

MEDI-LEGAL RESOURCE NEWS

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A Legal Resource Service

- Medical Record Review and Interpretation
- Literature Research
- Identify and help locate the appropriate testifying experts.

ANATOMICAL PLANES BOBBI BLACK RN CLNC

Medical professionals often refer to sections of the body in terms of anatomical placement. "Planes" are imaginary lines drawn through the upright body. Understanding the planes of the body can facilitate learning terms related to position of the structures relative to each other and movements of the various parts.

In healthcare we often refer to anatomical postures.

1. Erect; the body is in a standing position.
2. Supine; the body in lying flat
3. Prone; the body is lying face down
4. Lateral recumbent; the body is horizontal, on either the left or right side.

Frontal sometimes referred to a coronal divides the body into anterior and posterior section. These sections pass at right angles to the medial plane.

Medial refers to midline, which in the imaginary plane passing from front to back through the center of the body.

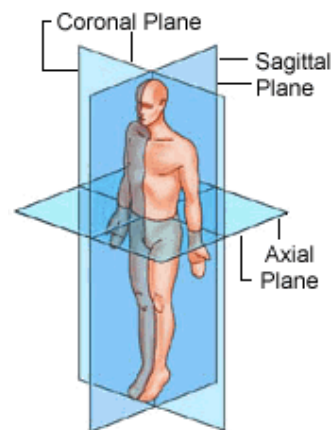
Sagittal a/k/a lateral plane describes the section parallel to the long axis of the body or parallel to the medical plane, dividing the body, in equal parts, from left to right.

Transverse a/k/a axial describes a

horizontal plane ; passing at right angles to both the frontal and medial plane.

Sections of the body and it's parts are usually described by clinicians similar to planar imaging similar to the manner CT identifies internal structures. Longitudinal sections run lengthwise along the axis; transverse sections or cross sections are "slices" at right angles to the longitudinal axis; oblique sections are slices that are not cut along one of the common anatomical planes. For instance Radiographic images and anatomical sections do not always lie precisely in the Sagittal, coronal or horizontal plane.; often they are slightly oblique.

Various adjectives describe relationships or anatomical position of body parts. These are usually arranged in "pairs of opposites." **Lateral** refers to sections away from the midline whereas **medial** indicates more toward the midline. **Proximate** and **Distal** are directional terms aimed toward a reference point. Proximal is toward the reference point and distal is away from the reference point. **Posterior** denotes the back surface whereas **anterior** describes the front surface. **Dorsal** or dorsum is equivalent to posterior, referring to any part that protrude from the anterior surface i.e. tongue, penis,



Superior: closer to the head
 Posterior: closer to the back surface portion
 Medial: near the middle
 Proximal: closer to the origin

foot; **ventral** is equivalent to anterior or front sections. **Inferior** refers to structures closer to the soles of the feet and **superior** describes upper or above a reference point. **Caudal** pertains to the tail and is a directional term when referring to the tail end of the trunk i.e. lumbar cauda. This term is often reference in embryology studies because the embryo has a "tail" until approximately the 8th week of gestation.

Of course, paired structures have left and right members.

(Continued on page 3)

TELEPHONE TRIAGE BY LISA WOLFE RN CLNC

Telephone Triage is a small part of the telehealth movement sweeping the nation. Telehealth is the use of telecommunication technologies providing long distance clinical health care, patient and professional education and health administration.

Telephone triage is quickly becoming common use. This involves the practice of performing a verbal interview and making an assessment in regards to health status of the caller with the assistance of computer aided systems and equipment. In recent years there has been a growth in telephone triage, partly due to the increased demand for the General Practitioner and Emergency Care ; nurses are filling this role.

Nurses have been dispensing advice via the telephone for many years however as telephone triage is quickly becoming a common use it has evolved to much more than just answering health questions. Telephone Triage nurses are typically expected to assess the patient health concerns without the advantage of visual inspection or even face to fact interaction. They must have impeccable listening skills in order to pick up the non-verbal clues the patient is offering in regard to pain, anxiety, fear or level of comprehension. Nurses must be able to effectively communicate with all levels of clients. The nurse must also have a vast knowledge of disease processes as well as the normal growth and development for all ages. The goal is for the nurse to assess the client as far as the urgency of the problem and offer the correct advice for the correct level of patient care.

Telephone triage nursing can be done at many different levels. Many health care facilities offer telephone triage through a community; insurance companies offer services to determine the level health-care intervention needed and traditionally the physician's office offers nurse advice lines. Many forms of triage are being developed with the advance-

ment of new technology.

Currently there is no specialty certification for triage nurses. Nurse's, at all educational levels, with the exception of the practical nurse can do telephone triage. Many facilities require their triage nurses to have a minimum of 5 years clinical experience to qualify for the position. Classes are offered to enhance skills, continuing education seminars are available in order to keep current and many of the computerized equipment vendors have educational offerings to increase the working knowledge of the system. Most call centers have in place, a new employee orientation period and time periods with a preceptor, observing shift procedure.

Triage Nurse's do not diagnose. Their function is to determine the severity of the caller's complaint by utilizing a series of established algorithms. From this collection of data they direct the patient to the appropriate level of care based on the verbal assessment findings. The triage nurse, associated with physicians, may book appointments.. Telephone Triage should not be mistaken for advice line such as Ask a Nurse. Ask a Nurse is typically a community based information service offering answer to health questions in general. Telephone Triage services are usually associated with a health-care facility and supported by a medical provider for the purpose of accepting after hours calls regarding health concerns or medical emergencies. Triage nurses must have excellent communications skills; critical thinking skills and be a detail oriented individual. They must be able to function independently, handle stress and possess varied nursing experience. Triage environment is very different from the physically active and patient care setting. The triage nurse's skill rest on her ability to listen, process information and communicate effectively with the client. The delivery of top notch nursing care must be done without the advantage of seeing or touching the patient.

Triage Nurses use algorithms that provide a pathway to follow as she/he investigates the patient's complaints

ANATOMICAL PLANES (CONTINUED FROM PAGE 1)

Ipsilateral references the same side; **contralateral** indicates the opposite side i.e. right hand is contralateral to the left hand.

Various terms are used to describe movements of the limbs; flexion indicates bending or decreasing the angle; **Dorsiflexion** describes flexion at the ankle joint, typical of the walking motion and **plantarflexion** turns the toes downward toward the plantar surface or toward bottom of foot. **Extension** indicates "straightening" or increasing the angle; hyperextension describes an overextension, such as "whiplash" which can cause injury. **Abduction** means moving away from the medial plane; **adduction** means moving toward the medial plane. Circumduction is a circular motion that combines flexion, extension, abduction and adduction in a manner that the distal segment moves in a circle. This occurs in a joint where all such movements are possible, i.e. hip.

Rotation is a turning or revolving a part of the body along its longitudinal axis. Medial rotation is an internal rotation that brings the anterior surface of a limb closer to the medial

plane; lateral rotation is an external rotation taking the anterior surface away from the medial plane.

Elevation raise or moves a part superiorly; **depression** lowers inferiorly, i.e. shoulders. **Eversion** moves away from the medial plane; inversion moves toward the medial plane, i.e. sole of foot.

Pronation is often used to describe position particularly of a hand or sometimes a foot. In this position the hand rotates the radius medially around the longitudinal axis so the palm faces posterior and the dorsum faces anterior. Supination describes the action of moving the forearm in a manner that that rotates the radius laterally along its longitudinal axis so the dorsum of the hand faces posterior and the palm faces anterior.

Valgus (knee outward or knock-kneed) or varus (knee inward or bow-legged) may be used to describe position of a lower limb. This implies that the knee is no longer in a line-of-force position with the upper leg and that the lower leg deviates from the ideal line.

IN THE NEWS

[Easter v Powell](#); Inmate sues prison nurse for indifference to serious medical needs. Denial of qualified immunity for the nurse is affirmed as there was evidence that her conduct was not objectively reasonable in light of clearly established law.

[Larroquette v Cardinal Health 200 Inc](#); Dismissal of battery action against former employer of medical worker who developed latex allergy is affirmed. Action was improperly joined to the worker's product suite against the glove manufacturer. Joiner of non-diverse party is improper if there is no reasonable basis to predict that the plaintiff may recover against that party. .

[Albertson et al v Wyeth, Inc.](#); Prem-Pro Motion for Class Certification denied Philadelphia County Associated Press Article: [Daniel v Wyeth](#); Prem-Pro litigation; plaintiff awarded 1.5M; no punitive damages

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[Verdict Search.com](#)



Medical-Legal Humor

ATTORNEY: Doctor, before you performed the autopsy, did you check for a pulse?
Blood pressure?
Breathing?

PATHOLOGIST: No.

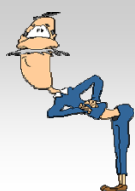
ATTORNEY: So, then its it possible that the patient was alive when you began the autopsy?

PATHOLOGIST: No.

ATTORNEY: How can you be so sure, Doctor?

PATHOLOGIST: Because his brain was sitting on my desk in a jar.

THE RED FLAGS OF ACUTE LOW BACK PAIN ... ARE THEY A CLUE? BY JEANINE LURIE RN BSN CLNC



Acute Low back pain is one of the top ten reasons why patients seek medical care. Acute low back pain (ALBP) is commonly referred to as back pain symptoms of less than 3 months in duration. Most all of us between the ages of 45 to 60 years will experience some form of "back pain".

In general back pain is not considered life threatening. Back pain can arise from many causes. It can range from dull annoying ache to absolute agony. Approximately 80-90% of back pain, in adults is related to mechanical injuries. Most of these will resolve within 3-4 weeks and require only conservative medical measures, such as, non-steroidal anti-inflammatory medications and a program of rest with gradual return to the activities of daily living. A small percent of these patients will experience continual chronic symptoms without any explanation of organic pathology and some will have an underlying disease.

Back pain can also be an indicator of further complications. Health Care providers, both medical and nursing are continually on alert for cardinal signs and symptoms that could indicate complications of ALBP. Medical providers concentrate on a detailed history and physical examination in order to rule out such symptoms and nursing personnel focus interviews and assessments promptly reporting any key or suspicious findings. Acute Low back pain has become so prevalent that the Agency for Health Care Policy and Research (AHRQ) along with the Washington D.C Department of Veterans Affairs has published guidelines establishing a framework for evaluation of Acute Low Back Pain. Red Flag indicators such as trauma, numbness and tingling, sudden loss of bowel and bladder, unexplained fever or weight loss are valuable "clues" that could indicate an underlying complications.

Cauda Equina Syndrome

Continued back pain complaints quite often unveil a lumbar disc herniation. Again, conservative measures, time medications or even surgical interventions may relieve the symptoms. However, lurking in the back ground lays the potential for a serious, devastating complication – the *Cauda Equina Syndrome*. Unlike the herniated disc, Cauda Equina Syndrome is a medical emergency.

Cauda Equina, Latin for "horse's tail" is actually an apt physical description. The Cauda Equina is a sack of nerve roots, with a common covering at the base of the spinal cord. These individual nerve roots provide motor and sensory function to the lower extremities and the bladder.

Cauda Equina Syndrome is rare. Etiologies often reveal a rup-

tured midline intervertebral disc usually causing compression of nerve roots below the L-1 level however tumors and other compressive masses have also been found to be responsible for this devastating condition. The symptoms can mimic those of many other conditions. They may vary in intensity and evolve slowly over time. Most often, a standard plain film radiograph is not helpful in detecting the problem. MRI, sometimes CT or Myelogram have proven to be valuable tools in detecting the defect.

A thorough, detailed medical examination will often discover "red flag" findings such as continued low back pain (*which may or may not be present*), urinary or bowel incontinence, motor weakness or sensory loss and/or saddle anesthesia (*loss of sensations, in areas that would sit on a saddle*). Diminished reflexes or sensory abnormalities in the legs, bladder or rectum and muscle weakness or wasting in the lower extremities and sometimes male sexual dysfunction can also be key findings. Anal tone examination might reveal weakness deficits in the external anal sphincter. The literature supports urinary retention as the most consistent finding. A post void residual catheterization revealing greater than 200 cc is suggestive of urinary retention. Exploring patient's history may also reveal significant "red flags". Many times a recent trauma, cancer or severe infection might predispose a Cauda Equina Syndrome.

Treatment of Cauda Equina is necessary to restore bowel and bladder function, prevent further weakness of the lower extremities and to avoid further complications such as paraplegia. Prompt surgical consultation, is paramount as the window of opportunity is narrow. Studies have shown that early emergent neurosurgical intervention, optimally within 24-48 hours of the onset of the syndrome has proved to be advantageous to the outcome by improving sensory and motor deficits and restoring bowel and bladder functions.

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OBSTETRICAL HEMORRHAGE; QUESTION AND ANSWER
JAN AKEN, RN IBCLC LNC

1. What is the incident of direct obstetrical death owing to hemorrhage?

- a. 1-5% of cases
- b. 25- 30% of cases.

The answer is b. **25-30 %.**(Williams 2001, p 620). Between the years 1979 through 1992, Chichakli 1999, found after looking at 4915 maternal deaths that hemorrhage was found to be a direct cause in 30% of maternal deaths. The major causes of death from hemorrhage are respectively in this order

- a. Abruptio placenta
- b. Lacerated/uterine rupture
- c. Uterine atony
- d. Coagulopathies
- e. Placenta previa
- f. Placenta accreda /increta/percreta
- g. Uterine bleeding and
- h. Retained placenta

2. Which of the following is most commonly associated with placental abruption?

- a. trauma
- b. hypertension

The answer is b some type of **hypertension** (Williams 2001,p 624)

The separation of the placenta from the uterine wall before delivery is called placental abruption. The primary cause is unknown; however, abruption is associated with several conditions. The most common conditions associated with placental abruption are:

- Hypertension
- Preeclampsia
- Gestational hypertension/chronic hypertension

3. What is the average frequency of placental abruption?

- a. 1 in 60

b. 1 in 200

The answer is b. **1 in 200** (Williams 2001, p 622). As one would suspect, placenta abruption with concealed hemorrhage carries a high maternal mortality rate.

4. What is the incidence of abruption severe enough to kill the fetus?

- a. 1 in 350
- b. 1 in 1550

The answer is b **1 in 1550** (Williams 2001, p 623). The incidence of fetal deaths from abruption continues to decrease . The reason being physicians are seeing and taking care of fewer women with high-parity, the readily availability of medical care along with improved transportation to “high tech” maternal care centers

5. What is the most common presenting sign in women with an abruption?

- a. Back pain
- b. Bleeding with abdominal pain

The answer is b. **Bleeding with abdominal pain.** (Williams 2001, p. 626.)

Other signs associated with an abruption include

- Back pain
- Fetal distress(e.g. bradycardia seen on the monitor strip)
- Contractions less than 2 minutes apart
- Uterine hypertonus (a uterus that does not relax between contractions)
- Preterm labor
- Dead fetus

Reference:

Williams Obstetrics 21st Ed. 2001 Chapter 25 Obstetrical Hemorrhage



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MEDICAL RECORD REVIEW AND INTERPRETATION

tion, case management of personal injury clients, and expert testimony, and many others. This allows the attorney to evaluate their decision whether or not to accept a new case before committing extensive time and expense.

As illustrated in this newsletter, nurses have dealt with a wide variety of clinical illnesses and problems throughout their careers. Physicians and medical administrators rely on this experience to help ensure the best possible outcome for patients. No patient exists in a vacuum. Any given situation involves the physician (often more than one), rehab and therapy, respiratory support, and dietary maintenance, and other specialties specific to the situation. When reviewing these cases, multiple diagnostic data must be gathered, analyzed and compared to the activities of healthcare providers in order to determine the whole clinical picture. The effects of the patient's diagnosis on the family and personal financial situation must also be considered. These diverse factors play a role in the outcome. By virtue of training and clinical experience, nurses are adept at putting together the pieces of this puzzle.

For the attorney, all of these tasks consume a considerable amount of time, valuable time need to concentrate on aspects of the law.

THE ROLE OF THE LEGAL NURSE CONSULTANT ROBERT MORRISON RN BSN

Although there are no hard figures available, the Legal Nurse Consulting profession has grown significantly over the past 10 years. Attorneys and law firms have discovered the advantages of having a readily available source of medical and healthcare knowledge in their everyday practice. Just as attorneys need to have outside expertise in such areas as information technology, economics, science and engineering (to name but a few), they also benefit from outside sources of medical information and familiarity with the functions of the healthcare industry.

Nurses have served as legal consultants for many years, though not always recognized as such. Hospitals have always relied on nurses for such activities as utilization review, quality assurance and performance improvement, accreditation and licensure, and oversight of clinical practice departments and functions. Insurance companies also tap into this expertise for case management, liability review, and coverage issues. LNCs may serve the legal profession as either in-house consultants, part-time independent consultants, or registered consulting firms. Their primary functions have been gathering and summarizing of medical records, obtaining missing or incomplete records, and building timelines and chronologies. As attorneys have gained an appreciation of the abilities and knowledge of LNCs, they have expanded their activities to include review for strengths and weaknesses and analysis, identification of substandard care or treatment errors, research, educa-

Gathering and understanding, the medical information can be a daunting task and may require considerable effort to overcome barriers from insurance companies, medical administrators, and physicians' offices when trying to obtain information, get clarification, or simply schedule evaluations or interviews. Think LNC! The time spent performing such tasks can be considerably less when done by a professional, who understands the "ins and outs" of the healthcare industry. Nurses are accustomed to the roles of physicians, educators counselors, advocates and facilitators and are accustomed to dealing with multiple sources of management and administration, which may or may not have competing interests. A patient-focused approach helps the attorney provide a better legal outcome for their client.

When considering an LNC, decide your specific needs. Attorneys who work only with cancer-related malpractice or toxic tort claims may prefer a nurse with a solid background in oncology whereas a nurse with experience in occupational health and case management may better suite a work comp specialist.

Many or perhaps most firms have no way to predict all of the different healthcare specialties that may be encountered therefore don't

"type" LNCs according to clinical background or current practice area, or limit your choices to specific clinical experience, look for the LNCs ability to organize information and time; provide appropriate informative and educational information, pay attention to detail, and have the ability to harness the healthcare knowledge and experience needed for the specific case.

Legal Nurse Consultants have been practicing for 20 + years, and have become quite visible and influential. Court decisions, case reviews, and legal journals often reference LNCs and their involvement in litigation. Legal support organization have recognized the LNC as an integral part of the legal team.

For the busy attorney, pulled in many directions at once by multiple clients with multiple needs, they provide the time-saving tools to keep you "on-top" of the issues in a health-related case.