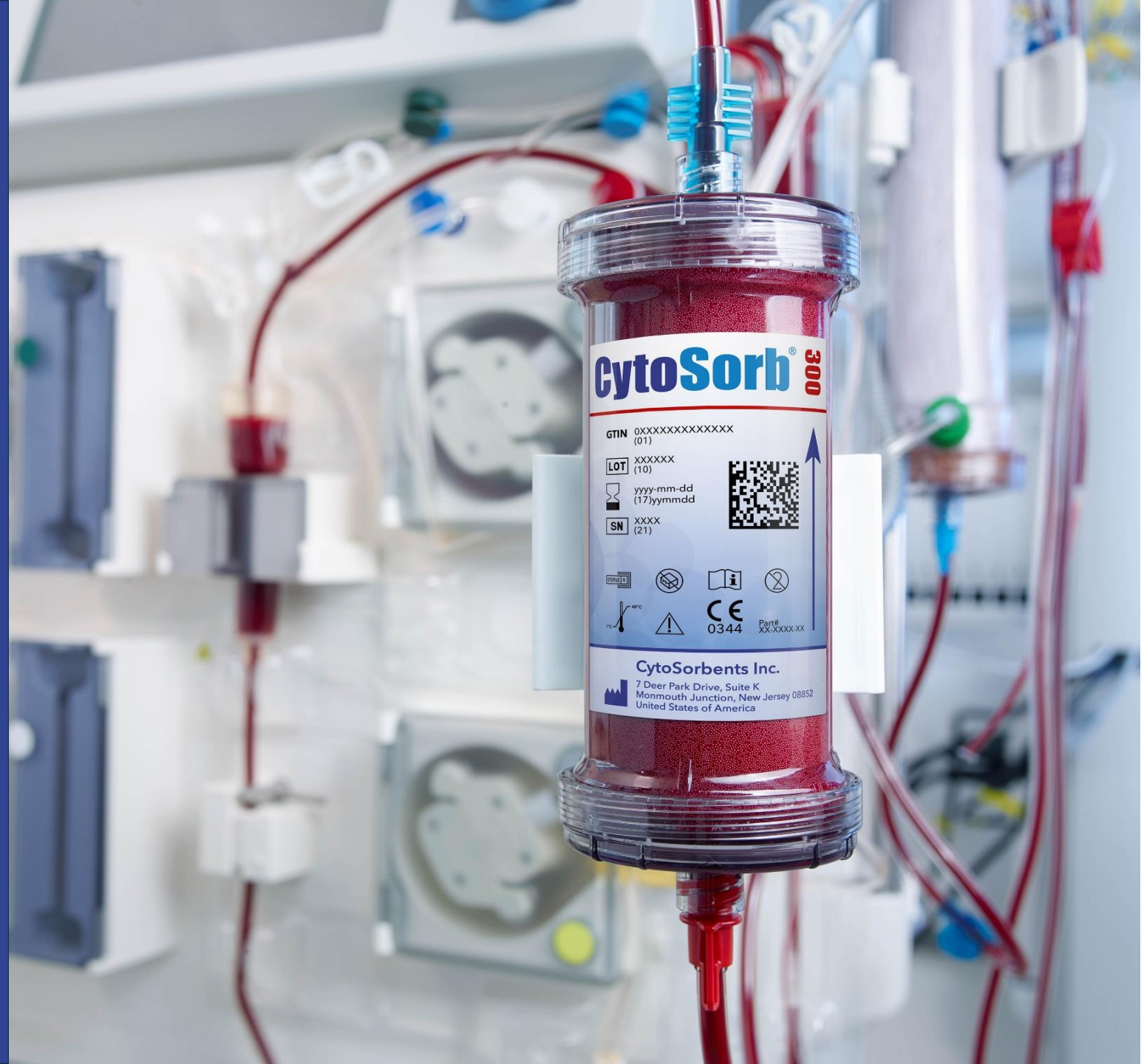


CytoSorbents™

Working to save lives **together.**

NASDAQ: CTSO

Investor Presentation

January 2026

CytoSorbents™

Safe Harbor Statement

Statements in this presentation regarding CytoSorbents Corporation and its operating subsidiaries CytoSorbents Medical, Inc and CytoSorbents Europe GmbH that are not historical facts are forward-looking statements and are subject to risks and uncertainties that could cause actual future events or results to differ materially from such statements. Any such forward-looking statements are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. It is routine for our internal projections and expectations to change. Although these expectations may change, we are under no obligation to inform you if they do. Actual events or results may differ materially from those contained in the projections or forward-looking statements. The following factors, among others, could cause our actual results to differ materially from those described in a forward-looking statement: our history of losses; potential fluctuations in our quarterly and annual results, the restructuring of our direct sales team and strategy in Germany, our ability to resolve deficiencies in the FDA denial letter and the Health Canada Notice of Refusal, competition, inability to achieve regulatory approval for our devices, our ability to complete our strategic workforce and cost reduction plan to reduce costs, optimize operations, and achieve cash-flow break-even in the first quarter of 2026, technology systems beyond our control and technology-related defects that could affect the companies' products or reputation, risks related to adverse business conditions, our dependence on key employees, competition for qualified personnel, the possible unavailability of financing as and if needed, and risks related to protecting our intellectual property rights or potential infringement of the intellectual property rights of third parties. This list is intended to identify only certain of the principal factors that could cause actual results to differ from those discussed in the forward-looking statements. Readers are referred to a discussion of important risk factors detailed in the Company's 2024 Form 10-K filed with the Securities and Exchange Commission on March 31, 2025, and other reports and documents filed from time to time by us, which are available online at www.sec.gov.

CytoSorbents™

Regulatory Disclaimer

CytoSorb

- **CE Marked in Europe for the following APPROVED Indications for Use:**
  - Cytokine Removal
  - Bilirubin and Myoglobin Removal
  - Ticagrelor and Rivaroxaban removal during cardiothoracic surgery
- **CytoSorb is NOT yet cleared/approved by the FDA or Health Canada**
- **CytoSorb received U.S. FDA Emergency Use Authorization to treat patients 18 years of age or older with confirmed COVID-19 admitted to the ICU with confirmed or imminent respiratory failure.**
  - The CytoSorb device has neither been cleared or approved for the treatment of patients with COVID-19 infection.
  - The CytoSorb device is authorized only for the duration of the declaration that circumstances exist justifying the authorization of the EUA of the CytoSorb device under section 564(b)(1) of the Act, 21 U.S.C. § 360bbb-3(b)(1), unless the authorization is terminated or revoked sooner

DrugSorb-ATR

- **INVESTIGATIONAL DEVICE:** Limited by U.S. Federal Law to Investigational Use Only
- This Investigational Device is NOT yet cleared/approved by FDA, Health Canada, or by any other Global Regulatory Agency, and it is NOT commercially available for sale
- *Proposed* Indication for Use:

  To reduce the severity of perioperative bleeding in patients undergoing coronary artery bypass grafting (CABG) within 2 days of ticagrelor discontinuation

CytoSorbents™

CytoSorbents at a Glance

- **Platform** blood purification technology to remove toxins and harmful substances from the blood
- **High margin** "razorblade" that we manufacture in the U.S. and is "plug and play" into existing hospital blood pumps

CytoSorb

- Used to treat life-threatening conditions in the ICU and cardiac surgery
- CE-Mark approved in E.U. to remove cytokines, bilirubin, myoglobin. Also ticagrelor & rivaroxaban in cardiac surgery
- **>300,000** CytoSorb devices utilized cumulatively to date in 70+ countries worldwide
- Record core product sales of **$37.0 million** (TTM as of 9/30/25) and 71% gross margins

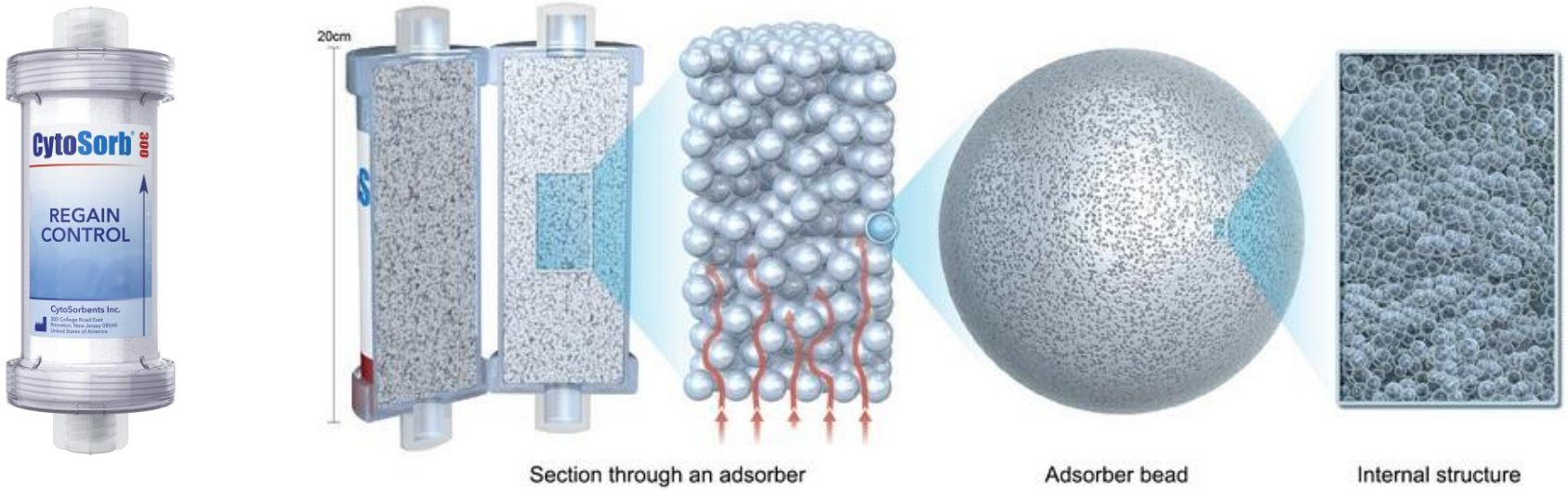
DrugSorb™ ATR

- INVESTIGATIONAL DEVICE to reduce severity of perioperative bleeding in CABG patients on ticagrelor
- **Two FDA Breakthrough Device Designations**
- Actively pursuing **regulatory approval in the US with new De Novo application, with a regulatory decision expected mid-2026**

- Driving to cash flow breakeven in Q1 2026 and near-term profitability with a strengthened balance sheet as a key priority

The Power of the Bead

Hemocompatible, highly porous polymer bead platform technology that act like tiny sponges to remove harmful substances from blood by pore capture, adsorption, and concentration



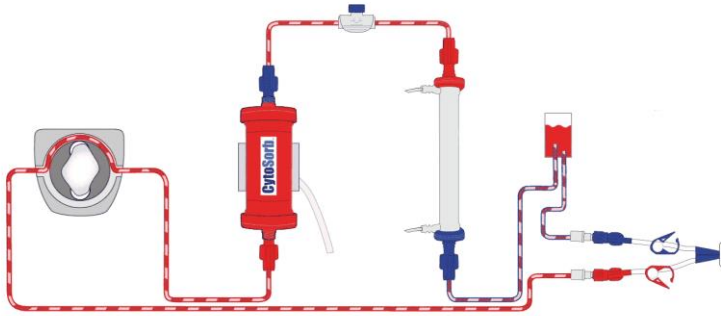
- Excellent removal of a broad range of substances from whole blood and plasma
- Solid state porous polymer chemistry that does not use ligands, antibodies, cells, or biologics
- 22 issued U.S. patents and multiple patents issued and pending worldwide
- Beneficiary of ~$50M in grants and non-dilutive funding from NIH, DARPA, DOD

CytoSorbents™

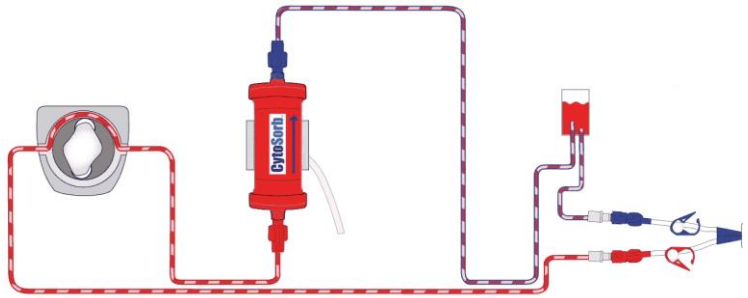
Products are “Plug and Play” Compatible

Compatible with Existing Blood Pump Infrastructure In Hospitals Today

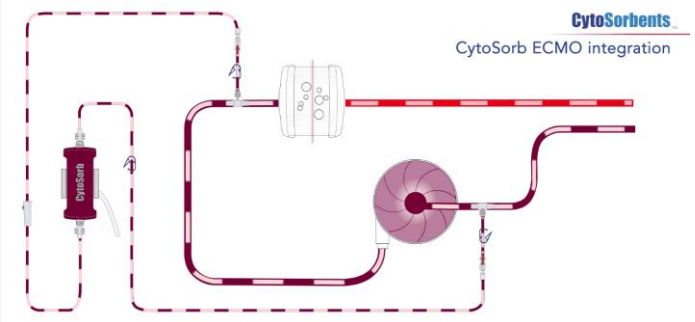
Dialysis or CRRT
(Continuous Renal Replacement Therapy)



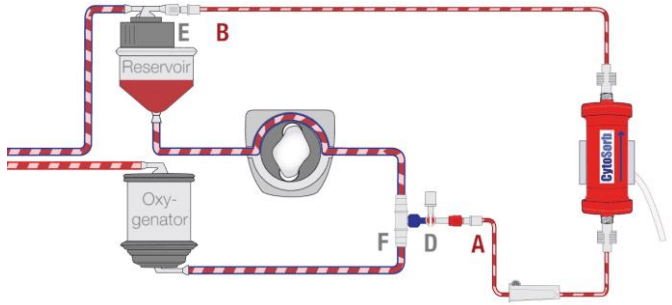
Hemoperfusion
(Standalone Treatment)



ECMO
(Extracorporeal Membrane Oxygenation)



CPB
(Cardiopulmonary Bypass)

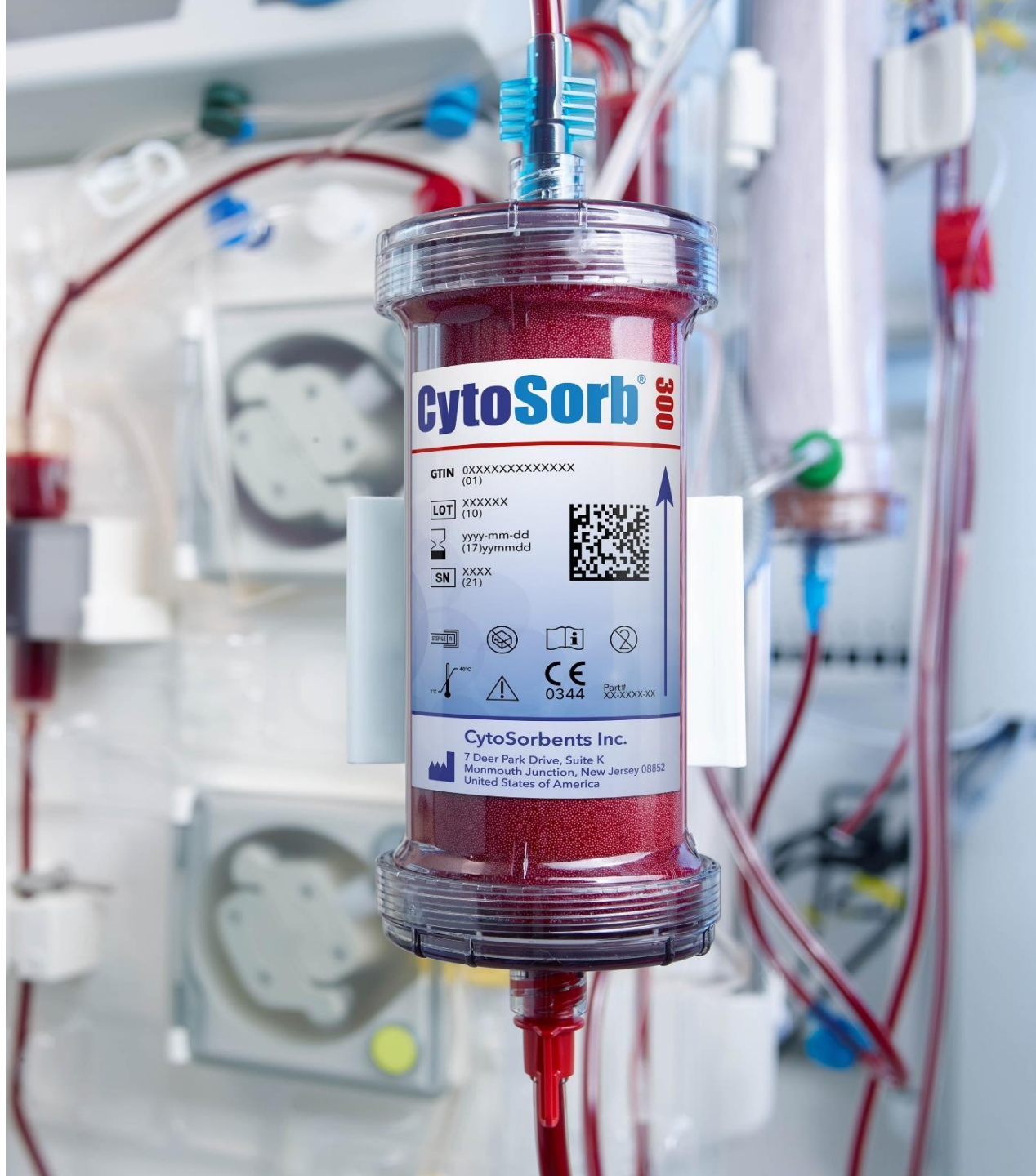


CytoSorbents™

CytoSorb

Our Core Business

CytoSorb is EU CE mark approved but not yet cleared or approved in the U.S./Canada



CytoSorb is Expanding the Dimension of Blood Purification

CytoSorb is a powerful blood purification technology CE-mark approved in the E.U. to reduce cytokines, bilirubin, myoglobin, and blood thinners like ticagrelor & rivaroxaban. It can remove many substances that dialysis cannot.

CytoSorb is designed to work like the liver

Large Molecules and
Fat soluble substances

Cytokines
Inflammatory mediators
Bacterial toxins
Liver toxins
Proteins and peptides

Dialysis is designed to work like the kidney

Small Molecules and
Water soluble substances

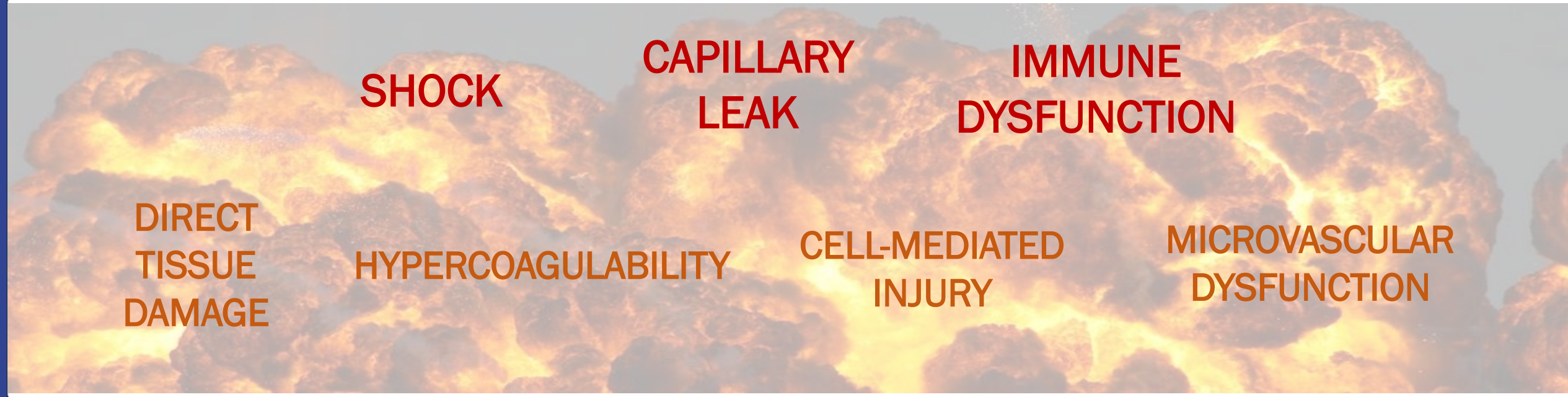
Urea, Ammonia
Electrolytes
Water
Water-soluble drugs

CytoSorb has 7 football fields of surface area to bind toxins versus
¾ of a ping pong table for a dialyzer

CytoSorbents™

Uncontrolled Massive Inflammation - the Heart of Critical Illness

- Acute inflammation is the body's mechanism to fight injury and infection
- However, severe inflammation, driven by cytokine storm, can cause a chain reaction of problems that can end in organ failure and death



- Severe inflammation is the common thread amongst most critical illnesses and impacts up to 60% of patients in the ICU. Is directly correlated to increased severity of illness, organ failure, and mortality

CytoSorb removes cytokines and other inflammatory toxins that fuel the fire of this deadly inflammation

CytoSorbents™

Targets Deadly Conditions That Afflict Millions of People

Critical Care

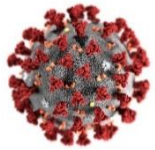
Removes the "fuel to the fire" of massive uncontrolled inflammation that is often associated with organ failure and death

Sepsis

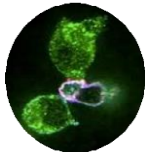
Surgical Complications

Influenza

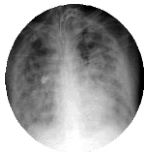
Burn Injury



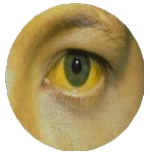
COVID-19



Cytokine Release Syndrome



Lung Injury



Liver Failure

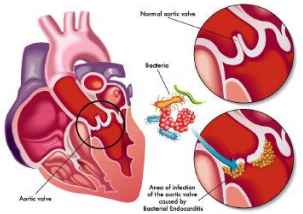
Trauma

Pancreatitis

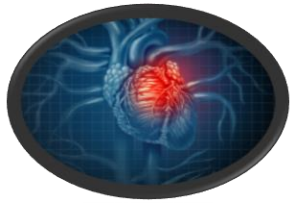
Cardiothoracic Surgery

Reduces inflammation and blood thinners, targeting reduction in complications of cardiac surgery like sepsis, bleeding, shock, and others

Life-threatening bleeding due to anti-thrombotic "blood thinners"



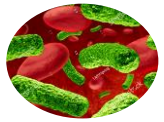
Infective Endocarditis



High Risk Procedures

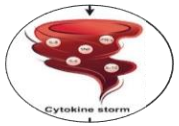
CytoSorbents™

CytoSorb Has Much Larger ICU Opportunity than Dialysis

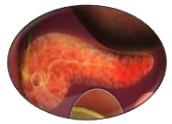


Sepsis, Septic Shock, Other Shock

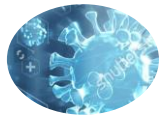
Liver failure



Cytokine storm/ Cytokine release syndrome



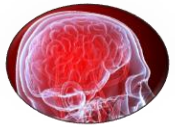
Pancreatitis



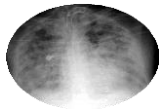
Infectious diseases (flu, COVID-19, other)

Burn injury

Post-surgical complications Organ transplant

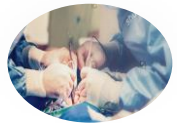


Neuroinflammation



Acute Respiratory Distress Syndrome (ARDS)

Trauma, Rhabdomyolysis

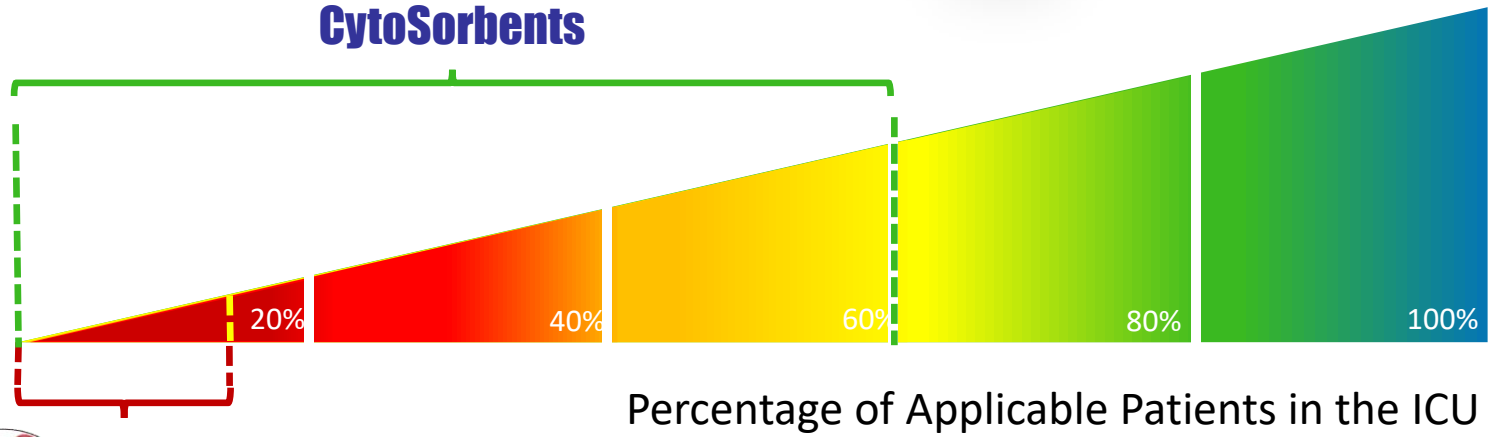


High risk surgical procedures, aortic surgery, Infective endocarditis

Drug overdose
Blood thinner toxicity

CytoSorb, by removing cytokines and inflammatory toxins, has the potential to be used to help reduce severe inflammation that plays a dangerous role in 40-60% of patients in the ICU.

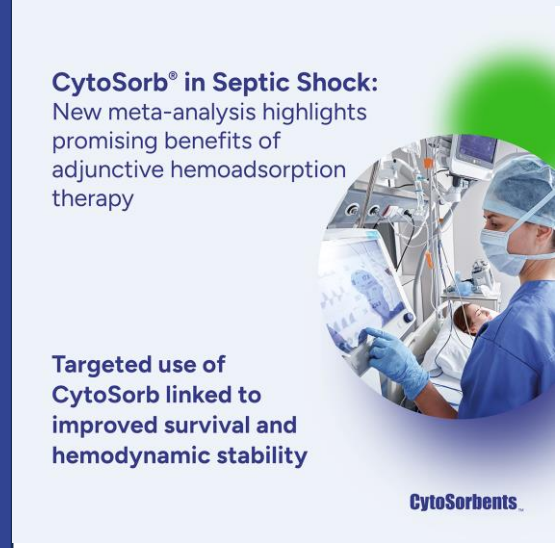
Compare this to the only 10-15% of patients who require dialysis in the ICU that generates billions of dollars in revenue for major dialysis companies.



FRESENIUS MEDICAL CARE · Vantive · B BRAUN SHARING EXPERTISE · AsahiKASEI · NIKKISO · NIPRO · JMS

CytoSorbents™

CytoSorb Supported by a Wealth of Clinical Data



Voices around the world

CytoSorbents™

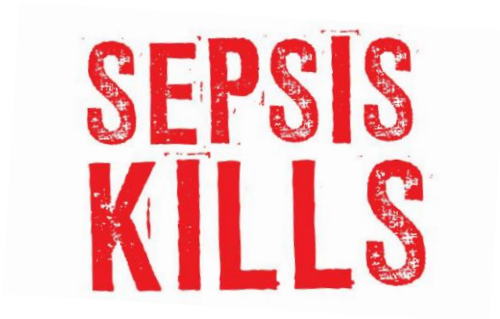
Sepsis and Septic Shock are Deadly

- Sepsis is a complex life-threatening condition where the inflammatory response to a serious infection can spiral out of control, fueled by the excessive production of cytokines (cytokine storm), bacterial toxins, and other inflammatory agents

- Unchecked, massive inflammation can lead to Septic Shock – an often fatal complication marked by circulatory collapse and a lethal drop in blood pressure and a host of other problems like capillary leak and fluid overload that can lead to multiple organ failure and death

- Sepsis and septic shock afflict an estimated 49 million people worldwide each year, killing 11 million, and accounts for 1 in 5 deaths globally

- Supportive care treatment has improved, but mortality is still unacceptably high, despite antibiotics, fluids, vasopressors, and mechanical “life support”



CytoSorbents™

CytoSorbents is Leading a New Era in Sepsis Treatment

For more than a decade, CytoSorbents has collaborated with clinicians and scientists around the world to advance the treatment of sepsis and septic shock by complementing traditional antibiotics with the broad-spectrum capability of CytoSorb

Antibiotics treat the infection

CytoSorb treats the deadly inflammatory response by removing the “fuel to the fire” that causes a system crash

CytoSorbents™

CytoSorb is EU CE mark approved but not yet cleared or approved in the U.S./Canada

CytoSorb Enables Multi-Faceted Attack on Septic Shock

A wealth of published, peer-reviewed studies support the broad mechanisms of action of CytoSorb that enable a comprehensive and multi-faceted attack on septic shock – from beginning to end

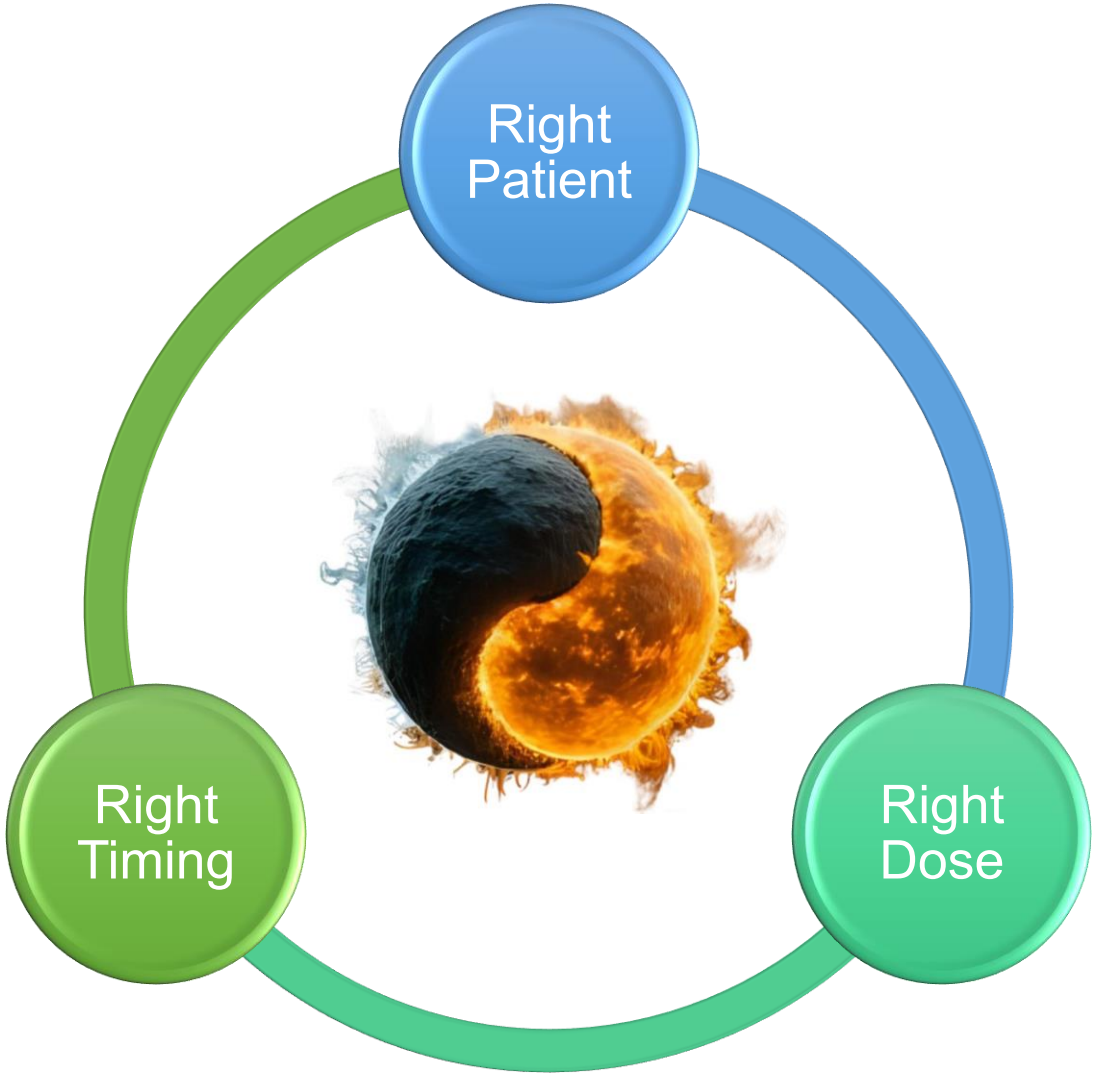
CytoSorb reduces Cytokines and other Inflammatory Toxins that can help break the vicious cycle of uncontrolled inflammation

In doing so, CytoSorb has been associated with achieving **Core Treatment Goals** in Septic Shock

- Patient stabilization (shock reversal, improved oxygenation, lowered lactic acid, improved microcirculation, etc)
- Reduced leakiness of leaky blood vessels
- Ability to actively remove excessive fluid to help reduce fluid overload in organs and improve organ function

CytoSorbents™

The Key to Success: Right Patient, Right Timing, Right Dosing



Just like antibiotics, CytoSorb works most effectively when:

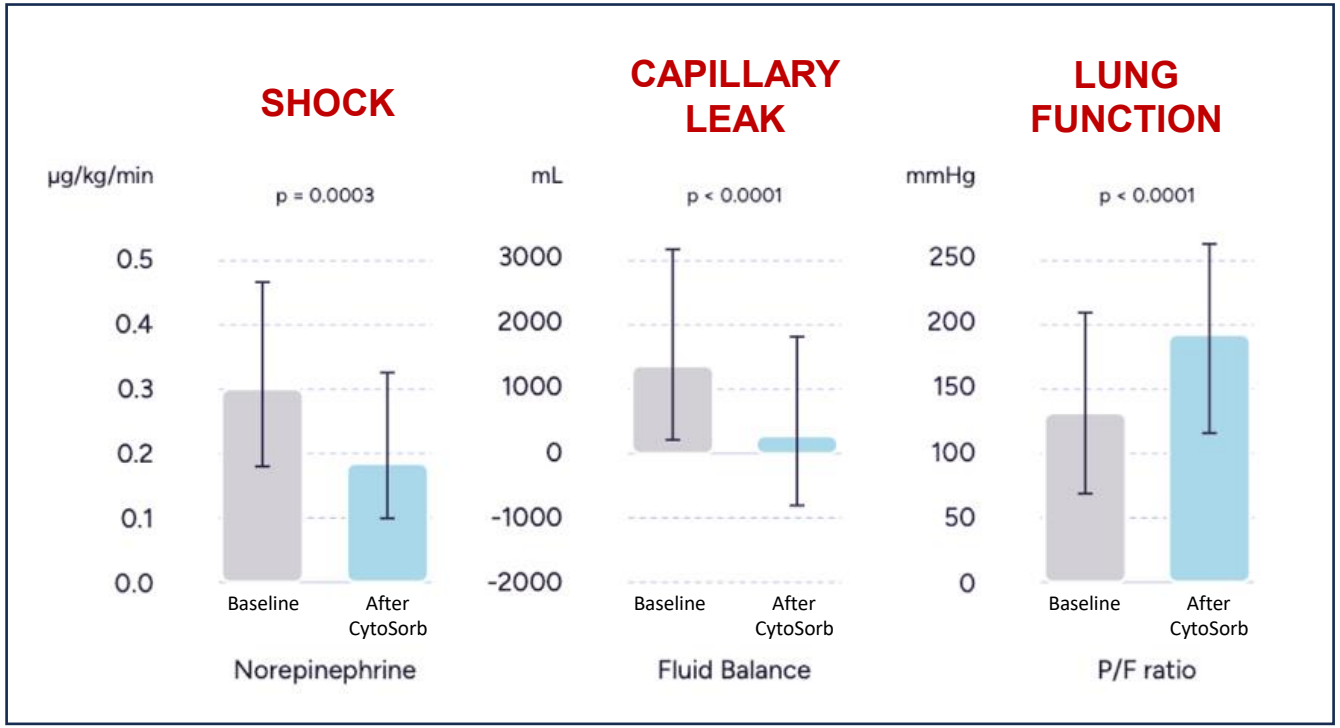
- Treat Early
- Treat Intensively
- Compete the Full Course of Treatment

CytoSorbents™

2025: COSMOS Registry Highlights Treatment Strategy Success

COSMOS registry, patient characteristics

- Data from 150 patients analyzed
- Critical care indications:
  - Septic shock (57.6%)
  - Cardiogenic shock (12.9%)
  - Rhabdomyolysis (10.6%)
  - Acute/acute-on-chronic liver failure (10.6%)
  - Acute respiratory distress syndrome (6.8%)
  - Others (9.1%)



When added to standard therapy, CytoSorb treatment:

- Was associated with significant improvements in fundamental problems in critical illness: Shock, capillary leak, & lung function
- Observed mortality rates in Registry participants were lower compared with the predicted mortality rates according to standardized and established critical care risk scores

Ferrer, R, et al., J. Intensive Med. ***2025*** *In press;*

CytoSorbents™

CytoSorb is EU CE mark approved but not yet cleared or approved in the U.S./Canada

2025: Early & Intensive Treatment with More Blood Treated Works Best

Original Research

Real-World Outcomes of Hemoadsorption with CytoSorb® in Patients with Septic Shock: Insights from a Single-Center Study

Giorgio Berlot, MD[1], Paolo Carocci, MD[1], Valentina Votrico, MD[2], Barbara Iacoviello, MD[1], Nicolò Taverna, MD[1], Ugo Gerini, MD[3], Vittorio di Maso, MD[4], and Ariella Tomasini, MD[1]

- Large, retrospective single center study
- 175 patients with septic shock treated with CytoSorb
- Evaluated the impact of early versus late, and low versus high intensity treatment with CytoSorb on mortality compared to predicted mortality based on illness severity scores

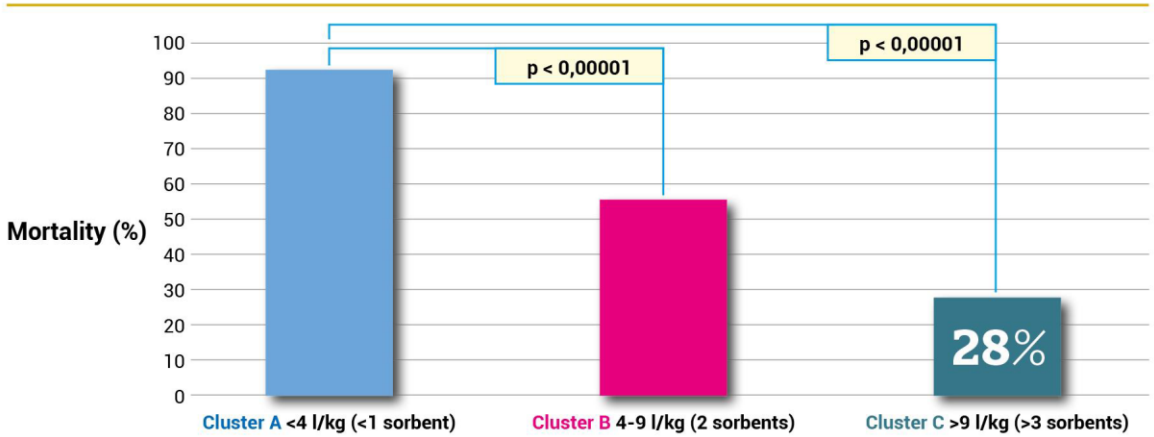
Early and Intensive Treatment with CytoSorb was Associated with Twice the Predicted Survival

Table 3. Observed Versus Expected Mortality (%).

Categories	Expected mortality (%)	Observed mortality (%)	p-value
All (n = 175)	66	49	0.048
Early starters (n = 102)	66	48	n.s.
Late starters (n = 73)	70	51	n.s.
High intensity (n = 90)	63	30	0.002
Low intensity (n = 85)	71	69	n.s.
Early starters-high intensity (n = 56)	63	30	0.02
Late starters-low intensity (n = 38)	74	68	n.s.

Abbreviations: n.s., nonsignificant.

The Amount of Blood Purified by CytoSorb was Directly Associated with Higher Survival - Highlighting the Importance of Treatment Intensity and Dosage



*Berlot, G, et al., J. Intensive Care Med. **2025** Sep; 40(9):993-1000; 14(7), 2285; doi: 10.1177/08850666251331905.*

CytoSorb Improves Survival in Septic Shock Meta-Analysis

Journal of Clinical Medicine

MDPI

Systematic Review

Hemoadsorption in the Management of Septic Shock: A Systematic Review and Meta-Analysis

David Steindl [1,†], Tim Schroeder [2,†], Alexander Krannich [3,*] and Jens Nee [2]

CHARITÉ UNIVERSITÄTSMEDIZIN BERLIN

- Steindl, et al. (2025) from Charite in Berlin conducted a large meta-analysis of 744 septic shock patients from 1 RCT and 8 observational studies from 2019-2024, of which 449 patients were treated with CytoSorb
- CytoSorb use was associated with:
  - Reduced in-hospital mortality (OR 0.64, p=0.04)
  - A 50% reduction in 28-30-day mortality compared to without (OR 0.46, p=0.003)
  - Significant hemodynamic improvement with reductions in vasopressor need

This was the largest meta-analysis in septic shock patients treated with CytoSorb to date

Steindl, D., et a;., J. Clin. Med. 2025, 14(7), 2285; https://doi.org/10.3390/jcm14072285

CytoSorbents™

CytoSorbents™

Working to save lives together.

Turning the Tide of Sepsis and Septic Shock:

Real World Insights with CytoSorb

September 10, 2025

Link to webinar replay: https://cyto.news/webinar-sepsis/sep10

The Opportunity of

DrugSorb™ ATR

DrugSorb-ATR s an investigational device that is not yet cleared/approved by FDA, Health Canada, or by any other Global Regulatory Agency and is not commercially available for sale

CytoSorbents™

Blood Thinners Can Cause Serious Perioperative Bleeding

- Millions of people are on blood thinners to reduce their risk of heart attack and stroke
- However, if urgent, unscheduled surgery is required, they risk serious perioperative bleeding
- For example, acute heart attack patients commonly receive “super-aspirin” blood thinners like Brilinta® (ticagrelor) to improve clinical outcomes.
- But Brilinta® (ticagrelor; AstraZeneca) can cause serious and potentially life-threatening bleeding in patients that need to undergo urgent coronary artery bypass graft (CABG) surgery
- Only drug washout for 3-5 days can reduce the risk of serious bleeding. However:
  - Frequently, surgery cannot wait - patients now risk major bleeding
  - Delaying surgery in a patient who is still having a heart attack risks complications like sudden death, and is expensive and an inefficient use of hospital resources
- DrugSorb-ATR is an FDA Breakthrough Device intended to address this pervasive and serious unmet medical need in the U.S. and Canada that puts tens of thousands of patients at risk each year and addresses a >$1B market opportunity over time

CytoSorbents™

DrugSorb-ATR is an investigational device in the U.S. and Canada and not yet cleared/approved

Brilinta® and the Use Case for DrugSorb™ ATR

DrugSorb™ ATR

The ultimate goal of DrugSorb-ATR is to allow patients to get the critical surgery they need without delay while reducing or preventing bleeding complications

CytoSorbents™

DrugSorb-ATR is an investigational device in the U.S. and Canada and not yet cleared/approved

Seeking De Novo Authorization for DrugSorb-ATR

- U.S. & Canadian randomized controlled pivotal STAR-T trial established DrugSorb-ATR as a De Novo 510(k) eligible device, DrugSorb-ATR must show that its probable benefits outweigh its probable risks to gain market clearance

- Our initial De Novo submission was reviewed by FDA last year with the resolution of most issues but was denied citing the need for additional information to support efficacy and our proposed label indication. That said, there were three important outcomes from our discussions with FDA

  1) FDA recommended a new De Novo submission to provide new real-world evidence and analyses to further support DrugSorb-ATR's effectiveness in clinical practice that were either not available or not eligible to be submitted with the first submission due to FDA regulations

  2) FDA raised no safety concerns with DrugSorb-ATR, significantly reducing the "risk" side of the De Novo assessment. Importantly, under FDA Breakthrough Device, De Novo, and Least Burdensome guidelines, FDA has established a precedent to provide market approval for safe/low risk devices and allow post-market data collection (e.g. registry) to answer remaining questions on efficacy

  3) FDA indicated agreement that a new De Novo review would focus on the remaining open items from the prior submission, which is expected to streamline the process.

CytoSorbents™

DrugSorb-ATR is an investigational device in the U.S. and Canada and not yet cleared/approved

FDA Regulatory Timeline

- On November 7, 2025, we filed a formal Pre-Submission Meeting Request with supporting documentation
- A Pre-Submission Meeting is scheduled for this month and is expected to confirm FDA requirements for the new De Novo application
- Expect to file a new De Novo Filing this quarter, that will include robust analyses of real-world evidence that FDA has not seen before
- Anticipate mid-2026 regulatory decision following a typical 150-day review process
- Review may be expedited as DrugSorb-ATR is still an FDA Breakthrough Device eligible for priority and interactive review

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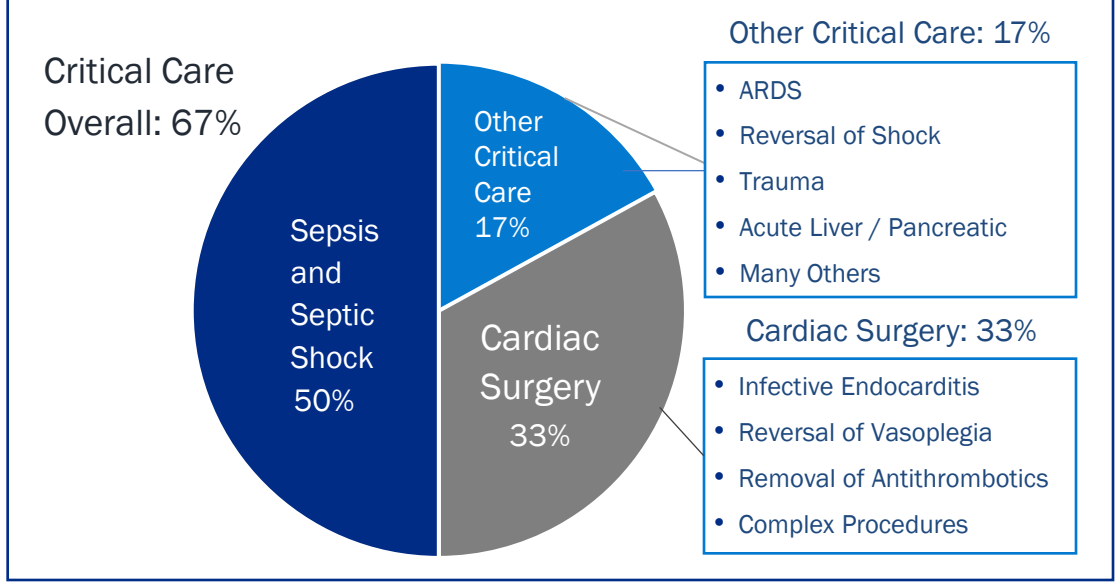
Financial Performance

CytoSorbents™

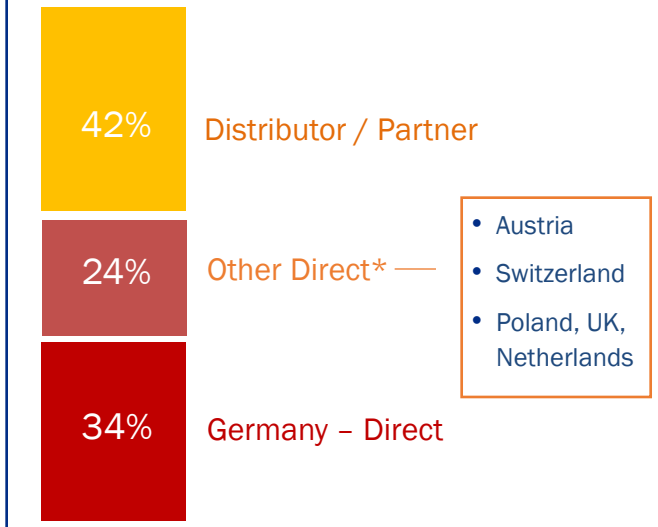
CytoSorb Commercialization Focus

- We sell CytoSorb in more than 70 countries worldwide with nearly 300,000 treatments to date
- Sell Direct in Germany and 8 other countries & through Distributors and partners in the remainder

Estimated Revenue By Market



Revenue By Geography

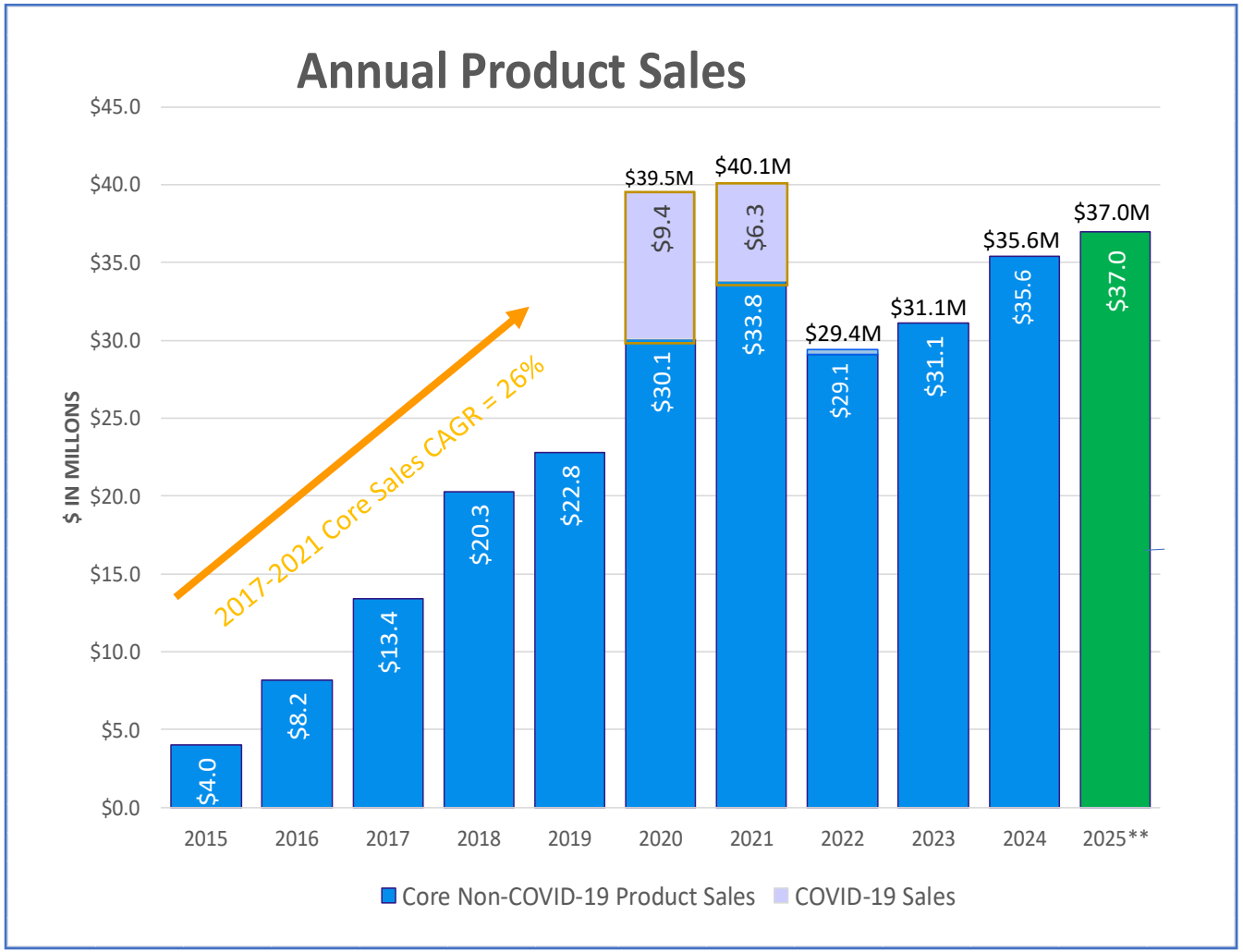


* Switzerland, Austria, Poland, Netherlands, England, Wales, North Ireland, Scotland, Ireland

CytoSorbents™

CytoSorb is EU CE mark approved but not yet cleared or approved in the U.S./Canada

Targeting Acceleration of Annual Revenue Growth



** Preliminary, unaudited 2025 revenue

Revenue

- 2025 full year revenue estimated to be $37.0M, +4% vs $35.6M in 2024

Estimated Gross Margins

- Q4 2025: 73% - 75% vs 71% in Q4 2024 and up sequentially from 70% in Q3 2025
- Full year 2025 72% vs 71% in prior year

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Strengthened Balance Sheet and Path to Profitability

- Accelerating the path to profitability has continued to be a key priority
- Implemented a previously announced strategic workforce and cost reduction program in the fourth quarter and expect to be approximately cash-flow breakeven (excluding restructuring payments) for the first quarter of 2026.
  - *Workforce reduction of approximately 10%*
  - *Other reductions across production and operating expenses,*
  - *Provide sufficient liquidity for key growth initiatives*
  - *Restructuring charge of approximately $900,000, including severance and other charges*
- Amended credit facility on November 13, 2025 provided an additional $2.5 million of cash and an extension of the interest-only period to December 31, 2026; and provides for an additional $2.5 million of cash and a further extension of the interest only period to June 30, 2027 with DrugSorb®-ATR FDA marketing approval.

A Clear and Compelling Value Proposition

We believe we are significantly undervalued with a sound plan to build and maximize shareholder value

- ✓ CytoSorb is an established, international core business in critical care and cardiac surgery with $37M in high margin product sales and an excellent “razorblade” business model with expectations for strong future growth due to:
  - Significant critical care and cardiac surgery market opportunity worldwide, targeting major unmet medical needs
  - A commitment to bringing DrugSorb-ATR to the North American market with a near-term De Novo submission and anticipated mid-2026 approval
  - Active measures to restore Germany back to growth
- ✓ Strengthened balance sheet and focused on driving improved operating margins
- ✓ Goal is to drive accelerated growth and drive the company to cash flow breakeven in Q1 2026 and future profitability

CytoSorbents Corporation

NASDAQ: CTSO

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