

Airways

Development/Maturation of the Respiratory System

Rationale: Women spend as much as one-third of their lives in the postmenopausal years. Understanding the physical and emotional changes caused by estrogen depletion is important for all physicians who provide health care for women.

You will be able to describe:

- A. Physiologic changes in the hypothalamic-pituitary-ovarian axis (2.1, 2.2, 2.3)
- B. Symptoms and physical findings associated with hypoestrogenism (2.1; 2.2; 2.3; 1.1; 1.3)
- C. Long-term changes associated with hypoestrogenism (2.1; 2.2; 2.3; 1.3)
- D. Management, including: (2.3; 1.2; 1.6)
 1. Hormone therapy
 2. Nutrition and exercise
 3. Non-hormonal therapeutic options
- E. Risks and benefits of hormone replacement therapy (1.8, 6.3)

Evaluation of Emergent Airways

Ojectives TBD

Upper/Lower Respiratory Tract Infections

Rationale: Children's respiratory physiology is different from the adult. Adolescent respiratory physiology is similar to adults. This is due to developmental and size issues. Therefore, child at different ages respond differently to illness and injury, and the treatment must be tailored to the specific age group. You will be able to demonstrate, cite, identify, etc: · Differences between children and adults important in respiration: a. Anatomic b. Physiologic · Identify developmental changes as they occur throughout the pediatric ages · Identify common causes of respiratory distress and failure at different ages · Identify appropriate equipment used to intervene in respiratory distress and failure at different ages · Articulate reasons why infants are prone to respiratory failure and hypoxemia

Routine OB/Gyn

Contraception

Rationale: An understanding of contraceptive methods and associated risks and benefits is necessary to assist patients seeking to prevent pregnancy.

You will be able to:

- A. Describe the mechanism of action and effectiveness of contraceptive methods. (1.9; 2.1; 2.2; 2.3; 2.4; 2.5; 3.4; 1.8)
- B. Counsel the patient regarding the benefits, risks and use for each contraceptive method. (1.8, 2.1; 2.2; 2.3; 2.4; 2.5; 3.4; 1.2; 1.6)
- C. Describe the barriers to effective contraceptive use and to the reduction of unintended

pregnancy. (1.9; 1.8; 4.1; 6.3)

D. Describe the methods of male and female surgical sterilization. (2.1; 2.2; 2.3; 2.4; 2.5; 1.2; 1.6;

E. List the risks and benefits of female surgical sterilization procedures. (1.9; 2.1; 2.2; 2.3; 2.4; 2.5; 1.2; 1.6; 1.8)

Menopause

Rationale: Women spend as much as one-third of their lives in the postmenopausal years.

Understanding the physical and emotional changes caused by estrogen depletion is important for all physicians who provide health care for women.

You will be able to describe:

A. Physiologic changes in the hypothalamic-pituitary-ovarian axis (2.1, 2.2, 2.3)

B. Symptoms and physical findings associated with hypoestrogenism (2.1; 2.2; 2.3; 1.1; 1.3)

C. Long-term changes associated with hypoestrogenism (2.1; 2.2; 2.3; 1.3

D. Management, including: (2.3; 1.2; 1.6)

1. Hormone therapy

2. Nutrition and exercise

3. Non-hormonal therapeutic options

E. Risks and benefits of hormone replacement therapy (1.8, 6.3)

Pap Smear Screening/Abnormal Cervical Cytology, Cervical Cancer

Objectives TBD

Breast Cancer

- Review screening recommendations for breast cancer (1.9)
- Describe workup for a breast mass and risk factors for breast cancer (2.4, 1.2)
- List benign and malignant breast diseases (1.3, 2.3)
- List common benign findings versus malignant (1.30)
- Discuss indications for mammography (1.2, 1.9)
- Describe the role of the community in raising awareness and fundraising for breast cancer (1.9)

Normal and Abnormal Uterine Bleeding

Rationale: Abnormal uterine bleeding can have many causes and is a common reason why women seek the care of a gynecologist. You will be able to:

A. Differentiate between normal and abnormal uterine bleeding. (2.1, 2.2, 2.3)

B. List causes of abnormal uterine bleeding (2.2, 2.3)

C. Describe the evaluation of patients who present with AUB (2.3, 1.2)

D. List medical and surgical options for treatment of AUB (2.3, 1.2, 1.6)

STD's

Rationale: To prevent sexually transmitted infections and minimize their impact on health, the physician should understand their basic epidemiology, diagnosis and management.

You will be able to list:

A. Organisms and methods of transmission, symptoms, physical findings, and evaluation and management of each of the following: (2.1, 2.2, 2.3, 2.4, 1.3, 1.6, 1.2)

- Gonorrhea
- Chlamydia
- Human papillomavirus infection
- Human immunodeficiency virus (HIV) infection

B. Public health concerns, including: (6.3, 1.9, 6.1)

- Screening programs
- Costs
- Prevention and immunizations

C. Partner evaluation and treatment (6.3, 1.9)

Obstetrics/Neonatology

Maternal CV Adaptations to Pregnancy

Objectives TBD

Intrapartum Fetal Surveillance

Rationale: identification of PPRM and preterm labor allows the provider to optimize the delivery conditions for a preterm infant. You will be able to:

- Describe the process of evaluating a patient for PPRM or PTL. (1.3, 1.2, 1.5)
- Describe antenatal treatments for PPRM and PTL (1.2, 1.6)
- Discuss complications of preterm birth as they affect mother and fetus (2.5, 4.1, 6.3)

Preterm/Premature Rupture of Membranes

Rationale: identification of PPRM and preterm labor allows the provider to optimize the delivery conditions for a preterm infant. You will be able to:

- A. Describe the process of evaluating a patient for PPRM or PTL. (1.3, 1.2, 1.5)
- B. Describe antenatal treatments for PPRM and PTL (1.2, 1.6)
- C. Discuss complications of preterm birth as they affect mother and fetus (2.5, 4.1, 6.3)

Pre-eclampsia

Rationale: gestational diabetes and hypertensive complications are frequently encountered in pregnancy. You will be able to:

- A. Describe the screening and evaluation to identify affected patients (1.3, 1.2, 1.9, 6.3)

- B. Describe management of the conditions during the pregnancy (1.2, 1.6, 2.3)
- C. Discuss risks to mother and fetus associated with these conditions (4.1, 4.2, 6.3)
- D. List complications that can occur at delivery as related to the diagnosis (2.3, 1.2)

Neonatology

Rationale: The transition from intrauterine life to extra uterine independent existence is a major event: physiologically for the baby, emotionally for the family, and medically for the health care team. Physicians must have an appreciation for the physiologic changes a newborn experiences. The newborn has unique needs and vulnerabilities that are distinct from other periods of infancy. You will be able to:

- A. Describe the transition from the intrauterine to the extra uterine environment, including temperature regulation, cardiovascular/respiratory adjustment, glucose regulation, and initiation of feeding (2.1, 2.2)
- B. List the information from the history of pregnancy, labor, and delivery obtained from the parents or medical record that has implications for the health of the newborn (1.2; 1.3; 1.6)
- C. Describe how gestational age can be assessed with an instrument such as the Ballard Scale, and identify key indications of gestational maturity (1.1; 2.3)
- D. Describe the challenges for parents adjusting to a new infant in the home (2.5)

Congenital Abnormalities

Objectives TBD

Emesis in Neonate

Objectives TBD

Neonatal Surgery

- List history and physical findings important in neonatal feeding intolerance and vomiting (1.3, 1.1)
- Describe initial workup for neonatal feeding intolerance and vomiting (1.2, 1.6)
- List associated findings in the VATER syndrome (2.2, 2.3)
- List differential diagnosis for neonatal obstipation (1.3, 2.3)
- Describe workup for suspected Hirschsprung's disease (1.2, 1.6, 2.3)
- List appropriate workup for vomiting and feed intolerance after one month (1.2, 1.6, 2.3)
- List appropriate workup for pediatric rectal bleeding (1.2, 1.6, 2.3)

Failure to Stool in the Neonate

Objectives TBD

Lactation

Rationale: Knowledge of the physiology and function of the breast during lactation allows appropriate counseling to the pregnant and postpartum patient.

You will be able to list:

- A. List the normal physiologic and anatomic changes of the breast during pregnancy and postpartum. (2.1, 2.2, 2.3, 2.4, 2.5)
- B. Recognize and know how to treat common postpartum abnormalities of the breast. (4.1, 4.2, 4.3, 1.1, 1.2, 1.3, 1.4, 1.5)
- C. List the reasons why breast feeding should be encouraged. (2.2, 2.5, 4.1, 4.2, 4.3)
- D. Describe the resources and approach to determining medication safety during breast feeding. (2.1, 2.2, 2.3, 2.4, 2.5, 6.3)
- E. Describe common challenges in the initiation and maintenance of lactation (2.1, 2.2, 2.3, 2.4, 2.5, 2.6)

CHD

Objectives TBD

Discharge Planning Activity

You will be provided with a high-risk mother-baby pair case scenario that will involve identifying discharge needs and resources for both patients. You are expected to identify all needs, not just medical needs.

You will:

- Prepare the patients' discharge plan. (PGO 1.4, 1.6, 1.9-1.10, 2.4-2.5, 4.1-4.2, 6.1-6.4, 7.2)
- Identify other professionals and local/national service resources for the continuing care of a woman and her infant. (6.2-6.4, 7.2)

Emergent Delivery Simulation

Rationale: Student will participate in a simulation of emergency care of both mother and neonate. You will be able to:

- Evaluate the patients and suggest appropriate course of action.
- Interpret results of fetal monitoring strips, vital signs, and clinical data in an unexpected emergent event.
- Demonstrate knowledge of adult and neonatal resuscitation protocols.

Abdominal Pathology

Abdominal Pain

- Describe for abdominal pain: appropriate H&P exam signs for each quadrant, appropriate diagnostic workup (1.3, 1.1, 1.2)
- Describe initial workup of patient with RUQ pain (1.2)
- Describe appropriate components of admission, pre and post-operative orders for patients with

abdominal pain (1.6)

- Describe initial workup of patient with peritonitis (1.2, 1.5)
- Describe initial workup patient with jaundice and epigastric pain (1.2)

Surgical Management of Ulcerative Colitis and Crohn's Disease

Objectives TBD

Abdominal Aortic Aneurysm

Objectives TBD

Bowel Obstruction

- Intestinal obstruction
- List causes of small and large intestinal obstruction (1.3, 2.3)
- List history and physical exam findings important in large and small intestinal obstruction (1.2, 1.3)
- List appropriate diagnostic tests for large and small intestinal obstruction (1.2, 1.6)
- Interpret plain abdominal x-rays in large and small intestinal obstruction (2.3)
- List initial treatment for large and small intestinal obstruction and when surgical consultation is urgent (1.5, 1.6, 1.2)

Lower Intestinal Symptoms (Appendicitis & Diverticulitis)

Objectives TBD

Hepatobiliary Disorders, Jaundice and Upper Abdominal Pain

- Describe the initial workup of a patient with right upper quadrant pain (1.6, 1.2)
- Describe the initial workup of a patient with jaundice (1.6, 1.2)
- Describe the initial workup of a patient with epigastric pain (1.6, 1.2)
- List the risk factors for cholelithiasis (1.3, 6.3)
- List the risk factors and causes for acute pancreatitis (1.3, 6.3)
- Describe the Ranson's scoring system for acute pancreatitis (1.5, 1.3)
- List the ultrasound findings for acute cholecystitis and contrast with just presence of gallstones without cholecystitis (2.3, 1.5)
- Describe appropriate imaging tests for patients with suspected biliary tract disease and pancreatitis (1.3, 1.2)
- Describe early treatment of acute pancreatitis (1.6)
- Describe complications of severe acute pancreatitis (2.1, 2.2)
- List indications for surgical referral for a patient with gallstones or right upper quadrant pain (1.5, 2.3)
- List indications for operation on acute pancreatitis (1.5, 2.3)
- List hepatic causes of jaundice and associated risk factors (1.3)
- Compare and contrast the clinical presentation, initial workup, and causes of acute vs. chronic jaundice (1.3, 2.2, 2.3)

Surgical Anatomy

- To recognize surgical anatomy (2.1)
- To review common laparoscopic general surgery operations (1.6, 2.3)
- To review pertinent anatomy (2.1)

Common Pediatric GI Problems

Rationale: Children frequently present to the pediatrician with GI issues. You will be able to:

- A. Describe common GI issues in children and adolescents (2.1, 2.2,2.4,2.5)
- B. Recognize signs and symptoms associated with common GI disorders (1.1, 1.3, 1.5)
- C. Describe initial work-up and treatment for common GI disorders (1.2, 1.4, 1.6, 1.8)

Bariatric Surgery

- Discuss the trends of obesity in the United States (2.4)
- Define obesity (2.1)
- Delineate indications for weight reduction surgery (1.6, 2.3)
- Recognize the important postoperative notational considerations in patients undergoing bariatric surgery (1.2, 6.3)

Endocrinology & Diabetes

Endocrine Diseases in Surgery

Objectives TBD

Pediatric Metabolic Disorders

Rationale: Metabolic disorders cause significant morbidity, and even mortality, when they are undiagnosed and untreated. Many metabolic disorders are inherited, making genetic counseling important to families who have a child diagnosed with metabolic disorders. You will be able to:

- A. Know the common metabolic disorders (2.1;2.2, 2.3)
- B. Understand the pathophysiologic basis of metabolic disorders (2.1, 2.2, 2.3)
- C. Identify some of the common signs and symptoms of metabolic disorders (KP2.1; PC1.1; PC1.3)
- D. Understand the concepts of management of metabolic disorders (PC1.2; PC1.3; PC1.6; PC1.8)

Diabetes in Pregnancy

Objectives TBD

Diabetic Retinopathy

Objectives TBD

Diabetes in Pediatrics

Objectives TBD

Trauma

Trauma Workshop

Objectives TBD

Recognition and Treatment of Child Abuse

Rationale: Children are uniquely vulnerable to emotional, sexual, and physical abuse and neglect. Legislatures have introduced statutes for the protection of children. The costs of child abuse are high in terms of morbidity, mortality, and cost to society for failure to protect children. You will be able to:

- A. Describe the signs and symptoms of child sexual abuse and physical abuse/neglect (1.1, 1.2, 1.3, 1.4)
- B. Understand your role as a mandated reporter. (4.2, 5.5, 8.1, 6.2)
- C. Describe the stress that a diagnosis of abuse carries for the child and family. (2.5, 4.1, 4.3)
- D. Understand the importance of meticulous documentation of all positive and negative findings in the medical record. (4.4)
- E. Understand short-and long-term morbidity that results from child abuse. (2.3, 2.4, 2.5)
- F. Understand the steps needed for care and management of the abused child. (5.5)

Work up of Pediatric Trauma

Objectives TBD

Updates in Pediatric Solid Organ Injury

Objectives TBD

Recognition and Treatment of Pediatric Shock

Rationale: Children's response to shock differs from that of the adult. Adolescent physiology is similar to adults. This is due to developmental issues. Therefore, a child in shock will present differently at different ages, and will need different therapies.

You will be able to:

- A. Describe the different presentation of shock between children and adults. (2.1, 2.2, 2.3, 1.3)
- B. Describe initial therapy for shock and indications for emergency treatment according to published practice parameters. (1.5, 1.6, 2.1)
- C. Describe age-related differences in etiology of shock. (2.1, 2.2, 2.3)

Breast

Disorder of the Breast/Cultural Sensitivity

Objectives TBD

Breast Cancer

- Review screening recommendations for breast cancer (1.9)
- Describe workup for a breast mass and risk factors for breast cancer (2.4, 1.2)
- List benign and malignant breast diseases (1.3, 2.3)
- List common benign findings versus malignant (1.30)
- Discuss indications for mammography (1.2, 1.9)
- Describe the role of the community in raising awareness and fundraising for breast cancer (1.9)

Urinary

Urinary Incontinence

Objectives TBD

Urinary Prolapse

Rationale: Patients with conditions of pelvic relaxation and urinary incontinence present in a variety of ways. The physician should be familiar with the types of pelvic relaxation and incontinence and the approach to management of these patients.

You will demonstrate knowledge of the following:

- A. Predisposing factors for pelvic organ prolapse and urinary incontinence (1.9; KP2.1; KP2.2; KP2.3; KP2.4; KP2.5; KP2.6; PC1.1; PC1.2; PC1.3; PC1.4; PC1.5; PC1.6; PC1.7; PC1.8)
- B. Anatomic changes, fascial defects and neuromuscular pathophysiology (2.1; 2.2; 2.3)
- C. Signs and symptoms of pelvic organ prolapse (2.1; 2.2; 2.3; 1.3;)
- D. Physical exam (2.1; 1.1)
 1. Cystocele
 2. Rectocele
 3. Enterocele
 4. Vaginal vault or uterine prolapse

Urinary Tract Infection in Children/Nephrotic Syndrome/Glomerulonephritis in Children

Rationale: UTIs are a common infection in infants and children, and can lead to serious disease. Nephrotic and nephritic diseases are common reasons for referral to a Pediatric Nephrologist.

You will be able to:

- A. Recognize the signs and symptoms of UTIs in children (1.1, 1.3)
- B. Understand the principles of evaluation and management of urinary infections (1.2, 1.3, 1.6,

2.3)

C. Recognize the signs and symptoms of glomerular disease in children (1.1, 1.3)

D. Understand the evaluation and treatment (1.1, 1.2, 1.3, 1.6, 2.3)

Peri-Operative Care

Initial X-ray Interpretation

- Interpret plain abdominal x-rays in large and small intestinal obstruction (2.2, 1.3)
- Interpret normal and abnormal x-rays (2.2, 1.3)
- Basic approach to radiology (2.3)

Perioperative Complications

Objectives TBD

Fluids and Electrolytes

Rationale: All human beings need an uninterrupted supply of water, electrolytes, and energy. Excessive or diminished fluid intake or losses may lead to severe physiologic derangements, with significant morbidity and even mortality.

You will be able to:

- A. Recognize signs & symptoms of dehydration (2.3, 1.3, 2.1, 1.5)
- B. Estimate fluid deficit (2.2, 2.3)
- C. Calculate maintenance requirements and rehydration requirements (2.2, 2.3)
- D. Assess for ongoing losses (1.1, 1.3)
- E. Articulate indication for oral rehydration therapy (1.2, 1.6, 1.4)
- F. Articulate indication for parental rehydration therapy (1.2, 1.6)
- G. Describe and recognize 4 common electrolyte imbalances (2.1, 2.2, 2.3)

Post-op Care/Fundamentals of Surgery

- List pre-op risk factors for surgical patients for post-op respiratory and cardiac problems (2.2, 2.3)
- Recognize the goals of the treatment of pain, maintenance of homeostasis and the early detection and prevention of complications in the management of the post-op patient (1.6, 2.3)
- Detail the categories of post-op complications and preventative measures to minimize their occurrence (2.3)
- List appropriate items to be included in a post-op note (1.7, 4.4)
- Write appropriate IV fluid orders on a pre-op, post-op patient and daily maintenance IV orders (1.6)
- Write orders for DVT prophylaxis (1.9, 1.6)
- List causes of post-op fever and appropriate workup (1.3, 1.6, 2.3)
- Describe care of a Jackson Pratt closed suction drain (1.6)

Oncology

Pediatric Oncology

Rationale: Oncologic disorders represent conditions causing significant morbidity and mortality in children. Types and frequencies of cancer differ between children and adults. Treatment protocols differ for children. You will be able to: A. Identify the most common cancers in children and adolescents (2.4, 2.3) B. Recognize the signs and symptoms of leukemia and brain tumors (2.3, 1.3) C. Understand the diagnostic evaluation of children with suspected cancer(1.3, 1.2) D. Understand treatment strategies (1.2, 1.6, 2.3)

Evaluation of Ovarian Mass

Objectives TBD

OB/Gyn Oncology

Rationale: Routine screening for cervical cancer and its precursor; cervical dysplasia has changed as our understanding of the relationship between HPV and dysplasia became evident. Recognition and treatment of early cervical changes can prevent cervical cancer. You will be able to:

- A. Describe recommendations for cervical cancer screening (1.9, 2.4)
- B. Describe the relationship between HPV and cervical cancer (2.1, 2.2, 2.3)
- C. Describe evaluation of an abnormal Pap smear. (2.3, 1.2)
- D. List treatment options for cervical dysplasia (1.2, 1.6, 2.3)
- E. List stages and clinical manifestations of cervical cancer (1.3, 2.3, 2.4)
- F. List risk factors for cervical cancer (6.3, 2.4, 1.9)

Anemia

Rationale: Anemia is a common disorder in children, and may be the presenting sign of many serious or more benign conditions. You will be able to:

- A. Describe the pathophysiology of anemia (2.1, 2.2, 2.3)
- B. Recognize the clinical manifestation of anemia (1.3, 1.1)
- C. Generate a differential diagnoses in children (2.1; 1.1; PC1.2; 1.3; 1.5)
- D. Articulate principles of management (2.3; 2.4; 2.5; 2.6; 1.2; 1.3; 1.4; 1.5; 1.6)

Growth and Development/Assessment

Growth and Development: Principals of Care

Rationale: Children must grow and develop over the course of childhood from newborn through adulthood. You will be able to: A. Assess physical growth and development through all stages of

childhood. (1.1, 1.3, 2.1, 2.2, 2.3) B. Provide anticipatory guidance for all ages of childhood (1.8, 1.9, 4.1, 4.3) C. o Participate in prevention of diseases via immunizations (1.9)

How to Recognize a Sick Child

Rationale: Children are difficult to evaluate. Early recognition of the child at risk for rapid deterioration can allow treatment and prevent critical illness or death, and/or allow time to activate appropriate systems to respond

You will be able to:

- A. Demonstrate proficiency with a focused pediatric history and PE (1.1, 1.4)
- B. Identify normal VS for all ages (1.3; 1.4; 1.5; 2.3)
- C. Identify abnormal VS and assess degree and seriousness of abnormality in all age groups (1.3; 1.4; 1.5; 2.3)
- D. Identify common pediatric emergencies (1.1; 1.2; 1.3; 1.4; 1.5)

Infectious Rashes

Rationale: Many children present in the ambulatory service and are admitted to the hospital with a variety of rashes that are important for their diagnosis and evaluation.

You will be able to:

- A. Identify relevant rashes related to their frequency and importance for the pediatric patients will be the core of the presentation. (2.1, 2.3, 1.3)
- B. A small discussion will follow every slide describing its evolution and transcendence.

Orthopedics

Rationale: Orthopedic disorders and injuries are frequently encountered in pediatrics. These include injury, congenital conditions, infections, and cancers. You will be able to:

- A. Identify congenital orthopedic diseases (2.1, 2.3, 1.3)
- B. Identify common acquired orthopedic conditions (2.1, 2.4, 2.3, 1.3)
- C. Manage infections in bone and joint diseases (2.3, 1.2, 1.6)
- D. Identify common pediatric fractures (2.1, 2.3, 1.3)

Ophthalmology

- Show where to look for lumps and bumps, what they are, and how to fix them (1.7, 1.3)• Under reasonable circumstances (cooperative patient with a cooperative pupil, good equipment, dark room), be able to confidently view the optic nerve head, retinal vessels, fovea and macula and peripheral fundus past the arcade vessels (1.1)
- After viewing these structures, be able to tell normal from abnormal (1.5, 2.1)
- Be able to put a name to the more common abnormalities (2.2)
- Within the realm of common abnormalities, be able to distinguish eye disease from an eye manifestation of a systemic disease (2.2, 2.3)

