

# Tuberculosis and Pregnancy-- *Overview*

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# Presentation outline

- 1-- Why TB and Pregnancy ?
- 2-- Effects of TB on Pregnancy
- 3-- TB and New Born
- 4-- Breastfeeding and Pregnancy
- 5-- Diagnose TB in pregnant women
- 6-- Treatment Regimens for Pregnant Women
- 7--Contraindications of anti-TB Drugs in pregnancy
- 8-- Where to find TB service for pregnant women in Cambodia

# 1 .Why TB and Pregnancy ?

- Significant contributor to maternal mortality and is among the three leading causes of death among women aged 15–45 years in high burden areas. (Journal of Pregnancy, Volume 2012, Article ID 379271) **TB affects both mothers and new born**
- TB Incidence in pregnancy, not well informed (in general), but expectedly, as high as in general population, and even higher in developing countries. (one article in 2011, estimated to be around 200,000 TB cases, globally)
- Cambodia is one of 30 High TB Burden countries, globally (WHO Global TB Report)

## 2 .Effects of TB on Pregnancy

- Depend on ++ factors( severity of the disease, how advanced the pregnancy has gone at time of diagnosis, the presence of extra-pulmonary spread, and HIV co-infection and the treatment instituted)
- Obstetric **complications of TB**:
  - **High death** : Advanced disease in puerperium and/or HIV co-infection and late diagnosis
  - **Others**: spontaneous abortion, preterm labour, low birth weight, and increased neonatal mortality etc.
- Congenital TB though rare, is associated with high perinatal mortality
- While **effect of pregnancy on to TB** has been controversial for centuries ;but consecutive pregnancies can have negative effect on TB as they may promote reactivation of latent TB

## 3.TB and New Born

- **Congenital TB: Rare**, complication of in utero TB infection

(patho: haem.spread via umbilical vein to foetal liver or ingestion and aspiration of infected amniotic fluid;  
primary focus in liver w peri-portal lymph nodes ,and infect secondarily lungs;unlike in adult 80%,lungs first )

It is difficult to diagnose: similar to other neonatal or congenital infections—hepatosplenomegaly, respiratory distress, fever, and lymphadenopathy.

Radio sign may exist ,but usually later

Set of Diagnosis criteria (by Cantwell et al. , incl primary hepatic complex/caseating granuloma on percutaneous liver biopsy at birth, Placenta TB infection, or TB of maternal genital tract, and lesions during the first week of life ) and must exclude post-natal transmission by thorough investigation of all contacts,incl hospital staffs and attendants.

About 50% neonates born with congenital TB may die ,esp if no TB treatment

- **Post-natal transmission** is much higher

## 4. Breastfeeding and Pregnancy

- Breastfeeding should not be discouraged for women being treated with the first-line anti-TB drugs ( concentrations of these drugs in breast milk are too small to produce toxicity in the nursing newborn).
- For the same reason, drugs in breast milk are not an effective treatment for TB disease or latent TB infection in a nursing infant.
- Breastfeeding women taking INH should also take pyridoxine (vitamin B6) supplementation.

## 5. Diagnose TB in pregnant women

Very similar to non-pregnant women,

- History of exposure to TB cases( chronic cough or clear TB cases ..)

History/presence of symptoms: fever, night sweats, weigh loss(may not be clear), cough > 2 weeks, haemoptysis or no improvement after ABtherapy..

- Microscopy or TB Rapid test (Xpert MTB/Rif..) or culture, if positive → **Bacteriologically confirmed TB**
- If Microscopy or Rapid test negative, --still some TB → **Clinical TB**  
(Xray is safe )

# 6. Treatment Regimens for Pregnant Women

Treatment regimen for TB case : same as non-pregnant women

2RHZE + 4RH

Treatment of MDR-TB : individualized regimen because some MDR-TB drugs are not recommended (contra-indication)

Treatment of infection(LTBI) : 6 H (6 month of Isoniazid )



## 7. Contraindications of anti-TB Drugs in pregnancy

The following anti-TB drugs are contraindicated in pregnant women:

- Streptomycin
- Kanamycin
- Amikacin
- Capreomycin
- Fluoroquinolones ( esp. Levofloxacin, Moxifloxacin)

## 8. Where to find TB service for pregnant women in Cambodia

- Like other population, TB service: available in all Public Health Facilities ( ~105 Hospitals,1,225 HCs and in all health posts)
- But,Comprehensive hospital TB service called Hospital Linkage(HL) exist only in 30 RHs
- Private providers are not yet well capacity-equipped in TB diagnosis and treatment

Thank you !