Jefferies Global Healthcare Conference

June 5, 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.

Significant Near-term Clinical Milestones in 2024

Fully Funded Through Key Inflection Points

Sunrise-3

COVID-19 – Global Phase 3 SUNRISE-3 Trial

- Full enrollment achieved with 2,221 patients in monotherapy cohort, 74 in combination cohort **Mar'24**
- Topline results **2H'24**
- NDA submission target **YE'24**

2024 — 2025

HCV

- Reported 98% SVR4 rate for lead-in cohort of 60 patients & resumed enrollment **Jan'24**
- Preclinical & new Ph 2 SVR12 data at EASL **Jun'24**
- Fixed dose tablet selection **Mid'24**
- Ph 2 complete SVR12 results **2H'24**
- Ph 3 Initiation target **YE'24**

HCV – Global Phase 2 Study

$541.5 M

Cash, cash equivalents & marketable securities at 3/31/24

Cash runway now anticipated into 2027

ATEA Pharmaceuticals

HEPATITIS C

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

- Phase 2 Open Label Study of Bemnifosbuvir + Ruzasvir

ATEA Pharmaceuticals

HCV

Continues to be a healthcare crisis in US

Recognized ongoing unmet needs by US healthcare providers

UNMET MEDICAL NEED in US:

>2M estimated to have HCV

New chronic HCV cases (~100,000) annually exceed cures

Best-in-Class Target Profile - Bemnifosbuvir + Ruzasvir

Bemnifosbuvir is the most potent nucleotide inhibitor for HCV[1] and ruzasvir is a highly potent NS5A inhibitor[2]

- 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:

>$3B	Primarily **2**	**No**
net sales in 2023	product market	competitors in clinical development

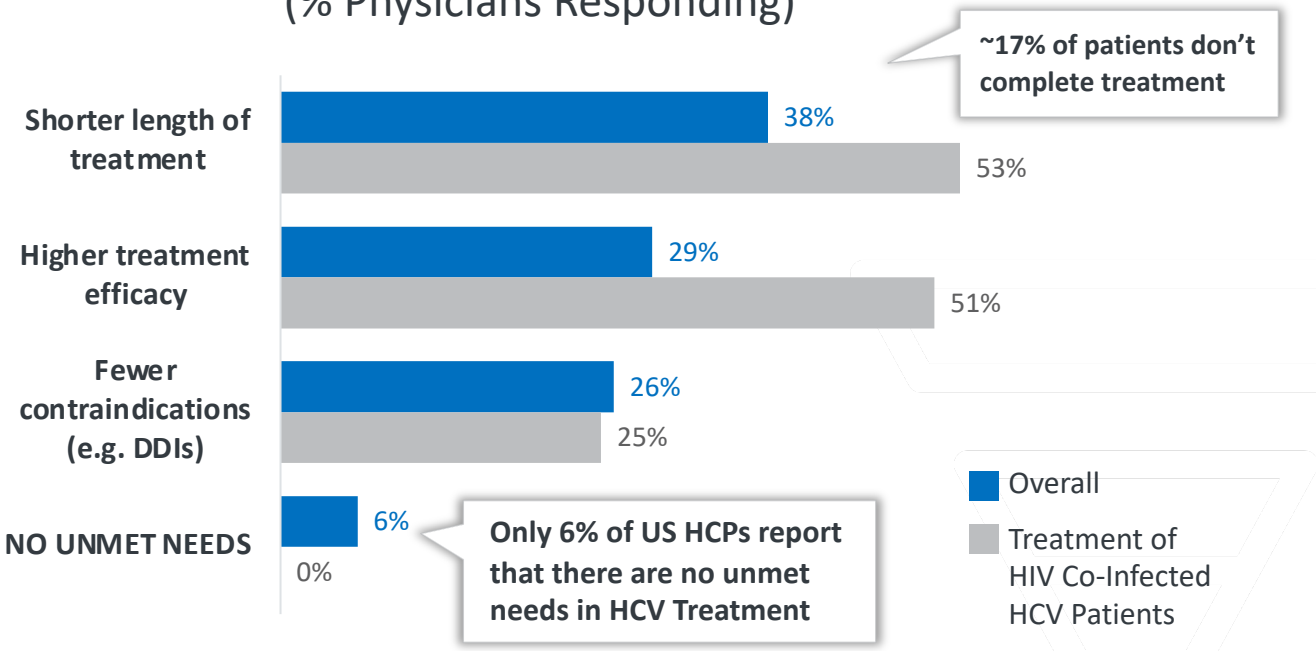
1. PLoS ONE 15(1):e0227104 https://doi.org/10.1371/journal.pone.0227104
2. Journal of Viral Hepatitis, 2019, September:26 (9); 1127-1138.

Market Research Shows Substantial Unmet Needs in HCV Treatments

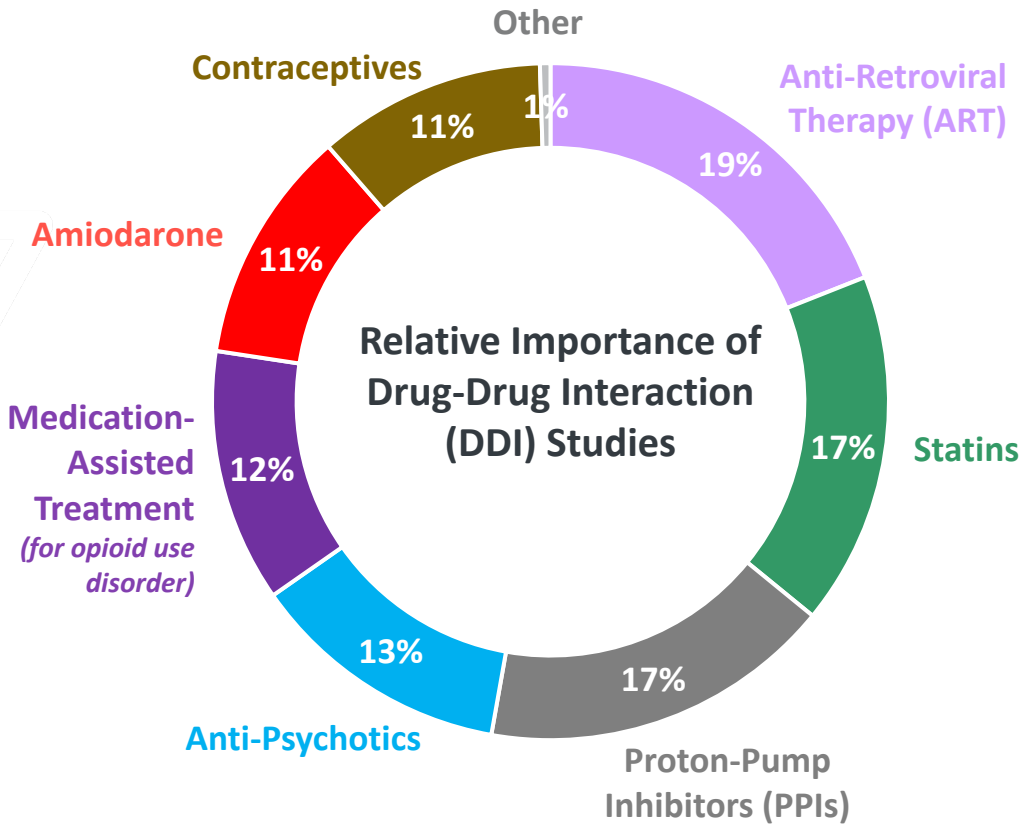
Only 6% of US Healthcare Providers Satisfied with Current Treatments

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

Bemnifosbuvir (BEM) + Ruzasvir (RZR) Target Product Profile

Profile		BEM+RZR	MAVYRET®	EPCLUSA®
Treatment Duration	Non-Cirrhotic	8 Weeks	8 Weeks	12 Weeks
	Compensated Cirrhosis	8 Weeks	8 Weeks	12 Weeks
	Decompensated Cirrhosis	12 Weeks (No RBV)	✗	12 Weeks + RBV
Short Duration		✓	✓	✗
Protease-Inhibitor Free		✓	✗	✓
Low Potential for Drug-Drug Interactions		✓	✗	✓
No Food Effect		✓	✗	✓

RBV= Ribavirin

US HCV Market: Epclusa® & Mavyret®

	2022	2023
# of Patients (NRxs) Treated[1]	93,452	98,412
Total US HCV Market Net Revenues[2]	$1,599M	$1,518M
Net Revenues Per Patient Treated	$17,110	$15,425
Epclusa®* NRx Market Share[1]	53%	54%
Mavyret® NRx Market Share[1]	43%	42%

Market demand grew ~5% 2023

Stable market share

2023

$1.5B
US Net Revenues for DAA

98,412
# of US Patients Treated (NRxs)

Potential US HCV Market Value

Treatment of all current chronic HCV patients

>$20B
Potential Market Value[3]

>2M[4]
Chronic US HCV Prevalence

FUTURE DRIVERS

- US government initiatives
- Optimal product profile
- Removal of HCV prescribing barriers by payors

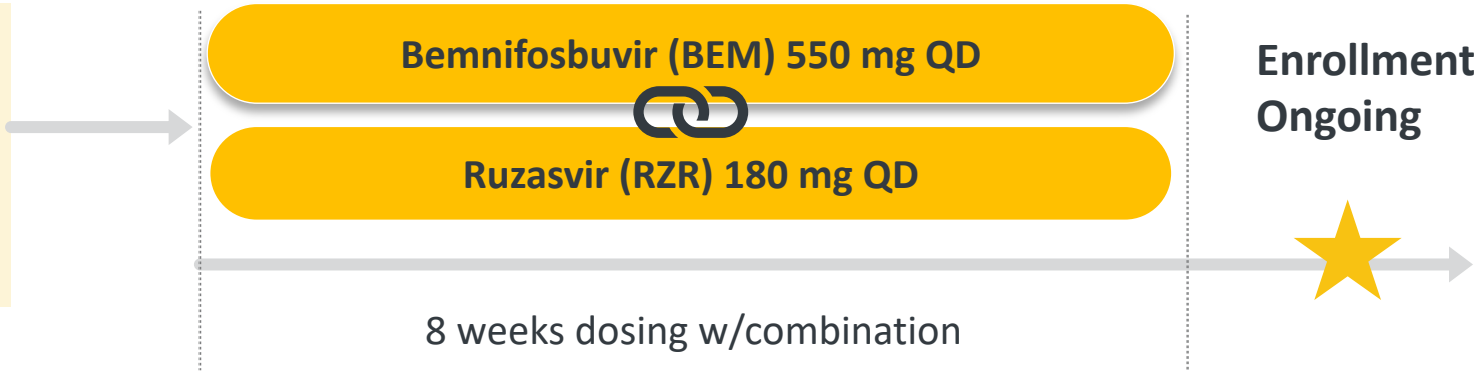
**Epclusa includes both brand and authorized generics*

1. IQVIA NPA Data 2. Net Revenues from Gilead and Abbvie's full-year 2023 earnings press release 3. Assumes treatment of all currently chronically infected HCV patients of 2.2M at $10,000 Net Revenue/Patient. 4.https://www.cdc.gov/mmwr/volumes/71/wr/mm7132e1.htm

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

Study Design: Open label combination

N= up to 280: including lead-in cohort



Patient Population:

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

60 Patient Lead-in Cohort:

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

Primary Endpoints:

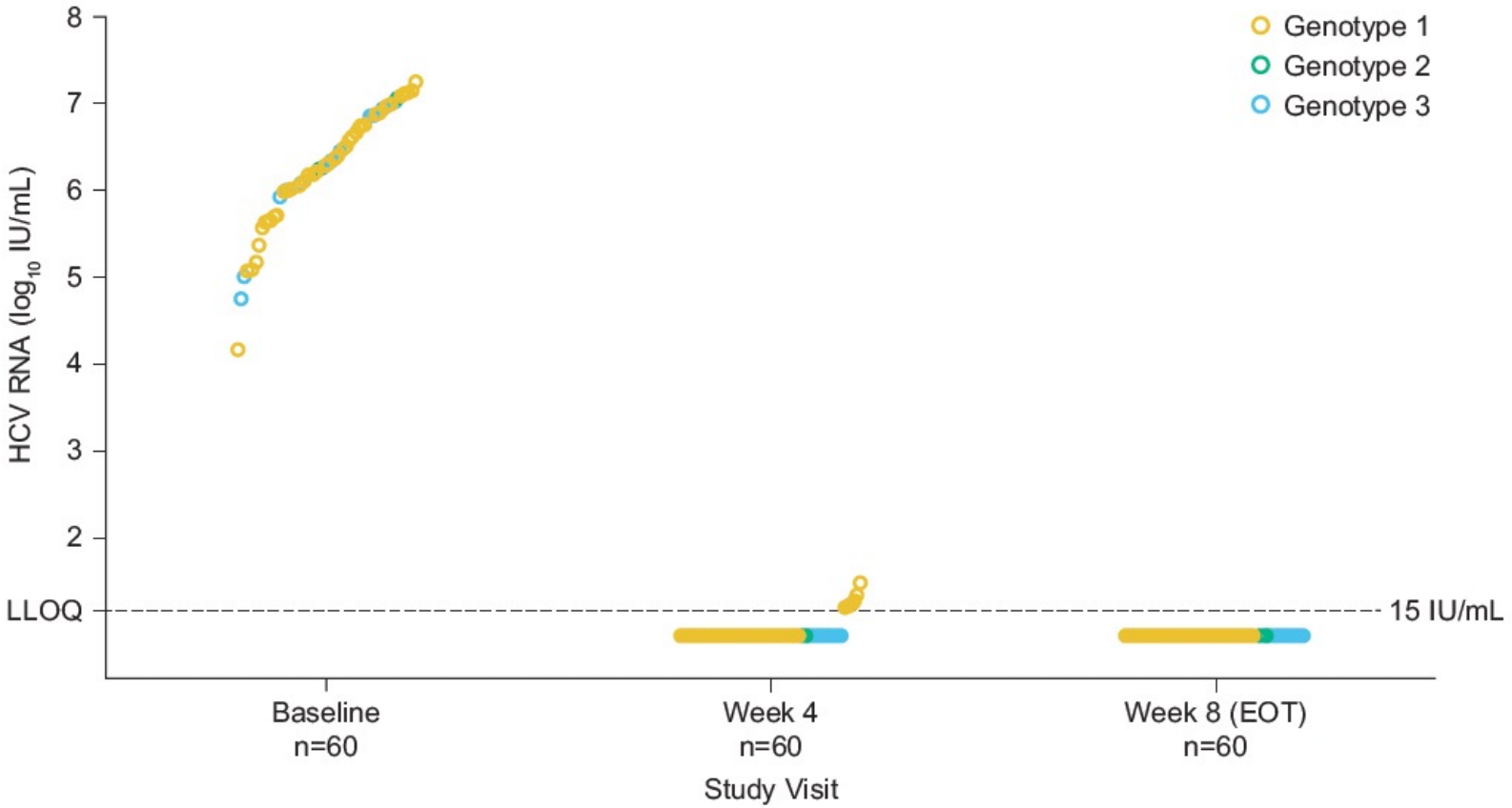
- SVR at Week 12 post-treatment (SVR12)
- Safety

Other Endpoints:

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

On-treatment Viral Kinetics – Individual Patient Data (n=60)

Phase 2 Open Label Study of BEM + RZR Lead-in Cohort



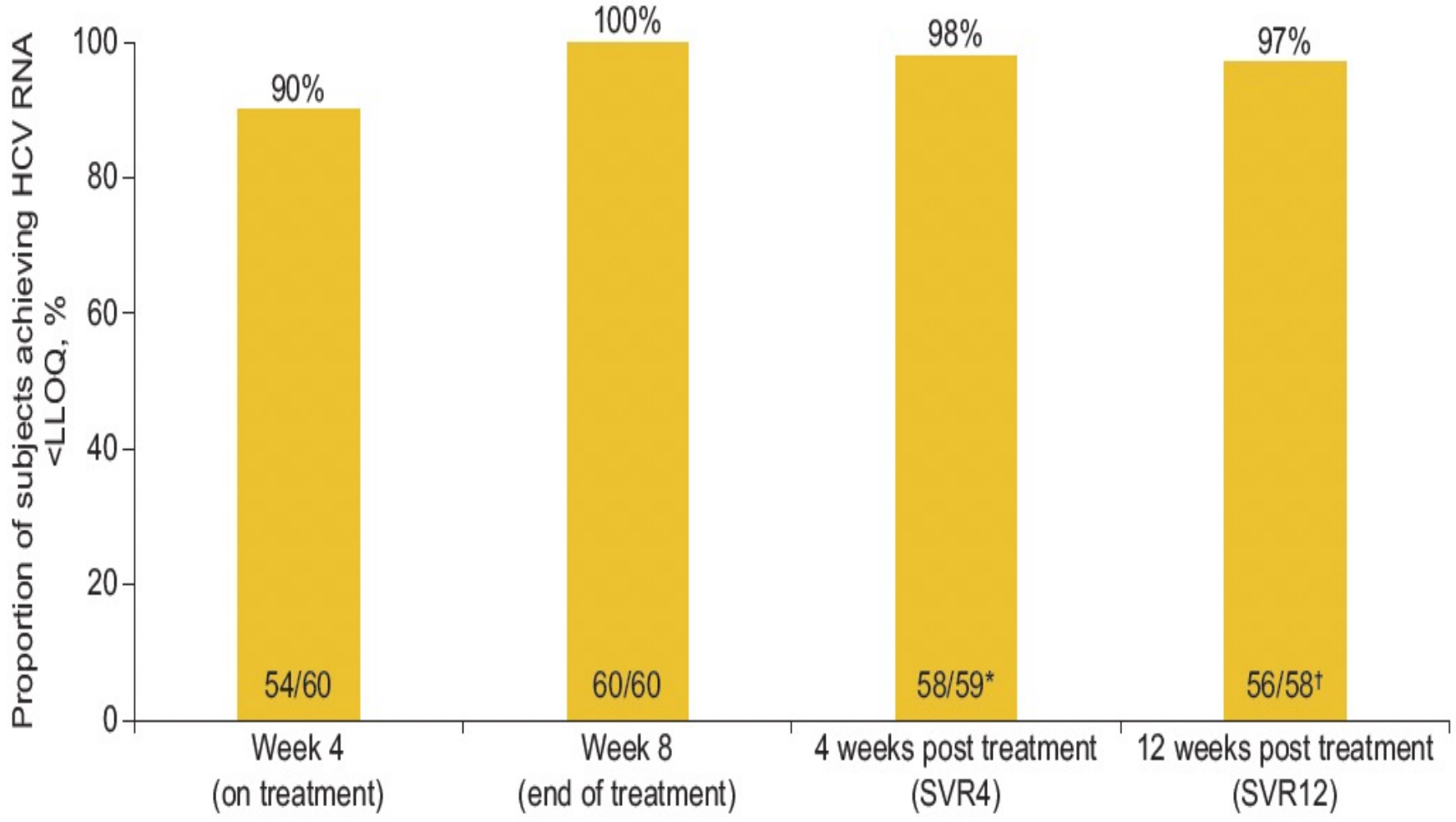
- Regardless of baseline viral load, all patients (n=60) near or below LLOQ by Week 4
- BEM + RZR viral kinetics compare favorably to Mavyret[1], the only approved 8-week treatment for HCV
- Very rapid kinetics across genotypes support an 8-week regimen

LLOQ=Lower limit of quantification

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

HCV RNA Qualitative Results – All Genotypes (N=60)

Phase 2 Open Label Study of BEM + RZR Lead-in Cohort



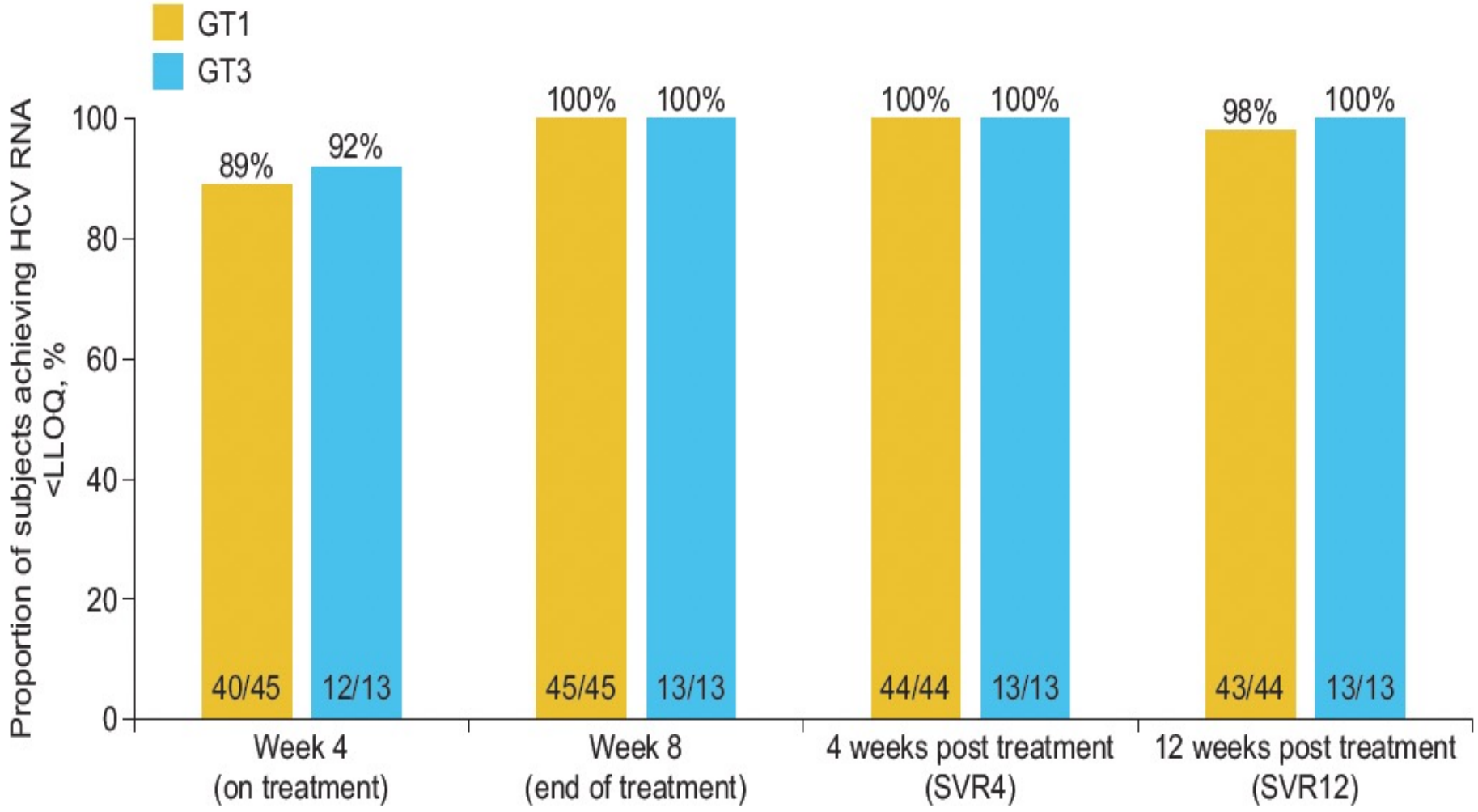
- 97% SVR12 rate in lead-in cohort
- 2 subjects (GT1b and GT2b) with post-treatment relapse

LLOQ=Lower limit of quantification

Two subjects with missing post-treatment data (1 withdrew consent after Week 8*, and 1 non-drug-related death after SVR4†)

HCV RNA Qualitative Results – Genotypes 1 and 3

Phase 2 Open Label Study of BEM + RZR Lead-in Cohort

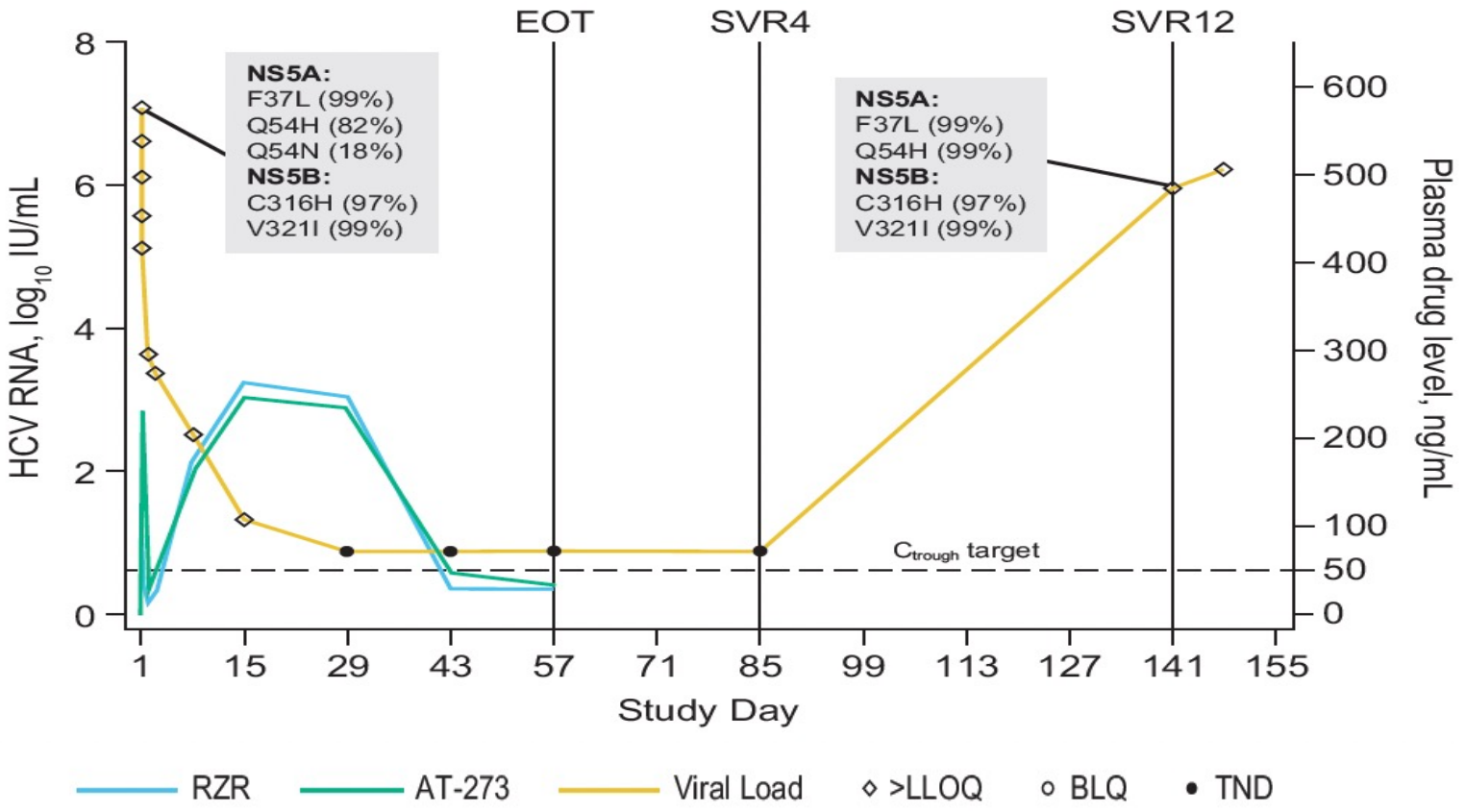


- High SVR12 rates in historically difficult to treat HCV patients
- Similar viral kinetics in GT1 and GT3

LLOQ=Lower limit of quantification

Post-Treatment Relapse – GT1b-infected Patient

Phase 2 Open Label Study of BEM + RZR Lead-in Cohort



Kinetics of viral load, drug exposure and presence of NS5A/NS5B RASs are presented (left), alongside plasma drug levels at each timepoint (right). The horizontal dashed line represents the expected trough concentrations (C_{trough}) of BEM and RZR. LLOQ, lower limit of quantitation; BLQ, below limit of quantitation; EOT, end of treatment; TND, target not detected.

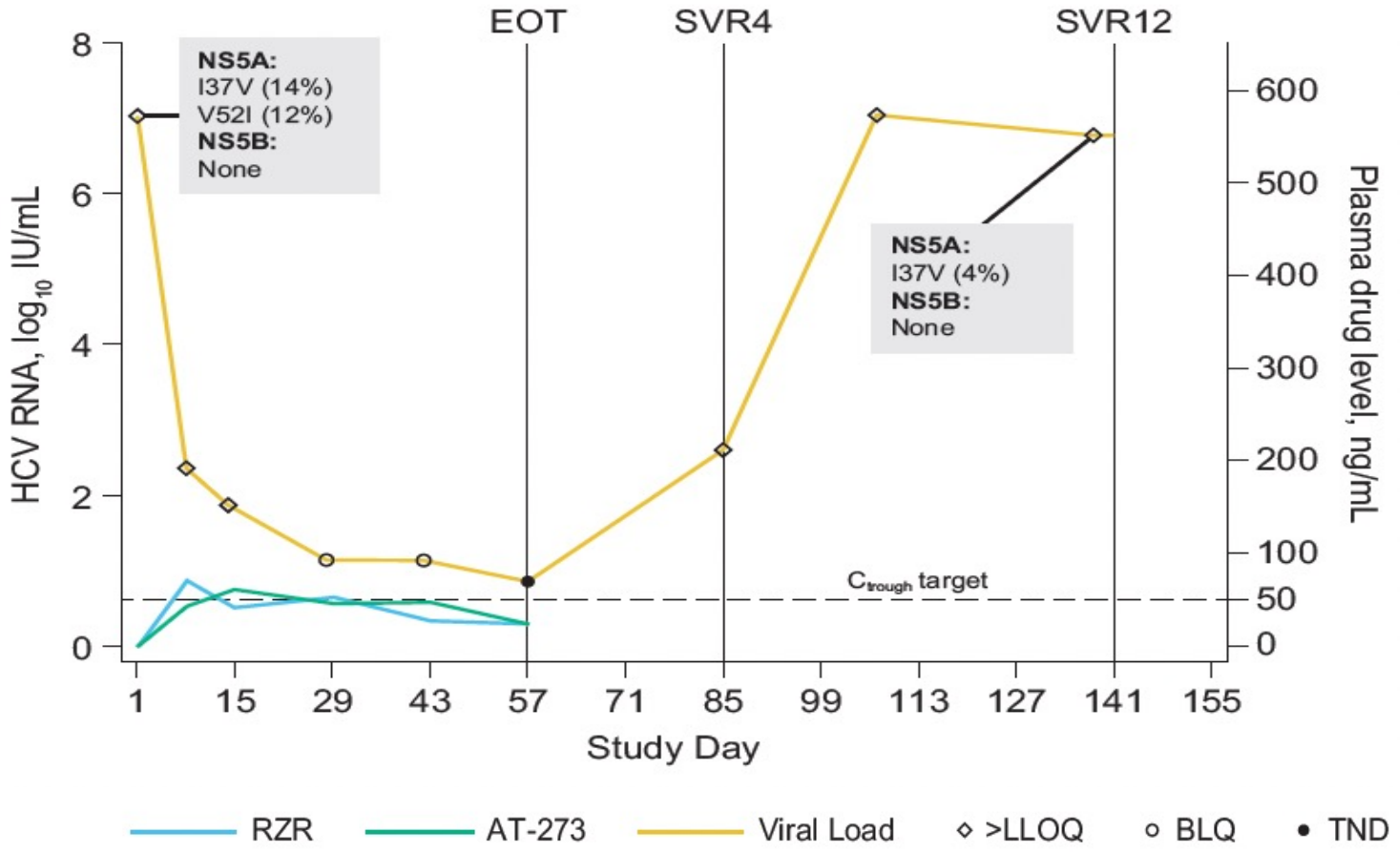
DAY	Plasma drug level, ng/mL	
	AT-273	RZR
1	BLQ	BLQ
8	161	173
15	246	263
29	235	248
43	45.7	28.1
57	33.2	28.3

AT-273 is the surrogate for the BEM active triphosphate

- Low plasma drug levels and similar viral mutations at baseline and 12-weeks post-treatment timepoints ***indicate relapse was due to treatment non-adherence vs viral resistance***

Post-Treatment Relapse – GT2b-infected Patient

Phase 2 Open Label Study of BEM + RZR Lead-in Cohort



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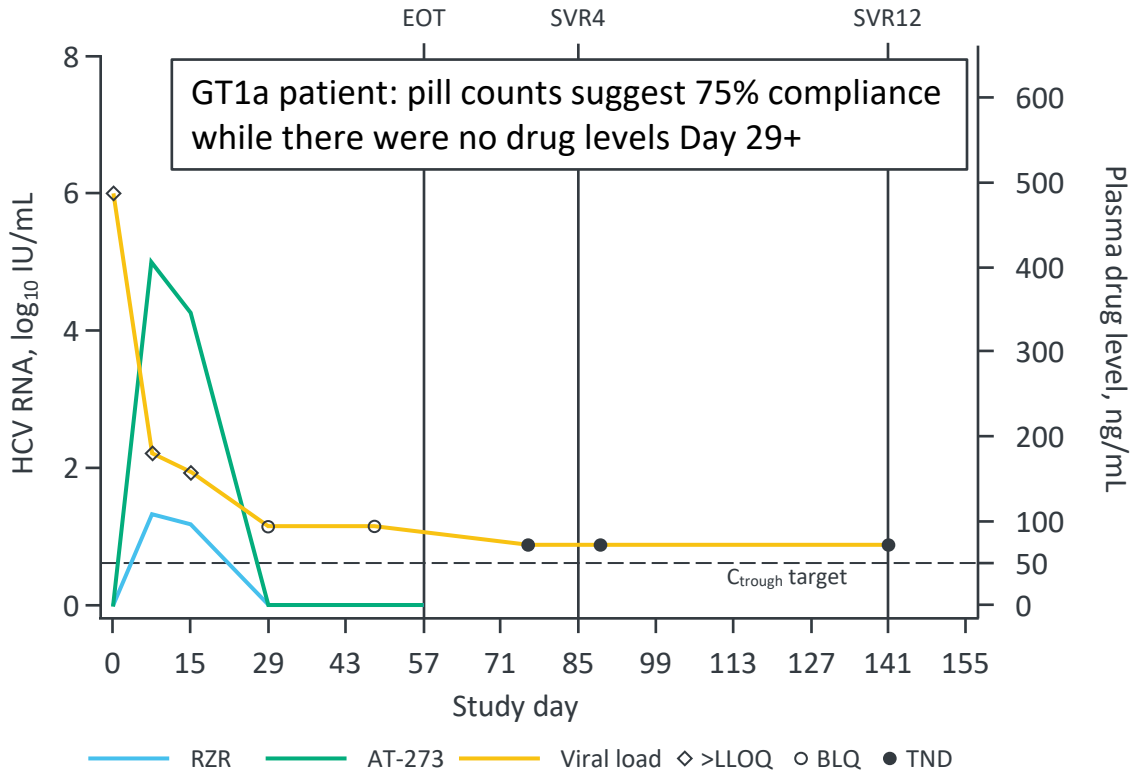
DAY	Plasma drug level, ng/mL	
	AT-273	RZR
1	BLQ	BLQ
8	42.6	70.9
15	61.36	42.2
29	46.6	53.3
43	47.4	27.6
57	24.4	24.4

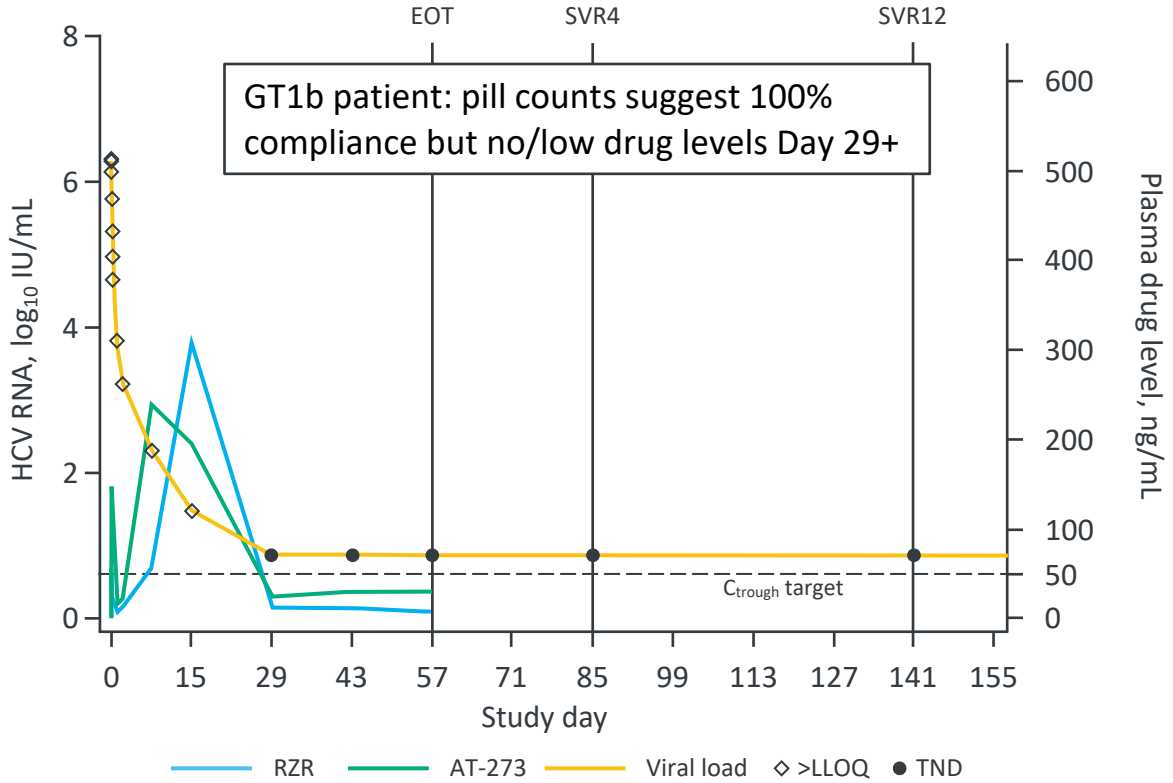
AT-273 is the surrogate for the BEM active triphosphate

- Low plasma drug levels and similar viral mutations at baseline and 12-weeks post-treatment timepoints ***indicate relapse was due to treatment non-adherence vs viral resistance***

Individual Profiles – Lower Exposures Achieving SVR12

Phase 2 Open Label Study of BEM + RZR Lead-in Cohort





AT-273 is the surrogate for the BEM active triphosphate Compliance based on pill count

- Despite poor adherence, patients with low drug exposures at Day 29+ ***still achieved SVR12***
- Pill count alone does not inform study drug compliance, it needs to be corroborated with drug exposures

Open Label Phase 2 Lead-in Cohort Results (n=60)

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

Safety Summary

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

ATEA Pharmaceuticals

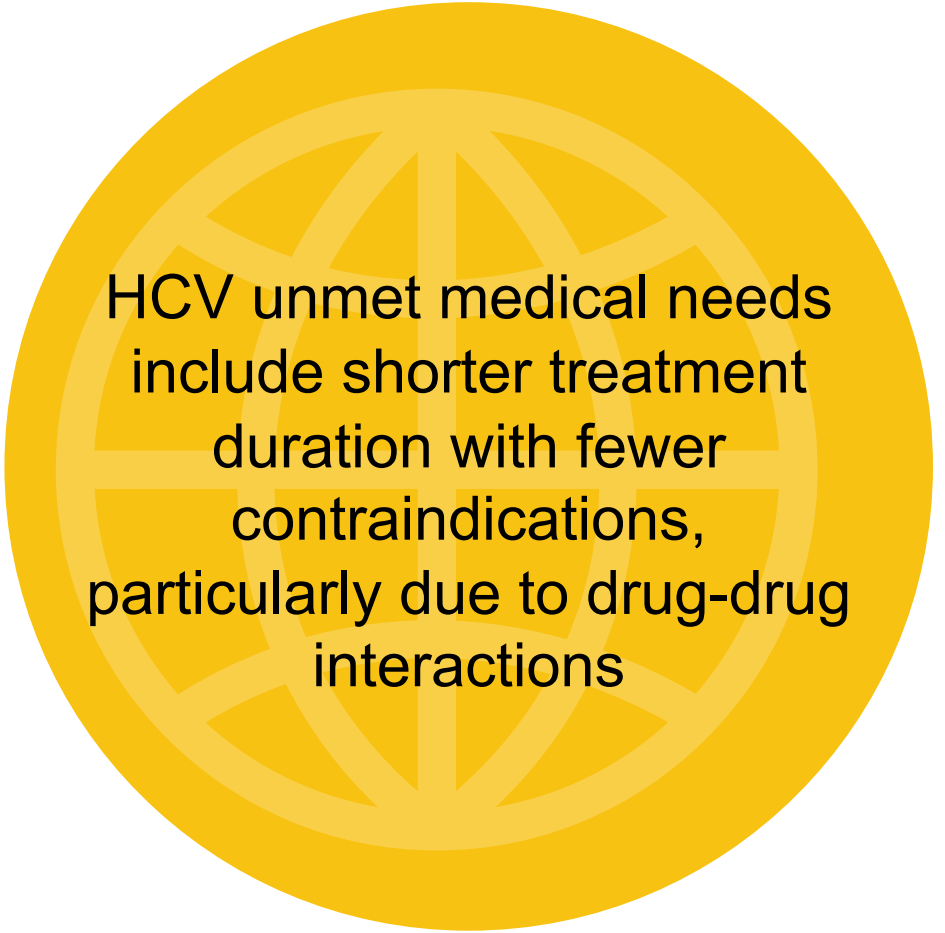
Strong Operational Execution of Ongoing Global Phase 2 Trial

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

- **Global clinical sites**, including the US

- **Patient enrollment ongoing** (n= up to 280)
- Phase 2 complete SVR12 results expected 2H 2024

- **Preparing for Phase 3 study**, initiation anticipated YE 2024
- Fixed dose combination tablet selection ongoing



COVID-19

Bemnifosbuvir Phase 3 Program

- COVID-19 Unmet Medical Need
- Patient Enrollment Completed 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

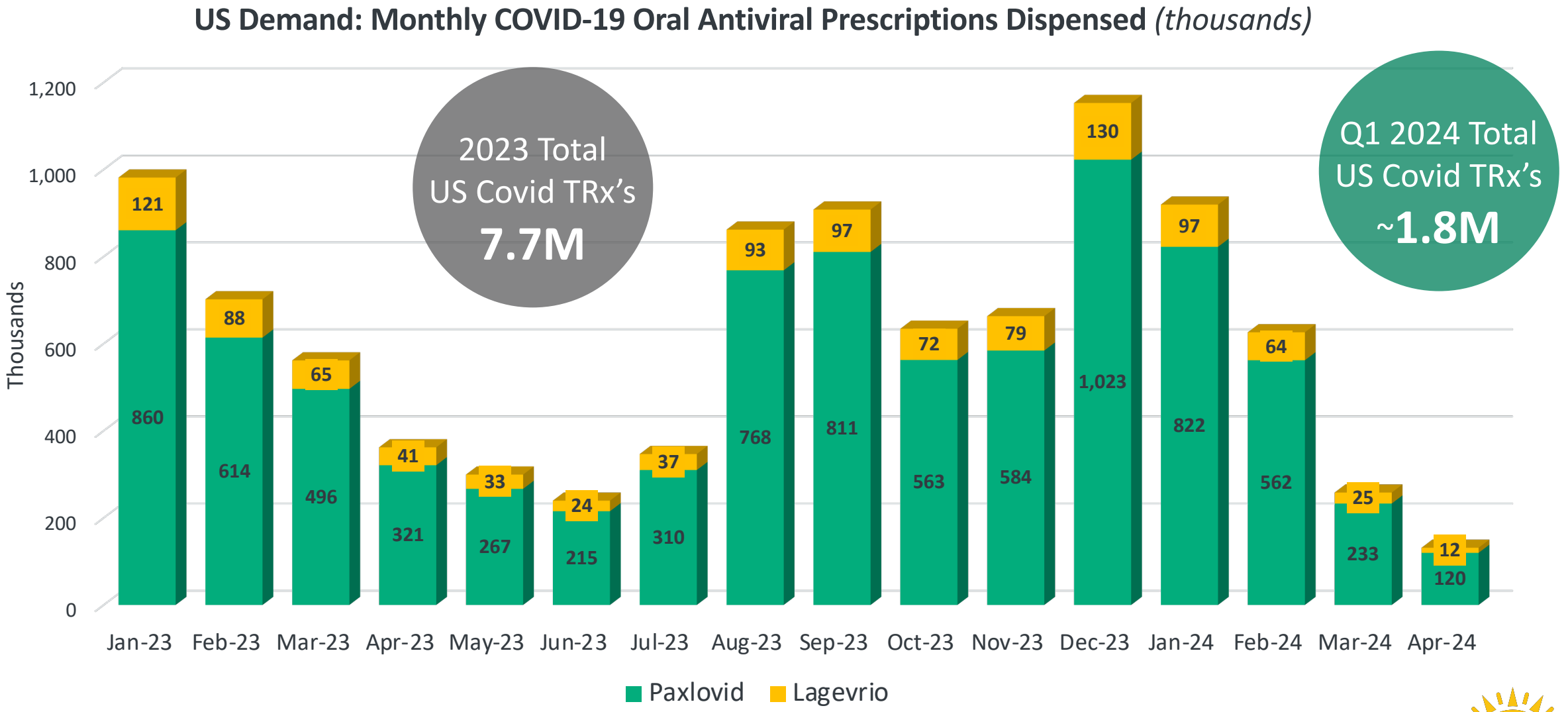
In the MORNINGSKY trial, risk of hospitalization was 71% lower for bemnifosbuvir vs. placebo; 82% in patients >40 years old*

Oral Antiviral Global Market Opportunity:

~$4-5B+	2	Opportunity to expand market with improved product profile
annual sales	product market	

*https://www.futuremedicine.com/doi/full/10.2217/fvl-2023-0115

US TRx Demand for COVID-19 Oral Antivirals Correlates with Infections



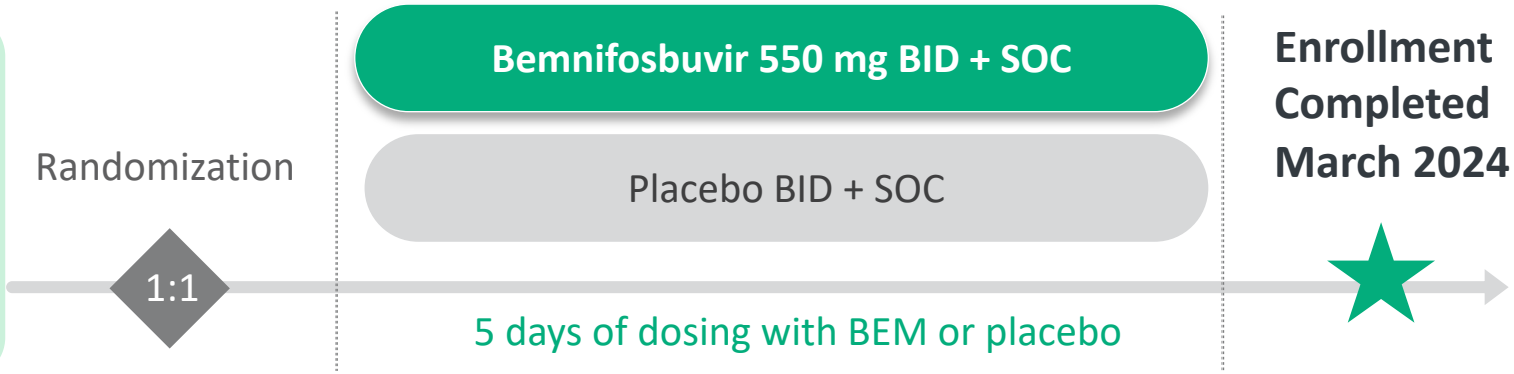
Source: IQVIA NPA April 2024

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:
  - *supportive care monotherapy* **(primary analysis, n=2221)**
  - *combination therapy* **(secondary analysis**, local SOC includes treatment with other antiviral drugs against COVID-19) **(n=74)**

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 population

Secondary Endpoints Through Day 60:

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

Strong Operational Execution of Global Phase 3 SUNRISE-3 Trial

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

- SUNRISE-3 enrolled **ahead of guidance**
- Enrolled **2,221 patients in monotherapy cohort** and 74 patients on combination cohort

- Primary endpoint is **through Day 29 post-treatment**
- Secondary endpoints measure patient outcomes **through Day 60 post-treatment**

- Results expected **2H 2024**
- NDA submission **targeted YE 2024**

Unmet Medical Need Remains in High-Risk Population

Most vulnerable: elderly, immunocompromised, undervaccinated, and those with underlying risk factors

Closing Remarks

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Focused Antiviral Pipeline, Strong Operational Execution Across Programs

Key Clinical Data Expected in 2024: Phase 3 SUNRISE-3 Results and Final Phase 2 HCV Results

PROGRAM	THERAPEUTIC INDICATION	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3	MAJOR MILESTONES 2024
Coronaviridae Sunrise-3	**COVID-19**	**Bemnifosbuvir (AT-527) Nucleotide***				**Full enrollment achieved March 2024 with 2,221 patients in monotherapy cohort** • Topline results 2H 2024 • NDA submission target YE 2024
		Protease Inhibitor				**Protease inhibitor** • Program update 2024
Bemnifosbuvir + Ruzasvir Combination Program	**Hepatitis C**	**Bemnifosbuvir Nucleotide[1]** **Ruzasvir** NS5A Inhibitor[1]**				**Multiple preclinical and new Phase 2 SVR12 data at EASL June 5-8, 2024** • Phase 2 complete SVR12 2H 2024 • Phase 3 initiation target YE 2024

Cash, cash equivalents & marketable securities: **$541.5 M at 3/31/24** -- Cash runway now anticipated into 2027

*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.

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