KEY ELEMENTS OF PRENATAL CARE FOR PREGNANT WOMEN WITH NO / LOW RISK*

1st Trimester
1 consultation per month

- Complete client history
- General clinical examination
- Diagnose the pregnancy / the stage of the pregnancy/ Expected delivery date
- Gynecologic examination
- Mandatory tests
- Optional tests

2nd Trimester
1 consultation per month

- Update client history
- General clinical examination
- Obstetrical examination ± OG
- Mandatory tests, repeated if necessary
- Optional tests

3rd Trimester
1 consultation every 2 – 3 weeks

- Update client history
- General clinical examination
- Obstetrical examination (uterine height, abdominal circumference, Leopold maneuvers) + referral for a specialized examination to establish the delivery prognosis and complete an obstetrical examination
- Mandatory tests

NB: RISK FACTORS SHALL BE REVIEWED AT EACH PRENATAL CONSULTATION AND THE SUPERVISION PLAN FOR THE PREGNANT WOMAN SHALL BE READJUSTED

* According to the “Diagnosis and care protocols for primary health care”, enforced through the Minister of Health Order nr. 2 / 09 of January 2004
**REGISTRATION / FOLLOW-UP VISIT**

**IDENTIFICATION OF RISK FACTORS THAT INDICATE REFERRAL FOR THE PREGNANT WOMAN AND THERAPEUTIC ATTITUDE**

<table>
<thead>
<tr>
<th>RISK FACTORS</th>
<th>MODERATE RISK</th>
<th>HIGH RISK</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GENERAL RISK FACTORS</strong></td>
<td>Monitoring: ObGyn in cooperation with Family Physician &amp; other specialists</td>
<td>Hospital supervision for diagnosis and treatment</td>
</tr>
<tr>
<td>Age</td>
<td>&lt; 18 years or &gt; 35 years (mainly for primiparous) – geneticist consultation</td>
<td></td>
</tr>
<tr>
<td>Body type</td>
<td>height &lt; 155 cm, body weight &lt; 45 kilograms</td>
<td></td>
</tr>
<tr>
<td>Toxins</td>
<td>Exposure to radiations malformation risk specialist consultation + establish medical attitude. Alcohol, smoking and drug abuse</td>
<td>Drug and narcotic consumption</td>
</tr>
<tr>
<td>Self-immune disease</td>
<td>Establish therapeutic attitude</td>
<td></td>
</tr>
<tr>
<td><strong>RISK FACTORS RELATED TO HEREDO-COLLATERAL ANTECEDENTS (both genitors)</strong></td>
<td>Geneticist consultation to determine risk/ therapeutic attitude</td>
<td></td>
</tr>
<tr>
<td>Hereditary diseases, twins</td>
<td>Geneticist consultation to determine risk/ therapeutic attitude</td>
<td></td>
</tr>
<tr>
<td><strong>RISK FACTORS RELATED TO OBSTETRIC-GYNECOLOGIC PATHOLOGY PRIOR TO CURRENT PREGNANCY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changes in anatomical integrity, surgeries</td>
<td>Genital infantilism, genital malformations, tumors, uterus with previous surgery, ectopic pregnancy</td>
<td></td>
</tr>
<tr>
<td>Sterility/ infertility</td>
<td>Pregnancy achieved through treatment (ovarian stimulation, in vitro fertilization, treated infertility etc.)</td>
<td></td>
</tr>
<tr>
<td>Pathological pregnancies</td>
<td>Recurrent / complicated spontaneous abortions, late spontaneous abortions, cervix incompetence, pregnancy-related hypertension, thrombosis, embolias, bleeding, gestational hyperglycemia. Premature births &lt; 32 weeks; late births &gt; 42 weeks. Last birth &lt; 1 year</td>
<td>Maternal-fetal izoimmunization</td>
</tr>
<tr>
<td>Complication at delivery</td>
<td>Mechanical, dynamics-related distocia, placenta retention, hemorrhages, obstetrical surgery (caesarian, forceps)</td>
<td></td>
</tr>
<tr>
<td>Previous newborns</td>
<td>G &lt; 2500 g or &gt; 4500 g (macrosoms) Large multigestational women; multiparous women ≥ 4 children</td>
<td>Stillborn, perinatal deaths, malformations, children with special needs – geneticist consultation to determine risk</td>
</tr>
<tr>
<td><strong>RISK FACTORS RELATED TO CURRENT OBSTETRICAL PATHOLOGY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skeleton changes</td>
<td>External pelvic measurements with indicators &lt; normal values; changes in obstetrical basin</td>
<td></td>
</tr>
<tr>
<td>Nausea, vomiting</td>
<td>OG consultation – establish risk</td>
<td>First Trimester – severe forms</td>
</tr>
<tr>
<td>Uterine contractions</td>
<td>With response to OG treatments</td>
<td>No response to treatments</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>RISK FACTORS RELATED TO CURRENT OBSTETRICAL PATHOLOGY (continued)</th>
<th>MODERATE RISK</th>
<th>HIGH RISK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bleeding</td>
<td></td>
<td>Vaginal</td>
</tr>
<tr>
<td>Placenta insertion-related anomalies; cervical status</td>
<td>Placenta praevia (PP) without bleeding &lt; 36 weeks of pregnancy</td>
<td>PP &gt; 36 weeks; cervical-isthmic incompetence</td>
</tr>
<tr>
<td>Rh incompatibility</td>
<td>No antibody titer</td>
<td>Materno-fetal iso-immunization</td>
</tr>
<tr>
<td>Uterus development</td>
<td>Abnormal uterus volume growth → establish the cause / risk Unclear stage of pregnancy</td>
<td>Oligo / hydroamious</td>
</tr>
<tr>
<td>Fetal development</td>
<td>Multiple pregnancies/ twins, fetal position anomalies</td>
<td>Triplets, quadruplets etc. Anomalies in fetal development, delay in intrauterine development, fetal suffering</td>
</tr>
</tbody>
</table>

**RISK FACTORS RELATED TO PRE/EXISTENT AND/OR ASSOCIATED ILLNESSES**

| Cardiovascular disorders | Responding to treatment, equilibrated | Non equilibrated, not responding to treatment; Thromboflebitis, embolia |
| Hypertension | 2° degree hypertension identified before the pregnancy Induced or aggravated hypertension by the pregnancy, with a favorable response to treatment | Induced hypertension or aggravated by the pregnancy, not having a favorable response to treatment, severe forms of hypertension |
| Blood disorders | 2° degree anemia (Hb 8 – 10 g/dl) Specialist consultation, establish and monitor risk | Serious anemia (Hb ≤ 8 g/dl) |
| Respiratory, renal, digestive, liver and dermatological disorders, allergies, ORL, ophthalmologic, neuropsychological, infectious and contagious diseases | Equilibrated → specialist consultation → risk evaluation, monitor | Non-equilibrated stages / which did not respond to treatment |
| Endocrine-metabolic illnesses ± associated diseases | Small body size or skeleton deformations, malnutrition/ weight gain < 4.5 kg after 30 weeks, low weight gain < 8 kg, obesity/ overweight | Illnesses with clinical manifestations, any type of diabetes |
| Sexually transmitted infections (syphilis, HIV) + Rubella, Toxoplasmosis | < 28 weeks → counseling for therapeutic pregnancy termination | > 28 weeks → hospital for infectious diseases → treatment (± prophylaxis for vertical transmission) |
| Other infections (Mycoplasms, Chlamydia, Papiloma virus, Cito Megalo Virus, Herpes etc.) | Positive tests → consultation by an ObGyn or virologist Establish the therapeutic attitude | |
| Chronic intoxications | Pb, Hg, medication Specialist consultation - establish and monitor risk | |

**RISK FACTORS RELATED TO SURGICAL ANTECEDENTS**

| Type of intervention/ complications | Specialist consultation, establish risk | Complicated abdominal interventions, heart surgery, large vessels, lungs, kidneys, plastic surgery in the genital area |

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### 1st Trimester

**Prophylaxis for congenital spine malformations (bifid spine, anencephaly, other neural or spinal defects etc.)**

**Indications:** recommended before pregnancy, (one month in advance) and for pregnant women who are in their first 14 weeks of amenorrhea

**Administration:** folic acid, 1-2 cp (5mg)/day + vitamin E

For **megaloblastic anemia by folic acid deficit** (multiparous women, multiple pregnancies with no break, twin pregnancies, recurrent urinary infections with Esch. Colli, poor feeding, low socio-economic status) – folic acid to be administered throughout the pregnancy.

### 2nd Trimester

**Prophylaxis for pregnancy anemia** – Administration: 30-60 mg of elemental Fe/day in the 16th week of amenorrhea, throughout the pregnancy/lactation.

Generally it is recommended that Fe-based prophylaxis be associated with routine administration of folic acid, considering the increased needs of folates during gestation.

**Curative treatment for anemia** (Hb< 11g/dl): 60-100 mg of elemental Fe/day up to 180 mg/day, depending on the degree of anemia + folic acid 5 mg/day + vitamin C.

**Administration** before meals or, in case of gastric intolerance, after meals; Fe tablets are not to be administered with tea, coffee or milk. Correlate vitamins + minerals for pregnant women who breastfeed, depending on their nutritional status. **Duration** Until Hb values are normalized with a prophylactic scheme to continue

### 3rd Trimester

**Prophylaxis for anemia** – continuing the prophylactic/curative therapy depending on Hb/Ht values and the general clinical examination

**Prophylaxis for rickets** – *daily scheme* per bone: vit. D2/ D4 400-500 U.I./day in special situations (cold seasons, rainy areas, poor feeding etc.); *weekly scheme* 4-5 000 U.I/week. For special situations where none of the above is allowed: *stoss scheme*: 200,000 U.I. vitamin D3 oral, in the 32nd to the 36th week of amenorrhea or 600,000 U.I.- vitamin D2 oral.

**Calcium** – increased needs (1000-1200 mg calcium/day) covered by milk consumption (1 Liter/day) and/or dairy products. **Prophylaxis treatment:** 10 days with Ca products 1000 mg/day (in two or three intakes), between meals + vitamin C, administer with a scheme based on vitamin D. In cases of high deficiencies, where there are signs of spasmophilia or digestive intolerance for milk products (it is rare for all products), Ca can be administered with vitamin D in the 3rd pregnancy trimester, in doses recommended by the ObGyn specialist.

**Prophylaxis for tetanus** – non-vaccinated/ incomplete vaccination/ pregnant women or with unknown vaccine antecedents:

1. **1-st vaccination** at the first pregnancy with two doses of adsorbed tetanus vaccine or diftero-tetanus bi-vaccine adult type (dT), 0.5 ml i.m. deltoid, in the 34th and 38th week of amenorrhea. **Revaccination** 1 – 0.5 ml adsorbed tetanus vaccine or dT, 6-12 months after the second dose of the first vaccination. 2nd **vaccination** an identical dose, 5 years from the first vaccination.

   Primiparous/primovaccinated/revaccinated/pregnant women  revaccination shall be done with adsorbed tetanus vaccine or dT 0.5 ml, intra-deltoid, in the 34th week of amenorrhea (safety revaccination).

   Second pregnancy/multiparous women  the vaccination shall be done only if more than 10 years has passed since the last vaccination.
### Alarm Signals during the Pregnancy

The pregnant woman shall be trained on potential signals and on correct attitudes to adopt.

#### Alarm signals which require that the women must go directly to the HOSPITAL, or the family physician will urgently refer the women to the hospital + first aid

- Vaginal bleeding or fluid loss (amniotic liquid) from the vagina
- Frequent uterine contractions ± uterine hypertonia
- Unusual / severe abdominal pains; severe lombo-sacral pains
- Marked physical asthenia ± fainting
- Diarrhea, recurrent / persistent vomiting
- Nausea, vertigo
- Continuous: frequent / severe and/or continuous
- Edema growing quickly
- Sight disorders (blurry / troubled sight) in acute forms
- Convulsions
- Difficult breathing ± cyanosis
- Feverish state, shivers
- Decrease/lack of fetal movements (less than 10 in 12 hours during the pregnancy that is >28 weeks).

Any acute illness that alters general state.

#### Signs of imminent birth indicating emergency treatment at a HOSPITAL

- Loss of the gelatinous mucus plug; discharge of a pinkish mucus with blood strains
- Loss/discharge of amniotic liquid
- Uterine hypertonia/regular uterine contractions, originally at a time interval of 30 minutes. Afterwards these intervals diminish.

#### Alarm signals which require that women go immediately to the FAMILY PHYSICIAN

- Light/moderate abdominal pains ± uterine contractions
- Changed vaginal discharge (aspect, consistency, smell) ± pruritus / burns / hindrance
- Miction disorders
- Edema of extremities
- Nausea ± vomiting ± diarrhea
- Sub-feverish state; headaches
- Paleness, difficult breathing
- Unjustified fatigue, weakness ± vertigo
- Consistent skin scratching
- Sudden abnormal weight gain during the pregnancy (over 15-20 kilograms) or low weight gain (3.5 kilograms after 30 weeks of pregnancy or <8 kilograms during the pregnancy)
- Inconsistency between the abdominal circumference/height of the uterus in relation with the pregnancy age (too small/too great abdominal development)

Any (non-physiological) changes of the health status during pregnancy.
### MANDATORY AND OPTIONAL TESTS/ INVESTIGATIONS, RECOMMENDATIONS *

#### 1st Trimester or at registration, regardless of the Trimester of pregnancy

**Mandatory tests/investigations at registration**

- **Full hemo leukogram**
  - Hb < 11 g/dl and/or Ht < 33% → anemia. Treatment: 60-180 mg of elemental Fe/ day + folic acid (5 mg/day) + vitamin C, followed by prophylactic treatment (30-60 milligrams elemental Fe/day throughout the pregnancy + lactation period)
  - Serious anemia, HB < 8 g/dl → hospital admission; moderate anemia, 2nd degree (HB 8-10 g/dl), supervision by the ObGyn specialist
  - Leukocytes/ thrombocytes → pathologically modified → referral to an ObGyn specialist + hematologist

- **Blood type, Rh**
  - Women with a negative Rh – test the Rh of the partner. Rh+ partner → dosage of anti-Rh antibodies → present antibody titer → referral to an ObGyn specialist
  - Women with an OI blood type and a partner with the AII, BIII or ABIV blood type – antibody dosage

- **Blood sugar**
  - Hyperglycemia → consultation by a specialist; diabetes, regardless of its form → hospital admission

- **Urine summary** (alumina, glucose, cetonic bodies, urinary sediment)
  - Increased urinary sediment (leukocytes, hemaites) → urinary infection risk → uroculture + antibiogram, referral to a specialist depending on the result. To be repeated whenever there are miction disorders or a positive uroculture on a previous test.

- **RBW (VDRL, THPA)**
  - RBW+ pregnant women < 28 weeks → counseling on therapeutical pregnancy termination → referral to an ObGyn specialist

- **HIV testing** (following counseling/informed consent by specialized staff, according to the Ministerial Order 889, Government Resolution 584)
  - HIV+ → women counseling on pregnancy termination/preventing vertical transmission → referral to an ObGyn specialist/ specialized examination

- **Bacteriological examination of vaginal secretions**
  - Vaginal infections with: Candida, Trichomonas, Gonococcus, Streptococcus → specialized treatment

- **Pap-smear - cytological examination**
  - For a C III – C V result → mandatory referral to an ObGyn specialist

- **Pelvic ultrasound examination**
  - Uncertainty/confirmation of the pregnancy age, viability of the embryo/fetus, multiple, molar or ectopic pregnancy

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Examinations that are not mandatory, but which may be recommended at registration:

<table>
<thead>
<tr>
<th>Tests for detection</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Dental care</td>
<td>Hepatitis serology (AgHBS, AgHVC)</td>
</tr>
<tr>
<td>Tests for detection</td>
<td></td>
</tr>
<tr>
<td>Chlamydia, Mycoplasma, Toxoplasma, Cytomegalovirus, Rubella</td>
<td>Induced hyperglycemia – family history of diabetes</td>
</tr>
<tr>
<td>uro-genital infections</td>
<td>History of macrosomic fetuses</td>
</tr>
<tr>
<td></td>
<td>Result &gt; normal values</td>
</tr>
<tr>
<td></td>
<td>referral/ supervision by an ObGyn specialist</td>
</tr>
</tbody>
</table>

2nd Trimester

Repeating previous investigations where results were other than the normal values or for which there are relevant symptoms

Laboratory tests to be repeated when necessary:

- Hemoglobin/ hematocrit; blood sugar; urine summary / uroculture; antibody titer in Rh incompatibility and blood type; bacteriological examination of vaginal secretions
- Mandatory ultrasound examination for
  - Changed fetal morphology (week 22-26) → major risk → referral to the hospital/ specialist ObGyn
- Fetal underdevelopment → major risk → referral to hospital/ObGyn
- Additional tests
  - Low placenta insertion → major risk → referral to hospital/ObGyn

Triple testing ( AFP, HCG, estriol) – during weeks 14 to 20; for pregnant women aged 35+ or with relevant history / malformation risk → assessing the trisomia 21 risk (for Downs Syndrome) → referral to a specialist (consultation by a geneticist)

3rd Trimester

Mandatory tests, to be repeated

- RBW (VDRL, TPHA) – weeks 29 to 32
  - RBW + pregnant woman > 28 weeks of amenorrhea → registered by the infectious disease departments/ communication to the PHD
- Anti-Rh antibodies dosage
- Hb, Ht, thrombocytes, (complete tests)
- Urine summary (albumin, glucose, cetonic bodies, sediment)
- Uroculture
- bacteriological examination of vaginal secretions, cervical culture

Ecografic, obstetrical → at the recommendation of an OG specialist

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