



**COMPLIANCE
RE-IMAGINED**


Patient Safety in Chiropractic

Scott Munsterman, DC, FICC, CPCO

Scott Munsterman, DC, FICC, CPCO Brief Bio

Dr. Scott Munsterman is an acknowledged expert on the transforming model of health care delivery and compliance with a commitment to the promotion and advancement of the chiropractic profession. Dr. Munsterman is founder and CEO of Best Practices Academy, a clinical improvement organization providing focused leadership to bring practices into compliance with regulatory standards, equip them to improve clinical outcomes, and integrate into the transformed care delivery system. Dr. Scott works with ChiroArmor and eChiroEHR.

Dr. Munsterman is a graduate of Northwestern Health Sciences University, where he has served as Vice-Chair of the Board of Trustees and on the President's Cabinet as Chief of Care Delivery. He was awarded Chiropractor of the Year in South Dakota and the Fellow of the International College of Chiropractors (FICC). He is a professional compliance officer. Dr. Munsterman served two terms as Mayor of the City of Brookings and three consecutive terms in the South Dakota House of Representatives, where he chaired the House Health and Human Services Committee and also chaired the Legislative Planning Committee. He is author of the books "A Vision for South Dakota", "Care Delivery and Chiropractic: An Opportunity Waiting", and "Unfinished Business". However, he states his greatest accomplishment has been his five daughters and six grandchildren - with more success to come.




Disclaimer

The topics taught here are for the sole purpose of the chiropractic profession, any transference to other healthcare disciplines are at the risk of the individual's discretion. The presenter is an investor in the Best Practices Academy and ChiroArmor/ClinicArmor. The Best Practices Academy and ChiroArmor/ClinicArmor denies responsibility or liability for any erroneous opinions, analysis, and coding misunderstandings on behalf of individuals undergoing this course.

This presentation was current at the time it was published or uploaded onto the web. Medicare policy changes frequently so links to the source documents have been provided within the document for your reference. We have based the majority of this program on the guidelines set forth by the OSHA, OCR, HHS, CMS, NCCQA, URAC, AAAHC, AHRQ, and other agencies involved in health care standards and research dissemination, as it relates to the chiropractic profession. We encourage readers to review the specific statutes, regulations, and other interpretive materials for a full and accurate statement of their contents.

No legal advice is given in this program, and we encourage you to refer any such questions to your healthcare attorney.



Where does Patient Safety begin?

Evaluation Process




Office of Inspector General
Report in Brief
May 2012, OIG-05-18-0360

25% of Medicare patients experience patient harm during their hospital stay.

Patient harm includes adverse events and temporary harm events.

- 12 percent of patients experienced adverse events, which are events that led to longer hospital stays, permanent harm, life-saving intervention, or death.
- 13 percent of patients experienced temporary harm events, which required intervention but did not cause lasting harm, prolong hospital stays, or require life-sustaining measures.



Physician-reviewers determined that 43 percent of the harm events could have been prevented if patients had been provided better care.



56% of harm events were not preventable and occurred even though providers followed proper procedures...



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Terminology



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Patient safety: the avoidance, prevention and amelioration of adverse outcomes or injuries stemming from the process of health care.

National Patient Safety Foundation. Agenda for research and development in patient safety.
<http://www.ihi.org/Topics/PatientSafety/Pages/default.aspx>



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What is an Adverse Outcome or Event?

An unexpected and undesired incident directly associated with the care or services provided to the patient; an incident that occurs during the process of providing health care and results in patient injury or death; or an adverse outcome for a patient, including an injury or complication.



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Preventing Clinical Errors

An act of omission or commission in planning or execution that contributes or could contribute to an unintended result.

Defining medical error. Ethan D. Grober, John M.A. Bohnen Can J Surg. 2005 Feb; 48(1): 39–44. PMCID: PMC3211566
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3211566/>



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Preventable Harm

The Institute for Healthcare Improvement defines preventable medical harm as "unintended physical injury resulting from or contributed to by medical care (including the absence of indicated medical treatment), that requires additional monitoring, treatment or hospitalization, or that results in death."

These mistakes, called "preventable harm" or "adverse events" in medical literature, account for up to 1,000 deaths per day.

<https://costsofcare.org/tallying-the-high-cost-of-preventable-harm/>



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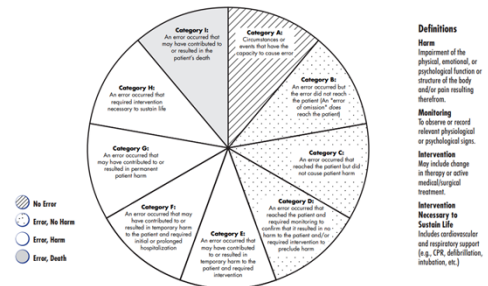
Causes of Errors

Adverse Events vs Near Misses
Human vs System
Commission vs Omission



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NCC MERP Index for Categorizing Medication Errors



Types of Clinical Errors

- Diagnostic
- Treatment
- Preventive
- Other

National Academies of Sciences, Engineering, and Medicine. 2015. *Improving diagnosis in health care*. Washington, DC: The National Academies Press.



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Most errors are the result of various causes and predisposing conditions.

In other words, there are a variety of factors involved that can lead to or cause a clinical error or adverse event – or a near miss.



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Diagnostic Error

"the failure to establish an accurate and timely explanation of the patient's health problem(s) or communicate that explanation to the patient."

National Academies of Sciences, Engineering, and Medicine. 2015. *Improving diagnosis in health care*. Washington, DC: The National Academies Press.



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57% of all diagnostic failures occur in ambulatory care settings.



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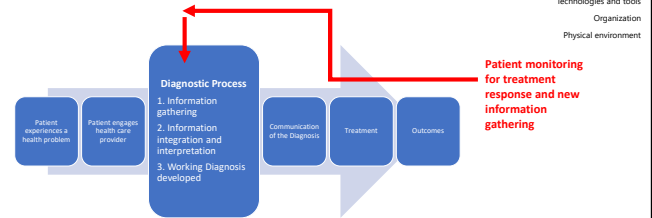
Diagnostic Process: 7 Stages

1. Access and presentation
2. History taking/collection
3. Physical exam
4. Testing
5. Assessment (differential diagnosis)
6. Care planning/referral
7. Follow-up/Outcome Assessment



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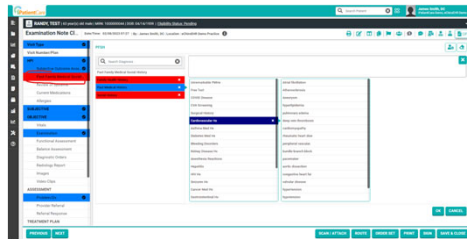
The Clinical Work System



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History of Present Illness

Past Family Medical Social History
Review of Systems
Chief Complaints



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Physical Comorbidities

Past Medical, Family and Social History

History

- Prior Major Illnesses and Injuries
- Prior Surgeries
- Prior Hospitalizations
- Current Medications
- Allergies
- Age Appropriate Immunization Status
- Age Appropriate Feeding/Dietary Status
- Marital Status
- Current Employment
- Occupational History
- Alcohol and Tobacco Usage
- Level of Education
- Sexual History
- Ask if there are any members of the patient's family who have had illnesses with features similar to the patient's.
- Determine the health or cause of death of the patient's parents and siblings.
- Establish whether there is a history of heart disease, high blood pressure, cancer, tuberculosis, stroke, diabetes, arthritic conditions, thyroid disease, kidney disease, asthma, blood diseases, sexually transmitted diseases, or any familial diseases.



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Review of Systems

- | | |
|------------------------------|---------------------------|
| 1. Constitutional | 8. Musculoskeletal |
| 2. Eyes | 9. Integumentary |
| 3. Ears, nose, mouth, throat | 10. Neurological |
| 4. Cardiovascular | 11. Psychiatric |
| 5. Respiratory | 12. Endocrine |
| 6. Gastrointestinal | 13. Hematologic/Lymphatic |
| 7. Genitourinary | 14. Allergic/Immunologic |



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CVA Screening

Has the patient reported any of the following risk factors or symptoms in the medical history?

Is there nausea, vomiting, sensory disturbances (hearing, visual), cramps, weakness, headache, dizziness, and/or loss of consciousness?

Risk Factors:


- Dizziness
- Unsteadiness
- Giddiness
- Vertigo
- Sudden severe pain in the side of the head and/or neck, which is different from any pain the patient has had before
- Age <45 years
- Migraine
- Connective Tissue Disease
- Recent infection (i.e. upper respiratory)



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What are Vital Signs?

These are measurements of the inner workings of the human body and how vital organs, such as the heart and lungs, are functioning.



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INITIAL/PROGRESS VISIT EXAMS

VITAL SIGNS


- HEIGHT
- WEIGHT
- BMI
- BLOOD PRESSURE
- HEART RATE
- RESPIRATION
- BODY TEMPERATURE



The screenshot displays the 'Vital Signs' section of an electronic health record (EHR) system. The interface includes a sidebar with navigation options like 'Patient Information', 'Vital Signs', 'Physical Exam', 'Laboratory', and 'Immunization'. The main area is titled 'Vital Signs - 4/25/2018' and contains a form for recording vital signs. The form is organized into sections: 'Vital Signs' (Height, Weight, BMI, Blood Pressure, Heart Rate, Respiration, Temperature), 'Vital Signs History', and 'Vital Signs Summary'. Each section has a table with columns for 'Date', 'Time', 'Value', and 'Unit'. The 'Vital Signs' section is currently active, showing fields for each vital sign with dropdown menus for units and a 'Save' button. The 'Vital Signs History' section shows a table of previous vital signs with columns for 'Date', 'Time', 'Value', 'Unit', and 'Status'. The 'Vital Signs Summary' section shows a table of vital signs with columns for 'Date', 'Time', 'Value', 'Unit', and 'Status'. The interface is clean and professional, with a green header bar and a blue sidebar.

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- Height
- Weight
 - Abnormal weight loss or gain
 - Rapid change in height
- BMI (calculated from height/weight)
- Temperature
 - Signs of systemic infection or inflammation in the presence of a fever (temp > 101.4 F or sustained temp > 100.4 F. COVID-19 >100F).
- Respirations
 - Varies with age, normal reference range is 16-20 breaths/minute.
- Pulse
 - A newborn or infant can have a heart rate of about 130-150 beats per minute.
 - A toddler's heart will beat about 100-120 times per minute,
 - An older child's heartbeat is around 90-110 beats per minute, adolescents around 80-100 beats per minute, and
 - Adults pulse rate is anywhere between 50 and 80 beats per minute.




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- **Normal**
<120 systolic <80 diastolic
medication not needed, lifestyle
recommendations
- **Pre-hypertensive**
120-139 systolic 80-89 diastolic,
medication not needed, lifestyle
modification (90% chance at 65 to
develop stage 1 and stage 2,
lifestyle changes will decrease risk
to almost 0)
- **Stage 1 hypertension**
140-159 systolic or 90-99
diastolic, lifestyle modifications
given, medications
recommended starting with
thiazide-type diuretics (consider
others if ineffective)
- **Stage 2 hypertension**
>160 systolic or >100 diastolic,
lifestyle modifications given, two-
drug combination therapy
recommended.

Notes on Blood Pressure

- Maximum Cuff Pressure - When the baseline blood pressure is already known or hypertension is not suspected, it is acceptable in adults to inflate the cuff to 200 mmHg and go directly to auscultating the blood pressure. Be aware that there could be an **auscultatory gap** (a silent interval between the true systolic and diastolic pressures).
- Bell or Diaphragm? - Even though the Korotkoff sounds are low frequency and should be heard better with the bell, it is often difficult to apply the bell properly in the antecubital fold. For this reason, it is common practice to use the diaphragm (when taking blood pressure).
- Systolic Pressure - In situations where auscultation is not possible, you can determine systolic blood pressure by palpation alone. Deflate the cuff until you feel the radial or brachial pulse return. The pressure by auscultation would be approximately 10 mmHg higher. Record the pressure indicating it was taken by palpation (60/palp).
- Diastolic Pressure - If there is more than 10 mmHg difference between the muffling and the



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Blood Pressure

- Higher blood pressures are normal during exertion or other stress. Systolic blood pressures below 80 may be a sign of serious illness or shock.
- Blood pressure should be taken in both arms on the first encounter. If there is more than 10 mmHg difference between the two arms, use the arm with the higher reading for subsequent measurements.
- It is frequently helpful to retake the blood pressure near the end of the visit. Earlier pressures may be higher due to the "white coat" effect.
- Always recheck "unexpected" blood pressures yourself.



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Pulse, or Heart rate, is the number of times a heart beats per minute (bpm). Heart rates vary by person, and a normal pulse can range between 60 to 100 beats per minute.

Pulse (Heart Rate)



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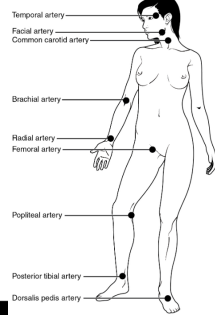
Pulse

Pulse

Pulse indicates heart rate and it is measured clinically to provide clues to a patient's state of health. It is recorded as beats per minute. Both the rate and the strength of the pulse are important clinically. A high or irregular pulse rate can be caused by physical activity or other temporary factors, but it may also indicate a heart condition.

The pulse strength indicates the strength of ventricular contraction and cardiac output. If the pulse is strong, then systolic pressure is high. If it is weak, systolic pressure has fallen, and medical intervention may be warranted.

Pulse can be palpated manually by placing the tips of the fingers across an artery that runs close to the body surface and pressing lightly. While this procedure is normally performed using the radial artery in the wrist or the common carotid artery in the neck, any superficial artery that can be palpated may be used.



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Pulse



- Note whether the pulse is regular or irregular:
 - **Regular** - evenly spaced beats, may vary slightly with respiration
 - **Regularly Irregular** - regular pattern overall with "skipped" beats
 - **Irregularly Irregular** - chaotic, no real pattern, very difficult to measure rate accurately
- Count the pulse for 15 seconds and multiply by 4.
- Count for a full minute if the pulse is irregular.
- Record the rate and rhythm.



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Staff must report any arrhythmias, irregularities in the pulse rate and pace to the doctor.

Pulse



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Pulse/Blood Pressure in Children

In children, pulse and blood pressure vary with the age. The following table should serve as a rough guide:

Average Pulse and Blood Pressure in Normal Children Age

	Birth	6mo	1yr	2yr	6yr	8yr	10yr
Pulse	140	130	115	110	103	100	95
Systolic	70	90	90	92	95	100	105



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Respiration rate, sometimes referred to as breathing rate, is the number of breaths taken per minute. This measurement is always taken when the individual is at rest.

A single respiration count is equal to the chest rising (inhalation) and falling (exhalation) once. The normal range for an adult is 12 to 28 respirations per minute.

Respiration Rate



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Respiration

<https://youtu.be/wWAgk02Bui>

- Best done immediately after taking the patient's pulse. Do **not** announce that you are measuring respirations.
- Without letting go of the patient's wrist begin to observe the patient's breathing. Is it normal or labored?
- Count breaths for 15 seconds and multiply this number by 4 to yield the breaths per minute.
- In adults, normal resting respiratory rate is between 12-28 breaths/minute. Rapid respiration is called tachypnea.



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Temperature is considered normal at 98.6 degrees F (37 degrees C), although anything between 97.6 degrees F (36.4 degrees C) to 99.6 degrees F (37.5 degrees C) is acceptable.

A temperature over 100.4 degrees F (38 degrees C) indicates a fever caused by illness or injury. Hypothermia (low temperature) occurs when the body temperature dips below 95 degrees F (35 degrees C).

Body Temperature



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Temperature

Temperature can be measured in several different ways:

- **Oral** with a glass, paper, or electronic thermometer (normal 98.6F/37C)
- **Axillary** with a glass or electronic thermometer (normal 97.6F/36.3C)
- **Rectal** or "core" with a glass or electronic thermometer (normal 99.6F/37.7C)
- **Aural** (the ear) with an electronic thermometer (normal 99.6F/37.7C)

Of these, axillary is the least and rectal is the most accurate.



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Vital Signs Recap Average Healthy Adults (at rest)

- Blood pressure: 90/60 mm Hg to 120/80 mm Hg
- Respiration: 12 to 18 breaths per minute
- Pulse: 60 to 100 beats per minute
- Temperature: 97.8°F to 99.1°F (36.5°C to 37.3°C)/average 98.6°F (37°C)



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Observation

- Observe the patient as they move thru the office, get in and out of the chair, actions while you are performing their history.
- Document what you see:
 - Walks with a limp
 - Difficulty getting out of chair
 - Appears to be in acute pain
 - Medical emergency



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Examination

- Observation
 - Gait Analysis
 - Postural Function
- Palpation
- Range of Motion
- Orthopedic Tests
- Neurologic Evaluation
- Vascular Evaluation
- Visceral Evaluation
- X-ray/Lab Evaluation
- External Imaging or Specialty Referral



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Questions/Comments

Thank you!



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Not everything is a nail...



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Be aware of patient's at-risk.
Recognize indications and contraindications for common modalities.
Know Red and Yellow Flags, Contraindications, etc.

At-Risk Patient Population



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Red Flags, Yellow Flags, CoMorbidity, and Risk Factors



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A serious condition that must be recognized through the history and exam process that typically requires referral to another health care provider

Clinical Red Flags



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Red Flags

Immediate Referral

1. Fracture/dislocation
 - Significant Trauma
 - Osteoporosis
 - Pathologic Fracture
2. Cancer/tumor
 - Night-time Pain
 - Severe Progressive
 - Unexplained Weight Loss
 - Prior History
3. Infection
 - Elevated Temperature
 - Night Sweats
 - Intravenous Drug Abuse
 - Immunosuppression
4. Vertebrobasilar involvement
5. Instability (including degenerative, surgical or rheumatoid etiologies)
6. Progressive scoliosis
7. Severe osteoporosis
8. Severe hypertension
9. Vertebrobasilar involvement
10. Visceral pathology
11. Inflammatory Arthritides
12. Cauda Equina Syndrome (loss of bladder/bowel function)



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No health care provider can automatically assume that red flags have already been picked up by other providers.



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In addition, stable conditions may become unstable, nonthreatening conditions may become threatening, and new conditions may arise or be present coincidentally.



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General Red Flags

Signs or symptoms that signal dangerous conditions with multiple possible explanations or that can manifest in many different anatomical areas.

Example: headache with a neurological deficit (i.e., due to tumor, bleeding, etc.)



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Common General Red Flags

1. Progressively decreasing mental function at any age (i.e., dementia, etc.) – up to 10% US population over 65 YOA, 85% of those 85 YOA and older.
2. Chronic or repeated dizziness occurring other than when standing up (i.e., cerebral neurohypofunction from decreased blood flow, oxygen, glucose, or toxins, etc. to the brain) – 10-40% of US population over 60 YOA.



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Specific Red Flags

Signal specific illnesses or are present in specific anatomical regions.

Example: injury to a body part (i.e., fracture)



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Common Specific Red Flags

1. Increasing confusion following head trauma (especially elderly person days, weeks, or months after minor head injury).
2. Sudden leg weakness and possible unconsciousness in elderly person when turning head (i.e., "Drop Attack" from vertebral artery insufficiency).



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Common Specific Red Flags

The timing of pain as a factor in red flags...



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Pain that worsens progressively over weeks to months is a general red flag for ongoing tissue damage.



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17

Pain that steadily increases in severity over weeks-to-months indicates a threat of irreversible tissue damage

Due to cancer, nerve damage, post-traumatic or post-surgical pain syndromes, inadequate blood supply to tissues, etc.)



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18

Progressively worsening pain after surgery is never normal.



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19

Increasingly painful area that turns numb is a red flag for sensory nerve destruction from advancing nerve compression syndromes.



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20

Worsening of any stable chronic recurring pain is also a red flag for new tissue necrosis or injury.



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A persistently inflamed joint is a general red flag – causing permanent joint and soft tissue damage if left untreated.



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An unexplained fracture caused by minimal or unidentified trauma is a red flag for some type of pathological deterioration of bone (i.e., osteoporosis, cancer, etc.)



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Severe immediate pain, numbness, weakness and/or loss of function after trauma is a general red flag for fracture or disruption of a vital structure.



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Fractures

It is a fallacy that a patient can't move an extremity if a fracture is present

Fractures are always painful to careful palpation:
Palpation of the disrupted periosteum is always painful and is a reliable sign of fracture



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Severe pain and swelling in a joint immediately after trauma is a general red flag for ruptured arterial arteriolar vessels.



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Intense pain and skin changes persisting many weeks after trauma is a general red flag for complex regional pain syndrome (CRPS, causalgia, reflex sympathetic dystrophy)



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Abdominal pain and rigidity of abdominal muscles is a sign of irritation of the inner lining of the abdominal peritoneum from blood and/or pus.



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Low back pain with progressive leg numbness, tingling, and weakness.



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Back pain with insidious onset and progressive, unintentional weight loss.



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Back pain, Progressive bilateral leg weakness and erectile dysfunction in a man >40 years of age.

Cauda Equina Syndrome



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Cauda Equina Syndrome is a serious condition caused by compression of the nerves in the lower portion of the spinal canal.

Cauda Equina Syndrome



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Cauda Equina Syndrome

McNamee J, Flynn P, O'Leary S, Love M, Kelly B. Imaging in cauda equina syndrome—a pictorial review. *Ulster Med J*. 2013;82(2):100-108. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3756868/>



Fig. 3a

Sagittal T2WI demonstrates a central disc herniation at L4-L5 with significant compression of the adjacent cauda equina nerve roots. Modic I end plate changes are also present at this level.

Cauda Equina Syndrome

Symptoms of cauda equina syndrome include the following:

- Low back pain
- Unilateral (single leg) or bilateral (both legs) **sciatica** (pain originating in the buttocks and traveling down the back of the thigh and legs)
- Saddle and perineal hypoesthesia or anesthesia (numbness in the groin or area of contact if sitting on a saddle)
- Bowel and bladder disturbances
- Lower extremity motor weakness and loss of sensations
- Reduced or absent lower extremity reflexes

Severe, localized midline back pain with spinous process tenderness to percussion.

Compression fracture

Sharp chest pain and shortness of breath with unilateral or bilateral ankle swelling.

Pulmonary embolus

Persistent elbow pain and stiffness after a fall on an outstretched hand.

Fracture of radial head of humerus

Elbow swelling and pain with diminished radial pulse and/or hand numbness after a fall.

Supracondylar fracture of humerus

Headache, eye pain, blurry or haloed vision, nausea, vomiting.

Acute closed-angle glaucoma



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Sudden, cataclysmic headache in a middle-aged hypertensive patient.

Nontraumatic subarachnoid hemorrhage



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Atraumatic, progressive, intermittent hip pain on movement and decreased hip range of motion.

Avascular necrosis of the hip



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Hip, knee, groin pain with limp in obese adolescent with or without trauma with decreased hip range of motion on exam.

Slipped capital femoral epiphysis



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Late teen to early adult with focal, persistent shin pain after increasing running distance.

Stress fracture of the tibia



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Neck pain and progressive sensory changes and weakness in both arms and legs.

Spinal cord injury – Chiari malformation



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Shoulder pain and progressive inability to abduct the arm due to shoulder stiffness.

Adhesive capsulitis of the shoulder



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Pain on urination (dysuria) with high fever, chills, frequent urination, pain in the back and malaise.

Kidney infection



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Chronic tenderness in anatomic snuff box; pain of wrist after fall on outstretched hand.

Occult fracture of the scaphoid



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Resting heart rate >100/minute, hypervigilance, warm skin.

Hyperthyroidism



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Irregularly irregular pulse with rate >100/minute.

Atrial fibrillation



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15 minute episode of unilateral tingling/numbness that resolves completely.

Transient ischemic attack



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Slow onset of patchy numbness and weakness of more than one body part.

Multiple sclerosis



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Unilateral, painless lymph node swelling in the neck, arm or groin.

Lymphoma



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One-sided ankle/distal calf swelling or asymptomatic bilateral swelling (>3 cm difference).

Blood clot in a deep vein of the calf



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Bilateral, pitting ankle swelling with shortness of breath.

Congestive heart failure



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Swelling of one arm with shoulder and/or armpit (axillary) pain.

Subclavian vein deep venous thrombosis



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Sleeper Presentations

Represent far less drama than other red flags – common symptoms like constipation, low back pain which typically have non-serious causes and therefore the provider maybe “lulled” into a false sense of security.

Example: Low back pain: abdominal aortic aneurysm. Constipation: colon cancer.



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911 Situations: How to Handle Emergencies

1. Call for help and dial/have someone dial 911 to activate emergency services system.
2. Provide CPR, basic life support, and first aid if needed until emergency service personnel arrive.
3. Maintain communication with the 911 operator and ensure that the patient and the office are prepared for emergency services personnel.
4. You will be asked some basic questions about the patient's situation by the medical response team that comes to your office. These concerns will be forwarded to the ER staff.
5. You should meet the patient at the ED if your treatment caused harm.



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Patients without Red Flag Indicators

- Patients will be evaluated with a focused history and examination
- Patients will be evaluated with a thorough spinal examination
- Patients will complete the appropriate outcome measure and the patient will be monitored during the treatment plan with the outcome measure.



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A condition that must be recognized thru the history and exam process which requires the DC to be cautious when providing physical medicine to the patient and may require co-management with another health care provider

Cautious Considerations



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- | | |
|--|--|
| 1. Osteoporosis | 10. Use of anticoagulant medication |
| 2. Congenitally blocked vertebrae | 11. Positives on vertebrobasilar testing (if used) other than neurological responses |
| 3. Rheumatoid arthritis | (e.g. alternate position for adjustment if position induces a dizziness response) |
| 4. Seronegative arthropathies | 12. Previous adverse reaction to a specific therapy or therapeutic trial |
| 5. Spinal stenosis | |
| 6. Spinal instability (i.e. listhesis) | |
| 7. A diagnosis of disc herniation or sequestration | |
| 8. Previous surgery | |
| 9. Use of corticosteroids or Cushing's disease | |



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"Yellow flags" are risk factors associated with chronic pain or disability.

Psychological Yellow Flags



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Yellow Flag Behaviors

Two or more **could suggest substance use disorder**

- | | |
|--|--|
| • Deterioration in functioning at work or socially | • Multiple reports of lost or stolen prescriptions |
| • Illegal activities—selling medications, forging prescriptions, or buying medications from nonmedical sources | • Resistance to change in medications despite adverse effects |
| • Using medications in ways other than prescribed (e.g., injecting or snorting medication) | • Refusal to comply with random drug screens, call backs, or pill counts |
| | • Concurrent abuse of alcohol or drugs Use of multiple physicians and pharmacies |



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Behavioral Comorbidities

- **Depression**
- History of Trauma/Abuse
- Personality Disorders
- Substance Abuse, Dependence, Addiction
- Opioid Use Disorder
- Anxiety Disorder
- Post Traumatic Stress Disorder
- Coping Skills/Catastrophizing
- Fear Avoidance



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Risk Factors with Strong Predictive Ability for developing chronic pain and disability

- Fear avoidance beliefs
- Catastrophizing
- Somatization
- Depressed mood
- Distress and anxiety
- Early disability or decreased function
- High initial pain levels
- Increased age
- Poor general health status
- Non-organic signs
- Secondary gain (occupational, social, family, financial)



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Vulnerable Populations

Diagnosis or treatment is significantly limited by social determinants of health
(i.e., economic and social conditions that influence access to care, etc.)



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Differential Diagnosis



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Diagnostic Clusters



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Radiographic Indications

When is it clinically indicated to perform radiographs or other imaging?



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Indications for X-ray	Categorized List of Indications
<p>Introduction</p> <p>Most times, including radiographs, should have a clinical justification based on an analysis of the risk to benefits ratio for the particular individual. If the information gained is less, the benefits outweigh the potential risks from radiation or false negative-positive, radiographs should be performed.</p> <ul style="list-style-type: none"> • Patient age >50, especially with signs and symptoms of systemic disease • History of significant trauma • History of osteoporosis • History of prolonged corticosteroid use • Unexpected response to treatment • Bone pain in a person with past history of cancer (esp. breast, prostate, kidney, thyroid) • Recent (3-5 years) history of breast, colon, prostate, kidney, thyroid cancer • Recent (3-5 years) history of breast cancer • Significant weight loss in <5 weeks • Abnormal lab findings with positive signs or symptoms Non-mechanical pain • Unable to tolerate symptoms on narcotic/pain pills • Progressive painful structural deformity • Redness/swelling • Visible or palpable structural or functional abnormality • Suspected fracture, especially in pediatric population • Suspected inflammatory joint disease • Suspected soft tissue dislocation, subluxation • Suspected spinal instability • Suspected spinal stenosis • Pain lasting longer than 2 weeks 	<p>Based on pain:</p> <ul style="list-style-type: none"> o Lasting longer than 6 weeks o Bone pain in a person with past history of cancer (esp. colon, breast, prostate, kidney, thyroid) o Radiologic symptoms o Progressive painful structural deformity o Non-mechanical pain unable to reproduce symptoms on focused examination <p>Based on history:</p> <ul style="list-style-type: none"> o Recent (3-5 years) history of breast, colon, prostate, kidney, thyroid cancer o Remotes (5-5 years) history of breast cancer o Significant trauma o Osteoporosis o Prolonged corticosteroid use o Inflammatory joint disease or multisystem disorder <p>Based on clinical, historical data or symptoms:</p> <ul style="list-style-type: none"> o Age over 50, especially with signs and or symptoms of systemic disease o Visible or palpable structural or functional abnormality o Swelling/redness of joint or adjacent soft tissue o Abnormal lab findings with positive signs and/or symptoms o Unexpected response to treatment o Significant activity restriction >2 weeks <p>Based on clinical suspicion:</p> <ul style="list-style-type: none"> o Fracture, dislocation, subluxation o Spinal instability o Spinal stenosis o Inflammatory joint disease

[illegible]

X-ray
Lab
Special Imaging (MRI, CT, DEXA, US)
Electrodiagnostic studies

Advanced Studies



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[illegible]

Informed Consent

Consent by a person to undergo a medical procedure, participate in a clinical trial, or be counseled by a professional such as a social worker or lawyer, after receiving all material information regarding risks, benefits, and alternatives.

Informed consent. (n.d.) *The American Heritage® Medical Dictionary* (2007). Retrieved May 26 2020 from <https://medical-dictionary.thefreedictionary.com/informed-consent>

Patient Safety Informed Consent



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Informed Consent Process

Informing patients properly depends upon the sequence and information provided to disclose material risk.



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Discussion between the Clinician and the Patient

Obtain the patient's informed consent to the procedures **after** they have been provided material information **and** discussion with the doctor about all of the alternatives or risks of care.



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Informed Consent **must be obtained annually** and with new patients as part of the intake procedure and/or upon **re-admit, new diagnosis, new evidence, or new treatment.**

Informed Consent Process



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Informed Consent Process

PROCEDURE:

1. Upon patient's check-in, staff provides the unsigned Informed Consent form to the patient following taking the patient's history.
2. Informed Consent is reviewed and discussed with the patient **BY THE CLINICIAN**, at the time of visit, immediately after health history and exam and **prior to treatment and diagnostic procedures**. Any questions the patient may have are answered, always by the clinician.
3. Patient signs and dates form; clinician signs and dates form;
4. Completed form gets turned in to the front desk and gets scanned into patient record – or is signed within the EHR system records directly.



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When do we use Informed Consent?



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Every new patient and those patients who are re-admitted for care due to a new injury or condition, etc.

New Patient/Re-Admit



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2. Determine what services you want the consult/referral provider to perform.



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3. Organize your clinical data logically in a consult/referral letter.



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4. Document your referral in the patient's chart



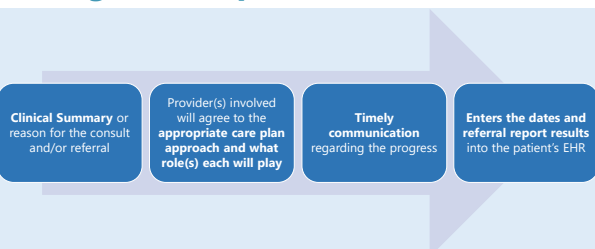
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5. Track the referral to close the loop.



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Tracking the Consult or Referral and Closing the Loop



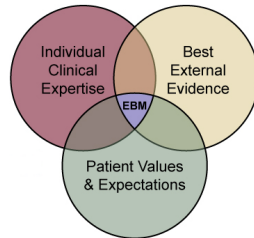
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Treatment



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Evidence-Informed Practice



The Evidence-based
Medicine Triad
Source: Florida State
University, College of
Medicine



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Standard of Care

How does your state licensing board view YOUR responsibilities as a clinician, within the interest of public safety?



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Clinical Competencies

Efficacious Treatment Approaches
Competency of Doctor and Staff in delivery of services



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Are you and your staff attending regular clinical education training?

Do you provide hands-on training for staff?

Are you using FDA approved devices?

Does your treatment follow guidelines?

Are you monitoring and documenting the progress of your patients?

Questions to Ask



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Treatment Visit Screening

Treatment Visit Patient Safety Checklist
Use this checklist to gather essential information regarding the Treatment Visit of a patient to determine if the patient is at risk for an adverse event and there is a need for the monitoring of any patient safety activities.

TREATMENT VISITS	
<input type="checkbox"/> Patient is showing unsteadiness in movements	<input type="checkbox"/> Document subjective and objective findings
<input type="checkbox"/> Patient recently had a hospitalization or surgery	<input type="checkbox"/> Assess procedures and patient response
<input type="checkbox"/> Change in last visit discussed/communicated	<input type="checkbox"/> Assess progress of the patient
<input type="checkbox"/> Significant event identified requiring evaluation	<input type="checkbox"/> Assess diagnosis certainty
<input type="checkbox"/> Patient has a change in medication or allergy	<input type="checkbox"/> Patient monitoring after treatment
<input type="checkbox"/> Patient has fallen within the last 6 months	<input type="checkbox"/> Potential Clinical Red Flags communicated
<input type="checkbox"/> Patient's mental status is not normal	

POST-ENAL/TREATMENT EHR DOCUMENTATION	
<input type="checkbox"/> Patient findings/new information documented	<input type="checkbox"/> Patient response monitored and tolerated
<input type="checkbox"/> Patient progress assessed and documented	<input type="checkbox"/> Therapeutic activities/modifications tolerated
<input type="checkbox"/> Procedures performed correctly without incident	<input type="checkbox"/> Coding and charges completed w/ follow-up



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Misinformed Treatment Plans

Communicating to patients regarding the treatment plan and expectations of care process.



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Care Management Considerations

Transitional Care (Hand-off)
Environment/Falls
Medication Errors/Reconciliation
Team/Communication



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Dry Needling/Acupuncture Adverse Effects

The act of puncturing the skin comes with a number of predictable adverse events (bruising or bleeding, pain during or following treatment) which commonly occur and are mild in nature.

This may be considered normal side effects of treatment. However, from the patient's perspective they may be considered adverse particularly if the patient has not been educated about the risks associated with their dry needling/acupuncture technique.



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Manipulation/Manual Therapy Potential Risks

- ✓ Temporary soreness or increased symptoms or pain It is not uncommon for patients to experience temporary soreness or increased symptoms or pain after the first few treatments.
- ✓ Dizziness, nausea, flushing These symptoms are relatively rare. It is important to notify the doctor if you experience these symptoms during or after your care.
- ✓ Fractures When patients have underlying conditions that weaken bones, like osteoporosis, they may be susceptible to fracture. It is important to notify your doctor if you have been diagnosed with a bone weakening disease or condition. If your doctor detects any such condition while you are under care, you will be informed, and your treatment plan will be modified to minimize risk of fracture.
- ✓ Disc herniation or prolapse Spinal disc conditions like bulges or herniations may worsen even with chiropractic care. It is important to notify your doctor if symptoms change or worsen.
- ✓ Stroke According to the most recent research, there is no evidence of excess risk of stroke associated with chiropractic care. Regarding neck pain and headache symptoms, there is an association between stroke and visits to all provider-types, including primary care medical visits, which may occur before or during the provider visit.
- ✓ Other risks associated with chiropractic treatment include rare burns from physiotherapy devices that produce heat.
- ✓ Bruising Instrument assisted soft tissue manipulation may result in temporary soreness or bruising.



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Chiropractic Clinical Assistant Competency

- Formal training completion with testing
- Understand supervision rules for your state
- Patient response
- Doctor communication - orders



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Recognizing and Preventing Safety Hazards

1. Therapy Modalities
2. Hydraulic/Spring-loaded adjusting tables
3. Sharps (i.e. needles) and Sharps Containers
4. Theraband/Exercise Stations



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Therapeutic Modalities and Table Equipment

- Are all therapeutic modalities and equipment (both, company and employee-owned) used by staff, providers and workforce members at their workplace in good condition?
- Are all of the operating manuals and instructions available to staff, providers and workforce members for all therapeutic modalities and equipment?
- Are staff, providers and workforce members made aware of the hazards caused by faulty or improperly used modalities and equipment?
- Are all cord-connected, electrically operated modalities and equipment effectively grounded or of the approved double insulated type?
- Are children monitored at all times and parent/guardian warned of crush risk or safety issue around modalities?



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Therapeutic Modalities and Table Equipment

- Are all therapeutic modalities and equipment turned off after use and remain off prior to patient use?
- Do patients know what to expect prior to the application of the modality?
- Do patients know what to expect as potential temporary symptoms or reactions to the application of the therapy?



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Theraband Exercise Station

Eye Protection



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Falls Action Plan

1. Evaluate the person after the fall
 - Vitals, check for injury, call 911
2. Investigate fall circumstances
 - Factors, witnesses, etc.
3. Record circumstances and outcome
 - Date, time, detail, etc.
4. Alert person's primary care provider
 - falls assessment should be performed and a plan of care developed.
5. Implement immediate interventions within 24 hours
 - Awareness of high-risk people or situations and monitor compliance



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OSHA Safety Considerations



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Key Concepts to Understand

Hazard refers to the inherent properties of a chemical, work practice, equipment, etc. that make it capable of causing harm to a person or the environment.

Exposure describes both the amount of, and the frequency with which, a hazard comes into contact with a person, group of people or the environment.

Risk is the possibility of a harm arising from a particular exposure to a hazard, under specific conditions.



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Emergency Disaster Policy

The policy is to protect the patients, staff and clinicians in the event of an action or an occurrence that poses a threat to life or property. Procedures will be adopted to address as much as possible events that would threaten the lives and health of patients, staff and clinicians.



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Emergency Disaster Policy & Procedure

- Immediate Actions Following an Emergency
- Bomb Threat
- Loss of Critical Utilities
- Emergency Assistance
- Business Data Backup
- Cardiac/Respiratory Arrest Protocol
- Tornado/Severe Weather Plan
- Terrorist Chemical/Biological Threat Exposure
- Security
- Emergency Action Plan



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Emergency Action Plan



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Emergency Action Plan

- Alerts
- Policy on Evacuation
- Routes
- Extinguishers
- Operations shutdown
- Duties assigned
- Assembly after an evacuation
- Accounting



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OSHA's New COVID-19 Standard Update

Managing Risk for Staff and Doctors



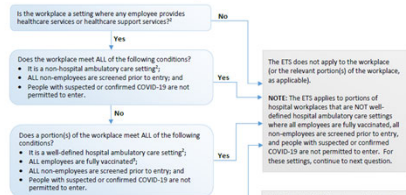
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EMERGENCY TEMPORARY STANDARD

Is your workplace covered by the COVID-19 Healthcare ETS?



Employers may use the flow chart and footnote 1, below, to determine whether and how your workplace is covered by the ETS.¹ For the full text of the ETS, refer to 29 CFR 1910.1060 at www.osha.gov/coronavirus/ets.



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References

OSHA

<https://www.osha.gov/coronavirus/control-prevention>

<https://www.osha.gov/coronavirus/safework>

CDC

https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html?CDC_AA_reffval=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fhcp%2Finfection-control-after-vaccination.html#print



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Preventing Blood-borne Pathogens

Bloodborne Pathogen Standard Policy
Sharps/Needle sticks



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Preventing Air-borne Pathogens

Exposure Control Plan



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Mitigating the Exposure Risk

COVID-19 Screening (patients/workers)
Assess Community Spread
Implement Multiple Layers of Controls



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COVID-19 Screening

1. Are you COVID-19 positive or been told by a licensed healthcare provider that you are suspected to have COVID-19?
2. Are you experiencing recent loss of taste and/or smell with no other explanation?
3. Are you experiencing both fever (≥ 100.4 °F) and new unexplained cough associated with shortness of breath?



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Non-worker Screening

Patients and Visitors



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Worker Screening

Self-Screening Program
On-site Screening Program



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Medical Records

Note that 29 CFR 1910.1020 may apply to temperature records if you are providing on-site worker screening...



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Should workers in settings not covered by the Healthcare ETS wear cloth face coverings while at work?

OSHA's guidance is consistent with the Centers for Disease Control and Prevention (CDC). In addition to unvaccinated and otherwise at-risk workers, CDC recommends that even fully vaccinated people wear masks in public indoor settings in areas of substantial or high transmission and notes that fully vaccinated people may appropriately choose to wear a mask in public indoor settings regardless of level of transmission, particularly for people who are at-risk or have someone in their household who is at-risk or not fully vaccinated. Unless otherwise provided by federal, state, or local requirements, workers who are outdoors may opt not to wear face coverings unless they are at risk, for example, if they are immunocompromised. Regardless, all workers should be supported in continuing to wear a face covering if they choose, especially in order to safely work closely with other people.

Note that cloth face coverings are not considered personal protective equipment (PPE) and cannot be used in place of respirators when respirators are otherwise required. Learn more about cloth face coverings on the CDC website.

Employers may need to provide reasonable accommodation for any workers who are unable to wear or have difficulty wearing certain types of face coverings due to a disability or who need a religious accommodation. In workplaces with employees who are deaf or have hearing deficits, employers should consider acquiring masks with clear coverings over the mouth to facilitate lip-reading.

For information about masking requirements for public transportation conveyances and transportation hubs check with the CDC.

Do we still need to use facemasks?

<https://www.osha.gov/coronavirus/faqs#cloth-face-coverings>



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The agency now says that facilities in areas without high transmission can decide for themselves whether to require everyone — doctors, patients, and visitors — to wear masks.

Community transmission "is the metric currently recommended to guide select practices in healthcare settings to allow for earlier intervention, before there is strain on the healthcare system and to better protect the individuals seeking care in these settings," the CDC said.

https://www.medscape.com/viewarticle/981629?rc=WNL_dne1_220930_MSCPEDIT&uac=395626EV&impID=4698875&faf=1



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"substantial or high transmission"

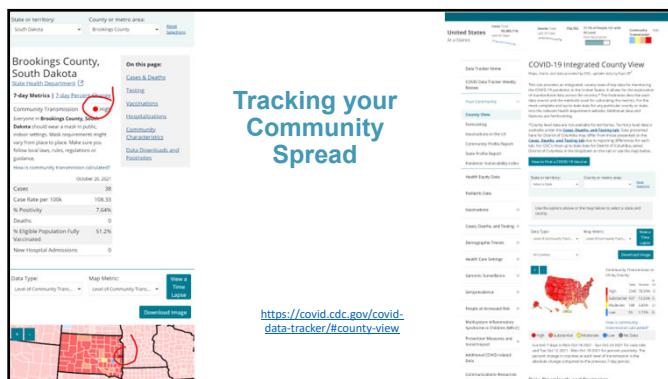
The key is "substantial or high transmission" which needs to be evaluated here:

<https://www.cdc.gov/covid-data-tracker/#community-view?select=state=all&state=all&county=all&community=all&type=Risk>

You can see where your county is at in transmission rates, and then make the face mask decision accordingly.



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Multiple Layers of Controls

Removing from the workplace all infected people

Mask wearing

Distancing

Increased ventilation

Proper cleaning/disinfecting

Proper hand hygiene

Training



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What types of safety equipment are available?

- Fire extinguisher
- CPR equipment (AED, CPR Masks/Supplies)
- Gloves
- Face Masks
- Disinfectant
- Alcohol-based hand rub
- Handwashing Station
- Blood Draw Equipment
- KNOWLEDGE



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Re-Cap



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Clinical Conscientiousness and Awareness

Maintaining your clinical mindset



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The “Walk”

Welcome
Ask
Listen
Knowledge



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Screening Patients:

Why are you here today?
Has there been a change in how you are feeling since your last visit?
Have you seen anyone else about your health?
Do you have questions about...
Are you worried about your health?

Situational Awareness:

No change or worsening
Observation of patient's mental status, behaviors, or characteristics

Has there been a “Significant Event”?



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Patient Safety Questionnaire

Please answer the following questions as it pertains to your visit today – we will use this information as we strive to help you!

- | Yes | No | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | I have felt unsteady and off balance when I walk, stand or move. |
| <input type="checkbox"/> | <input type="checkbox"/> | I have recently had a hospitalization or surgery since my last visit. |
| <input type="checkbox"/> | <input type="checkbox"/> | There has been a change in my condition since my last visit. |
| <input type="checkbox"/> | <input type="checkbox"/> | Something happened to me since my last visit (i.e., accident, fall, etc.) |
| <input type="checkbox"/> | <input type="checkbox"/> | I have had a recent change in my medication or have a new allergy. |
| <input type="checkbox"/> | <input type="checkbox"/> | I have fallen within the last 6 months. |
| <input type="checkbox"/> | <input type="checkbox"/> | My mental processing or thinking doesn't seem very clear or is different to me. |
| <input type="checkbox"/> | <input type="checkbox"/> | I need to talk to the doctor about my progress. |
| <input type="checkbox"/> | <input type="checkbox"/> | I am concerned about the treatment I am getting. |
| <input type="checkbox"/> | <input type="checkbox"/> | I have questions I need to ask the doctor today. |



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Does the patient's clinical presentation require urgent need for evaluation and/or care?

The doctor must be informed of any new information about the patient that has been related to staff.



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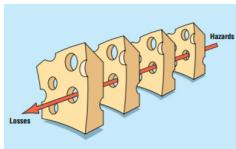
Stay Connected to Established Patients who are under a treatment plan.

Following the treatment plan, evidence-informed care guidelines, and the patient's response to care...

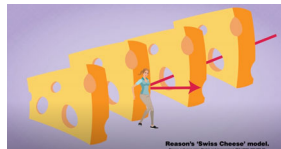


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It just takes one thing to block the incident...



<https://www.youtube.com/watch?v=2184w27d4k4>



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Thank you!

Scott Munsterman, DC, FICC, CPCO



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What types of safety equipment are available?

- Fire extinguisher
- CPR equipment (AED, CPR Masks/Supplies)
- Gloves
- Face Masks
- Disinfectant
- Alcohol-based hand rub
- Handwashing Station
- Blood Draw Equipment
- KNOWLEDGE

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An act of omission or commission in planning or execution that contributes or could contribute to an unintended result.

Defining medical error: Ethan D. Grober, John M.A. Bohnen Can J Surg. 2005 Feb; 48(1): 39-44. PMID: 1563211566
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3211566/>

What is a Clinical Error?

183

Patient safety: the avoidance, prevention and amelioration of adverse outcomes or injuries stemming from the process of health care.

National Patient Safety Foundation, Agenda for research and development in patient safety.
<http://www.npsf.org/Topics/PatientSafety/Pages/default.aspx>

First, do no harm.

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The Institute for Healthcare Improvement defines preventable medical harm as "unintended physical injury resulting from or contributed to by medical care (including the absence of indicated medical treatment), that requires additional monitoring, treatment or hospitalization, or that results in death."

These mistakes, called "preventable harm" or "adverse events" in medical literature, account for up to 1,000 deaths per day.

<http://cochrane.org/ball/increasing-the-high-cost-of-preventable-harm/>

What Is Preventable Harm?

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An unexpected and undesired incident directly associated with the care or services provided to the patient; an incident that occurs during the process of providing health care and results in patient injury or death; or an adverse outcome for a patient, including an injury or complication.

Adverse Event

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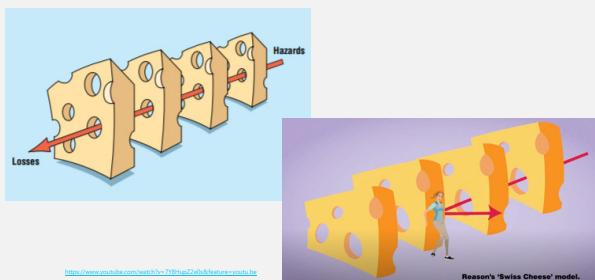
Swiss Cheese model

Reason J. Human error: Models and management. BMJ 2000; 320:768-70

Most interactions are the result of many causes and predisposing conditions

190

It just takes one thing to block the incident...



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Reasons for Holes in the Defense Layers

Active Failures are the unsafe acts committed by people who are in direct contact with the patient or system. They take a variety of forms: slips, lapses, fumbles, mistakes, and procedural violations.

Latent Conditions have two kinds of adverse effects:

- they can translate into error provoking conditions within the workplace (i.e. time pressure, understaffing, inadequate equipment, fatigue, inexperience) and
- they can create long-lasting holes or weaknesses in the defenses (i.e. lack of training for staff, improper therapeutic or billing practices, lack of compliance policy).

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Adverse Events vs Near Misses Human vs System Commission vs Omission

Causes of Errors

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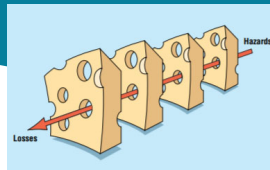
But when incidents do occur...

- The incident should not be kept secret. All incidents need to be documented and discussed with the doctor and coworkers.
- The doctor should talk to the patient
 - Discuss what has been learned
 - Provide an honest expression of regret or apology
 - Can often decrease the risk of legal action

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A bad outcome occurs only when the holes in many defense layers momentarily line up to permit a trajectory of an accident opportunity—bringing hazards into damaging contact with patients.

Holes in the Defense Layers



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What are the defense layers in the practice?

1. Emergency identification/response procedures are in place.
2. Perform vital signs.
3. Properly diagnosis a patient's condition.
4. Identifying contraindications for care and red flags.
5. Perform manipulation procedure properly.
6. Safely apply therapeutic procedures/activities on each visit.
7. Close oversight/response of patient monitoring during care.
8. Close oversight of visitors/children during patient's visit.
9. Awareness of external activities within and outside of the facility.
10. Doctor/Staff rested and devote 100% present time consciousness.

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Most Common Patient Safety Issues

- Falls
- Equipment malfunction
- Infection prevention procedures
- Faulty patient perception of an incident occurring stemming from lack of communicating to the patient what to expect from treatment
- Underlying medical emergency/red flag (i.e., cardiovascular, cerebrovascular, fracture, infection, cancer)

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Recognizing Patient Safety Incidents

- Patient complains of pain after treatment
- Modality malfunctioning or not being applied properly
- Patient nearly falling
- Patient safety incidents range from "No Harm" to "Unnecessary Harm"

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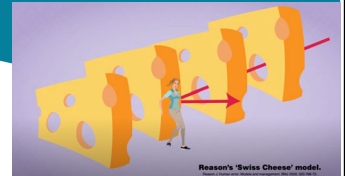
Underlying Causes

- Patient OTC drug use and interactions increase risk of falls
- Provider/therapist fatigue and stress can lead to miscommunications
- Short staffing and increased workload

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Follow Safe Practice Procedures

You and your staff must be the “**one thing**”...



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Scope of Safety Issues

In Chiropractic...

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Commonly Misdiagnosed Conditions

The “Big Three”: misdiagnosed cancers (37.8%), vascular events, like stroke and heart attack (22.8%), and infections (13.5%).

Cancers

- Lung, breast, colorectal, prostate, and skin cancers

Vascular events

- Stroke, heart attack, venous thromboembolism (blood clots in the legs and lungs), aortic aneurysm and rupture (dissection), arterial thromboembolism (a blockage of the blood supply to internal organs)

Infections

- Sepsis, meningitis, encephalitis, spinal infection, pneumonia, and endocarditis (a heart infection)

Hawthorn-Gibson, G. N., & Gifford, A. C. (2019). Common misdiagnosed conditions in chiropractic: the “Big Three” – vascular events, infections, and cancers. *Chiropractic*, 13(1), 1-10. <https://doi.org/10.1016/j.chiro.2019.01.001>

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What are the various factors that may set us up for risk of a clinical error in practice?

Professional Boundaries in Clinical Practice

Patient Relationships

204

Scenarios

You are well established in the community and have many patients. Relationships are important to you and especially friendships with others. Because you are a successful doctor, your friends naturally have become patients as well.

Scenario #1

Your family is important to you and extended family members come to see you in the practice for care.

Scenario #2

A patient recently started receiving treatment in the practice. You and he connect with each other and you sense a bit of a chemistry is there however you don't realize you may be attracted to him. But you find yourself caring about what you look like - you begin to dress up, spend a bit more time doing your hair and make-up on the days you know he will be in for treatment.

Scenario #3

In the practice, there are some patients who you don't necessarily like as a person and there are some that you do - and one patient in the practice in particular is so friendly and thoughtful. One evening when you were out getting groceries you run into this person in the aisle and strike up a conversation. About 30 minutes has gone by and you didn't realize you spent that much time talking because it was so enjoyable. You find so many things in common with this person. Finally before you part the patient makes the comment, "Hey, we should get together some time, what are you doing this weekend?"

Scenario #4

Were there boundaries crossed in any of these scenarios - or are these just "normal" scenarios we can expect?

Boundaries were crossed and yes, we can continue to expect these scenarios. But how we manage these relationships determine the difference between crossing a boundary and committing a boundary violation...

The answer is yes and yes.

211

Professional boundaries are limits which protect a worker's professional power and their patient's vulnerability. Successful and ethical working relationships are based on a clear understanding of what the workers' role is – and just as importantly – what their role isn't.

Definition of Professional Boundary

<https://mcarthur.com.au/media/1429/understanding-professional-boundaries.pdf>

212

When does Clinical Integrity become compromised?

THE ROLE	THE LINE	THE IMPACT
Professional Service Social Interaction		
Mutual Friendship	BOUNDARY CROSSING	CONCIENTIOUSNESS OF BOUNDARY VIOLATION PENDING
Close Friendship Family Intimacy	BOUNDARY VIOLATION	PERSONAL GAIN EMOTIONAL DEPENDENCY VIEWED AS EXPLOITATION IF PROFESSIONAL ROLE IS CONTINUED

213

What is our role as a health care professional?

- Perform clinical duties and provide care to a patient
- Protect the patient from harm
- Meet reasonable expectations of the patient
 - Respect and dignity
 - Provide competent care
 - Practice ethically
 - Uphold confidentiality
 - Comply with all laws regulating your practice and behaviors
- Honesty in all patient interactions
- Equitable and fair treatment of all patients regardless of their race, religion, socioeconomic status, etc.

214

Dual Relationships

What are the challenges?

Key questions to ask yourself...

215

Does the dual relationship compromise the professional role you serve with the patient?

216

Has a conflict of interest arisen from the dual relationship?

217

Has your allegiance shifted away from your focus in your professional role to a more personal role whereby you are seeking and benefiting personally from the relationship?

218

Maintaining Boundaries

- Do not seek out a personal relationship with your patients, nor with their family, friends or support network
- Do not have a sexual relationship with patients, their family, friends or people in their support network
- Do not introduce patients to your own family, friends or support network (e.g., don't invite people home for family gatherings etc. Work and home should be kept separate.)
- Do not socialize with patients, their family or friends outside of work hours. Your work finishes at the end of your shift
- Do not smoke or drink alcohol in front of patients
- Do not borrow, ask for or lend money to patients
- Do not ask for money, gifts or special favors from your patients
- Keep your family/home life private
- Use professional language at all times
- Do not pay for your patient or let them pay for you
- Empower patients, don't make yourself irreplaceable
- Do not accept gifts or buy gifts for your patients
- Do not allow patients to drive your own/work motor vehicle
- Respect confidentiality and privacy
- Do not disclose personal information
- Do not give advice outside of your skills and expertise
- Do not talk about your personal financial or other life problems with patients

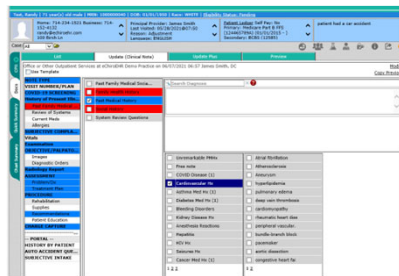
DO NOT LET YOUR GUARD DOWN

219

Evaluation Process

History of Present Illness

Past Family Medical Social History
Review of Systems
Chief Complaints



Physical Comorbidities

Past Medical, Family and Social History

- Prior Major Illnesses and Injuries
- Prior Surgeries
- Prior Hospitalizations
- Current Medications
- Allergies
- Age Appropriate Immunization Status
- Age Appropriate Feeding/Dietary Status
- Marital Status
- Current Employment
- Occupational History
- Alcohol and Tobacco Usage
- Level of Education
- Sexual History
- Ask if there are any members of the patient's family who have had illnesses with features similar to the patient's.
- Determine the health or cause of death of the patient's parents and siblings.
- Establish whether there is a history of heart disease, high blood pressure, cancer, tuberculosis, stroke, diabetes, arthritic conditions, thyroid disease, kidney disease, asthma, blood diseases, sexually transmitted diseases, or any familial diseases.

222

Physical Comorbidities

Review of Systems

- | | |
|---------------------------------|---------------------------|
| 1. Constitutional | 8. Musculoskeletal |
| 2. Eyes | 9. Integumentary |
| 3. Ears, nose,
mouth, throat | 10. Neurological |
| 4. Cardiovascular | 11. Psychiatric |
| 5. Respiratory | 12. Endocrine |
| 6. Gastrointestinal | 13. Hematologic/Lymphatic |
| 7. Genitourinary | 14. Allergic/Immunologic |

222

CVA Screening

Has the patient reported any of the following risk factors or symptoms in the medical history?

Is there nausea, vomiting, sensory disturbances (hearing, visual), cramps, weakness, headache, dizziness, and/or loss of consciousness?

Risk Factors:

- Dizziness
- Unsteadiness
- Giddiness
- Vertigo
- Sudden severe pain in the side of the head and/or neck, which is different from any pain the patient has had before
- Age <45 years
- Migraine
- Connective Tissue Disease
- Recent infection (i.e. upper respiratory)

224

What are Vital Signs?

These are measurements of the inner workings of the human body and how vital organs, such as the heart and lungs, are functioning.

225

INITIAL/PROGRESS VISIT EXAMS

VITAL SIGNS

- HEIGHT
- WEIGHT
- BMI
- BLOOD PRESSURE
- HEART RATE
- RESPIRATION

226

Vitals

- Height
- Weight
 - Abnormal weight loss or gain
 - Rapid change in height
- BMI (calculated from height/weight)
- Temperature
 - Signs of systemic infection or inflammation in the presence of a fever (temp > 101.4 F or sustained temp > 100.4 F. COVID-19 >100F).

- Respirations
 - Varies with age, normal reference range is 16-20 breaths/minute.
- Pulse
 - A newborn or infant can have a heart rate of about 130-150 beats per minute.
 - A toddler's heart will beat about 100-120 times per minute,
 - An older child's heartbeat is around 90-110 beats per minute, adolescents around 80-100 beats per minute, and
 - Adults pulse rate is anywhere between 50 and 80 beats per minute.

227

How to Perform Vitals

General Considerations

- The patient should **not** have had alcohol, tobacco, caffeine, or performed vigorous exercise within 30 minutes of the exam.
- Ideally the patient should be sitting with feet on the floor and their back supported. The examination room should be quiet and the patient comfortable.
- History of hypertension, slow or rapid pulse, and current medications should always be obtained.

228

Notes on Vitals

- Unlike pulse, respirations are very much under voluntary control. If you tell the patient you are counting their breaths, they may change their breathing pattern. You cannot tell someone to "breathe normally," normal breathing is involuntary.
- With an irregular pulse, the beats counted in any 15 second period may not represent the overall rate. The longer you measure, the more these variations are averaged out.
- **Do not rely** on pressures obtained using a cuff that is too small or too large. This is frequently a problem with obese or muscular adults where the regular cuff is too small. The pressure recorded will most often be 10, 20, even 50 mmHg too high! Finding a large cuff may be inconvenient, but you will also "cure" a lot of high blood pressure.

229

Vitals

Blood Pressure
Pulse
Respiration
Body Temperature



230

Most common primary diagnosis in the US
Essentially silent disorder, 30% of individuals are
unaware they are hypertensive
\$320 Billion in health care costs US alone
Significant modifiable risk factor for CVD
Related to LBP

Hypertension

231

Hypertension

- **Normal**
<120 Systolic <80 diastolic
medication not needed, lifestyle recommendations
- **Pre-hypertensive**
120-139 systolic 80-89 diastolic,
medication not needed, lifestyle modification (90% chance at 65 to develop stage 1 and stage 2, lifestyle changes will decrease risk to almost 0)
- **Stage 1 hypertension**
140-159 systolic or 90-99 diastolic, lifestyle modifications given, medications recommended starting with thiazide-type diuretics (consider others if ineffective)
- **Stage 2 hypertension**
>160 systolic or >100 diastolic, lifestyle modifications given, two-drug combination therapy recommended.

232

Notes on Blood Pressure

- **Maximum Cuff Pressure** - When the baseline blood pressure is already known or hypertension is not suspected, it is acceptable in adults to inflate the cuff to 200 mmHg and go directly to auscultating the blood pressure. Be aware that there could be an **auscultatory gap** (a silent interval between the true systolic and diastolic pressures).
- **Bell or Diaphragm?** - Even though the Korotkoff sounds are low frequency and should be heard better with the bell, it is often difficult to apply the bell properly in the antecubital fold. For this reason, it is common practice to use the diaphragm when taking blood pressure.
- **Systolic Pressure** - In situations where auscultation is not possible, you can determine systolic blood pressure by palpation alone. Deflate the cuff until you feel the radial or brachial pulse return. The pressure by auscultation would be approximately 10 mmHg higher. Record the pressure indicating it was taken by palpation (60/palp).
- **Diastolic Pressure** - If there is more than 10 mmHg difference between the muffling and the disappearance of the sounds, record all three numbers (120/80/45).

233

Blood Pressure

- Higher blood pressures are normal during exertion or other stress. Systolic blood pressures below 80 may be a sign of serious illness or shock.
- Blood pressure should be taken in both arms on the first encounter. If there is more than 10 mmHg difference between the two arms, use the arm with the higher reading for subsequent measurements.
- It is frequently helpful to retake the blood pressure near the end of the visit. Earlier pressures may be higher due to the "white coat" effect.
- Always recheck "unexpected" blood pressures yourself.

234

Blood Pressure

- Position the patient's arm so the antecubital fold is level with the heart. Support the patient's arm with your arm or a bedside table.
- Center the bladder of the cuff over the brachial artery approximately 2 cm above the antecubital fold. **Proper cuff size is essential** to obtain an accurate reading. Be sure the index line falls between the size marks when you apply the cuff. Position the patient's arm so it is slightly flexed at the elbow.
- Palpate the radial pulse and inflate the cuff until the pulse disappears. This is a rough estimate of the systolic pressure.
- Place the stethoscope over the brachial artery.
- Inflate the cuff to 30 mmHg above the estimated systolic pressure.
- Release the pressure slowly, no greater than 5 mmHg per second.
- The level at which you consistently hear beats is the systolic pressure.
- Continue to lower the pressure until the sounds muffle and disappear. This is the diastolic pressure.
- Record the blood pressure as systolic over diastolic ("120/70" for example).

235

To take blood pressure using a stethoscope, cuff and aneroid monitor:

- Wash your hands.
- Disinfect stethoscope earpieces and diaphragm (round disk).
- Check to make sure that the blood pressure monitor is in good working order.
- Place fingers on the underside of the elbow to locate pulse (called the brachial pulse).
- Wrap and fasten deflated cuff snugly around the upper arm at least one inch above where you felt the strong and steady brachial pulse.
- Insert stethoscope earpieces and position diaphragm directly over the brachial pulse.
- Pump air, inflating the arm cuff until the dial pointer reaches 170.
- Gently turn the knob on the air pump counter-clockwise to open the valve and deflate the cuff.
- As the dial pointer falls, watch the number and listen for a thumping sound.
- Note the number shown where the first thump is heard (systolic pressure).
- Note the number shown where the last thump is heard (diastolic pressure).
- Deflate and remove cuff.
- Document the reading, written as systolic/diastolic, and note any unusual observations.



236

Pulse, or Heart rate, is the number of times a heart beats per minute (bpm). Heart rates vary by person, and a normal pulse can range between 60 to 100 beats per minute.

Pulse (Heart Rate)

237

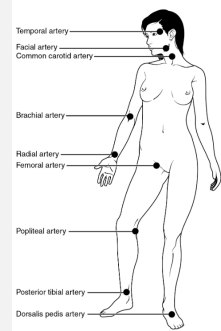
Pulse

Pulse

Pulse indicates heart rate and it is measured clinically to provide clues to a patient's state of health. It is recorded as beats per minute. Both the rate and the strength of the pulse are important clinically. A high or irregular pulse rate can be caused by physical activity or other temporary factors, but it may also indicate a heart condition.

The pulse strength indicates the strength of ventricular contraction and cardiac output. If the pulse is strong, then systolic pressure is high. If it is weak, systolic pressure has fallen, and medical intervention may be warranted.

Pulse can be palpated manually by placing the tips of the fingers across an artery that runs close to the body surface and pressing lightly. While this procedure is normally performed using the radial artery in the wrist or the common carotid artery in the neck, any superficial artery that can be palpated may be used.



238

To take a pulse:

- Wash your hands.
- Make sure that individual is at rest before you begin.
- The easiest place to find a pulse to measure is the radial artery found on the inside of the wrist closest to the thumb. Alternatively, you can find the pulse on the inside of the elbow (brachial artery), behind the knee (popliteal artery) or neck (carotid artery).
- Use first and second fingertips (never the thumb) to press firmly but gently on the wrist (or otherwise) until you feel a pulse.
- With an analog clock or watch, wait until the second hand is on the 12.
- Begin counting the beats of the pulse.
- Count pulse for 60 seconds until the second-hand returns to the 12 (you may also count for 15 seconds and multiply by 4 to calculate beats per minute).
- When counting, do not watch the clock continuously, but concentrate on the beats of the pulse.



239

Pulse

- Note whether the pulse is regular or irregular:
 - Regular** - evenly spaced beats, may vary slightly with respiration
 - Regularly Irregular** - regular pattern overall with "skipped" beats
 - Irregularly Irregular** - chaotic, no real pattern, very difficult to measure rate accurately
- Count the pulse for 15 seconds and multiply by 4.
- Count for a full minute if the pulse is irregular.
- Record the rate and rhythm.



240

Staff must report any arrhythmias, irregularities in the pulse rate and pace to the doctor.

Pulse

241

Pulse/Blood Pressure in Children

In children, pulse and blood pressure vary with the age. The following table should serve as a rough guide:

Average Pulse and Blood Pressure in Normal Children Age

	Birth	6mo	1yr	2yr	6yr	8yr	10yr
Pulse	140	130	115	110	103	100	95
Systolic	70	90	90	92	95	100	105

242

Respiration rate, sometimes referred to as breathing rate, is the number of breaths taken per minute. This measurement is always taken when the individual is at rest.

A single respiration count is equal to the chest rising (inhalation) and falling (exhalation) once. The normal range for an adult is 12 to 28 respirations per minute.

Respiration Rate

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Respiration

- Best done immediately after taking the patient's pulse. Do **not** announce that you are measuring respirations.
- Without letting go of the patient's wrist begin to observe the patient's breathing. Is it normal or labored?
- Count breaths for 15 seconds and multiply this number by 4 to yield the breaths per minute.
- In adults, normal resting respiratory rate is between 12-28 breaths/minute. Rapid respiration is called tachypnea.

244

To take respiration rate:

1. Wash your hands.
2. Place your fingers on the individual's wrist (either side).
3. Count breaths (inhale + exhale = 1 respiration) for one minute.
4. Document respiration rate, noting any observations (such as wheezing).

Factors like fever, agitation, illness, age, and even sleep can have an effect on breathing and therefore the respiratory rate. Respiratory rate fluctuations are often seen as an early warning sign for acutely-ill hospital patients, and it is closely monitored within acute care settings.

245

Temperature is considered normal at 98.6 degrees F (37 degrees C), although anything between 97.6 degrees F (36.4 degrees C) to 99.6 degrees F (37.5 degrees C) is acceptable.

A temperature over 100.4 degrees F (38 degrees C) indicates a fever caused by illness or injury. Hypothermia (low temperature) occurs when the body temperature dips below 95 degrees F (35 degrees C).

Body Temperature



246

Temperature

Temperature can be measured in several different ways:

- **Oral** with a glass, paper, or electronic thermometer (normal 98.6F/37C)
- **Axillary** with a glass or electronic thermometer (normal 97.6F/36.3C)
- **Rectal** or "core" with a glass or electronic thermometer (normal 99.6F/37.7C)
- **Aural** (the ear) with an electronic thermometer (normal 99.6F/37.7C)

Of these, axillary is the least and rectal is the most accurate.

247

To take body temperature using a digital thermometer:

1. Wash your hands.
2. Cover thermometer mouth tip with a clean plastic shield (or clean before and after use for glass).
3. Press button to set the thermometer.
4. Place thermometer under tongue and instruct individual to close mouth.
5. Wait several minutes, remove thermometer when beeping indicates the reading is complete.
6. Document temperature, including the date, time and method used as follows: "O" for oral, "R" for rectal, "E" for ear, "A" for axillary.
7. Clean and sterilize the thermometer.

Note: Oral thermometers are not indicated for some individuals, such as those with a history of seizures. Digital thermometers can be used to take an axillary temperature by being placed under the armpit, against dry skin, for five minutes.

248

Vital Signs Recap Average Healthy Adults (at rest)

- Blood pressure: 90/60 mm Hg to 120/80 mm Hg
- Respiration: 12 to 18 breaths per minute
- Pulse: 60 to 100 beats per minute
- Temperature: 97.8°F to 99.1°F (36.5°C to 37.3°C)/average 98.6°F (37°C)

249

Observation

- Observe the patient as they move thru the office, get in and out of the chair, actions while you are performing their history.
- Document what you see:
 - Walks with a limp
 - Difficulty getting out of chair
 - Appears to be in acute pain
 - Medical emergency

250

Examination

- Observation
 - Gait Analysis
 - Postural
 - Function
- Palpation
- Range of Motion
- Orthopedic Tests
- Neurologic Evaluation
- Vascular Evaluation
- Visceral Evaluation
- X-ray/Lab Evaluation
- External Imaging or Specialty Referral

251

Not everything is a nail...

Be aware of patient's at-risk.
Recognize indications and contraindications for common modalities.
Know Red and Yellow Flags, Contraindications, etc.

At-Risk Patient Population

253

Red Flags, Yellow Flags, CoMorbiditys, and Risk Factors

254

A serious condition that must be recognized through the history and exam process that typically requires referral to another health care provider

Clinical Red Flags

255

Red Flags

Immediate Referral

1. Fracture/dislocation
 - Significant Trauma
 - Osteoporosis
 - Pathologic Fracture
2. Cancer/tumor
 - Night-time Pain
 - Severe Progressive
 - Unexplained Weight Loss
 - Prior History
3. Infection
 - Elevated Temperature
 - Night Sweats
 - Intravenous Drug Abuse
 - Immunosuppression
4. Vertebrobasilar involvement
5. Instability (including degenerative, surgical or rheumatoid etiologies)
6. Progressive scoliosis
7. Severe osteoporosis
8. Severe hypertension
9. Vertebrobasilar involvement
10. Visceral pathology
11. Inflammatory Arthritides
12. Cauda Equina Syndrome (loss of bladder/bowel function)

256

Cauda Equina Syndrome is a serious condition caused by compression of the nerves in the lower portion of the spinal canal.

Cauda Equina Syndrome

257

Cauda Equina Syndrome

McNamee J, Flynn P, O'Leary S, Love M, Kelly B. Imaging in cauda equina syndrome--a pictorial review. *Ulster Med J*. 2013;83(2):100-108.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3756868/>



Fig. 2a

Sagittal T2WI demonstrates a central disc herniation at L4-L5 with significant compression of the adjacent cauda equina nerve roots. Modic I end plate changes are also present at this level.

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Cauda Equina Syndrome

Symptoms of cauda equina syndrome include the following:

- Low back pain
- Unilateral (single leg) or bilateral (both legs) **sciatica** (pain originating in the buttocks and traveling down the back of the thigh and legs)
- Saddle and perineal hypoesthesia or anesthesia (numbness in the groin or area of contact if sitting on a saddle)
- Bowel and bladder disturbances
- Lower extremity motor weakness and loss of sensations
- Reduced or absent lower extremity reflexes

249

Patients without Red Flag Indicators

- Patients will be evaluated with a focused history and examination
- Patients will be evaluated with a thorough spinal examination
- Patients will complete the appropriate outcome measure and the patient will be monitored during the treatment plan with the outcome measure.

240

A condition that must be recognized thru the history and exam process which requires the DC to be cautious when providing physical medicine to the patient and may require co-management with another health care provider

Cautious Considerations

241

Cautious Considerations

- | | |
|--|--|
| 1. Osteoporosis | 10. Use of anticoagulant medication |
| 2. Congenitally blocked vertebrae | 11. Positives on vertebrobasilar testing (if used) other than neurological responses |
| 3. Rheumatoid arthritis | (e.g. alternate position for adjustment if position induces a dizziness response) |
| 4. Seronegative arthropathies | 12. Previous adverse reaction to a specific therapy or therapeutic trial |
| 5. Spinal stenosis | |
| 6. Spinal instability (i.e. listhesis) | |
| 7. A diagnosis of disc herniation or sequestration | |
| 8. Previous surgery | |
| 9. Use of corticosteroids or Cushing's disease | |

242

"Yellow flags" are risk factors associated with chronic pain or disability.

Psychological Yellow Flags

243

Yellow Flag Behaviors

Two or more could suggest substance use disorder

- | | |
|--|--|
| • Deterioration in functioning at work or socially | • Multiple reports of lost or stolen prescriptions |
| • Illegal activities—selling medications, forging prescriptions, or buying medications from nonmedical sources | • Resistance to change in medications despite adverse effects |
| • Using medications in ways other than prescribed (e.g., injecting or snorting medication) | • Refusal to comply with random drug screens, call backs, or pill counts |
| | • Concurrent abuse of alcohol or drugs Use of multiple physicians and pharmacies |

Knowing When to Say When: Transferring Patients from Opial Therapy University of Massachusetts Medical School (Massachusetts Consortium) Jeff Besser, M.D., April 2, 2014

244

Behavioral Comorbidities

- Depression
- History of Trauma/Abuse
- Personality Disorders
- Substance Abuse, Dependence, Addiction
- Opioid Use Disorder
- Anxiety Disorder
- Post Traumatic Stress Disorder
- Coping Skills/Catastrophizing
- Fear Avoidance

265

Risk Factors with Strong Predictive Ability for developing chronic pain and disability

- Fear avoidance beliefs
- Catastrophizing
- Somatization
- Depressed mood
- Distress and anxiety
- Early disability or decreased function
- High initial pain levels
- Increased age
- Poor general health status
- Non-organic signs
- Secondary gain (occupational, social, family, financial)

266

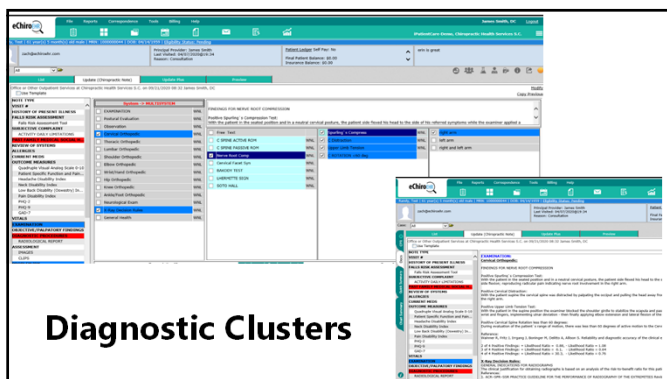
Vulnerable Populations

Diagnosis or treatment is significantly limited by social determinants of health (i.e., economic and social conditions that influence access to care, etc.)

267

Differential Diagnosis

268



The screenshot displays the eChart software interface, which is used for managing patient data and diagnostic clusters. The interface includes a sidebar with a list of clusters, a main window showing a detailed view of a selected cluster, and a bottom section for patient information and history. The clusters are organized into a hierarchical structure, with each cluster having a unique identifier and a description. The patient information section at the bottom provides details about the patient's demographics, medical history, and current status.

Diagnostic Clusters

Radiographic Indications

When is it clinically indicated to perform radiographs or other imaging?

270

Indications for X-ray	Categorized List of Indications
<p>Introduction</p> <p>Most times, including radiographs, should have a clinical justification based on an analysis of the risk to benefits ratio for the particular individual. If the information gained is <u>so</u>, the benefits outweigh the potential risks from radiation or false negative-positive, radiographs should be performed.</p> <ul style="list-style-type: none"> • Patient age >50 – especially with signs and symptoms of systemic disease • History of significant trauma • History of osteoporosis • History of prolonged corticosteroid use • Unexpected response to treatment • Bone pain in a person with past history of cancer (esp. colon, breast, prostate, kidney, thyroid) • Recent (3-6 years) history of breast, colon, prostate, kidney, thyroid cancer. Remote (15 years) history of breast cancer • Significant weight loss in 6 weeks • Abnormal lab findings with positive signs and symptoms Non-mechanical pain (unable to localize symptoms on orthopedic exam) • Progressive painful structural deformity • Red flags or symptoms: <ul style="list-style-type: none"> • Unable to palpable structural or functional abnormality • Suspected fracture, especially in pediatric patients • Suspected inflammatory joint disease • Suspected soft-tissue dislocation, subluxation • Suspected spinal instability • Suspected spinal stenosis • Pain lasting longer than 6 weeks 	<p>Based on pain:</p> <ul style="list-style-type: none"> ○ Lasting longer than 6 weeks ○ Bone pain in a person with past history of cancer (esp. colon, breast, prostate, kidney, thyroid) ○ Radiologic symptoms ○ Progressive painful structural deformity ○ Non-mechanical pain (unable to reproduce symptoms on focused examination) <p>Based on history:</p> <ul style="list-style-type: none"> ○ Recent (3-6 years) History of breast, colon, prostate, kidney, thyroid cancer. ○ Remote (15-30 years) history of breast cancer ○ Significant trauma ○ Osteoporosis ○ Prolonged corticosteroid use ○ Inflammatory joint disease or multisystem disorder <p>Based on clinical/historical data:</p> <ul style="list-style-type: none"> ○ Age over 50, especially with signs and or symptoms of systemic disease ○ Unable to palpable structural or functional abnormality ○ Scoliosis in child or adolescent ○ Abnormal lab findings with positive signs and/or symptoms ○ Unexpected response to treatment ○ Significant activity restriction >2 weeks <p>Based on clinical suspicion:</p> <ul style="list-style-type: none"> ○ Fracture, dislocation, subluxation ○ Spinal instability ○ Spinal stenosis ○ Inflammatory joint disease

[illegible]

X-ray
Lab
Special Imaging (MRI, CT, DEXA, US)
Electrodiagnostic studies

Advanced Studies

213

[illegible]

The collage shows three different versions of informed consent forms. Each form has a large, diagonal 'SAMPLE' watermark. The forms are from the University of Michigan and contain various sections like 'Purpose of the Study', 'Risks and Benefits', and 'Contact Information'.

Consent by a person to undergo a medical procedure, participate in a clinical trial, or be counseled by a professional such as a social worker or lawyer, after receiving all material information regarding risks, benefits, and alternatives.

Informed consent. (n.d.). The American Heritage Medical Dictionary. (2007). Retrieved May 24, 2020 from <https://medical.dictionaries.thefreedictionary.com/informedconsent>

**Patient Safety
Informed Consent**

274

Informed Consent Process

Informing patients properly depends upon the sequence and information provided to disclose material risk.

277

Discussion between the Clinician and the Patient

Obtain the patient's informed consent to the procedures **after** they have been provided material information **and** discussion with the doctor about all of the alternatives or risks of care.

278

Informed Consent **must be obtained annually** and with new patients as part of the intake procedure and/or upon **re-admit, new diagnosis, new evidence, or new treatment.**

Informed Consent Process

279

Informed Consent Process

PROCEDURE:

1. Upon patient's check-in, staff provides the unsigned Informed Consent form to the patient following taking the patient's history.
2. Informed Consent is reviewed and discussed with the patient **BY THE CLINICIAN**, at the time of visit, immediately after health history and exam and **prior to treatment and diagnostic procedures**. Any questions the patient may have are answered, always by the clinician.
3. Patient signs and dates form; clinician signs and dates form;
4. Completed form gets turned in to the front desk and gets scanned into patient record – or is signed within the EHR system records directly.

280

When do we use Informed Consent?

281

Every new patient and those patients who are re-admitted for care due to a new injury or condition, etc.

New Patient/Re-Admit

282

289

290

291

292

1

294

Are you and your staff attending regular clinical education training?
 Do you provide hands-on training for staff?
 Are you using FDA approved devices?
 Does your treatment follow guidelines?
 Are you monitoring and documenting the progress of your patients?

Questions to Ask

215

Misinformed Treatment Plans

Communicating to patients regarding the treatment plan and expectations of care process.

216

Care Management Considerations

Transitional Care (Hand-off)
 Environment/Falls
 Medication Errors/Reconciliation
 Team/Communication

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Dry Needling/Acupuncture Adverse Effects

The act of puncturing the skin comes with a number of predictable adverse events (bruising or bleeding, pain during or following treatment) which commonly occur and are mild in nature.

This may be considered normal side effects of treatment. However, from the patient's perspective they may be considered adverse particularly if the patient has not been educated about the risks associated with their dry needling/acupuncture technique.

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Manipulation/Manual Therapy Potential Risks

- ✓ Temporary soreness or increased symptoms or pain It is not uncommon for patients to experience temporary soreness or increased symptoms or pain after the first few treatments.
- ✓ Dizziness, nausea, flushing These symptoms are relatively rare. It is important to notify the doctor if you experience these symptoms during or after your care.
- ✓ Fractures When patients have underlying conditions that weaken bones, like osteoporosis, they may be susceptible to fracture. It is important to notify your doctor if you have been diagnosed with a bone weakening disease or condition. If your doctor detects any such condition while you are under care, you will be informed, and your treatment plan will be modified to minimize risk of fracture.
- ✓ Disc herniation or prolapse Spinal disc conditions like bulges or herniations may worsen even with chiropractic care. It is important to notify your doctor if symptoms change or worsen.
- ✓ Stroke According to the most recent research, there is no evidence of excess risk of stroke associated with chiropractic care. Regarding neck pain and headache symptoms, there is an association between stroke and visits to all provider-types, including primary care medical visits, which may occur before or during the provider visit.
- ✓ Other risks associated with chiropractic treatment include rare burns from physiotherapy devices that produce heat.
- ✓ Bruising Instrument assisted soft tissue manipulation may result in temporary soreness or bruising.

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Recognizing and Preventing Safety Hazards

1. Therapy Modalities
2. Hydraulic/Spring-loaded adjusting tables
3. Sharps (i.e. needles) and Sharps Containers
4. Theraband/Exercise Stations

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Therapeutic Modalities and Table Equipment

- Are all therapeutic modalities and equipment (both, company and employee-owned) used by staff, providers and workforce members at their workplace in good condition?
- Are all of the operating manuals and instructions available to staff, providers and workforce members for all therapeutic modalities and equipment?
- Are staff, providers and workforce members made aware of the hazards caused by faulty or improperly used modalities and equipment?
- Are all cord-connected, electrically operated modalities and equipment effectively grounded or of the approved double insulated type?
- Are children monitored at all times and parent/guardian warned of crush risk or safety issue around modalities?

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Therapeutic Modalities and Table Equipment

- Are all therapeutic modalities and equipment turned off after use and remain off prior to patient use?
- Do patients know what to expect prior to the application of the modality?
- Do patients know what to expect as potential temporary symptoms or reactions to the application of the therapy?

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Preventing Blood-borne Pathogens

Bloodborne Pathogen Standard Policy
Sharps/Needle sticks

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Preventing Air-borne Pathogens

Exposure Control Plan

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Theraband Exercise Station

Eye Protection

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What types of safety equipment are available?

- Fire extinguisher
- CPR equipment (AED, CPR Masks/Supplies)
- Gloves
- Face Masks
- Disinfectant
- Alcohol-based hand rub
- Handwashing Station
- Blood Draw Equipment
- KNOWLEDGE

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Clinical Conscientiousness

Maintaining your clinical mindset

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Clinical Awareness

Ongoing process...

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Wait
Ask
Listen
Knowledge

The “Walk”

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Screening Patients:

Monitor changes since the last visit
No change or worsening
Observation of patient's behaviors and characteristics

Has there been a “Significant Event”?

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Does the patient's clinical presentation require urgent need for evaluation and/or care?

The doctor must be informed of any new information about the patient that has been related to staff.

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Stay Connected to Established Patients who are under a treatment plan.

Following the treatment plan, evidence-informed care guidelines, and the patient's response to care...

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