

It's Not Just About Birth Control: Dealing with the Increased Complexity of Medical Risk Factors in Women Seeking Contraception

**Satellite Conference and Live Webcast
Friday, November 18, 2011
9:00 – 11:00 a.m. Central Time**

**Produced by the Alabama Department of Public Health
Video Communications and Distance Learning Division**

Faculty

**Gabriele Darch, CRNP
Nurse Practitioner Senior**

**Ramona Hawkins, CRNP
Nurse Practitioner Senior**

**Bureau of Family Health Services
Alabama Department of Public Health**

Our Patients

- Presenting to our local health departments with increasingly complex medical conditions
- Unfortunately, “average” patient is not the 17 year old, slim, healthy, non-smoker who desires ortho-tri-cyclen for birth control and desires help to improve her acne

Objectives

- Identify common medical conditions and their impact on contraceptive choices
- Identify specific areas of patient documentation where improvement is needed

Objectives

- Outline use of the SOAP format: Subjective, Objective, Assessment and Plan
- Identify the latest Family Planning protocol updates for Alabama Department of Public Health

Medical Conditions that Place Women at Risk

- These are patients that we have seen in our ADPH clinics
- These examples come from NP consults to collaborating MD

Medical Conditions that Place Women at Risk

- 33 y/o, BP 120/70, Weight 207 lbs
 - Medical Hx: Protein S deficiency, migraines w/o Aura, depression and anxiety

Medical Conditions that Place Women at Risk

- 18 y/o, BP 130/84, Weight 193 lbs
 - Medical Hx: IDDM x 4 years, asthma, bipolar, depression, HTN, thyroid dysfunction
 - Current medications: Metformin, insulin, singulair, prevastatin, levothyroxine, risperidone, celexa, amlodipine

Medical Conditions that Place Women at Risk

- 24 y/o, BP 138/80, Weight 225 lbs
 - Medical Hx: Dx w/ cardiomyopathy during pregnancy 2004, migraine HA w/ aura, social anxiety
 - Smokes 10-15 cigarettes daily

Medical Conditions that Place Women at Risk

- 38 y/o, BP 188/108, Weight 334 lbs
 - Medical Hx: DM w/ vascular involvement, recently hospitalized for ketoacidosis, neuropathy and nephropathy, peptic ulcer
 - Current medications: lantis, fosinopril, trazadone, glimepiride, onglyza, metoprolol, zolpidem, gabupentin

Medical Conditions that Place Women at Risk

- Commonly seen risk factors and/or co-morbid conditions are:
 - Obesity
 - Tobacco use
 - Hypertension
 - Diabetes

Medical Conditions that Place Women at Risk

- Migraines ****
- Autoimmune disorders
- Bleeding disorders ****

Medical Conditions that Place Women at Risk

- Commonly seen risk factors and/or co-morbid conditions that we will focus on today are:
 - Migraine headaches
 - Thrombophilia
 - Hemophilia

Medical Conditions that Place Women at Risk

- Migraines are responsible for more job absenteeism and disrupted family life than any other headache type
- 29.5 million people in the US suffer from migraines

Medical Conditions that Place Women at Risk

- Women experience migraines at least 3x more often than men
 - Hormonal differences
- Usually start at ages 20s or 30s

Medical Conditions that Place Women at Risk

- Migraine headaches (with or without aura)
 - Not all “bad headaches” are migraines
 - How do you determine what type of headache your patient has?

Migraine Headaches

- Is it a migraine?
- Definition:
 - Migraine
 - Migraine w/ aura
 - Menstrual migraine

Migraine Headache

- Migraine
 - Episodic neurological disorder
 - Activation of sensory nerves in the face, head, and neck
 - Inflammation of blood vessels around the brain and in the scalp

Migraine Headache

- Intense headache, usually throbbing
- Nausea
- Photophobia and phonophobia
- Dizziness
- Difficulty thinking
- Some level of disability

Migraine Headache

- Migraine with Aura
 - An aura is a group of symptoms, including vision disturbances that occur before the headache begins

Migraine Headache

- Menstrual migraine
 - Headache usually begins between two days before and three days after the start of the menstrual cycle
 - Related to drop in estrogen levels

Migraine Headache

- Most migraines (about 70%) occur without aura
 - Nausea, vomiting, light sensitivity, photophobia, visual blurring, generalized visual spots, or flashing lights occurring before or during the migraine headache **DO NOT** constitute aura
 - Sometimes called “prodrome”

Migraine Headache

- Migraine WITH aura
 - Typical aura starts 5-60 minutes before the headache and is visual
 - Typical visual aura include:
 - A flickering zigzag line progressing laterally to the periphery of one visual field

Migraine Headache

- A laterally spreading scintillating scotomata
 - Surrounded by an area of normal or less depressed vision or loss of vision
- Sometimes tunnel vision can occur
- Can include numbness of hands or face

Migraine Headache

“Why is determining whether a patient has aura preceding their migraine headache important?”

– Use of Hormonal Contraception in Women with Coexisting Medical Conditions, ACOG Practice Bulletin, Number 73, June 2006.

Migraine Headaches

- Characteristics to assess include:
 - Onset
 - Sometimes triggered by certain foods, stress
 - Location
 - Usually unilateral

Migraine Headaches

- Frequency
 - More than twice a month
- Duration
 - Hours to days
- Exacerbating factors
 - Lack of rest, fatigue, dehydration

Migraine Headaches

- Alleviating factors
 - Resting in a dark, quiet room
- Debilitating
 - Interferes with activities of everyday life

Migraine Headaches

- Encourage your patient to keep a headache diary
- Below are more probing questions you can ask:
 - When did you start having headaches?

Migraine Headaches

- How often do they occur? At what time of day? During the week or on weekends? How long do they last?
- Where is the pain?
- Which word best describes it: Throbbing, pounding, splitting, stabbing, blinding?
- Are your headaches associated with your menstrual cycle?

Headache Diary

NAME: _____ PHONE: _____ ADDRESS: _____ CITY: _____ STATE: _____ ZIP: _____

DATE	MORNING							AFTERNOON							EVENING															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Headache Severity																														
Headache Location																														
Headache Description																														

PHYSICIAN'S MEDICATIONS (Prescription and Over-the-Counter)

NAME	DOSE	FREQUENCY

PHYSICIAN'S MEDICATIONS (Prescription and Over-the-Counter)

NAME	DOSE	FREQUENCY

PHYSICIAN'S MEDICATIONS (Prescription and Over-the-Counter)

NAME	DOSE	FREQUENCY

PHYSICIAN'S MEDICATIONS (Prescription and Over-the-Counter)

NAME	DOSE	FREQUENCY

PHYSICIAN'S MEDICATIONS (Prescription and Over-the-Counter)

NAME	DOSE	FREQUENCY

PHYSICIAN'S MEDICATIONS (Prescription and Over-the-Counter)

NAME	DOSE	FREQUENCY

PHYSICIAN'S MEDICATIONS (Prescription and Over-the-Counter)

PLEASE INDICATE THE ONSET, SEVERITY OF YOUR HEADACHE PROBLEMS OVER THE PAST 12 MONTHS (Circle One).
No problem 0 1 2 3 4 5 6 7 8 9 10 Very Bad (Almost Unbearable)

May 2008 Supplement to OBG Management. http://www.obgmanagement.com/MedEdLib/PDFs/SupplIOBG_migraine.pdf

EXERCISE

RELAXATION EXERCISES AND TIME FOR USE


VITAMIN/MINERAL/SUPPLEMENT SUPPLEMENTS

Vitamin B₂ 50 mg/100 mg each a.m.
Vitamin B₆ 100 mg/200 mg/400 mg each a.m.
Vitamin E 400 IU once twice per day
Vitamin C 500-1000 mg/day
Magnesium 300 mg/600 mg each a.m.
Coenzyme Q As per brand
Other One capsule for nausea up to 4 times per day

OTHER MEDICATIONS AND DOSES

DIETARY RESTRICTIONS

HEADACHE TRIGGERS

Environment		
1. Motion		
2. Crowding		
3. Humidity/temperature		
4. Noise		
5. Alcohol		17. Hormonal changes (See below section)
6. Chocolate		18. Diet
7. Monosodium glutamate (MSG)		19. Skipping meals
8. Caffeine		20. Snoring/Sleep apnea
9. Arginine (pharmaceutical)		21. Sexual activity
10. Flu		22. Strong light
11. Nausea, Vomiting		23. Flickering lights
12. Citrus fruits		24. Odors
13. Other		25. "Stress"
Changes		26. Intense activity
14. Weather		27. Loss (Death, separation, divorce)
15. Seasons		28. Relationship difficulties
16. Travel		29. Job loss/Change
17. Liquids		30. Colds
18. Alcohol changes		31. Other

Migraine Headaches

- What triggers your headache?
 - Certain foods, certain physical activities, bright light, strong odors, change in temperature or altitude, noise, smoke, stress, oversleeping?
- What symptoms do you experience prior to the headache?

Migraine Headaches

- Does anyone else in your family suffer from headaches?
- Do you notice visual disturbances before or after your headaches?
- Do you suffer from more than one type of headache?

www.headaches.org
888-NHF-5552

Questions to Ask When Determining Type of Headache

- When did you start having headaches?
- How often do they occur?
- How long do they last?
- Are they associated with your menstrual cycle?
- Does anything seem to trigger them?

Questions to Ask When Determining Type of Headache

- Do you have other symptoms with the headache?
- Do you notice any visual problems before or after your headaches?

– Source: ADPH Clinic Protocol Manual, Page 51

Identifying Migraine Headaches Signs and Symptoms

Migraines without Aura	Migraines with Aura
Nausea	Unilateral numbness
Vomiting	A "pins-and-needles" sensation
Photophobia - sensitivity to light; flickering lights	Unilateral weakness
Phonophobia - sensitivity to sound	Visual disturbances in one or both eyes - zig-zag lines that gradually float across the field of vision (scintillations); temporary blindness or blind spots (scotomas)
Visual blurring; generalized spots/fleeting	Tingling on one side of the body, often in the hand, arm or face; partial paralysis
Movement makes the pain worse	Difficulty in speaking
	Olfactory hallucinations (smelling odors that are not really there)

Document patient responses in the medical record. See "Common Diagnosis and Contraceptive Issues, Headaches/Migraines", later in this chapter for hormonal contraceptive management.
Source: ADPH Clinic Protocol Manual, page 53

Other Types of Headaches

- Tension
 - Episodic
 - Frequent
 - Chronic
- Cluster
- Secondary headaches
 - Organically caused

Thrombophilia

Thrombophilias

- Group of disorders that promote blood clotting
 - Thrombophilias can be inherited or acquired later in life
 - 15% of people in the US have an inherited thrombophilia
 - Acquired thrombophilias are less common

Thrombophilias

- Clots are more likely to develop when a person with a thrombophilia has other risk factors, such as:
 - Obesity
 - Increased age
 - Personal history of VTE

Thrombophilias

- Having a family history of VTE in a parent, sibling, or child
 - 1st degree relative
- Being pregnant or in the postpartum period
 - Up to 6 weeks after delivery
- Requiring immobilization (due to bone fracture, for example) or surgery

Thrombophilias

- What are the most common types of thrombophilias?
 1. Inherited thrombophilias
 - Factor V Leiden and prothrombin mutations (most common)
 - Occur in 2-7% of Caucasians
 - Much less common in African-Americans and Asians

Thrombophilias

- Antithrombin, protein C, and protein S deficiencies
 - Each affects < 1% of people in US

Thrombophilias

- Inherited in an autosomal dominant pattern
 - Affected person needs to inherit gene from only one parent
 - Each child of an affected parent has a 50% chance of inheriting the thrombophilia

Thrombophilias

2. Acquired thrombophilia
 - Antiphospholipid syndrome (APS) is most common
 - The body produces antibodies that attack phospholipids in blood vessels, which sometimes leads to blood clots

Thrombophilias

- APS is an autoimmune disorder, like RA and SLE
 - 40% of women with SLE have antiphospholipid antibodies (APA)
 - May contribute to increased risk of pregnancy complications in women with lupus

Thrombophilias

- Thrombophilias may contribute to pregnancy complications:
 - Repeated miscarriage, usually occurring after the tenth week of pregnancy
 - Stillbirth in the second or third trimesters
 - Placental abruption

Thrombophilias

- APS contributes to 10-20% of repeated pregnancy losses
- APS (antiphospholipid syndrome) is associated with other pregnancy complications
 - Preeclampsia
 - Poor fetal growth
 - Premature delivery

Thrombophilias

- This underscores the importance of taking a good pregnancy history
 - COCs are absolutely contraindicated in patients with thrombophilia
 - Potential to prevent poor pregnancy outcome in the future

Thrombophilias

- Screening for APS and homocysteine levels or MTHFR mutation is not recommended (not enough evidence to indicate a causal relationship) unless there is a 1st degree relative with VTE

Bleeding Disorders

Von Willebrand Disease

- Genetic bleeding disorder caused by a deficiency or absence of various proteins necessary for blood to clot properly
- Von Willebrand Factor helps platelets stick to damaged blood vessels
- A function of the VWF is to carry the clotting protein factor VIII to the injured blood vessel

Von Willebrand Disease

- VWD is named after Erik von Willebrand when he first described this familial disorder in 1926
- Prevalence is as high as 1-2% of general population
- VWD affects 1 out of 100 people
 - Most common inherited bleeding disorder affecting men and women

Von Willebrand Disease

- Causes of VWD classified as either:
 - Quantitative
 - A problem with the amount of VWF
 - Qualitative
 - A problem with the quality of VWF

Von Willebrand Disease

- The symptoms of VWD may be caused by platelet dysfunction or a deficit of Factor VIII

Von Willebrand Disease

- Three classifications of VWD
 - Type 1, 2, and 3
 - Some of these have subtypes
- Symptoms range from mild to severe

Von Willebrand Disease

- Von Willebrand Disease is usually inherited, but can be acquired by:
 - Autoimmune diseases
 - Aortic stenosis or pulmonary hypertension
 - Certain medications:
 - Valproic acid, ciprofloxacin, hydroxyethylstarch

Von Willebrand Disease

- Certain medications can make condition worse
 - Aspirin
 - NSAIDs (Ibuprofen, Naprosyn) should be avoided unless consulting with MD

Von Willebrand Disease

- **Symptoms**
 - Epistaxis
 - Prolonged bleeding from minor cuts
 - Menorrhagia**
 - Ecchymoses
 - Bleeding after dental extractions
 - Post-operative and delayed postpartum-hemorrhage

Von Willebrand Disease

- **VWD should be suspected in young adolescents who present with menorrhagia**

Von Willebrand Disease

- **Referral and testing for VWD**
 - Bleeding time (prolonged)
 - Platelet count and platelet aggregation (decreased)
 - Factor VIII Level (reduced)
 - Ristocetin test (primary assay test used to diagnose VWD) measures how well the VWF is working

Von Willebrand Disease

- **Treatment for VWD**
 - Medications
 - Vasopressin (DDAVP)
 - Blood, plasma, and platelet transfusions
 - Factor VIII preparations

Von Willebrand Disease

- **Counseling**
 - Genetic counseling may help prospective parents understand the risk to their child
 - Possible complications such as hemorrhage after childbirth, surgery, or invasive procedures

Von Willebrand Disease

- **Why is this important for us to know?**
 - 5% of reproductive age women seek medical attention for menorrhagia
 - Potential for bleeding complications

Von Willebrand Disease

- **Contraception**
 - According to ACOG and current ADPH protocol:
 - Any hormonal method may be initiated and/or continue
 - Can give up to a 6 month supply

SOAP Documentation

SOAP Documentation

- **Why use SOAP notes?**
 - Provides an organized format to document the assessment, problems, and management plan

SOAP Documentation

- **Subjective**
 - Chief complaint and description of patient symptoms:
 - Onset, duration, location, character (dull or sharp, etc.), alleviating or aggravating factors, radiation, temporal pattern (every day, all day) and any associated symptoms

SOAP Documentation

- **Objective**
 - Vital signs
 - Laboratory reports
 - Measurements
 - Age, weight, height, BMI

SOAP Documentation

- **Physical findings**
 - Posture, bruising, any abnormalities
 - Head to toe physical exam

SOAP Documentation

- **Assessment**
 - Synthesize subjective and objective data to formulate differential diagnoses in order of importance

SOAP Documentation

- **Plan**
 - Treatments
 - Procedures performed, labs ordered, medications given, specialty referrals
 - Written Rx, a note of what was discussed or advised and type of follow-up

SOAP Documentation

- Medical documentation of patient's complaints and treatments must be concise, consistent, and comprehensive
- Everything should be documented promptly, precisely, and in right format and tone

SOAP Documentation

- Chart serves as both a medical and legal record
- Soap documentation can improve quality of patient care
- Other providers or auditors, such as the State Board of Nursing can easily review patient charts

SOAP Documentation

- For errors:
 - Draw one line, initial, and date
- Write "continued" or draw an arrow for additional notes on another page
- Be sure to sign each page
- To add a note after the fact:
 - Label it "addendum"

SOAP Documentation

- Avoid illegible penmanship
- Avoid contradictory information
- Do not allow personality conflicts to enter notes
- Do not use derogatory remarks or judgmental language

SOAP Documentation

- The medical record is a **LEGAL DOCUMENT**
- If it was not charted, it **NEVER HAPPENED**

SOAP Documentation

- 21 y/o, LMP: 11/5/11; BP 118/70, G2, P2002
- Medical Hx: Gestational diabetes, C/S for breech presentation, double hernia repair at age 2
- Born with one ovary
 - Hx of ovarian cysts
- Family Hx: Mom with ovarian Ca at age 27; MGGM Breast Ca; MGM cervical Ca

SOAP Documentation

- S
- I'd like to continue w/ NuvaRing
- O
- 21 y/o, P2002, BP 118/70, BMI-34, obese, PE: Normal exam

SOAP Documentation

- A
- 1. Obesity
- 2. Breast health
- 3. Desires NuvaRing

SOAP Documentation

- P
- 1. Counsel re: weight loss, diet, exercise
- 2. BSE taught and stressed monthly
- 3. Rx NuvaRing x 1 year per protocol; 4 rings dispensed

SOAP Documentation

- 31 y/o, LMP: 11/6/11; BP 120/78, Gr 0
- CC: “milky discharge left breast” x 7 months with stimulation, c/o intermittent abd pain x 4 mos, worse with menses, frequent HA x 2 months; wants to “try the ring”; smokes 2 cig/day
- Medical Hx: bipolar disorder
- Family Hx: Mom breast Ca age 53, Father Hodgkins, PGF lung Ca

SOAP Documentation

- S
 - Chief complaint
 - What patient says
 - Signs and symptoms, comments, CHR 12A, HA, N/V, visual, etc.

SOAP Documentation

- O
 - 31 yo G0; BP 120/78; BMI 20; PE findings:
 - Description of findings of all systems – pleasant, thin
 - Breast – no palpable masses noted bilaterally
 - Scant white discharge expressed from left breast

SOAP Documentation

- CHR-12 A (Side 2) – Physical Assessment
 - Do not write family history information in this section
 - Should be completed only in the history

SOAP Documentation

- Pelvic
 - Vulva without lesions or erythema
 - Cervix nullip, round, pink, smooth
 - Uterus – AV, NSSC
 - Adnexae – No palpable masses, non-tender

SOAP Documentation

- A
 1. Galactorrhea
 2. Non-migraine H/A
 3. Desires Nuva Ring

SOAP Documentation

- P
 1. Discontinue stimulation of breast;
 - Report any spontaneous nipple discharge
 - Reassure, RTC prn if persists
 - Or see PMD for eval

SOAP Documentation

- 2. Report any increase of headaches**
 - Headache diary
- 3. Nuva Ring x 1 year**
 - Quick start today with back-up method for one week

SOAP Documentation

- P
 - Pap, GC/CT obtained
 - RTC 3 months for supply and prn
 - APE 11/2012

SOAP Documentation

- Because of family Hx of breast cancer, patient should be apprised of availability of BrCa testing
 - Referral to Ob-Gyn
 - BrCa testing requires a multi-disciplinary approach

QA Findings

- Gravity
 - Number of times patient has been pregnant
- Parity
 - Number of pregnancies carried past 20 weeks

QA Findings

- P-TPAL
 - T-term
 - P-preterm
 - A-abortion
 - L-live births

QA Findings

- Gr 5, P3113 pregnant 5 times
 - 3 term deliveries
 - 1 pre-term delivery
 - 1 abortion or miscarriage
 - 3 live births
- What would you ask here?

QA Findings

- **Gravida 7, P6108**
 - 6 term deliveries
 - 1 pre-term delivery
 - 0 abortions or miscarriages
 - 8 living children
 - One of the pregnancies resulted in twins

QA Findings

- **Gravida 1, P0010**
 - 1 pregnancy resulting in a spontaneous miscarriage or abortion

Consult

- **Purpose**
 - To obtain expert medical advice
 - To adhere to legal regulations stipulated by the Board of Medical Examiners and Alabama State Board of Nursing
 - To meet protocol requirements
 - To work within scope of practice

Consults

- **Before notifying MD:**
 - Review pertinent information with patient
 - Perform the physical examination
 - Identify risk factors
 - Obtain required lab data

Consults

- **Assessment**
 - Synthesize information
- Develop differential diagnoses

Consults

- **Examples**
 - Okay to do an examination if unsure whether or not the patient is pregnant
 - Do not write negative comments about other providers
 - Gather all pertinent information before calling collaborating MD

Consults

- Formulate questions and/or recommendations before calling MD
- NP's written consult should reflect what was said in the phone conversation
- Collaborating MD needs all of the pertinent information when you are speaking with her/him

Case Study

- 38 y/o, BP 188/108, Weight 334 lbs
 - Medical Hx
 - IDDM w/ vascular involvement, neuropathy, and nephropathy
 - Recently hospitalized for ketoacidosis
 - Hx of peptic ulcer

Case Study

- Current medications
 - Lantis, lisinopril, trazadone, glimepiride, onglyza, metoprolol, zolpidem, gabupentin

Case Study

- Family history
 - Mother breast Ca Dx at 53 y/o, Father w/ Hodgkins, PGF and PGM with lung Ca
- Contraceptive Hx
 - Previous condom and COC use

Case Study

- Sexual Hx
 - Prior STDs: Herpes
- Male partners
 - 5 life-time partners

Case Study

- S
 - Continue depo for birth control
- O
 - BP re-check 156/102, BMI-56, PE- difficult to assess pelvis, secondary to obesity
 - Recently hospitalized for ketoacidosis

Case Study

- A
 1. IDDM w/vascular involvement: neuropathy and nephropathy
 2. Uncontrolled HTN
 3. Morbid obesity
 - Needs reliable birth control

Case Study

- P
 1. Counseled re: carbohydrate metabolism
 2. Counseled re: uncontrolled HTN- need for f/u
 3. Follow-up for uncontrolled HTN emergently
 4. Re-check BP in 48 hrs

Case Study

5. Patient given POPs in 3 month increments
6. Phone consult with collaborating MD

Case Study

- 33 y/o, BP 120/70,G4 P1031, Weight 207 lbs
 - Medical Hx
 - Protein S deficiency
 - Migraine HA without aura
 - Hx depression and anxiety
 - Smokes 10-15 cigarettes/day

Case Study

- Current medications
 - Multi-vitamins

Case Study

- S
 - Clotting disorder work-up after having 3 miscarriages

Case Study

- O
 - Diagnosed with Protein S deficiency
 - On heparin therapy with the pregnancy that she carried to term
 - PE
 - Difficult to assess uterine size and shape secondary to obesity

Case Study

- A
 1. Clotting disorder
 2. Migraine HA without aura
 3. Obesity
 4. Need for effective contraception

Case Study

- P
 1. F/U with MD re: clotting disorder
 - No precautions except with pregnancy
 2. F/U with MD re: migraines
 - Notify HD if HA become worse on BCM

Case Study

3. Counsel re: diet, increase exercise, decrease calories
4. OK for Progestin only method, including POPs, Mirena, and Depo-provera

Case Study

- Estrogen containing method is **ABSOLUTELY CONTRAINDICATED** in a patient with a clotting disorder!!

References

- ACOG Practice Bulletin, Use of Hormonal Contraception in Women with Coexisting Medical Conditions, Clinical Management Guidelines for Obstetrician-Gynecologists, Number 73, June 2006
- Baldwin, Shelly, Helping patients manage hypertension. Nursing 2011, Vol.41, No. 8, August 2011, pp.60-63.
- Cullwell, K. Curtis. Craviola, M. Safety of Contraceptive Method Use Among Women With Systemic Lupus Erythematosus, Obstetrics & Gynecology, Vol. 114, No. 2 Part 1, August 2009, pp. 341-353
- March of Dimes: Pregnancy Complications, July 2009
- National Headache Foundation
- www.headaches.org (888) NHF-5552
- Simmons, Susan, Recognizing and managing rheumatoid arthritis, Nursing 2011, Vol. 41, No. 7, July 2011, pp. 34-39

References

www.enotes.com/nursing-encyclopedia/medical-chart

www.ehow.com/how_6190205_write_medical_soap_note.html

www.webcrawler.com

References

www.AJOG.org
September 2010

www.AJOG.org
General Gynecology
March 2011