDs) on and after October 1, 2021.

Java Pricers

We annually produce 10 Pricer applications used in the Medicare claims processing system and post their source code to help providers and other payers estimate what Original Medicare would have paid institutional providers under various payment systems. Before the conversion to Java, we posted COBOL source code for all 10 Pricers. Effective January 2022, we've converted all Pricers from COBOL to Java. We now only post Java Pricer source code, which is a resource for viewing logic and rates. The Java source code isn't meant to be compiled and executed. For users that want to run the Pricers, we also post Pricer software (executable JAR files). Stakeholders that wish to use CMS Pricer software should transition to using the Java Versions. All Java Pricers contain pricing logic and rates for FYs or CYs 2020 and later; some contain information for earlier years. The Java Pricer source code and executable software are available on the [Pricer Source Code](#) webpage. Check there often for updates.

Web Pricers

We provide 8 Web Pricer applications for public use to help providers and other payers estimate what Original Medicare would pay institutional providers under various payment systems. Historically, these applications were on our website as downloadable COBOL-based Personal Computer (PC) Pricer applications. In the last 2 years, we began converting these COBOL-based products to web applications called Web Pricers. We first launched the IRF Web Pricer in July 2020, followed by 7 additional Web Pricers, effective starting calendar or FY 2020. Users should refer to Web Pricers as we'll no longer release the downloadable PC Pricer applications. All 8 Web Pricers are accessible via the [Web Pricer](#) webpage and the [Web Pricer application](#) website.

Web Pricers Available:

- [ESRD PPS Web Pricer](#)
- [Home Health \(HH\) PPS Web Pricer](#)
- [Hospice PPS Web Pricer](#)
- [Inpatient Prospective Payment System \(IPPS\) Web Pricer](#)
- [Inpatient Rehabilitation Facility \(IRF\) PPS Web Pricer](#)
- [Inpatient Psychiatric Facility \(IPF\) PPS Web Pricer](#)
- [Long-term Care Hospital \(LTCH\) PPS Web Pricer](#)
- [Skilled Nursing Facility \(SNF\) PPS Web Pricer](#)

To access these Web Pricers, use Google Chrome, Microsoft Edge, or Mozilla Firefox. Microsoft Web Explorer isn't supported.

The following table presents our timeline for the Java conversion schedule.

Java Conversion Schedule Summary

Program	Last non-Java Release	Java-only Release
HH Grouper	N/A	Completed
IRF CMG Grouper	v.4.01, March 2020	Completed
IRF PPS Pricer	October 2019	Completed
SNF PDPM Grouper	v.1.0009, January 2021	Completed
IPPS Pricer	April 2021	Completed
LTCH PPS Pricer	January 2021	Completed

Java Conversion Schedule Summary (continued)

Program	Last non-Java Release	Java-only Release
SNF PPS Pricer	May 2021	Completed
Hospice PPS Pricer	March 2021	Completed
IPF PPS Pricer	October 2020	Completed
ESRD PPS Pricer	April 2021	Completed
HH PPS Pricer	April 2021	Completed
FQHC PPS Pricer	July 2021	Completed
OPPS Pricer	July 2021	Completed
MCE	v.39, October 2021	Completed
MS-DRG Grouper	v.39, October 2021	Completed
I/OCE	v.24, January 2023	Completed

Note: The dates shown in the middle column show our current expectations. However, they may be subject to change.

Together we can advance health equity and help eliminate health disparities for all minority and underserved groups. Find resources and more from the [CMS Office of Minority Health](#):

- [Health Equity Technical Assistance Program](#)
- [Disparities Impact Statement](#)

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