

Clinical Care Connection



Parkland

Connecting Parkland's clinical staff with the latest information and patient care updates December 2009

Do I Need to Wear a Mask?

There has been a lot of discussion and confusion about what to wear and when to wear it. With the help of Parkland's Infection Control Department, Nursing Education has the following information to provide some clarity.



The health care worker should wear a rectangular mask with four ties, often referred to as a "surgical mask," in addition to gown and gloves when providing routine care of a patient with influenza like illness (ILI). These same precautions, four tie mask, gown and gloves should also be worn when providing routine care for a patient in droplet/contact isolation. Obtaining a nasopharyngeal specimen is considered routine care so it only requires this level of precaution.

The health care worker should wear the N95 mask with eye protection, gloves and gown when performing a procedure that may generate aerosols from a patient that has ILI, is in droplet/contact isolation. Procedures that may generate aerosols include, but are not limited to: suctioning, intubation, bronchoscopy, and nebulizer treatments. Use good clinical judgment when performing a procedure about whether or not patient secretions will be aerosolized.

The health care worker should also wear the N95 mask when entering the room of a patient in airborne isolation.

The N95 mask is not for patient use. Health care workers must be mask fit tested to ensure proper fit to maximize protection from the N95. The N95 mask can be used repeatedly by the same person until they become damaged, moist, dirty or hard to breathe through. There is a national shortage of N95 masks at this time and Parkland is currently in the assessment phase of identifying a new vendor to supply the N95 masks. Following vendor selection all clinical personnel who require mask fit testing will be fit tested for the new mask. Details on how this large volume fit testing project will be completed will be communicated to those who will need to participate.

In the meantime, please use this information to make sure you are using the appropriate mask for the appropriate situation so that you don't over use our resources or put you or your patient at risk. These respiratory hygiene principles will serve you well year round, not just during flu season.

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Patient's presenting with ILI (fever, cough and other respiratory symptoms) should be given a mask with ear loops. If an ear loop mask is not readily available, a rectangular mask with four ties is acceptable. While waiting to be seen, these patients should be seated in an area that is separate from others (at least 6 feet if possible). If the patient is admitted, he/she should be placed in a droplet/contact isolation and negative air pressure room if possible. Once the patient is in isolation, he/she no longer needs to wear a mask. Patients diagnosed with flu who are not admitted should be instructed to wear their mask when in public places, such as walking through the hospital, riding the bus, at the store. They should also be instructed to wear the mask at home if the household includes infants, elderly or immunocompromised individuals.

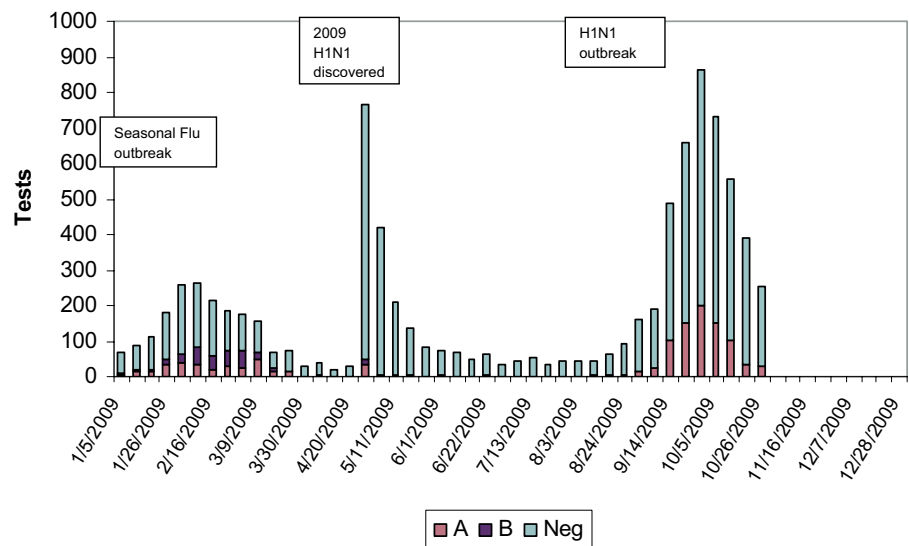
Laboratory Scope Influenza and the Lab

The 2009 H1N1 Influenza outbreak appears to be coming to a close.

Since its discovery in April 2009, the new flu virus has created some unique challenges for Pathology labs. Microbiology is beginning to evaluate this experience and incorporating new knowledge into the management of the next seasonal flu outbreak.

Test volume in recent weeks has been very high compared to a normal flu season. The graph below illustrates the test volumes and positivity rates for all of 2009. Pathology offered a rapid point-of-care flu test at 15 different test sites in the main lab and COPC sites. The COPC staff quickly brought testing into the Jail Health Center when the need became evident. Note that testing activity was much higher for the late-summer H1N1 outbreak than for the seasonal flu outbreak that occurred January-March 2009.

Flu by Week



The unexpected outbreak provided an opportunity to evaluate Parkland's influenza pandemic plan. Some of the lessons learned include:

- Influenza test methods must be periodically re-evaluated against new virus strains. The emergence of the new H1N1 strain called into question the accuracy and sensitivity of standard test methods. By the end of the outbreak, the lab had a good understanding of the sensitivity and specificity of many test methods and modified Parkland's testing algorithms to include multiple diagnostic approaches.
- Specimen collection methods were modified to improve test performance. Prior to the H1N1 outbreak, flu swabs were often collected from the patient's throat or external nares. In order to improve test sensitivity, the collection method was changed to a more invasive nasopharyngeal swab.
- Supply shortages of collection swabs and test kits were a risk to be mitigated. Multiple suppliers were put under contract to assure that the hospital never ran out of materials.
- Preparation for public panic was also included in the pandemic plan. The news media were a powerful force in causing a surge of asymptomatic, "worried-well" patients seeking testing and treatment. It became important to help caregivers understand the indications for ordering flu testing and how to interpret results in light of the patient's condition.

The recent flu outbreak experience will help Pathology be better prepared for the coming "regular" flu season. In addition, it provided the first real-life test of the hospital's pandemic plan.

Nursing Education

The Patient Care Assistant Training Program

The Patient Care Assistant Training (PCAT) Program is a six week course of study. Upon completion the trainee will be qualified to work as a Patient Care Assistant (PCA I) at Parkland. The program does not meet the requirements for a nursing assistant certificate in the state of Texas.

The program consists of 120 hours of classroom content and 120 hours of clinical practice. Classroom topics include medical terminology, ergonomics, patient positioning, vital signs, care of the older patient, CPR, anatomy, common disorders and patient safety. During clinical time, the PCAT will be supervised when performing patient care. In order to complete the program, the PCAT must obtain an average score of 80 on the classroom content and a satisfactory rating for the clinical portion.

In order to participate in the PCAT Program, a PCA I position must be posted. A request for transfer needs to be submitted to Human Resources, Workforce Planning. The applicant will then need to take a math test and score at least 80 percent. If hired to the PCA position, the Unit Manager will then submit the applicant as a PCAT. For any further questions concerning the program, please contact Karlene Justice, RNC, in Leadership and Organizational Development at ext. 21207.

Parkland Research Department Information

Procedures & Events

- Go to Parkland Intranet > Departments > Research
- See Research Procedures
- See Studies
- See Events & Links

Parkland is currently loading documents for Research SharePoint - look for more information coming soon.

Outpatient Observations

Evidence-Based Practice: Formulating a Researchable Question

Evidence based practice (EBP) is the deliberate planning of patient care based on values and preferences of the patient, nurse's clinical expertise and the best research evidence available (Hockenberry, Wilson, & Barrera, 2006). EBP consists of five phases:

1. Formulating a researchable question
2. Library search for the evidence
3. Critical appraisal of the evidence
4. Application of the evidence to practice
5. Evaluate the effectiveness of the evidence

Implementing research findings into clinical practice has been identified as a challenge to nursing staff. A key barrier is the intimidation that many nurses feel due to their limited knowledge of the research process. The first step in the process is writing a researchable question. The question must be written in a concise, organized manner that allows clear answers. A common stepwise process termed "PICO" can be used to clearly define the problem and narrow the search. PICO represents the following:

- P=** Patient population or disease of interest
- I=** Intervention or range of intervention of interest
- C=** Comparison. Does the evidence support that a proposed intervention is more or less effective than current practice or no intervention at all
- O=** Outcomes. Effectiveness of the clinical outcomes on the patient or patient population of interest

Application of the PICO Format

In teenagers (population), how effective is Depo-Provera (intervention) versus oral contraception (comparison) in the prevention of pregnancy (outcome).

Next month, we'll look at the different levels of evidence and searching the databases for the best evidence available.

References

Hockenberry, M., Wilson D., & Barrera, P. (2006). Implementing evidence-based nursing practice in a pediatric hospital. *Pediatric Nursing*, 32 (4), 371-377. Melnyk, B., M, & Fineout-Overholt, E. (2005). Evidence-based practice in nursing & health care. Philadelphia: Lippincott Williams & Wilkins.



*Joint Commission
is expected at any
time now.*

Continual Readiness

It's That Time Again...Are You Ready?

The Joint Commission completed the routine three year accreditation survey at Parkland in July 2007, which means that staff should expect another survey any time now. Continual readiness is the key to a successful survey.

Continual readiness is the daily practice of making sure that we meet those standards for all patients, in all areas, all the time. It is everyone's responsibility. A few simple ways that staff can support a state of continual readiness include:

- Using two patient identifiers.
- Practicing good hand hygiene.
- Keeping work and patient care areas clean and hallways uncluttered.
- Maintaining the privacy of patient information.
- Document patient care in the medical record and include the date and time.

Staff should to know how they meet the standards when providing patient care and what actions we take to provide safe and effective care. Patient safety is a key focus area so expect that surveyors might ask questions about:

- National patient safety goals (NPSG).
- Safe storage and administration of sound alike/look alike drugs.
- Assessment and re-assessment procedures, especially for patients having pain.
- Proper ordering and use of restraints.
- Performance improvement activities on your unit.
- Codes and staff response to them.

If you are working when the surveyors come, remember to:

- Look for an identification badge.
- Be confident, positive and pleasant.
- Answer questions truthfully and answer only what is asked.
- Show them only what they ask to see and don't linger in that area when they are done.
- Ask the surveyor to clarify any question you don't understand before you answer.

Continual readiness is the way we demonstrate that we provide safe and effective care. You make a difference for our patients by being ready for a Joint Commission accreditation survey every day.

Pain Points

Patient Teaching for Regional Anesthesia (Nerve Block)

You are preparing to discharge your day surgery patient after distal radius fracture repair, open reduction internal fixation. She is awake, alert and describes her pain control in glowing terms: "Just amazing! My arm feels almost entirely numb. I can feel 'touch' but no pain. I can't believe I've just had surgery."

Your patient received a nerve block procedure before surgery for postoperative pain control. By blocking the brachial plexus nerves to the lower arm, the anesthesia provider lessened surgical site pain and potentially reduced the physiologic stress response that compromises the immune system and postoperative recovery. The risks of general anesthesia were avoided. The patient underwent successful orthopedic surgery using minimal sedation.

Now your patient is ready for discharge. She is ready to learn how to protect her arm, manage pain and what complications to report. The RN provides a quiet environment for learning and supplies both written and verbal instructions in simple, understandable language. Your major teaching points include:

1. What to expect after a nerve block of upper extremity.
 - a. Expect the limb to remain numb for 8-14 hours after the block, depending on the local anesthetic used.
 - b. Residual tingling and numbness of one or two fingers is not uncommon and may take a few days or weeks to resolve.
 - c. Wear a sling to support and protect the affected arm until sensation has completely returned.
2. How to manage pain.
 - a. Take your first pain medicines before the block wears off. Treat pain early before it becomes moderate to severe.
 - b. Take your pain medicines around the clock instead of only as needed.
 - c. Take pain medicines before going to bed, even if the block is still present.
3. What warning signs to report.
 - a. Swelling or bleeding at the site of the block.
 - b. Severe weakness or inability to move the affected extremity lasting more than 24 hours.
 - c. Numbness and tingling of the extremity lasting more than 2-3 weeks.
 - d. Signs of infection (pain, redness, hotness, discharge) at the site of the block.

Patient teaching improves patient safety and satisfaction and lessens emergency room visits. The same principles apply for teaching the patient who has had a nerve block of the lower extremity - only crutches or other assistive devices will be provided for use as directed. For questions, contact the Acute Pain Service NP, Jo Howard, at 214.786.1013.

Critical Care Vital Signs

New Device for Temperature Management

Parkland has recently acquired the Thermogard XP™ Temperature Management System for the treatment of two types of patients. It will be used to induce hypothermia after cardiac arrest and to re-warm patients who are hypothermic after traumatic injury.

The Thermogard XP™ is an intravascular temperature management system that uses a central venous catheter with saline filled balloons around the catheter's exterior. The machine uses input from a temperature probe to determine whether the saline circulating in the balloons should be warmed or cooled to achieve therapeutic goals. Saline is not infused into the patient; it only circulates within balloons on the catheter.

There is one procedure and one protocol that will dictate the use of the Thermogard XP™ at Parkland. The procedure is entitled "Hypothermia Treatment with Active Core Re-warming Utilizing the Thermogard XP™," and was written by Trauma & Disaster Services. The Thermogard XP™ is indicated for use when the patient's temperature is less than 34° C and external re-warming methods have been ineffective. Preventing hypothermia in trauma patients also helps to prevent its effects which may include altered platelet function, bradyarrhythmias, increased infection rates and more.

The protocol titled "Therapeutic Hypothermia Following Cardiac Arrest" was created by the Resuscitation Committee and will also be used with the Thermogard XP™. Parkland will be inducing hypothermia as recommended by the American Heart Association for treatment of Post-Cardiac Arrest Syndrome. The goal of our protocol is "to induce a controlled hypothermia by reducing body temperatures to 32-34 degrees Celsius as quickly as possible following a cardiac arrest in order to improve long term neurological outcomes."

Look for upcoming inservices on the Thermogard XP™ in your area.

Resources:

1. *Trauma Sixth Edition 2008*, by Feliciano, Mattox and Moore
2. "Hypothermia Treatment with Active Core Rewarming Utilizing the Thermogard XPTM," written by Trauma & Disaster Services.
3. http://www.americanheart.org/print_presenter.jhtml?identifier=3063205.
4. *Therapeutic Hypothermia Following Cardiac Arrest – PMH Protocol*, Resuscitation Committee



Performance Improvement **Aims for Improvement**

In 1999, the Institute of Medicine (IOM) in Washington, DC, released "To Err is Human: Building a Safer Health System," a report that brought much public attention to the crisis of patient safety in the United States. In 2001, the IOM issued a second report, "Crossing the Quality Chasm: A New Health System for the 21st Century," which outlines six overarching "Aims for Improvement" for health care:

- **Safe:** Avoid injuries to patients from the care that is intended to help them. Safety must be at the forefront of patient care.
- **Timely:** Reduce waiting for both patients and those who give care. Prompt attention benefits both the patient and the caregiver.
- **Effective:** Match care to science; avoid overuse of ineffective care and underuse of effective care.
- **Efficient:** Reduce waste. The health care system should constantly seek to reduce the waste and the cost of supplies, equipment, space, capital, ideas, time and opportunities.
- **Equitable:** Close racial and ethnic gaps in health status. Race, ethnicity, gender and income should not prevent anyone from receiving high-quality care.
- **Patient-Centered:** Honor the individual and respect choice. Each patient's culture, social context and specific needs deserve respect and the patient should play an active role in making decisions about their own care.

Many organizations use the six IOM aims to help them develop their goals. At Parkland we use the six IOM aims to evaluate the quality of the care we deliver and to drive how we set goals to improve our system. We choose quality goals that will improve care in each of these categories.

All improvement requires setting goals. An organization will not improve without a clear and firm intention to do so. The goal should be time-specific (how long will it take) and measurable (how much will it improve?); it should also define the specific population of patients that will be affected. Agreeing on the goal is crucial; so is allocating the people and resources necessary to accomplish the goal. If you have ever encountered a failure in any of these areas as a patient or as a clinician then you know firsthand what drives us to improve our system. The Quality department uses the IOM aims coupled with PI methodology to organize and drive improvement projects.

If you have any questions about Performance Improvement or the Parkland Quality Improvement Goals, please call Marisa Valdes at ext. 24227.

Adapted from www.ihi.org

Chioma Emetanja, RN updates electronic medical records on 7 South using one of Parkland's workstations on wheels.



Nursing Informatics

EMR Upgrades Continue across Parkland

The big news this month is that the Med/Surg ICUs will be documenting on the electronic Doc Flowsheet. The nurses will be entering vital signs, hemodynamics, ventilator/pulmonary, neurological and neurovascular checks, pulses, pain, intake and output. Lines and drains will be documented there as well.

The PCAs in the ICUs will also begin documenting in EPIC. They have a new electronic flowsheet available to them to document POCT, ICU care, PO intake, and output from Foley catheters and other drains.

This information will now be easily assessable to providers from any computer in the hospital. It will also be available to the floor nurses when patients are transferred.

Four outpatient clinics have successfully implemented EPIC: PCIM, Family Medicine, HIV and Anti-Coagulation. The Gynecology clinic went live on Nov. 16 and OB/Gyn Sonography on Dec. 2.

The HOD areas are starting to document electronically as well. Acute Dialysis and Aphaeresis will be the first on Dec. 15. Other HOD areas will follow after the new year.

Last month 26 Allied Health departments began charting progress notes in EPIC. This makes it easier for providers, nurses and ancillary staff to follow the care of the patient since this information is now available in the patient's electronic chart.

How to report EPIC issues and problems

Call the Parkland Service Desk at 214.590.5999 (ext. 25999) if you have a problem. They will be happy to help you or find the appropriate people to help you. If you need your password reset you can just press 1 during the recording.



The WISH List

Holidays Away From Home

Every year there are dozens of premature infants who celebrate their first Christmas in the Parkland Neonatal ICU. The NNICU staff does their best to help the infants and their families have an uplifting experience during such a difficult time.

Child Life Specialists Meredith Long, Molly Michaud and Erin Contreras as well as March of Dimes representative Dora Acosta work together to bring Christmas to families who are forced to spend it in the hospital. These ladies spend most of December diligently arranging for donations, stuffing stockings, scheduling visits from Santa, sorting gifts that will go to the babies, siblings and parents and working closely with families to create a wonderful holiday experience.

Each year two gentlemen volunteers dress up like Santa Clause: Lynn Bennie and David May. They visit every baby in the hospital, including NNICU, Newborn Nursery third and fourth floors, postpartum and antepartum floors. This covers about 200-250 babies. Santa visits on Christmas Eve, passes out presents and takes pictures with the babies to mark their first Christmas. Every baby receives:

- A photo of their first Christmas with Santa.
- Donated gifts including a handmade gift bag, blanket, clothes and a homemade toy.
- A Christmas stocking with a book, pacifier and rattle added by Child Life.

Generous donations from the community include:

- Hundreds of handmade stockings for babies and stockings for mothers on antepartum that include items such as shampoo, makeup and socks from Plano Quilt Guild.
- Christmas stockings, which in the past have been given to the infant's siblings along with numerous donations of stuffed animals from Dr. Michael Curry's dentist office.
- Baby's First Christmas Ornaments for the NNICU from Linda Bailey.
- Handmade gift bags, blankets, clothes and homemade toys from Newborns in Need.

None of this would be possible without the generosity of others in the community. We give special thanks to all of the volunteers who come together to help our tiny treasures.

Volunteer David May pays a visit to some of Parkland's littlest patients as Santa Clause each Christmas.

Patient Safety & Risk **2010 Patient Safety Goals Update**

The Joint Commission has released the Patient Safety Goals for 2010. In an effort to assist hospitals in improving patient safety, many of the goals have been simplified. In addition, some of the previous Patient Safety Goals have been moved to the standards. The following is only a partial list of some of the most important goals for your awareness. A new poster listing all the goals will be distributed by 2010.

Goal one focuses on improving the accuracy of patient identification. This includes using two patient identifiers (name and MRN or date of birth) before every treatment or procedure, including blood transfusions. As an institution we continue to have incidents of medication errors, lab testing errors and treatment errors because of failure to check the patient's ID. It is important this is done every time for every patient.

Goal two speaks to improving the effectiveness of communication among care givers. This goal has been focused to include only the reporting of critical results in a timely manner. The transition to EMR has made documentation of communication more challenging, but please keep in mind its purpose: getting the critical information to the provider so the patient can be cared for appropriately. Through documentation we are able to identify areas for improvement.

Goal three stresses the importance of safe use of medications, especially related to labeling of medications and high risk anticoagulants. For patients receiving IV Heparin per Parkland's protocol, this must be infused on an IV pump. Use of the pump library will provide additional safety for the patient and ensure the correct calculation and rate is delivered.

Goal seven addresses the need for reducing the risk of health care-associated infections by meeting hand hygiene guidelines, preventing drug resistant infections such as MRSA, preventing blood stream infections through central lines and surgical site infection prevention. Important tasks such as hand washing after glove removal, wiping IV ports with alcohol prior to medication administration and maintaining sterile technique for central/PICC line insertion and dressing changes are some areas for Parkland to focus on for reduction in infections.

Patient Safety and Risk would like to thank all the care givers for the hard work they do every day to keep our patients safe. We are here to help you find ways to take better care of your patients. Please call ext. 21780 for any questions or concerns.

Safety Stop **Compressed Gas Safety**

Parkland has many compressed gas cylinders stored inside the hospital. These cylinders may contain medical oxygen, nitrogen, helium, carbon dioxide, nitrous oxide, acetylene or other dangerous gases. These compressed gas cylinders are essential for patient care, however they can also be a great safety hazard if not handled and stored correctly.

Compressed gas cylinders can have great internal pressures and leaks may occur, often with great force. Leaks may be difficult to detect because they often cannot be seen or smelled. These gases are most often flammable and create an unacceptable fire hazard within the hospital. These cylinders may also become a "missile" if knocked over and the top valve is sheared off. (Similar to blowing up a balloon and letting it go).

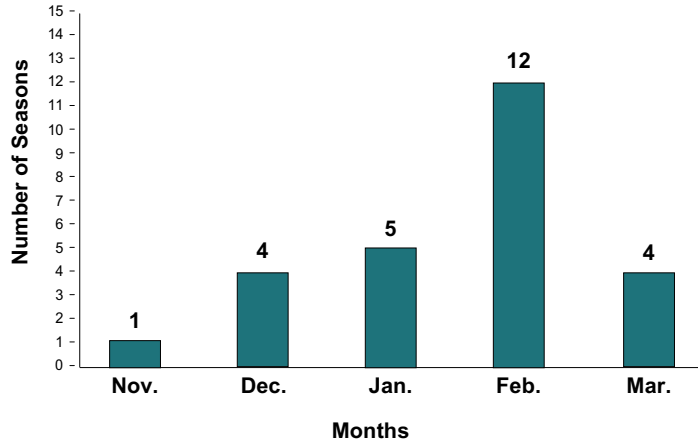
Due to all these risks from compressed gas cylinders the National Fire Protection Agency (NFPA) and the Joint Commission limit the number of cylinders stored in individual hospital smoke compartments and dictate very specific storage requirements.

- Cylinders must be stored vertically and secured in racks or by chains.
- Cylinders should be stored away from sources of heat and electricity.
- Never store compressed gas where it might prevent emergency egress, i.e. near patient room door, etc.
- Cylinders on gurneys, crash carts, etc. are "in use" and not subject to the total count for "in storage."
- Cylinders in a rack are "in storage."
- Empty cylinders are not considered part of "in use" or "in storage."
- Empty and full cylinders must be segregated and labeled "full" or "empty."
- Acetylene gas cylinders, often used by contractors and the Facility Support Division for brazing and welding, must not be stored inside the hospital when not in use.
- A total of up to 300 ft.³ of oxygen may be stored per smoke compartment in any room or alcove without special requirements for that room. One E-size oxygen cylinder = 24.96 ft.³. Twelve E-size cylinders = 299.52 ft.³, therefore, up to 12 E-size cylinders may be stored in any smoke compartment without special requirements for the room.
- One M-size cylinders = 250 ft.³, therefore, one M-size and two E-size cylinders may be stored in any smoke compartment without special requirements for the room.

For questions concerning compressed gas safety, call Ed Best, Director of Respiratory Care at ext. 25180.



**Peak Month of Influenza Activity
Over the Previous 26 Seasons
1982-83 through 2007-2008**



In the Northern hemisphere, winter is the time for flu, but the timing and duration of flu seasons vary. While flu outbreaks can happen as early as October, influenza activity usually peaks in January or later. During the past 26 flu seasons, the months with the heaviest flu activity (peak months) occurred in November one season, December four seasons, January five seasons, February 12 seasons and March four seasons.

How the Flu Virus Can Change: 'Drift' and 'Shift'

Influenza viruses can change in two different ways. One is called "antigenic drift." These are small changes in the virus that happen continually over time. Antigenic drift produces new virus strains that may not be recognized by the body's immune system. This process works as follows: a person infected with a particular flu virus strain develops an antibody against that virus. As newer virus strains appear, the antibodies against the older strains no longer recognize the "newer" virus and re-infection can occur. This is one of the main reasons why people can get the flu more than one time. In most years, one or two of the three virus strains in the influenza vaccine are updated to keep up with the changes in the circulating flu viruses. So, people who want to be protected from flu need to get a flu shot every year.

The other type of change is called "antigenic shift." Antigenic shift is an abrupt, major change in the influenza A viruses, resulting in new hemagglutinin and/or new hemagglutinin and neuraminidase proteins in influenza viruses that infect humans. Shift results in a new influenza A subtype or a virus with a hemagglutinin or a hemagglutinin and neuraminidase combination that has emerged from an animal population that is so different from the same subtype in humans that most people do not have immunity to the new (e.g. novel) virus. Such a "shift" occurred in the spring of 2009, when a new H1N1 virus with a new combination of genes emerged to infect people and quickly spread, causing a pandemic. When shift happens, most people have little or no protection against the new virus. While influenza viruses are changing by antigenic drift all the time, antigenic shift happens only occasionally. Type A viruses undergo both kinds of changes; influenza type B viruses change only by the more gradual process of antigenic drift.

Centers for Disease Control and Prevention 1600 Clifton Rd. Atlanta, GA 30333, USA
800.CDC.INFO (800.232.4636) TTY: 888.232.6348, 24 Hours/Every Day - cdcinfo@cdc.gov

The P&T Committee has recently made the following decisions regarding the Formulary



Patient Education Update When is T Time?

When the T stands for Teaching, T should be served 24/7. For example:

- At admission, when teaching the patient when and how to call help.
- To orient the patient to hospital routines, responsibilities (ours and theirs) and rules.
- Any time a test or procedure is to be done.
- Every time a medicine is given.
- Any time a diagnosis is made or changed.
- Any time there are questions, worries, uncertainties.
- About safety initiatives- the patient should insist that all health care professionals wash their hands and use two patient identifiers. Surgical patients should expect the surgical site to be marked and a time out to be called. Take the opportunity to teach about medication reconciliation (and why we check so often) as well as fall and pressure ulcer prevention.
- When the patient is in pain, gets pain medicine and other pain relieving interventions, and has pain reevaluated.
- Signs and symptoms that should be reported right away.
- Diet modifications.
- Activity expectations or limitations.
- Follow-up and contact information.
- Home care instructions, including meds, treatment and equipment.

So, if you really stop to think about it, it's always T time. Use it every minute.

CAFFEINE CITRATE (ORAL AND IV)

Formulary addition - For treatment and prophylaxis of apnea of prematurity (AOP)

FERROUS SULFATE DROPS (OTC)

Formulary addition with restriction - Currently only available for inpatient use. Ferrous Sulfate drops will now be available for outpatient dispensing for infants.

TELMISARTAN (MICARDIS®)

Formulary addition with restriction - Losartan will remain the first line angiotensin receptor blocker (ARB). Telmisartan is restricted to cases when losartan would require dosing greater than once daily.

TELMISARTAN/HCTZ (MICARDIS® HCT)

Formulary addition with restriction - Losartan will remain the first line angiotensin receptor blocker (ARB). Telmisartan is restricted to cases when losartan would require dosing greater than once daily.

Autoconversion from Olmesartan to Telmisartan

Olmesartan	TO	Telmisartan
5mg		20mg
20mg		40mg
40mg		80mg
20/12.5mg		40/12.5mg
40/12.5mg		80/12.5mg
40/25mg		80/25mg

OLMESARTAN

Formulary deletion

OLMESARTAN/HCTZ

Formulary Deletion

DEXRAZOXANE (TOTECT®)

Tabled

EDIT TO ONCOLOGY DRUGS IN EPIC

Remove prompt that requests "Faculty Name and ID#" when ordering: Docetaxel, Paclitaxel, Etoposide, Topotecan, Vinorelbine

OMISSION OF HIPAA SENSITIVE INDICATIONS FROM PHARMACY LABEL FOR EPIC GENERATED OUTPATIENT PRESCRIPTIONS

Infectious Diseases and Sexually Transmitted Diseases

- Human Immunodeficiency Virus (HIV)
- Chlamydia
- Condyloma
- Genital Warts
- Gonorrhea
- Herpes
- Syphilis
- Trichomoniasis

Psychiatric Disorders

- Depression
- Bipolar Disorder
- Schizophrenia
- Sexual Assault

*Pharmacists are encouraged to use their professional judgment if an indication not specifically listed above is deemed to be sensitive and is felt it should not be typed onto a prescription label. The pharmacist is to contact the provider who ordered the prescription and ask if they intended the indication to appear on the typed prescription label attached to the patient's bottle.

HAEMOPHILUS B CONJUGATE VACCINE (HIBERIX®)

Formulary addition for use in children 15 months to 4 years of age

ROTAVIRUS VACCINE, LIVE (ROTARIX®) - Formulary addition

LINES EXTENSIONS - Formulary Addition

- Ascorbic Acid 250 mg
- Aspirin 162 mg
- Calcium Carbonate 500 mg Chewable Tablet
- Dexamethasone 1 mg
- Dexamethasone 2 mg
- Gabapentin 300 mg
- Hydrochlorothiazide 12.5 mg
- Hydromorphone (PF) 1 mg/ml injection
- Lisinopril 2.5 mg tablets
- Metoclopramide 5 mg tablets
- Sertraline 25 mg

INTRATHECAL BACLOFEN - Restriction change

Criteria for Use:

- 1) A diagnosis of severe chronic spasticity from spinal cord or cerebral injury/pathology.
- 2) Spasticity that was refractory to oral baclofen or the patient experienced intolerable side effects.
- 3) Spasticity is stabilized since time of the incident.
- 4) Demonstration of an adequate response to baclofen IT screening trial of no greater than 100 mcg.
- 5) Page PM&R SCI fellow (see directory) for any issues if patient is hospitalized.

Managing physicians: Dr. Gul, Benjamin Nyugen, MD; Brian Bruel, MD; Ankit Patel, MD; Anjali Shah, MD; Rita Fulmer, NP; Patricia Krohn, NP

Implanters: Tony Whitworth, MD; Kevin Morrill, MD; Brian Bruel, MD; Dr. Bolesta

GUIDELINES FOR SEASONAL AND PANDEMIC INFLUENZA 2009 – 2010

Restriction for 2009 – 2010

Treatment with oseltamivir is restricted to patients who are at high risk for complications from the flu who have mild or severe symptoms regardless of the rapid flu test result. High risk groups include:

- Children < 2 years old NEW ADDITION to Restriction
- Patients < 19 years old on long-term aspirin therapy
- Adults and children with chronic pulmonary, cardiovascular, hepatic, hematological, neurologic, neuromuscular, or metabolic disorders
- Immunosuppressed adults and children
- Pregnant women
- Adults > 65 years old
- Residents of nursing homes or other chronic care facilities
- Employees with flu-like illness NEW ADDITION to Restriction

Treatment, when indicated, should be started within 48 hours of illness onset. Prophylaxis is restricted to patients at high risk for influenza-related complications who have had close contact with someone likely to be infected or health care workers with direct unprotected exposure to a person with known or suspected influenza.

**Providers will write a note on prescription regarding how the patient meets the high risk category

The online Parkland Drug Formulary can be found at <http://www.crlonline.com>

Target date for implementation: Dec. 17

Respiratory Tidings How to Change the Regulator on an Oxygen E-Cylinder

The following general safety precautions should be taken to avoid explosions, tank ruptures and fires from oxygen regulators.

- Always "crack" cylinder valves (open the valve just enough to allow gas to escape for a very short time) before attaching regulators in order to expel foreign matter from the outlet port of the valve.
- Always follow the regulator manufacturer's instructions for attaching the regulator to an oxygen cylinder.
- Always inspect the regulator and CGA



870 seal (pictured left) before attaching it to the valve to ensure that the regulator is equipped with only one clean, sealing-type washer.

- o A new crush-type gasket can



be used (single use, not reusable, typically Nylon® as pictured right) that is in good condition.

- Always use the sealing gasket specified by the regulator manufacturer (CGA 870 Sealing or new nylon gasket).
- Always be certain the valve, regulator and gasket are free from oil or grease. Oil or grease contamination is widely known to contribute to ignition in oxygen systems.
- Tighten the T-handle firmly by hand, but do not use wrenches or other hand tools that may over-torque the handle.

Pressure manometer (New 2200 PSI and replace at 500 PSI)



- Open the post valve slowly. If gas escapes at the juncture of the regulator and valve, quickly close the valve. Verify the regulator is properly attached and the gasket is properly placed and in good condition.

Med Surg Memos

Reduce Central Line Infections

Central venous catheters (CVCs) are widely used in a variety of inpatient and outpatient health care environments. Because of the common use of CVCs, patients are at risk for catheter-related bloodstream infections. Each time the system is accessed, the risk of bacterial contamination increases, putting the patient at-risk for local and systemic diseases such as septicemia. According to Hu, Veenstra, Lipsky and Saint (as cited in Brungs & Render, 2009), catheter-related infections “contribute to 2,400-20,000 deaths per year, with an estimated cost of \$296 million to \$2.30 billion.” However, infections originating from CVC use can be reduced dramatically when nurses act by applying strict hand hygiene, using evidence-based preparatory agents to cleans the skin (i.e., chlorhexidine gluconate) and taking maximal barrier precautions.

Due to catheter-related bloodstream infections’ impact on patient’s health and quality of life, it is important for nurses to be aware of certain patient populations are at greater risk for untoward events. Patients at particular risk for infections are those with the following conditions or settings:

- Hematological disorders
- Malignant diseases
- Chronic endocrine disorders (e.g., Diabetes Mellitus)
- Chronic autoimmune diseases (e.g., Systemic Lupus Erythromatosus)
- Immuno-suppressing agents and treatments
- Individuals at-risk for immunodeficiency (e.g., HIV)
- Intensive care unit environments (e.g., Burn ICU, MICU, SICU)
- Infusion centers

Evidence-based findings support the following recommendations for CVC infection prevention:

- Prepare the patients’ skin with chlorhexidine.
- Avoid femoral line placement, if possible.
- Consider using specialized “IV teams” for the care of central lines.
- Use transparent or gauze dressings over the insertion site.
- Remove the line as soon as possible after intended use.
- Change the needleless system device and end cap on a routine basis according to the manufacturers’ guidelines.
- Consider using a sutureless securement device.
- Adhere strictly to catheter care policies when accessing the line.

Remember, good hand washing is essential to prevention the spread of infections.

References: Brungs & Render (2009). *Using evidence-based practice to reduce central line infections. Clinical Journal of Oncology Nursing, 10, 6, 723-725.*