# Introducing antiviral prophylaxis for hepatitis B pregnant women with high viral load in Hong Kong

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# BACKGROUND & OBJECTIVES

- Similar to many Asian countries, mother-to-child transmission (MTCT) is a major route of HBV transmission in Hong Kong.
- Measures to prevent MTCT of HBV have been in place since 1980s.
- Universal screening of pregnant women for hepatitis B surface antigen (HBsAg)
- Universal childhood hepatitis B vaccination
- Administration of hepatitis B immunoglobulin (HBIG) for babies born to HBsAg-positive mothers

- Despite the use of hepatitis B vaccine and HBIG, local study showed that MTCT continued to occur at a rate of 1.1% for babies born to HBsAg-positive mothers.
- To eliminate MTCT of HBV in Hong Kong, preventive effort should be strengthened by introducing the use of maternal antiviral prophylaxis as additional intervention while maintaining high coverage of existing MTCT prevention programmes.
- **Objective:** To review an initiative of offering antiviral prophylaxis to hepatitis B infected pregnant women with high viral load to augment prevention of MTCT of HBV.

#### **METHODS**

- The policy initiative was established by the Steering Committee on Prevention and Control of Viral Hepatitis in November 2018.
- Clinical pathway of integrated model of specialist outpatient service was then formulated for managing HBsAg-positive pregnant women with high viral load under care in the public sector.
- Service statistics were evaluated for the review of the initiative.

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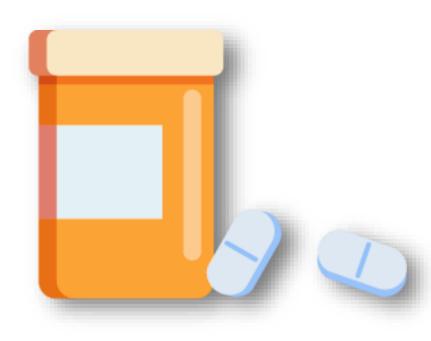
	Doctor	Nurse	Doctor	Pregnant women	Nurse	Doctor	Cessation	Nurse	Doctor
,	~ Gest. week 14	~ between ge	st. week 24-32	started on antiviral	Peripartum	~ 4-12 weeks post-partum	of antiviral		Up to 12 months post-cessation
P p	creening for IBsAg for all regnant women	Counselling and education on antiviral prophylaxic to	<ul> <li>Consultation with further counselling</li> </ul>		<ul> <li>Monitor side- effect, if any, of the antiviral</li> </ul>	<ul> <li>Case review for cessation of antiviral</li> </ul>		<ul> <li>Monitoring including LFT and HBV DNA</li> </ul>	<ul><li>Review LFT &amp; HBV DNA</li><li>Resume antiviral</li></ul>
D	esting for HBV NA for HBsAg+ regnant women	prophylaxis to reduce risk of MTCT of HBV	<ul> <li>Start antiviral prophylaxis if patient agrees</li> </ul>						if evidence or reactivation
р	tefer HBsAg+ regnant women with high viral load*								<ul> <li>Exit pathway and refer for continue management of hepatitis B</li> </ul>
	ligh viral load: 200,000 IU/ mL								

### RESULTS / OUTCOMES

The service model was first piloted in two birthing hospitals at the beginning of 2020, before fully implemented in all public birthing hospitals run by the Hospital Authority (HA) in August 2020.

HBV-infected pregnant women were recruited in the initiative (September 2020 – August 2021) 16% had high viral load Referred to hepatology clinics for

consideration of antiviral prophylaxis



88% started on antiviral prophylaxis

109 pregnant women started on antiviral prophylaxis, out of 124 had attended follow-up in Medicine specialty

## CONCLUSIONS / LESSONS LEARNT

- Maternal antiviral prophylaxis programme for HBV MTCT was successfully rolled out in Hong Kong with significant coverage in the first year.
- Its implementation has been supported by:
  - widening the indications in the drug formulary for the appropriate antivirals;
  - building laboratory capacity for viral load testing; and
  - establishing nurse clinics to augment the management capacity.













