

High Risk Maternity Patient Referral Guidelines

City of Houston Department of Health and Human Services

Harris County Public Health & Environmental Services

Harris County Hospital District

Revised May 20, 2008

ORIGINAL EDITION JULY 1982

(Revised 1990, 1994, 1997, 2000, 2005, 2008)

Next Scheduled Revision: March 2010

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HCHD Patients

- **Our patients are primarily Harris County residents from low income households.**
- **We do not have a clinical or business reason to determine or track the documentation status of our patients.**
- **We provide one standard of care to all of our patients.**

These *High Risk Maternity Patient Referral Guidelines* were developed by nursing and medical staff from the City of Houston Department of Health and Human Services (HDHHS), Harris County Public Health & Environmental Services (HCPHES), Lyndon Baines Johnson General Hospital (LBJ) and Ben Taub General Hospital (BTGH). **Physicians, Certified Nurse Midwives (CNM), Advanced Practice Registered Nurses (APRN), and Registered Nurses (RN) providing care in the outlying clinics have the option to consult with hospital-based physicians and develop an alternate plan of care based on individual patient needs.**

The manual is composed of six sections.

The first section (pink) is for Emergency Referral. Patients meeting criteria for emergency referral at or above 12 weeks gestation should be referred to the OB Triage Area on the second floor at LBJ or to the OB Intake in Labor and Delivery on the third floor at BTGH. If the patient is less than 12 weeks, refer to LBJ Emergency Room or to the BTGH Emergency Room Triage Desk. At BTGH, the patient will be escorted from the Emergency Room Triage Desk to the third floor, GYN EC.

The second section (white) is for Urgent Referral. Patients meeting criteria for urgent referral should be referred to the screening clerk at LBJ or screening nurse at BTGH OB High Risk Clinic the same day or the following day. The screening clerk/nurse will be available to receive calls from outlying clinics Monday thru Friday, 8:00 a.m. to 3:30 p.m. Anticipated appointments from clinic referrals resulting from late evening or Saturday clinics will occur on the next working day.

The third section (purple) is for Referral Following Initial H&P (Timing Determined by Provider). Patients meeting these criteria should be referred to the screening clerk at LBJ or screening nurse at BTGH OB High Risk Clinic following their physical exams.

Ben Taub OB Clinic

OB Screening Nurse/Clerk
Phone: (713) 873-3375

Lyndon B. Johnson (LBJ) OB Clinic

OB Screening Clerk
Phone: (713) 566-5607

Medical staffs at LBJ and Ben Taub will provide feedback to the referring clinic and make every effort to see that the patient's referral form has a reply, as to the care given at LBJ/Ben Taub and plans for future care of the patient. This information will be faxed in a timely manner to the referring health center or health provider.

The fourth section (blue) is for Referral Within One to Four Weeks. Patients meeting these criteria should be scheduled an appointment at LBJ or BTGH within one to four weeks after the high risk condition is identified. The clinic nurse or health care provider scheduling the patient will call LBJ or BTGH OB Clinic to schedule the appointment for the patient.

Patient appointment and referral phone number for any HCHD appointment: 713-526-4243. Appointment line is open from 7:00am-7:00pm M-F and 7:00am-3:30pm Saturday.

The fifth section (green) is for Genetics Referral to LBJ or BTGH. Patients meeting these criteria should be referred to the appropriate HCHD hospital at the time specified. They may return to the HDHHS/HCPHES clinics or to the Good Neighbor or Southwest clinics after evaluations, if deemed appropriate by the consultant physician.

The sixth section (goldenrod) contains the Referral Guidelines for Prenatal Ultrasound Examination.

For special or unusual problems, clinicians in outlying clinics can consult with the following hospital-based physicians: (Do not use for routine referrals.)

LBJ (713) 566-5513
BTGH (713) 873-3537

Dr. Robert Maier/Dr. Edward Yeomans
Dr. Harold Miller

If the above physicians are unavailable, call L & D at the respective HCHD hospital to speak to the attending physician on-call.

Contact sources:

Ben Taub General Hospital

- 1) OB resident (713) 873-3361 (clinic)
If unavailable call L & D resident (713) 873-8774
- 2) Attending physician on-call
BTGH L & D (713) 873-2810
or Resident's Lounge (713) 873-8774
- 3) Director of Obstetrics
Dr. Harold Miller
(713) 873-3537

LBJ Hospital

- L & D resident (713) 566-5671
- Attending physician on-call
LBJ (713) 566-5503
- Director of Obstetrics
Dr. Edward Yeomans
(713) 566-5509
- Nurse's Station (713) 566-5503

To facilitate follow-up of referred patients:

1. Include pertinent history and physical exam findings.
2. Include initial laboratory tests when feasible.
 - a. Record of above findings
3. Complete the referral form with brief pertinent information recorded and send with patient.
4. Appoint patient to the designated facility (according to residential zip codes) within the recommended time frame.

We feel that these guidelines will help us to better serve our patients and would like to express our appreciation to the staff involved in its preparation.

APPROVED:

Harold Miller, M.D.
Interim Chief of Obstetrics & Gynecology
Ben Taub General Hospital

Robert Maier, M.D.
Chief of Obstetrics & Gynecology
Lyndon B. Johnson General Hospital

Stephen L. Williams, M.Ed.,
M.P.H. Director
Houston Department of Health & Human Services

Herminia Palacio, M.D., M.P.H.
Executive Director
Harris County Public Health &
Environmental Services

Luther Harrell, M.D.
Chief Physician
Community & Personal Health Services
Houston Department of Health & Human Services

Umair A. Shah, M.D., M.P.H.
Deputy Director
Harris County Public Health &
Environmental Services

David Lopez
President & Chief Executive Officer
Harris County Hospital District

EMERGENCY REFERRAL

Patients meeting criteria for emergency referral at or above 12 weeks gestation should be referred to the OB Triage Area on the second floor at LBJ or to the OB Intake in Labor and Delivery on the third floor at BTGH. If the patient is less than 12 weeks, refer to LBJ Emergency Room or to the BTGH Emergency Room Triage Desk. At BTGH, the patient will be escorted from the Emergency Room Triage Desk to the third floor, GYN EC. A few conditions identified below (for example, myocardial infarction) should be referred directly to the emergency room at LBJ or BTGH.

Physicians, CNMs, APRNs and RNs providing care in the outlying clinics have the option to consult with the hospital-based physicians and develop an alternate plan of care based on individual patient needs. (Please note it may deviate from City/County's established protocol.)

CRITERIA

- | | |
|--|--|
| A. Gestational Hypertension/Preeclampsia | <ol style="list-style-type: none">1. Gestational hypertension: Refer for BP $\geq 140/90$ x 2 seated at same visit 20 minutes apart2. Preeclampsia: Refer for BP $\geq 140/90$ and one or more of the following:<ol style="list-style-type: none">a. Proteinuria $\geq 2+$b. Severe persistent headache, altered mental status or new onset seizuresc. Visual disturbancesd. Epigastric/right upper quadrant pain, nausea/vomitinge. Shortness of breath |
| B. Hypertension – Chronic | Chronic hypertension with superimposed preeclampsia: refer for above symptoms and/or BP $\geq 160/100$ |
| C. Thromboembolic Disorders | Unexplained shortness of breath or unexplained swelling of a lower extremity |
| D. Genito-urinary Disorders | Evidence of vaginal bleeding in the first trimester due to suspected ectopic pregnancy, hydatidiform mole, missed abortion, or threatened abortion; vaginal bleeding in the second trimester due to suspected abruption or placenta previa. Gross hematuria, renal colic, adnexal torsion, or suspected extra-uterine pregnancy |
| E. Gastrointestinal Disorders | Hyperemesis gravidarum with ketonuria, biliary colic, hematemesis, melena |
| F. Heart Disease/Lung Disease | Decompensated cardiovascular, or pulmonary disease (e.g., heart failure, arrhythmia, myocardial infarction, asthmatic crisis, pulmonary edema, hemoptysis) |

Emergency Referral (continued)

G. Endocrinopathies	Diabetic ketoacidosis, symptomatic hypoglycemia, thyroid storm, adrenal crisis
H. Ruptured Membranes	Rupture of membranes confirmed by nitrazine test and positive ferning
I. Infectious Diseases	Evidence of suspected or active tuberculosis, epiglottitis, pneumonia, endocarditis, chorioamnionitis, pyelonephritis, severe gastroenteritis, cholecystitis, hepatitis, pancreatitis, appendicitis, abscess, meningoen­cephalitis, or sepsis Maternal suspected infectious diseases with noted fetal effects: toxoplasmosis, rubella, cytomegalovirus, parvovirus (Fifth's disease), or varicella
J. Abnormal Fetal Heart Tones	1. Sustained (over 20 minutes), or recurrent fetal tachycardia > 160 bpm or bradycardia < 110 bpm 2. Absence of previously noted fetal heart tones, or after 20 weeks gestation (check with Doppler, or ultrasound)
K. Decreased Fetal Movements	Decreased perceived fetal movements in the third trimester
L. Contractions	Preterm: uterine contractions occurring every 10 minutes at < 37 completed weeks of gestation Term: uterine contractions occurring every 5 – 10 minutes accompanied by bloody show or documented progressive cervical change in dilation or effacement
M. Abnormal Fetal Ultrasound	Fetal hydrops, oligohydramnios (< 5 cm amniotic fluid index), abnormal Doppler velocimetry (indicating fetal anemia, severe placental insufficiency, or fetal cardiac decompensation), oligo-polyhydramnios sequence in multiple gestation
N. Trauma	Recent (esp. abdominal, cranio-spinal) trauma within the previous 24 hours
O. Neurologic or Psychiatric Disorders	Stroke, altered mental status, acute psychosis, status epilepticus, or new onset seizures

URGENT REFERRAL

Patients meeting these criteria should be referred to the screening nurse the same day or the following day.

CRITERIA

- | | |
|--|---|
| A. Primary Genital Herpes | A. Severe symptoms such as urinary retention necessitating admission. |
| B. Post-dates Pregnancy | B. Postdates, ≥ 41 , by best clinical estimate
LBJ Referral – refer to antenatal testing at (713) 566-5513
BTGH Referral - refer to antenatal testing unit
(713) 873-8670 |
| C. Urinary Tract Infections | C. Refer if no response to appropriate treatment. Include data about culture and sensitivity of the organism. Also refer for ≥ 2 episodes in current pregnancy despite appropriate treatment. |
| D. Elevated Diabetes Screen
(1-hour post 50 gr glucola challenge) | D. Blood glucose ≥ 200 mg/dl. |
| E. Positive Antibody Screen | E. Rh(D) negative gravida with positive antibody screen (exclude Rhesus immune globulin administration within the past 12 weeks), or previous gestation affected by Rh alloimmunization. If fetal hydrops is present, refer emergently.

Positive screen for antibody known to cause fetal anemia especially anti-Kell and anti-c . No need for referral for anti-I, anti-P, or anti-Lewis. If antibody identification is not available at the clinic, refer for antibody identification and management. If fetal hydrops is present, refer emergently. |
| F. Chronic Hypertension | F. BP $\geq 150/95$ in calm sitting position on ≥ 2 readings at the same visit, despite appropriate antihypertensive therapy.
If ACE inhibitors were taken during pregnancy, discontinue immediately and refer for initiation of alternative anti-hypertensive therapy. |
| G. Abnormal Fetal Lie | G. Suspicion of transverse or oblique fetal lie or suspected breech presentation after 36 weeks gestation |

**REFERRAL FOLLOWING INITIAL H&P
Timing to be Determined by Provider**

CRITERIA

	A.	Obstetrical History/Gynecological History
1. H/O Recurrent Pregnancy Loss	1.	H/O ≥ 3 first trimester spontaneous abortions or ≥ 2 second trimester spontaneous abortions
2. Previous Perinatal Death	2.	Previous fetal death, stillborn, or neonatal death
3. H/O Congenital Defect	3.	Previous major congenital defect, or heritable genetic disorder (Refer to Genetic Counseling Services & Ultrasound.)
4. Previous Termination for Maternal Medical Disease	4.	Medically indicated termination of a previous pregnancy. <u>Refer urgently if medical condition persists.</u>
5. Uterine Abnormality	5.	Uterine or cervical abnormality (H/O Mullerian anomaly, incompetent cervix, cone biopsy, LEEP, cerclage, fibroids, or prior hysterotomy)
6. Previous Preterm Birth, or Fetal Growth Restriction	6.	If delivery was <36 weeks gestation or birth weight was $<2,500g$
7. Evidence of HIV Infection	7.	If Western blot confirms HIV infection, refer to: Ben Taub/NW Clinic - Dr. Judy Levison (713) 867-8257 or after 11:30am call (713) 867-8258; contact person: Ms. Chevalier. Back up number is Dr. Levison's pager (281) 963-2953. LBJ OB Clinic - Dr. Lisa Hollier (713) 566-5600 or (713) 566-5512 <u>Refer urgently if near term.</u>
8. H/O Seizure Disorder	8.	Refer for genetic counseling, neurology evaluation/optimization of medical control, and screening for neural tube defects.
9. H/O Psychiatric Disorder, Drug or Alcohol Abuse or Domestic Violence	9.	Refer to appropriate psychiatric, drug counseling, or social worker services respectively. (<u>May be urgent, as deemed necessary</u>)

REFERRAL WITHIN ONE TO FOUR WEEKS

I. Criteria Found Through Patient Interview

History of chronic cardiovascular, pulmonary, renal, gastrointestinal, endocrine, autoimmune, neurologic, psychiatric, or infectious disease or drug abuse

Refer within 1-4 weeks if patient is on medication, the condition is under control and the patient is asymptomatic. **Patient and referral phone number for any HCHD appointment: 713-526-4243. Appointment line is open from 7:00am-7:00pm M-F and 7:00am-3:30pm Saturday.**

If patient is symptomatic make an emergency or urgent referral.

II. Criteria Found Through Medical Examination

CRITERIA	DESCRIPTION
A. Mode of Delivery	A. Tumor, uterine anomaly or obstruction of the birth canal depending on gestational age
B. Multiple Gestation	B. All multiple gestations should be referred to LBJ or Ben Taub for antenatal management
C. Uterine Size > Dates	C. Fundal height noted to be 3 cm greater than the weeks of gestation after 24 weeks (suspected polyhydramnios, multiple gestation or fetal macrosomia)
D. Uterine Size < Dates	D. Fundal height noted to be 3 cm less than the weeks of gestation after 24 weeks (suspected intrauterine growth restriction or oligohydramnios)

III. Criteria Found Through Laboratory Results

A. Anemia	A. 1. Severe anemia with Hgb <9 gm/dl or Hct <27%, IF unresponsive to oral iron/ascorbate therapy after 6 weeks. 2. Abnormal hemoglobin electrophoresis.
B. Abnormal 3° GTT	B. 3° GTT with 2 or more abnormal values (<i>refer within one week of results</i>): > 95 mg/dl Fasting > 180 mg/dl 1 hr > 155 mg/dl 2 hr > 140 mg/dl 3 hr If resources are available, home glucose monitoring can be initiated in the outlying clinics.

- C. HIV Infection
 - C. Must have positive ELISA AND Western Blot tests.
Ben Taub/NW Clinic – Dr. Judy Levison
(713) 867-8257 Contact: Ms. Chevalier
LBJ OB High Risk Clinic – Dr. Lisa Hollier
(713) 566-5600
- D. Syphilis
 - D. Diagnosis requires both positive RPR or VDRL
and positive confirmatory MHATP or FTA-ABS.
- E. Thrombocytopenia
 - E. Thrombocytopenia < 90K/mm³ (repeat at least
once to rule out lab error; consider sending repeat
assay in heparinized tube (green top tube) if
platelet clumping reported in initial sample.

GENETICS REFERRAL TO LBJ/BTGH CRITERIA

- A. Genetics
- A. Genetic counseling and education as early as possible. Chorion villus sampling: 10 – 12 weeks gestation. Percutaneous umbilical blood sampling (PUBS): 18 – 34 weeks at time of appointment. Amniocentesis: 15 – 23 weeks at time of appointment. Risk classification and education ONLY will be done by the genetic counseling staff after 23 weeks gestation for the following:
1. Maternal Age
 1. Maternal age \geq 35 years old at delivery.
 2. Abnormal Serum Screening/
Ultrasound Screening
 2. Abnormal findings on serum screen and/or ultrasound screening (confirmation of EDC by ultrasound required for referral).
DO NOT REFER TO HIGH RISK CLINIC BEFORE GENETICS APPOINTMENT.
 3. Family History
 - 3.1 Chromosomal Anomalies:
 - a. Previous child, parent or sibling with a genetic anomaly (e.g., Down syndrome, Hemoglobinopathies, Thalassemia, Hemophilia, Duchenne’s Muscular Dystrophy, Marfan Syndrome, Ehlers-Danlos Syndrome, Congenital Adrenal Hyperplasia or any other inherited genetic disease).
 - b. Either parent a known carrier of any chromosome anomaly or inherited genetic disease (as examples above).
 - 3.2. Strong family history of mental retardation in a first degree relative (i.e., sibling, parent, previous child) or multiple family members.
 4. High Risk Groups
 4. Always refer couples of Jewish ancestry unless previous negative carrier screening done. Caucasian couples: refer if they desire cystic fibrosis screening (provide information at first prenatal visit). Couples of Mediterranean, Southeast Asian: refer if maternal MCV < 80 μ L. African-American couples: refer if maternal hemoglobin electrophoresis reveals any hemoglobin S or C.

5. Previous Children

5. History of Congenital Adrenal Hyperplasia, neural tube defect (hydrocephalus, anencephaly, or spina bifida), cleft palate or limb anomalies, or fetal/neonatal alloimmune thrombocytopenia: refer after confirmation of pregnancy.

6. Teratogens

6. Three months prior to conception or any time during pregnancy, refer for exposure to such medications as hydantoin (Dilantin), carbamazepine (Tegretol), valproic acid (Depakene), isotretinoin (Accutane), ACE inhibitors or blockers, or excessive radiation greater than 6 rads.

REFERRAL GUIDELINES FOR PRENATAL ULTRASOUND EXAMINATION

All Patients:

- An obstetrical ultrasound examination should be requested between 17 and 23 weeks of gestation on patients that present for prenatal care (18 – 22 weeks gestation may be the optimal timing particularly for the pregnant patient with a high BMI). This ultrasound may serve as the dating ultrasound in the absence of a first trimester scan.
- When possible, patients may be referred for a first trimester ultrasound to establish accurate dating and screen for chromosomal abnormalities (11– 14 weeks gestation).

BTGH Radiology/Ultrasound

Appointments: (713) 873-2423

Radiologist: (713) 873-2427

LBJ MFM Ultrasound

Appointments: (713) 566-5512

MFM Attending: (713) 566-5935

“Casa de Amigos” HCHD/BCM Ambulatory Prenatal Ultrasound Screening Program

Routine Appointments - Central HCHD Scheduling: (713) 526-4243

Overbook Appointments & Reports: (713) 236-7183

Maternal-Fetal Medicine Director: (713) 236-7220

High Risk Maternity Patient Referral Guidelines

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