

# ECONOMIC IMPACT | FLUID OVERLOAD IN HEART FAILURE PATIENTS

Clinicians face the challenge of controlling fluid overload in heart failure (HF) patients every day. This condition has a profound effect on healthcare systems:

**> 1 million**

HF hospitalizations occur annually in the US and EU, and congestion is the predominant cause.<sup>1</sup>

**90%**

of HF hospitalizations are due to fluid overload.<sup>1</sup>

**6.5 million**

hospital days result from these HF hospitalizations.<sup>2</sup>

**\$60.2 billion**

total direct costs spent on HF each year in the US.<sup>3</sup>

Patient readmission rates are also extremely high for this patient population, resulting in additional cost burden to hospitals:

**24%**

of patients are readmitted within 30 days.<sup>1</sup>

**50%**

of patients are readmitted within 6 months.<sup>1</sup>

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Aquapheresis® using the Aquadex FlexFlow® System is an ultrafiltration therapy for patients with fluid overload who have failed diuretic therapy.

The UNLOAD trial was a prospective, randomized, multicenter trial of early ultrafiltration versus intravenous diuretics in 200 patients hospitalized with HF and fluid overload. The UNLOAD trial showed that early ultrafiltration safely produces greater weight and fluid loss than intravenous loop diuretics in hypervolemic HF patients. Ultrafiltration significantly decreased rehospitalizations for HF and unscheduled medical visits at 90 days.<sup>4</sup>

UNLOAD Study Endpoints	Ultrafiltration	IV Diuretics	% Difference	P-value
<b>Average Weight Loss (48hrs)</b>	5.0 kg	3.1 kg	<b>61%</b>	P = 0.001
<b>Average Net Fluid Loss (48 hrs)</b>	4.6 liters	3.3 liters	<b>39%</b>	P = 0.001
<b>Unscheduled Visits (90 days)</b>	21%	44%	<b>-52%</b>	P = 0.009
<b>HF Rehospitalizations (90 days)</b>	18%	32%	<b>-44%</b>	P = 0.037
<b>HF Rehospitalization Days (90 days)</b>	1.4	3.8	<b>-63%</b>	P = 0.022

A recent hospital cost analysis including UNLOAD data demonstrated a cost savings **\$3,975 per patient** when using ultrafiltration versus diuretic therapy over 90 days<sup>5</sup>

## RX ONLY

**INDICATION:** The Aquadex FlexFlow System is indicated for temporary (up to 8 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.

**chf solutions**

## CUSTOMER SUPPORT

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**Sources:** <sup>[1]</sup>Costanzo MR, et al. J Am Coll Cardiol. 2017;69(19):2428-2445. <sup>[2]</sup>Gheorghide M, et al. J AM Coll Cardiol. 2013;61(4):391-403. <sup>[3]</sup>Voigt J, et al. Clin Cardiol. 2014;37(5): 312-321. <sup>[4]</sup>Costanzo MR et al. J Am Coll Cardiol. 2007;49(6):675-683. <sup>[5]</sup>Costanzo MR, et al. Ultrafiltration vs. Diuretics for the Treatment of Fluid Overload in Patients with Heart Failure: A Hospital Cost Analysis. Poster accepted for presentation at the International Society of Pharmacoeconomics and Outcomes Research (ISPOR) International Meeting, May 19-23, 2018, Baltimore, MD, USA.