

Important Update on Kidney Transplant MS-DRGs

The Advancing American Kidney Health initiative has challenged the kidney transplant community to **double the number of kidneys available for transplant by 2030** through strategies such as broadening acceptance criteria of organs with higher risk¹

Patients who receive kidney transplants from *expanded criteria donors* or accept organs with *high KDPI* frequently have more medical comorbidities and may often require additional care and resources^{2,3}

A retrospective study was conducted to evaluate the prevalence, characteristics, and resource implications of major complications and comorbidities (MCCs)²



Single center



N=260 patients undergoing primary kidney transplant



October 2015-2019

Increased complexity of care for patients with MCCs was associated with:

Longer
time on dialysis
before transplant

Longer
cold ischemia
times

Higher
incidence
of DGF

Longer
hospital
LOS

compared
with patients
without MCCs

Inclusion of additional MS-DRGs for kidney transplants may more accurately reflect the complexity of transplantation and the patients who require this procedure

In October 2020, two new kidney transplant **MS-DRGs** were introduced to address the complexity of diagnosis and care for kidney transplant recipients^{2,4}



MS-DRG 650 Kidney transplant with hemodialysis with MCC⁴



MS-DRG 651 Kidney transplant with hemodialysis without MCC⁴



MS-DRG 652 Kidney transplant. This code was retained for kidney transplant recipients without hemodialysis and is now included in the additional ESRD payments^{4,5}

Kidney transplant MS-DRGs 650 and 651 for patients on hemodialysis reflect higher patient acuity than MS-DRG 652 for those not on hemodialysis^{4,5}

Important Information: Sanofi recommends that you consult with your payers, reimbursement specialists, and/or legal counsel regarding coding, coverage, and reimbursement matters.

DGF, delayed graft function; **ESRD**, end-stage renal disease; **KDPI**, Kidney Donor Profile Index; **LOS**, length of stay; **MS-DRGs**, Medicare Severity Diagnosis Related Groups.

References: **1.** US Department of Health and Human Services. Advancing American kidney health. <https://aspe.hhs.gov/sites/default/files/private/pdf/262046/AdvancingAmericanKidneyHealth.pdf>. Accessed January 17, 2024. **2.** Schwantes IR, et al. *Clin Transplant*. 2021;35(1):e14068. doi: 10.1111/ctr.14068. **3.** Brennan D. Clinical documentation improvement at UIHC. [https://medicine.uiowa.edu/facultyaffairs/sites/medicine.uiowa.edu/facultyaffairs/files/wysiwyg_uploads/Clinical Documentation Improvement at UIHC.pdf](https://medicine.uiowa.edu/facultyaffairs/sites/medicine.uiowa.edu/facultyaffairs/files/wysiwyg_uploads/Clinical%20Documentation%20Improvement%20at%20UIHC.pdf). Accessed December 4, 2023. **4.** Zavala E, et al. *Am J Transplant*. 2022;22(suppl 3):173. American Transplant Congress 2022 abstract 591. **5.** Healthcare Financial Management Association. Final rule summary: fiscal year 2021 Medicare hospital inpatient prospective payment system and long-term care hospital prospective payment system final rule. www.hfma.org/wp-content/uploads/2022/10/fy21-inpatient-prospective-payment-system-final-rule-summary.pdf. Accessed December 4, 2023.

2021 CMS MEDPAR Data for Kidney Transplant MS-DRGs¹

MS-DRG	MS-DRG Descriptor	Total Inpatient Stays (N=12,225)*	Percentage of Inpatient Stays per MS-DRG,%*	GMLOS, days*
650	Kidney transplant with hemodialysis with MCC	3,080	25.2	7.4
651	Kidney transplant with hemodialysis without MCC	1,232	10.1	6.8
652	Kidney transplant	7,913	64.7	5.1

» FY2021 MEDPAR contains the **first full-year report** following the new kidney transplant MS-DRGs^{2,3}

» The new MS-DRGs were associated with an **increased length of stay**, which may be indicative of the complexity of care for kidney transplant recipients^{1,4}

MS-DRGs 650 and 651 correspond to patients *who receive dialysis during the inpatient stay and after the date of transplant*³

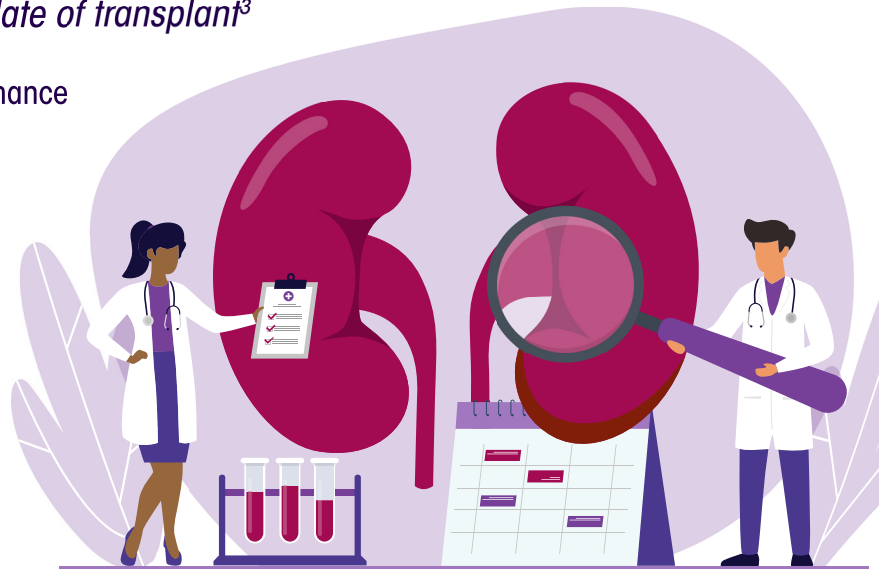
» ICD-10-PCS procedure codes identifying the performance of hemodialysis should be documented⁵

» Refer to the resources below for more information

MS-DRG 650 corresponds to patients *who experience MCCs*³

» There is a wide range of relevant MCCs, including diagnoses of varying acuity and severity^{6,7}

» Refer to the resources below for more information



Resources for additional information about MS-DRGs

- Centers for Medicare & Medicaid Services [CMS.gov](https://www.cms.gov)
- Healthcare Financial Management Association [hfma.org](https://www.hfma.org)
- The Medicare Payment Advisory Commission [medpac.gov](https://www.medpac.gov)
- Sanofi Market Access team transplant@sanofi.com

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CMS, Centers for Medicare & Medicaid Services; **FY**, fiscal year; **GMLOS**, geometric mean length of stay; **ICD-10-PCS**, International Statistical Classification of Diseases, Tenth Revision, Procedure Coding System; **MCC**, major complication and comorbidity; **MEDPAR**, Medicare Provider Analysis and Review; **MS-DRGs**, Medicare Severity Diagnosis Related Groups.

* Based on 2021 MEDPAR analysis.¹

References: **1.** Data on file. sanofi-aventis U.S. LLC; 2023. **2.** Zavala E, et al. *Am J Transplant.* 2022;22(suppl 3):173. American Transplant Congress 2022 abstract 591. **3.** Healthcare Financial Management Association. Final rule summary: fiscal year 2021 Medicare hospital inpatient prospective payment system and long-term care hospital prospective payment system final rule. www.hfma.org/wp-content/uploads/2022/10/fy21-inpatient-prospective-payment-system-final-rule-summary.pdf. Accessed December 4, 2023. **4.** Schwantes IR, et al. *Clin Transplant.* 2021;35(1):e14068. doi: 10.1111/ctr.14068. **5.** Medical Management Plus Inc. IPPS FY 2021 proposed rule: MS-DRG proposals. <https://www.mmplusinc.com/kb-articles/ipp-fy-2021-proposed-rule-ms-drg-proposals>. June 2, 2020. Accessed January 3, 2024. **6.** Centers for Medicare & Medicaid Services. ICD-10-CM/PCS MS-DRG v37.2 definitions manual: appendix C complications or comorbidities exclusion list. https://www.cms.gov/icd10m/version372-fullcode-cms/fullcode_cms/P0031.html. Accessed December 21, 2023. **7.** Centers for Medicare & Medicaid Services. Defining the Medicare Severity Diagnosis Related Groups (MS-DRGs), version 37.0. [http://www.cms.gov/ICD10Manual/version37-fullcode-cms/fullcode_cms/Defining_the_Medicare_Severity_Diagnosis_Related_Groups_\(MS-DRGs\).pdf](http://www.cms.gov/ICD10Manual/version37-fullcode-cms/fullcode_cms/Defining_the_Medicare_Severity_Diagnosis_Related_Groups_(MS-DRGs).pdf). Published October 2019. Accessed January 17, 2024.