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AALNC

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The Journal of Legal Nurse Consulting

Purpose

The purpose of the journal is to promote legal nurse consulting within the medical-legal community; to provide both novice and experienced legal nurse consultants (LNCs) with a quality professional publication; and to teach and inform LNCs about clinical practice, current legal issues, and professional development.

Manuscript Submission

The journal accepts original articles, case studies, letters, and research. Query letters are welcomed but not required. Material must be original and never published before. A manuscript should be submitted with the understanding that it is not being sent to any other journal simultaneously. Manuscripts should be addressed to JLNC@aalnc.org.

Manuscript Review Process

Submissions are peer-reviewed by eminent professional LNCs with diverse professional backgrounds. Manuscript assistance can be provided upon request to the editor. Acceptance is based on the quality of the material and its importance to the audience.

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Features

Departments

Seasons

Spring is typically considered the season for regeneration, but for me, autumn is just as invigorating—if not more so. We have been revitalized from a relaxing summer vacation and are ready to return to work. Parents find relief with their children in school again. The long, hot, humid days become shorter, and the cooler, crisp weather changes the trees into a palette of gold, red, and orange. We anticipate the holidays and prepare for the onslaught of winter.

For members of the American Association of Legal Nurse Consulting, the fall season signals a new beginning for many chapters. The calendar on our national Web site reveals a number of regional conferences throughout the next few months. The resuming chapter meetings and educational programs provide time to reconnect with "seasoned" colleagues and meet prospective members.

This issue of the JLNC contains several thought-provoking topics. Jeannette Merrill's article on intrauterine fetal resuscitation identifies the standards of care recommended by three leading professional organizations. Most nurses are certified in adult and/or pediatric cardiopulmonary resuscitation, and some also hold certification in advanced life support or neonatal resuscitation. But a much smaller percentage may be familiar with intrauterine fetal resuscitation. While this article is a thorough primer of key elements required in such a situation, the author reminds us that, as in any specialty, the legal nurse consultant must accept cases within the scope of his or her expertise.

Stories of Oxycontin® abuse and fatalities have sensationalized newspaper headlines and television news reports. Lenora Smith describes the lawsuits brought against the manufacturers of this drug. Like a good mystery novel, you will have to read the article to discover the outcome.

The article on information literacy is the second of the two-part series by Kara DiCecco. Her first article in the previous issue guided the reader through the basics of Internet research. This sequel will assist the researcher in becoming more sophisticated by using a diversity of sources.

Bonnie Faherty, the closing keynote speaker at the AALNC 16th National Educational Conference, was the first to respond to the call for a "Letter to the Editor." Just as she was impassioned in her presentation on breast cancer, so is her letter about medical malpractice and tort reform.

If a patient refuses treatment, having him or her the sign the standard Against Medical Advice form is not sufficient documentation. In the Point of Law column, Mary Ann Shea provides helpful advice to those who find themselves in this precarious circumstance.

Finally, Greater Baltimore chapter members give tips about purchasing computer hardware and software. This is good information for those who are making an initial investment, as well as those who may want to upgrade.

Thanks to all of the authors and staff. Again, I encourage you to keep those articles coming!

Holly Hillman

Holly Hillman, MSN RN
Editor, The Journal of Legal Nurse Consulting

Letter to the Editor

Medical Malpractice and Tort Reform

Bonnie Faherty PhD APRN-BC Cm

Legal nurse consultants (LNCs) have a central role in educating the public by sorting out the myths from the realities in the area of medical malpractice and tort reform. Unfortunately, the dearth of defensible research findings complicates our ability to accurately reflect the state of affairs by citing peer-reviewed sources.

This year, I prepared several lectures about the issues surrounding breast cancer litigation, and my review of the literature has been a real challenge. Most sources are suspect: insurance carriers, trial lawyers' organizations, and, more recently, bloggers have all "published" articles and papers that claim to have the latest and most accurate details. Close reading reveals that many are quoting the same sources and being very selective in their choice of citations, a finding that makes some of the conclusions suspect.

The Agency for Healthcare Research and Quality, a division of the U.S. Department of Health and Human Services, sponsored a study titled "Physician Supply Increases in States with Caps on Malpractice Lawsuit Awards, with the Greatest Impact in Rural Areas." The results of this study were published in the very prestigious journal *Health Affairs* (Encinosa & Hellinger, May 31, 2005, available online at www.healthaffairs.org). The authors found that states with caps on malpractice awards have seen a larger growth in the number of practicing physicians compared with states without a cap. They also looked at collateral sources rule reform, prejudgment interest reform, and caps on punitive damages. While I cannot now find the citation, I do recall reading the results of a study several years ago that found that the total awards in states with caps was larger than in states without caps. The writers guessed that juries believed they should give the maximum amount. While juries were not supposed to be told of the cap, most knew of it independently. I could make arguments for and against caps, but more importantly, I'd appreciate solid research findings to assist advocates and decision-makers in their development of public policy.

An article about the disclosure of medical errors (by L.L. Henry in *Policy, Politics, & Nursing Practice,* Vol 6, Issue 2, 2005), "Disclosure of Medical Errors: Ethical Considerations for the Development of a Facility Policy and Organizational Culture Change," builds on the findings in the Institute of Medicine report: *To Err Is Human: Building a Safer Health System.* The author acknowledges the widely held belief that the tort system is an impediment to medical error disclosure; however, she describes some organizations and systems which have instituted full disclosure systems. She also makes some recommendations for changes that might facilitate an environment more conducive to full disclosure.

On July 29, 2005, President George W. Bush signed legislation creating a national database on medical errors into law (Public Law No: 109-41). Further details are available at www.capitolupdate.org/Newsletter/index.asp?nlid=164&nlaid=618 (American Nurses Association, Capitol Update. Vol 3, Issue 7, August 4, 2005. Accessed August 8, 2005). Disappointing to some is the fact that this bill only encourages *voluntary* report of medical errors.

While continuing our efforts to bring highly ethical and professional services to the area of litigation, we must also work behind the scenes to support techniques and organizations that are pioneering new protocols to achieve the goal we can all agree on: greater patient safety. Perhaps someone we love may one day benefit from such activism.

This commentary was received, unsolicited, by *The Journal of Legal Nurse Consulting* and does not represent the opinions of the publication or the American Association of Legal Nurse Consultants. The JLNC encourages all readers to send feedback. Letters will be included in future issues at the discretion of the Editorial Board. Comments regarding this Letter to the Editor can be directed to the author at bonnie.faherty@csun.edu.

Intrauterine Fetal Resuscitation: Standard Interventions for Non-Reassuring Fetal Status

Jeannette Merrill, MSN CNS BC RNC

KEY WORDS
Fetal, Intrapartum, Neonatal, Pediatric, Resuscitation

Standards for intrauterine fetal resuscitation have been determined by the American College of Obstetricians and Gynecologists (ACOG), the American Academy of Family Physicians (AAFP), and The Association of Women's Health, Obstetric and Neonatal Nursing (AWHONN). Although the three organizations vary slightly in verbiage, the main premises of intrauterine resuscitation are physiologically-based. Most litigation revolving around "bad baby cases" asserts damage occurred during the intrapartal and delivery phase of labor—namely, lack of identification of non-reassuring fetal status and inappropriate or untimely intervention. The legal nurse consultant (LNC) involved in litigation of a damaged baby will be required to review the obstetrical record to ascertain non-reassuring or ominous fetal heart patterns were identified in a timely manner and interventions were employed according to the guidelines of ACOG, AAFP, AWHONN, the community, setting, and practice in same or similar settings.

The American College of Obstetricians and Gynecologists (ACOG), The Association of Women's Health, Obstetric and Neonatal Nursing (AWHONN), and the American Academy of Family Physicians (AAFP) all concur that in the presence of a non-reassuring fetal rate pattern, basic standard interventions are warranted to optimize fetal outcome. The framework for physiologically-based interventions is detailed in publications of these organizations (ACOG, 2002; AWHONN, 2003; AAFP, 2005).

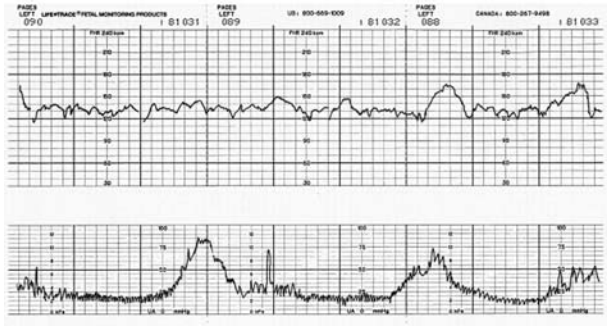
Elements of intrauterine fetal resuscitation are incorporated into the training sessions of AWHONN's Fetal Heart Monitoring Practices and Principles Workshop (AFHMPP) and in AAFP's Advance Life Support in Obstetrics (ALSO) Course. Although the fetus has adaptive mechanisms that allow it to survive in a relatively low-oxygen environment, the mechanisms of labor, delivery, and birth exude tremendous amounts of stress on a fetus by increasing its metabolism and oxygen requirements, even during a relatively low-risk birth. Any additional complication—such as maternal illness, insufficient uteroplacental perfusion, or uterine hyperstimulation—only increases the oxygen and metabolic requirements of the fetus, thus predisposing it to asphyxia.

Key Elements of a Reassuring Fetal Heart Rate Pattern

A reassuring fetal heart rate (FHR) rhythm "is nearly always associated with a newborn who is vigorous at birth" (ACOG, 2002). The components of a fetal heart rhythm that is reassuring include:

- Fetal heart rate baseline between 110-160 beats per minute (bpm);
- A baseline without tachycardia (> 160 bpm for longer than 10 minutes);
- A baseline without bradycardia (< 110 bpm for longer than 10 minutes for fetuses more than 32 weeks and < 120 bpm for longer than 10 minutes for fetuses less than 32 weeks gestation;
- Demonstrates moderate (average) variability;
- Presence of short term variability when monitored electronically;
- Presence of fetal heart rate accelerations with fetal movement; and
- Absence of late and non-reassuring variable decelerations (Tucker, 2000).

Figure 1: Reassuring Tracing.



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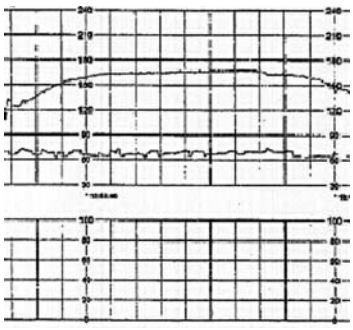
Key Elements of a Non-Reassuring Fetal Heart Rate Pattern

A non-reassuring fetal heart rhythm pattern is one that, when reviewed by the health care provider, leads to the conclusion that the fetus is either not receiving sufficient quantities of oxygen, or not able to properly utilize the oxygen that is being delivered. A non-reassuring strip may be indicative of decreasing oxygen fetal reserves and possibly developing hypoxia if not corrected. When a non-reassuring pattern is identified, basic standard interventions of intrauterine fetal resuscitation are utilized to optimize the oxygen delivery to the fetus.

Interventions for intrauterine fetal resuscitation are physiologically-based. This requires determining the cause of the decrease in oxygen delivery and intervening to resolve the developing hypoxia. Non-reassuring fetal heart rate patterns include overall decreasing or absent variability in the absence of an identified exogenous factors (i.e., magnesium sulfate administration or fetal sleep state), late decelerations, late decelerations with decreasing variability, deepening and widening atypical variable decelerations (especially those variable decelerations that have the absence of pre- and post accelerations [shoulders]), and the development of overshoots.

Figure 2. Absent Variability.



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The term "variability" refers to the beat-to-beat (short-term variability) difference in the fetal heart rate, or the overall 3-5-cycles-per-minute changes in the fetal heart rate baseline (long-term variability). Present variability is a sensitive indicator of an intact neurologic pathway and the presence of fetal oxygen tissue reserves. Variability is the key indicator of fetal well-being, and the absence of variability may indicate progressing hypoxia and a development of acidosis. True variability can only be measured by a fetal scalp electrode.

Early decelerations are indicative of increasing pressures on the fetal temporal baroreceptors. These are a normal physiologic finding during the transitional phase of labor as the presenting part is progressing into the pelvic outlet. Early decelerations are caused by head compression and present as an "apparent gradual decrease (defined as onset of deceleration to nadir in 30 seconds or more) and return to baseline FHR" (Tucker, 2000).

Figure 3. Early Deceleration.

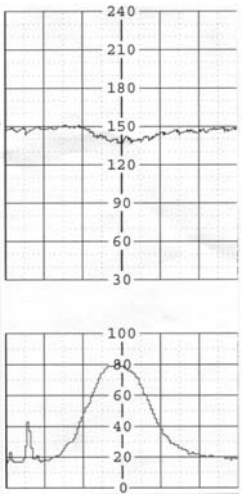

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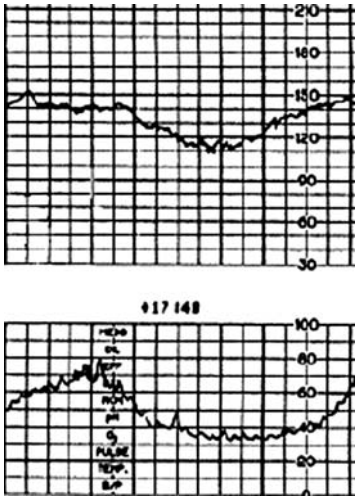
Figure 4. Late Deceleration.



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Late decelerations are reflective of either a marginally functioning uteroplacental unit or a decrease in placental blood flow. Uteroplacental insufficiency may be caused by a whole host of conditions including diabetes, smoking, illicit drug use, placental abruption or placenta previa, post-maturity, chronic hypertension, and preeclampsia. Decreased placental blood flow may be the result of uterine hyperstimulation, hypotension due to supine positioning, vasodilation following epidural administration, or hypovolemia. Late decelerations with decreasing or absent variability reflect uteroplacental insufficiency that has progressed to metabolic acidosis. The results of fetal

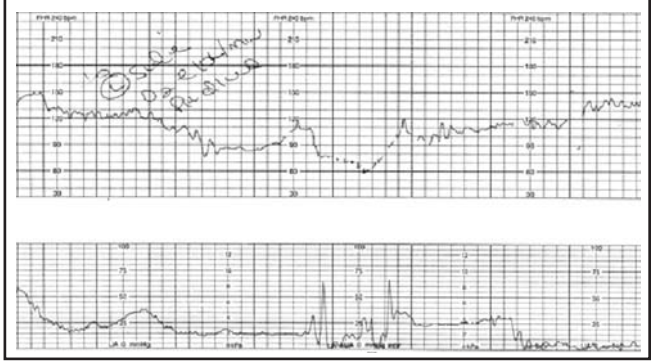
Figure 5. Atypical Variable Deceleration.

Author creation.

metabolic acidosis include a lowering of the blood pH, myocardial depression, birth asphyxia, and possibly death. Late decelerations clearly indicate a need for immediate nursing intervention to correct the metabolic acidosis and maximize the oxygen delivery to the fetus.

Variable decelerations are the result of umbilical cord compression and are either identified as reassuring or non-reassuring. Reassuring variables have pre- and post accelerations (shoulders), maintain baseline variability, and have an abrupt onset and abrupt return to pre-deceleration baseline. Non-reassuring variables, on the other hand, do not have "shoulders," develop atypical characteristics such as becoming deeper and wider or becoming biphasic, show a loss of variability, display overshoots, and do not return to baseline. Severe variable decelerations have the fetal heart rate dropping below 70 bpm for longer than 30-45 seconds.

Figure 6. Prolonged Deceleration



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Prolonged fetal heart rate deceleration (lasting 60-90 seconds or longer) may be the result of many obstetrical emergencies that, unless acted upon swiftly and expertly, may lead to fetal compromise. Such emergencies may include cord prolapse, uterine rupture, or placental abruption. Intrauterine fetal resuscitation in these situations is not meant to reverse the physiology of the obstetrical emergency, but to optimize oxygenation to the fetus until delivery can be secured.

Intrauterine Fetal Resuscitation Interventions

As described earlier, non-reassuring fetal heart rate patterns have different physiological bases. Decreased or absent variability is indicative of decreasing fetal oxygen tissue reserve. Late decelerations with deceasing or absent variability relates to uteroplacental insufficiency with developing metabolic acidosis, whereas late decelerations with intact variability may be related to uterine hyperstimulation, hypovolemia, or vasodilation with hypotension. Atypical variable decelerations are the result of prolonged and worsening cord compression. Although the basic interventions for intrauterine fetal resuscitation (i.e., maternal repositioning, intravenous fluid administration bolus, oxygen therapy, and discontinuation of exogenous forms of uterine stimulation) are done simultaneously and are the same for all the non-reassuring fetal heart rate patterns, the reasons behind each intervention and the anticipated results depend upon the differing processes producing the patterns.

Maternal Repositioning

Decreasing or Absent Variability. Depleting oxygen tissue reserves and developing hypoxemia lead to a non-reassuring fetal heart rate pattern that reveals decreased or absent variability. In an attempt to restore the tissue reserves of oxygen, one of the first interventions is to reposition the mother. Decreased blood flow return to the heart can be a result of supine positioning, which allows compression of the inferior vena cava. When blood return to the maternal heart is decreased, the ensuing decrease in cardiac output leads to poor placental perfusion and a less-than-optimal oxygen delivery to the fetus. The fetus has a high metabolic and oxygenation rate, quickly consuming the available oxygen. Thus, repositioning the mother to a lateral position allows the gravid uterus to move away from the inferior vena cava, improving maternal circulation, placental perfusion, and fetal oxygenation.

Late Decelerations. Whether the late decelerations are the result of a true uteroplacental deficiency, hyperstimulation, hypovolemia, or vasodilation, the ultimate goal is to encourage the optimal amount of uterine blood flow. Repositioning to maximize maternal cardiac output increases the delivery of oxygen to the fetus. Relieving vena cava compression increases blood pressure, again providing optimal blood flow and oxygen delivery to the fetus. Since supine positioning or walking increases uterine activity, whereas lateral positioning decreases the frequency and intensity of uterine contractions, the mother experiencing fetal late decelerations should be encouraged to remain in the supine position with left lateral tilt to aid in decreasing uterine activity.

Atypical Variable Decelerations. Variable decelerations are the result of umbilical cord compression. If the compression is the result of impingement of the umbilical cord between the fetus and the maternal bony pelvic structures, repositioning may help to move the fetus off the umbilical cord to relieve the compression and increase placental blood flow thus improving fetal oxygenation. Atypical variable decelerations are also seen in cases of cord prolapse (when the umbilical cord precedes the baby and is considered an obstetrical emergency), and a vaginal exam should be done to rule out an umbilical cord prolapse.

Prolonged Deceleration. A precipitous drop in the fetal heart rate, whatever the cause, requires positioning the mother in a manner that promotes oxygenation to the fetus. Lateral positioning increases maternal blood pressure, improves maternal cardiac output, and promotes placental

perfusion to assist in maintaining the fetal blood pressure and oxygenation status until delivery is accomplished.

Intravenous Fluid Bolus

An intravenous fluid bolus is a large amount of fluid administered intravenously, often 400ml or more. Most commonly used fluids, normal saline (NS) and Lactated Ringers (LR), are isotonic fluids used to maintain circulatory volume. Fluids containing dextrose (D) such as D5LR and D5NS are avoided for bolus administration because of the risk of fetal hyperglycemia or rebound hypoglycemia. In addition, the risk of fetal asphyxia increases with the maternal bolus of dextrose-containing intravenous fluids, as fetal blood pH lowers and carbon dioxide levels increase (ACOG, 2002). There are pregnancy complications in which intravenous fluid bolus may be contraindicated, as in pregnancy-induced hypertension.

Decreasing or Absent Variability and Late Decelerations. Developing hypoxia is reflected in the fetal heart rhythm strip by decreasing or absent variability. The goal for treating hypoxia is to maximize the oxygen delivery to the fetus in an effort to replenish fetal oxygen reserves. The fetus is volume-dependent, meaning that its oxygenation is dependent upon the mother having an appropriate cardiac output. If the maternal cardiac output decreases as a result of maternal hypotension after an epidural, or if the mother develops supine hypotension from lying flat, the oxygen flow to the fetus also decreases. Providing a fluid bolus to the mother increases maternal cardiac output, and maximizes blood flow and oxygenation to the placenta and fetus.

Atypical Variable Decelerations. The physiology of variable decelerations resides with umbilical cord compression. The umbilical cord may be wrapped around the fetus' neck (nuchal cord) or around the body in many different fashions (around the shoulders, stomach, or legs). The cord could also contain a "true knot," a situation in which the cord has been wrapped around to a point that it is in a knot. Umbilical cord compression could also be a result of the cord being compressed between the fetus and portions of the maternal pelvis. Oligohydramnios (decreased amniotic fluid) is also a condition in which the umbilical cord is at risk to be compressed, as the amniotic fluid that served to cushion and protect the cord is decreased. The amniotic fluid is created, in part, by the fetal (fetal urine) and maternal contributions of fluid.

The goal, therefore, in umbilical cord compression is to relieve the compression as much as possible. To this end, replacing the amniotic fluid may be a viable option. Amnioinfusion is one way the amniotic fluid can be replaced. Essentially, a small tube is inserted into the uterus, and an infusion of Lactated Ringers or normal saline aids in cushioning the cord and relieving the variable decelerations. Amniotic fluid may also be increased, in part, by increasing the maternal blood volume through an intravenous fluid bolus (Bush, Minkoff, McCalla, Moy, and Chung, 1996).

Prolonged Deceleration. A prolonged deceleration in the fetal heart rate requires immediate attention to the mother and fetus. An intravenous fluid bolus in this situation increases maternal blood pressure, improves maternal cardiac output, and promotes placental perfusion to assist in maintaining the fetal blood pressure and oxygenation status until delivery is accomplished.

Maternal Oxygen Therapy

The fetus rapidly consumes oxygen, and if not replenished as needed, this can lead to metabolic acidosis and death. The mother may need to be hyperoxygenated in order to facilitate oxygen delivery to the fetus. Appropriate oxygenation is supplied when 8 – 10 liters/minute are delivered through a tight-fitting face mask (ACOG, 2002; AWHONN, 2003). The physiologic basis for oxygen administration is the same for all non-reassuring fetal heart rate patterns: to maximize fetal tissue oxygen reserves by promoting the optimal amount of oxygen being delivered to the fetus. When supplemental oxygen is supplied to the mother:

- In 1 minute: 02 reaches the fetus;
- In 5 minutes: scalp blood PO2 returned to normal;
- In 9 minutes: maximum SaO2 levels are reached; and
- In 10 minutes: umbilical artery pH increased, umbilical vein BE (base excess) improved (Murray, 1997).

Oxygen therapy has been shown to increase fetal breathing movements, increase gross fetal movements, and coincide with the disappearance of late decelerations and a return of baseline variability and accelerations (Murray, 1997).

Discontinuation of Exogenous Uterine Stimulants

Uterine stimulants (Pitocin, Cervidil, and Prepidil) are synthetic versions of naturally occurring hormones that, when administered to a pregnant woman, produce uterine contractions. Uterine stimulants are used to induce or augment labor. Uterine stimulants must be administered judiciously and monitored carefully because uterine hyperstimulation with subsequent decrease in oxygenation to the fetus may occur. ACOG states, in a recent bulletin, that "if non-reassuring FHR changes occur in patients receiving oxytocin, the infusion should be decreased or discontinued. Oxytocin is administered via piggybacked into the main intravenous line and once discontinued the primary intravenous rate may be increased. Restarting the oxytocin infusion at a lower rate or increasing it in smaller increments may be better tolerated" (ACOG, 2002).

Decreasing or Absent Variability. As uterine contractions further decrease the oxygen delivery and increase the levels of carbon dioxide in the fetus, the goal of intrapartum care is to maximize the oxygen delivery. In the case of decreasing or absent variability, maximizing oxygenation would incorporate discontinuing exogenous uterine stimulants.

Late Decelerations. With each contraction, the blood supply to the fetus is decreased, allowing carbon dioxide levels to rise and oxygen levels to decrease. A healthy fetus can withstand the momentary decreases in oxygenation; however, with concurrent uteroplacental insufficiency, those fetal reserves become used and the fetus will begin to exhibit late decelerations in response. Uteroplacental blood flow is maximized by discontinuing exogenous pitocin or other uterine stimulants. AWHONN's position regarding oxytocin and non-reassuring fetal status is that "if uterine stimulation by oxytocin or another uterine stimulant is being provided to the woman, it should be discontinued in the presence of late decelerations, and the primary health care provider should be notified" (AWHONN, 2003).

Atypical Variable Decelerations. Cord compression can be repetitive and affected by uterine contractions. When the basic interventions of repositioning, hydration, and oxygenation do not resolve the non-reassuring variables, discontinuation of exogenous uterine stimulants is advised (AWHONN, 2003).

Prolonged Deceleration. As the fetal heart rate continues to drop, resuscitative measures are aimed at maximizing the uteroplacental blood flow for maximal oxygenation of the fetus as preparations for emergency delivery are underway. Maximizing oxygenation includes stopping all forms of exogenous uterine stimulants in an effort to reduce uterine contractions and enhance blood flow to the fetus.

TheLNC's Role in Obstetrical Cases

The field of medicine and nursing has become an ever-increasingly specialized arena. A 1legal nurse consultant (LNC) with a strong grasp of and experience in obstetrics should be utilized to review obstetrical cases. An LNC dealing with obstetrical cases needs to be familiar with ACOG, AWHONN, and AAFP guidelines, state practice acts, and hospital policies and guidelines.

There are basic intrauterine fetal resuscitative efforts that are common to non-reassuring fetal heart rate rhythms—whether those rhythms are late decelerations, atypical variable decelerations, prolonged decelerations, or a tracing that lacks variability. Those basic efforts include: a) maternal repositioning; b) intravenous fluid bolus administration; c) maternal oxygenation therapy; and d) stopping exogenous forms of uterine stimulation. As the non-reassuring fetal status continues, other forms of resuscitative efforts may be utilized, including amnioinfusion for variable decelerations, tocolytic therapy to stop uterine contractions (magnesium sulfate or terbutaline administration are most common), the use of fetal pulse oximetry (to monitor fetal oxygen levels in real-time), obtaining fetal scalp blood pH to monitor degree of hypoxemia, and terminating labor and proceeding to delivery.

"Bad baby" cases often revolve around a presumed intrapartal event. The intrapartal event could involve a non-reassuring fetal heart rate pattern that was not identified quickly, and actions taken to resuscitate the fetus were not implemented in a timely manner. Litigation may include situations when exogenous uterine stimulants were continuously administered regardless of the presence of heart rhythm patterns indicative of fetal compromise.

When reviewing an obstetrical case, nurses' notes need to be compared to fetal monitor strips. As a non-reassuring pattern is emerging, a review of the nurses' notes will determine whether the nursing standard of care was met. Did the nurse notice the non-reassuring status? Were standard intrauterine fetal resuscitation procedures begun, and if so, how soon? Was the physician notified of the status and actions taken? Did the nursing interventions bring about a change in the fetal status? If oxytocin was being infused, was the drip turned off? If an unsatisfactory response was received by the nurse from the physician, did the nurse follow a chain of command? Who was called and what was decided?

ACOG, AAFP, and ACOG support the use of intrauterine fetal resuscitation for non-reassuring fetal status (ACOG, 2002; AWHONN, 2003; AAFP, 2005). "With a persistently non-reassuring FHR pattern in labor, the clinician should approach the evaluation and management in a four-step plan as follows:

1. When possible, determine the etiology of the pattern.
2. Attempt to correct the pattern by specifically correcting the primary problem or by instituting general measures aimed at improving fetal oxygenation and placental perfusion.
3. If attempts to correct the pattern are not successful, fetal scalp blood pH assessment may be considered.
4. Determine whether operative intervention is warranted and, if so, how urgently it is needed" (ACOG, 2002).

According to AWHONN, "the overarching goal of all interventions is the improvement of fetal oxygenation. The choice of a specific intervention is based on the understanding of the possible underlying physiologic mechanism affecting fetal oxygenation. It may be helpful to think of interventions as falling into four broad categories, or goals, as follows:

1. Maximize placental blood flow
2. Maximize umbilical circulation
3. Maximize available oxygen
4. Reduce uterine activity" (AWHONN, 2003).

The American Academy of Family Physicians lists recommended interventions for non-reassuring and ominous patterns. These interventions include the basics as described by ACOG and AWHONN, which includes calling for assistance, administering oxygen through a tight-fitting face mask, repositioning the mother, administering intravenous fluid bolus, determining the cause of and correcting the pattern, and discontinuing exogenous uterine stimulants (AAFP, 2005).

In summary, ACOG, AAFP, and AWHONN agree upon a standard for intrauterine fetal resuscitation. When the fetal heart rate exhibits patterns that are indicative of a

non-reassuring or ominous status, timely interventions to maximize the outcome of the baby is critical.

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Definitions

Asphyxia condition in which there is hypoxia and metabolic acidosis.

Atypical variable decelerations variable decelerations that are missing a "shoulder," have a W shape or smooth appearance and/or an overshoot, and do not meet offset criteria for typical variable deceleration.

Augmentation correcting of ineffective uterine contractions (caused by dystocia) that occur after the onset of spontaneous labor.

Base Excess a measure of the amount of base buffer reserves above normal levels; expressed as a negative number (e.g. -12mEq/L).

Deceleration a drop in the fetal heart rate; usually occurs in response to a uterine contraction.

Early decleration a periodic change that is associated with a uterine contraction. It is a visually apparent gradual decrease (onset of deceleration to the lowest point > 30 seconds or more) and return to the baseline FHR. The lowest point of the FHR deceleration coincides with the peak of the uterine contraction. An early deceleration is a normal phenomenon of the fetal heart rate and does not require intervention.

Hyperstimulation of the uterus persistent pattern of tachysystole or single contractions lasting longer than 2 minutes, or uterine contractions of normal duration occurring within 1 minute of each other, resulting in demonstrated fetal intolerance to labor with evidence of nonreassuring fetal heart rate pattern.

Hypoxemia decreased oxygen content in the blood.

Hypoxia a pathological condition marked by a decreased level of oxygen in tissue.

Induction stimulation of uterine contractions before the spontaneous onset of labor for the purpose of accomplishing delivery.

Intrapartum occurring during labor or delivery.

Late deceleration a visually apparent, gradual decrease and return to baseline fetal heart rate associated with a uterine contraction. Late decelerations begin late in the contracting phase. The onset of the decelerations occurs after the onset of the uterine contraction, with the lowest point occurring after the peak of the contraction. The recovery of the deceleration occurs after the return of the contraction to the uterine activity baseline. Late decelerations are repetitive periodic changes (associated with uterine contractions) indicative of uteroplacental insufficiency.

Nuchal neck (as in umbilical cord around the fetal neck).

Shoulders transient preacceleratory and postacceleratory phase of the fetal heart rate.

Overshoot transitory acceleration of the fetal heart rate, with a smooth appearance, that occurs at the end of a variable deceleration.

Prolonged deceleration a visually apparent decrease in fetal heart rate. The decrease from baseline is more than 15 bpm, lasting more than 2 minutes, but less than 10 minutes from onset to return to baseline.

Variability normal fluctuations in the baseline fetal heart rate indicative of fetal well-being.

Variable deceleration caused by umbilical cord compression. The decelerations vary in depth, duration, timing, and structure.

Oxycontin® Litigation

Lenora Smith, MSN RN

KEY WORDS
Addiction, Class Action Suit, FDA, Narcotic, Oxycontin, Pain Medications

For 4 years, lawsuits have been filed in attempts to certify a class action against Purdue Pharma, LP and Abbott Laboratories, Inc. in their manufacture, marketing, promoting, and selling of Oxycontin®, a potent narcotic pain reliever. In these 4 years, not one case has been certified as class action litigation. So far, all victories have gone to the defendants, as they cite no commonality between plaintiffs and other issues. This article focuses on litigation related to this powerful drug and the problems associated with the lawsuits.

Although drug addiction is frequently linked to illicit or illegal drug use, many more people abuse or become addicted to legal or prescription drug substances (Mayo Clinic, 2004). Most manufacturers of these medications, which are usually narcotics, list abuse and addiction as a side effect of the medication as required by the Food and Drug Administration (FDA). However, Purdue Pharma, the manufacturers of Oxycontin®, is being scrutinized and admonished for minimizing the drug's safety. The drug has allegedly caused many people to abuse and become addicted to their drug, and has been linked to more than 100 deaths across the United States as of December 2001 (NewsRx, 2004).

Oxycontin® is a synthetic prescription medication utilized for the management of moderate to severe pain and is in the same class as morphine, codeine, and hydromorphone (Reynolds and Bada, 2003). Oxycontin® is a controlled-release form of oxycodone hydrochloride and a Schedule II controlled substance, a designation given by the government that identifies it as having great potential for abuse (Katz and Hays, 2004; Mosby, 2004). This designation also has restrictions, and abuse of the drug can lead to severe psychological and/or physical dependence (Center for Narcotic Detox under Anesthesia, n.d.). It is used when a continuous amount of pain medication is needed for a lengthy period of time.

Oxycontin® is also known as "hillbilly heroin" because it is a cheaper alternative to heroin and has become almost more popular than heroin over the past few years (Katz and Hays, 2004). Although it is an oral medication, most users prefer to crush it to either swallow, snort, or dissolve in water in order to inject it (Katz and Hays). Its increase in popularity is due to the instant euphoria that users experience. In 2000, 5.8 million prescriptions were written for Oxycontin® (Katz and Hays); in 2002, it was the leading prescribed narcotic in the US, with 9.6 million prescriptions written *(Wethington, et al., v. Purdue Pharma LP, et al., 2003).* It is believed that the heroin-like euphoria is the cause of the high incidence of abuse and addiction; some critics say that the abuse of Oxycontin® has reached almost epidemic proportions in certain areas of the country (Katz and Hays). This abuse and addiction has caused people to file medical malpractice lawsuits against their physicians and has led attorneys to attempt to file class action lawsuits against Oxycontin's ® manufacturer, Purdue Pharma (Purdue) as well as Abbott Laboratories, Inc (Abbott).

Litigation

Plaintiffs and their attorneys claim that the drug was "aggressively marketed, misrepresented and overprescribed, causing legitimate users to become addicted" (McArdle, n.d., ¶2). The first lawsuit, filed in April 2001, was summarily dismissed (McArdle); other cases followed and will be discussed. Purdue is adamant that adequate drug warnings were given about the drug's potential for abuse (McArdle). In fact, in July 2001, the FDA informed Purdue that warnings and precautions needed to be toughened due to the abuse and diversion of Oxycontin® (Parker and Waichman, n.d.). Purdue complied with a new warning label. It did not keep lawsuits from being filed.

In January 2003, a class action suit against Oxycontin® was sought by four people who claim that they were harmed as a result of taking the pain medication. The suit, *Wethington, et al., v. Purdue Pharma LP,* et al., requested a federal judge in Ohio to certify the lawsuit based on allegations that Purdue sold the drug without appropriate restrictions or safeguards on its use *(Wethington, et al., v. Purdue Pharma LP, et al., 2003).* The plaintiffs sought certification under Federal Rules of Civil Procedure 23(a) for the people of Ohio, Kentucky, Indiana, and West Virginia who received a prescription after 1995 up to the date of the suit and had suffered because of using or abusing the drug. The plaintiffs noted four common issues: 1) whether Oxycontin® was defective because it was not distributed in lower dosages, for lack of an antagonist, for failure to warn the health care providers of the risks involved, and for being more dangerous than expected; 2) whether Purdue and Abbott conspired to develop, market, promote, and sell a defective drug; 3) whether Abbott participated in the sell of the drug; and 4) whether Oxycontin® creates addiction and dependence *(Wethington, et al., v. Purdue Pharma LP, et al.).*

Federal Rules of Civil Procedure 23(a), as it refers to class actions, has four prerequisites that Judge Arthur

Spiegel referred to in his opinion in *Wethington, et al., v. Purdue Pharma LP, et al.* (2003):

> One or more members of a class may sue or be sued as representative parties on behalf of all only if: 1) the class is so numerous that joinder of all members is impracticable, 2) there are questions of law or fact common to the class, 3) the claims or defenses of the representative parties are typical of the claims of the class, and 4) the representative parties will fairly and adequately protect the interests of the class (p. 582).

Rule 23(a)(2) of the Federal Rules of Civil Procedure refers to "questions of law or fact common to the class" in the plural, but only one common question to the class is needed or required. This question, however, must be a "common issue the resolution of which will advance the litigation" (*Alkire v. Irving,* 2003, as cited in *Wethington, et al., v. Purdue Pharma LP, et al.,* 2003). The burden is on the plaintiffs to ensure these prerequisites are met.

In addition to meeting the prerequisites listed in the Federal Rules of Civil Procedure 23(a), the plaintiffs must show that their suit satisfies one of three types of class actions found in the Federal Rules of Civil Procedure 23(b):

> A type I class action under 23(b) is appropriate when separate actions would create incompatible standards of conduct for the party opposing the class, or when the interests of members not parties to the litigation would be impeded by individual adjudications. A type II class action requires that the plaintiff seek primarily injunctive or declaratory relief. A type III class action requires that common questions of law or fact predominate over any issues affecting only individual members and therefore a class action is superior to other available methods for the fair and efficient adjudication of the controversy (*Wethington, et al., v. Purdue Pharma LP, et al.,* 2003, p. 585).

Wethington, et al., v. Purdue Pharma LP, et al. (2003) was decided in September 2003. At that time, two other class action certification cases had been heard—one in Kentucky and one in Ohio. Neither case was granted certification as a class action as neither judge found sufficient commonality between plaintiffs, both judges noting that any harm to the plaintiffs will vary as to dosage, use, administration, medical histories, etc. Judge Spiegel in Wethington agreed and noted that the reasoning of Judge Reeves in *Foister v. Purdue Pharma LP* (2002) and in *Gevedon v. Purdue Pharma LP* (2002) was on point as to the issue of class certification. Judge Spiegel found the marketing issue legitimate but offered that if there was improper marketing, the class member must ask for the prescription from a learned intermediary, using the "learned intermediary doctrine" as the basis for his opinion.

The learned intermediary doctrine states that producers of prescription drugs and medical devices are relieved of their duty of care to patients by providing warnings to the prescribing physicians (Pratt and Kuckelman, n.d.). The physician has the knowledge of both the patient and the medication; therefore, his decision to place the patient on a particular medication is an informed one. Many courts have adopted this doctrine and applied it to product liability cases because they feel that physicians can "best ensure that a prescription drug user will receive in the most effective manner the information that [he or] she needs to make an informed decision as to whether to use the drug" *(MacDonald v. Ortho Pharm. Corp., 1985).*

Judge Spiegel found that the plaintiffs in *Wethington, et al., v. Purdue Pharma LP, et al.* did not have a common issue based on each claim being individualized. He concluded that there was no common issue regarding marketing due to the individual learned intermediaries where the plaintiffs obtained their prescriptions, noting that each may have been given different information.

In February 2002, LaDonna Howland and several other plaintiffs sought certification of a class action lawsuit against Purdue, Abbott, and Dr. Timothy Smith. They wanted certification for all persons in Ohio who were prescribed Oxycontin®, suffered effects of the drug (such as addiction), risks, and/or consequences of addiction, emotional, mental, or physical harm, death, and/or loss of consortium *(Howland, et al., v. Purdue Pharma LP, et al,* 2004). At issue were the defendants' negligence, failure to warn, breach of express and implied warranties, and failure to disclose the risk for abuse and addiction *(Howland, et al., v. Purdue Pharma LP, et al.).* The motion to certify as a class action was granted on August 30, 2002. Purdue appealed.

In July 2003, the Court of Appeals 12th Appellate District of Ohio affirmed, in part, the decision of the trial court. The court stated the trial court did not abuse its discretion when it decided that a class action suit best served the purpose of resolving the issues. The court, however, reversed the trial courts decision to allow Dr. Smith as part of the suit, stating that there were no common questions related to the members of the class and that Dr. Smith could have impacted only a minimal number of people. Purdue again appealed, this time to the Supreme Court of Ohio. The court handed down its decision on December 15, 2004, in which it reversed the lower court rulings. The court noted that the trial court "failed to analyze or even mention any of the specific problems argued by the appellants" *(Howland et al., v. Purdue Pharma LP, et al.,* 2004). The court also mentioned *Wethington* in their opinion, noting specifically the reference to the learned intermediary doctrine and how neither the trial court nor the appellate court considered the applicability of the doctrine in their case *(Howland et al., v. Purdue Pharma LP, et al.).*

The latest motion for certification for class action litigation against Purdue was decided on January 25, 2005. Judge Joseph Maltese denied certification in New York Supreme Court of Richmond County in the case of *Hurtado, et al., v. Purdue Pharma LP, et al.* and referred the matter to

the New York Litigation Panel. Judge Maltese noted in his decision all other federal cases in which motions were denied, including those listed in this article. He cited his agreement that there were no common issues joining the plaintiffs; all issues could, and should, be considered individualized. He opined that, while not every state is bound by holdings of other states, "in a world of instant computerized legal research, it would appear to be almost unenlightened to rule on a case of such magnitude, which could affect potentially thousands of people without knowing what other courts have done under similar circumstances, which may be persuasive" (*Howland, et al., v. Purdue Pharma LP, et al.,* 2004, p. 15). He noted that "[W]ithout a common injury or 'signature disease' like asbestosis or mesothelioma, which only come from asbestos contact, it is difficult to define a class or establish causation" (*Howland, et al., v. Purdue Pharma LP, et al.,* p. 9). He, too, cited the learned intermediary doctrine as it applied to the Howland case.

Conclusion

In almost 4 years of litigation against Purdue for Oxycontin®, there have been no certifications granted for class action suits from the nine suits filed thus far. There have also been more than 250 private lawsuits filed, with all victories going to Purdue. Purdue insists that they will not settle any of the cases against them. Interestingly, in November 2004, Purdue agreed to pay the state of West Virginia $10 million dollars to settle a lawsuit that was in the process of jury selection. The suit was filed in 2001 by Attorney General Darrel McGraw to recoup money state agencies paid for Oxycontin®, stating Purdue marketed the drug dishonestly in his state (Ramsey, 2004). Purdue admitted no wrong doing in the settlement.

Opinions of the judges who have heard Oxycontin® motions for certification as class action agree that there is no commonality among the plaintiffs; cases should be individualized. The learned intermediary doctrine is applicable to these cases, based on information given to physicians. Although states' courts are not bound by other courts' decisions, it appears that most jurisdictions will be following the case decisions discussed here and that Oxycontin® class action litigation may never come to fruition.

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Information Literacy, Part II: Knowledge and Ability in the Traditional Resources

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KEY WORDS
Information Literacy, Research, Traditional Resources

In the second part of this two-part series on information literacy, this article will examine the specific tools of research available to the legal nurse consultant. Never before in the history of information exchange has knowledge been more readily attainable in such diverse formats. Information can be found in traditional print books, microfilms, audio, image, digests/ indices, periodicals, pamphlets, government documents, and virtual formats. Building a research strategy is only a portion of the information retrieval task. Effectively locating the appropriate information is wed to the selection of the proper tools and resources.

Searching the World Wide Web is not analogous to a literature search (Jacobs, Rosenfeld, and Haber, 2003). Heralded for its ease of availability, the malediction of the Web is the lack of vigilance for trustworthy sources. When historians look back, a decade from now, at the methods of information retrieval, they will likely find that the general public overwhelmingly fell victim to the seduction of electronically convenient knowledge—however unregulated it might have been. As attorney-clients soon realize, however, legal nurse consultants (LNCs) are not the quotidian consumer. Aligned with their bedside nurse counterparts, LNCs instinctively recognize holistic dimensions and multi-faceted angles of the individual assignment and task. Just as a 12-lead electrocardiogram takes several views of the same heart, each view yielding its own unique information, the information-literate nurse takes several views of the same research.

The Problem Defined: Gutenberg and the Digital Divide

Although the Chinese invented a movable reproduction technique for print that dates back to 600 A.D., it is Johannes Gutenberg who is credited with invention of the first printing press that allowed mass production of books and documents (Wright and Joyce, 2004). Since 1971, in his spirit, a group of dedicated volunteers have undertaken the mission of transferring literary works into electronic formats that are accessible online. This Herculean undertaking is known as "Project Gutenberg" (Hart, 1992). Despite this altruistic vision, it remains clear that it will not be possible to digitalize every written work from the archives of humanity. Whether digitalization is barred by cost-justification or audience disinterest, the vestige will remain in traditional print.

To illustrate this limitation, the electronic database of the Cumulative Index of Nursing and Allied Health Literature (CINAHL) articles are indexed back to 1977 (Tucker and Craig, 2004). For research prior to that date, the researcher must turn to an in-house indexing system or the reference librarian for archived format (generally in the bound journals section, on microfilm or through inter-library loan). Many online journals and indexing systems have a "start-up date" of online information, with no public plans to convert information prior to that date to digital format. Still others have a seemingly arbitrary cut-off date digitalizing back only 15 years.

Information scholars have long held the existence of a "digital divide"—a technological line of demarcation separating the "haves" from the "have-nots" (National Telecommunications and Information Administration, 1995; Schloman, 2004; Hargiattai, 2002). Distributive injustice in information retrieval is a realistic threat to rural locations or disadvantaged school systems. Educational institutions that cannot afford textbooks have non-existent budgets to purchase computers or software. These programs have an even greater need to hone information-literate students capable of choosing and understanding alternate methods of information recovery. Table 1 on the following page provides a listing of common terminology related to information retrieval. Table 2 on the following page provides exceptional online tutorials in information literacy and research.

Catalogs, Electronic Databases, Engines

The library catalog contains records for the material held in the library. The entire collection (holdings) will have a searchable record in the library catalog. Use the library catalog to find books, journals, theses/dissertations, audio/visual materials, newspapers, and more. Electronic databases are accessible when the library has registered and/or paid for the subscription through a vendor. Researchers can use the library's databases to find specific journal articles, newspapers articles, and conference papers. Databases can be either subject-specific (one discipline) or general (covering a range of disciplines).

Search engines are used to find information on the World Wide Web via the Internet. In an effort to aid the researcher, Google™ has an added feature to search and

Table 1: Glossary of Terminology.

Abstract: A brief summary of the article.

Article: A non-fiction composition that forms an independent part of a publication.

Bibliography: A list of books, periodical articles, Web sites, or other material used when researching a particular topic. Also known as the reference list.

Citation: Information listing the source of information. Some citations also include an abstract of the article. The minimum information included is author, title and source.

Database: A centralized location for documents. Electronic databases are accessible via the Internet and through registration and/or fee-based subscription.

Descriptors: A list of subject terms.

Dictionary: A reference book containing words alphabetically arranged along with information about their forms, pronunciations, functions and meanings.

Digest: A summarized or shortened version.

Encyclopedia: A reference book. Provides an overview of the subject matter.

Full-text: In the library environment this refers to the complete article. In electronic format either available in HTML (web page format) text only or PDF (Portable Document Format) which displays the entire article, usually in brochure format, plus images. Full-text may either be freely accessible or fee based use.

Index (Indices): A centralized location where articles are categorized and arranged by subject. Facilitates location and retrieval of topic relevant research.

Journal (Trade or Professional): A collection of articles and other materials, such as reports or proceedings, issued by an organization, an institute or society.

Magazine: A publication for general interest such as news, popular material or current events.

Periodicals: Published at regular intervals or on a continuing basis. A periodical can be popular magazines, trade journals, scholarly/research journals, journals of commentary or opinion & tabloids.

Periodical Index: A list of citations for articles published on various topics, which is arrange alphabetically and grouped by subject or author.

Reference Book: Provides an overview of the subject matter.

Scholarly Journal: Usually published four to six times per year. Peer-reviewed, usually written by experts in the field. Contains footnotes and list of references. Limited graphics, usually charts and tables.

Serials: Informational piece published at regular intervals. Newspapers are one example but often grouped as "periodicals".

Subject Headings: A pre-coordinated string of alternate search phrases (such as used by the Library of Congress) or suggested keywords. May also refer to categories in a tree-structure similar to MeSH (Medical Subject Headings) used in MEDLINE or CINAHL.

Thesaurus: A book of words and their synonyms. Suggests alternate topic words.

Webliography: List of online sources used when researching a particular topic.

locate scholarly information: Google Scholar© (Beta). This often-overlooked free resource once again illustrates the underutilization of search engine features. To access Google Scholar, click on "more" in the Google toolbar, then click on

Table 2: Information Literacy Tutorials.

University of Texas: This is the site of the founding Texas Information Literacy Tutorial (TILT) at the University of Texas. This program is being used nationwide at all levels of education. http://tilt.lib.utsystem.edu

New York University: Not only does this site provide an indispensable tutorial on Internet research, it provides an exceptional information literacy tutorial specifically designed for nurses. http://www.library.nyu.edu./research/health/tutorial

Texas Lutheran University/Mark Dibble

One of the most impressive and comprehensive listings of information literacy tutorials.

http://bulldogs.tlu.edu/mdibble/doril/tutorials.html

The visual learner can choose from this listing Seton Hall University's Virtual Librarian.

"Scholar." This function allows you to search for peer-reviewed papers, theses, abstracts, books, preprints, technical reports, and other scholarly material.

Why the Textbook?

A common misconception about the use of textbooks in scholarly research is that much-needed content is outdated by the time it is released for publication. This observation cuts both ways: while textbooks do undergo a lengthy conceptualization to publication process, rapidly advancing technology has dramatically shortened this delay. More importantly, in medical-legal matters, it doesn't matter what medicine knows now—it matters what medicine knew then. The research must reflect the state-of-art at the time of the incident in question; despite the publication date, textbooks often reflect that knowledge.

By the very nature of their lengthy work, textbooks gather and contain the synopsis of multiple authors and works. Footnotes and in-text citations, when acknowledged by the reader, lead the researcher to the ideal place to find "hallmark" or "primary" sources. The bibliography of the authoritative text or scholarly journal is the cornerstone of validating and authenticating research.

Call Numbers, Classification

Libraries typically use one of three classification systems for tracking their holdings.

Melvin Dewey, an early American librarian, used a numeric system to organize educational information (Tucker and Craig, 2004). The Dewey Decimal System uses a 10-category system, with 000 for general works (dictionaries, encyclopedias, etc.) and 100-900 for subject-specific groups. Within each level, the categories become increasingly specific by decade arrangement (Tucker and Craig). The Dewey Decimal System is generally used in public and school libraries (Coppola, 2003).

Replacing Thomas Jefferson's fixed location system in the Library of Congress, the second commonly used classification today is the Library of Congress (LC) system designed by Herbert Putnam in 1897 ("Library of Congress

Table 3: Library Classification Systems: Dewey Decimal & Library of Congress.

DEWEY DECIMAL SYSTEM	LIBRARY OF CONGRESS	
000 – General Works	A – General Works	L - Education M – Music
100 – Philosophy & Psychology 200 – Religion	B - Philosophy, Psychology & Religion	N - Fine Arts
300 – Social Sciences 400 – Language	C – Auxiliary Sciences of History	P – Language & Literature
500 – Natural Sciences & Mathematics	D – History: General & Eastern Hemisphere	Q – Sciences
600 – Technology (Applied Sciences)	E/F - History: Western Hemisphere	R - Medicine S - Agriculture
700 – The Arts 800 - Literature & Rhetoric	G – Geography, Anthropology & Recreation	T – Technology
900 - Geography & History	H - Social Sciences J - Political Science K – Law	U - Military Science V – Naval Science Z – History of Books, Library Science & Bibliography
Example of Subdivisions: 340 - Law 540 – Chemistry & Allied Sciences 610 – Medical Sciences & Medicine	General Works in both classifications refers to dictionaries, newspapers,encyclopedias, etc.	Example of Subdivisions: KF – United States Law RJ - Pediatrics RT – Nursing There are additional subcategories within these divisions.

From *Pathways to nursing: A guide to library and online research in nursing and allied health* (p. 15), by D. C. Tucker and P. Craig, 2004, Medford, N.J.: Information Today, Inc.. Copyright 2004 by Dennis C. Tucker and Paula Craig. Adapted with permission.

Table 4: Library Classification System: National Library of Medicine.

Pre-clinical Sciences	WD 200 – Metabolic Diseases	WO – Surgery
QS – Human Anatomy	WD 300 – Diseases of Allergy	WP – Gynecology
QT – Physiology	WD 400 – Anima Poisoning	WQ – Obstetrics WR – Dermatology
QU – Biochemistry	WD 500 – Plant Poisoning	WS – Pediatrics WT – Geriatrics, Chronic Diseases
QV – Pharmacology	WD 600 – Disease by Spedific Anitgens	WU – Dentistry, Oral Surgery
QW – Microbiology & Immunology	WD 700 – Aviation & Space Medicine	WV –Otorhinolaryngology
QX – Parasitology	WE – Musculoskeletal System	WW – Ophthalmology
QY – Clincial Pathology	WF – Respiratory System	WX – Hospitals
QZ – Pathology	WG – Cardiovascular System	WY – Nursing
Medicine & Related Subjects	WH – Hemic & Lymphatic Systems	WZ – History of Medicine
W – Medical Profession	WI – Gastrointestinal System	**Additional Subjects**
WA – Public Health	WJ – Urogenital System	SF – Veterinary Medicine W1 – Most journals
WB – Practice of Medicine	WK – Endocrine System	W2 – Government Documents
WC – Infectious Disease	WL – Nervous System	ZQS-ZWZ – Bibliographies of the Pre-clinical & Medical Sciences
WD 100 – Deficiency Diseases	WM – Psychiatry	REF ZW1 – References Indexes and Abstracts
	WN – Radiology	REF – (followed by the call number) Located in the Reference Collection

Classification," 2005). Arranged in 21 levels (A-Z, excluding I, O, W, X, and Y), this system of classification categorizes knowledge by subject matter. The addition of one or two letters and numbers designates the specific subcategories below the 21 parent levels. For example, under the level R (Medicine), RM-RS covers pharmacology related topics. This is the system used by most university and research institutions (Coppola, 2003).

The third taxonomy is the method used by the National Library of Medicine. The QS-QZ series denotes the pre-clinical sciences. The reserved letter of W denotes Health Professions. Beneath the W division are the subdivisions of specialty medicine. For example, WS indicates Pediatrics (National Library of Medicine, 2005). Tables 3 and 4 on the previous page contain the subsections of the three main classifications.

The importance of understanding the organizational protocols of libraries originates with the need for the researcher to master the skill of reading the card catalog. Classification systems are used to construct a call number for each item, but card catalogs—whether print or online—provide information extending beyond the mere location of the text. Figure 1 demystifies a sample card. There may be subtle variations in card layout based on the classification used or the individual library's specific preference. For instance, the card for the Dewey Decimal System may include the author's date of birth to distinguish between authors of the same name (Tucker and Craig, 2004). Special collections may add an abbreviated word before the call number, such as "Ref" for "reference" or "Over" for "oversized books" (Coppola, 2003). This will change the location of the book from the main shelving location. Card catalogs are not limited to locating books alone; they also contain information about the library's available journals/periodicals, audio, visual, and supplemental holdings as well.

The Reference Librarian

The law school professor is no stranger to the "Socratic Method," customarily assisting students in learning to think independently by employing this technique. This method of teaching by asking questions (instead of providing answers) allows the students to explore and objectively define their position or concept (Wright and Joyce, 2004).

A skillful reference librarian will do the same. This specialist has mastered a vast array of information retrieval sources and will greet inquiries with an extensive list of questions designed to target the loci of research. This maieutic approach may frustrate many novice researchers looking for a quick answer, but, with experience, they will learn to wholly appreciate and effectively use the skills of the reference librarian. The caveat here is to respect the role of the reference librarian by exhausting the logical sources first.

The Reference Material

Reference material is meant to provide the reader with introductory or background information on a topic.

Figure 1: The Card Catalog: Example of Print Card.

(1) Legal nurse consulting: principles and practice/ (2) edited by Patricia W. Iyer; associate editors, Marguerite Barbacci… [et al.]; (3) American Association of Legal Nurse Consultants (4) 2nd ed.

(5) Boca Raton: CRC Press, (6) c 2003.
(7) i-xxiv, pp. 1132; (8) forms; (9) 26 cm.
(10) Includes bibliographical references and index.

(11) 1. Nursing consultants—Legal status, laws, etc. – United States.
2. Nursing – Law and legislation – United States.
(12) 1. Iyer, Patricia W. II. American Association of Legal Nurse Consultants

(13) KF2915 (14) .N8 (15) L35 (16) 2003
(17) LC Control Number: 2002073730

Note: Call numbers are usually listed down the spine of the book and since space is limited the numbers appear in first, second and third lines (up to six) as such:

KF2915
.N8
L35

Example of a title card designed to follow the Library of Congress Classification:

(1) Main entry: Title of book
(2) Editor and Associate Editors
(3) Author name
(4) Edition number
(5) Location : Publisher
(6) Copyright
(7) Collation: lowercase Roman numerals= # of pages in introduction/Arabic numbers= # of pages in book.
(8) forms (indicates forms in text. Illus. would indicate illustrated book)
(9) Height of book in centimeters (for shelving purposes).
(10) Notes section: indicates if bibliographical information and/or index is included.
(11) Tracing: Subject heading. Nursing consultants, nurses, law, legislation (may be promising leads for similar research)
(12) Statement of responsibility: author's name and co-authors.
(13) Call number : 1st "line". Main division, K = Law. Subdivision, F = United States Law. 2915 read as whole number.
(14) Cutter Number: 2nd "line". .N8 = read as decimal. First letter space in this section usually indicates author's last name, in this case there are multiple "nurse authors".
(15) 3rd "line": L35 =Letter indicates first letter in title of book. There is an implied decimal point in this line whether printed or not.
(16) Year of publication.
(17) LC Control Number

From Pathways to nursing: A guide to library and online research in nursing and allied health (p. 10), by D. C. Tucker and P. Craig, 2004, Medford, N.J.: Information Today, Inc.. Copyright 2004 by Dennis C. Tucker and Paula Craig. Adapted with permission.

Reference books are meant only to point your in the right direction and not to be read in their entirety. Guides to literature (bibliographies/research guides) provide a list of sources on a subject either by type of material or specific

topic. These often contain tips and hints on effective research (Locating and retrieving relevant information, 2005). Dictionaries, thesauri, encyclopedias, and specialized encyclopedias are among the most common reference books.

Reference material, however, also encompass handbooks, chronologies/timelines, almanacs, statistical sources, atlases, bibliographic sources, and reviews/compilations (Hord, 1995). Dictionaries and thesauri are key for locating topic words and definitions. Subject dictionaries are helpful in providing definitions and short explanations of terminology specific to a profession or discipline (Locating and retrieving relevant information, 2005).Both general and specialized encyclopedias are useful for providing an overview of the subject matter, complete with definitions, descriptions, history, statistics, and/or a brief biography. Handbooks and manuals are useful for technical instruction. Directories provide contact information for people, companies, and associations. Government documents are excellent sources for statistical information. Biographical sources serve to provide information about people's lives, while almanacs compile miscellaneous facts and statistics (Hord, 1995). Atlases and maps are useful for geographical information, while yearbooks and annuals provide an overview of recent developments in research or current events.

Indices and Digests

Indices (indexes), citations, and abstracts (digests) provide a gateway for locating research. Their universal function is to provide enough information for the researcher to locate journal articles related to a topic. Indexes provide references (citations) to journal articles to facilitate the process. Journal citations include the author, the title of the article, the journal title, the volume/issue number, publication date, and page numbers. Book citations contain the author, title, publisher, location of the publisher, and publication date. Abstracts contain both the citation and a short summary of the article to allow the reader to determine its applicability to the research issue. Most sources are available in print or electronic format. While certainly not all-inclusive, Table 5 provides a sample listing of indexes and digests.

As a practical matter, to familiarize the researcher with the index as a reference tool, H. W. Wilson has an excellent online reference that provides a comprehensive listing of available online and print indexes as well as a search tutorial. The site can be accessed at www.hwwilson.com or by entering the keyword "WilsonWeb" into the Google search box.

Library holdings include print versions of the indices and guides to literature. The proprietorship of online versions will depend on what the individual library has chosen. Online databases can be index-only, index/abstracts, or full-text databases. EBSCO Host is an example of a multidisciplinary database allowing access to Academic

Table 5: Sample of Indexes/Digests.

Annual Review of Nursing Research: Since 1984, has provided a resource for what has occurred in the world of nursing research. New York: Springer. This is available in print format.

Applied Science & Technology Index: Indexes articles back to 1983, with full-text available since 1997. Covers leading trade and industrial publications, professional and technical society journals, specialized subject periodicals, directories and conference proceedings. Daily updates. Available in online and print format.

Bibliographic Index: From H. W. Wilson. Subject index for the end of the chapter/article citations. Includes current books, pamphlets and periodicals. Available in online and print format.

Book Review Digest (print version): From H. W. Wilson, cites and provides short excerpts of reviews of current English-language fiction and non-fiction books from more than 100 American, British and Canadian periodicals. Online: **Book Review Digest Plus.**

Cumulative Index of Nursing and Allied Health (CINAHL): Glendale Adventist Medical Center, provides reliable coverage of the literature related to nursing and the allied health professions. More than 1,200 journals regularly indexed. Extends to include nursing dissertations, selected conference proceedings, critical paths, research instruments, nurse practice acts, educational software and more. http://www.cinahl.com

Education Index: From H. W. Wilson, covers approximately 600 core English-language periodicals, books and yearbooks indexing back to 1983. Full-text since 1996. Available in online and print format.

Humanities Index: From H. W. Wilson, this index covers more the 500 English-language periodicals in the humanities indexing back to 1984. Full-text back to 1995. Available in online and print format.

Index to Legal Periodicals: Full text of over 200 select periodicals, as far back as 1994. Indexing of nearly 1,000 legal journals, law reviews, yearbooks, institutes, statutes, bar association publications, university publications, and government publications.

MEDLINE: National Library of Medicine's bibliographic index of citations and abstracts from over 4,600 health science journals published in the U.S. and more than 70 countries. http://www/ncbi.nlm.nih.gov/PubMed/

Reader's Guide to Periodical Literature: From H. W. Wilson, articles are indexed by author and subject on over 300 periodicals. Provides all the needed information to find the article cited. This is available in online and print format. Online tutorial available at: http://www.hwwilson.com

Social Sciences Index: From H. W. Wilson, comes in index, abstract and full-text formats. It covers 500 English-language periodicals on a variety of socio-political subjects. Indexes back to 1983. Available in online and print format.

Vertical File Index: From H. W. Wilson, is a guide to pamphlets from many public and private sources. Updated bi-monthly, it indexes more than 3,000 sources each year. This is available in print format.

Many of the indices above will be accessible at public libraries, through professional associations, as alumni of educational institutions or through fee-based subscription.

From Pathways to nursing: *A guide to library and online research in nursing and allied health* (chap. 4), by D. C. Tucker and P. Craig, 2004, Medford, N.J.: Information Today, Inc.. Copyright 2004 by Dennis C. Tucker and Paula Craig. Adapted with permission.

Search Premier, Business Source Elite, ERIC (education), PsycARTICLES, PsycINFO, CINAHL, and MEDLINE—to name a few. Proquest Criminal Justice Periodical Index, a subject-specific database, provides abstracts and full-text articles related to criminal justice topics. Scholarly databases provide a searchable, uniform designed for accessing current journal literature (Jacobs, Rosenfeld, and Haber, 2003).

Table 6: Sample Index Citation.

Research agenda for library instruction and information literacy. Library & Information Science Research; Dec 2003, Vol. 25, Issue 4, p479, 9p.

Title of the article: Research agenda for library instruction and information literacy.
Title of the journal: Library & Information Science Research.
Dec 2003: Means the December 2003 issue.
Vol. 25: Means volume 25
Issue 4: Means issue (or number) 4 of this journal.
p479: Means the article starts on page 479
9p: Means there are 9 pages in the article

A common source of confusion for the beginning researcher is the concept of "full-text availability" of journal articles. Despite the billing as a full-text database, access to full-text articles does not mean that they are automatically free and easily downloadable. In some cases, it merely indicates that the full-text article is available through a database link ("jump" to it by clicking on the full-text icon). Once there, the researcher may find that there is still a charge to purchase the article, sometimes for a specified period of time only. This does not mean that the researcher has done anything wrong in the search process; the publisher providing the article has simply chosen not to make it freely accessible to the public but to charge for its use. It is generally easier to obtain archived articles at no charge because they are not being simultaneously published in periodicals that entail subscription fees. Reading the citation and abstract, if available, is a requisite minimum prior to obtaining a fee-based article. Rarely is it cost-effective for the LNC to obtain a one-page book review for a document charge of $20.00. Table 6 provides an explanation of a sample citation.

Periodicals vs. Scholarly Journals

A periodical is published on a regular basis, usually weekly, monthly, or quarterly. Trade journals or publications are periodicals, although not necessarily peer-reviewed. The scholarly journal is published 4 to 6 times per year and distinguished by the peer-review process. Peer review indicates that experts in the field have reviewed the article prior to publication and that the information has been subjected to an editorial board of outside scholars. This distinction is viewed with an eye toward enhanced reliability of information and more likely to satisfy the gatekeeper function set forth in Daubert v. Merrell Dow Pharmaceuticals, Inc. (Daubert II, 1995).

Summary

In a reserved estimate, Cleary and Rigby (2005) found that 50% of what is learned in formal education is eclipsed within 5 years of graduation. Preceding that observation, Weaver found that knowledge specific to nursing has a similar shelf life, "doubling every five years" (1993, p. 30). This observation presents a formidable challenge to the nurse researcher.

At a minimum, being information-literate requires dedicated application, autonomy in research skills, and critical thinking. Being an extraordinary LNC requires political, social, and ethical awareness. Achieving this combination reflects on the promise of our profession to advocate for the truth and assist in delivering just results.

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Treatment Refusals: The Process and the Proof

Mary Ann Shea, JD BS RN

If a patient refuses treatment, what legal duty does the health care provider owe to the patient? This article addresses the competent adult patient who endangers his life or welfare by refusing treatment and discusses what the health care provider should do to assure the best outcome for the patient, while minimizing the provider's legal risk for the patient's choices.

Imagine this scenario:

An elderly man with a long history of cardiovascular problems presents to the emergency department complaining of chest pain radiating down the left arm and up into the neck and jaw, shortness of breath, diaphoresis, pallor, dizziness, and nausea. After emergency work-up to rule out myocardial infarction, he is transferred to the coronary intensive care unit. Shortly after admission, he states emphatically that he is leaving and does not desire any more medical treatment. He demands that his intravenous line be taken out and that monitor leads and oxygen be removed, and he gets out of bed and starts to get dressed.

What does the prudent health care provider do? Should the physician prevent this patient from leaving? Should the nurse just have him sign the Against Medical Advice (AMA) form? (The AMA form is far too simplistic to encompass the necessary documentation, but health care providers historically have done no more than have the patient sign this form.) Should the patient's belongings be withheld to prevent him from leaving and thereby endangering his health? Would the health care provider be practicing within the scope of his or her practice by allowing the patient to leave without further discussion?

None of the above "solutions" will prevent potential harm to the patient or protect the health care provider from the risk of lawsuit. Action taken at a time like this must serve a dual purpose: 1) protecting the patient from unnecessary injury; and 2) simultaneously protecting the health care provider from legal ramifications if the patient suffers harm due to a lack of treatment.

Structuring the Scenario

Treatment refusal poses a difficult situation for the health care provider. The right to refuse treatment is a well-known and well-established patient prerogative (Marsh, 1986). In almost all situations, competent adult patients have the right to refuse treatment—even if such refusal will lead to the patient's demise. What is not so well-known, however, is how to structure the scenario in such a way that the health care provider does not incur unnecessary legal risk. Accomplishing this requires much more than having the patient sign the AMA form. The health care provider must take steps to insure that this is an informed refusal (Shea, 1996).

The principles of informed consent are much better known and understood by health care providers than the principles of treatment refusal. Health care providers are well aware that informed consent is a process consisting of several components to assure that the patient has sufficient information to make an educated and informed decision. Adequate education is also essential when a patient wishes to refuse treatment because sufficient information is required to assure that the treatment refusal is, indeed, an informed refusal.

The key to an informed refusal lies in fully educating the patient about the risks of refusing treatment. Explaining the risks of treatment refusal is often sufficient to change the patient's mind about leaving because he reflects on the potential harm that could result from his decision to refuse treatment (Shea, 1996). If the informed and educated patient decides to stay and continue treatment, patient harm is averted, as is the possibility of a lawsuit for medical malpractice.

Protection against Ramifications

Unfortunately, not all scenarios end this way. Despite detailed information from the health care providers, providing clear evidence of potential harm that could ensue, some patients persist in their desire to forego the recommended treatment. How does the health care provider insulate him/herself from legal ramifications of a patient's independent decision? Simply engaging in the process of informed refusal is not enough. The key is detailed documentation, including the following:

- The information shared with the patient regarding the risks of refusing treatment;
- The patient's response to the information provided;
- The patient's mental status at the time the decision was made; and
- The final outcome of the patient's decision.

An example of documentation that encompasses all of the necessary items of documentation is:

"Patient stated that he wanted to leave. Physician and nurse explained to patient that, based on the symptoms he is describing, it is likely that he is having a heart attack and that his heart could suddenly stop, causing sudden death. Patient responded that he understands the risk, has had heart problems for years, is tired of all the treatment, and feels if it is 'his time to go,' he accepts it. Patient was alert and oriented, no confusion noted. Instructed patient to feel free to return if he changes his mind. Patient and family stated

Treatment Refusals: The Process and the Proof

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that they understood the risks of leaving and the instructions about returning. Patient got dressed and left with family. - R. Nurse, RN"

Wise clinicians document these encounters and resulting discussions in detail in the medical record (Nisonson, 2000). Astute legal nurse consultants (LNCs) will search for evidence of informed refusal in the medical record, when confronted with a case involving a patient who voluntarily left treatment and suffered an adverse outcome from complications associated with the lack of treatment. Documentation is the key to evaluating the medical/legal aspects of a treatment refusal case.

Treatment refusals are common in modern-day health care. Patients exercise their rights to consent to and refuse certain treatment. Unfortunately, thorough documentation of these incidents is not nearly as common as the incidents themselves. Prudent health care providers will engage in both steps—the patient education and the detailed documentation.

Landmark Cases in Treatment Refusals

Canterbury v. Spence, 464 F.2d 772 (D.C.Cir.1972), cert. denied 409 US 1064 (1972)
Cobbs v. Grant, 8 Cal.3d 229, 502 P.2d 1, 104 Cal. Rptr. 505 (1972)
Mohr v. Williams, 95 Minn. 261, 104 NW 12 (1905)
Schloendorff v. Society of New York Hospitals, 211 NY 125, 105 NE 92, 32 (1914)

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Q: What Do I Need to Know Before Investing in Computer Equipment for my LNC Business?

Brandie Dawson, RN BSN& Jeanne T. Mills, BSN RN CRN

A: The computer age brings exciting, challenging, and complex changes. It is not enough for the legal nurse consultant (LNC) to simply know how to "surf the Web" or use a word processor. To provide optimal consulting services, today's LNC must be well educated. The technological arena is no exception.

Don't be afraid of your computer! Customizing your computer to work for you will increase your productivity, add professional quality to your work product, and help you stay organized as your workload increases. Envision newsletters using desktop publishing, tight financial management using spreadsheets, and easy direct marketing through Web sites…and don't forget pristine reports and charts with the research right at your fingertips (Cohen, 2001). Fairly new to the computer market are databases specific to medical-legal case analysis. These databases facilitate organization and contain properties that allow analysis of the medical record.

The buying process starts with need recognition. Before purchasing computer equipment for your LNC business or firm, take some time to reflect on how you plan to utilize it and what tasks you would like to be able to perform efficiently. Will you need a system that is networked for multiple users, or do you want the ease of transferring vital data between your portable laptop and your main desktop computer? What programs do you anticipate using, both now and in the near future, as your consulting needs expand? If you are a novice computer user, you may want to spend some time reading computer periodicals to understand what is available to you, as well as to gain valuable insight into strengths and pitfalls of particular models or programs. Also, become familiar with LNC publications—they contain a wealth of information and tips that you might not have considered. Finally, networking with other LNCs can be invaluable as a means of learning what technology is available for case review and consultation.

Compare the various systems or programs available. After you have identified your technology needs, compare the various systems or programs available. Consider ease of use, special features, basic functions, ergonomics, and file compatibility. Look for "hidden costs" such as maintenance requirements, updates, and training. Remember to analyze the product or company in terms of trouble shooting and reference:

- Is 24-hour technical support available?
- Do you speak with a human representative or leave an e-mail, message?
- Do you have to search the help features on your new program yourself?

Consider personal recommendations by talking to your colleagues about the programs and equipment that they have found to be either highly useful or simply a hindrance. Sales representatives, computer news groups, and current technology periodicals will also yield a wealth of information. Be sure to understand the weaknesses of the hardware or software that you have chosen, so that you can adequately safeguard your work product.

Finally, when you have mastered your new hardware or software, share your results—both the positive and the negative—with peers and the parent company of the product. This is a great networking opportunity, as well as an opportunity to learn more about your product or other beneficial systems.

Be aware of constraints. Money, space, and limited time for learning a new system can all be serious issues. Being realistic in these areas will serve you well.

Set aside a realistic amount of time to get to know your computer and what it can do for you. Becoming well-versed with your computer system will require different levels of competency and may require special training. Continuing education for LNCs is no longer solely related to new medical technology and developments, but also encompasses upgrading skills of the computer operator. Learning new computer skills can be accomplished in a variety of methods that can include training provided with the purchase of software, formal classes, in-services, computer journals, and even networking with colleagues to learn what is working well for them.

Stay connected. Being involved with local and national professional organizations can help LNCs stay abreast of current technology and the effects of computers on medical case review and consultation.

The computer is a vital tool for efficient work performance and production of a quality LNC work product. Knowing what hardware and software options are available and choosing the equipment tailored to your practice or firm is not only wise, but rewarding, and maybe even fun!

Q: Now that My Computer Is Up and Running, What Type of Software do I Need to Complete my Case Reviews?

A: There is no need to worry about having the "right" software program to create your case review chronologies because there are many choices on the market today. It is all a matter of affordability, usability, the user's preferences, and the individual's network sharing needs.

These variables all come at a cost, however. Some can be as high as several hundred dollars—certainly something to consider, as this very steep cost may not be practical initially for the new LNC. It is also very prudent to realize that you can create dynamic and thorough reports without using any particular software at all. The basic word processing tools that come with your computer suit many people and can prove more than adequate to serve your purposes. It is definitely a personal decision, based on your computer usage skill level and the desired work product appearance.

The following examples are only a small portion of those available on the market today, listed in no particular order. Many offer free trials so that you can play around with them to see how they work to determine if they fit your specific needs prior to spending the money to purchase them. Choose the programs that best suits you and your desire to produce a stellar work product! *(Please note: The following information is not an endorsement of any one product or company, but an overview of some of those tools that are available for LNC use.)*

Reference

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Useful Web Sites

www.casesoft.com
www.livenote.com
www.stedmans.com/product.cfm/425/237
www.summation.com
www.themasterlist.com

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Name	Description	Web site
CASEMAP	A Windows-based database product that you can use to organize information about the facts, the cast of characters, the issues and questions in any investigation. Other products offered by CaseSoft are Timemap (timeline graphing tool), Notemap (outlining tool), Textmap (transcript summary tool) and Depoprep (witness preparation tool).	www.casesoft.com
LIVENOTE SR™	Recommended for virtually all users – from solo practitioners, to multinational firms, to judges and clerks. LiveNote SR™ provides full functionality for realtime transcription, transcript management and evidence management, including exhibits and synchronized video.	www.livenote.com
STEDMAN'S LEGAL MED WARE	Medical database that is "complete" and medical references are taken from Lippincott, Williams and Wilkins. It has an "automatic" timeline feature which creates an automatic timeline with editable colors/ titles etc., along with other features.	www.stedmans.com/product.cfm/425/237
SUMMATION	Gives you command over the evidence by bringing everything you need—transcripts, documents, issues, and events—to your fingertips in one easy-to-use software program.	www.summation.com
THE MASTER LIST	An easy-to-learn project organizer that puts your related tasks and ideas for all your projects in a simple to-do list for each project. You can see your entire task load in many ways, by what you need to do on any given day, project, task, person, or calendar.	www.themasterlist.com

Index of 2005 Articles

Volume 16 of *The Journal of Legal Nurse Consulting*

The following index lists articles that have appeared in The Journal of Legal Nurse Consulting in 2005. *The articles are organized alphabetically in three ways: by author, by title, and by topic. Titles of regular or recurring columns are abbreviated at the end of each listing as follows: Book Reviews (BR), Legalese (LE), Point of Law (PL), and Questions & Answers (QA).*

By Author

[author name (last name, first name); issue number: page number]

By Title

[title; author(s); issue number: page number]

By Topic

[title; author(s); issue number: page number]

Acupuncture

Addiction

Advanced Directives

Advanced Life Support

Ah-Shi

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AAALNC
AMERICAN ASSOCIATION OF
LEGAL NURSE CONSULTANTS

The Journal of Legal Nurse Consulting

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Submission Guidelines

The Journal of Legal Nurse Consulting (JLNC), a refereed publication, is the official journal of the American Association of Legal Nurse Consultants (AALNC). The journal's purposes are to promote legal nurse consulting within the medical-legal community; to provide both the novice and the experienced legal nurse consultant (LNC) with a high-quality professional publication; and to teach and inform the LNC about clinical practice, current national legal issues, and professional development.

The journal accepts original articles, case studies, letters, and research studies. Query letters are welcomed but not required. A manuscript must be original and never before published, and it should be submitted for review with the understanding that it is not being submitted simultaneously to any other journal. Once submitted, articles are subject to peer review (publication is not guaranteed).

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Manuscripts should not exceed 3,000 words in length. The title page should include the title of the manuscript and the authors' names, credentials, work affiliations and addresses, daytime phone numbers, fax numbers, and e-mail addresses. One author should be designated as the corresponding author. The title page, the tables and figures, and the reference list should each appear on a separate page. Pages, beginning with the title page, should be numbered consecutively.

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Manuscripts should be sent to the JLNC Managing Editor via e-mail at **JLNC@aalnc.org**, as a Microsoft Word attachment. (If not possible, an electronic copy, on a 3.5-in. disk, can be mailed to the JLNC Managing Editor; address above.) Use a minimum of formatting: do not use unusual fonts or a variety of type, and do not insert headers or footers except for page numbers. Create a separate file for tables and figures—do not insert them into the text file. Clearly label your e-mail (or disk) with the submission title and name of the corresponding author.

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