

In the NEW era of universal adult hepatitis B vaccination<sup>1\*</sup>

# PROTECTING YOUR ADULT PATIENTS IS AS EASY AS 1-2-3



**HEPLISAV-B** is the first and only adult hepatitis B vaccine that provides series completion with just **2 DOSES IN 1 MONTH.**<sup>2,3</sup>

\* The CDC ACIP voted to recommend hepatitis B vaccination for all adults aged 19-59. The ACIP also voted to recommend that all adults aged 60 and over with risk factors for hepatitis B infection should be vaccinated. Adults aged 60 and over without known risk factors may receive a hepatitis B vaccination.<sup>1</sup>

ACIP, Advisory Committee on Immunization Practices; CDC, Centers for Disease Control and Prevention.

## INDICATION

HEPLISAV-B is indicated for prevention of infection caused by all known subtypes of hepatitis B virus in adults 18 years of age and older.

## IMPORTANT SAFETY INFORMATION

Do not administer HEPLISAV-B to individuals with a history of severe allergic reaction (e.g., anaphylaxis) after a previous dose of any hepatitis B vaccine or to any component of HEPLISAV-B, including yeast.

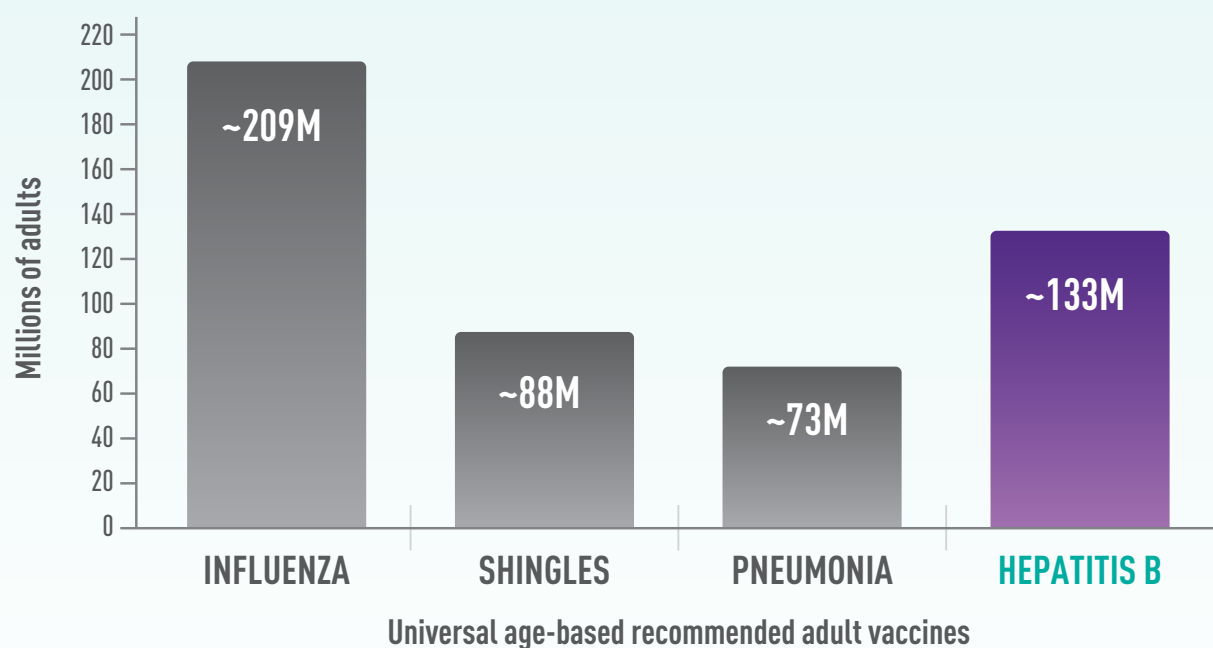
Please see additional Important Safety Information throughout this brochure and [click here for full Prescribing Information.](#)

**HEPLISAV-B<sup>®</sup>**  
Hepatitis B Vaccine (Recombinant), Adjuvanted  
**2 DOSES. 1 MONTH. DONE.<sup>2</sup>**

# WHAT YOU KNOW ABOUT HEPATITIS B VACCINATION IS CHANGING

Hepatitis B vaccines are likely to become the **second most widely used adult vaccines in your healthcare system**<sup>4</sup>

HOW MANY ADULTS ARE RECOMMENDED FOR VACCINATION IN 2022?<sup>4\*</sup>



- ✓ CDC ACIP has voted to recommend that **all adults aged 19-59 receive hepatitis B vaccination**<sup>1†</sup>
- ✓ ACIP-recommended vaccines are **eligible for first-dollar coverage**<sup>5</sup>

**THE CDC IS COUNTING ON HEALTHCARE SYSTEMS  
LIKE YOURS TO VACCINATE MORE ADULTS<sup>1</sup>**

\* Adults eligible for influenza vaccines calculated from population aged 18+ in 2022; adults eligible for shingles vaccines calculated using adults turning 50 years old in 2022, adults aged >50 who are unvaccinated based on CDC coverage rates, and immunocompromised adults aged 19-49; adults eligible for pneumonia vaccines included adults aged 65+ and at-risk adults aged 18-64 excluding smokers, patients with chronic heart disease, and patients who are immunocompromised; adults eligible for hepatitis B vaccines included general population aged ≤59 and at-risk adults aged 19+ calculated based on CDC ACIP assessment, converted to patient numbers using compliance data from Nelson et al.<sup>4</sup>

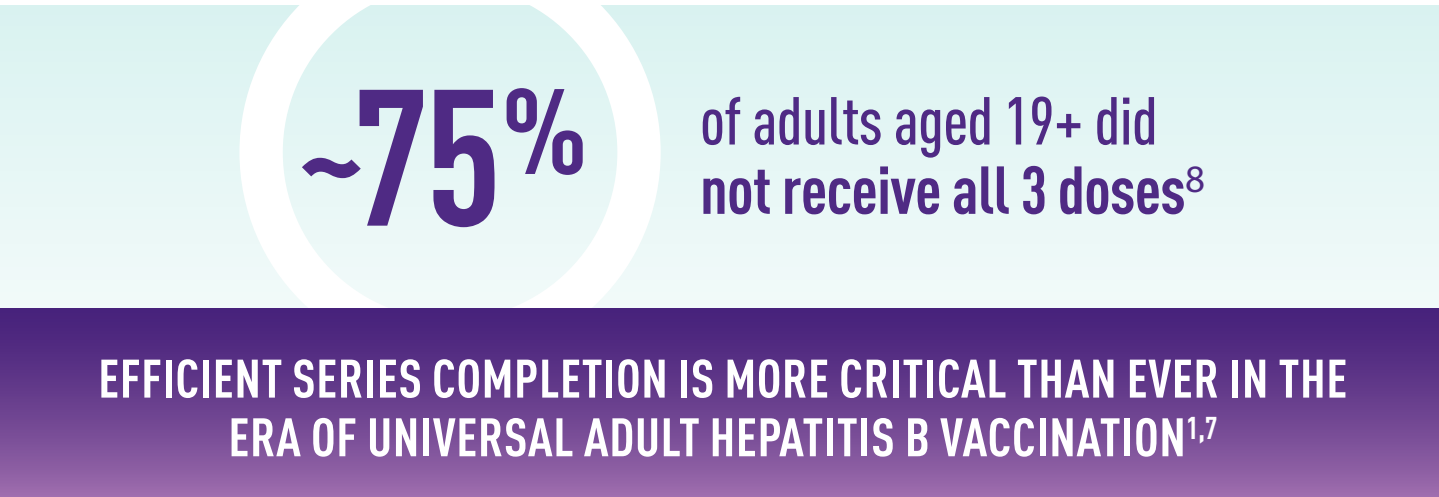
† The ACIP also voted to recommend that all adults aged 60 and older with risk factors for hepatitis B infection should be vaccinated. Adults aged 60 and older without known risk factors may receive a hepatitis B vaccination.<sup>1</sup>

# 3-DOSE HEPATITIS B VACCINES MAY CREATE CHALLENGES FOR ADULT IMMUNIZATION PROGRAMS

Many adult vaccinations **require fewer than 3 doses**<sup>6</sup>

	1 DOSE*	2 DOSES	3 DOSES
Influenza	✓		
Tetanus, diphtheria, pertussis	✓		
Measles, mumps, rubella	✓	✓	
Varicella		✓	
Herpes zoster		✓	

**Low series completion can be a problem** with 3-dose adult hepatitis B vaccines<sup>7</sup>



\*The CDC recommends 1 dose annually of the influenza vaccine and 1 dose followed by boosters every 10 years of the tetanus, diphtheria, and pertussis vaccine.<sup>6</sup>

# SERIES COMPLETION IS ESSENTIAL FOR PROTECTION

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Failed series completion **can lead to consequences**



Most patients do not achieve protective immunity **without series completion**<sup>9</sup>



Increased number of patients will **compound operational inefficiencies with 3-dose vaccines**<sup>1,7</sup>

**2-DOSE HEPLISAV-B CAN MAKE SERIES COMPLETION EASIER  
AND PROTECT PATIENTS FASTER<sup>2,10</sup>**

## IMPORTANT SAFETY INFORMATION

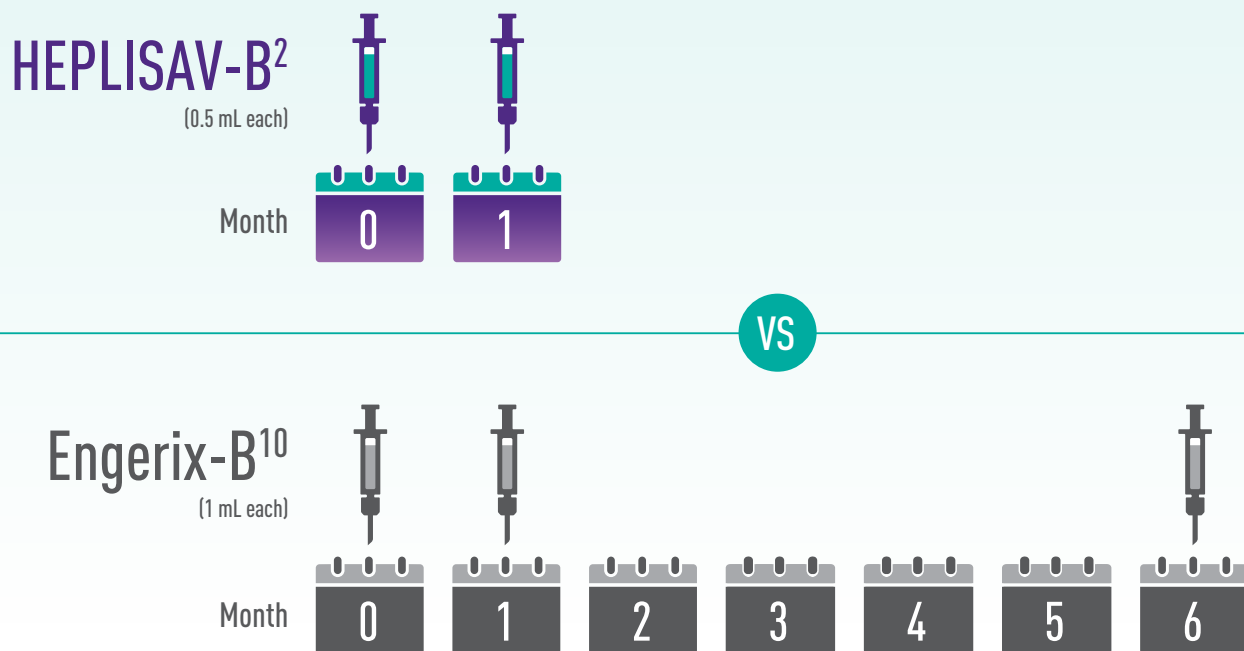
Appropriate medical treatment and supervision must be available to manage possible anaphylactic reactions following administration of HEPLISAV-B.

Immunocompromised persons, including individuals receiving immunosuppressant therapy, may have a diminished immune response to HEPLISAV-B.

Please see additional Important Safety Information throughout this brochure and [click here for full Prescribing Information](#).

## 2-DOSE HEPLISAV-B MAKES SERIES COMPLETION MORE EFFICIENT

A complete series of HEPLISAV-B is **just 2 doses in 1 month**<sup>2</sup>



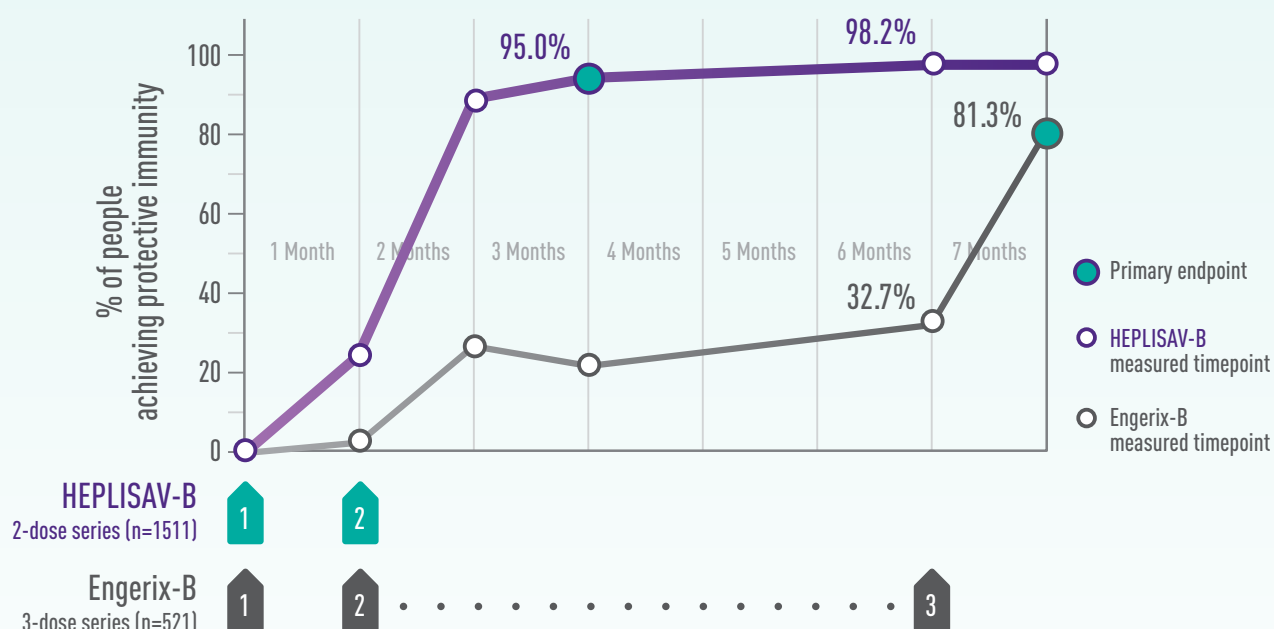
In a **real-world study**, a large healthcare system evaluated the impact of simply switching to **HEPLISAV-B** and found that...

**2X MORE**  
ADULTS COMPLETED THE  
**HEPLISAV-B SERIES**  
THAN THOSE STARTING WITH ENGERIX-B<sup>11</sup>

# FASTER PROTECTION WITH HEPLISAV-B

95% of those who received HEPLISAV-B were **protected** after just 2 doses in 1 month<sup>2,12\*</sup>

## TRIAL 1 PERCENTAGE OF PEOPLE AGED 18 TO 55 ACHIEVING PROTECTIVE IMMUNITY†



- 13.7% difference (95% CI, 10.4 to 17.5) in protective immunity between patient groups at primary endpoint<sup>2</sup>
- The primary analysis compared the rate of protective immunity at week 12 for HEPLISAV-B with that at week 28 for Engerix-B<sup>2</sup>
- Statistical significance was met; however, statistical significance was not prespecified in trial 1<sup>12</sup>
- Noninferiority was met because the 95% CI lower bound of the difference in SPRs was greater than -10%<sup>2</sup>

\* Compared to 81.3% who received 3 doses of Engerix-B.<sup>2</sup>

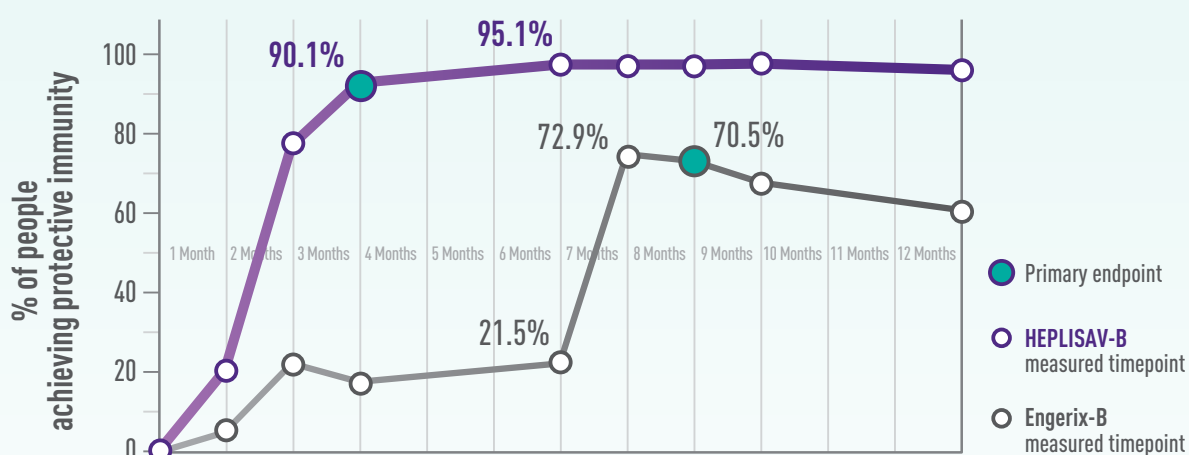
† Protective immunity defined as antibody concentration  $\geq 10$  mIU/mL.<sup>13</sup>

CI, confidence interval; SPRs, seroprotection rates.

# FASTER AND HIGHER RATES OF PROTECTION WITH HEPLISAV-B

Statistically **significantly higher rates of protection with HEPLISAV-B** vs Engerix-B at every timepoint in adults aged 40 to 70 years<sup>2,12</sup>

## TRIAL 2 PERCENTAGE OF PEOPLE AGED 40 TO 70 ACHIEVING PROTECTIVE IMMUNITY\*



**HEPLISAV-B**  
2-dose series (n=1121)



**Engerix-B**  
3-dose series (n=353)



- 19.6% (95% CI, 14.7 to 24.8) difference in protective immunity between patient groups at primary endpoint<sup>2,12</sup>

- The primary analysis compared the rate of protective immunity at week 12 for HEPLISAV-B with that at week 32 for Engerix-B<sup>2</sup>

\* Protective immunity defined as antibody concentration  $\geq 10$  mIU/mL.<sup>13</sup>

## IMPORTANT SAFETY INFORMATION

Hepatitis B has a long incubation period. HEPLISAV-B may not prevent hepatitis B infection in individuals who have an unrecognized hepatitis B infection at the time of vaccine administration.

The most common patient-reported adverse reactions reported within 7 days of vaccination were injection site pain (23%-39%), fatigue (11%-17%), and headache (8%-17%).

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**HEPLISAV-B®**  
Hepatitis B Vaccine (Recombinant), Adjuvanted

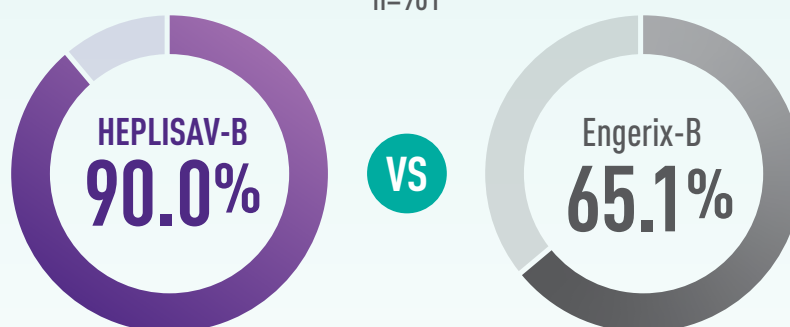
# HIGHER RATES OF PROTECTION IN HYPORESPONSIVE POPULATIONS

HEPLISAV-B provided statistically **significantly higher rates of protection in people with diabetes and other known hyporesponsive populations**<sup>2,14</sup>

## TRIAL 3 PERCENTAGE OF PEOPLE AGED 18 TO 70 ACHIEVING PROTECTIVE IMMUNITY\*

### PATIENTS WITH DIABETES

n=961



	TOTAL TRIAL POPULATION N=6665	MALE n=3353	AGED 40 TO 70 n=5434	OBESITY n=3241	SMOKERS n=2082
HEPLISAV-B	95.4%	94.5%	94.6%	94.7%	95.9%
	VS	VS	VS	VS	VS
Engerix-B	81.3%	78.8%	78.7%	75.4%	78.6%

**Trial 3 study design:** A clinical trial in adults aged 18 to 70 years who received HEPLISAV-B (n=4537) or Engerix-B (n=2289). The primary analysis evaluated the noninferiority of the rate of protective immunity at week 28 induced by HEPLISAV-B (n=640) to Engerix-B (n=321) in patients with type 2 diabetes mellitus. A secondary immunogenicity objective was to demonstrate the noninferiority of the rate of protective immunity with HEPLISAV-B at week 24 compared with Engerix-B at week 28 in all subjects and in subgroups defined by age, sex, body mass index (BMI), diabetes, and smoking status among adults aged 18 to 70 years.<sup>14</sup>

\* Protective immunity defined as antibody concentration  $\geq 10$  mIU/mL.<sup>13</sup>

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## 2-DOSE HEPLISAV-B CAN DECREASE COSTS AND INCREASE EFFICIENCY

**HEPLISAV-B was found to be economically dominant\*** vs Engerix-B across populations, including<sup>15</sup>:

- ✓ Patients with diabetes
- ✓ Patients with CKD
- ✓ Older adults
- ✓ Patients with obesity
- ✓ Patients with HIV
- ✓ People who inject drugs

*“Vaccination using HEPLISAV-B is a cost-saving strategy compared to Engerix-B for adults with diabetes, chronic kidney disease, obesity, and HIV; older adults; and [people who inject drugs].”<sup>15</sup>*

—Rosenthal et al. 2020.

In the era of **universal adult hepatitis B vaccination...**<sup>1</sup>



Less staff time<sup>11</sup>  
Fewer wasted doses<sup>2,11,16</sup>  
Easier for patients<sup>2</sup>

\* No cost benefit was demonstrated for non-responders. “Economically dominant” indicates that the intervention strategy had lower costs and higher quality-adjusted life years than the baseline strategy.<sup>15</sup>

CKD, chronic kidney disease; HIV, human immunodeficiency virus.

# SAFETY PROFILE DEMONSTRATED ACROSS TRIALS IN MORE THAN 10,000 PATIENTS<sup>12</sup>

Data derived from the largest clinical trial safety database (N=14,238) for a hepatitis B vaccine<sup>12</sup>

## PERCENTAGE WITH LOCAL OR SYSTEMIC REACTIONS WITHIN 7 DAYS OF VACCINATION<sup>2</sup>

TRIAL 1	HEPLISAV-B post dose		Engerix-B post dose		
	1	2	1	2	3
LOCAL REACTIONS	n=1810	n=1798	n=605	n=603	n=598
Injection-site pain	38.5%	34.8%	33.6%	24.7%	20.2%
Injection-site redness*	4.1%	2.9%	0.5%	1.0%	0.7%
Injection-site swelling*	2.3%	1.5%	0.7%	0.5%	0.5%
SYSTEMIC REACTIONS					
Fatigue	17.4%	13.8%	16.7%	11.9%	10.0%
Headache	16.9%	12.8%	19.2%	12.3%	9.5%
Malaise	9.2%	7.6%	8.9%	6.5%	6.4%
	n=1784	n=1764	n=596	n=590	n=561
Fever†	1.1%	1.5%	1.8%	1.7%	1.8%

## PERCENTAGE WITH LOCAL OR SYSTEMIC REACTIONS WITHIN 7 DAYS OF VACCINATION<sup>2</sup>

TRIAL 2	HEPLISAV-B post dose		Engerix-B post dose		
	1	2	1	2	3
LOCAL REACTIONS	n=1952	n=1905	n=477	n=464	n=448
Injection-site pain	23.7%	22.8%	18.4%	15.9%	13.8%
Injection-site redness*	0.9%	0.7%	0.6%	0.2%	0.2%
Injection-site swelling*	0.9%	0.6%	0.6%	0.6%	0.2%
SYSTEMIC REACTIONS					
Fatigue	12.6%	10.8%	12.8%	12.1%	9.4%
Headache	11.8%	8.1%	11.9%	9.5%	8.5%
Malaise	7.7%	7.0%	8.6%	7.1%	5.1%
Myalgia	8.5%	6.4%	9.6%	8.0%	4.5%
	n=1923	n=1887	n=472	n=459	n=438
Fever†	0.6%	0.6%	0.6%	0.9%	0.7%

\* Redness and swelling  $\geq 2.5$  cm.<sup>2</sup>

† Oral temperature  $\geq 100.4^{\circ}\text{F}$  ( $38.0^{\circ}\text{C}$ ).<sup>2</sup>

# SAFETY PROFILE DEMONSTRATED ACROSS 3 TRIALS WITH 12 MONTHS OF FOLLOW-UP<sup>12</sup>

## Unsolicited adverse events reported in 3 pivotal clinical trials

### PERCENTAGE WHO EXPERIENCED ADVERSE EVENTS AFTER VACCINATION<sup>2</sup>

			Unsolicited adverse events*		Serious adverse events	Immune-mediated adverse events†
TRIAL 1	HEPLISAV-B (n=1810)	Within 28 days of any injection	42.0%	Within 7 months of the first vaccine dose	1.5%	0.2%
	Engerix-B (n=605)		41.3%		2.1%	0.7%
TRIAL 2	HEPLISAV-B (n=1968)	Within 28 days of any injection	35.4%	Within 12 months of the first vaccine dose	3.9%	0.2%
	Engerix-B (n=481)		36.2%		4.8%	0.0%
TRIAL 3	HEPLISAV-B (n=5587)	Within 28 days of any injection	20.1%	Within 13 months of the first vaccine dose	6.2%	0.1%
	Engerix-B (n=2781)		20.1%		5.3%	0.0%

\* For trial 3, only unsolicited medically attended adverse events, those for which a subject sought medical care, were captured.<sup>2</sup>

† For trials 2 and 3, new-onset autoimmune adverse events are listed. Herpes zoster was reported in 0.7% of HEPLISAV-B patients and 0.3% of patients receiving Engerix-B.<sup>2</sup>

REFERENCES: 1. Landmark vote by CDC's Advisory Committee on Immunization Practices (ACIP) to recommend universal hepatitis B vaccination. Hepatitis B Foundation. November 4, 2021. Accessed January 12, 2022. <https://hepb.org/news-and-events/news-2/the-cdcs-advisory-committee-on-immunization-practices-acip-voted-to-recommend-universal-hepatitis-b-vaccination> 2. HEPLISAV-B [package insert]. Emeryville, CA: Dynavax Technologies Corporation; 2020. 3. Freedman M, Kroger A, Hunter P, Ault KA. Recommended adult immunization schedule, United States, 2020. *Ann Intern Med*. 2020;172(5):337-347. doi:10.7326/M20-0046 4. Data on file. Dynavax Technologies Corporation; 2022. 5. Hughes R IV, Maxim R, Fix A. Vague vaccine recommendations may be leading to lack of provider clarity, confusion over coverage. Health Affairs Blog. May 7, 2019. Accessed January 11, 2022. <https://www.healthaffairs.org/doi/10.1377/forefront.20190506.172246> 6. Immunization schedules: Table 1. Recommended adult immunization schedule for ages 19 and older, United States, 2021. Centers for Disease Control and Prevention. Updated February 12, 2021. Accessed January 12, 2022. <https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html#table-age> 7. Nelson JC, Bittner RC, Bounds L, et al. Compliance with multiple-dose vaccine schedules among older children, adolescents, and adults: results from a vaccine safety datalink study. *Am J Public Health*. 2009;99(Suppl 2):S389-397. doi:10.2105/AJPH.2008.151332 8. Williams WW, Lu PJ, O'Halloran A, et al. Surveillance of vaccination coverage among adult populations – United States, 2015. *MMWR Surveill Summ*. 2017;66(11):1-28. doi:10.15585/mmwr.ss6611a1 9. Mast EE, Weinbaum CM, Fiore AE, et al. A comprehensive immunization strategy to eliminate transmission of hepatitis B virus infection in the United States: recommendations of the Advisory Committee on Immunization Practices (ACIP) Part II: immunization of adults. *MMWR Recomm Rep*. 2006;55(RR-16):1-33. 10. Engerix-B [package insert]. Research Triangle Park, NC: GlaxoSmithKline; 2018. 11. Bruxvoort K, Slezak J, Huang R, et al. Association of number of doses with hepatitis B vaccine series completion in US adults. *JAMA Netw Open*. 2020;3(11):e2027577. doi:10.1001/jamanetworkopen.2020.27577 12. Dynavax Technologies Corporation. FDA Advisory Committee Briefing Document: HEPLISAV-B™ (Hepatitis B Vaccine [Recombinant], Adjuvanted). Presented at: Meeting of the Vaccines and Related Biological Products Advisory Committee; July 28, 2017; Silver Spring, MD. 13. Centers for Disease Control and Prevention. Hepatitis B. In: Hamborsky J, Kroger A, Wolfe S, eds. *Epidemiology and Prevention of Vaccine-Preventable Diseases*. 13th ed. Washington, DC: Public Health Foundation; 2015:149-174. <https://www.cdc.gov/vaccines/pubs/pinkbook/downloads/hepb.pdf>. Accessed October 16, 2017. 14. Jackson S, Lentino J, Kopp J, et al. Immunogenicity of a two-dose investigational hepatitis B vaccine, HBsAg-1018, using a toll-like receptor 9 agonist adjuvant compared with a licensed hepatitis B vaccine in adults. *Vaccine*. 2018;36(5):668-674. doi:10.1016/j.vaccine.2017.12.038 15. Rosenthal EM, Hall EW, Rosenberg ES, Harris A, Nelson NP, Schillie S. Assessing the cost-utility of preferentially administering Heplisav-B vaccine to certain populations. *Vaccine*. 2020;38(51):8206-8215. doi:10.1016/j.vaccine.2020.10.067 16. RED BOOK Online®. Micromedex Healthcare Series [database online]. Greenwood Village, CO: Truven Health Analytics; 2020. Accessed January 2020. 17. Schillie S, Harris A, Link-Gelles R, Romero J, Ward J, Nelson N. Recommendations of the Advisory Committee on Immunization Practices for use of a hepatitis B vaccine with a novel adjuvant. *MMWR Morb Mortal Wkly Rep*. 2018;67(15):455-458. doi:10.15585/mmwr.mm6715a5

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**HEPLISAV-B**<sup>®</sup>  
Hepatitis B Vaccine (Recombinant), Adjuvanted

# EFFICIENCY FOR YOUR STAFF WITH PREFILLED SYRINGES

Latex-free HEPLISAV-B prefilled syringes offer convenience<sup>2</sup>

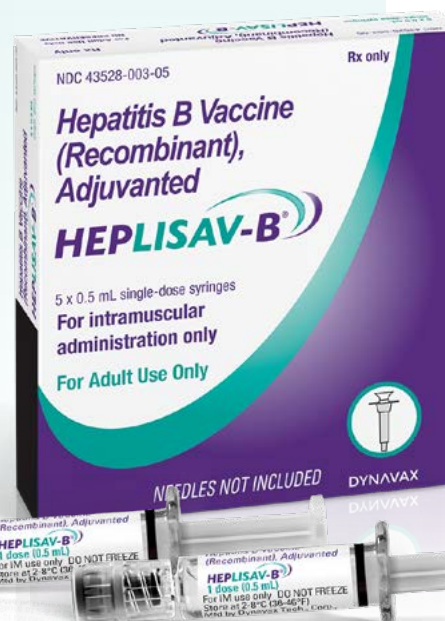
## 1 PREFILLED SYRINGE (0.5 mL)

NDC: 43528-003-01



## PACKAGE OF 5 SINGLE-DOSE PREFILLED SYRINGES

NDC: 43528-003-05



CPT CODE	DESCRIPTION	ADMINISTRATION CODE FOR MEDICARE PART B	DIAGNOSIS CODE (ICD-10-CM)
90739	Hepatitis B vaccine (Hep B), adult dosage, 2-dose schedule, for IM use	G0010	Z23

CPT, current procedural terminology; IM, intramuscular.

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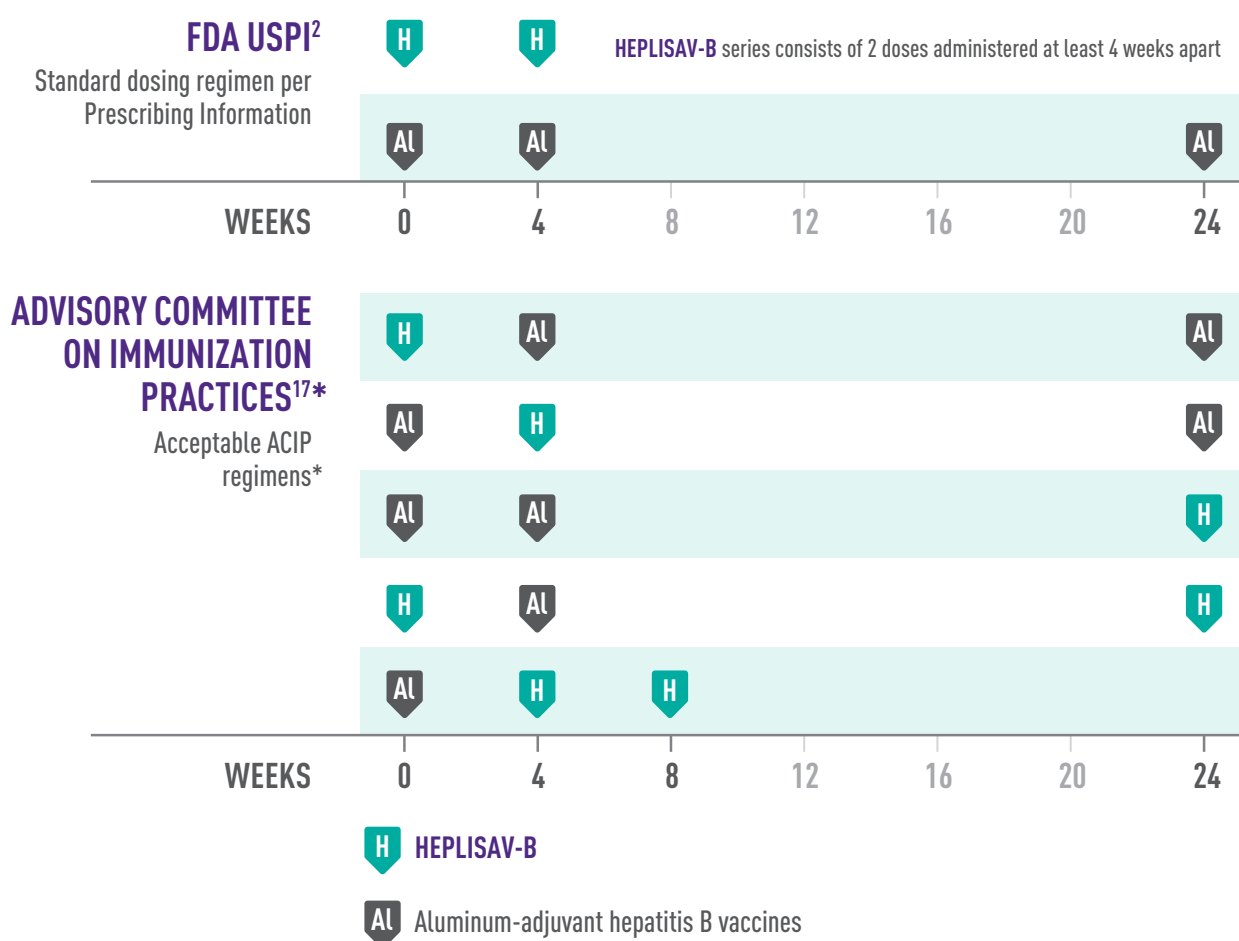
Appropriate medical treatment and supervision must be available to manage possible anaphylactic reactions following administration of HEPLISAV-B.

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# UNANIMOUSLY RECOMMENDED BY THE ACIP<sup>17</sup>

## DON'T DELAY THE SWITCH TO HEPLISAV-B

The CDC ACIP provides the following dosing regimens when the manufacturer of the previously administered vaccine is unknown or when the vaccine from the same manufacturer is unavailable<sup>17</sup>



\* Data are limited on the safety and immunogenicity effects when HEPLISAV-B is interchanged with hepatitis B vaccines from other manufacturers. The CDC's ACIP guidance for interchangeability indicates that, when feasible, the same manufacturer's vaccines should be used to complete a hepatitis B series. A 2-dose HEPLISAV-B vaccine series only applies when both doses in the series consist of HEPLISAV-B. A dosing regimen consisting of 2 different vaccine products should consist of a total of 3 doses in the possible combinations shown above. Adhere to minimum windows: 4 weeks between dose 1 and 2, 8 weeks between dose 2 and 3, and 16 weeks between dose 1 and 3. Doses administered at less than the minimal interval should be repeated. However, a series containing 2 doses of HEPLISAV-B administered at least 4 weeks apart is valid, even if the patient received a single earlier dose from another manufacturer.<sup>17</sup>

USPI, United States prescribing information.

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Hepatitis B Vaccine (Recombinant), Adjuvanted

The CDC ACIP voted to recommend universal  
adult hepatitis B vaccination<sup>1\*</sup>

# THE TIME FOR A DIFFERENT APPROACH IS NOW AND IT STARTS WITH YOU

Give your healthcare system the 2-dose HEPLISAV-B advantage<sup>2,11,12</sup>

 **INCOMPLETE** series  
 **UNPROTECTED** patients  
 **INEFFICIENT** workflow

Learn more at [HEPLISAVB.com](https://HEPLISAVB.com)

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**DYNAVAX**

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Hepatitis B Vaccine (Recombinant), Adjuvanted  
**2 DOSES. 1 MONTH. DONE.<sup>2</sup>**