

Clinical Care Connection



Parkland

Connecting Parkland's clinical staff with the latest information and patient care updates February 2010

Specimen labeling and the ID mix up

Blood is received in the lab and a requisition is present. But there is no label on the tube of blood. Whose blood is it? Blood is received in the lab with a label for patient A. The requisition is for patient B. Whose blood is it?

Unfortunately mysteries such as these aren't uncommon in the Parkland Central Laboratory. Sometimes the mystery can be solved, but more often the specimens are discarded and the specimens must be re-drawn. This means additional pain for the patient or an additional clinic visit for the outpatient and possible delays in recognition and treatment of critical values. It happens, but that doesn't mean it should.



The seemingly simple process of drawing and labeling specimens is often fraught with complications. Many things can interfere with this process causing a label to be forgotten or the wrong label to be applied: Units are busy, there are many specimens to be collected at the same time, many patients share similar names, staff is not accustomed to labeling and bagging specimens at the bedside and instead brings multiple samples to the nurses' station or several patient labels print out together. All of these factors contribute to mislabeling, and it ends up being more work when the specimens are mislabeled and have to be re-drawn.

Improving the accuracy of patient identification has been a National Patient Safety Goal since 2003. Even so, many institutions, including Parkland, struggle with achieving the goal of 100 percent compliance. As the chart on page 2 shows, we have made some improvement with identification and specimens labeling, but still have a long way to go. One way to achieve a zero error rate is to follow best practice guidelines as described on page 2. These guidelines have been proven to be effective from organizations that go months without errors related to patient identification.

(continued on page 2)

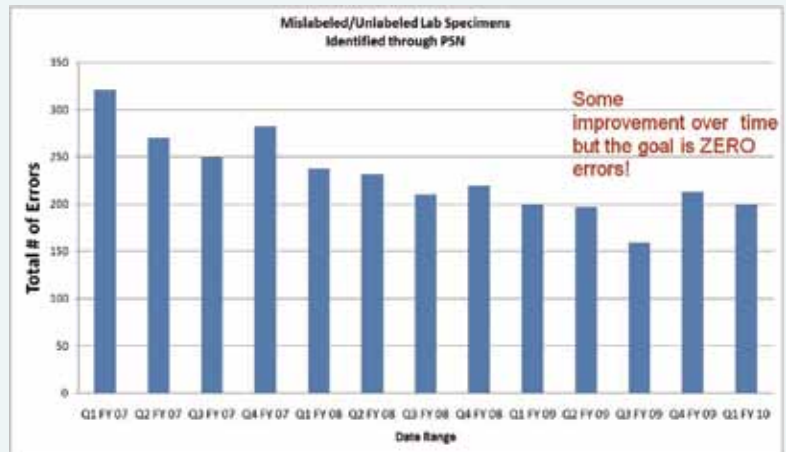
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Follow these best practice recommendations:

- Gather all supplies needed before entering the patient room (labels, requisition, tubes, etc.).
- Identify the patient prior to collecting the sample, matching the patient ID (by asking their name/DOB/MRN) to the requisition and labels. Use the armband if the patient is unable to communicate.
- Draw the specimen.
- Label the specimen container while still at the bedside with the patient, once again confirming ID.
- Place the specimen in a biohazard bag with the requisition, once again confirming patient ID match.
- Seal the bag at the bedside and take to the location to send to the lab (The risk of mixing patient specimens and requisitions is less if sealed at the bedside).



Discuss with your co-workers and unit manager your process for obtaining specimens and steps you can take to reduce the risk of mislabeled, unlabeled and mismatched specimens. In each unit the process may be slightly different due to unit layout and the type of staff collecting the samples. That is okay, the best practice guidelines remain the same.

PSN now has the opportunity for reporters to add their suggestions/recommendations for improvement at the end of the report. If you have ideas, please share them with your manager and Patient Safety & Risk via this section of the PSN report. Find a way to improve your specimen collection process and make your goal zero.

Patient Safety & Risk will continue to monitor all patient identification issues and can provide feedback on trends. Call Patient Safety & Risk for questions at ext. 21780.

Med Surg Memos Dealing with Difficult People

Do you ever want to scream, "stop being so difficult!" Dealing with difficult people and maintaining ongoing negative relationships is actually detrimental to our health. It's a good idea to diminish or eliminate relationships that are filled with conflict. But what do you do if the person in question is a co-worker or someone you otherwise can't eliminate from your life?

Be Sharp

The Sharps Fair will be from 7 a.m. to 7 p.m., Feb. 5 in the MacGregor W. Day Auditorium. They will be evaluating free needles, safety scalpels, retractable needles and syringe/needle combinations.



1. Avoid discussing divisive and personal issues like religion and politics or other issues that tend to cause conflict. If the other person tries to engage you in a discussion that will probably become an argument, change the subject or leave the room.
2. In dealing with difficult people, don't try to change the other person; you will only get into a power struggle, cause defensiveness and invite criticism. It also makes you a more difficult person to deal with.
3. Change your response to the other person; this is all you have the power to change.
4. Remember that most relationship difficulties are due to a dynamic between two people rather than one person being unilaterally "bad."
5. Try to look for the positive aspects of co-workers and focus on them. The other person will feel more appreciated and you will likely enjoy your time working more.
6. Know when it's time to distance yourself, and do so. If the other person can't be around you without antagonizing you, minimizing contact may be key. If they're continually abusive, discuss it with your supervisor or HR representative if necessary.

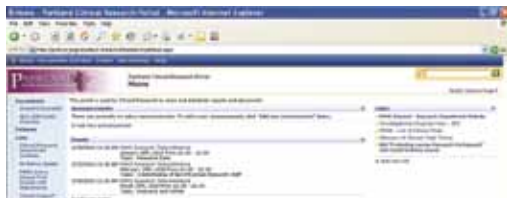
TIPS:

1. Try not to place blame on yourself or the other person for the negative interactions. It may just be a case of two personalities fitting poorly.
2. Remember that you don't have to be close with everyone; just being polite goes a long way toward getting along and appropriately dealing with difficult people.
3. Work to maintain a sense of humor - difficulties will roll off your back much more easily.
4. Be sure to cultivate other more positive relationships to offset the negativity of dealing with difficult people.

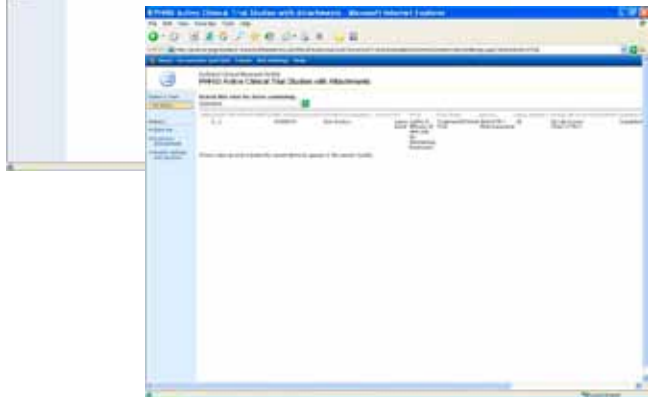
Research Matters

Parkland New Clinical Trial Details Available in SharePoint

It's here – details of all 2009 active clinical study trials involving treatment are available in SharePoint.



Go to Departments>Research>Research SharePoint. Click "PHHS Active Clinical Trial Studies With Attachments." A spreadsheet will open. Type in the IRB number of the clinical trial study in upper right search box and then click the bar for the study information.



Study documents are located at the bottom of the page. Click on the document to view them.

Document details for all active clinical trial studies involving treatment will continue to be loaded in Research SharePoint. If you have questions or comments, e-mail us at researchdepartmentparkland@parknet.pmh.org.

PM&R Therapy Tidbits

The staff of Physical Medicine & Rehabilitation is excited to announce that they will be going live with EMR documentation on Feb. 16. All EPIC users will soon be able to view therapy documentation including the therapist's plan, patient progress and recommendation for treatment. Look for more information coming soon.

Critical Care Vital Signs

New Cardiac Test to Predict Heart Failure and Death?

A new blood test seems to correlate with increased incidence of heart failure and cardiovascular death in patients previously thought to be at low risk. A recent study published in the *New England Journal of Medicine* indicates that a more sensitive assay to measure troponin T levels may help in detecting low levels of chronic heart injury. This more sensitive test is able to record troponin T levels from 0.001-0.025. The study showed that in patients with stable coronary artery disease that had an increase in low level troponin T, there was an increased incidence of heart failure and death. This test however was not predictive of myocardial infarctions. There are many other variables to consider before routine testing for lower troponin T level is recommended but this test shows promise.

References

Omland, T, de Lemos, J, Sabatine, M, et al. A Sensitive Cardiac Troponin T Assay in Stable Coronary Artery Disease. *N Engl J Med* 2009;361:2538-2547

Leadership Lingo

What Was I Thinking?

By: Karen Perkins, Unit Manager, SICU

Those of us who have chosen the path of management have asked ourselves, at one time or another, "what was I thinking?" We are routinely asked, usually by close friends and family, "what were you thinking?" and on a daily basis our staff want to know, "what are you thinking?"

I admit to asking myself the question but it only takes a walk through the unit to answer the question. I see patients and families who did not choose to be here that need our compassion, skills and knowledge. I see nurses who have answered a call to a profession that, though admirable, can hardly be described as glamorous. Still, they show up every day giving 100 percent to their patients and families.

However, I also see their frustration when processes are lacking. I want to be a part of the solution to those lacking processes. When they want and need to be heard, I want to help be their voice. It seems way too simplistic but simply stated, I want to make a positive difference for the nurses, the patients, the families and the hospital.



Continual Readiness

Be Prepared for Joint Commission

We're glad the holiday hustle is over and we are able to "chill" into 2010. But don't relax just yet, we expect Joint Commission at any time and we want to demonstrate continual readiness pride in meeting the standards. Here are the top 10 standards to remember in preparation for the unannounced Joint Commission survey:

For all clinical staff:

1. Check two patient identifiers
2. Document your hand-off communications
3. Time and date all entries (paper record)

For all direct patient care staff:

4. Restraint and seclusion
 - Get the initial order
 - Monitor the patient (at least every two hours)
 - Renew the order per policy
5. Pain assessment/reassessment
6. Document the patient's pain assessment
 - Reassess pain at least every shift and after pain medication is administered.
7. Patient care plan
 - Document all the patient's diagnoses (not just the one you are caring for).
 - o Medical, surgical and mental health
 - Review and revise the care plan if the goal is met.
 - Don't forget documentation by the whole care team (like Respiratory, PT/OT/Speech).
8. Patient education
 - Document education given to the patient and document the patient's understanding of the education.
9. Medication management
 - Know the "High alert medications."
 - Know the "Sound alike and look alike medications" (SALAD) located at <http://intranet.pmh.org/Home/PP-Index/Pharmacy/D-023A.pdf>.
 - Do not leave any medications or medication room keys unattended. Meds must be secured at all times.
 - Label the medications used both perioperatively and in other procedural settings both on and off the sterile field. Label each medication or solution as soon as it is prepared, unless it is immediately administered.
10. All hospital staff should wash their hands
 - Wash your hands for 15 seconds or while singing one verse of the song "Happy Birthday."

Nursing Informatics

Exciting Month in EPIC

March will be an exciting month in EPIC. There will be additional electronic documentation for the inpatient nurses as well as for several Allied Health departments. Additional HOD areas will be online.

Beginning March 24, the paper Patient Admission History, Screen and Assessment form will be a thing of the past. Nursing Assessments will be done in EPIC as well as Nurses notes. E-learning will be available on LMS approximately three weeks before that date, so start looking for additional information in March.

Several Allied Health departments will begin additional documentation in EPIC at that time. This will include new flowsheets and navigators depending on the department's need.

Safety Stop **Don't Slip Up**

Slips, trip and falls (STFs) are more prevalent among health care workers than in other industries. In 2007, the Bureau of Labor Statistics reported that the incidence rate of lost workday injuries from STFs (falls on the same level) in hospitals was 35.2 per 10,000 full time equivalents (FTEs). This was 75 percent greater than the average rate for all other private industries which is just 20.2 per 10,000 FTEs.

Matters in a hospital are often more hectic and confusing. The chances of an STF are increased. In 2009, Parkland employees reported a total of 201 injury causing STFs, an average of almost 17 per month.

Employee awareness of STF risks is an important accident and injury prevention measure. Clinical areas also may present many STF risks.

Cords and cables

- Make sure electrical cords don't extend across the walking path.
- Cords should be covered or stored safely away from walking areas.
- Use engineering controls like the "Cord Caddie" or Velcro bundle ties to keep cords tidy (available through Clinical Engineering).

Low profile equipment and supplies

- Keep monitors and equipment out of the way.
- Watch out for step stools, buckets, equipment stands, boxes of supplies and equipment.
- Make sure lighting levels are adequate.

Floor Mats

- In areas like the OR, make sure floor mats are slip resistant.
- Replace them when they become saturated.
- Make sure spills are wiped away quickly.

UAP Exclusive

Heat and Cold Applications

Heat and cold applications promote healing and comfort as well as reduce tissue swelling. A doctor's order must be issued in order to perform these applications. The information that is needed before application will be what type of application, the location of the application and the correct temperature. If equipment is to be used then knowledge of operation will be necessary.

Heat can be applied to most body parts. Most often it is used for musculoskeletal injuries. Common problems are sprains and arthritis. When heat is applied the following outcomes are anticipated: pain relief, muscle relaxation, promotion of healing, reduction of swelling and decreased joint stiffness. The response that occurs within the area is dilation of blood vessels and increased blood flow to the area. Tissues will receive more oxygen and nutrients for healing. Also excess fluid is removed from the area faster. The skin will appear pink-red in color and warm to the touch. Be aware that high temperatures can cause burns so frequent observation of the area is necessary. Both moist and dry heat are used for this type of therapy. Moist heat has a greater and faster effect than dry heat and penetrates deeper.

Cold applications are used to treat sprains and fractures, reduce pain, prevent swelling, decrease circulation and bleeding and cool the body when fever is present. As expected cold applications have the opposite response from warm applications – blood vessels constrict resulting in decreased blood flow and less oxygen and nutrients are carried to the tissues. Cold applications are useful right after an injury resulting in a reduction in pain, less swelling to the area and decreased bleeding. Complications can also occur from cold applications if the temperature is too low or kept in direct contact with the skin too long. Once again cold applications may be moist or dry with moist being more penetrating.

Either type of application should never be left in place for more than 15 to 20 minutes. Monitor the skin for complications every five minutes. Cover dry heat and cold application with a sheet or towel before applying them.



*The Safety
Department would
like to remind you
"Safety Depends on
You."*



Parkland adopted the SCIP process measures in 2005 and great strides have been made to ascertain compliance.

Performance Improvement **Why SCIP?**

There are more than 42 million operations performed in the United States each year and approximately 40 percent of those have resulted in postoperative complications (UAB Synopsis, Volume 27 No.45, Dec. 8, 2008). Unfortunately many of these complications have resulted in preventable deaths. These alarming statistics have resulted in the development of the Surgical Care Improvement Project (SCIP).

SCIP is a national campaign and partnership of leading public and private health care organizations aimed at substantially reducing surgical mortality and morbidity through collaborative efforts. The primary goal of SCIP is to lower the incidence of surgical complications by 25 percent by 2010.

The focus for SCIP has been established by evidence-based process measures. Parkland adopted the SCIP process measures in 2005 and great strides have been made to ascertain compliance. The list

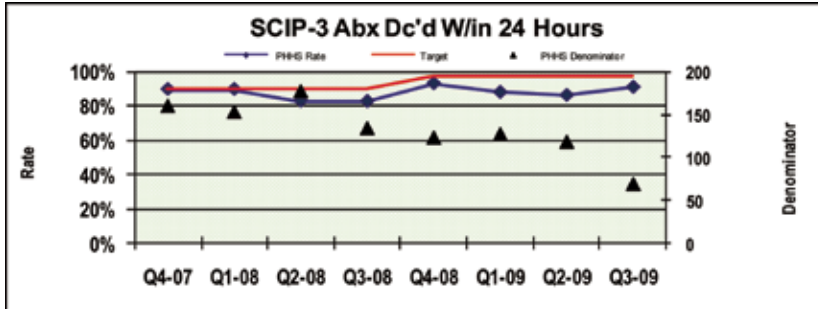
RATING SYSTEM FOR THE LEVEL OF EVIDENCE (DESCENDING ORDER)

| | |
|-----------------------------|---|
| SCIP Inf 1a | Prophylactic antibiotic received within one hour prior to surgical incision - overall rate |
| SCIP Inf 2a | Prophylactic antibiotic selection for surgical patients - overall rate |
| SCIP Inf 3a | Prophylactic antibiotics discontinued within 24 hours after surgery end time - overall rate |
| SCIP Inf 6 | Surgery patients with appropriate hair removal |
| SCIP Inf 7 (Retired) | Colorectal surgery patients with immediate postoperative normothermia |
| SCIP Inf 9 (New) | Urinary catheter removed on postoperative day 1 (POD 1) or postoperative day 2 (POD 2) with day of surgery being day zero |
| SCIP Inf 10 (New) | Surgery patients with perioperative temperature management |
| SCIP Card 2 | Surgery patients on beta-blocker therapy prior to arrival who received a beta-blocker during the perioperative period |
| SCIP VTE 1 | Surgery patients with recommended venous thromboembolism prophylaxis ordered |
| SCIP VTE 2 | Surgery patients who received appropriate venous thromboembolism prophylaxis within 24 hours prior to surgery to 24 hours after surgery |

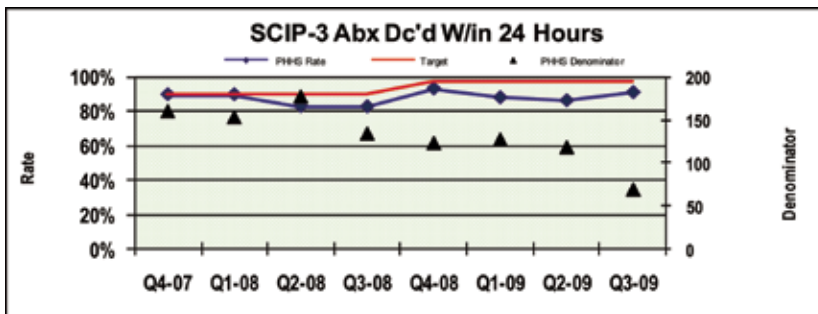
below includes the 2010 SCIP process and outcome measures.

Nursing Implications

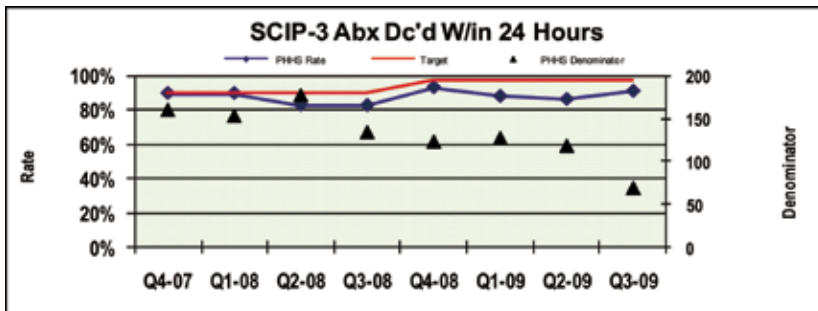
Nurses have a significant role in assisting with adhering to the SCIP process measures. SCIP Inf 3a, SCIP Inf 6, SCIP Inf 9 and SCIP VTE 1 are the measures that are impacted by nursing practice and nursing documentation. The graphs below reflect Parkland's performance for 2009 that are impacted by nurses.



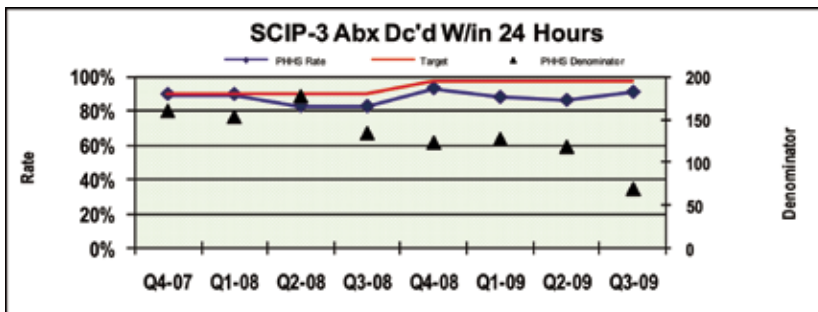
Continuous collaboration between nurses and surgeons is necessary to remain on target.



Several adjustments to EPIC are under way to address documentation issues within the EPIC system.



The removal of razors in all ORs and accurate documentation led to 100 percent compliance.



Ensure SCDs are on the patient at all times.



One of the most important roles of nurses is that of patient advocate, reflecting their ability to protect the interests of patients who cannot represent themselves because of illness or inadequate health knowledge.

Patient Education Update

Your Role as a Patient Advocate

Here's an excerpt from a relatively old article – 2004 – but what is striking on reading it is how germane and on-point it remains in 2010. It's an excellent reminder of the enormity of the influence health care professionals wield in the quality-of-life of our patients.

"The sight is so familiar. A newly-admitted patient is surrounded by shocked and confused family members, all of them attempting to cope with the impact of his new diagnosis. It could be diabetes mellitus, stroke or TB infection. He may have fallen and family members question his ability to recover from a hip fracture. Or it may be surgery for colon cancer that triggers the feelings of fear and uncertainty. Whatever the circumstances, the chances of his return to a quality life rest to a great extent on the teaching skills of his nurses. In fact, 'patient education is now considered central to achieving effective outcomes for patients' and is often recognized in state practice acts as a legal responsibility of nurses (Habel, 2003).

"One of the most important roles of nurses is that of patient advocate, reflecting their ability to protect the interests of patients who cannot represent themselves because of illness or inadequate health knowledge (Center for Nursing Advocacy, 2004). Inherent in the role of advocate, then, is the role of teacher, and there's a place for patient education in virtually every aspect of nursing care. Some nurses serve exclusively as educators for special groups such as patients with diabetes or breast cancer. However, the nurse at the bedside in the medical-surgical setting is often the one whose bond with the patient leads him to feel comfortable in asking about his health experience. If that nurse is you, do you feel capable of providing the information the patient needs? Are you a truly excellent teacher who anticipates questions and provides information as a sort of preventative for patient anxiety?"¹

The Texas State Board of Nursing is very clear about nurse accountability in patient education: "Professional nursing involves:

*A. the observation, assessment, intervention, evaluation, rehabilitation, care and counsel or health teachings of a person who is ill, injured, infirm or experiencing a change in normal health processes."*²

So, when you take the time during your demanding day to teach your patient, never forget you're in the business of helping build better, healthier, happier lives.

References

1. *Advocacy through patient teaching. MedSurg Nursing, Dec, 2004 by Dottie Roberts. http://findarticles.com/p/articles/mi_m0FSSI/is_6_13/ai_n17208025/*
2. *Nursing Practice Act, Nursing Peer Review, Nurse Licensure Compact, & Advanced Practice Registered Nurse Compact. Texas Occupations Code and Rules Regulating the Practice of Nursing Effective September 2009. Sec. 301.002. Definitions.*

Laboratory Scope

Parkland's Obstetrics and Pathology Departments Prepare for Greyson's Law

Gov. Rick Perry signed House Bill 1795 into law on June 19, 2009. It expands the state's genetic screening program for newborns and was named after Greyson Morris, who passed away six days before his first birthday due to Krabbe's disease. Greyson's Law will expand newborn screen testing from 29 disorders to 49, which will allow for interventions that may save the lives of infants with these diseases.

Another piece of legislation was added to Greyson's Law that will directly impact both OB practices and lab operations statewide regarding HIV testing. Previously, all OB patients were screened for HIV during the first trimester and at delivery at Parkland; this has changed to testing during the first trimester and at 32 weeks gestation.

The only patients tested for HIV at delivery will be patients without the 32 week result, and the lab must have their HIV antibody results available to their clinicians within six hours of submission of the samples to allow for timely administration of prophylaxis.

Greyson's Law went into effect on Jan. 1, and both the OB service and Pathology have made many changes to meet this state mandate. OB services has the 32-week testing protocol established and the Immunology lab has expanded their hours of operation for HIV 1 and 2 antibody testing to meet the required turnaround time.

House Bill 1795 expands the state's genetic screening program for newborns.

Outpatient Observations

Evidence Based Practice

Part 3 of 3

In the December 2009 issue we defined evidence based practice. It 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). In addition, we focused on formulating a researchable question. Last month, we discussed searching the databases for clinically significant evidence and rating the level of evidence. In this issue, we will look at critically appraising these research findings.

When the appropriate articles and reviews have been identified, it is important to A) judge the credibility of the findings, and B) outline the content to see what the researcher actually did.

Judging Credibility

It's helpful to create a checklist to include the following:

- Author's credentials (are they qualified?)
- Title of the work
- Purpose
- Research method
- Look for major flaws (small sample, insufficient data to answer question, data collection unreliable, confusing links by author, results too good to be true)
- Findings
- Major ideas
- Peer reviewed
- Assign an overall rating – how strong is the evidence?

Detail of Study Content

To assess the study content it's important to address the following questions:

- What did the researcher do?
- Did what the researcher say was going to happen really happen?
- Did differences between groups occur that might have had an unplanned effect?
- Do the findings fit with your evidence need?

Finally, the process of implementing new practice guidelines is critical to its success. An assessment of the clinical environment needs to be performed. Planning for the change should include the identification all stakeholders, education, staffing, equipment, supplies and other resources needed. Potential barriers to change must be considered. In addition, a timeline for all activities should be developed and critiqued by participants.

References

Hockenberry, M, Wilson D., & Barrera, P. (2006). *Implementing evidence-based nursing practice in a pediatric hospital. Pediatric Nursing, 32(4)*, 371-377. Stetler, C., Brunell, M., Giuliano, K., Morsi, D., Prince, L. & Newel-Stokes. (1998). *Evidence-based practice and the role of nursing leadership. JONA,(28), No.7/8,45-53.*



Shingles is a painful virus that usually starts as a rash on one side of the face or body.

Infection Control

Shingles Disease Q&A

WHAT IS SHINGLES (HERPES ZOSTER)?

Shingles, also called herpes zoster or zoster, is a painful skin rash caused by the varicella zoster virus (VZV). VZV is the same virus that causes chickenpox. After a person recovers from chickenpox, the virus stays in the body. Usually the virus does not cause any problems; however, the virus can reappear years later, causing shingles. Herpes zoster is not caused by the same virus that causes genital herpes, a sexually transmitted disease.

WHAT DOES SHINGLES LOOK LIKE?

Shingles usually starts as a rash on one side of the face or body. The rash starts as blisters that scab after three to five days. The rash usually clears within two to four weeks.

Before the rash develops, there is often pain, itching or tingling in the area where the rash will develop. Other symptoms of shingles can include fever, headache, chills and upset stomach.

ARE THERE ANY LONG-TERM EFFECTS FROM SHINGLES?

Very rarely, shingles can lead to pneumonia, hearing problems, blindness, brain inflammation (encephalitis) or death. For about one person in five, severe pain can continue even after the rash clears up. This pain is called post-herpetic neuralgia. As people get older, they are more likely to develop post-herpetic neuralgia, and it is more likely to be severe.

HOW COMMON IS SHINGLES IN THE UNITED STATES?

In the United States, there are an estimated one million cases of shingles each year.

WHO GETS SHINGLES?

Anyone who has recovered from chickenpox may develop shingles, including children. However, shingles most commonly occurs in people ages 50 and older. People who have medical conditions that keep the immune system from working properly, like cancer, leukemia, lymphoma and human immunodeficiency virus (HIV) or people who receive immunosuppressive drugs such as steroids and drugs given after organ transplantation are also at greater risk to get shingles.

HOW OFTEN CAN A PERSON GET SHINGLES?

Most commonly, a person has only one episode of shingles in his/her lifetime. Although rare, a second or even third case of shingles can occur.

CAN SHINGLES BE SPREAD TO OTHERS?

The virus that causes shingles, VZV, can be spread from a person with active shingles to a person who has never had chickenpox through direct contact with the rash. The person exposed would develop chickenpox, not shingles. A person with shingles can spread the disease when the rash is in the blister-phase. Once the rash has developed crusts, the person is no longer contagious. A person is not infectious before blisters appear or with post-herpetic neuralgia (pain after the rash is gone).

WHAT CAN BE DONE TO PREVENT THE SPREAD OF SHINGLES?

The risk of spreading shingles is low if the rash is covered. People with shingles should keep the rash covered, not touch or scratch the rash and wash their hands often.

Parkland Infection Control policy IC 3-43 under the heading Zoster (varicella-zoster) mandates isolation precautions for patients with shingles. Localized (one dermatome) lesions call for standard precautions. Localized lesions in an immunocompromised patient frequently progress from localized to disseminated. Watch them carefully. If they progress, you must place them in airborne and contact isolation. Patients with disseminated (more than one dermatome) must be in airborne and contact isolation regardless of their immune status.

IS THERE A TREATMENT FOR SHINGLES?

Several medicines (acyclovir (Zovirax), valacyclovir (Valtrex) and famciclovir (Famvir)) are available to treat shingles. These medications should be started as soon as possible after the rash appears and will help lower the duration and severity of the illness. Pain medicine may also help with pain caused by shingles.

The shingles vaccine was recently recommended by the Advisory Committee on Immunization Practices (ACIP) to reduce the risk of shingles and its associated pain in people ages 60 or older.

SHOULD SOME PEOPLE WAIT OR NOT GET THE SHINGLES VACCINE?

A person should not get shingles vaccine who:

- Has ever had a life-threatening allergic reaction to gelatin, the antibiotic neomycin or any other component of the shingles vaccine. Tell your doctor if you have any severe allergies.
- Has a weakened immune system because of:
 - o HIV/AIDS or another disease that affects the immune system.
 - o treatment with drugs that affect the immune system, such as steroids.
 - o cancer treatment such as radiation or chemotherapy.
 - o a history of cancer affecting the bone marrow or lymphatic system, such as leukemia or lymphoma.

Respiratory Tidings

High Frequency Percussive Ventilation

High frequency percussive ventilation (HFPV) is a novel form of mechanical ventilation that incorporates bulk gas movement, similar to conventional ventilators, while superimposing high frequency breaths (> 60 bpm) with tidal volumes of 1- 2 cc/kg. HFPV can be used for patients of all ages and has been shown to recruit partially obstructed airways and aid in ventilation while improving oxygenation in patients with acute respiratory distress syndrome (ARDS). As such, HFPV may be used as a rescue mode of ventilation when conventional ventilation fails to provide adequate oxygenation or lung recruitment for patients suffering from severe ARDS.

HFPV is more commonly used in the burn patient population as first-line treatment for an inhalation injury where its unique ability to mobilize secretions may decrease the incidence of pneumonia and death. Our Burn ICU patients with confirmed inhalation injury are placed on HFPV within one hour of ICU admission. HFPV is combined with frequent suctioning, aerosolized albuterol, heparin and mucomyst in an attempt to prevent mucous build up in the lungs that can result in serious respiratory complications such as atelectasis, mucous plugging, pneumonia and/or cast formation.



Pros of HFPV:

- Improved secretion clearance
- Improved alveolar recruitment
- Improved oxygenation
- Improved ventilation
- Lower airway pressures

Cons of HFPV:

- Requires experienced personnel
- Lack of ventilator based monitoring system
- Difficult patient assessment
- Variable mean airway pressures
- Patient transport is difficult

Pharmacy Forum

Baclofen Intrathecal Pump Infusion Therapy Inpatient Considerations



All staff need to be aware of complications that could occur that are related to the pump and infusion of baclofen.

In the very near future, Parkland will begin implanting baclofen intrathecal pumps in a select group of patients. Pre-assessment work-up will be completed in the 2nd floor PM&R Pain/Ortho/Plastics clinic. But the implantation procedure will be performed in the main Parkland OR. These patients will be admitted post operatively for at least 24 hours for observation. Nursing Education will be notified when a patient is scheduled for this procedure and will coordinate education as the patient transitions through the system.

Baclofen is used in the treatment of reversible spasticity associated with multiple sclerosis or spinal cord lesions. The order for baclofen intrathecal will show up on the MAR. Nursing will not administer or adjust the baclofen. The refilling and rate adjustment will be done by the PM&R provider only. However, all staff needs to be aware of complications that could occur that are related to the pump and infusion of baclofen.

A patient seen in the ED or inpatient unit with complications from intrathecal infusion may exhibit signs and symptoms of:

- **Overdose:** drowsiness, hypotonia, delirium, seizure, respiratory depression (eg. RR<12) or loss of consciousness may progress to coma.
Action: If a patient is drowsy and/or has a respiratory rate <12, hold other sedating medications (e.g. lorazepam, morphine, haloperidol etc.), page the primary team and the PM&R SCI fellow in the directory. The SCI fellow will need to turn off or adjust pump.
- **Withdrawal:** Pruritis without rash, diaphoresis, hyperthermia, hypotension, neurological changes including agitation or confusion, sudden generalized increase in muscle tone, spasticity and muscle rigidity and advanced withdrawal can cause rhabdomyolysis and multi organ failure.
Action: Page the primary team and the PM&R SCI fellow in the directory.
- **Infection at pump or catheter site**
Action: Page the primary team and the PM&R SCI fellow in the directory.
- **Alarming pump:** May be due to misprogrammed pump, end life of pump battery or empty pump
Action: Page the PM&R SCI fellow in the directory.

Page Carol Chamberlain, Pain Specialist Pharmacist, at 214.786.0190 if you have pharmacy questions about baclofen. For education, call your nurse educator.

The Wish List OpTime is Coming

During the month of March, Labor & Delivery will be launching EPIC's version of operating room computerized documentation. The staff in Labor & Delivery has experienced the transition of much of its charting in a step-by-step process from paper to computerized charting with, until now, the exception of surgical documentation. Because of this progressive transition, circulating nurses have been required to bounce back and forth between charting in the computer and on paper, as well as perform their circulating duties.

OpTime will allow circulating nurses to document electronically what they are currently charting on paper, such as equipment used and instrument counts performed during the case. The addition of OpTime will save the circulating nurse time and energy, assist with continuity of documentation, improve communication among the staff and improve patient safety by making patient information readily available as the surgical patient in Labor & Delivery transfers through her operative experience.

The completion of this transition to OpTime for the charting of OR documentation will take Labor & Delivery one step closer to a fully computerized charting system. Labor & Delivery has previously made the transition to computerized charting in the documentation flow sheet, the delivery summary and electronic fetal monitoring (OBIX) and expects the addition of OpTime to be equally successful.

