ATEA Pharmaceuticals

Corporate Presentation

JP Morgan Healthcare Conference 2024

NASDAQ: AVIR

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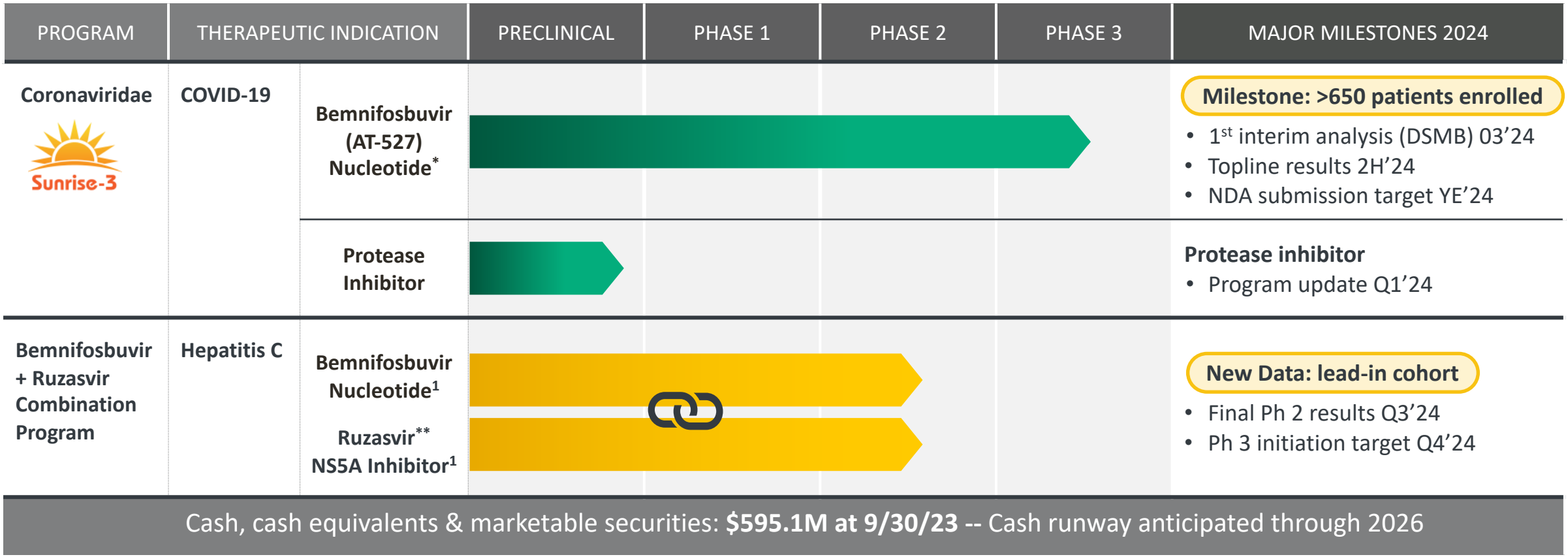
Market data and industry information used throughout this presentation are based on management's knowledge of the industry and the good faith estimates of management. We also relied, to the extent available, upon management's review of independent industry surveys and publications and other publicly available information prepared by a number of third-party sources. All of the market data and industry information used in this presentation involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. Although we believe that these sources are reliable, we cannot guarantee the accuracy or completeness of this information, and we have not independently verified this information. While we believe the estimated market position, market opportunity and market size information included in this presentation are generally reliable, such information, which is derived in part from management's estimates and beliefs, is inherently uncertain and imprecise. No representations or warranties are made by the Company or any of its affiliates as to the accuracy of any such statements or projections. Projections, assumptions and estimates of our future performance and the future performance of the industry in which we operate are necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described above. These and other factors could cause results to differ materially from those expressed in our estimates and beliefs and in the estimates prepared by independent parties.

Focused Antiviral Pipeline, Fully Funded Through Key Inflection Points

✓ Advancing innovative oral therapeutics that address the unmet medical needs of patients with serious viral diseases

PROGRAM	THERAPEUTIC INDICATION	PRECLINICAL / PHASE 1 / PHASE 2 / PHASE 3	MAJOR MILESTONES 2024
Coronaviridae Sunrise-3	**COVID-19**	**Bemnifosbuvir (AT-527) Nucleotide***	**Milestone: >650 patients enrolled** • 1st interim analysis (DSMB) 03'24 • Topline results 2H'24 • NDA submission target YE'24
		Protease Inhibitor	**Protease inhibitor** • Program update Q1'24
Bemnifosbuvir + Ruzasvir Combination Program	**Hepatitis C**	**Bemnifosbuvir Nucleotide[1]** **Ruzasvir** NS5A Inhibitor[1]**	**New Data: lead-in cohort** • Final Ph 2 results Q3'24 • Ph 3 initiation target Q4'24



Cash, cash equivalents & marketable securities: **$595.1M at 9/30/23** -- Cash runway anticipated through 2026

*Bemnifosbuvir (generic name for AT-527) is a double prodrug nucleotide analog. ** Worldwide exclusive license for all uses from Merck.

1. Bemnifosbuvir and ruzasvir have each separately generated clinical results and are being developed as a combination for HCV.

Atea's Compelling Value Proposition

Advancing Oral Antiviral Therapies with Multibillion Dollar Market Opportunities

COVID-19 continues with projected **~$4-5B** global market opportunity

HCV: ~$3.5B global net sales in 2022; **~2.4M** estimated to have HCV in US

Innovative Therapies Advancing to Address Unmet Medical Needs

Global Phase 3 SUNRISE-3 trial evaluating bemnifosbuvir for treatment of COVID-19 in high-risk patients

Global Phase 2 combination trial for bemnifosbuvir + ruzasvir in HCV patients

Well-Capitalized with Strong Balance Sheet

$595.1M in cash, cash equivalents and marketable securities as of 9/30/23

Fully funded through major inflection points with **cash runway anticipated through 2026**

Advancing a Focused Pipeline of Innovative Oral Antiviral Therapeutics Targeting Multibillion Dollar Markets to Deliver Significant Shareholder Value

HEPATITIS C

Program Update: Potential Best-in-Class Pan-Genotypic Regimen

- Phase 2 Open Label Study of Bemnifosbuvir + Ruzasvir
- New Data From Lead-in Cohort

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HCV

Continues to be a Health Crisis in US

Recognized ongoing unmet needs by US healthcare providers

UNMET MEDICAL NEED in US:

~ 2.4M estimated to have HCV

New and reinfection rates exceed cures

Best-in-Class Target Profile - Bemnifosbuvir + Ruzasvir

- Short 8-week treatment with lower daily pill burden
- Potential for fewer side effects, low risk for drug-drug interactions and no food effect
- Protease inhibitor-free treatment

Global Market Opportunity:

$3.5B
net sales in 2022

Primarily
2
product market

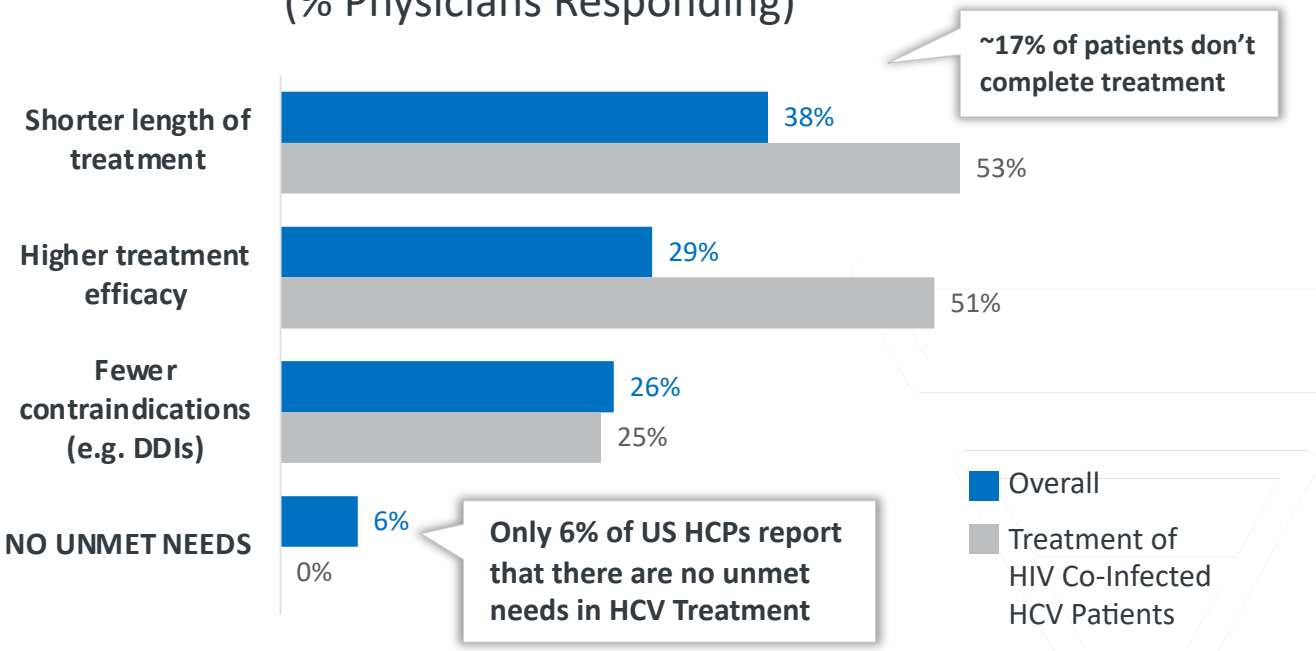
No
competitors in clinical development

Market Research Shows Substantial Unmet Needs in HCV Treatments

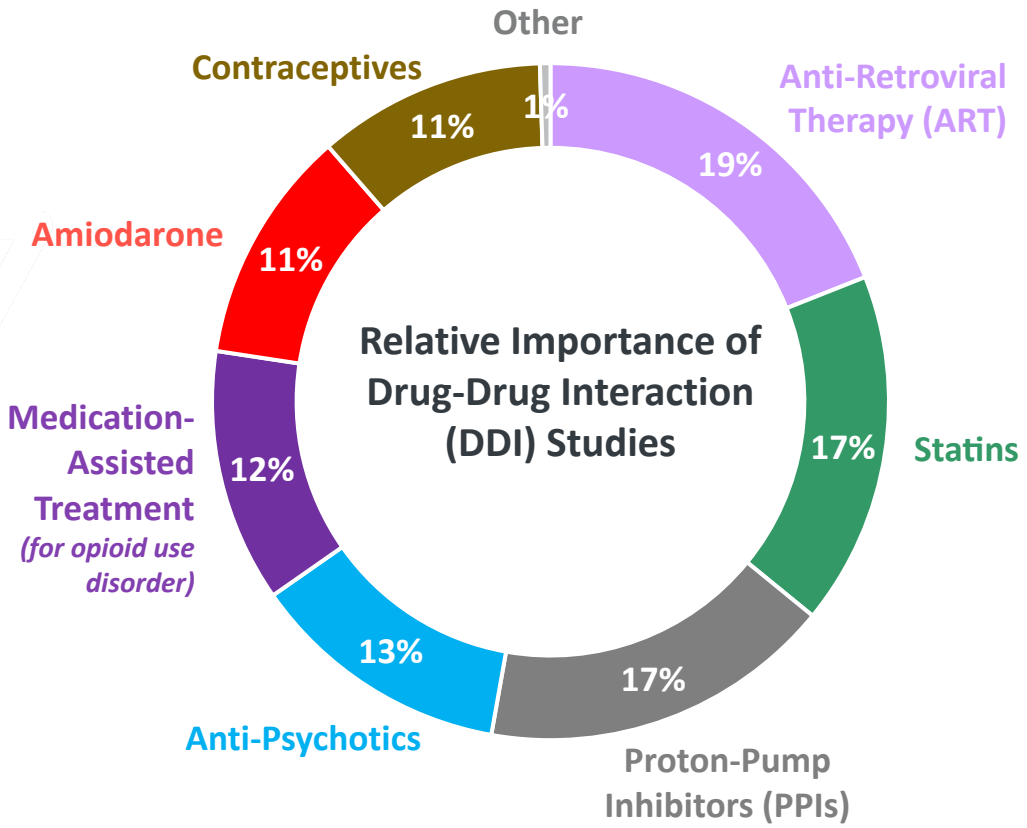
Only 6% of US Healthcare Providers Satisfied with Current Treatments

HCV TREATMENT UNMET NEEDS

(% Physicians Responding)



Drug-Drug Interactions are an Important Issue Across Physician Specialties



N = 157 US Healthcare Providers (Hepatologists, IDs, Gastros and PCPs)

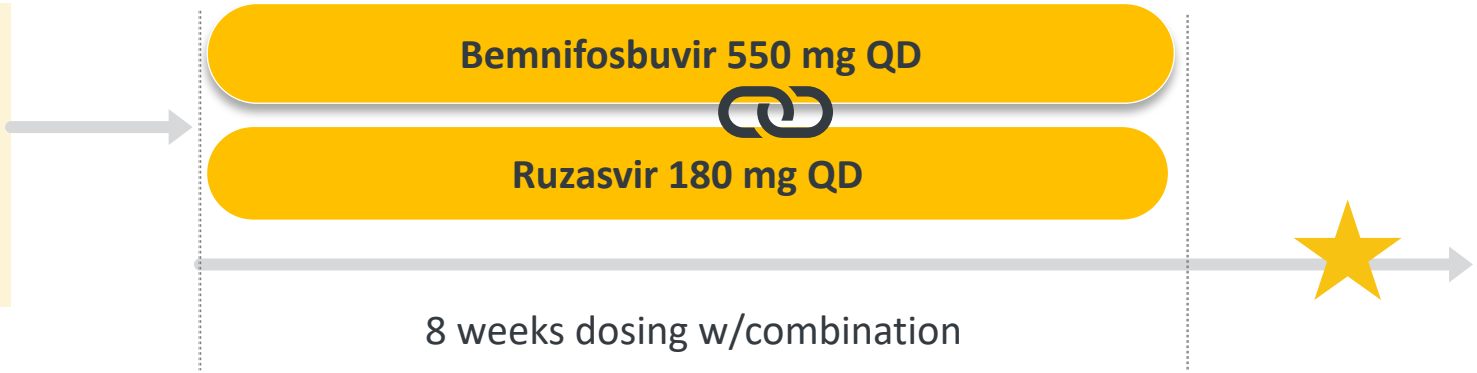
- Treated at least 25 HCV patients in previous 12 months
- Initiated 15+ HCV Patients on DAA Treatment in the previous 12 months
- Prescribed Epclusa or Mavyret to at least 50% of their eligible patients in the previous 12 months

Information Based on Atea's Proprietary Quantitative Market Research Conducted in Nov '23

Phase 2 Open Label Study of Bemnifosbuvir + Ruzasvir in HCV Patients

Study Design: Open label combination

N=280: including a lead-in cohort



Patient Population:

- HCV-infected patients, including compensated cirrhosis
- Direct-acting antiviral naïve
- All genotypes

Initial Lead-in Cohort:

- Safety and tolerability
- Sustained virologic response (SVR) at Week 4 post-treatment (SVR4)

Primary Endpoints:

- SVR at Week 12 post-treatment (SVR12)
- Safety

Other Endpoints:

- Virologic failure
- SVR at Week 24 post-treatment (SVR24)
- Resistance

Patient Demographics and Baseline Characteristics

Phase 2 Open Label Study of BEM + RZR

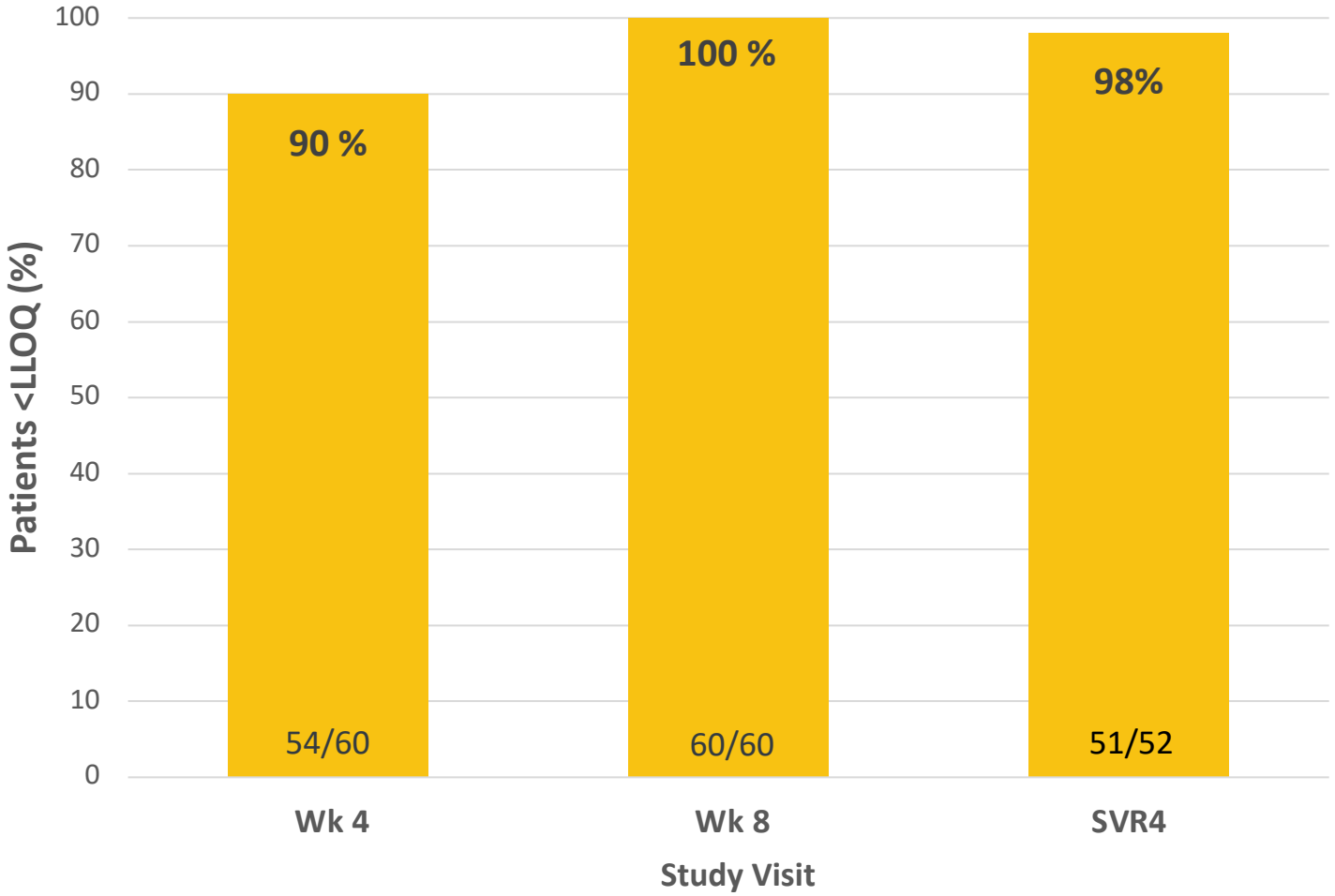
Patient Profile		Total (N=60)
Mean age, yrs (range)		48.5 (25-79)
Mean BMI, kg/m^2 (range)		26.1 (18.9-47.1)
Male/Female, n (%) / n (%)		34 (56.7) / 26 (43.3)
Race, n (%)	White	57 (95)
	Black	1 (1.7)
	Asian	2 (3.3)
DAA-naïve, n (%)		60 (100)
HCV genotype, n (%)	1a	6 (10)
	1b	38 (63.3)
	1*	1 (1.7)
	2	2 (3.3)
	3	13 (21.7)
Fibrosis Stage, n (%)	F0	9 (15)
	F1	26 (43.3)
	F2	15 (25)
	F3	10 (16.7)

*unspecified subtype

- Lead-in cohort comprised of non-cirrhotic patients only
- Compensated cirrhotic patients will be enrolled in second part of Phase 2 study

98% SVR4 (Post-Treatment) Observed in All Genotypes

Phase 2 Open Label Study of BEM + RZR



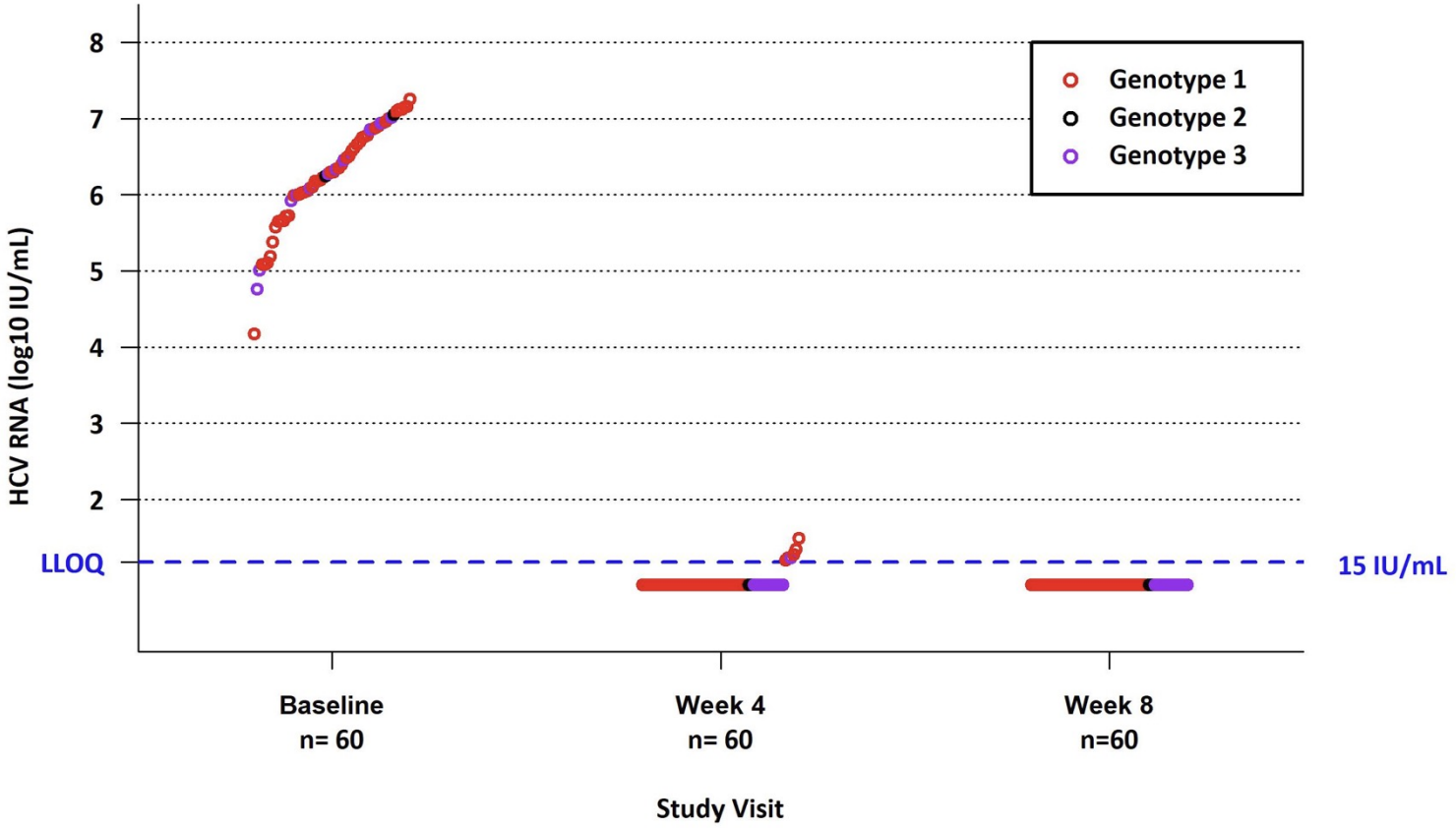
LLOQ=Lower limit of quantification

Initial SVR4 data from 52 of the 60 patients

- 98% SVR4 rate with 8 weeks treatment
- 1 genotype 2 subject with poor adherence did not achieve SVR4 (lower pill consumption and inadequate PK drug levels)

On-Treatment Viral Kinetics – Individual Patient Data

Phase 2 Open Label Study of BEM + RZR



- All patients (n=60) near or below LLOQ by Week 4
- BEM + RZR kinetics compare favorably to Mavyret[1], the only approved 8-week treatment for HCV
- Very rapid kinetics across genotypes support an 8-week regimen

LLOQ=Lower limit of quantification

1. Sarrazin et.al; Presented at ID Week 2018

Safety Summary

Phase 2 Open Label Study of BEM + RZR

- All patients (n=60) completed the 8-week treatment period
- Bemnifosbuvir + RZR was generally safe and well tolerated
- No drug-related SAEs or premature treatment discontinuations
- No trends observed in adverse events (mostly mild) and safety laboratory parameters

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Global Phase 2 Open Label Trial Update

Bemnifosbuvir + Ruzasvir: Potential Best-in-Class Pan-genotypic Regimen

On track to achieve interim efficacy criterion (>90% SVR4) leading to re-initiation of enrollment to complete Phase 2 study (total n=280)

Activation of ~50 clinical sites in ~15 countries on track for completion of Phase 2 study

- **Preparing for Phase 3 study**, initiation anticipated Q4'24
- Fixed dose combination tablet clinical selection study ongoing in US

✓ **Bemnifosbuvir** is being developed as the most potent nucleotide inhibitor for HCV[1]

✓ **Ruzasvir**, an NS5A inhibitor, is a highly potent drug candidate[2]

1. PLoS ONE 15(1):e0227104 https://doi.org/10.1371/journal.pone.0227104 2. Journal of Viral Hepatitis, 2019, September:26 (9); 1127-1138.

COVID-19

Bemnifosbuvir Phase 3 Program

- COVID-19 Unmet Medical Need
- Major Milestone Achieved for Global Phase 3 SUNRISE-3 Trial

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COVID-19

Continuing Threat, Particularly for Those Vulnerable to Severe Disease

New, Safe and Well-Tolerated Oral Therapies Needed

UNMET MEDICAL NEED:

- Drug-drug interactions
- Safety concerns
- Tolerability issues

Bemnifosbuvir Target Profile:

- Low risk of drug-drug interactions
- Generally safe and well-tolerated
- Distinct MOA with high barrier to resistance

Oral Antiviral Global Market Opportunity:

~$4-5B

2 product market

Opportunity to expand market with improved product profile

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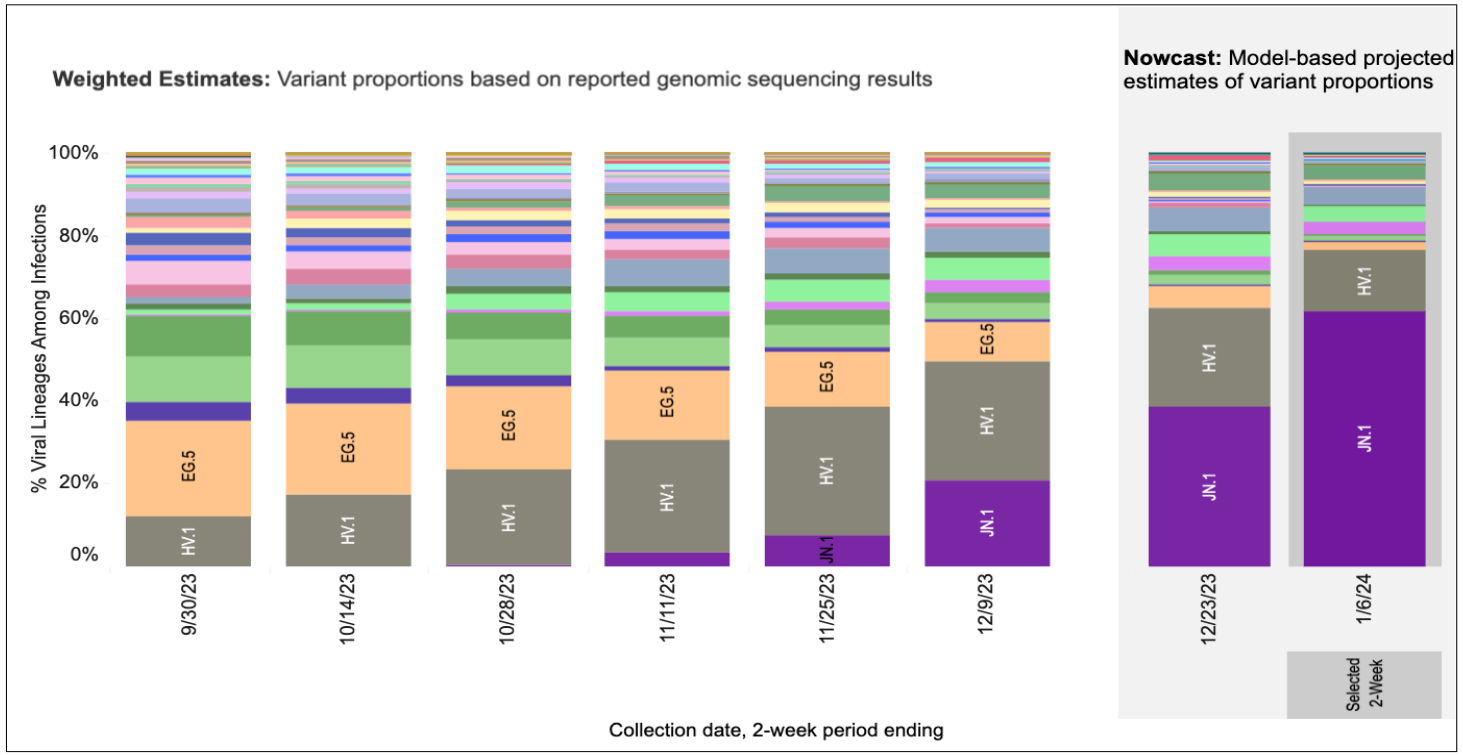
COVID-19 Variants Continue to Rapidly Emerge Creating Waves of Infection

Weighted and Nowcast Estimates in United States for 2-Week Periods in 9/17/2023 – 1/6/2024



Nowcast Estimates in United States for 12/24/2023 – 1/6/2024

USA

WHO label	Lineage #	US Class	%Total	95%PI
Omicron	JN.1	61.6%	54.9-67.9%	
	HV.1	14.8%	12.3-17.7%	
	JD.1.1	4.1%	3.4-5.0%	
	HK.3	4.0%	3.4-4.8%	
	JG.3	3.7%	3.0-4.6%	
	BA.2.86	2.8%	1.9-4.2%	
	EG.5	2.4%	1.9-3.0%	
	FL.1.5.1	1.0%	0.7-1.3%	
	JF.1	0.8%	0.6-1.1%	
	EG.5.1.8	0.7%	0.5-1.1%	
	XBB.1.16.6	0.5%	0.4-0.8%	
	GE.1	0.5%	0.1-1.9%	
	XBB.1.16.17	0.4%	0.2-0.9%	
	XBB.1.16.11	0.4%	0.2-0.5%	
	XBB.1.5.70	0.3%	0.2-0.6%	
	GK.1.1	0.3%	0.2-0.4%	
	HF.1	0.3%	0.2-0.4%	
	BA.2	0.3%	0.1-0.9%	
	XBB	0.2%	0.1-0.3%	
	XBB.1.16.15	0.2%	0.1-0.3%	
	XBB.1.9.1	0.2%	0.1-0.3%	
	XBB.2.3	0.2%	0.1-0.2%	
	XBB.1.16	0.1%	0.0-0.1%	
	GK.2	0.1%	0.0-0.1%	
	CH.1.1	0.0%	0.0-0.1%	
	XBB.1.5	0.0%	0.0-0.1%	
	EG.6.1	0.0%	0.0-0.1%	
	XBB.1.16.1	0.0%	0.0-0.0%	
	XBB.1.9.2	0.0%	0.0-0.0%	
	XBB.1.5.68	0.0%	0.0-0.0%	
	XBB.2.3.8	0.0%	0.0-0.0%	
	XBB.1.42.2	0.0%	0.0-0.0%	
	XBB.1.5.72	0.0%	0.0-0.0%	
	XBB.1.5.59	0.0%	0.0-0.0%	
	XBB.1.5.10	0.0%	0.0-0.0%	
	FD.1.1	0.0%	0.0-0.0%	
Other	Other*	0.0%	0.0-0.1%	

* Enumerated lineages are US VOC and lineages circulating above 1% nationally in at least one 2-week period. "Other" represents the aggregation of lineages which are circulating <1% nationally during all 2-week periods displayed.
\# While all lineages are tracked by CDC, those named lineages not enumerated in this graphic are aggregated with their parent lineages, based on Pango lineage definitions, described in more detail here: https://www.pango.network/the-pango-nomenclature-system/statement-of-nomenclature-rules/.

https://covid.cdc.gov/covid-data-tracker/#variant-summary

Bemnifosbuvir Remains Fully Active Against Omicron Subvariants, with Similar EC_{90} Target Concentrations

SARS-CoV-2 Variant		AT-511 EC_{90}, µM (n)		Fold change (variant/USA-WA1)
Variant	Lineage	Mean	SD	
Original (USA-WA1/2020)	A	0.75 (n=2)	0.21	-
Alpha	B.1.1.7	2.15 (n=3)	0.22	2.9
Gamma	P.1	2.50 (n=3)	0.50	3.3
Epsilon	B.1.427	0.76 (n=2)	0.48	1.0
Original (USA-WA1/2020)	A	0.43 (n=2)	0.12	
Beta	B.1.351	0.80 (n=2)	0.23	1.9
Original (USA-WA1/2020)	A	1.20 (n=3)	0.37	-
Delta	B.1.617.2	1.36 (n=3)	0.34	1.1
Original (USA-WA1/2020)	A	0.58 (n=5)	0.26	-
Omicron (BA.1)	B.1.1.529	0.50 (n=3)	0.27	0.86
Original (USA-WA1/2020)	A	0.59 (n=2)	0.18	-
Omicron (BA.2)	B.1.1.529	0.54 (n=2)	0.08	0.92
Original (USA-WA1/2020)	A	0.88 (n=2)	0.15	-
Omicron (BA.4)	B.1.1.529	0.54 (n=2)	0.27	0.61
Omicron (BA.5)	B.1.1.529	0.81 (n=2)	0.20	0.92
Original (USA-WA1/2020)	A	0.96 (n=3)	0.17	-
Omicron (XBB)	B.1.1.529+BA	1.06 (n=4)	0.21	1.1
Original (USA-WA1/2020)	**A**	**0.78 (n=2)**	**0.11**	**-**
Omicron (EG.5.1)	**EG.5+EG.5**	**1.10 (n=2)**	**0.26**	**1.42**

EC_{90} = effective concentrations inhibiting 90% of viral replication

Readout: VYR (virus yield assay); Cells: Normal human-derived tracheal/bronchial epithelial cells. AT-511 is the free base of bemnifosbuvir nsp12 (RdRp) is highly conserved across all tested variants, with only changes in P323L (all) and G671S (Delta, Omicron XBB and EG.5.1)

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COVID-19: Unmet Medical Need Remains in High-Risk Population

*SUNRISE-3 **Only** Phase 3 Program in High-Risk Patients with Hospitalization as Primary Endpoint*

- **SUNRISE-3 Milestone**: **> 650 patients** enrolled in monotherapy arm
  - First interim analysis (DSMB) 03’24
- **~60%** of patients from US clinical sites
- **Clear ongoing unmet medical need due to safety concerns, tolerability and drug-drug interactions associated with current options**
  - CDC: high hospitalization rates for winter respiratory season 2023/2024[1]
  - COVID-19 ~50% of hospitalizations, flu & RSV other 50%
  - Low booster uptake: currently ~20% of US adults
  - Unmet medical need particularly important in most vulnerable patients including the elderly, immunocompromised and those with underlying risk factors

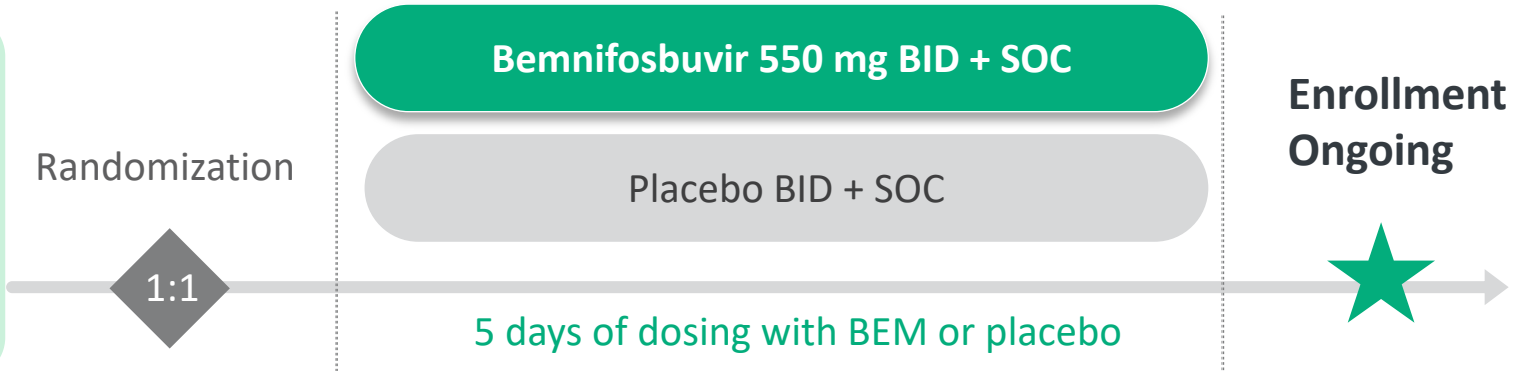
1. https://www.cdc.gov/forecast-outbreakanalytics/about/season-outlook.html#october-update

SUNRISE-3: Global Phase 3 Trial in High-Risk COVID-19 Outpatients

Bemnifosbuvir – U.S. Fast Track Designation for COVID-19

Inclusion Criteria: High-risk outpatients with mild or moderate COVID-19, regardless of vaccination status; symptom onset ≤5 days before randomization

Geography: US, Europe, Japan and ROW



Phase 3 Study Design:

- Randomized, double-blind, placebo-controlled
- Bemnifosbuvir or placebo initiated same time as locally available standard of care (SOC)
- Two study populations:
  - *monotherapy* (primary analysis)
  - *combination therapy* (secondary analysis, local SOC includes treatment with other antiviral drugs against COVID-19)
- Two interim analyses for DSMB review (safety, futility)

High-risk outpatients: ≥70, ≥55 w/ one+ risk factors, ≥50 with two+ risk factors, ≥18 immunocompromised conditions

Primary Endpoint:

All-cause hospitalization or death through Day 29 in monotherapy arm (n=~2,200 patients)

Secondary Endpoints:

- COVID-19 related hospitalizations and deaths
- Medically attended visits
- Symptom rebound / relapse
- Viral load rebound

COVID-19

US Oral Antiviral Market Opportunity for COVID-19

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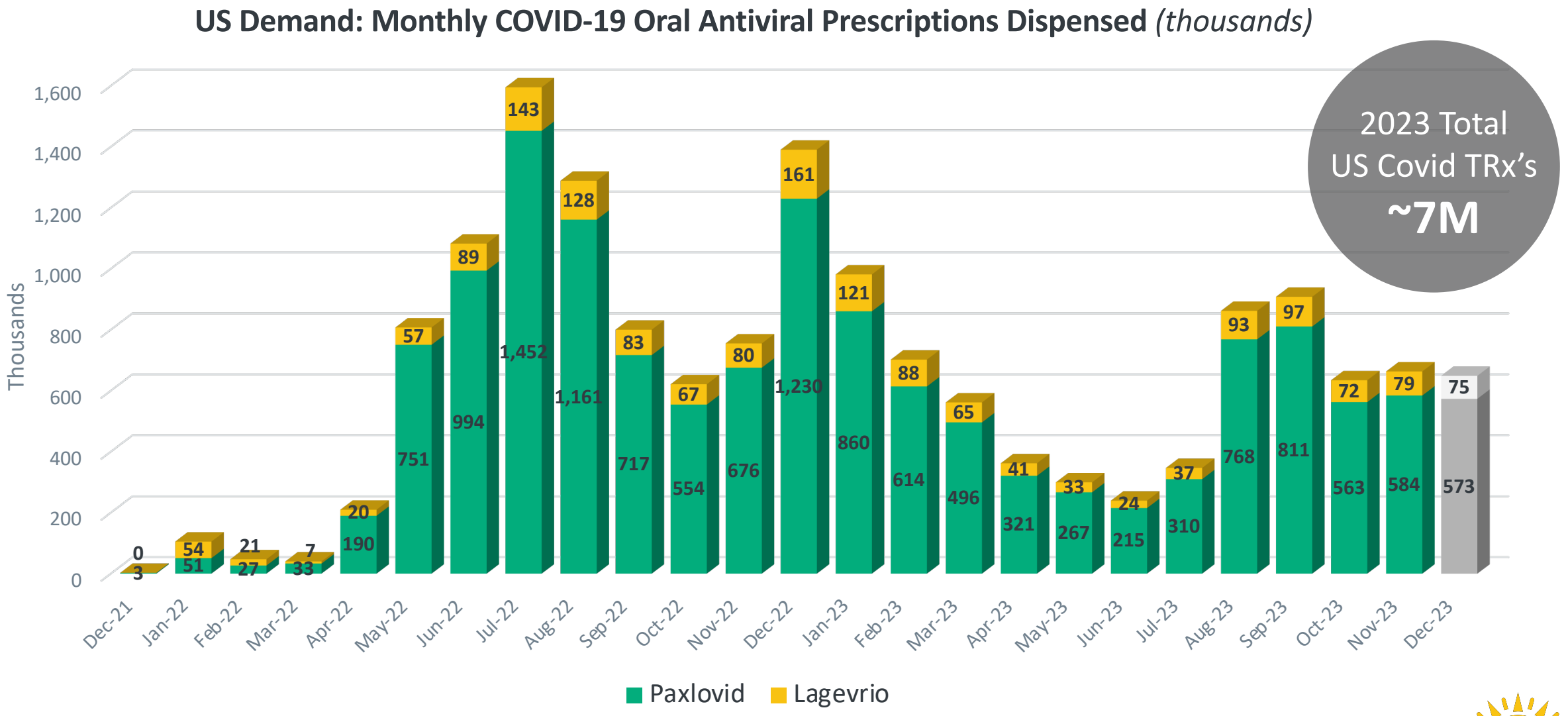
Robust US TRx Scripts of COVID-19 Oral Antivirals Reflects Demand



Source: IQVIA NPA November 2023. December 23 is an Atea estimate.

US Market Expected to Remain a Long-Term Multi-Billion Dollar Opportunity

Projected Annual US COVID-19 Oral Antiviral (OAV) Retail Demand[1]

~7M+
Annual US Retail Rxs
Annualized COVID-19 OAV Rxs[1]

Cost of Treatment[2]
(Paxlovid: $1,390
Lagevrio: $950)

~$4-5B

Expanded Market Opportunities

Paxlovid™ Drug-Drug Interactions are a Concern

590M

Annual US retail prescriptions (2022)[3] for commonly used drug classes where Paxlovid DDI is a concern

seizure medications, anti-arrhythmics, statins, oral corticosteroids, cancer therapies, etc.

Better safety and tolerability profile could lead to broader use

Increased promotion & awareness

No testing needed for prescription

(1) IQVIA TRxs for Paxlovid and Lagevrio from Jan'23–Sep'23 annualized for full year
(2) Cost of Treatment per Rx for both Paxlovid and Lagevrio assumed at the Pfizer announced price of $1,390
(3) IQVIA TRxs for 2022

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Closing Remarks

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Significant Near-term Clinical Milestones

Fully funded Through Key Inflection Points

Sunrise-3

COVID-19 – Global Phase 3 SUNRISE-3 Trial

- 1st interim analysis expected **Q1'24**
- 2nd interim analysis expected **Q2'24**
- Topline results **2H'2024**
- NDA submission target **YE'24**

2024 — 2025

- Resume enrollment **Jan'24**
- Fixed dose tablet selection **Mid-2024**
- Final Ph 2 results **Q3'24**
- Ph 3 Initiation target **Q4'24**

HCV – Global Phase 2 Study

$595.1 M

Cash, cash equivalents & marketable securities at 9/30/23

Cash runway anticipated through 2026

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