



**chf** solutions



**REIMBURSEMENT REFERENCE GUIDE  
2021 MEDICARE CODING AND PAYMENT**

**AQUADEX SMARTFLOW™ SYSTEM  
AQUADEX FLEXFLOW® SYSTEM**



## IMPORTANT NOTE ABOUT THIS REIMBURSEMENT GUIDE

This document is a reimbursement guide for healthcare providers billing for the Aquadex SmartFlow System and related services. Although the information has been checked for accuracy and completeness based on publicly available information, CHF Solutions does not accept responsibility or liability with regard to errors, omissions, misuse, or misinterpretation. It is the responsibility of the healthcare provider to select the codes that accurately reflect the supplies and services and procedures performed during each patient encounter. The codes listed in this document are not intended to be an exhaustive list of all possible codes.

## INFORMATION ON AQUADEX ULTRAFILTRATION THERAPY

The FDA cleared the Aquadex SmartFlow System with the following indications for use:

Continuous ultrafiltration therapy for temporary (up to 8 hours) or extended (longer than 8 hours in patients who require hospitalization) use in adult and pediatric patients weighing 20 kilograms or more whose fluid overload is unresponsive to medical management, including diuretics. All treatments must be administered by a healthcare provider, within an outpatient or inpatient clinical setting, under physician prescription, both of whom having received training in extracorporeal therapies.

The FDA cleared the Aquadex FlexFlow System with the following indications for use:

temporary (up to eight hours) ultrafiltration treatment of patients with fluid overload who have failed diuretic therapy and extended (longer than 8 hours) ultrafiltration treatment of patients with fluid overload who have failed diuretic therapy and require hospitalization. All treatments must be administered by a healthcare provider, under physician prescription, both of whom having received training in extracorporeal therapies.

**NOTE:** Under some state laws and regulations, other qualified healthcare professionals such as advanced practice providers have independent prescribing (also called “prescriptive authority”) ability of that does not require a collaboration with a physician. This prescriptive authority will vary by state laws and regulations.

For each ultrafiltration treatment, there typically will be two claims and two payments:

- The hospital will bill for services, including the supply charges.
- The physician will bill for his/her services in performing the ultrafiltration procedure.

## CODING FOR ULTRAFILTRATION

Submitting accurate codes to describe a patient’s medical condition and to report clinical procedures is essential to ensuring successful claims processing and appropriate payment. Inaccurate or incomplete coding may increase the likelihood of delayed payment or incorrect payment amounts.

The CPT<sup>1</sup> code for isolated ultrafiltration with the use of the Aquadex™ therapy is CPT code 90999. AHA Coding Clinic, in its Third Quarter 2014 issue, indicates that:

*“Isolated ultrafiltration involves the removal of plasma water and solute without dialysis. Effective August 14, 2014, when utilized for the management of fluid overload in cardiac disease may be reported with CPT code 90999, Unlisted Dialysis Procedure, Inpatient or Outpatient.”<sup>2</sup>*

## MEDICARE PHYSICIAN CODING AND 2021 MEDICARE PAYMENT

CPT CODE	DESCRIPTION	ESTIMATED 2021 MEDICARE NATIONAL AVERAGE PHYSICIAN PAYMENT <sup>3</sup>
90999	Unlisted dialysis procedure, inpatient or outpatient	Contractor Priced
90945*	Dialysis procedure other than hemodialysis (e.g., peritoneal dialysis, hemofiltration, or other continuous renal replacement therapies), with single evaluation by a physician or other qualified health care professional	\$87.23

## MEDICARE HOSPITAL OUTPATIENT CODING AND 2021 MEDICARE PAYMENT

CPT CODE	DESCRIPTION	ESTIMATED 2021 MEDICARE NATIONAL HOSPITAL OUTPATIENT PAYMENT <sup>4</sup>
90999	Unlisted dialysis procedure, inpatient or outpatient	Not paid in the hospital outpatient setting
90945*	Dialysis procedure other than hemodialysis (e.g., peritoneal dialysis, hemofiltration, or other continuous renal replacement therapies), with single evaluation by a physician or other qualified health care professional	APC 5024 Level 4 Type A ED Visits \$363.74

\* RPA (Renal Physicians Association) suggested the use of CPT 90945 for ultrafiltration therapy. According to RPA, the Aquadex system provides ultrafiltration therapy and is considered a form of CRRT by some providers. CHF Solutions does not accept responsibility for the appropriateness of using this code. Rather, it is the responsibility of the healthcare provider to use the codes that accurately reflect the supplies and services and procedures performed with respect to each patient.

## HOSPITAL INPATIENT CODING AND 2021 MEDICARE PAYMENT

The ICD-10-PCS (procedure) code and possible MS-DRG assignments are provided below along with the 2021 Medicare national payment rates<sup>5</sup>:

Clinical Diagnosis	ICD-10-CM Code	ICD-10-PCS Code	MS-DRG	MS-DRG Description	Arithmetic Mean LOS	Estimated 2021 Medicare Payment
AKI	N17.9 Acute kidney failure, unspecified	6A550Z3 Pheresis of Plasma, Single	673	Other Kidney and Urinary Tract Procedures w/MCC	10.5	\$22,258.76
			674	Other Kidney and Urinary Tract Procedures w/CC	7.6	\$15,299.81
	675		Other Kidney and Urinary Tract Procedures w/o CC/MCC	3.7	\$11,260.82	
	682		Renal Failure w/MCC	5.7	\$9,449.58	
	683		Renal Failure w/CC	3.8	\$5,643.91	
	684		Renal Failure w/o CC/MCC	2.6	\$3,904.65	
Fluid, Electrolyte and Acid-Base Balance	E87.70 Fluid overload, unspecified	6A550Z3 Pheresis of Plasma, Single	640	Misc. Disorders of Nutrition, Metabolism, Fluids/Electrolytes w/MCC	4.5	\$7,891.57
	E87.71 Transfusion associated circulatory overload					
	E87.79 Other fluid overload		641	Misc. Disorders of Nutrition, Metabolism, Fluids/Electrolytes w/o MCC	3.2	\$4,839.84
	E87.8 Other disorders of electrolyte and fluid balance, NEC					

Clinical Diagnosis	ICD-10-CM Code	ICD-10-PCS Code	MS-DRG	MS-DRG Description	Arithmetic Mean LOS	Estimated 2021 Medicare Payment
ARDS	J80 Acute respiratory distress syndrome in adult or child	6A550Z3 Pheresis of Plasma, Single	204	Respiratory Signs and Symptoms	2.7	\$5,093.72
Pneumonia	J18.9 Pneumonia, unspecified organism	6A550Z3 Pheresis of Plasma, Single	193	Simple Pneumonia and Pleurisy w/MCC	5.1	\$8,424.41
			194	Simple Pneumonia and Pleurisy w/CC	3.7	\$5,546.85
			195	Simple Pneumonia and Pleurisy w/o CC/MCC	2.9	\$4,274.23
Heart Failure	I50.9 Heart failure, unspecified	6A550Z3 Pheresis of Plasma, Single	291	Heart Failure and Shock w/MCC	5.1	\$8,618.51
			292	Heart Failure and Shock w/CC	3.8	\$5,753.17
			293	Heart Failure and Shock w/o MCC/CC	2.8	\$4,194.53

## INTERPROFESSIONAL CONSULTATIONS AND 2021 MEDICARE PAYMENT

The CPT codes for interprofessional health record consultations are provided below along with the 2021 Medicare national payment rates<sup>3</sup>.

Note: Consultation codes are eligible for physician payment by Medicare only in the facility settings (HOPD, ASC and Inpatient) when billed with CPT code 90945.

CPT Code	CPT Code Description	Estimated 2021 Medicare Payment
99446	Interprofessional telephone/Internet/electronic health record assessment and management service provided by a consultative physician, including a verbal and written report to the patient's treating/requesting physician or other qualified health care professional; 5-10 minutes of medical consultative discussion and review	\$18.49
99447	Interprofessional telephone/Internet/electronic health record assessment and management service provided by a consultative physician, including a verbal and written report to the patient's treating/requesting physician or other qualified health care professional; 11-20 minutes of medical consultative discussion and review	\$34.89
99448	Interprofessional telephone/Internet/electronic health record assessment and management service provided by a consultative physician, including a verbal and written report to the patient's treating/requesting physician or other qualified health care professional; 21-30 minutes of medical consultative discussion and review	\$54.08

CPT Code	CPT Code Description	Estimated 2021 Medicare Payment
99449	Interprofessional telephone/Internet/electronic health record assessment and management service provided by a consultative physician, including a verbal and written report to the patient's treating/requesting physician or other qualified health care professional; 31 minutes or more of medical consultative discussion and review	\$73.62
99451	Interprofessional telephone/Internet/electronic health record assessment and management service provided by a consultative physician, including a written report to the patient's treating/requesting physician or other qualified health care professional, 5 minutes or more of medical consultative time	\$36.63
99452	Interprofessional telephone/Internet/electronic health record referral service(s) provided by a treating/requesting physician or other qualified health care professional, 30 minutes	\$36.63

## ICD-10-CM DIAGNOSIS CODES

All healthcare providers are responsible for reporting the appropriate ICD-10-CM diagnosis code that describes the patient’s condition and should consult with a current version of the ICD-10-CM code book. The relevant diagnosis codes for medical conditions associated with fluid overload where ultrafiltration therapy is utilized for fluid removal are listed below<sup>6</sup>:

I09	Other rheumatic heart diseases	I50.811	Acute right heart failure
I09.8	Other specified rheumatic heart diseases	I50.812	Chronic right heart failure
I09.81	Rheumatic heart failure	I50.813	Acute on chronic right heart failure
I50	Heart Failure	I50.814	Right heart failure due to left heart failure
I50.1	Left ventricular failure, unspecified	I50.82	Biventricular heart failure
I50.2	Systolic (congestive) heart failure	I50.83	High output heart failure
I50.20	Unspecified systolic (congestive) heart failure	I50.84	End stage heart failure
I50.21	Acute systolic (congestive) heart failure	I50.89	Other heart failure
I50.22	Chronic systolic (congestive) heart failure	I50.9	Heart failure, unspecified
I50.23	Acute or chronic systolic (congestive) heart failure	E87.70	Fluid overload, unspecified
I50.3	Diastolic (congestive) heart failure	E87.71	Transfusion associated circulatory overload
I50.30	Unspecified diastolic (congestive) heart failure	E87.79	Other fluid overload
I50.31	Acute diastolic (congestive) heart failure	E87.8	Other disorders of electrolyte and fluid balance, not elsewhere classified
I50.32	Chronic diastolic (congestive) heart failure	J80	Acute respiratory distress syndrome
I50.33	Acute on chronic diastolic (congestive) heart failure	J81	Pulmonary edema
I50.4	Combined systolic (congestive) and diastolic (congestive) heart failure	J81.0	Acute pulmonary edema
I50.40	Unspecified combined systolic (congestive) and diastolic (congestive) heart failure	J81.1	Chronic pulmonary edema
I50.41	Acute combined systolic (congestive) and diastolic (congestive) heart failure	J96.0	Acute respiratory Failure
I50.42	Chronic combined systolic (congestive) and diastolic (congestive) heart failure	J96.2	Acute and chronic respiratory failure
I50.43	Acute on chronic combined systolic (congestive) & diastolic (congestive) heart failure	K70.31	Alcoholic cirrhosis of liver with ascites
I50.8	Other heart failure	N17.9	Acute kidney failure, unspecified
I50.81	Right heart failure	N18.9	Chronic kidney disease, unspecified
I50.810	Right heart failure, unspecified	N19	Unspecified kidney failure
		R18.8	Other ascites
		R60.9	Fluid Retention or Edema unspecified
		T86.40	Other complications of liver transplant
		T86.92	Unspecific transplant organ and tissue failure
		T86.811	Lung transplant failure
		Z48	Encounter for other postprocedural aftercare
		Z51	Encounter for other aftercare and medical care

Per CMS guidelines, if “decompensation” or “exacerbation” is documented in the patient record, the CHF type is coded as “acute on chronic.”

## REFERENCES

- [1] CPT® is a registered trademark of the American Medical Association (AMA). Copyright 2021 AMA.
- [2] American Hospital Association (AHA) Coding Clinic. Ask the editor – Questions and Answers – Ultrafiltration. Third Quarter, 2014, Vol. 14, No. 3, p. 7.
- [3] 2021 CMS PFS Final Rule, Addendum B (available on CMS website), 83 Fed. Reg. 226 (Dec. 7, 2020).
- [4] 2021 CMS OPFS Final Rule, Addendum B (available on CMS website), 83 Fed. Reg. 225 (Dec. 7, 2020), and Correction Notice, 83 Fed. Reg. 248.
- [5] 2021 CMS IPPS Final Rule, Tables 1B, 1D and 5 (available on CMS website) 83 Fed. Reg. 160  
Payment rounded to nearest dollar and assumes the hospital received the full update. Payment will vary based on geographic location and other factors.
- [6] 2021 ICD-10-CM: The Complete Official Codebook.

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The information provided in this Guide is based on publicly available information and current as of January 2021.

Please contact our CHF Solutions Customer Service Department at 855-786-2778 or email at [Support@CHF-Solutions.com](mailto:Support@CHF-Solutions.com).