



Corporate overview

Innovative products for medically supervised settings

September 2026

Disclaimers & Forward-looking Statements

Forward-Looking Statements

Some of the information in this presentation is not historical in nature and may constitute forward-looking statements, which are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These statements may be identified by the use of forward-looking terminology such as “believes,” “expects,” “anticipates,” “may,” “will,” “should,” “seeks,” “approximately,” “intends,” “plans,” “estimates,” or the negative of these words or other comparable terminology. The discussion of financial trends, strategy, plans or intentions may also include forward-looking statements. These forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those projected, anticipated or implied by such statements. Although it is not possible to predict or identify all such risks and uncertainties, they may include, but are not limited to, those described in the Company’s annual, quarterly and current reports (i.e., Form 10-K, Form 10-Q and Form 8-K) as filed or furnished with the Securities and Exchange Commission (SEC). You are cautioned not to place undue reliance on any such forward-looking statements, which speak only as of the date such statements were first made. To the degree financial information is included in this presentation, it is in summary form only and must be considered in the context of the full details provided in the Company’s most recent annual, quarterly or current report as filed or furnished with the SEC. The Company’s SEC reports are available at www.talphera.com under the “Investors” tab. Except to the extent required by law, the Company undertakes no obligation to publicly release the result of any revisions to these forward-looking statements to reflect events or circumstances after the date hereof, or to reflect the occurrence of unanticipated events.

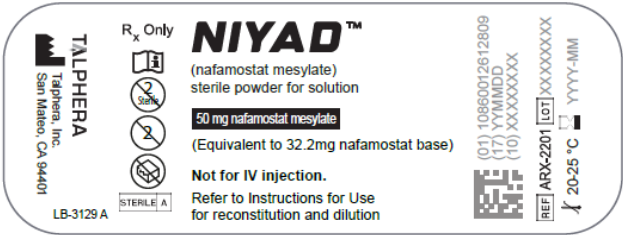
Non-GAAP Financial Measures

To supplement Talphera’s financial results and guidance presented in accordance with U.S. generally accepted accounting principles (GAAP), the company uses certain non-GAAP financial measures in this presentation, in particular, excluding stock-based compensation expense from its operating expenses. The company believes that this non-GAAP financial measure provides useful supplementary information to, and facilitates additional analysis by, investors and analysts.

Nafamostat portfolio overview

						Approval
Product	Administration	Phase 1	Phase 2	Phase 3	NDA submitted	Next anticipated milestone
Nafamostat product candidates						
Niyad®	Anticoagulation of the extracorporeal circuit–CRRT regulated as device					Enrollment in NEPHRO CRRT study expected to be completed in 2026; mid-2027 PMA filing with a 6 month review
LTX-608	Various indications to be regulated as a pharmaceutical *					

Niyad (nafamostat mesylate) is the lead product candidate, regulated as a device and granted FDA Breakthrough Device Designation, for the anticoagulation of the extracorporeal circuit. Enrollment in registrational study expected to be completed in 2026.



* Post-toxicology study, expect to be in phase 2 development

What is nafamostat?

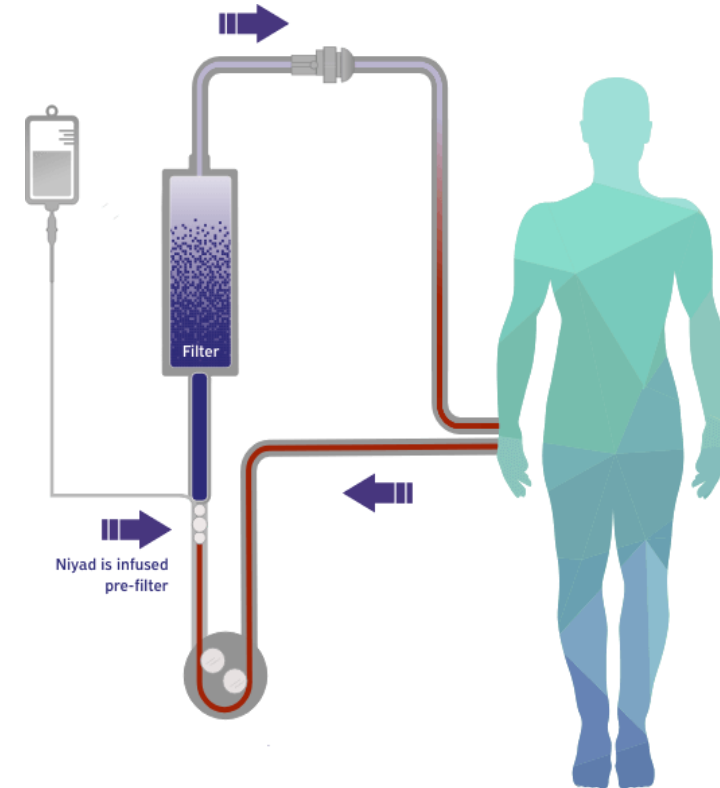
- An investigational broad-spectrum serine protease inhibitor with anticoagulant, anti-inflammatory, mucus clearing and potential anti-viral activities
- Half-life of 8 minutes
- Multiple potential indications given its proposed mechanism of action
- Approved and used in Japan and South Korea for over 30 years
 - Anticoagulation of the extracorporeal circuit
 - Disseminated intravascular coagulation (DIC)
 - Acute pancreatitis
- Various studies performed outside the U.S. for viral disease, Acute Respiratory Distress Syndrome (ARDS), Dengue fever and numerous other diseases



Niyad is our lead nafamostat product candidate

Talpheria is evaluating nafamostat as a regional anticoagulant for the extracorporeal circuit (blood path outside patient)

- ✓ Niyad has numerous potential **benefits** compared to the standard of care
- ✓ There are **no FDA-approved** regional anti-coagulants for the extracorporeal circuit
- ✓ Niyad is being regulated as a device (works in the circuit)
 - Granted **FDA Breakthrough Device Designation** status for use as a regional anticoagulant in patients receiving CRRT that cannot tolerate heparin or are at a higher risk of bleeding, providing regulatory and developmental benefits
- ✓ **Single registrational study** with endpoints agreed with the FDA expected to be completed in 2026
- ✓ ICD-10 CMS procedural code already received to support **reimbursement**
- ✓ Niyad market opportunity for CRRT alone estimated at more than **\$600 million**



Exposure of blood to the dialysis filter causes clotting

Clotting of the dialysis filter during CRRT is a major limitation to care, as it leads to inefficient dialysis, causes blood loss, and depletes limited resources¹. Circuit clotting is the most frequent cause of therapy interruption circuit dialysis²



More frequent filter changes required to ensure efficacy



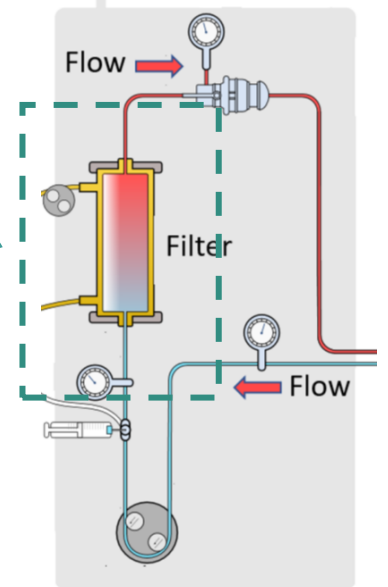
Increased blood loss; increased platelet transfusions



Delayed/ prolonged treatment time



Burden on healthcare professional time

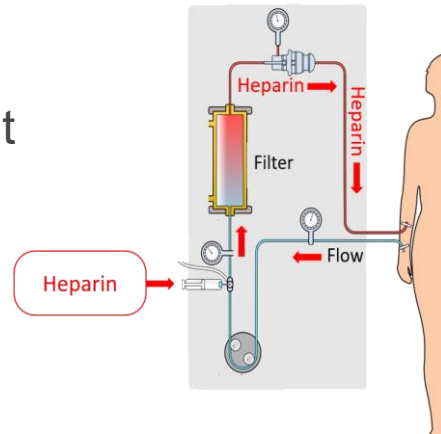


1. Uchino S, Fealy N, Baldwin I, Morimatsu H, Bellomo R. Continuous is not continuous: the incidence and impact of circuit "down-time" on uraemic control during continuous veno-venous haemofiltration. Intensive Care Med. 2003;29:575–578. Zhang Z, Ni H, Lu B. Variables associated with circuit life span in critically ill patients undergoing continuous renal replacement therapy: a prospective observational study. ASAIO J. 2012;58:46–50
2. Clinical review: Patency of the circuit in continuous renal replacement therapy. Joannidis M, Oudemans-van Straaten HMCrit Care. 2007; 11(4):218.

Current standards for anticoagulation have many disadvantages

Heparin

- Systemic anticoagulant
- Prolonged half-life up to 3 hours makes it difficult to titrate
- Clinicians fear over anticoagulating the patient
- Significant safety concern for patients at risk of bleeding
- Thrombocytopenia



Citrate

- Citrate chelates calcium, which inhibits the generation of thrombin
- Using citrate requires infusing calcium on the return side of filter (back to patient)
- Extensive, complicated protocol
- Frequent blood draws to measure calcium are time-consuming and expensive
- Rapid changes in calcium levels which can cause hypotension, ventricular fibrillation, and possibly cardiac arrest.
- Even more complicated in patients with liver failure

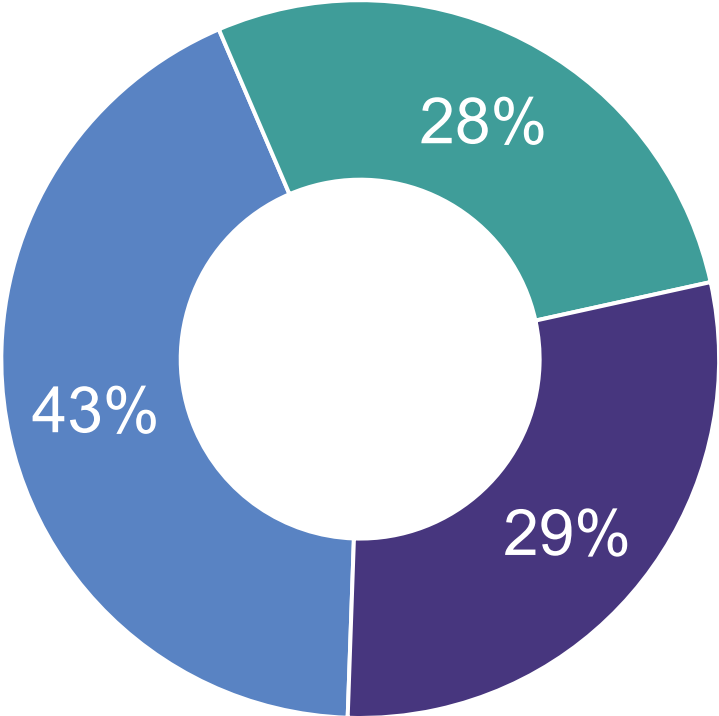


1) Ohtake Y. Nafamostat as Anticoagulant in Continuous HD. Contrib Nephrol. 1991;93;215-217.

The market landscape for anticoagulants used during continuous renal replacement therapy (CRRT)

Anticoagulants used in CRRT (first or second line)

Heparin – 43%
(systemic anticoagulant – anticoagulation of the patient and the circuit)



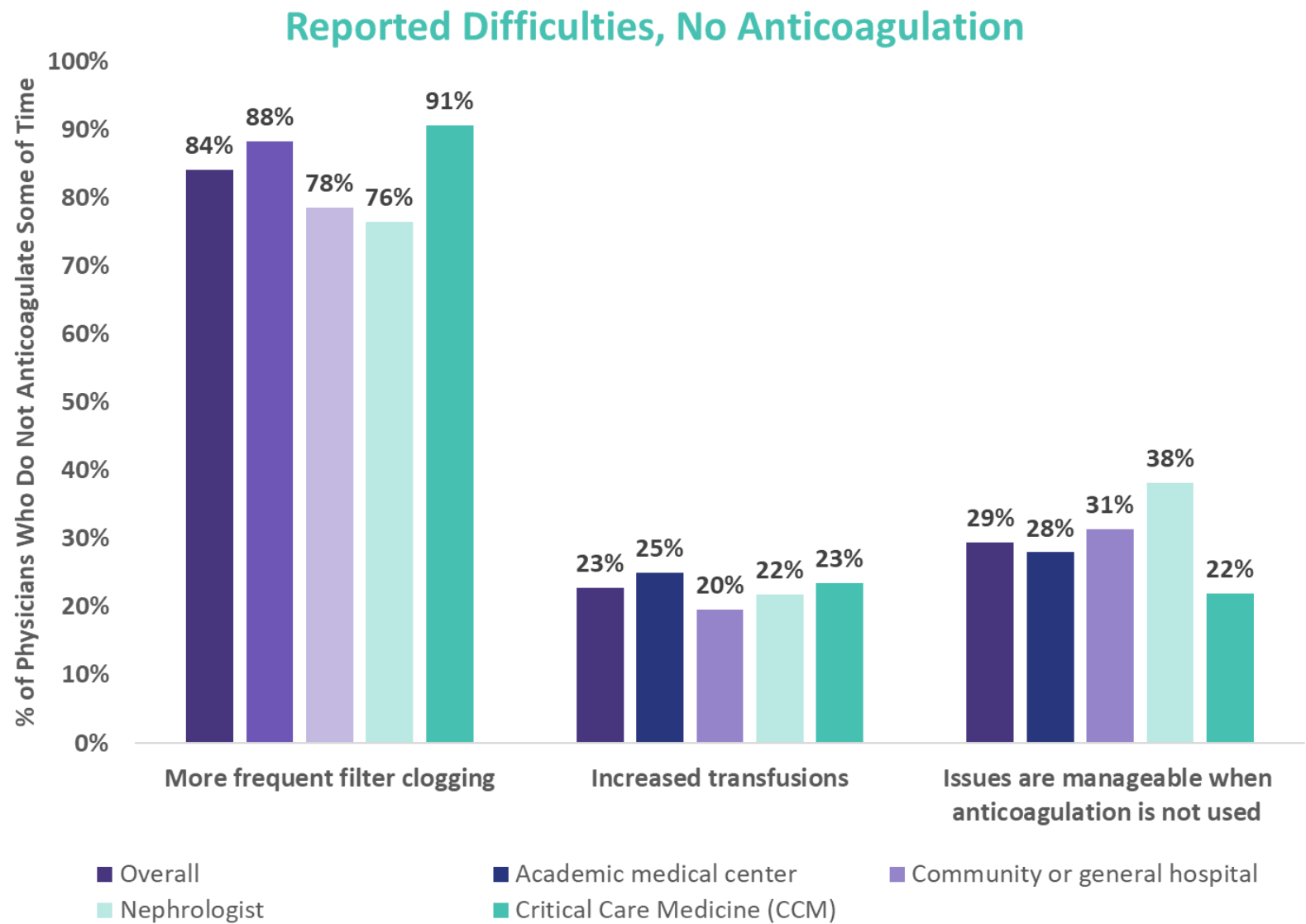
Citrate – 28%
(regional anticoagulant – anticoagulant for circuit only; used in U.S. under an Emergency Use Authorization)

No anticoagulant
29% is unfortunately the default when physicians are concerned with safety of heparin or citrate

Source: Boldt, et al. Anticoagulation practices for continuous renal replacement therapy: a survey of physicians from the United States, Renal Failure, 2023; <https://doi.org/10.1080/0886022X.2023.2290932>

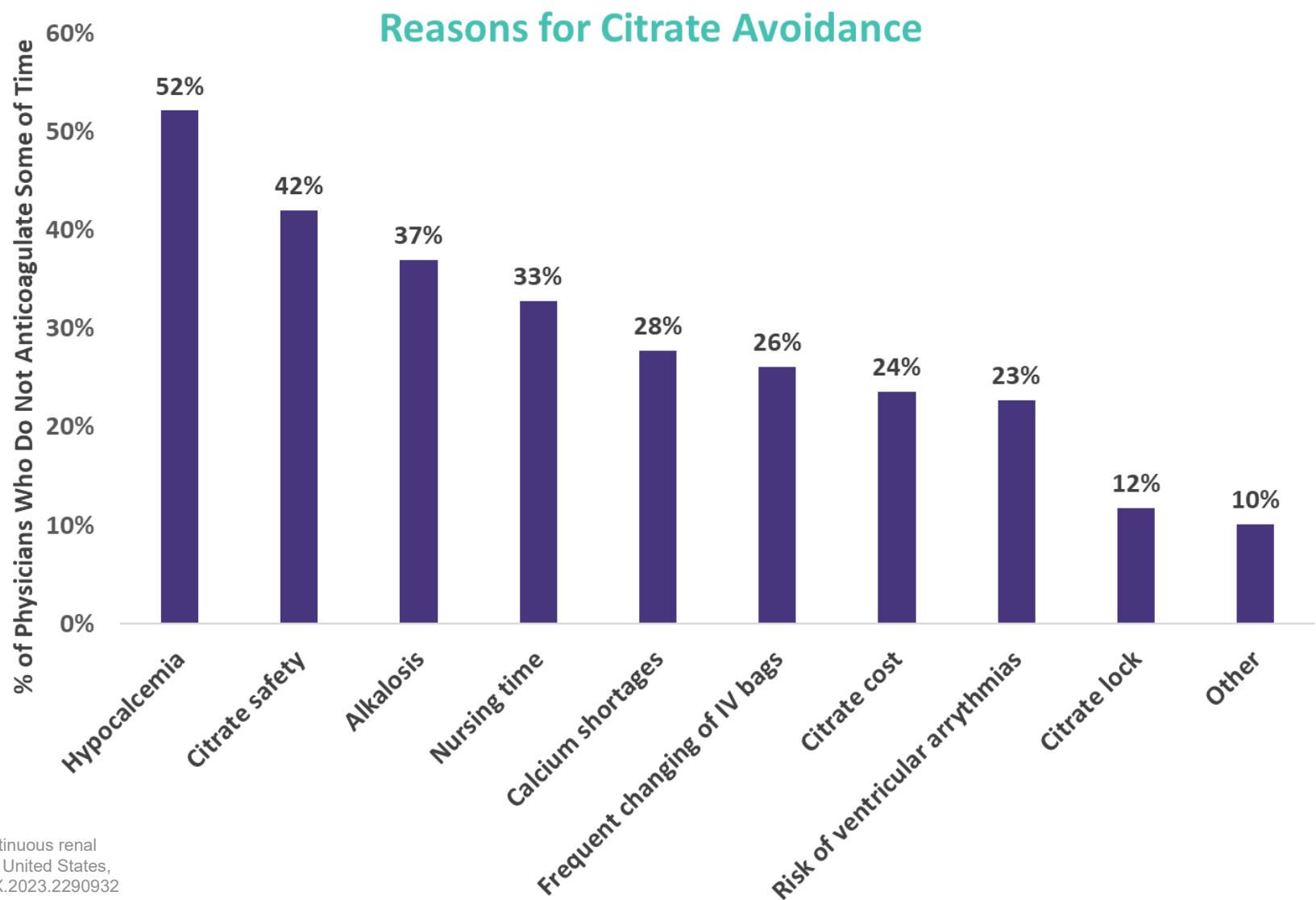
■ Heparin ■ Citrate ■ No anticoagulant

When not using an anticoagulant for CRRT, frequent filter clogging was the most common issue, with 20-25% stating increased transfusions were needed



Source: Boldt, et al. Anticoagulation practices for continuous renal replacement therapy: a survey of physicians from the United States, Renal Failure, 2023;<https://doi.org/10.1080/0886022X.2023.2290932>

Market research indicated a number of reasons why physicians decide not to use citrate as an anticoagulant during CRRT

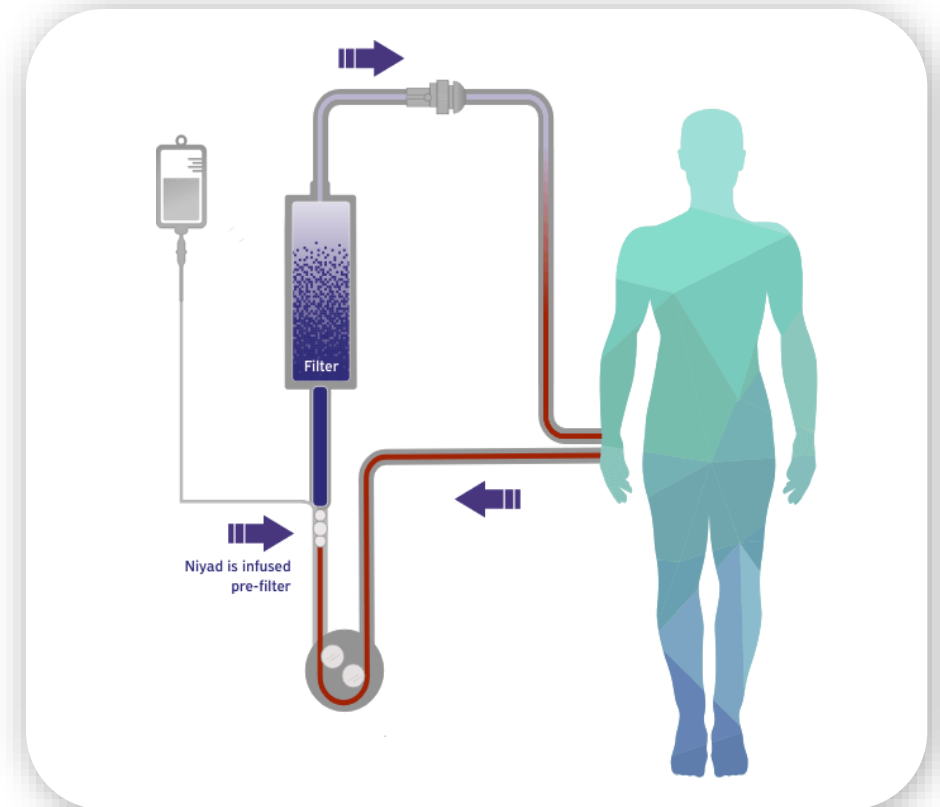


Source: Boldt, et al. Anticoagulation practices for continuous renal replacement therapy: a survey of physicians from the United States, Renal Failure, 2023;<https://doi.org/10.1080/0886022X.2023.2290932>

Potential benefits of using Niyad in the dialysis circuit

- Standardized international guidelines recommend using an anticoagulant during renal replacement therapy (RRT)
- Niyad is designed to provide a short half-life, titratable, regional anticoagulant without the shortcomings of heparin or citrate
- Potential advantages of Niyad:
 - Niyad designed to be used in patients at risk of bleeding, whereas heparin is limited
 - Niyad designed to be used easily in patients with liver failure – whereas citrate is limited
- Compared to no anticoagulation: potential for fewer filter changes, fewer transfusions, more importantly – lower cost of doctor and nursing time

	Heparin	Nafamostat
Incidence of Bleeding ¹	66.7 %	4.3 %



1) Ohtake Y. Nafamostat as Anticoagulant in Continuous HD. Contrib Nephrol. 1991;93;215-217.

Decades of use outside the U.S. and numerous studies support the benefits of nafamostat as an anticoagulant for the extracorporeal circuit

An independent, meta-analysis published in 2022 on the use of nafamostat as an anticoagulant in the extracorporeal circuit demonstrates the efficacy and safety compared to conventional therapy

11 Studies

2,723 Patients

Mortality

25% lower with nafamostat vs. conventional therapy (31% lower vs. no-anticoagulant)

Bleeding Risk

45% higher risk of bleeding complications on conventional therapy vs. nafamostat

Filter life

10.5 hours longer filter life compared to no-anticoagulant

Source: Yao Lin, et al; RENAL FAILURE, 2022, VOL. 44, NO. 1, 1263–1279, <https://doi.org/10.1080/0886022X.2022.2105233>

FDA feedback on Niyad



Although an EUA for Niyad was not considered an FDA priority due to lack of FDA resources, correspondence with FDA provided us with encouraging feedback

FDA opined on 8/24/21:

“We believe that your device has the potential to address an unmet need in patients who cannot tolerate heparin or....who are treated in facilities that are ill-equipped for use of a citrate anticoagulant.”

“Additionally, we recognize that there may be an unmet need for patients...who also cannot tolerate citrate due to another condition such as liver disease.”

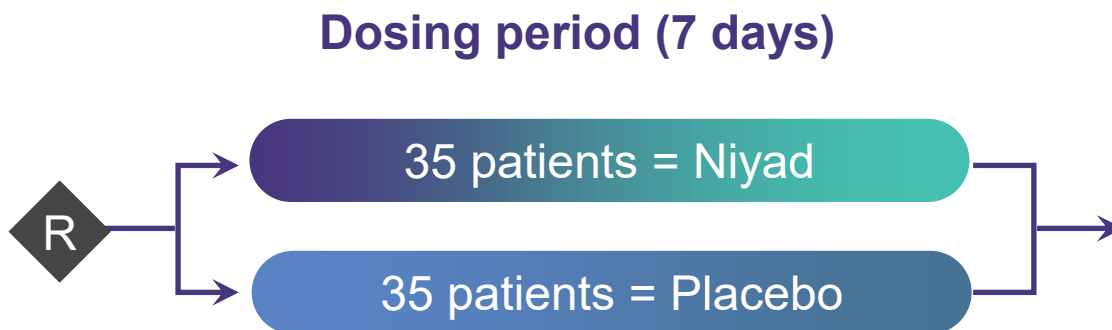
“We believe that you have provided significant evidence demonstrating that the potential benefits of the Niyad device could be greater than the reasonably foreseen risks.”

Single registrational study on Niyad

Prospective, randomized, placebo-controlled study at up to 14 clinical sites; enrollment is 75% complete (as of mid-August)

Randomization

70* adult patients undergoing RRT who cannot tolerate heparin or are at risk for bleeding



Safety

Bleeding, electrolyte disorders, 28-day all-cause mortality

Primary Endpoints:

- Mean post-filter activated clotting time (ACT) over first 24 hours versus placebo

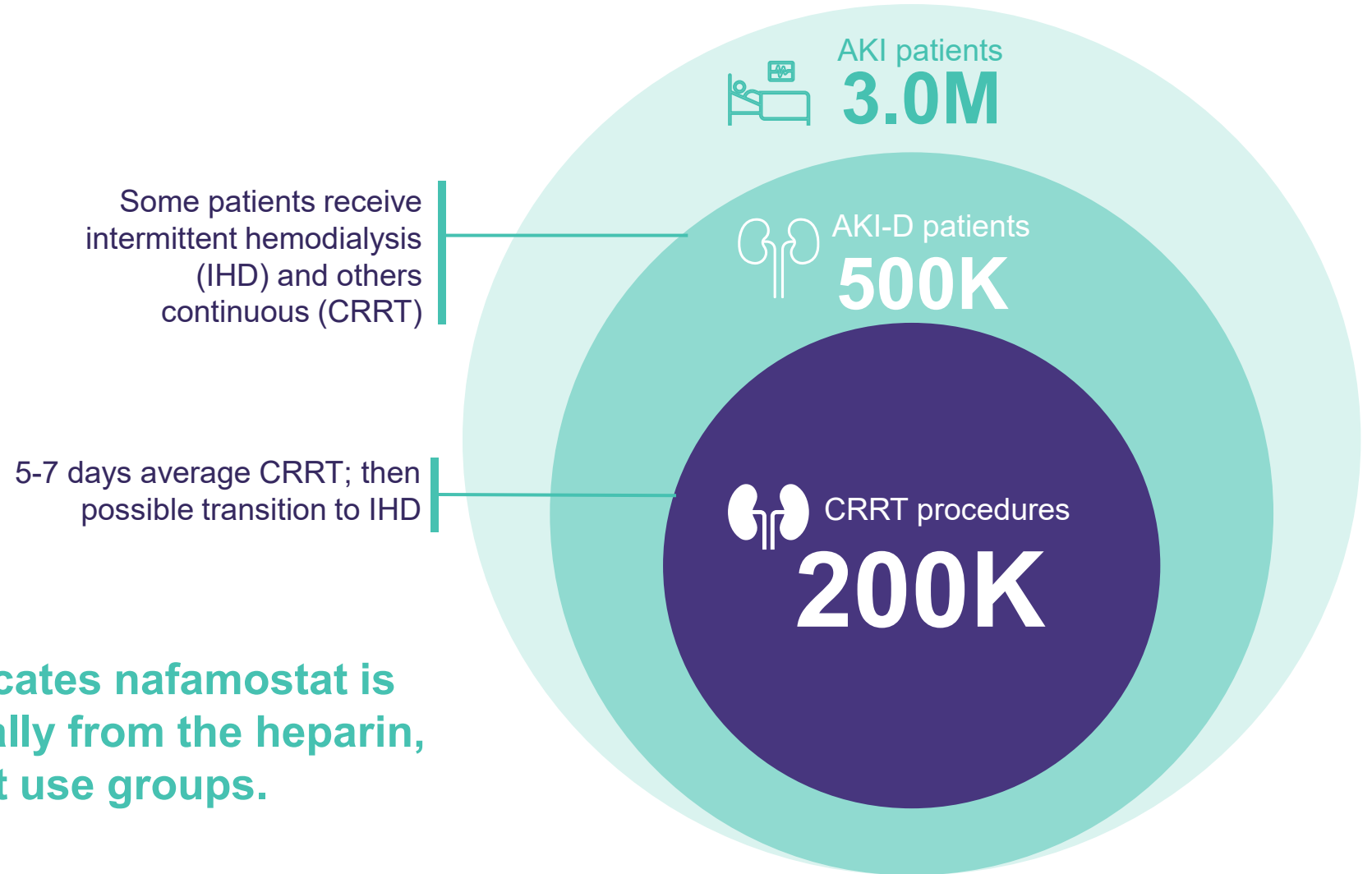
Key Secondary Endpoints:

- Mean post-filter ACT over 72 hours
- Filter lifespan
- Number of filter changes over 72 hours
- Number of transfusions over 72 hours
- Dialysis efficacy (based on urea concentration) over first 24 hours

** FDA approved a reduction from 166 patients as announced in March 2025; primary endpoint still powered at 90%*

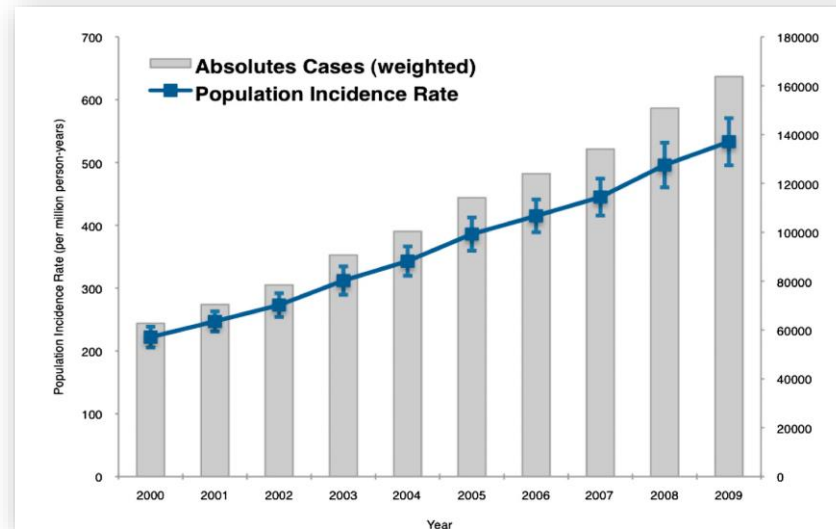
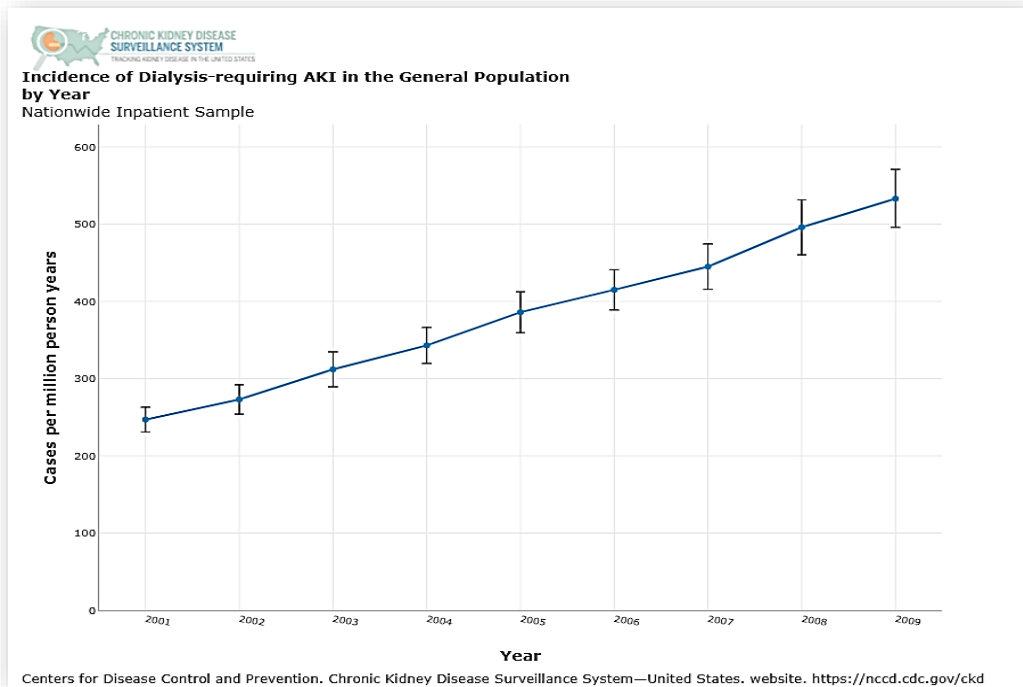
Niyad market opportunity in CRRT

If approved, Niyad would be the only FDA approved regional anticoagulant for the extracorporeal circuit



Latest market research indicates nafamostat is expected to take share equally from the heparin, citrate and no-anticoagulant use groups.

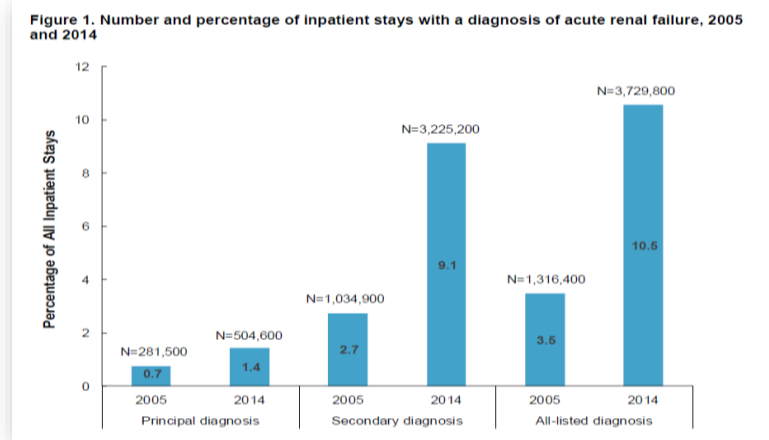
Acute kidney injury rates continue to rise



Hsu RK, McCulloch CE, Dudley RA, Lo LJ, Hsu CY. Temporal changes in incidence of dialysis-requiring AKI. J Am Soc Nephrol. 2013;24(1):37-42.

Acute kidney injury (AKI) is defined by a rapid increase in serum creatinine, decrease in urine output, or both. AKI occurs in approximately 10-15% of patients admitted to hospital, while its incidence in intensive care has been reported in more than 50% of patients.¹

Note: Diagnoses were identified using the Clinical Classifications Software (CCS).
Source: Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), National (Nationwide) Inpatient Sample (NIS), 2005–2014



1. Acute kidney injury. Lancet. 2019; 394(10212):1949-1964 (ISSN: 1474-547X), Ronco C; Bellomo R; Kellum JA

Niyad pricing being evaluated to be competitive with existing approach to CRRT anticoagulation

At a comparative cost of citrate anticoagulation, the market opportunity approximates \$600 million

Nafamostat would be included within the DRG for the specific patient disease diagnoses, similar to other CRRT anticoagulants

Cost of citrate ~\$500/day

Cost of citrate

Cost of calcium

Cost of 6x/day diagnostic testing to monitor calcium level

Excludes additional nursing time required for monitoring due to complexity

No-anticoagulant

Historical studies show nafamostat will save at least one filter per day

Cost of filter pack ranges from \$400-\$800

Saving just one filter/day on nafamostat would cover the cost of using an anticoagulant

NTAP

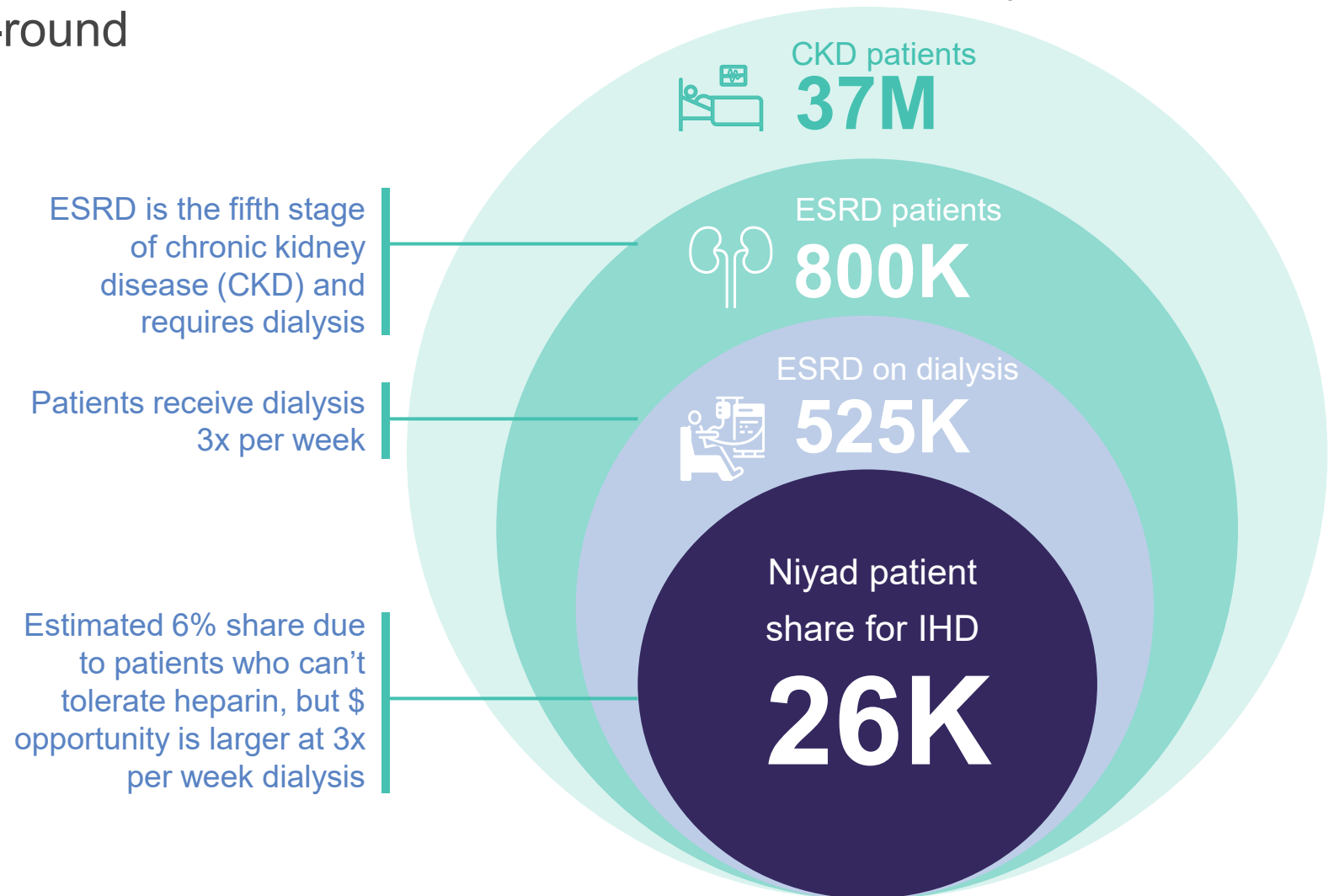
New Technology Add-On Payment (NTAP)

Healthcare providers would receive reimbursement for 65% of the cost for up to three years

Evaluating NTAP, which if approved, would be post-launch

Niyad market opportunity in IHD

Intermittent hemodialysis is shorter in duration than CRRT, however, frequency of the procedure is 3x per week, year-round



LTX-608: the other nafamostat opportunity with broad potential

Nafamostat is a “pipeline in a product” that has potential beyond Niyad

Disseminated intravascular coagulation (DIC)

Approved indication in Japan and South Korea; intellectual property protection will focus on method of use patents based on the complexity of DIC treatment

Acute pancreatitis

Approved indication in Japan and South Korea

Acute respiratory distress syndrome (ARDS)

A life-threatening lung injury that allows fluid to leak into lungs; Nafamostat potential modes of action of anticoagulation, anti-inflammation and sustaining endothelial barrier function/preventing vascular leak could support exploring development

Anti-viral

Various ex-US studies have demonstrated positive results as an anti-viral; publications support efficacy against coronaviruses¹

1. B. F. Niemeyer, C. M. Miller, C. Ledesma-Feliciano, J. H. Morrison, R. Jimenez-Valdes, C. Clifton, E. M. Poeschl, K. H. Benam, Nano Select □□□□,

Nafamostat intellectual property status and data exclusivity

Potential for six years data exclusivity upon Niyad PMA approval before issuance of pending patents

Niyad patent pending

Claims drawn to priming of the extracorporeal circuit and blood flow when using nafamostat.

PCT patent applications filed in January 2025;
Various national patents being filed in 2026

Financial information/metrics

\$17.1M

June 30, 2026 cash and
investments

\$3.9M

Q2 2026 combined R&D
and SG&A⁽¹⁾

\$17-18M

FY 2026 estimated
cash operating expense (excludes
stock-based compensation)

(1) Operating expenses: Combined R&D and SG&A including \$0.2M non-cash stock-based compensation

Capitalization

Capitalization overview as of July 27, 2026

	Shares (000s)
Stock outstanding	51,906
Pre-funded warrants*	23,625
<i>Stock plus pre-funded warrants</i>	<i>75,531</i>
Tranche 2 (April '25 financing)-option, study completion	7,039
Tranche 2 (September '25 financing; data announcement)	21,791
A/B Warrants (\$0.77 and \$1.11 strike)-milestone expiry	14,787
<i>Stock o/s, PFW, tranches, warrants in money</i>	<i>119,148</i>

** treated as common stock for EPS purposes*



Innovative products for medically supervised settings

Nasdaq: TLPH