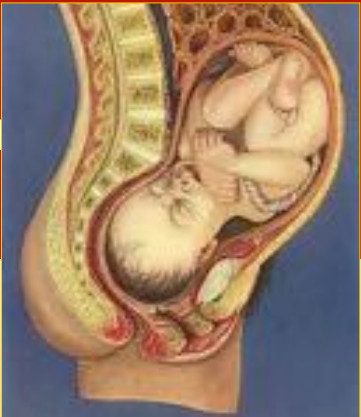



Module 16 – Routine and High-Risk  
Prenatal, Post-Partum and Gynaecological  
Health Assessment

**Module 16 –  
Routine and High-Risk  
Prenatal, Post-Partum and  
Gynaecological Health  
Assessment**



2018 Update by  
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Peer Reviewed by Gabrielle Ene B.Sc.H.

**CANADIAN HEALTH CARE AGENCY**  
EXPERIENCE THE NORTH

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1. Explore the Pregnancy!
2. Pregnancy Dating – pregnancy wheel
3. Obstetrical History – Antenatal 1 and 2 forms
4. Labs
5. Physical Exam
6. Genetic Screening and Testing
7. Diagnostic Imaging

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**Module 13: Objectives/ Topics**

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### Feelings

- How do you feel about being pregnant?
- How do you feel about the new baby?

### Impressions

- What are your ideas about where to go from here?

### Functioning

- How does the pregnancy effect your every day life?
- What sort of supports do you have?

### Expectations

- How can I help?
- How can we work together?

## Patient Centered Model

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- **Very accurate** – both urine and serum will become positive within **7-10 days** of conception
- *An accurate predictor if negative pregnancy test followed within 2 weeks by a positive test*



## Positive Pregnancy Tests

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## GTPAL TPAL describes the “para”

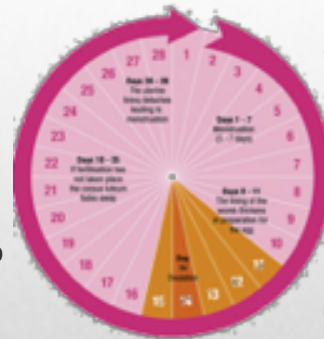
**G**ravida/ **T**erm-**P**reterm-**A**bstention-**L**iving

- **G** = number of pregnancies, including the current one
- **T** = number of term pregnancies, terminating after 36 weeks gestation
- **P** = number of premature pregnancies terminating 20 – 36 weeks gestation
- **A** = number of aborted pregnancies terminating before 20 weeks gestation (spontaneous or therapeutic)
- **L** = number of living children

## Terminology

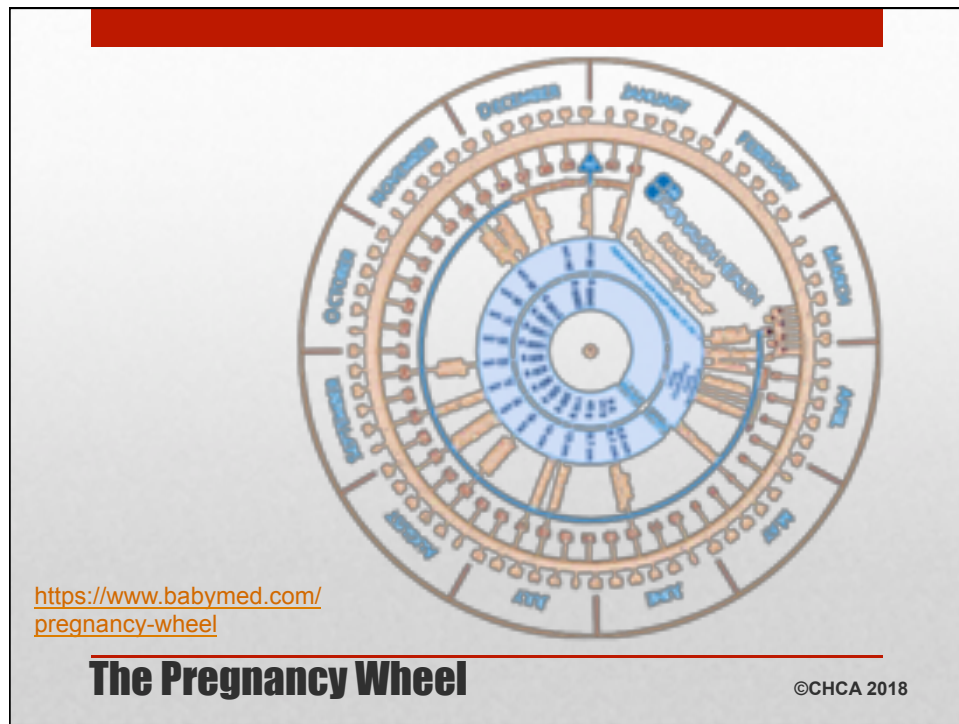
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- “**Gold standard**” if normal flow & frequency
- **Disadvantages:**
- Patients do not always remember LNMP (especially when presenting late for care)
- May be mistaken for implantation bleeding
- May be difficult to determine for Depo users
- With BCPs, first ovulation after cessation of BCPs is frequently delayed from 2-6 weeks



## Last Normal Menstrual Period

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## Why is this important?

- Enables expectant mother, family, and provider to know when to expect onset of labor
- Assessment and management of preterm labour, IUGR, postdates, and PROM
- Scheduling various diagnostic testing or procedures, including Glucose Tolerance, IPS amniocentesis, C-section, or induction of labour
- Ongoing management of maternal diseases (ie. DM, HTN, PIH, renal disease)

## Gestational Age Assessment

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- Incorrect recall of LMP
- Irregular menses
- Incorrect measurement of ultrasound images
- Late registration for prenatal care
- Inaccurate home pregnancy test
- Molar gestation
- Conception during amenorrhea
- Uterine fibroids or pelvic masses
- Multiple gestation
- Implantation bleeding
- Obesity
- Conception during or after BCPs or Depo
- Incorrect estimation of uterine size



### **Common Causes of Gestational Dating Inaccuracies -- *Early Pregnancy***

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- The 2017 update to the Ontario Perinatal Record (OPR) is a partnership between:
  - Provincial Council for Maternal Child Health (PCMCH),
  - Better Outcomes Registry & Network (BORN) Ontario,
  - Ontario Medical Association (OMA)
  - Association of Ontario Midwives (AOM).
- Released October 2017
- Major changes since 2005:
  - Name: now called Ontario Perinatal Record (OPR)
  - Added a formal postnatal care tool.
  - Form is one page longer to accommodate changes to prenatal screening, addition of mental health screening, and more discussion topics.
  - Terminology (both medical and social) has also changed since 2005
  - Respectful of gender identity, the terms “patient/client” are used to ensure inclusivity. Similarly, genetic risk is documented in terms of the gametes rather than “father” and “mother”.

### **Ontario Perinatal Record (OPR)**

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## 6

## Perinatal 1

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## Perinatal 2



## Module 16 – Routine and High-Risk Prenatal, Post-Partum and Gynaecological Health Assessment

### Perinatal 3


The form is titled "Ontario Ministry of Health and Long-Term Care Ontario Perinatal Record 3". It is a detailed medical record for a newborn, including sections for Maternal History, Prenatal History, Birth History, and Neonatal History. It includes checkboxes for various conditions and a table for recording vital signs and other clinical data over time.

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### Perinatal Resources

The form is titled "Ontario Ministry of Health and Long-Term Care Perinatal Resources". It is a resource form for perinatal care, including sections for Antenatal Screening, Depression Screening, and a table for recording various clinical data. It includes checkboxes for various conditions and a table for recording vital signs and other clinical data over time.

## Module 16 – Routine and High-Risk Prenatal, Post-Partum and Gynaecological Health Assessment



The image shows a sample of the Ontario Prenatal Record form. It is a comprehensive document for tracking pregnancy and newborn health. The form includes sections for:
 

- Maternal History:** Demographics, medical history, obstetric history, and current pregnancy details.
- Fetal History:** Fetal development, growth, and well-being.
- Physical Exam:** Maternal and fetal physical examination findings.
- Intervention:** A table for recording interventions and their outcomes.
- Comments:** A section for additional notes and observations.

 The form is titled 'Ontario Prenatal Record' and includes the Ontario Health Services logo.

**Postnatal Record**

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### Initial Visit

- Ideally before 10 weeks



### Subsequently...

- Every 4 weeks until 28-32 weeks
- Every 2 weeks until 36 weeks
- Every week until birth



**VIDEO 1 – First  
Pregnancy Exam**

### Prenatal Care

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- **Gather and/or review history data....**
  - *Go over history written on intake form*
  - *Clarify things*
    - Types of drugs/meds taken since conception
    - Any domestic violence history
    - Family history of genetic disorders
    - Depression



## History

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- Substance Use
- Domestic Violence
- Victims of Violence
- Presence of cats in the home
- Toxoplasmosis (Increases risk for epilepsy/ developmental delay)



## History and Screening

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- Beck Depression Inventory
- Primary Care Evaluation of Mental Disorders  
Patient Health Questionnaire
- Center for Epidemiologic Studies Depression Scale
- Edinburgh Postnatal Depression Scale

## Depression Screening Tools

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- Prenatal vitamins
- FeSO<sub>4</sub> if anemic
  - (Hgb < 11 gm/dl)
- If on Synthroid, **check TSH every trimester**
  - may need to increase dosage as pregnancy progresses

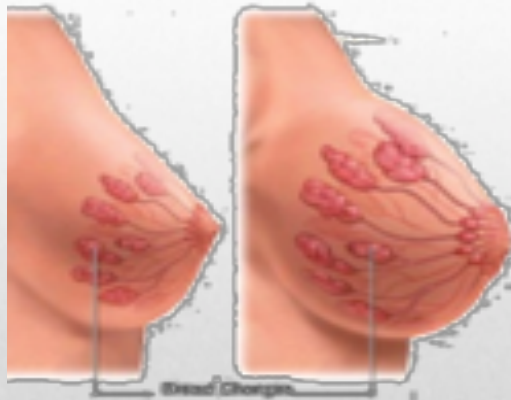
Encourage mother to decrease or eliminate alcohol, cigarettes and drugs during pregnancy.



## Medication

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- **H**ead to toe
- **B**reast changes – watch for tenderness
- **T**hyroid may be slightly enlarged
- **M**urmur - May hear physiologic murmur, present in most pregnant women



Video 2 – General Appearance

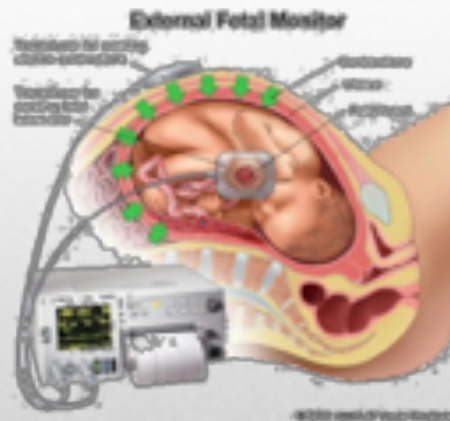
### Physical exam - **HBTM**

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#### AT EVERY VISIT:

- Urine dip for glucose, proteins, ketones
- Weight
- BP
- Fetal Movement inquiry
- Fetal HR

\*usually done with doppler,  
not external fetal monitor



### q Visit Assessment

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- **Doppler** by 9-12 weeks
  - Assume inaccurate dates if not audible by 12 weeks
  - place Doppler wand just above pubic symphysis and aim transducer downwards towards feet/spine
- **Manual Fetoscope** by 17-20 weeks
  - Rarely used today



Video 3 – Fetal  
Heart Tones

## Fetal Heart Tones

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- From 18-35 weeks -- fundal height closely approximates gestational age in weeks (*measure from top of symphysis pubis over the curve of uterus to most cephalic portion of fundus*) -- less accurate after “lightening”
- Fundus generally reaches umbilicus at 20 wks.
- Important to screen for IUGR-and refer if detected



Video 4 – Fundal Height  
Measurement

## Uterine size

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- Fetal Movement
- Bleeding
- Uterine contractions
- Vaginal discharge


Video 5 – 5-minute pregnant abdomen exam

- Pelvic pressure
- Dysuria
- Edema
- Changes in psychosocial parameters

**History: Subsequent Visits**

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- Mother's first perception of fetal movement:
  - *Primigravidas* @ 18-19 weeks
  - *Multigravidas* @ 16-17 weeks



**Quickening**

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- Fetal malposition
- Fetal anomalies
- Polyhydramnios or Oligohydramnios
- Undiagnosed multiple gestation
- IUGR or macrosomia
- Failure to record gestational milestones

**Common Causes of Gestational Inaccuracies –  
High Risk- Late Pregnancy**

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## Diagnostic Tests

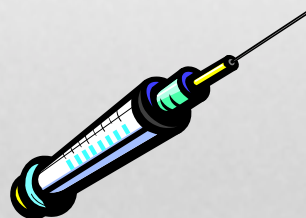


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## Initial

- CBC (or Hemoglobin & Hematocrit)
- ABO group and screen and Antibody screen
- Syphilis Serology (VDRL)
- Rubella and Varicella titres
- Hepatitis B Surface Antigen
- HIV screen - offered to ALL pregnant women
- Ferritin level
- Drug screen (?)
- Sickle cell screen
- Cystic Fibrosis screening
- Early 1 hr GTT, if indicated

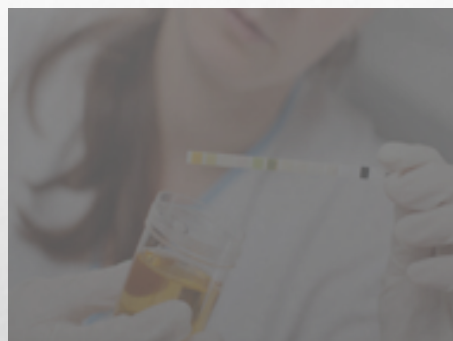


### Laboratory Tests: Blood

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## Urinalysis, Culture & Sensitivity

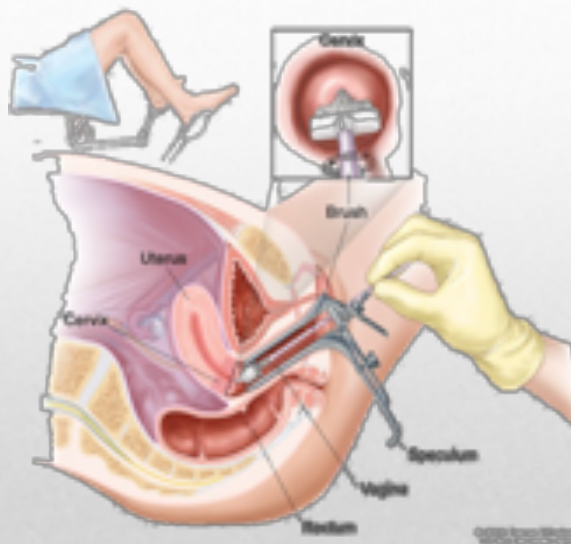
- Treat if  $> 100,000$
- If untreated, can lead to pyelonephritis
- In later pregnancy, can cause preterm contractions



### Laboratory Tests: Urine

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- Pap smear if overdue or history of dysplasia
- Recommend GC/Chlamydia
- Vaginal microbiology swab for BV and Trichomonas



## Laboratory Tests: Cervical

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## Maternal Serum Screening/Genetic Testing

- Neural tube defects
- Down's syndrome
- Trisomy 21

Ex. Down's Syndrome defined as a genetic disorder caused when abnormal cell division results in extra genetic material at chromosome 21

From Nursing Station – Can draw:  
First Trimester Screen [11w – 13w6d]  
[CRL 41-84 mm or BPD <26mm]  
Maternal Serum Screen [15w – 20w6d]  
Maternal Serum AFP only [15w – 20w6d]

Integrated Prenatal Screen has to be pre-arranged via MD/ NP in Thunder Bay or Timmins.



Down's Syndrome Karyotype – Centre for Health Services

## Subsequent Labs

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## Module 16 – Routine and High-Risk Prenatal, Post-Partum and Gynaecological Health Assessment

- Offered from 15w – 20w6d gestation (not mandatory)
- Samples sent to North York General Hospital in Toronto.

**NORTH YORK GENERAL HOSPITAL**  
Prenatal Screening for Down syndrome, Patau syndrome, and Edwards syndrome

**Maternal Serum Screening (MSS)**

**Screening for Down syndrome, Patau syndrome, and Edwards syndrome**

**Screening for Down syndrome**

**Screening for Patau syndrome**

**Screening for Edwards syndrome**

**Screening for Neural Tube Defects (NTD)**

**Screening for Gestational Diabetes (GD)**

**Screening for Rh Negative Women**

**Screening for Hemoglobinopathy**

**Screening for Sickle Cell Disease**

**Screening for Phenylketonuria (PKU)**

**Screening for Tay-Sachs Disease**

**Screening for Cystic Fibrosis**

**Screening for Muscular Dystrophy**

**Screening for Phenylalanine**

**Screening for Galactosemia**

**Screening for Congenital Hypothyroidism**

**Screening for Congenital Adrenal Hyperplasia**

**Screening for Congenital Deafness**

**Screening for Congenital Heart Disease**

**Screening for Congenital Kidney Disease**

**Screening for Congenital Liver Disease**

**Screening for Congenital Pancreatic Disease**

**Screening for Congenital Bone Disease**

**Screening for Congenital Skin Disease**

**Screening for Congenital Eye Disease**

**Screening for Congenital Ear Disease**

**Screening for Congenital Mouth Disease**

**Screening for Congenital Neck Disease**

**Screening for Congenital Chest Disease**

**Screening for Congenital Abdominal Disease**

**Screening for Congenital Genitourinary Disease**

**Screening for Congenital Reproductive Disease**

**Screening for Congenital Immune System Disease**

**Screening for Congenital Metabolic Disease**

**Screening for Congenital Infectious Disease**

**Screening for Congenital Cancer**

**Screening for Congenital Genetic Disease**

**Screening for Congenital Chromosomal Disease**

**Screening for Congenital Mitochondrial Disease**

**Screening for Congenital Prion Disease**

**Screening for Congenital Protein Metabolism Disease**

### Maternal Serum Screening

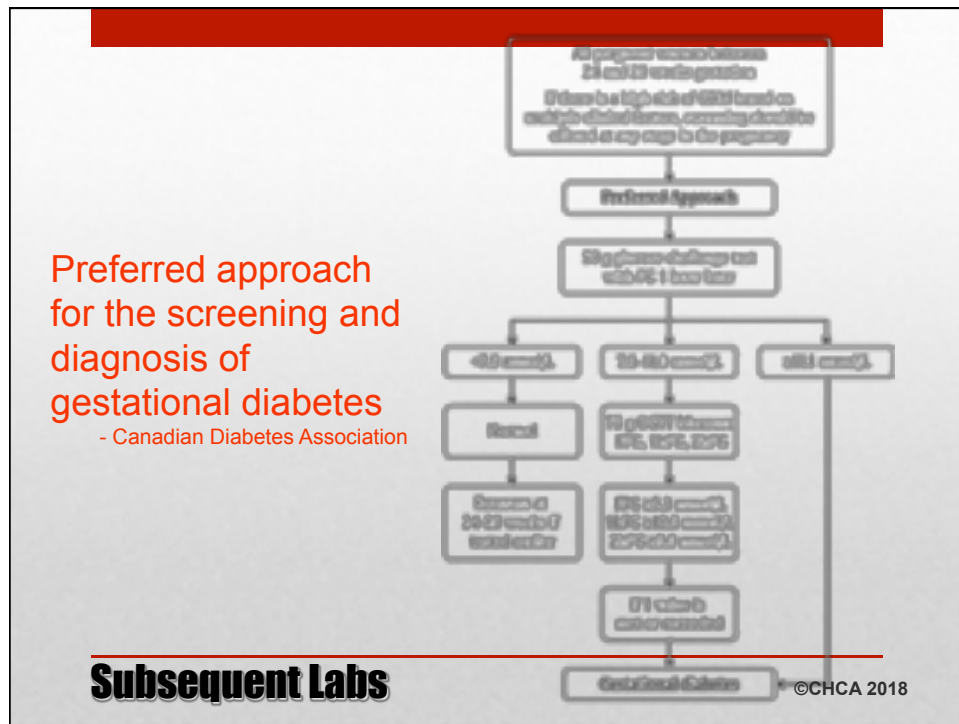
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At 24-28 weeks gestation:

- CBC
- Ferritin
- Antibody/Indirect Coomb's on Rh negative women - if negative, consult for Rhogam order!
- 50 Gram, 1-hour OGTT
  - If necessary, proceed with 75 g OGTT, to make dx of gestational diabetes if values are:
    - Greater or equal to 5.3 mmol/L fasting, at one hour greater or equal to 10.6mmol/L and at two hours, greater or equal to 9.0 mmol/L

### Subsequent Labs

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35-36 weeks

- Vaginal/ Rectal swab for GBS – Group B Streptococcus

**What is GBS?**

- GBS is short for Group B Streptococcus, one of many kinds of bacteria that normally live in our bodies.


**What could GBS mean for my baby?**

- GBS may cause sickness in babies within the first seven days of life (called early-onset disease) or after 7 days (called late-onset disease).
- GBS can cause bacteria to enter the blood (bacteremia), lung infection (pneumonia), inflammation in the brain and spine (meningitis), respiratory infections and death.

*Option used by most providers in Canada -> Take GBS test, if positive, start antibiotics*

**Subsequent Labs – Group B Strep**

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- Confirmation
- Fetal number
- Dating
- Growth patterns
- Overall Fetal health
- Fluid volume

**Diagnostic Tests: Ultrasound**

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Indicator	Appropriate Time	Accuracy
LNMP	Entire Pregnancy	+/- 14.6 days
Conception/ Ovulation	Entire Pregnancy	+/- 1 days
Serum Preg Test Urine Preg Test	Before 4 weeks	7-10 days after conception
Detection of FHT	Between 9-12 weeks	+/- 3 weeks
Uterus at umbilicus	20 weeks	+/- 15 days
Fundal Height	Between 18-35 weeks	+/- 13-19 days
Quickening – primip	18-19 weeks	+/- 18 days
Quickening – multi	16-17 weeks	+/- 18 days

**Clinical Indicators of Gestational Age**

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