

Evidence Based Guideline

Ultrafiltration in Decompensated Heart Failure

File Name: ultrafiltration_in_decompensated_heart_failure
Origination: 8/2011
Last CAP Review: n/a
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Last Review: 8/2011

Description of Procedure or Service

Congestive heart failure is a relatively common problem and frequently results in hospitalizations and readmissions. Various approaches are being explored in treating this condition, especially when it is refractory (unresponsive) to conventional therapy. Ultrafiltration is one technique receiving increasing notice for a possible role in hospitalized patients with marked volume overload from congestive heart failure. Ultrafiltration is a process used to remove fluid from the blood by using pressure differentials during treatment with a dialysis machine or similar filtration device.

Proponents of this technique suggest that it may offer the potential for greater and more expeditious volume and sodium removal compared with conventional therapies. Ultrafiltration is generally used for those with decompensated heart failure whose fluid overload is unresponsive to medical management. In recent studies, this technique is also referred to as aquapheresis. Work is also beginning on newer devices that allow continuous ultrafiltration in ambulatory patients.

Regulatory Status

In June 2002, the Aquadex™ FlexFlow™ System was cleared for marketing by the U.S. Food and Drug Administration (FDA) through the 510(k) process. An updated/amended 510(k) approval (classified as a high permeability dialysis system) was given in September 2007 following modifications. The FDA determined that this device was substantially equivalent to existing devices for use in temporary (up to 8 hours) ultrafiltration treatment of patients with fluid overload who have failed diuretic therapy, and for extended (longer than 8 hours) ultrafiltration treatment of patients with fluid overload who have failed diuretic therapy and require hospitalization.

*****Note: This Evidence Based Guideline is complex and technical. For questions concerning the technical language and/or specific clinical indications for its use, please consult your physician.**

Evidence Based Guideline for Ultrafiltration in Decompensated Heart Failure

Ultrafiltration is not recommended in the treatment of patients with congestive heart failure.

Medical Evidence regarding Ultrafiltration in Decompensated Heart Failure indicates it is not recommended

In evaluating this technology, the primary question is whether ultrafiltration improves important health outcomes. While removal of fluid and sodium (and weight) is important, these are viewed as surrogate outcomes. Information will be needed about impact on survival, hospitalization, complications, and quality of life for this treatment compared to comparable groups receiving conventional treatment. Since this treatment does not directly affect cardiac function, the overall impact on outcomes is difficult to

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predict. The studies published to date are very limited, both in terms of study population and in duration of follow-up.

This policy does not apply to patients with renal failure being treated using dialysis.

Benefits Application

This evidence based guideline relates only to the services or supplies described herein. Please refer to the Member's Benefit Booklet for availability of benefits. Member's benefits may vary according to benefit design; therefore member benefit language should be reviewed before applying the terms of this guideline.

Billing/Coding/Physician Documentation Information

This guideline may apply to the following codes. Inclusion of a code in this section does not guarantee that it will be reimbursed. For further information on reimbursement guidelines, please see Administrative Policies on the Blue Cross Blue Shield of North Carolina web site at www.bcbsnc.com. They are listed in the Category Search on the Medical Policy search page.

Applicable codes: There are no specific codes for this procedure.

Scientific Background and Reference Sources

Jessup M, Abraham W, Casey D et al. 2009 focused update: ACCF/AHA Guidelines for the Diagnosis and Management of Heart Failure in Adults: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines: developed in collaboration with the International Society for Heart and Lung Transplantation. *Circulation* 2009; 119(14):1977-2016. Retrieved on May 4, 2011 from <http://circ.ahajournals.org/cgi/reprint/CIRCULATIONAHA.109.192064>

BCBSA Medical Policy Reference Manual [Electronic Version]. 2.02.22, 6/10/10

Kamath SA. The Role of Ultrafiltration in Patients with Decompensated Heart Failure. *Int J Nephrol*. 2010 Oct 19; 201:190230. Retrieved on May 4, 2011 from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2989745/?tool=pubmed>

Medical Director review 8/2011

Policy Implementation/Update Information

8/30/11 New Evidence Based Guideline developed. Ultrafiltration is not recommended in the treatment of patients with congestive heart failure. There are no specific CPT codes to identify this procedure. Medical Director review 8/2011.

Medical policy is not an authorization, certification, explanation of benefits or a contract. Benefits and eligibility are determined before medical guidelines and payment guidelines are applied. Benefits are determined by the group contract and subscriber certificate that is in effect at the time services are rendered. This document is solely provided for informational purposes only and is based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. Medical practices and knowledge are constantly changing and BCBSNC reserves the right to review and revise its medical policies periodically.