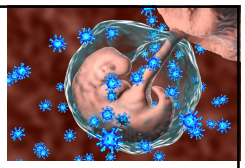
Medic Center



VIÊM GAN VIRUS B & THAI KỲ

PGS. TS. BS. Phạm Thị Thu Thủy
Trung Tâm Y Khoa MEDIC, TP. Hồ Chí Minh

1

NỘI DUNG

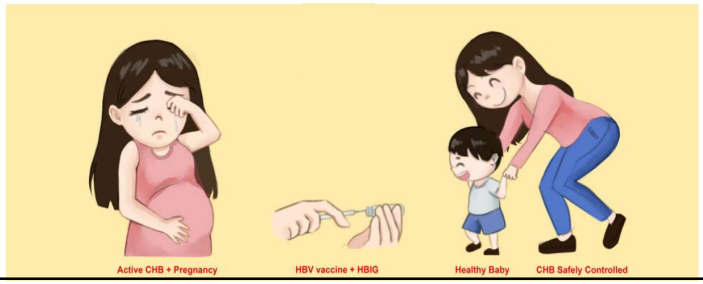
I. Đặt vấn đề.

II. Ảnh hưởng viêm gan virus B đến thai kỳ.

III. Điều trị viêm gan virus B ở phụ nữ mang thai.

IV. Quan trọng: HBV có thuốc ngừa.

V. Kết luận.



2

I. Đặt vấn đề.

Mười nguyên nhân gây tử vong hàng đầu trên toàn cầu và ở Việt Nam, 2013

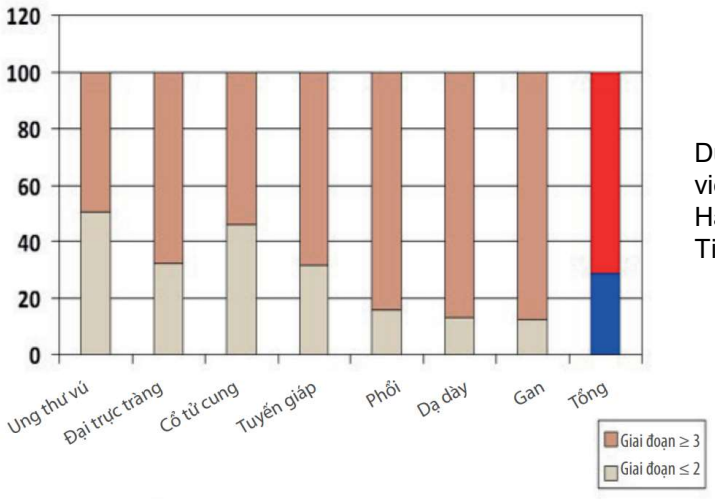
	Toàn cầu	Việt Nam	Việt Nam (# ca tử vong)
1	Bệnh tim thiếu máu cục bộ	Đột quỵ	145 700
2	Nhiễm trùng hô hấp dưới	Bệnh tim thiếu máu cục bộ	31 900
3	Đột quỵ	Viêm gan vi rút[a]	31 500
4	Tiêu chảy	Thương tích do tai nạn giao thông	24 000
5	Thương tích do tai nạn giao thông	Nhiễm trùng hô hấp dưới	21 400
6	HIV/AIDS	Ung thư phổi	20 500
7	Viêm gan vi rút[a]	Bệnh phổi tắc nghẽn mạn tính	20 200
8	Sinh non	Bệnh Alzheimer's và các chứng mất trí nhớ khác	19 600
9	Sốt rét	Ung thư dạ dày	19 500
10	Bệnh não sơ sinh	Lao	14 000

[a] Số tử vong liên quan đến viêm gan B và viêm gan C cộng lại.
Nguồn: GBD (2015); Stanaway et al. (2016).

TÌNH HÌNH BỆNH VIÊM GAN VI RÚT VÀ ĐÁP ỨNG Ở VIỆT NAM - **WHO** representative office for Viet Nam 2019

3

UNG THƯ GAN THƯỜNG PHÁT HIỆN TRỄ: DỰ HẬU XẤU



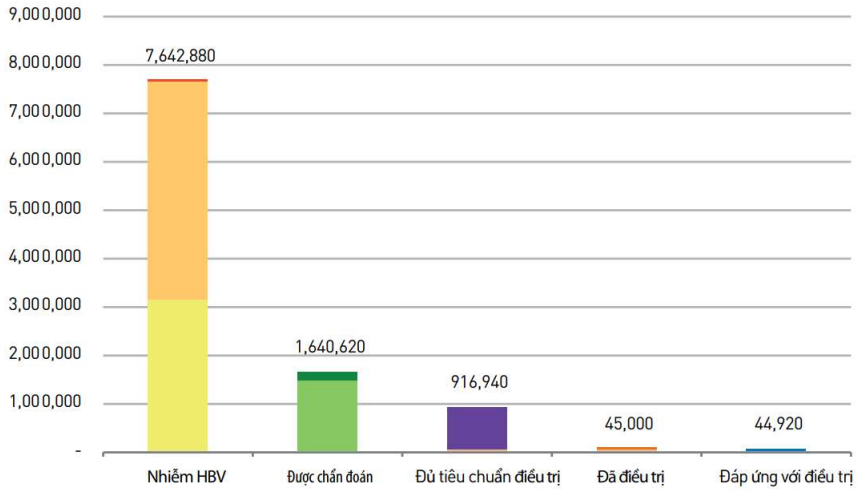
Dữ liệu từ 5 bệnh viện: Bệnh viện K, Bệnh viện Ung bướu Hà Nội, BV Bach Mai, Việt Tiệp - Hải Phòng và BV Huế.

Phân bố các ca ung thư theo giai đoạn chẩn đoán ở 5 bệnh viện tại Việt Nam, 2009

TÌNH HÌNH BỆNH VIÊM GAN VI RÚT VÀ ĐÁP ỨNG Ở VIỆT NAM - **WHO** representative office for Viet Nam 2019

4

NHIỀU KHÓ KHĂN TRONG TIẾP CẬN ĐIỀU TRỊ HBV

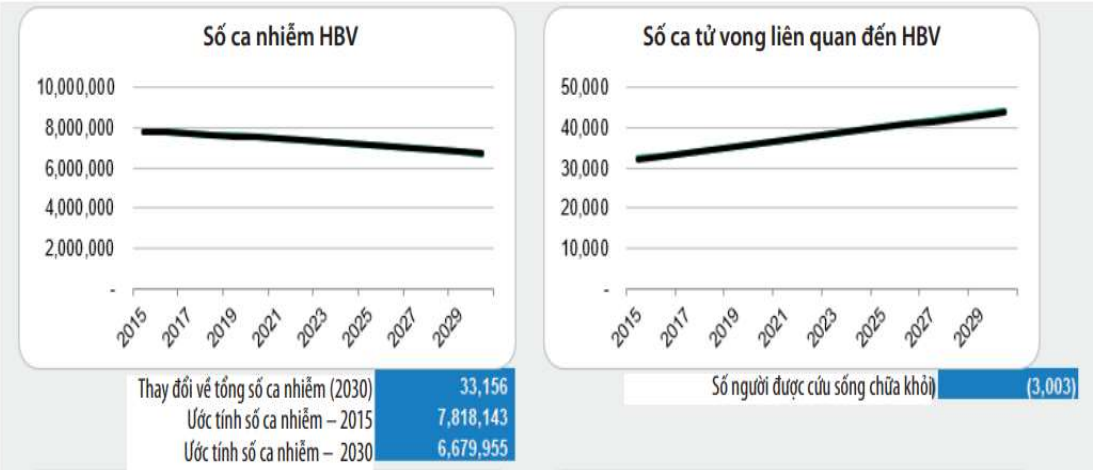


Mô hình đa bậc ước tính mắc viêm gan B mạn tính

TÌNH HÌNH BỆNH VIÊM GAN VI RÚT VÀ ĐÁP ỨNG Ở VIỆT NAM - **WHO** representative office for Viet Nam 2019

5

Dự đoán gánh nặng bệnh tật liên quan đến HBV hàng năm ở Việt Nam, 2015–2030

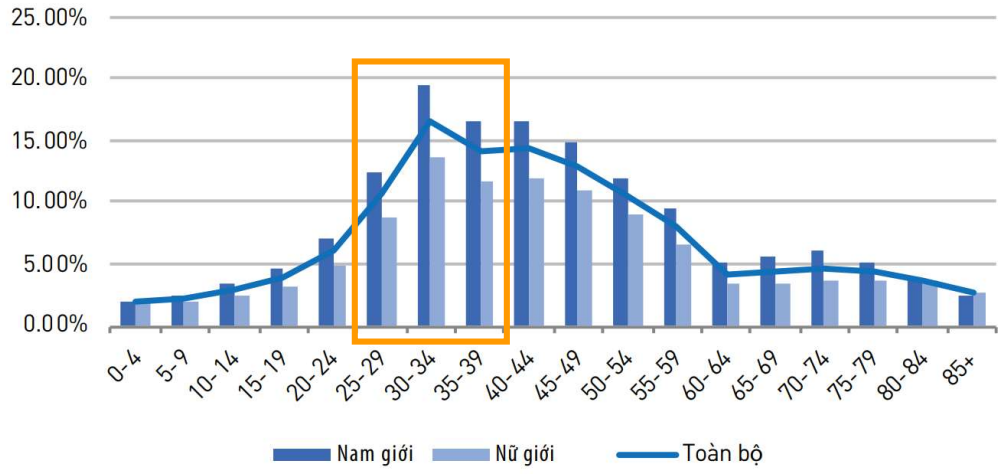


GDPM and WHO (2017)

TÌNH HÌNH BỆNH VIÊM GAN VI RÚT VÀ ĐÁP ỨNG Ở VIỆT NAM - **WHO** representative office for Viet Nam 2019

6

Tỷ lệ hiện mắc HBsAg theo giới và tuổi — 2017



GDPM and WHO (2017).

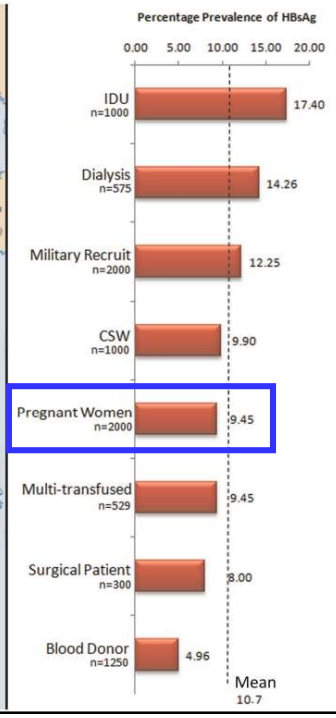
TÌNH HÌNH BỆNH VIÊM GAN VI RÚT VÀ ĐÁP ỨNG Ở VIỆT NAM - **WHO** representative office for Viet Nam 2019

7

Map of Viet Nam Depicting the Prevalence of HBsAg in 5 Regions.

The map depicts the percentage HBsAg positives in Ha Noi, Hai Phong, Da Nang, Khanh Hoa and Can Tho. To the right is a graph depicting the prevalence of HBsAg in each of the study groups in the 5 study sites in Viet Nam.

n = 8654



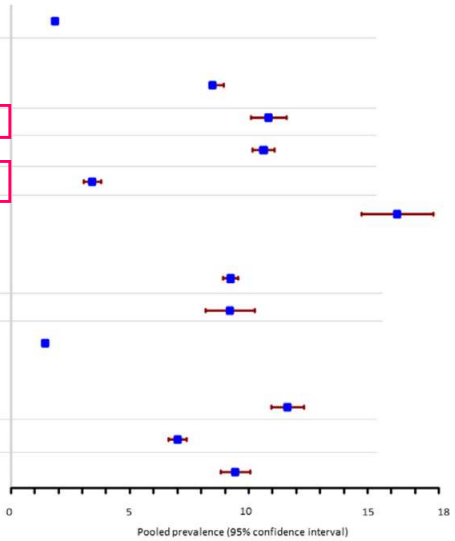
Linda Dunford et al. A Multicentre Molecular Analysis of Hepatitis B and Blood-Borne Virus Coinfections in Viet Nam . PLoS ONE | www.plosone.org June 2012 | Volume 7 | Issue 6 | e39027

8

Estimated pooled seroprevalence of HBsAg in low-risk populations.

www.thelancet.com Vol 24 Month **July, 2022**.

	Studies	N	Pooled prevalence [95% C.I.]
Blood donors	7	449,271	1.86 [1.82 – 1.90]
Other low-risk cohorts			
Overall	26	34,871	8.64 [8.34 – 8.94]
Ante-natal	6	6781	10.83 [10.09 – 11.58]
Adults in general population	13	16,396	10.62 [10.15 – 11.09]
Children in general population	4	9358	3.42 [3.05 – 3.81]
Inpatients	8	2336	16.23 [14.74 – 17.77]
Blood donors by decade			
1990-2000	2	33,290	9.23 [8.92 – 9.54]
2001-2010	4	3076	9.20 [8.20 – 10.25]
2011-2020	2	412,905	1.44 [1.41 – 1.48]
Other low risk cohorts by decade			
1990-2000	10	8883	11.63 [10.96 – 12.32]
2001-2010	10	17,468	7.00 [6.62 – 7.39]
2011-2020	6	8520	9.42 [8.81 – 10.05]



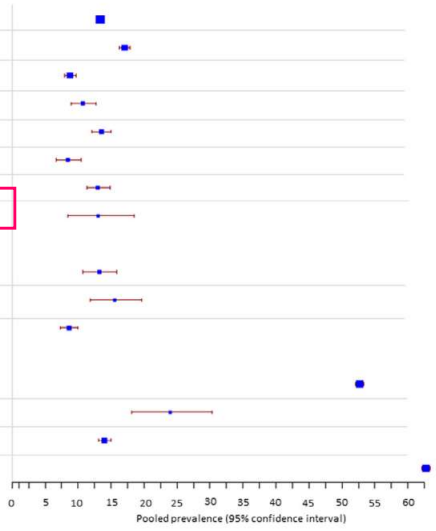
Barnaby Flower et al. Seroprevalence of Hepatitis B, C and D in Vietnam: A systematic review and meta-analysis. The Lancet Regional Health - Western Pacific 2022;24: 100468

9

Estimated pooled seroprevalence of HBV in high-risk populations.

www.thelancet.com Vol 24 Month **July, 2022**.

	Studies	N	Pooled prevalence [95% C.I.]
Overall	15	17,401	13.32 [12.81 – 13.83]
PWID	9	7740	17.07 [16.23 – 17.92]
CSW	5	3899	8.77 [7.89 – 9.70]
Dialysis	5	1110	10.76 [8.95 – 12.70]
MSM sexual health	2	2174	13.50 [12.09 – 14.98]
Multiple transfusions/surgery	2	902	8.47 [6.65 – 10.46]
Prisoners	1	1400	13.00 [11.29 – 14.81]
Infants of HBV infected mothers	1	176	13.07 [8.45 – 18.48]
High risk exposures by decade			
1990-2000	4	3394	13.22 [10.77 – 15.88]
2001-2010	7	11,074	15.57 [11.88 – 19.65]
2011-2020	6	2933	8.63 [7.35 – 10.01]
Liver disease overall	9	27,495	52.70 [52.10 – 53.29]
Acute hepatitis	1	188	23.94 [18.09 – 30.32]
Chronic hepatitis	5	5151	14.04 [13.10 – 15.01]
Hepatocellular carcinoma	4	22,156	62.13 [62.13 – 63.41]

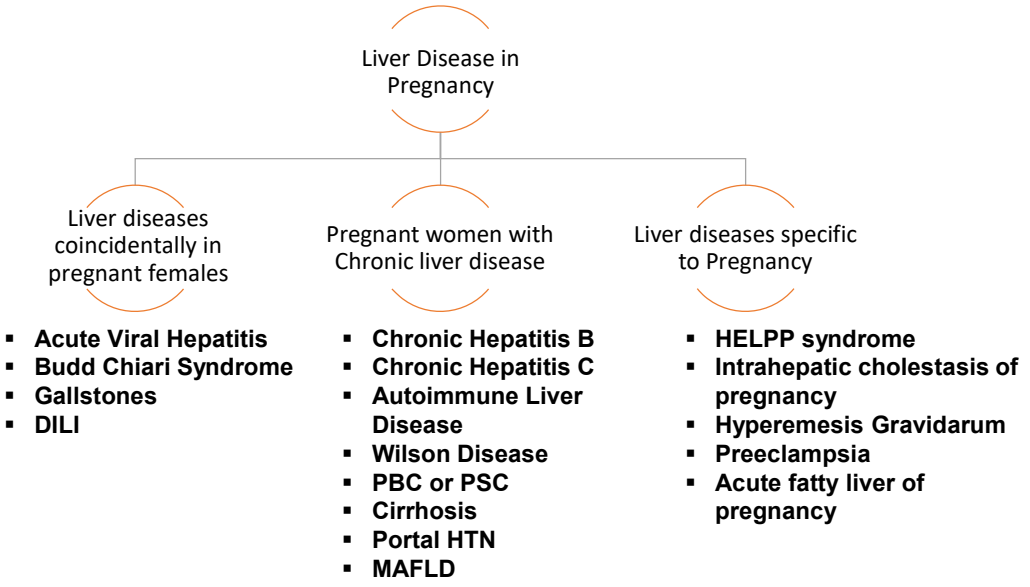


Barnaby Flower et al. Seroprevalence of Hepatitis B, C and D in Vietnam: A systematic review and meta-analysis. The Lancet Regional Health - Western Pacific 2022;24: 100468

10

II. Ảnh hưởng viêm gan virus B đến thai kỳ.

1. Viêm gan virus B ảnh hưởng gì đến mẹ và thai.

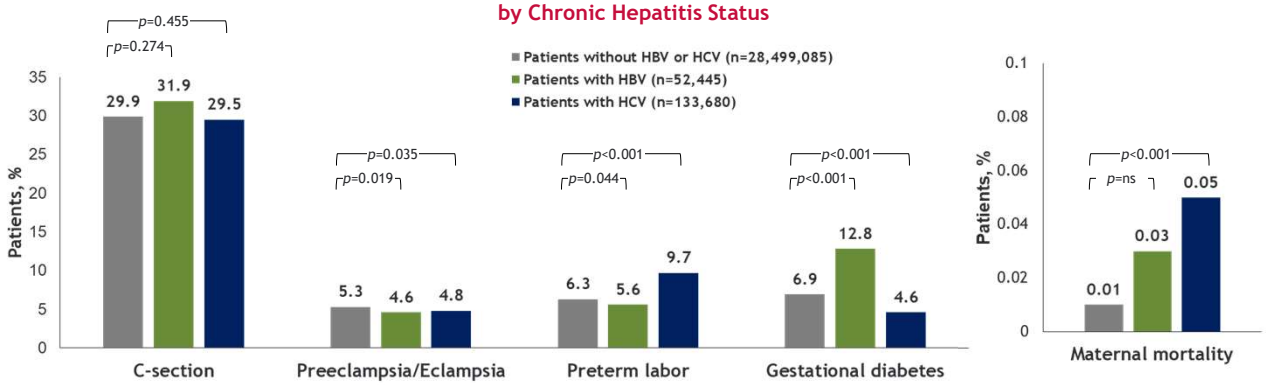


11

Pregnancy Complications in Patients with HBV or HCV

Retrospective, nationwide, 7-year study utilizing the National Inpatient Sample database from 2012-2018

Outcomes of Pregnancy-Related Admissions by Chronic Hepatitis Status



Patients with CHB were associated with a higher rate of gestational diabetes, and patients with HCV were associated with higher rates of preterm labor and all-cause in-hospital maternal mortality during pregnancy, compared to uninfected controls

Chen B, et al. AASLD 2021. 891

12

Liver Function Tests and Pregnancy.

- ALT, AST may be slightly lower or unchanged in second and third trimesters
- Total bilirubin and INR do not change
- AFP increases
- Albumin and hemoglobin decreased from hemodilution
- ALP increases from placental source

Tram. Am J Gastroenterol. 2016; 111:176.

13

Limited Data on HBV Disease Course During Pregnancy

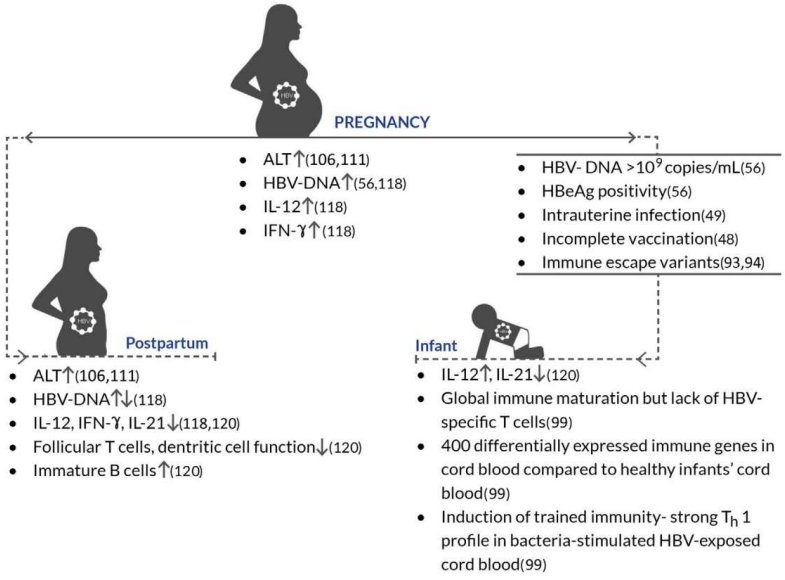
- Maternal immune system and hormone levels are modified during the peripartum period
- Viral replication may increase during pregnancy and mild, self-limited ALT flares occur in 10% to 50% of women postpartum (normal ALT: 19-20 IU/L)
- Progression of postpartum flares to hepatic decompensation occurs rarely: beware of advanced liver fibrosis, HBeAg positivity, high baseline HBV DNA (>10^6 IU/mL)

Country	Pregnancies (N)	ALT Flare Definition	Flare Prevalence (%)	
			During Pregnancy	Postpartum
Netherlands	38	3 x BL	NR	45
Australia	101 (44 early AVT cessation, 43 late AVT cessation, 14 untreated)	5 x ULN	NR	Early AVT cessation: 50; late AVT cessation: 40; untreated: 29
Australia	126	2 x ULN	NR	25
US	113	5 x ULN or 3 x BL	6	10
US	310	2 x ULN	14	16
China	1097	2 x ULN	14	9.8

Ter Borg. J Viral Hepatitis 2008;15:37. Nguyen. Aliment Pharmacol Ther 2014;39:1225. Giles. Gut 2015;64:1810. Chang. Am J Gastroenterol 2016;111:1410. Kushner. Clin Liver Dis 2018;12:24. Liu. J Clin Gastroenterol 2018;52:902.

14

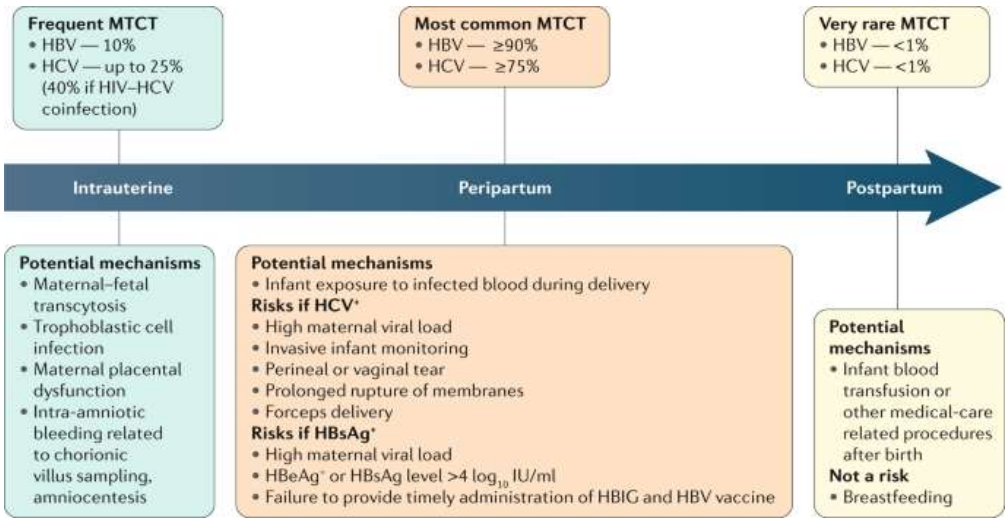
Schematic representation of immunologic changes in the peripartum period in mothers with CHB and their infants



JOSHI AND COFFIN. Hepatitis B and Pregnancy: Virologic and Immunologic Characteristics. Hepatology Communications, Vol. 4, No. 2, 2020.

15

2. Vấn đề lây lan từ mẹ qua con.



Mother-to-child transmission of virus in women with chronic viral hepatitis

Norah A. Terrault et al, *Nature Reviews Gastroenterology & Hepatology* **volume 18**, pages 117–130 (2021)

16

Prevention of Mother-to-Child Transmission Is Needed

- In unmanaged HBV infection . . .

20% to 40%

risk of infant infection from HBsAg-positive mother by 1 yr of age

70% to 90%

risk of infant infection from HBeAg-positive mother

90%

infants infected before 1 yr of age develop CHB

25% to 30%

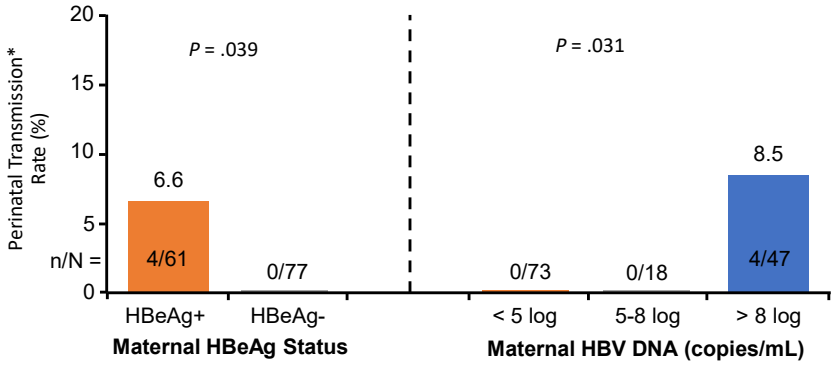
infants infected at 1-5 yr of age develop CHB

EASL. J Hepatol. 2017;67:370.

17

Perinatal HBV Transmission Is Related to Maternal eAg status and HBV DNA Level

- All infants received HBIG + first dose HBV vaccine within 12 hrs of birth and additional doses of HBV vaccine at 2, 4, and 6 mos



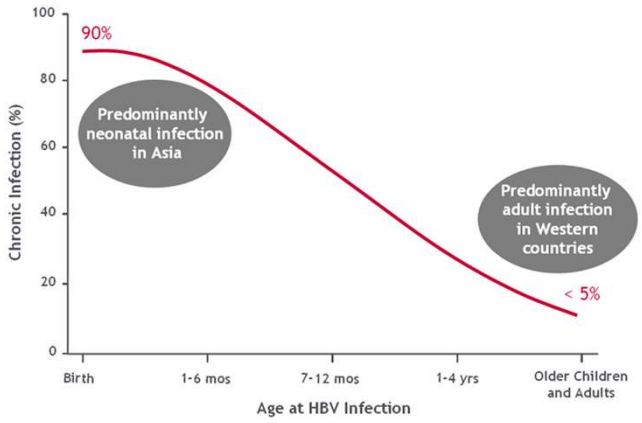
*Perinatal transmission = HBsAg positive at Mo 9.

Wiseman E, et al. Med J Aust. 2009;190:489-492.

18

3. Diễn tiến bệnh viêm gan virus B nếu lây bệnh từ mẹ.

Preventing Perinatal HBV Transmission: Why Is It So Important ?



Progression to Chronic Infection is Dependent on the Age at Acute HBV Infection

Asian Liver Center. *2007 Physician's Guide to Hepatitis B: A Silent Killer*. http://liver.stanford.edu/files/2007Handbook.pdf. Accessed November 7, 2007.

19

Outcomes

Adult infection:

20-30% of adults who are chronically infected will develop **cirrhosis and/or liver cancer**

< 5% of adults with acute hepatitis B will go on to develop **Chronic Hepatitis B (CHB)**

In infants and children infection:

80–90% of infants infected **during the first year of life** develop **chronic infections**

30–50% of children infected **before the age of 6 years** develop **chronic infections**

World Health Organization. Hepatitis B. Fact Sheet http://www.who.int/news-room/fact-sheets/detail/hepatitis-b Accessed May, 18 2018.

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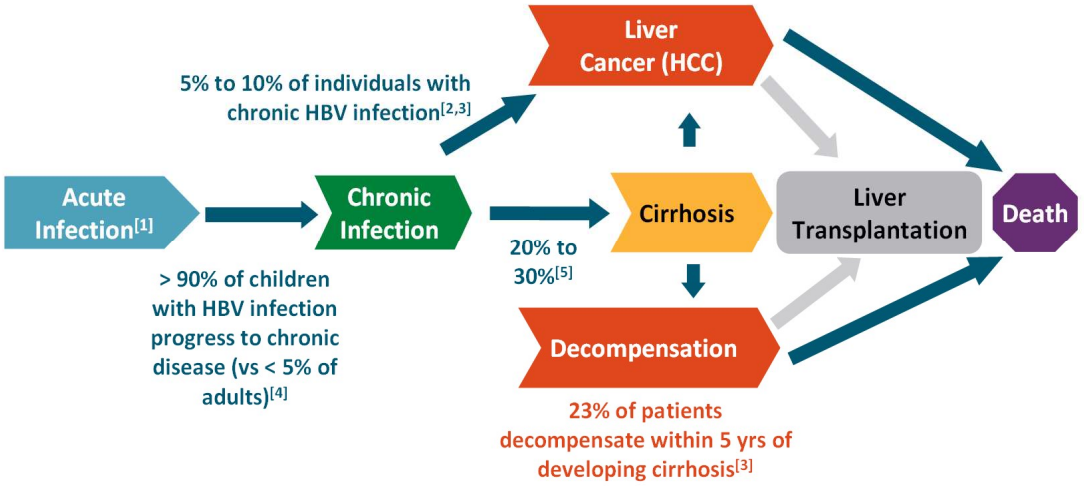
DIỄN TIẾN VIÊM GAN SIÊU VI B

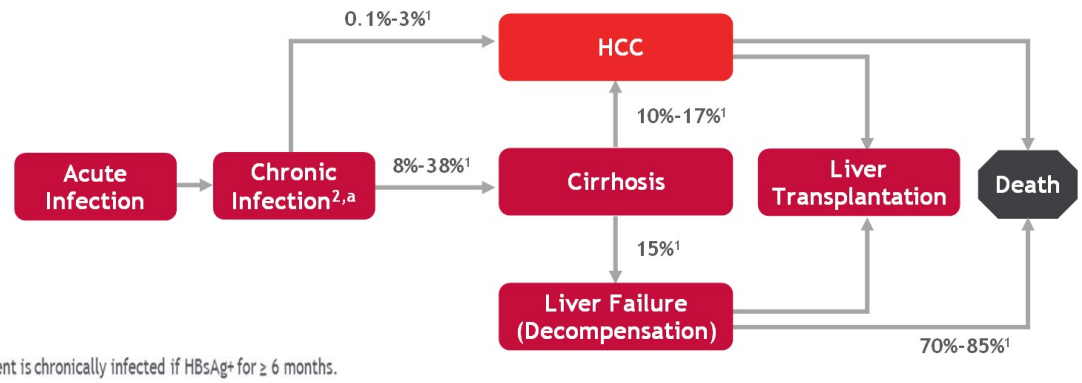


1. The elimination of hepatitis B. In: Buckley. Eliminating the public health problem of hepatitis B and C in the United States: Phase One Report. 2016. 2. Iloeje. Liver Int. 2012;32:1333. 3. Fattovich. Hepatology. 1995;21:77. 4. Weinbaum. MMWR Recomm Rep. 2008;57:1. 5. Niederau. World J Gastroenterol. 2014;20:11595.

21

CHB Is Associated With Severe Burden of Disease

Five Year Cumulative Incident Rates of Development of CHB Complications



[a]Patient is chronically infected if HBsAg+ for ≥ 6 months.

Figure adapted with permission from Fattovich G, et al. In: Marcellin P, ed. *Management of Patients With Viral Hepatitis.* Paris: APMAHB; 2004.

1. Fattovich G, et al. *J Hepatol.* 2008;48:335-352. Lok ASF, McMahon BJ. *Hepatology.* 2009;50:1-36.

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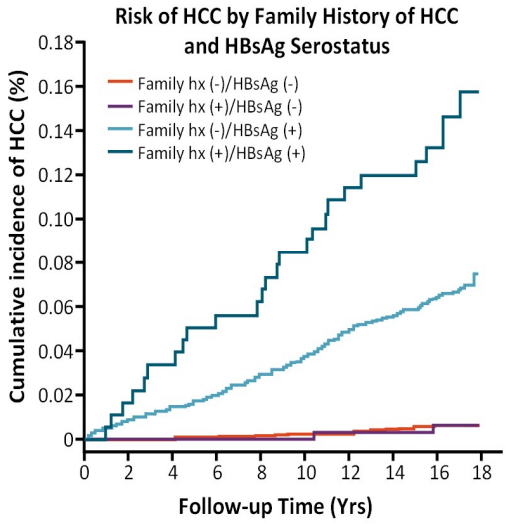
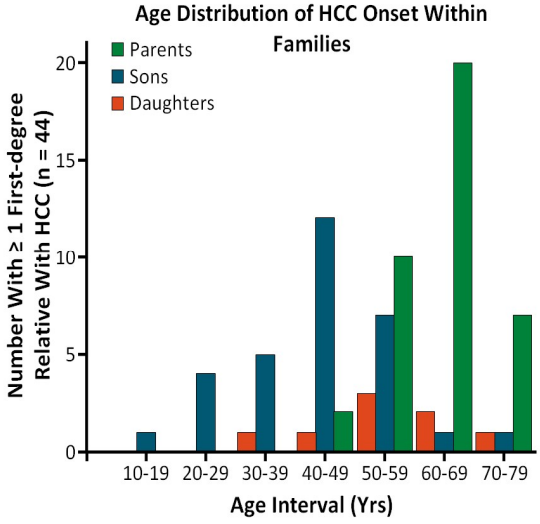
Tăng nguy cơ HCC ở BN có tiền sử gia đình có HCC





Loomba. Clin Gastroenterol Hepatol. 2013;11:1636. Tong. Hepatol Int. 2013;7:1019.

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III. Điều trị viêm gan vi rút B ở phụ nữ mang thai.

1. Chỉ định điều trị.

BỘ Y TẾ

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc

Số: 3310/QĐ-BYT

Hà Nội, ngày 29 tháng 7 năm 2019

QUYẾT ĐỊNH

VỀ VIỆC BAN HÀNH HƯỚNG DẪN CHẨN ĐOÁN, ĐIỀU TRỊ BỆNH VIÊM GAN VI RÚT B

2.7.4. Phụ nữ mang thai

- Đối với phụ nữ mang thai có HBsAg dương tính và chưa điều trị kháng vi rút, cần đánh giá các tiêu chuẩn điều trị

+ Nếu đủ tiêu chuẩn: điều trị bằng TDF

+ Nếu không đủ tiêu chuẩn: Theo dõi và điều trị dự phòng lây nhiễm HBV từ mẹ sang con (mục 2, phần IV)

- Đối với phụ nữ đang điều trị viêm gan B mạn muốn có thai, nếu đang điều trị bằng thuốc không phải TDF thì chuyển sang TDF trước khi dự kiến có thai ít nhất 2 tháng.

- Đối với phụ nữ mới phát hiện có thai trong khi đang điều trị kháng vi rút, tiếp tục điều trị TDF, nếu đang điều trị thuốc không phải TDF thì chuyển sang TDF.

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BỘ Y TẾ

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc

Số: 3310/QĐ-BYT

Hà Nội, ngày 29 tháng 7 năm 2019

QUYẾT ĐỊNH

VỀ VIỆC BAN HÀNH HƯỚNG DẪN CHẨN ĐOÁN, ĐIỀU TRỊ BỆNH VIÊM GAN VI RÚT B

2. Phòng lây truyền từ mẹ sang con

- Tiêm vắc xin VGVR B liều sau sinh cho tất cả trẻ em theo chương trình tiêm chủng mở rộng.

- Trẻ sinh ra từ mẹ có HBsAg dương tính: tiêm kháng huyết thanh VGVR B và vắc xin VGVR B trong vòng 24 giờ sau sinh. Nên tiêm cùng thời điểm nhưng ở hai vị trí khác nhau. Sau đó tiêm đầy đủ các liều vắc xin VGVR B cho trẻ theo quy định của chương trình tiêm chủng mở rộng.

- Đối với các trường hợp thai phụ có tải lượng HBV DNA > 200.000 IU/mL (> 10^6 copies/mL) hoặc HBsAg định lượng > 10^4 IU/mL, tư vấn điều trị dự phòng lây truyền HBV từ mẹ sang con

+ Dùng TDF từ tuần 24 - 28 của thai kỳ, nếu muộn hơn thì nên bắt đầu ít nhất 4 tuần trước sinh và liên tục đến 4 - 12 tuần sau sinh

+ Theo dõi tình trạng của mẹ gồm triệu chứng lâm sàng, AST, ALT mỗi 4 - 12 tuần, tải lượng HBV DNA trong vòng 24 tuần sau sinh đế phát hiện VGVR B bùng phát.

+ Xét nghiệm HBsAg và anti-HBs cho trẻ > 12 tháng tuổi để đánh giá tình trạng nhiễm HBV.

- Không chống chỉ định nuôi con bằng sữa mẹ ở những người mẹ có HBsAg dương tính và mẹ đang sử dụng TDF đế điều trị bệnh hoặc điều trị dự phòng

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SUMMARY OF MAJOR GUIDELINE RECOMMENDATIONS FOR HBV MANAGEMENT IN PREGNANCY

	AASLD 2018[6]	EASL 2017[7]	APASL 2016[8]
HBV-DNA threshold for treatment	>2 × 10^5 IU/mL (10^6 copies/mL) or HBsAg >4log IU/mL	>2 × 10^5 IU/mL (10^6 copies/mL)	10^6-10^7 IU/mL (5 × 10^6 copies/mL)
Treatment initiation gestational age	28-32 weeks	28-32 weeks	28-32 weeks
Preferred drug	TDF (LMV or TBV alternative)	TDF (LMV or TBV alternative)	TDF (LMV or TBV alternative)
Therapy discontinuation	At delivery or up to 12 weeks after delivery; postpartum ALT monitoring suggested every 3 months for 6 months	12 weeks after delivery	At delivery or 4-12 weeks after delivery
Breastfeeding	Not contraindicated. Risk of low-level antiviral exposure to infants should be discussed with mothers	Not contraindicated in untreated and TDF-treated women	Discouraged while mothers are on antiviral therapy
Mode of delivery	Cesarean section is not indicated	No comment	No comment

JOSHI AND COFFIN. Hepatitis B and Pregnancy: Virologic and Immunologic Characteristics. Hepatology Communications, Vol. 4, No. 2, 2020.

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Tenofovir prophylaxis to prevent mother-to-child transmission of HBV

World Health Organization

JULY 2020

New recommendation

WHO recommends that pregnant women testing positive for HBV infection (HBsAg positive) with an HBV DNA ≥ 5.3 $\log_{10}$ IU/mL (≥ 200,000 IU/mL)[1] receive tenofovir prophylaxis from the 28th week of pregnancy until at least birth, to prevent mother-to-child transmission of HBV. This is in addition to three-dose hepatitis B vaccination in all infants, including timely birth dose *(conditional recommendation, moderate quality of evidence)*.

Use of HBeAg testing, where HBV DNA testing is not available, to determine treatment eligibility for tenofovir prophylaxis to prevent mother-to-child transmission of HBV

New recommendation

WHO recommends that in settings in which antenatal HBV DNA testing is not available, HBeAg testing can be used as an alternative to HBV DNA testing to determine eligibility for tenofovir prophylaxis to prevent mother-to-child transmission of HBV[2] *(conditional recommendation, moderate quality of evidence)*.

PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HEPATITIS B VIRUS: GUIDELINES ON ANTIVIRAL PROPHYLAXIS IN PREGNANCY. WHO JULY 2020.

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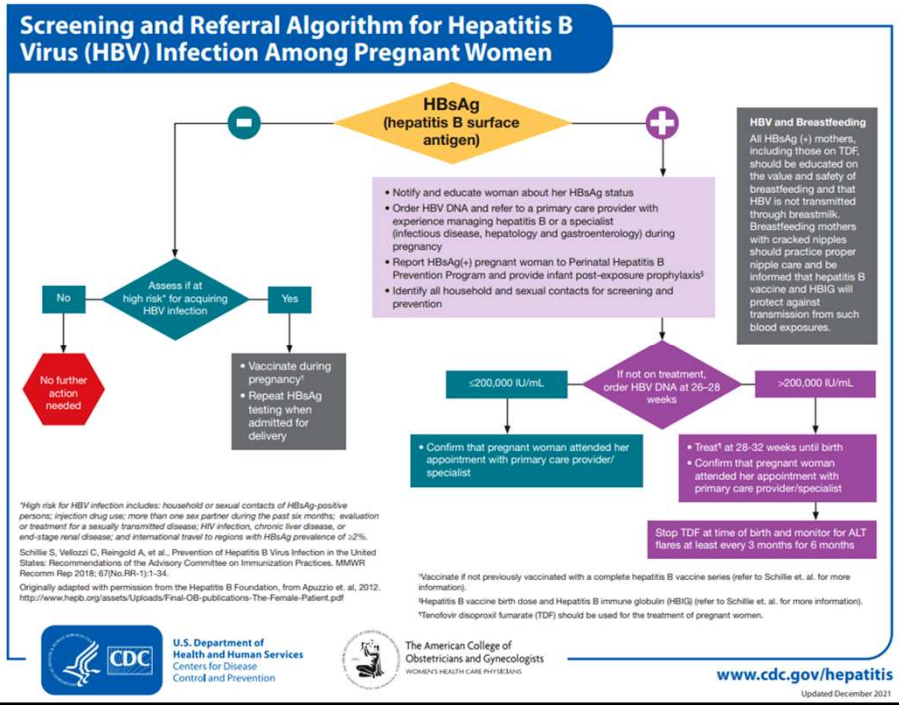
www.cdc.gov/hepatitis

Updated December 2021



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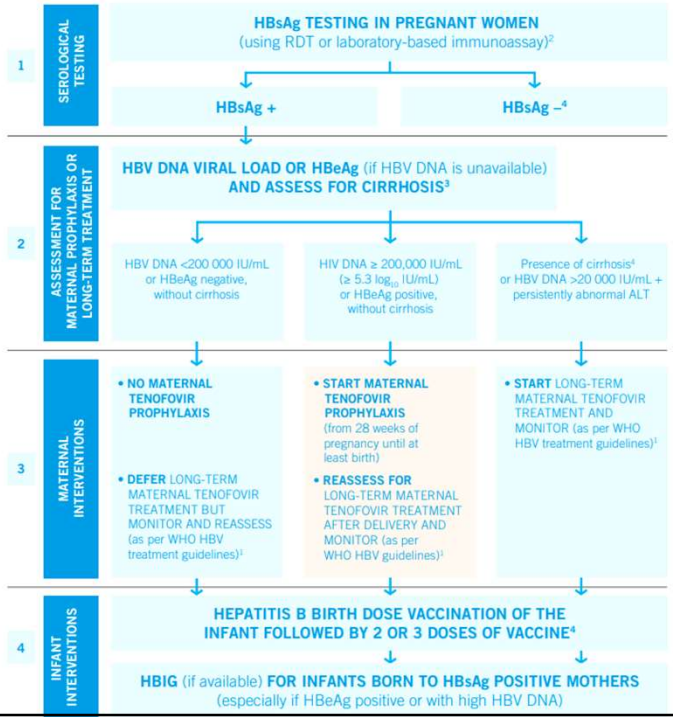
World Health Organization

JULY 2020

Algorithm on maternal and infant interventions for prevention of mother-to-child transmission, and assessment of eligibility of mother for treatment for her own health



PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HEPATITIS B VIRUS: GUIDELINES ON ANTIVIRAL PROPHYLAXIS IN PREGNANCY. WHO JULY 2020.

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2. Thuốc điều trị viêm gan virus B cho phụ nữ có thai.

- **Đang điều trị.**
- **Chưa từng điều trị hoặc đang theo dõi định kỳ.**

Goal of CHB Treatment:
To prevent liver-related morbidity and mortality associated with CHB through suppression of HBV replication
(HBV DNA undetectable <10 IU/mL)

↓

Associated with normalization of ALT, loss of HBeAg, and improvement in liver histology

Concomitant goal of antiviral treatment in pregnancy:
Decrease risk of HBV transmission to infant

Goals of HBV Therapy

Terrault. Hepatology. 2016;63:261.

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AASLD Guidance: HBV Treatment Options

Entecavir, tenofovir disoproxil fumarate, tenofovir alafenamide, pegIFN as first line

ETV or TAF in patients with renal disease, bone disease, age >60 yr

- ETV over TAF in patients with CrCl <15 mL/min or on hemodialysis; generic/cost
- TAF over ETV in patients with HIV, prior LAM exposure

PegIFN less safe with cirrhosis (reserve for mild CHB), contraindicated with decompensated cirrhosis

TDF preferred in pregnancy

Terrault. Hepatology. 2018;67:1560.

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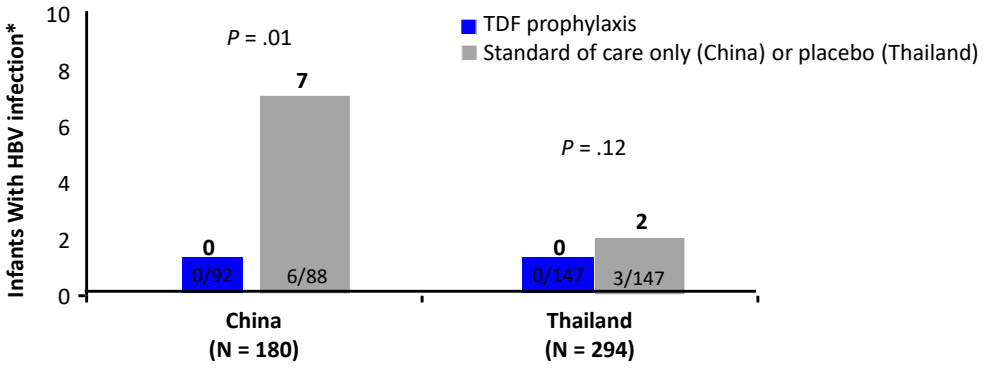
TDF Prophylaxis to Prevent Mother-to-Child HBV Transmission During Pregnancy

- No cases of transmission with TDF prophylaxis during third trimester of gestation in randomised controlled trials in Asia[1,2]



*At Wk 28 following delivery in China and 6 mos following delivery in Thailand.

1. Pan. NEJM 2016;374:2324. 2. Jourdain. NEJM 2018;378:911.

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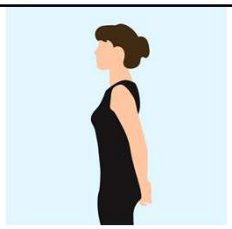
Phụ nữ đang điều trị TAF, có thai ngoài ý muốn.



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Điều trị HBV ở phụ nữ mang thai: Dữ liệu mới từ TAF.

Antiviral kinetics of tenofovir alafenamide and tenofovir disoproxil fumarate over 24 weeks in women of childbearing potential with chronic HBV

Background/purpose: Use of tenofovir disoproxil fumarate (TDF) improves patient outcomes in preventing mother-to-child transmission (pMTCT) of the hepatitis B virus (HBV) in mothers with chronic HBV and high viral loads. Given the lack of data for tenofovir alafenamide (TAF) in pMTCT, rates of early viral suppression with TAF and TDF were evaluated in women of childbearing potential (WOCBP) participating in 2 randomized, double-blind, Phase 3 studies in chronic HBV.

Methods: In a patient subset meeting WOCBP criteria and with baseline HBV DNA >200,000 IU/mL, rates of viral suppression with TAF or TDF in achieving the target of HBV DNA <200,000 IU/mL at weeks 12 and 24 were assessed. Multivariate logistic regression was used to identify factors predictive of failure to suppress HBV DNA to the target level.

Results: In 275 of 1298 (21%) patients meeting WOCBP criteria with high viral load, 93% and 96% had HBV DNA <200,000 IU/mL at weeks 12 and 24, respectively. Results for TAF (n = 194) vs TDF (n = 81) treatment were similar at weeks 12 and 24 (94% vs. 90% and 97% vs. 93%), respectively. High baseline HBV DNA level, genotype D infection, and prior interferon (week 24 only) were predictive of failure to achieve the target level. Both treatments were well tolerated with TAF showing less impact on renal and bone parameters.

Conclusions: In WOCBP with high VL, no differences were found between TAF and TDF in reducing HBV DNA to levels associated with lower transmission risk. These data support ongoing studies of TAF for pMTCT.

Calvin Q Pan et al. PLoS One . 2021 May 13;16(5)

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TAF for Prevention of HBV Vertical Transmission: Infant Efficacy

- Perinatal transmission rate was 0% at 7 mo
  - Positive anti-HBs: 99.0% and 100% of infants in TAF and TDF groups, respectively

Maternal Efficacy Result at Postpartum Mo 18, % (n/N)	TAF (n = 103)*	TDF (n = 104)*
HBV DNA target not detected		
•Treatment-naive group	100 (19/19)	100 (22/22)
•Switchover or continuation group	100 (11/11)	100 (10/10)
ALT normalization		
•Treatment-naive group	94.7 (18/19)	95.5 (21/22)
•Switchover or continuation group	100 (11/11)	100 (10/10)
HBeAg seroconversion		
•Treatment-naive group	22.0 (13/59)	21.1 (12/57)
•Switchover or continuation group	30.4 (7/23)	29.0 (9/31)

*All *P* values >.05 for TAF vs TDF group.

Physical and neurological development of infants was normal at birth, 7 months, 12 months, and 18 months

TAF and TDF were generally safe and effective for infants

Zeng. AASLD 2021. Abstr OA19.

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What's New in the Guidelines | NIH - Clinical Info HIV.gov

Recommendations for Use of Antiretroviral Drugs During Pregnancy

- The Panel continues to recommend dolutegravir (DTG) as a *Preferred* ARV drug for pregnant people, irrespective of trimester, and for people who are trying to conceive. The most recent data from the Tsepamo study in Botswana indicate that, although the prevalence of infant neural tube defects (NTDs) with periconception use of DTG was higher than the prevalence of NTDs in infants born to women who were receiving efavirenz and women without HIV, the prevalence was not significantly increased compared with women with HIV receiving non-DTG ARV regimens at conception. Based on these and other data, the Panel has removed bulleted recommendations with DTG-specific cautions.
- Based on additional data about the use and safety of tenofovir alafenamide (TAF), the Panel now recommends TAF as a *Preferred* nucleoside reverse transcriptase inhibitor for ARV regimens in people who are pregnant or are trying to conceive.
- Available data about weight gain with TAF and with DTG during pregnancy have been reviewed and incorporated in this section.
- Oral cabotegravir (CAB) and the new long-acting injectable regimen of CAB and rilpivirine (RPV) have been classified as *Not Recommended* for use in pregnancy and as *Insufficient Data* for persons who are trying to conceive or who become pregnant while on this regimen.
- Revisions have been made to the sections listed below to incorporate the Panel's updated recommendations about ARV drugs during pregnancy and for people who are trying to conceive.

What's New in the Guidelines

Updated: Mar. 17, 2022
Reviewed: Mar. 17, 2022

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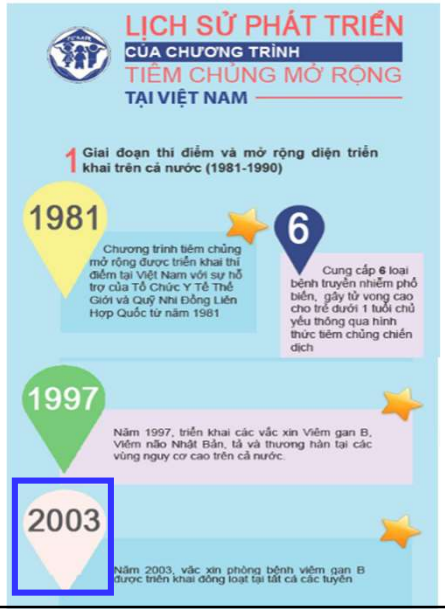
IV. QUAN TRỌNG: HBV CÓ THUỐC NGỪA

Tiêm vắc-xin là một trong những cách tốt nhất để bảo vệ sức khỏe cho con

http://eva.vn/lam-me/nhung-chang-duong-cua-chuong-trinh-tiem-chung-mo-rong-tai-vn-c10a245133.html



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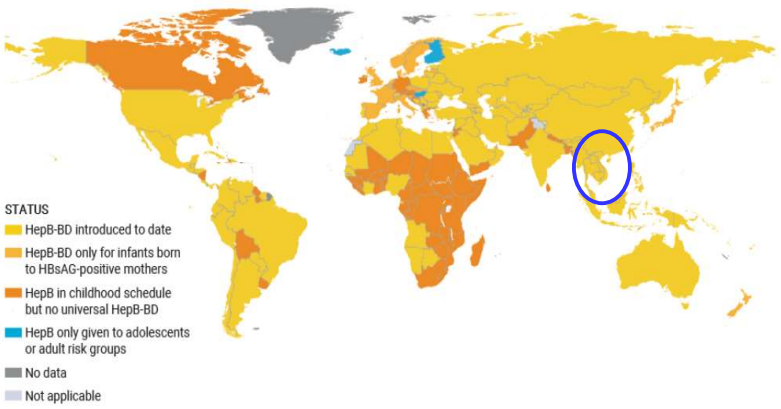
Global Progress Report on HIV, viral hepatitis and sexually transmitted infections, 2021.

World Health Organization

Hepatitis B birth dose vaccination strategies in the national immunization programme, April 2021



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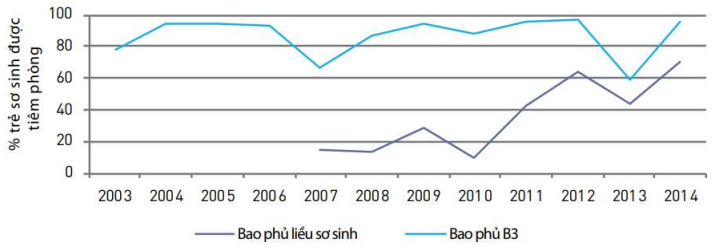
TÌNH HÌNH BỆNH VIÊM GAN VIRUS VÀ ĐÁP ỨNG Ở VIỆT NAM - WHO representative office for Viet Nam 2019

Bảng 7. Tỷ lệ trẻ sơ sinh được tiêm phòng HBV theo năm ở Việt Nam, 2003–2015

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
HepB-BD					27%	25%	40%	21%	55%	76%	56%	55%	70%
HepB3	78%	94%	94%	93%	67%	87%	94%	88%	95%	97%	59%	95%	97%

Nguồn: WHO (2018).

Hình 15. Tỷ lệ trẻ sơ sinh được tiêm phòng HBV theo năm ở Việt Nam, 2003–2015



B3, viêm gan B liều 3.
Nguồn: WHO (2018).

Tiêm vắc xin viêm gan B liều sơ sinh (HepB-BD)

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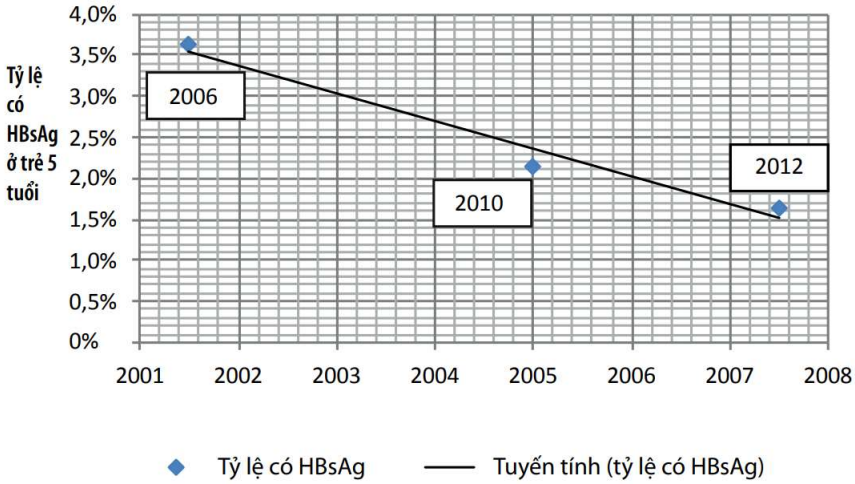
Tỷ lệ mang HBsAg xét theo đoàn hệ sinh ở Việt Nam, 2001–2008



Nguyen et al. (2014)

Tỷ lệ hiện mắc viêm gan B ở trẻ nhỏ đã giảm từ khi việc tiêm phòng cho trẻ sơ sinh được áp dụng năm 1997. Chỉ có một khảo sát huyết thanh đại diện trên toàn quốc đã được thực hiện (Nguyen et al., 2014). Khảo sát tiến hành năm 2011, bao gồm trẻ từ 3 đến 11 tuổi, do vậy gồm cả những đoàn hệ sinh trước và sau tiêm vắc xin viêm gan B liều sơ sinh.

TÌNH HÌNH BỆNH VIÊM GAN VI RÚT VÀ ĐÁP ỨNG Ở VIỆT NAM - **WHO** representative office for Viet Nam 2019

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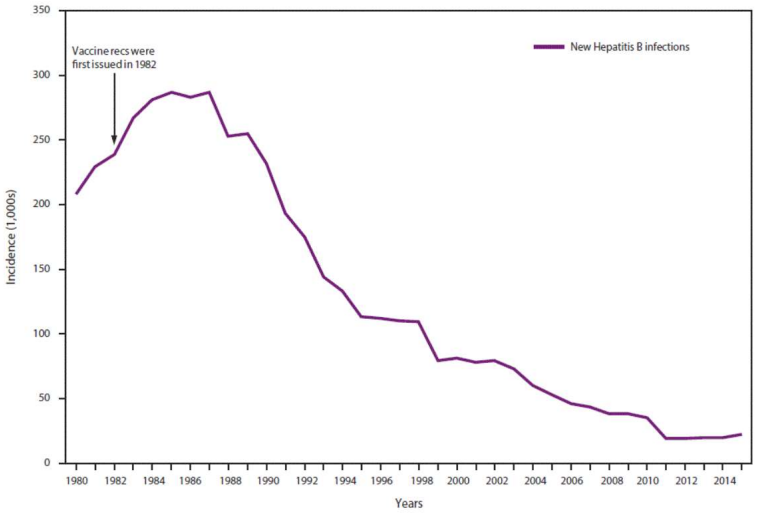
Incidence of hepatitis B virus infection — National Notifiable Diseases Surveillance System, United States, 1980–2015



Sarah Schillie et al. Prevention of Hepatitis B Virus Infection in the United States: Recommendations of the Advisory Committee on Immunization Practices. CDC. January 12, 2018 / 67(1);1–31

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World Health Organization

JULY 2020

Summary of recommendations

Existing recommendations on immunization from the WHO position paper 2017 *(6)*

a) All infants should receive their first dose of hepatitis B vaccine as soon as possible after birth, preferably within 24 hours;

b) Delivery of hepatitis B vaccine within 24 hours of birth should be a performance indicator for all immunization programmes, and reporting and monitoring systems should be strengthened to improve the quality of data on the birth dose;

c) The birth dose should be followed by two or three doses to complete the primary series.

PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HEPATITIS B VIRUS: GUIDELINES ON ANTIVIRAL PROPHYLAXIS IN PREGNANCY. WHO JULY 2020.

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Management of Infants Born to Women with Hepatitis B Virus Infection for Pediatricians

Management of Perinatally Hepatitis B Virus (HBV)-Exposed Infants with Birth Weights ≥2,000 grams (≥4.4 lbs)

Administer hepatitis B immune globulin (HBIG) and single-antigen vaccine in separate limbs at birth (≤12 hours).
Complete vaccine series with 2 additional doses of single-antigen vaccine (3 total doses) OR with 3 additional doses of combination vaccine (4 total doses).

	≤12 hours of birth	1 mo	2 mos	4 mos	6 mos
Single-Antigen Vaccine Series*	1st dose	2nd dose			3rd dose
Single-Antigen and Combination Vaccine Series*	1st dose (*single-antigen vaccine*)		2nd dose	3rd dose	4th dose

*Administer the final dose no earlier than 6 months of age (minimum age 164 days includes 4-day grace period). Complete postvaccination serologic testing (PVST) at 9–12 months of age (or 1–2 months after final dose, if series delayed) by testing for ONLY hepatitis B surface antigen (HBsAg) and antibodies to hepatitis B surface antigen (anti-HBs). Do NOT test for antibodies to hepatitis B core antigen (anti-HBc).

Management of Perinatally Hepatitis B Virus (HBV)-Exposed Infants with Birth Weights <2,000 grams (<4.4 lbs)

Administer HBIG and single antigen vaccine in separate limbs at birth (≤12 hours).
Complete vaccine series with 3 additional doses of single antigen or combination vaccine (4 total doses).

	≤12 hours of birth	1 mo	2 mos	3 mos	4 mos	6 mos
Single-Antigen Vaccine Series*	1st dose	2nd dose	3rd dose			4th dose
Single-Antigen and Combination Vaccine Series*	1st dose (*single-antigen vaccine*)		2nd dose		3rd dose	4th dose

*Administer the final dose no earlier than 6 months of age (minimum age 164 days includes 4-day grace period). Complete postvaccination serologic testing (PVST) at 9–12 months of age (or 1–2 months after final dose, if series delayed) by testing for ONLY hepatitis B surface antigen (HBsAg) and antibodies to hepatitis B surface antigen (anti-HBs). Do NOT test for antibodies to hepatitis B core antigen (anti-HBc).

Interpreting Post Vaccination Serologic Test (PVST) Results

Immune	Still Susceptible	Infected
HBsAg-Negative Anti-HBs-Positive Antibody Level ≥10mIU/mL **No further follow up necessary** Report results to your Perinatal Hepatitis B Prevention Program (PHBPP) coordinator. https://www.cdc.gov/vaccines/vpd/hepb/hcp/perinatal-contacts.html	HBsAg-Negative Anti-HBs-Negative Antibody Level <10mIU/mL **Needs additional follow up and vaccines** Contact your PHBPP coordinator for assistance https://www.cdc.gov/vaccines/vpd/hepb/hcp/perinatal-contacts.html	HBsAg-Positive Anti-HBs-Negative Antibody Level <10mIU/mL **Needs additional follow up** Contact your PHBPP coordinator for assistance https://www.cdc.gov/vaccines/vpd/hepb/hcp/perinatal-contacts.html

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

CS 325363-A September 29, 2021

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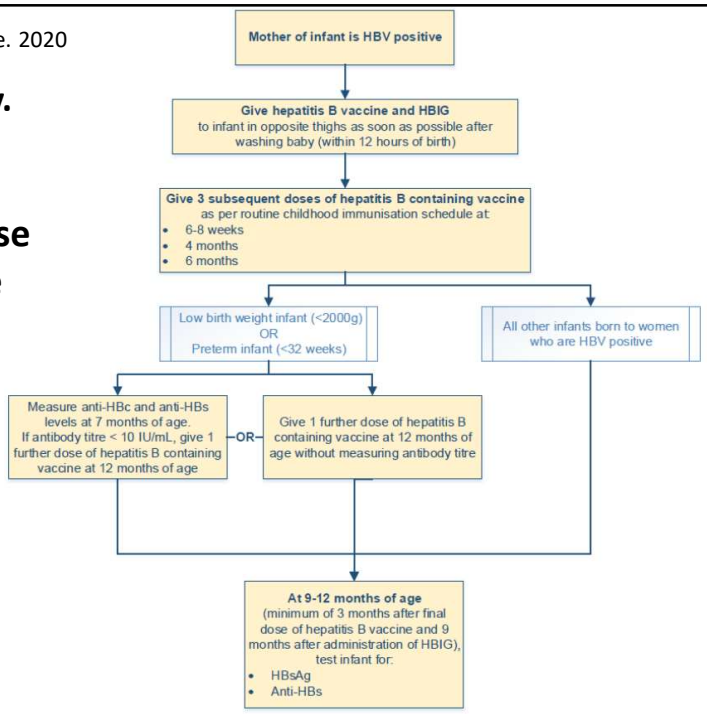
South Australian Perinatal Practice Guideline. 2020

Hepatitis B in Pregnancy.

Follow-up of infants whose mothers are HBV positive



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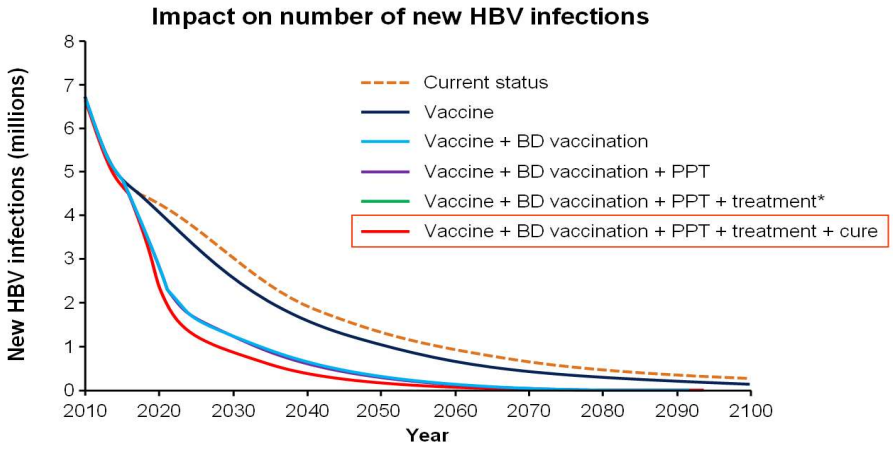
GIẢI PHÁP TỐI ƯU NÀO ĐỂ GIẢM LÂY NHIỄM HBV



*Green line is overlapped by red line.
BD: birth dose; PPT: peripartum antiviral therapy.

Nayagam S, et al. Lancet Infect Dis 2016;16:1399–408

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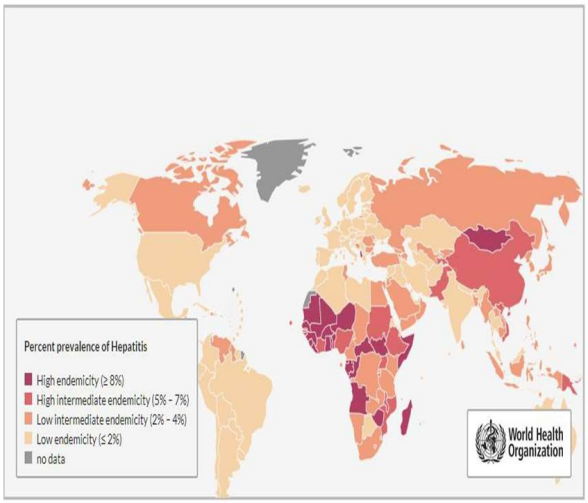
Vaccine HBV tạo nên sự khác biệt của tỉ lệ nhiễm HBV

HBsAg all ages pre vaccination 1990



HBsAg all ages 2015 estimates

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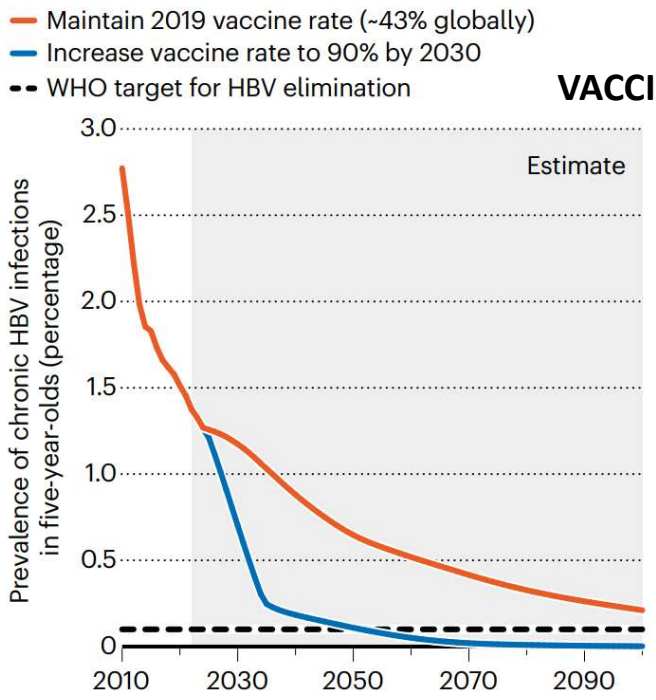
VACCINATION TOWARDS ELIMINATION



Steadily increasing birth-dose vaccination rates to 90% globally by 2030 would bring chronic HBV in 5-year-olds to target levels by 2052.

Liam Drew. S50 | Nature | Vol 603 | 31 March 2022

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Medic Center

V, Kết luận.

- Viêm gan B là bệnh hay gặp ở nước ta: Tỉ lệ nữ mang thai nhiễm HBV cũng cao.

  Tất cả phụ nữ mang thai phải được xét nghiệm HBV để có hướng xử trí thích hợp.

- Phụ nữ có thai đang điều trị HBV thì cứ tiếp tục điều trị với thuốc TDF: Tiếp tục thuốc TDF hoặc chuyển đổi qua TDF nếu dùng thuốc khác.

  TDF là thuốc được đề nghị dùng cho phụ nữ có thai theo đa số các guideline.

- Có chiến lược tư vấn kiến thức lây lan cho tất cả các phụ nữ nhiễm HBV, đặc biệt điều trị dự phòng lây từ mẹ sang con đúng chỉ định.
- Được phép cho con bú trong khi điều trị thuốc kháng siêu vi B.
- Với các dữ liệu an toàn và hiệu quả mới, TAF có thể sẽ được xem xét cho phép để điều trị HBV ở phụ nữ có thai.
- Chích ngừa viêm gan siêu vi B tạo nên sự khác biệt trong cuộc chiến chống HBV.

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