The At-Risk Patient:
Clinical Awareness and Red Flag Indicators

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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, NCQA, 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.

Patient Safety

The prevention of errors and adverse effects to patients associated with health care.

World Health Organization (WHO)

> **First do no harm.**

Causes of Errors

Adverse Events vs Near Misses
Human vs System
Commission vs Omission

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.

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

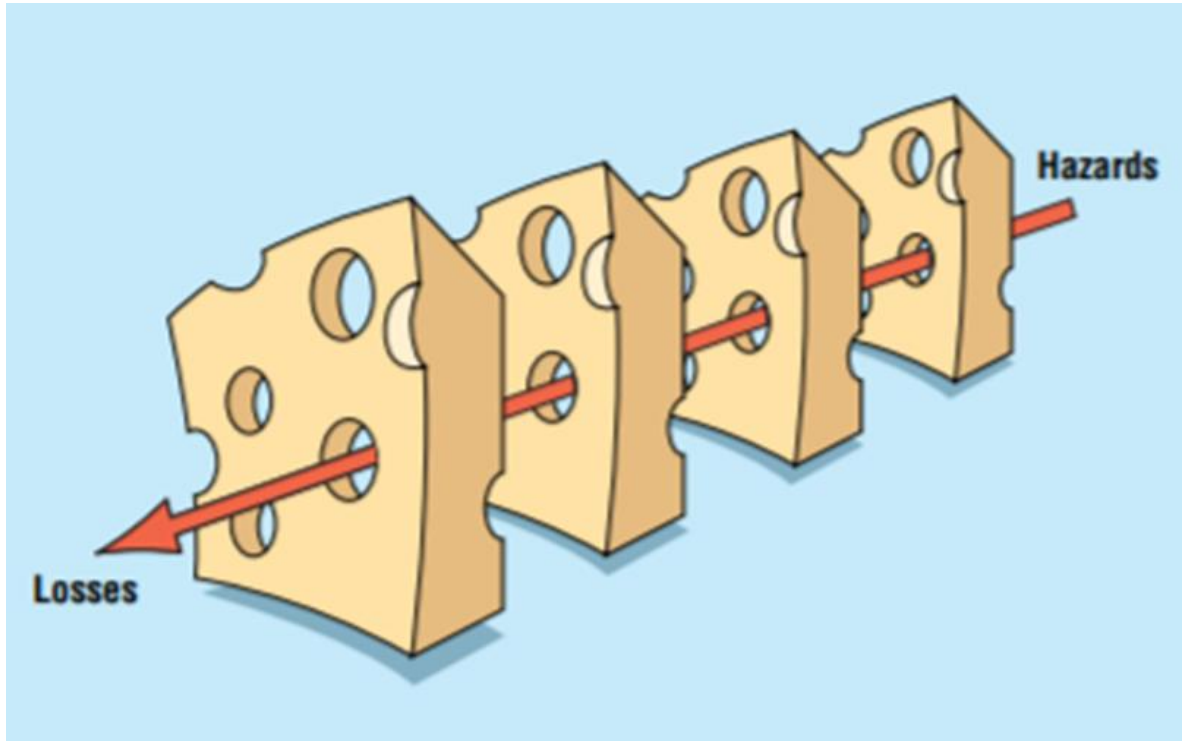
In other words, there are a variety of factors involved that can lead to or cause a clinical error or adverse event – or a near miss.

Swiss Cheese Model

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

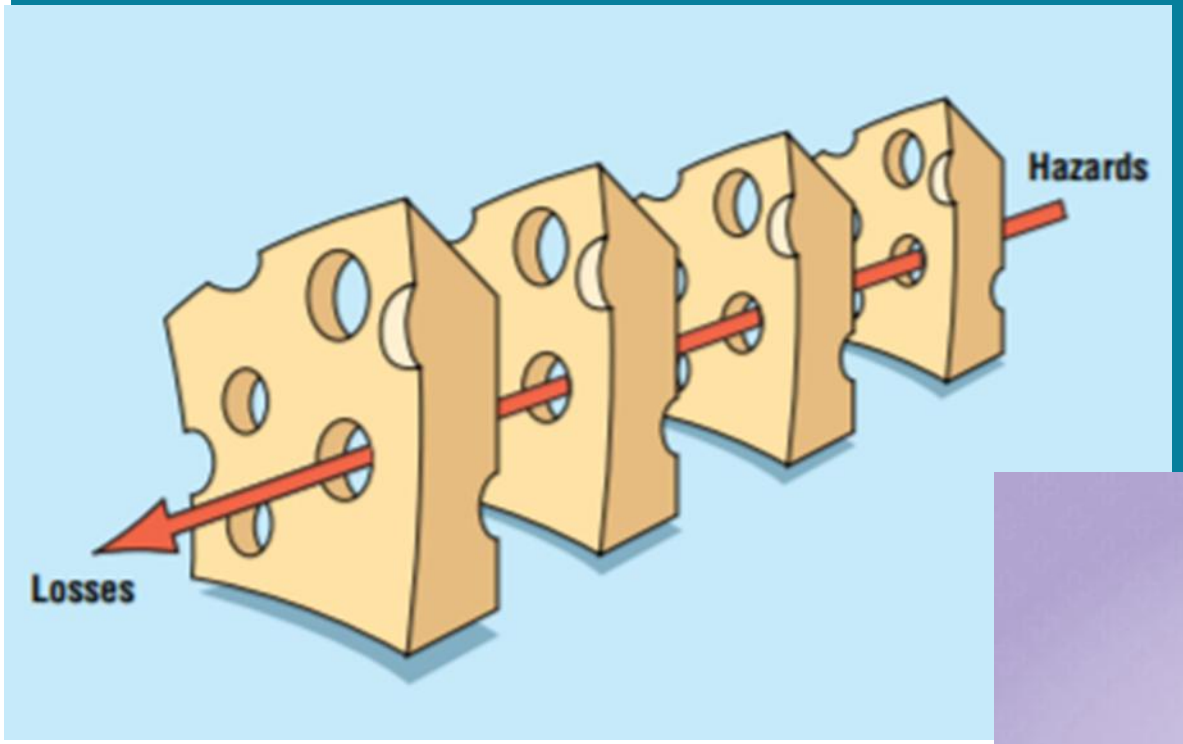
Holes in the Defense Layers

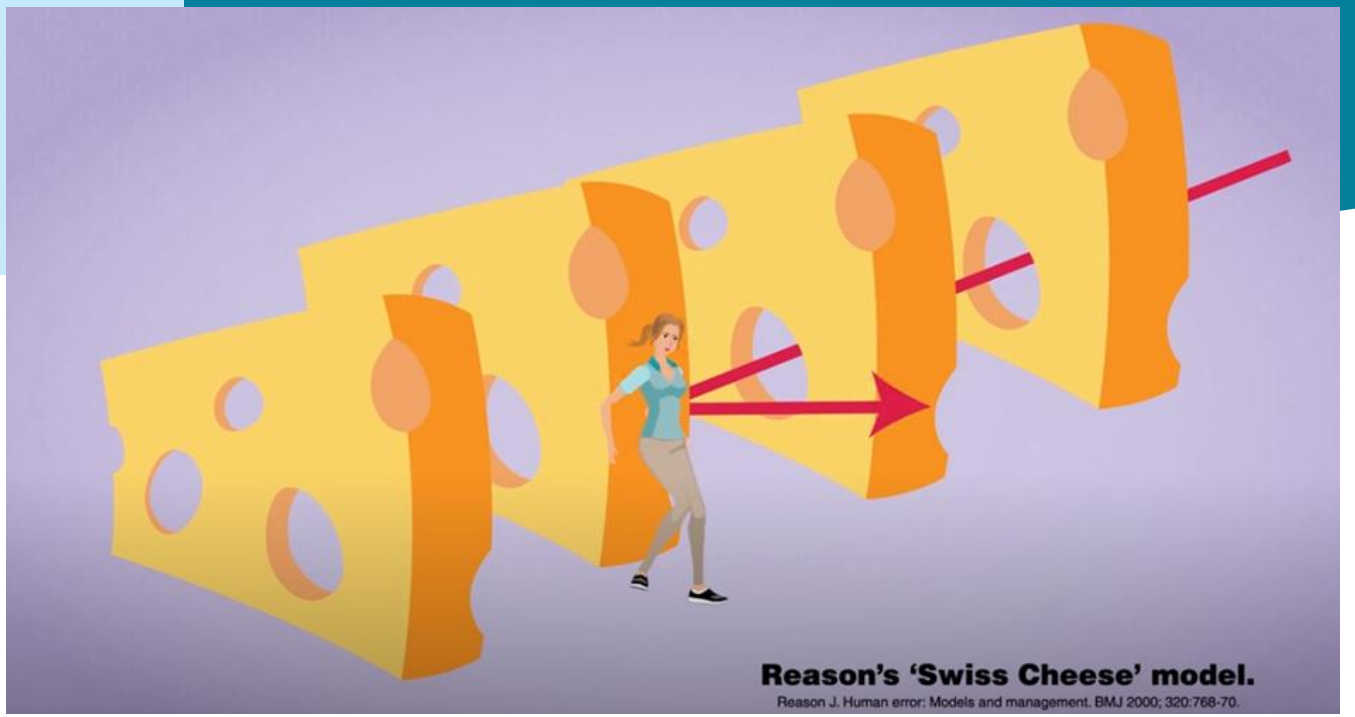
A bad outcome occurs only when the holes in many defense layers momentarily line up to permit a trajectory of an accident opportunity—bringing hazards into damaging contact with patients.



https://www.youtube.com/watch?v=7Y8HupZ2e0s&feature=youtu.be

It just takes one thing to block the incident…





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).

Types of Clinical Errors

- Diagnostic
- Treatment
- Preventive

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

Evaluation Process

Where does Patient Safety begin?

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.

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

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)

Newman-Toker, D. E., Schaffer, A. C., Yu-Moe, C., Nassery, N., Saber Tehrani, A. S., Clemens, G. D., Wang, Z., Zhu, Y., Fanai, M., & Siegal, D. (2019). Serious misdiagnosis-related harms in malpractice claims: The “Big Three” – vascular events, infections, and cancers, *Diagnosis*, *6*(3), 227-240. doi: https://doi.org/10.1515/dx-2019-0019

Have you ever evaluated a patient who was misdiagnosed?

Have you ever detected a medical emergency on your exam of a patient?

Share your story with us…

Lesson to be learned:

Do Your Own Homework and “Stick to your Guns”

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

The Clinical Work System

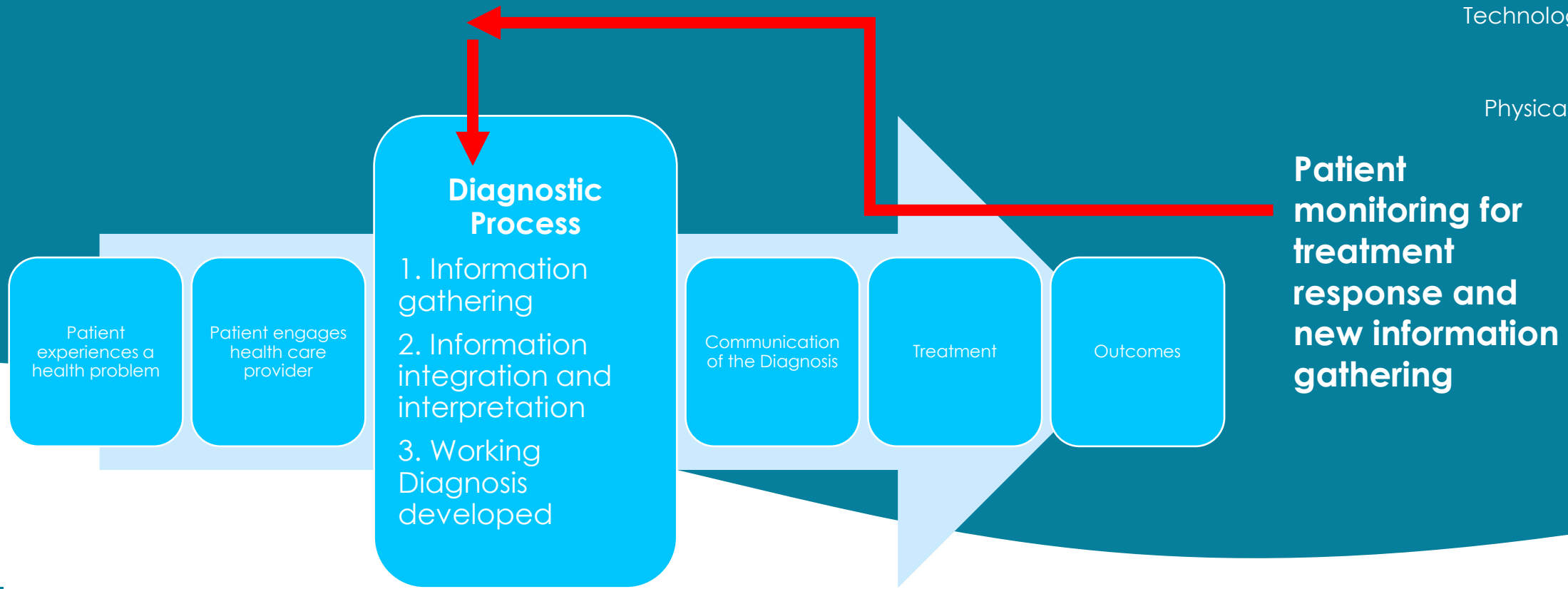
Diagnostic team members

Tasks

Technologies and tools

Organization

Physical environment



Intake Process

Accurate information from the patient is imperative to gather for clinical decision making.

Essentials of an Initial Visit

- Patient history (HPI, Review of Systems, and PFMSH)
- Mechanism of Trauma established
- Examination
- Informed Consent
- Problem/Diagnosis
- Treatment Plan
- Signature

The Patient History

Where it all begins…

How do we perform an effective history for our patients?

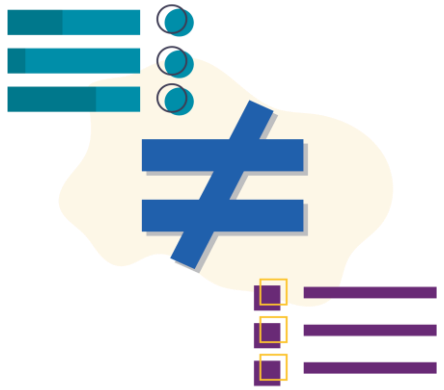
Observation

- 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

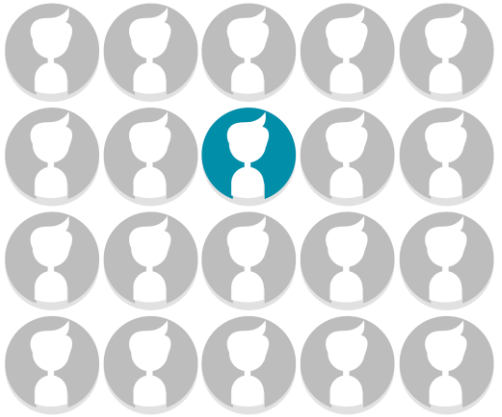
Reasons for Diagnostic Error

Patients are interrupted when telling their illness story to providers within **11-18** seconds.[2,3]

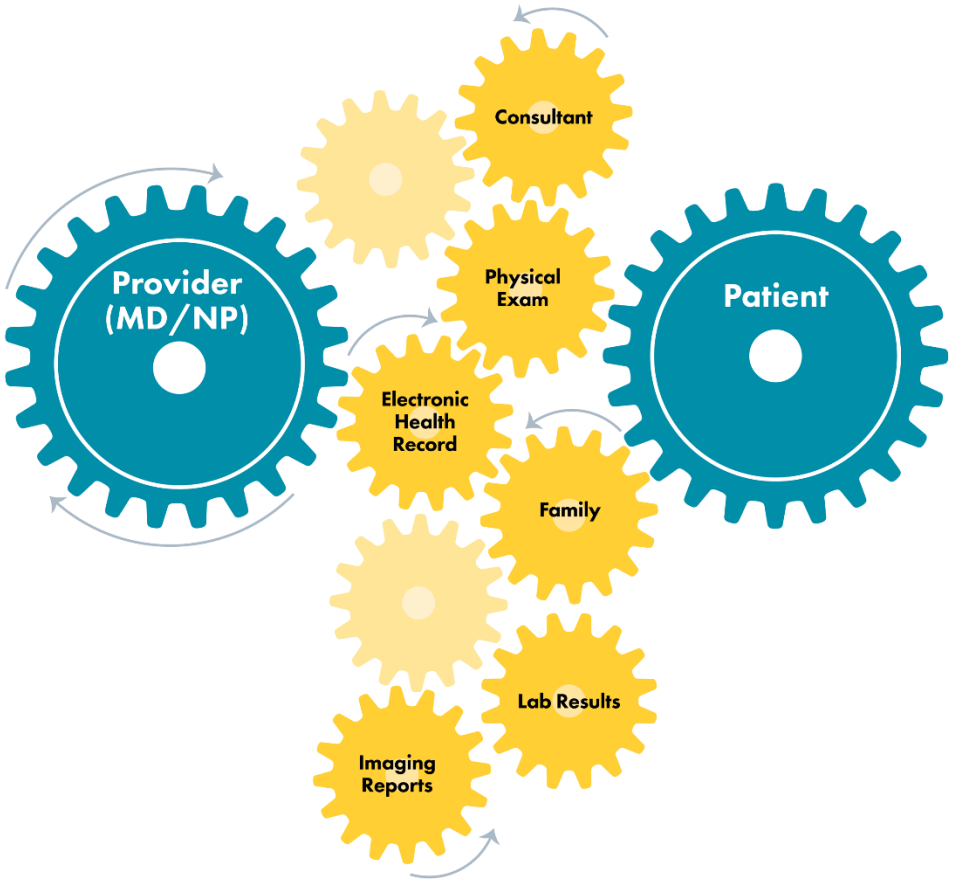
This breakdown in collaborative communication may result in assumptions and premature closure.[4]



These breakdowns lead to diagnostic error in about ***1 of every 20*** patients you see.[5]



How Does 60 Seconds To Improve Diagnostic Safety Work?



Tips for Effective Listening

- Listen for meaning.
- Pay attention to body language.
- Cultivate empathy.
- Avoid making judgments.
- Look into others' eyes when they're speaking.
- Pay attention to the feelings associated with the words.

How can we improve diagnostic safety?

What can patients do?

- ✓ **Tell their story** fully and completely and clearly
- ✓ **Provide accurate information** about their symptoms
- ✓ **Speak up** if they feel they have not been heard
- ✓ **Ask questions** to clarify the information shared
- ✓ **Use a checklist** of tests, symptoms, concerns, or physicians consulted

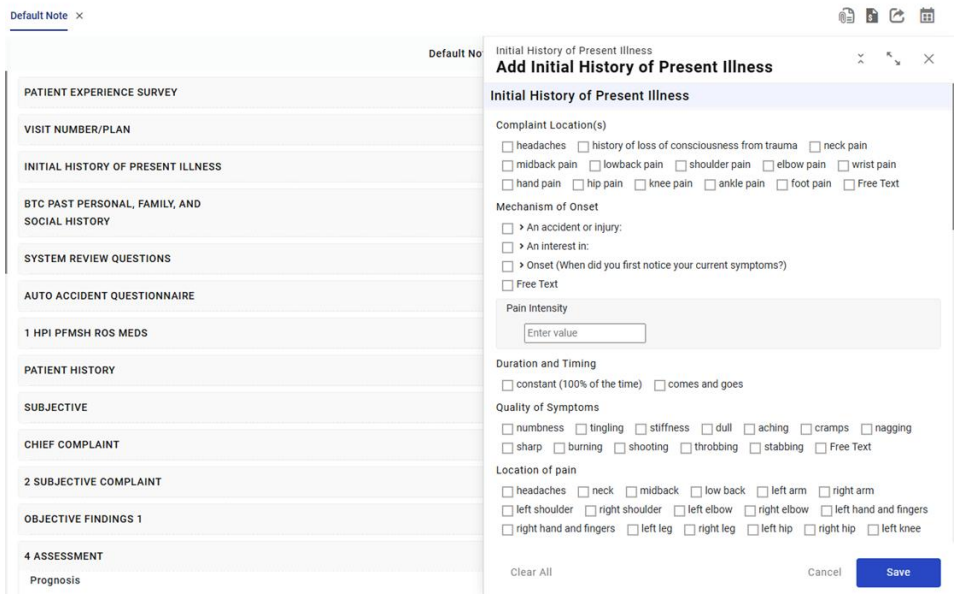
What can clinicians do?

- ✓ **Listen** to patients
- ✓ **Support patients** in effectively sharing their symptoms.
- ✓ **Ask patients** what they think is going on
- ✓ **Conduct a thorough history** and physical examination
- ✓ **Set** a visit agenda
- ✓ **Know patients** and their history, and read prior notes
- ✓ **Integrate "pre-work"** for patients (e.g. symptoms; history of present illness; labs)

What should we be “Listening” for?

History

- ✓History of Present Illness
- ✓Chief Complaint(s)
- ✓Past Family Social Medical history
- ✓Review of Systems
- ✓Outcome assessments / Pain scales (VAS or NRS)



History should contain **specific** functional limitations and restrictions in the participation of daily activities and demands of employment

Mechanism of Trauma

Insidious Onset

Time Lapse of Treatment

Determining Causation

Chief Complaint

The chief complaint should be the first notation in all medical records and is required for all levels of history.

It needs to be documented by the provider.

ROS

A complete Review of Systems (ROS) should be updated with each new episode or follow-up clinical encounters within 12 months.

Review of Systems (ROS)

The 14 systems as per the *AMA CPT Code Book*:

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

Past Family Medical Social History (PFMSH)

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.

Past Family Medical Social History (PFMSH)

Past Family History

A review of the patient's family history to include any conditions or cause of death of parents, siblings, or children. This should include asking about diabetes, hypertension, cancer, or any other disease related to or that may delay recovery of the chief complaint.

Past Family Medical Social History (PFMSH)

Past Medical History

A review of the patient's past medical history should include information on previous occurrences of the chief complaint, surgeries, fractures, traumas, treatments, medications, and home therapies.

Past Family Medical Social History (PFMSH)

Past Social History

This should include information on marital status, occupation, educational level achieved, and current/previous use of alcohol, tobacco, and drugs.

Physical Comorbidities

Past Medical, Family and Social History

- Prior Major Illnesses and Injuries
- Prior Surgeries
- Prior Hospitalizations
- Current Medications
- Allergies
- Age Appropriate Immunization Status

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Factors or barriers which may lead to complicating the recovery time…

- ✓**Nature of employment/work activities or ergonomics**
- ✓**Impairment/disability**
- ✓**Concurrent condition(s) and/or use of certain medications**
- ✓**History of prior treatment**
- ✓**Lifestyle habits**
- ✓**Psychological factors**
- ✓**Transportation**
- ✓**Insurance Benefit Coverage**

Document in the clinical record!

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)

Outcome Assessment Tools

Physical and Behavioral

Informed Consent Risk Assessment Form

Please answer the following questions as it pertains to your visit today.

Patient Name: _____ Date: _____

Yes	No	
☐	☐	My pain is much more severe and/or different than it ever has been before and is getting worse.
☐	☐	I have felt unsteady and off balance either causing or almost causing me to fall.
☐	☐	I have recently had a hospitalization or surgery since my last visit.
☐	☐	I am currently taking either pain medication, steroids, Proton Pump Inhibitors, and/or antibiotics.
☐	☐	Something happened to me since my last visit (i.e., accident, fall, etc. – please explain below)
☐	☐	I have had a recent change in my medication or have a new allergy.
☐	☐	My mental processing or thinking doesn't seem very clear or is different to me.

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)

CERVICAL ARTERY DISSECTION ASSESSMENT

CONCERNING PRESENTATIONS

1. **Neck pain**- sudden, sharp, severe, steady, throbbing unchanged by mechanical maneuvers or analgesics
2. **Headache**- new, different, sudden onset, unilateral, resembling migraine or cluster
3. **Vertigo** - "spinning" or continuous

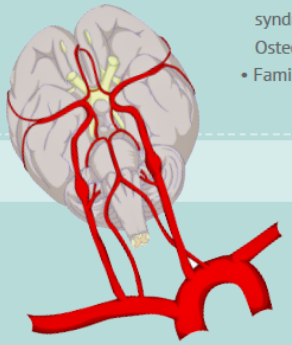
RISK FACTORS

ENVIRONMENTAL

- Recent acute infection, i.e., mainly respiratory
- Hyperchomocysteinaemia, i.e., B-6, 9 and 12 vitamin deficiency
- Low body mass index
- Low cholesterol
- Smoking
- Fluoroquinolone antibiotic use

INHERITED

- Medical history of arterial anomalies, i.e., Fibromuscular dysplasia
- Connective tissue disorders, i.e., Ehler-Danlos syndrome type IV; Marfan's syndrome; Osteogenesis Imperfecta; Loeys-Dietz syndrome
- Familiar history of cervical artery dissection



SYMPTOMS

INTERNAL CAROTID

- Recent head, neck or thoracic trauma
- New ipsilateral periorbital, frontal, and upper neck pain
- Distinct, new and continued headache
- Partial Horner's syndrome
- Retinal and/or cerebral ischemic symptoms
- Pulsating tinnitus

VERTEBRAL

- Recent head, neck or thoracic trauma
- New ipsilateral sub-occipital neck pain
- Distinct, new and continued headache
- Brainstem ischemic symptoms
- Cerebellar ischemic symptoms

ISCHEMIC SIGNS AND SYMPTOMS

Weakness
Numbness
Speech deficit
Visual disturbance
Vertigo
Difficulty walking/ falls
Difficulty swallowing
Nausea
Confusion or anxiety
Nystagmus (vertical)

SIGNS

- Cranial nerve palsy XII, XI, X, IX
- Hypertension (>140/90)
- Neck swelling
- Midline tenderness suggestive for a fracture

- Cervical radiculopathy (C5-C6)
- Hypertension (>140/90)
- Neck swelling
- Midline tenderness suggestive for a fracture

MEDICAL REFERRAL:

The presence of two or more distinct symptoms or two or more distinct signs may warrant emergent medical referral. [1]

MANUAL THERAPY:

- Minimize end-range when conducting cervical manual-therapy, especially rotational techniques
- Be specific and minimize force and amplitude when manipulating a single spinal segment
- Appraise pre-manipulative cervical provaction test prior to manual intervention

Adapted from: Chaibi A et al. A risk-benefit assessment strategy to exclude cervical artery dissection in spinal manual-therapy: A comprehensive review. Ann Med. 2019 Mar

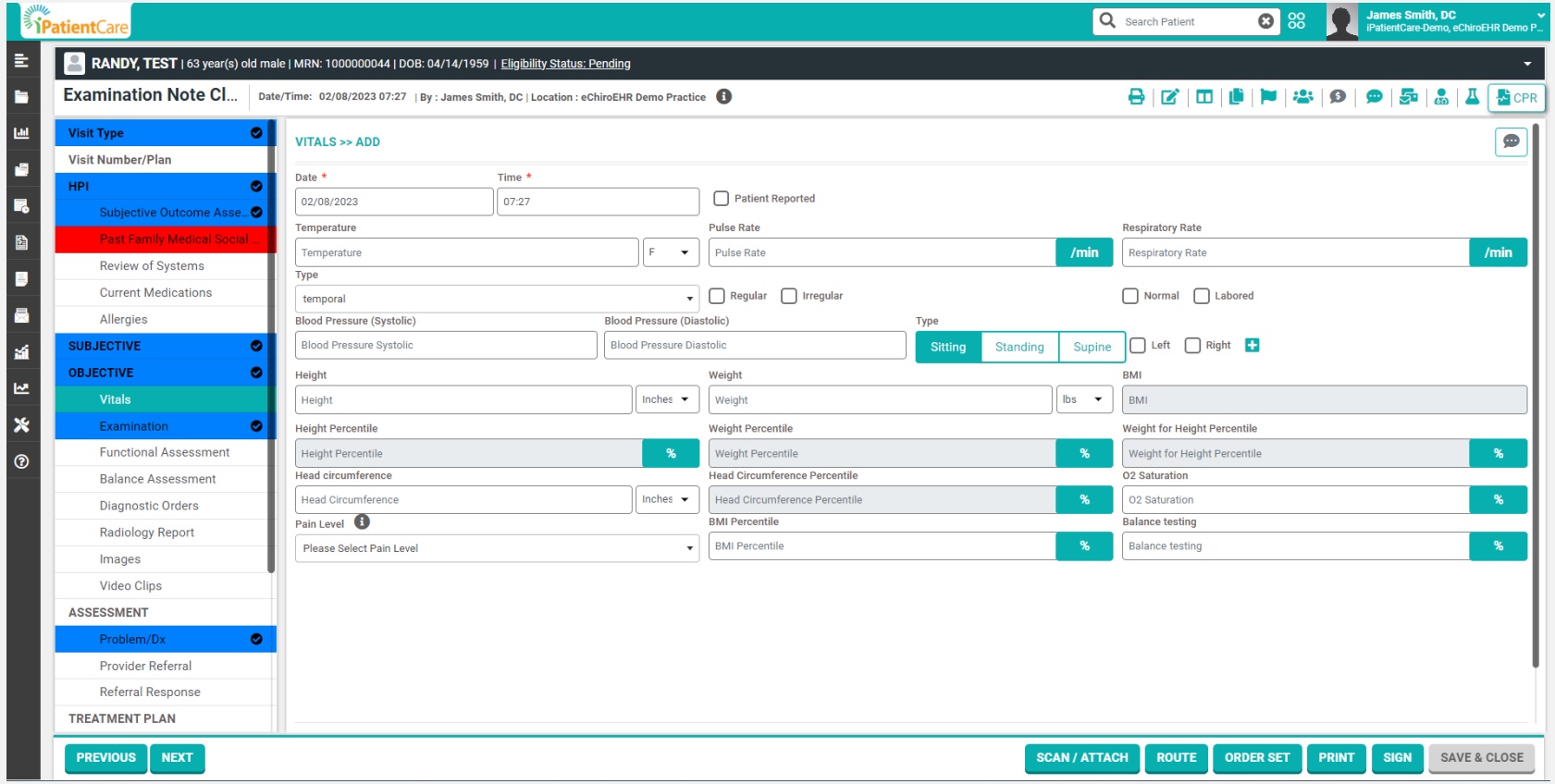
What are Vital Signs?

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

INITIAL/PROGRESS VISIT EXAMS

VITAL SIGNS

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



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.

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

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.

Hypertensive Crisis

A hypertensive crisis is a sudden, severe increase in blood pressure. The blood pressure reading is **180/120 millimeters of mercury (mm Hg)** or greater. A hypertensive crisis is a medical emergency. It can lead to a heart attack, stroke or other life-threatening health problems.

https://www.heart.org/en/health-topics/high-blood-pressure/understanding-blood-pressure-readings

https://www.mayoclinic.org/diseases-conditions/high-blood-pressure/expert-answers/hypertensive-crisis/faq-20058491#:~:text=If%20it's%20still%20very%20high,speaking%2C%20or%20changes%20in%20vision.

Causes of Hypertensive Crisis

- Forgetting to take blood pressure medication
- Suddenly stopping certain heart medications, such as beta blockers
- Medication interactions
- Tumor of the adrenal gland (pheochromocytoma)

https://www.heart.org/en/health-topics/high-blood-pressure/understanding-blood-pressure-readings

https://www.mayoclinic.org/diseases-conditions/high-blood-pressure/expert-answers/hypertensive-crisis/faq-20058491#:~:text=If%20it's%20still%20very%20high,speaking%2C%20or%20changes%20in%20vision.

Symptoms of Hypertensive Crisis may include:

- Anxiety
- Blurred vision
- Chest pain
- Confusion
- Nausea and vomiting
- Not responding to stimulation (unresponsiveness)
- Seizures
- Severe headache
- Shortness of breath

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 **auscultory 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 anticubital 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).

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.

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.

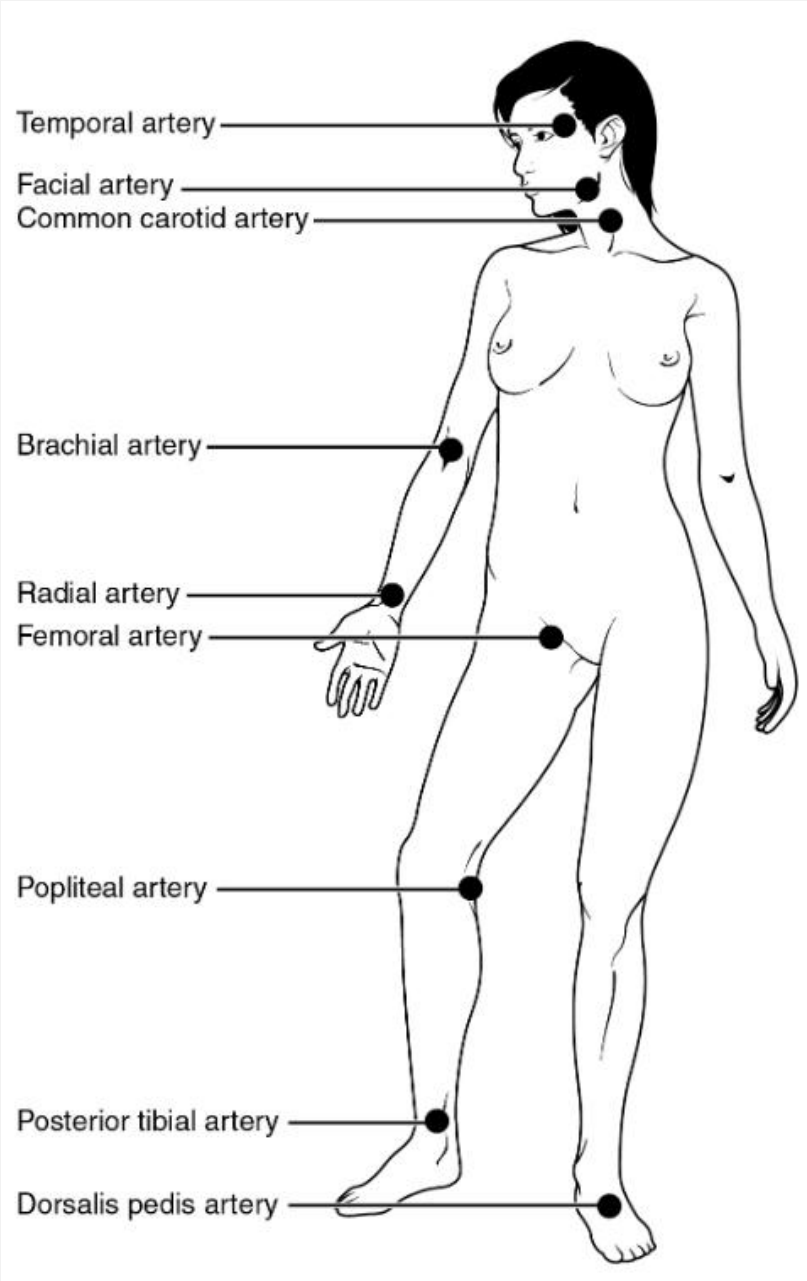
Pulse (Heart Rate)

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.



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.

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

Pulse

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

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

Respiration

https://youtu.be/wWAqkbD28uI

- 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.

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

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.

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)

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

Examination

The collection of diagnostic information discovered through physical applications such as orthopedic, neurological signs and tests, palpation, percussion, auscultation, and inspection.

Physical Examination

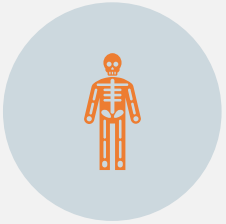
VITALS

ROM SPECIFIC TO EACH REGION

ORTHOPEDIC TESTING SPECIFIC TO EACH REGION

NEUROLOGICAL FINDINGS

PALPATORY FINDINGS



IMAGING STUDIES OR OTHER DIAGNOSTIC STUDIES INCLUDING ORDERS AND REPORT

APPROPRIATE VISCERAL OR CENTRAL NERVOUS SYSTEM EVALUATION WHEN INDICATED

Examination Findings and Symptoms Correlation

Differentiate tissue involvement: Does it correlate to the mechanism of trauma?

Is the patient's **pain and symptoms reproduced** with testing of stressing the specific tissue involved?

Or is the pain reproduced through performing other tests or signs **during the physical exam**?

Pain Assessment through Examination

Pain assessment through examination should include **determining the origin of pain** through tissue specific localization, orthopedic, neurological, biomechanical evaluation **leading to a differential diagnostic clinical decision-making** process.

Medical Decision Making

Arriving at a diagnosis and Treatment Plan involves using Decision Support Tools, Critical Thinking

Processes, and an Evidence-informed Approach.

Not everything is a nail…

Do we look only for the findings that we can treat? A solution looking for a problem?

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

Red Flags, Yellow Flags, CoMorbidities, and Risk Factors

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

Clinical Decision making Process and Red Flag Indications

As we cover various indicators of a Red Flag, ask yourself the following questions:

1. Have I experienced this in the past with a patient?
2. What have I learned from this particular Red Flag Indicator?
3. How do I incorporate into my evaluation process what I have learned to stay aware of this Red Flag Indicator?

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

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

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.)

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.

Specific Red Flags

Signal specific illnesses or are present in specific anatomical regions.

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

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).

Common Specific Red Flags

The timing of pain as a factor in red flags…

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

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.)

Progressively worsening pain after surgery is never normal.

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

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

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

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.)

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.

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

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

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)

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.

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

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

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

Cauda Equina Syndrome

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

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

Nontraumatic subarachnoid hemorrhage

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

Avascular necrosis of the hip

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

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

Stress fracture of the tibia

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

Spinal cord injury – Chiari malformation

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

Adhesive capsulitis of the shoulder

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

Kidney infection

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

Occult fracture of the scaphoid

Blood Pressure 180/120.

Hypertensive Crisis

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

Hyperthyroidism

Irregularly irregular pulse with rate >100/minute.

Atrial fibrillation

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

Transient ischemic attack

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

Multiple sclerosis

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

Lymphoma

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

Blood clot in a deep vein of the calf

Bilateral, pitting ankle swelling with shortness of breath.

Congestive heart failure

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

Subclavian vein deep venous thrombosis

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.

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)

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.

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

Cautious Considerations

1. Osteoporosis
2. Congenitally blocked vertebrae
3. Rheumatoid arthritis
4. Seronegative arthropathies
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
10. Use of anticoagulant medication
11. Positives on vertebrobasilar testing (if used) other than neurological responses

    (e.g. alternate position for adjustment if position induces a dizziness response)
12. Previous adverse reaction to a specific therapy or therapeutic trial

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

Psychological Yellow Flags

Yellow Flag Behaviors

Two or more could suggest substance use disorder

- Deterioration in functioning at work or socially
- Illegal activities—selling medications, forging prescriptions, or buying medications from nonmedical sources
- Using medications in ways other than prescribed (e.g., injecting or snorting medication)
- Multiple reports of lost or stolen prescriptions
- Resistance to change in medications despite adverse effects
- 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: Transitioning Patients from Opioid Therapy University of Massachusetts Medical School (Massachusetts Consortium) Jeff Baxter, M.D. April 2, 2014

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

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

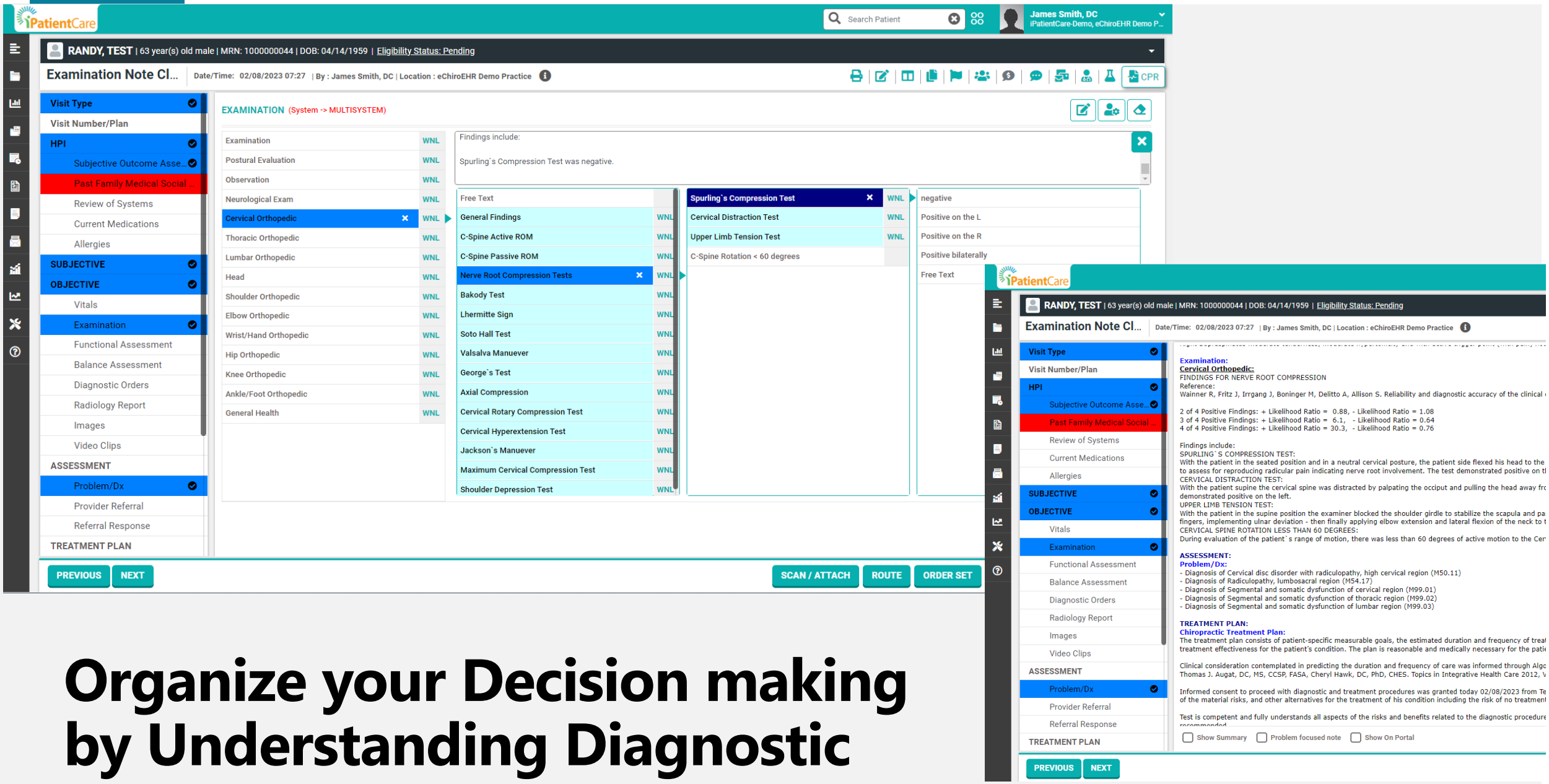
- Fear avoidance beliefs
- Catastrophizing
- Somatization
- Depressed mood
- Distress and anxiety
- Early disability or decreased function
- High initial pain levels
- Increased age
- Poor general health status
- Non-organic signs
- Secondary gain (occupational, social, family, financial)

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.)

Differential Diagnosis



Organize your Decision making by Understanding Diagnostic Clusters

Radiographic Indications

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

Indications for X-ray

Introduction

Most tests, including radiographs, should have a clinical justification based on an analysis of the risk-to-benefit ratio for the particular individual. If the information gained (i.e., the benefit) outweighs the potential risks from radiation or false negatives/positives, radiographs should be performed.

- 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 (<5 years) history of breast, colon, prostate, kidney, thyroid cancer. Remote (>5 years) history of breast cancer
- Significant activity restriction >2 weeks
- Abnormal lab findings with positive signs and symptoms Non-mechanical pain (unable to reproduce symptoms on orthopedic exam)
- Progressive painful structural deformity
- Radicular symptoms
- Visible or palpable structural or functional abnormality
- Suspected scoliosis, especially in pediatric population
- Suspected inflammatory joint disease
- Suspected fracture, dislocation, subluxation
- Suspected spinal instability
- Suspected spinal stenosis
- Pain lasting longer than 6 weeks

ACR–SPR–SSR PRACTICE GUIDELINE FOR THE PERFORMANCE OF RADIOGRAPHY OF THE EXTREMITIES Revised 2013 (Resolution 28)*
ACR–ASSR–SPR–SSR PRACTICE GUIDELINE FOR THE PERFORMANCE OF SPINE RADIOGRAPHY Revised 2012 (Resolution 2)*
Rapid Magnetic Resonance Imaging vs Radiographs for Patients With Low Back Pain: A Randomized Controlled Trial Jeffrey G. Jarvik; William Hollingworth; Brook Martin; et al. 2003;289(21):2810-2818 (doi:10.1001/jama.289.21.2810) JAMA

Categorized List of Indications

Based on pain:

- Lasting longer than 6 weeks
- Bone pain in a person with past history of cancer (esp. colon, breast, prostate, kidney, thyroid)
- Radicular symptoms
- Progressive painful structural deformity
- Non-mechanical pain (unable to reproduce symptoms on focused examination

Based on history:

- Recent (<5 years) history of breast, colon, prostate, kidney, thyroid cancer.
- Remote (>5 years) history of breast cancer
- Significant trauma
- Osteoporosis
- Prolonged corticosteroid use
- Inflammatory joint disease or multisystem disorder

Based on clinical/historical data:

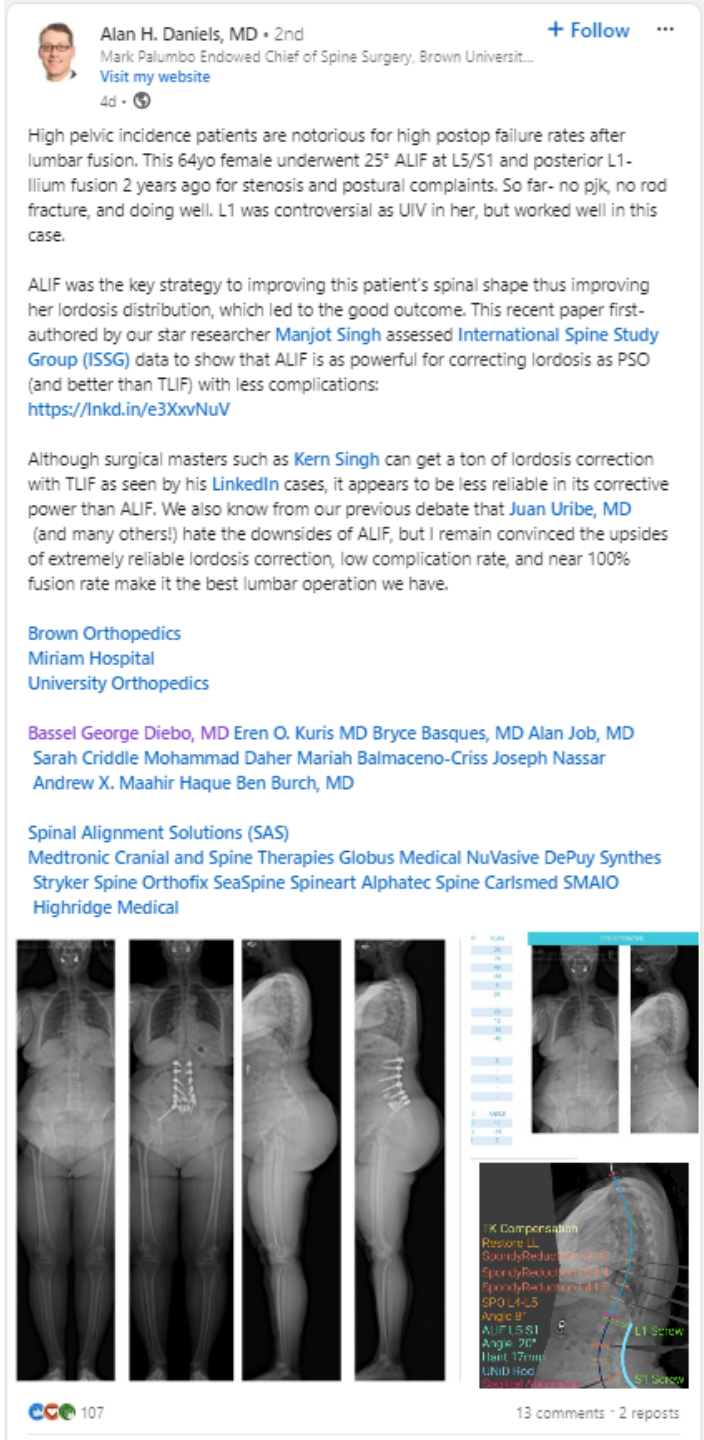
- Age over 50, especially with signs and/or symptoms of systemic disease
- Visible or palpable structural or functional abnormality
- Scoliosis in child or adolescent
- Abnormal lab findings with positive signs and/or symptoms
- Unexpected response to treatment
- Significant activity restriction >2 weeks

Based on clinical suspicion:

- Fracture, dislocation, subluxation
- Spinal instability
- Spinal stenosis
- Inflammatory joint disease

Are X-rays Necessary for biomechanical treatment planning?

Surgeons seem to think so…



Alan H. Daniels, MD • 2nd
Mark Palumbo Endowed Chief of Spine Surgery, Brown Universit...
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4d •

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High pelvic incidence patients are notorious for high postop failure rates after lumbar fusion. This 64yo female underwent 25° ALIF at L5/S1 and posterior L1-Ilium fusion 2 years ago for stenosis and postural complaints. So far- no pjk, no rod fracture, and doing well. L1 was controversial as UIV in her, but worked well in this case.

ALIF was the key strategy to improving this patient's spinal shape thus improving her lordosis distribution, which led to the good outcome. This recent paper first-authored by our star researcher Manjot Singh assessed International Spine Study Group (ISSG) data to show that ALIF is as powerful for correcting lordosis as PSO (and better than TLIF) with less complications:
https://lnkd.in/e3XxvNuV

Although surgical masters such as Kern Singh can get a ton of lordosis correction with TLIF as seen by his LinkedIn cases, it appears to be less reliable in its corrective power than ALIF. We also know from our previous debate that Juan Uribe, MD (and many others!) hate the downsides of ALIF, but I remain convinced the upsides of extremely reliable lordosis correction, low complication rate, and near 100% fusion rate make it the best lumbar operation we have.

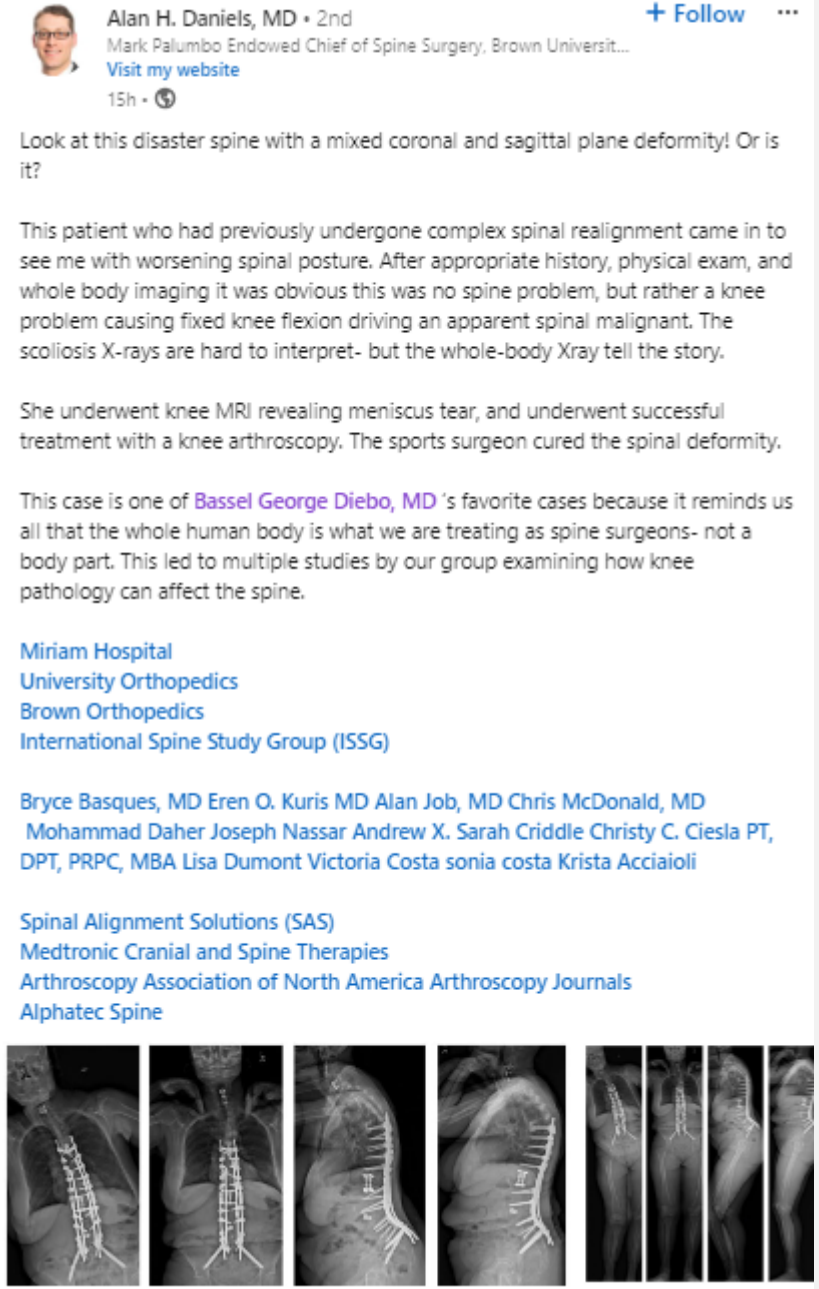
Brown Orthopedics
Miriam Hospital
University Orthopedics

Bassel George Diebo, MD Eren O. Kuris MD Bryce Basques, MD Alan Job, MD Sarah Criddle Mohammad Daher Mariah Balmaceno-Criss Joseph Nassar Andrew X. Maahir Haque Ben Burch, MD

Spinal Alignment Solutions (SAS)
Medtronic Cranial and Spine Therapies Globus Medical NuVasive DePuy Synthes Stryker Spine Orthofix SeaSpine Spineart Alphatec Spine Carlsmed SMAIO Highridge Medical

107

13 comments · 2 reposts



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Mark Palumbo Endowed Chief of Spine Surgery, Brown Universit...
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Look at this disaster spine with a mixed coronal and sagittal plane deformity! Or is it?

This patient who had previously undergone complex spinal realignment came in to see me with worsening spinal posture. After appropriate history, physical exam, and whole body imaging it was obvious this was no spine problem, but rather a knee problem causing fixed knee flexion driving an apparent spinal malignant. The scoliosis X-rays are hard to interpret- but the whole-body Xray tell the story.

She underwent knee MRI revealing meniscus tear, and underwent successful treatment with a knee arthroscopy. The sports surgeon cured the spinal deformity.

This case is one of Bassel George Diebo, MD 's favorite cases because it reminds us all that the whole human body is what we are treating as spine surgeons- not a body part. This led to multiple studies by our group examining how knee pathology can affect the spine.

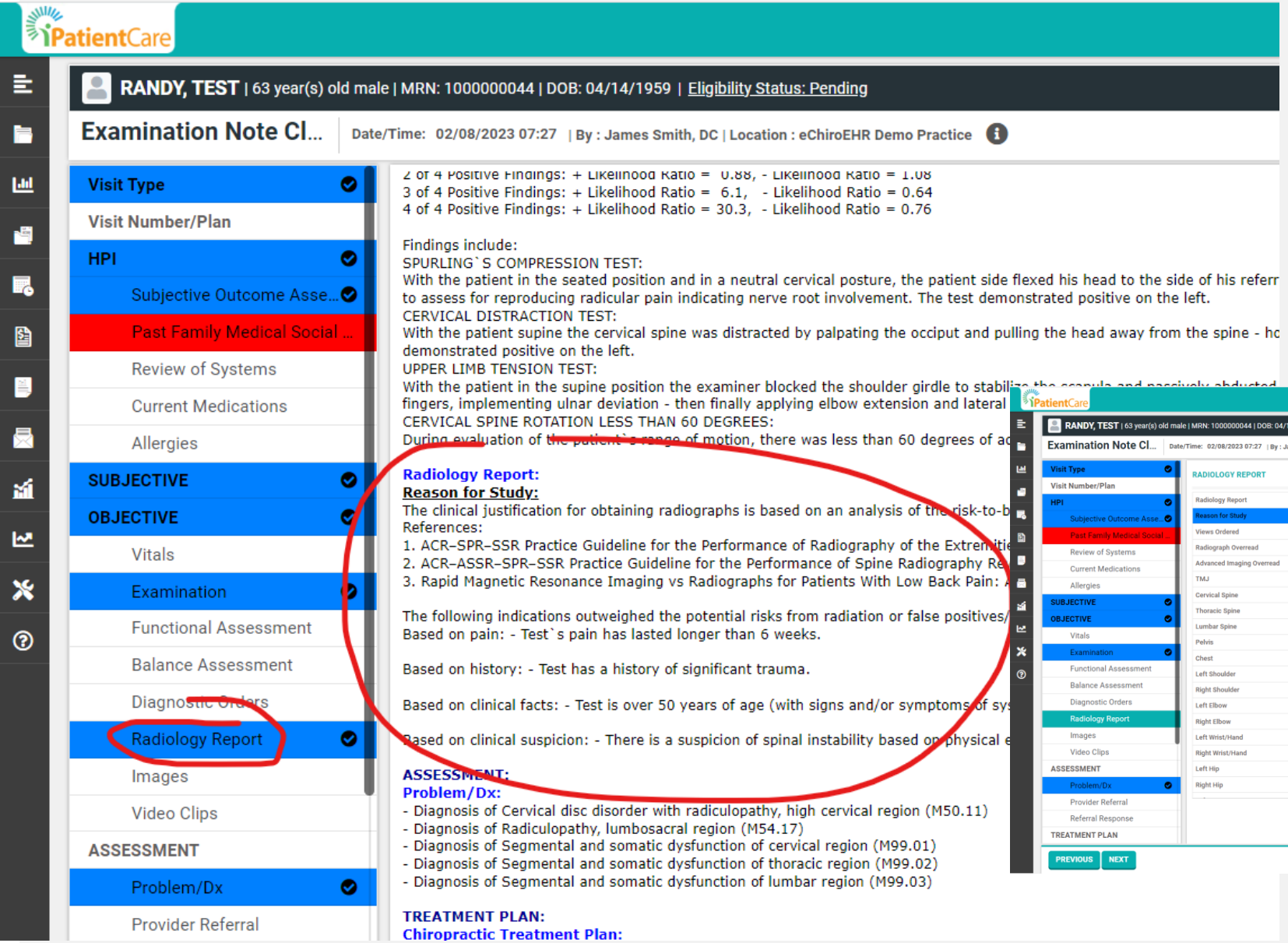
Miriam Hospital
University Orthopedics
Brown Orthopedics
International Spine Study Group (ISSG)

Bryce Basques, MD Eren O. Kuris MD Alan Job, MD Chris McDonald, MD Mohammad Daher Joseph Nassar Andrew X. Sarah Criddle Christy C. Ciesla PT, DPT, PRPC, MBA Lisa Dumont Victoria Costa sonia costa Krista Acciaioli

Spinal Alignment Solutions (SAS)
Medtronic Cranial and Spine Therapies
Arthroscopy Association of North America Arthroscopy Journals
Alphatec Spine

101

14 comments · 1 repost


iPatientCare
RANDY, TEST | 63 year(s) old male | MRN: 1000000044 | DOB: 04/14/1959 | Eligibility Status: Pending
Examination Note Cl...
Date/Time: 02/08/2023 07:27 | By : James Smith, DC | Location : eChiroEHR Demo Practice
Visit Type
Visit Number/Plan
HPI
Subjective Outcome Asse...
Past Family Medical Social ...
Review of Systems
Current Medications
Allergies
SUBJECTIVE
OBJECTIVE
Vitals
Examination
Functional Assessment
Balance Assessment
Diagnostic Orders
Radiology Report
Images
Video Clips
ASSESSMENT
Problem/Dx
Provider Referral
2 of 4 Positive Findings: + Likelihood Ratio = 0.88, - Likelihood Ratio = 1.08
3 of 4 Positive Findings: + Likelihood Ratio = 6.1, - Likelihood Ratio = 0.64
4 of 4 Positive Findings: + Likelihood Ratio = 30.3, - Likelihood Ratio = 0.76
Findings include:
SPURLING`S COMPRESSION TEST:
With the patient in the seated position and in a neutral cervical posture, the patient side flexed his head to the side of his referr
to assess for reproducing radicular pain indicating nerve root involvement. The test demonstrated positive on the left.
CERVICAL DISTRACTION TEST:
With the patient supine the cervical spine was distracted by palpating the occiput and pulling the head away from the spine - hc
demonstrated positive on the left.
UPPER LIMB TENSION TEST:
With the patient in the supine position the examiner blocked the shoulder girdle to stabili
fingers, implementing ulnar deviation - then finally applying elbow extension and lateral
CERVICAL SPINE ROTATION LESS THAN 60 DEGREES:
During evaluation of the patient`s range of motion, there was less than 60 degrees of ac
Radiology Report:
Reason for Study:
The clinical justification for obtaining radiographs is based on an analysis of th
References:
1. ACR–SPR–SSR Practice Guideline for the Performance of Radiography of the Extremiti
2. ACR–ASSR–SPR–SSR Practice Guideline for the Performance of Spine Radiography Re
3. Rapid Magnetic Resonance Imaging vs Radiographs for Patients With Low Back Pain:
The following indications outweighed the potential risks from radiation or false positives/
Based on pain: - Test`s pain has lasted longer than 6 weeks.
Based on history: - Test has a history of significant trauma.
Based on clinical facts: - Test is over 50 years of age (with signs and/or symptoms of sy
Based on clinical suspicion: - There is a suspicion of spinal instability based on physical e
ASSESSMENT:
Problem/Dx:
- Diagnosis of Cervical disc disorder with radiculopathy, high cervical region (M50.11)
- Diagnosis of Radiculopathy, lumbosacral region (M54.17)
- Diagnosis of Segmental and somatic dysfunction of cervical region (M99.01)
- Diagnosis of Segmental and somatic dysfunction of thoracic region (M99.02)
- Diagnosis of Segmental and somatic dysfunction of lumbar region (M99.03)
TREATMENT PLAN:
Chiropractic Treatment Plan:
RADIOLOGY REPORT
Radiology Report
Reason for Study
Views Ordered
Radiograph Overread
Advanced Imaging Overread
TMJ
Cervical Spine
Thoracic Spine
Lumbar Spine
Pelvis
Chest
Left Shoulder
Right Shoulder
Left Elbow
Right Elbow
Left Wrist/Hand
Right Wrist/Hand
Left Hip
Right Hip
The following indications outweighed the potential risks from radiation or false positives/negatives:
There were no indications for radiographs based on the patient`s pain.
Free Text
General Indications
Canada C-Spine Rules
Thoracic compression fracture
Knee Fracture Rules
Ankle/Foot Xray Rule
Based on pain
Based on history
Based on clinical facts
Based on clinical suspicion
Pain >6 Wk Duration
Bone Pain/Cancer Hx
- [Patient First Name] has radicular symptoms.
Progressive Pain
Non-Mechanical Pain
OK
CANCEL
PREVIOUS
NEXT
SCAN / ATTACH
ROUTE
ORDER SET
PRINT
SIGN
SAVE & CLOSE

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

Advanced Studies

Advanced Imaging Ordering

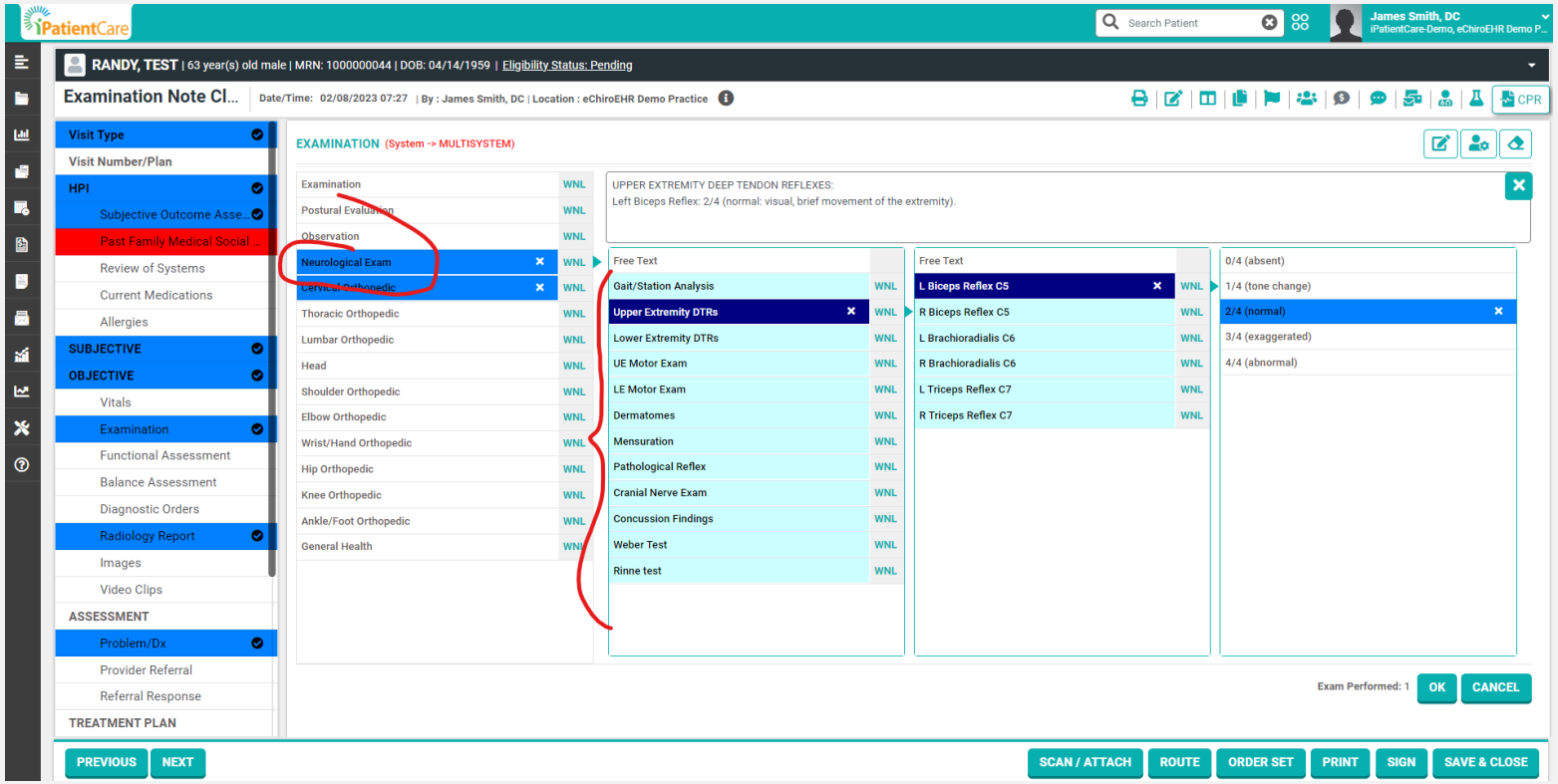
1. Apply for privileges of where you will be ordering imaging or advanced studies
2. Consider the patient's insurance/payer requirements on who can order imaging, their criteria for coverage, etc.
3. Become familiar with the type of imaging you need clinically when you make your order for the patient
4. Review findings and make appropriate decision for care, referral, etc.

Contrast vs. No Contrast Reference Sheet – Head/Neck

Body Part	Reason for Exam	Procedure to Pre-Cert	CPT Code
Brain	Alzheimer's/Confusion/Dementia Headache/Migraine Memory Loss Mental Status Changes Seizures Stroke, CVA, TIA Trauma	MRI Brain without Contrast	70551
Brain	Cranial Nerve Lesions F/U Lesion/Mass IAC/Hearing Loss/Tinnitus/Vertigo Infection Metastatic Disease Multiple Sclerosis Neurofibromatosis Pituitary	MRI Brain without and with Contrast	70553
Brain	Fiducials Gamma Knife Planning	MRI Brain with Contrast	70552
Circle of Willis (COW)	Stroke/CVA/TIA Aneurysm	MRA Head without Contrast	70544
Carotid	Stroke/CVA/TIA	MRA Neck without Contrast	70547
Carotid	Stenosis > 60% on Doppler Ultrasound	MRA Neck without and with Contrast	70549
Intracranial Venous Sinus	Venous Thrombosis	MRV Head without and with Contrast	70546
Orbits	Optic Neuritis Exophthalmos, Proptosis Pseudotumor/Mass/Cancer/Mets Vascular Lesions Visual Disturbances	MRI Orbits/Face/Neck without and with Contrast	70543
Neck-Soft Tissue	Infection Tumor/Mass/Cancer/Mets Vocal Cord Paralysis	MRI Orbits/Face/Neck without and with Contrast	70543

Neurological Evaluation

- Upper/Lower Motor exam
- Deep tendon Reflexes
- Sensory exam
- Cranial Nerve Exam



Informed Consent

Patient Safety
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

Informed Consent Process

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

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.

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

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.

When do we use Informed Consent?

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

New Patient/Re-Admit

New Diagnosis

A new diagnosis for the patient represents a material change for the patient.

New evidence regarding treatment and/or procedures may represent a material change for the patient for consideration of alternative treatment or procedures. New risks for specific treatments/procedures should be updated in the informed consent form as well.

New Evidence

A change in the use of a procedure in the care of the patient regardless of a change in the diagnosis.

New Treatment Procedure

Six Key Elements of Informed Consent

For the patient's consent to be valid, the following elements need to be reviewed with the patient:

1. The patient's diagnosis/condition and the proposed treatment, modality or procedures for correction.
2. The relevant risks and benefits of the proposed treatment, modality or procedures
3. Alternative treatment or procedures that are available to the patient and the relative risk, benefits, and uncertainties related to each alternative;
4. The risk and benefits of not receiving or undergoing any treatment procedure
5. The assessment of the patients understanding of the information provided (decision making capacity)
6. The acceptance by the patient to undergo the recommended treatment, modality or procedure.

Informed Consent for Treatment

I understand that the treatment I receive at this clinic is from a licensed Doctor of Chiropractic. Chiropractic scope of practice includes a wide range of services but if the doctor determines the services I need cannot be provided by this office, then he/she will direct me to the appropriate health care provider.

Within the service provided by this office, chiropractic treatment almost always includes the chiropractic adjustment, a specific type of joint manipulation. Spinal manipulation is done to ease pain and help the body function better. Like most health care procedures, the chiropractic adjustment carries with it some risks. Unlike many such procedures, the serious risks associated with the chiropractic adjustment are extremely rare. **The following are the 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.
- ☐ **Alternatives** to manipulation discussed through a shared decision-making process include: Medicines, Physical therapy, Massage, Mobilization, Acupuncture, and/or Cognitive-behavioral therapy. You can do these whether or not you are doing spinal manipulation.
- ☐ **Refusing Care** may carry a risk to future capabilities in regard to performing activities of daily living or progression towards chronic pain.

I understand that the practice of chiropractic, like the practice of all healing arts, is not an exact science, and I acknowledge that no guarantee can be given as to the results or outcome of my care. The material risks have been disclosed to me, including a description of those material risks; and after consideration, I agree to the procedures understanding any material risks which are inherent to that procedure.

• PATIENT PLEASE REVIEW • PRINT & SIGN NAME •

I have read or had read to me this informed consent document. I have discussed or been given the opportunity to discuss any questions or concerns with my chiropractor and have had these answered to my satisfaction prior to my signing this informed consent document. I have made my decision voluntarily and freely.

PATIENT'S NAME (Print)_____ **DATE OF BIRTH:** _____

PATIENT GUARDIAN/REPRESENTATIVE (PRINT) _____

_____ _____ _____ _____

(PATIENT GUARDIAN/REPRESENTATIVE SIGNATURE) **(DATE)** **(TRANSLATOR | INTERPRETER SIGNATURE)** **(DATE)**

CLINICIAN ONLY

Based on my personal observation, the patient's history and physical exam, I conclude that throughout the informed consent process the patient was:

- ☐ OF LEGAL AGE
- ☐ ORIENTED X3
- ☐ APPEARS UNIMPAIRED
- ☐ FLUENT IN ENGLISH
- ☐ CONSENT GIVEN THROUGH GUARDIAN/PATIENT REPRESENTATIVE
- ☐ ASSISTED BY A TRANSLATOR OR INTERPRETER

_____, D.C. _____

(CLINICIAN SIGNATURE) **(DATE)**

STUDENT INTERN/EXTERN INITIALS AS WITNESS TO PATIENT DISCUSSION WITH CLINICIAN: _____

Informed Consent Form

Six Exceptions of Informed Consent

(1) Detailed technical information that in all probability a patient would not understand.

(2) Risks apparent or known to the patient.

(3) **Extremely remote possibilities that might falsely or detrimentally alarm the patient.**

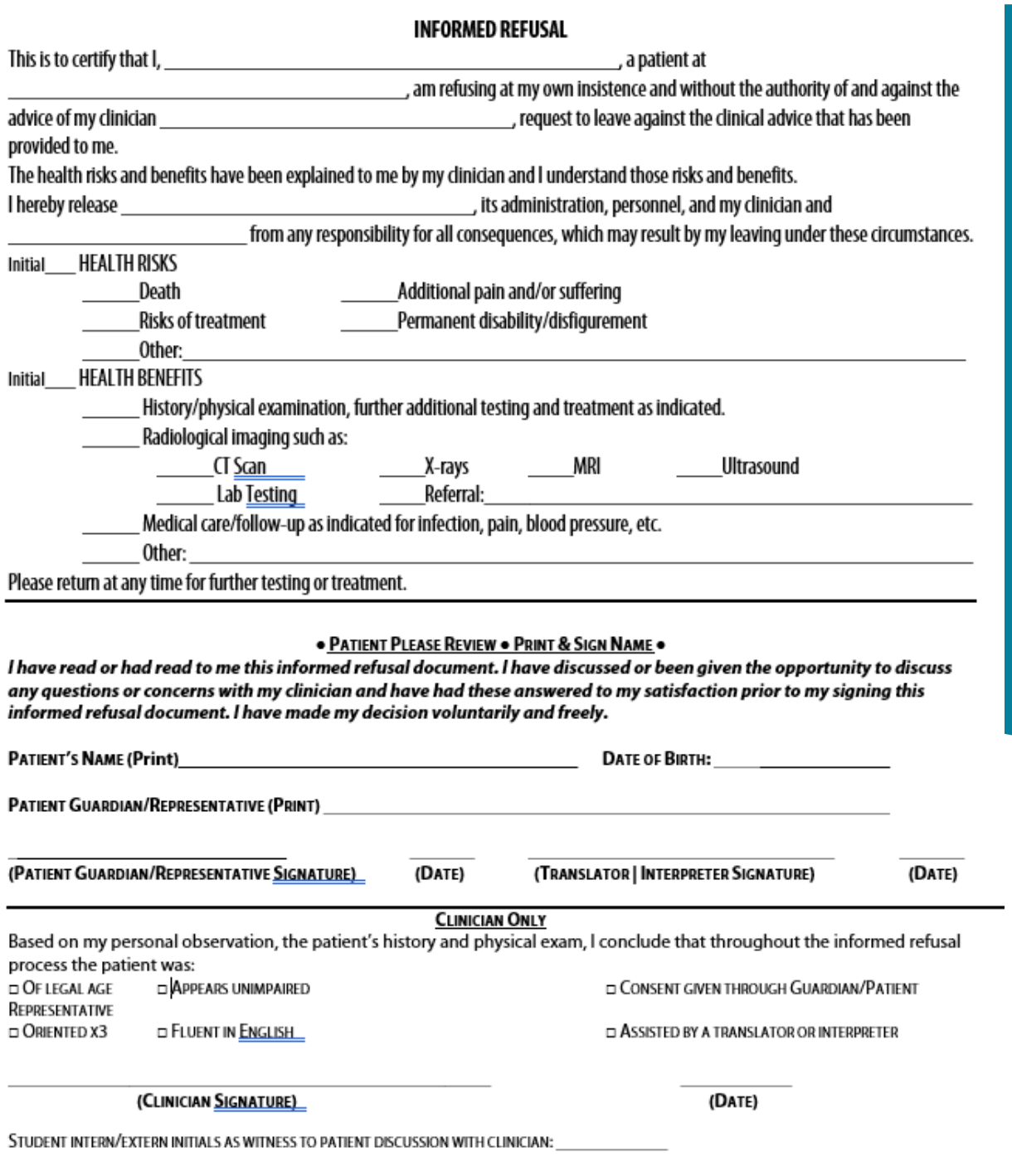
(4) Information in emergencies where failure to provide treatment would be more harmful to the patient than treatment.

(5) Information in cases where the patient is incapable of consenting.

(6) Information about alternate modes of treatment for any condition the chiropractor has not included in his or her diagnosis at the time the chiropractor informs the patient.

Informed Refusal

If the patient refuses care or the clinical advice provided, have the patient sign an "Informed Refusal" form, which should provide full disclosure of all possible risks of refusing clinical services and advice before leaving the clinic.



INFORMED REFUSAL

This is to certify that I, _____, a patient at _____, am refusing at my own insistence and without the authority of and against the advice of my clinician _____, request to leave against the clinical advice that has been provided to me.

The health risks and benefits have been explained to me by my clinician and I understand those risks and benefits.

I hereby release _____, its administration, personnel, and my clinician and _____ from any responsibility for all consequences, which may result by my leaving under these circumstances.

Initial___ HEALTH RISKS

_____Death _____Additional pain and/or suffering

_____Risks of treatment _____Permanent disability/disfigurement

_____Other: _____

Initial___ HEALTH BENEFITS

_____History/physical examination, further additional testing and treatment as indicated.

_____Radiological imaging such as:

_____CT Scan ____X-rays ____MRI ____Ultrasound

_____Lab Testing ____Referral: _____

_____Medical care/follow-up as indicated for infection, pain, blood pressure, etc.

_____Other: _____

Please return at any time for further testing or treatment.

• PATIENT PLEASE REVIEW • PRINT & SIGN NAME •

I have read or had read to me this informed refusal document. I have discussed or been given the opportunity to discuss any questions or concerns with my clinician and have had these answered to my satisfaction prior to my signing this informed refusal document. I have made my decision voluntarily and freely.

PATIENT'S NAME (Print)_____ DATE OF BIRTH: _____

PATIENT GUARDIAN/REPRESENTATIVE (PRINT) _____

_____ _____ _____ _____

(PATIENT GUARDIAN/REPRESENTATIVE SIGNATURE) (DATE) (TRANSLATOR | INTERPRETER SIGNATURE) (DATE)

CLINICIAN ONLY

Based on my personal observation, the patient's history and physical exam, I conclude that throughout the informed refusal process the patient was:

□ OF LEGAL AGE □ APPEARS UNIMPAIRED □ CONSENT GIVEN THROUGH GUARDIAN/PATIENT REPRESENTATIVE

□ ORIENTED X3 □ FLUENT IN ENGLISH □ ASSISTED BY A TRANSLATOR OR INTERPRETER

_____ _____

(CLINICIAN SIGNATURE) (DATE)

STUDENT INTERN/EXTERN INITIALS AS WITNESS TO PATIENT DISCUSSION WITH CLINICIAN: _____

Gap in Care?

Six Weeks or Greater…

Upon initial review of eighteen (18) malpractice claims case studies of established patients returning to the practice following a gap in care of 6 weeks or greater, **there appears to be a direct correlation between no informed consent provided and lack of detecting material change in the patient's condition**.

National Chiropractic Mutual Insurance Company (NCMIC). (2014-2024). Malpractice claims data and case studies: Examiner issues. Retrieved and assessed by Scott Munsterman, DC, FICC, CPCO on February 11, 2025, from https://www.ncmic.com/search-results/?addsearch=examiner%20informed%20consent

Gap in Care?

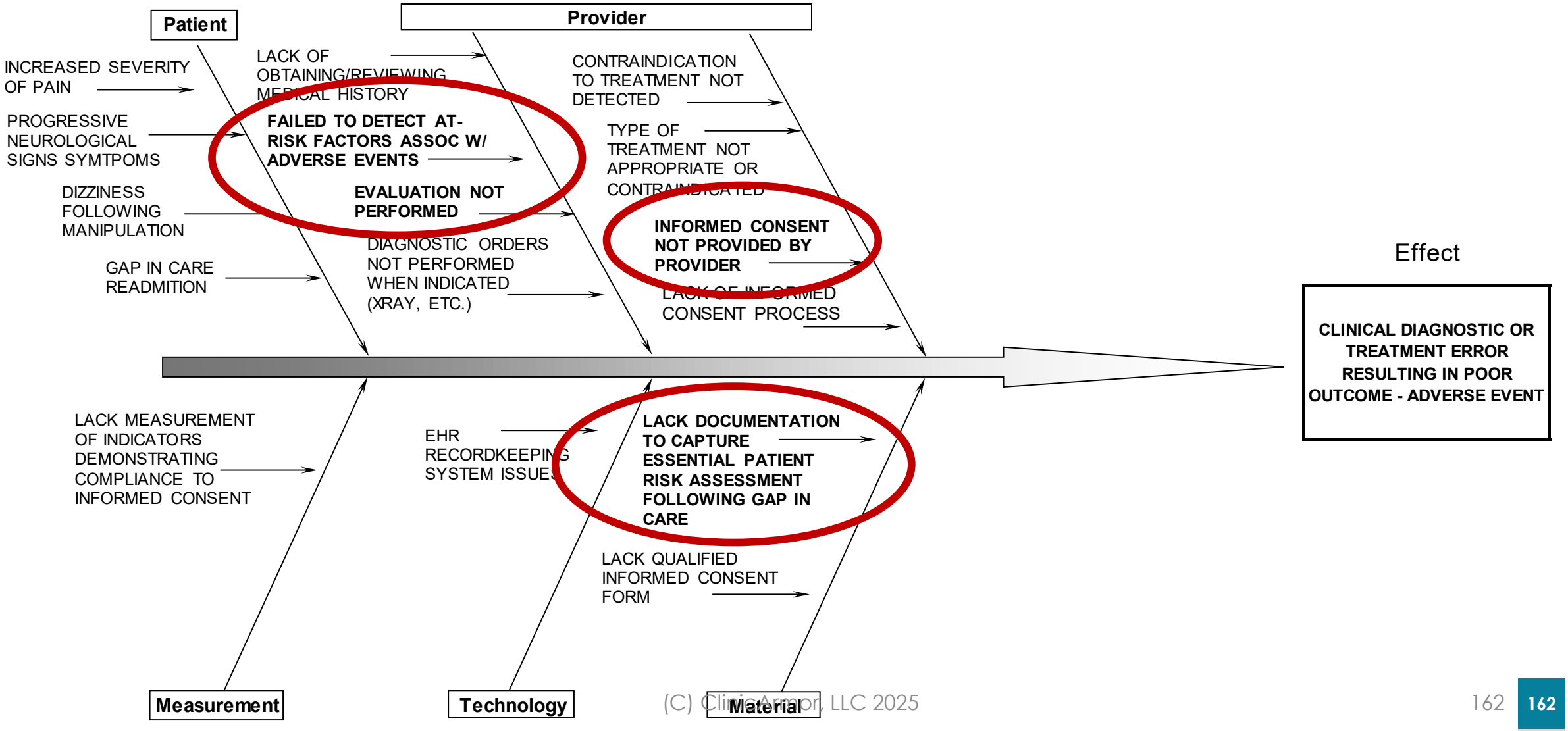
Six Weeks or Greater…

A material change represents a significant deviation from the patient's previous health status, which must be detected to avoid a risk to the patient's safety through misdiagnosis, lack of referral, and/or contraindicated treatment.

The lack of detecting material change in the established patient's condition was also directly associated with a poor or adverse outcome for the patient resulting from either a diagnostic error, treatment error, and/or lack of proper medical referral. Consideration must be given that, if the patient had been informed, a different decision other than what the provider made, may have occurred.

Fishbone Cause and Effect Diagram

Capstone Project



Informed Consent Risk Assessment Form

Please answer the following questions as it pertains to your visit today.

Patient Name: _____ Date: _____

Yes	No	
☐	☐	My pain is much more severe and/or different than it ever has been before and is getting worse.
☐	☐	I have felt unsteady and off balance either causing or almost causing me to fall.
☐	☐	I have recently had a hospitalization or surgery since my last visit.
☐	☐	I am currently taking either pain medication, steroids, Proton Pump Inhibitors, and/or antibiotics.
☐	☐	Something happened to me since my last visit (i.e., accident, fall, etc. – please explain below)
☐	☐	I have had a recent change in my medication or have a new allergy.
☐	☐	My mental processing or thinking doesn't seem very clear or is different to me.

Co-Management, Consult, and Referrals

Co-Management, Consult, and Referral Scenarios

Single Visit Consultation: A clinician decides a patient may need to seek another opinion. The referral clinician consults and evaluates the patient and then reports back to the patient and referring clinician the results of the visit.

Co-Management with Shared Care: This results when both the referring and referral clinicians decide there is benefit for the patient to combine their care plan and management, sharing the management of the patient by overseeing the scope of their treatment for the patient; but with communication between both clinicians regarding status of each care plan and response.

Co-Management with Principal Care: One of the clinicians involved becomes the captain of the team-based care model and is assigned the primary responsibility for the patient. The captain directs the care plan, involving other clinicians and providers in the process and delivery of care.

Transition of Care (for whole-person care): A clinician becomes responsible for the patient's whole care when a referral is made, transitioning the full responsibility of care to the referral clinician.

Co-Management, Consult, and Referral Scenarios

1. Single Visit Consultation
2. Co-Management with Shared Care
3. Co-Management with Principal Care
4. Transition of Care for whole-person care
5. Communication of results to patient/family/caregiver

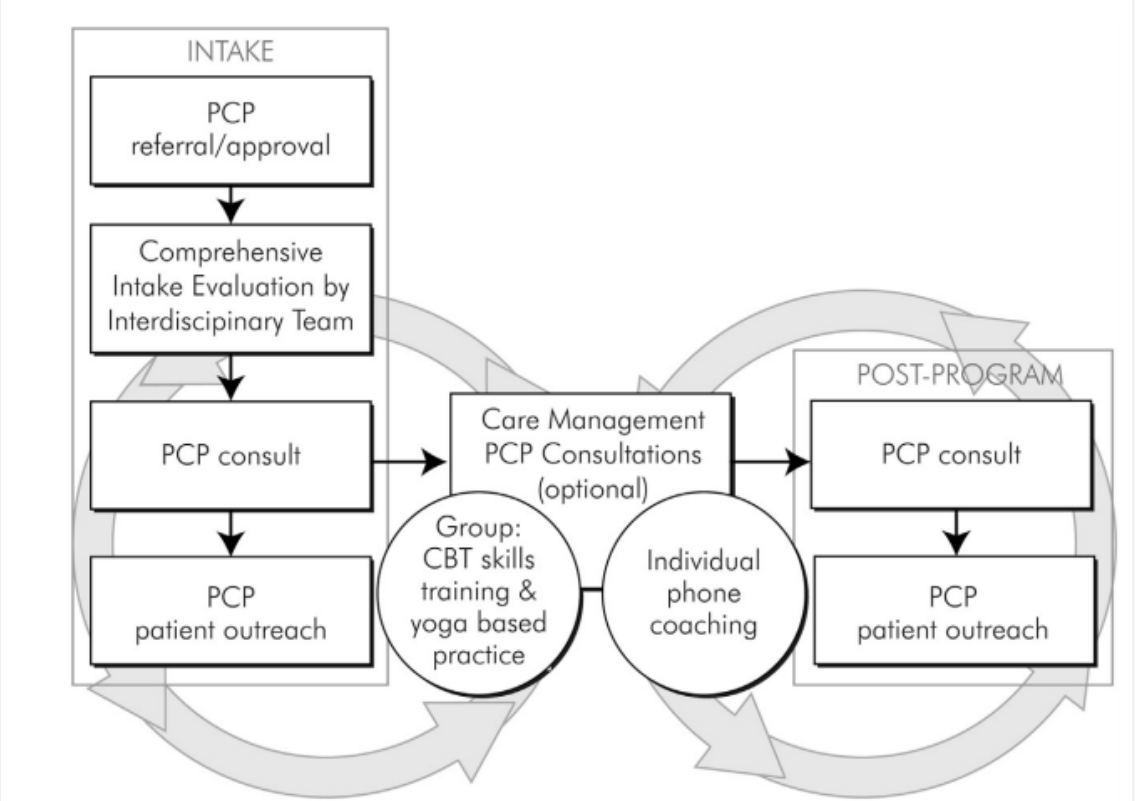


Fig. 2. PPACT intervention description.

https://www.contemporaryclinicaltrials.com/article/S1551-7144(17)30578-5/pdf

1. Know who you need to work with on the care team.

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

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

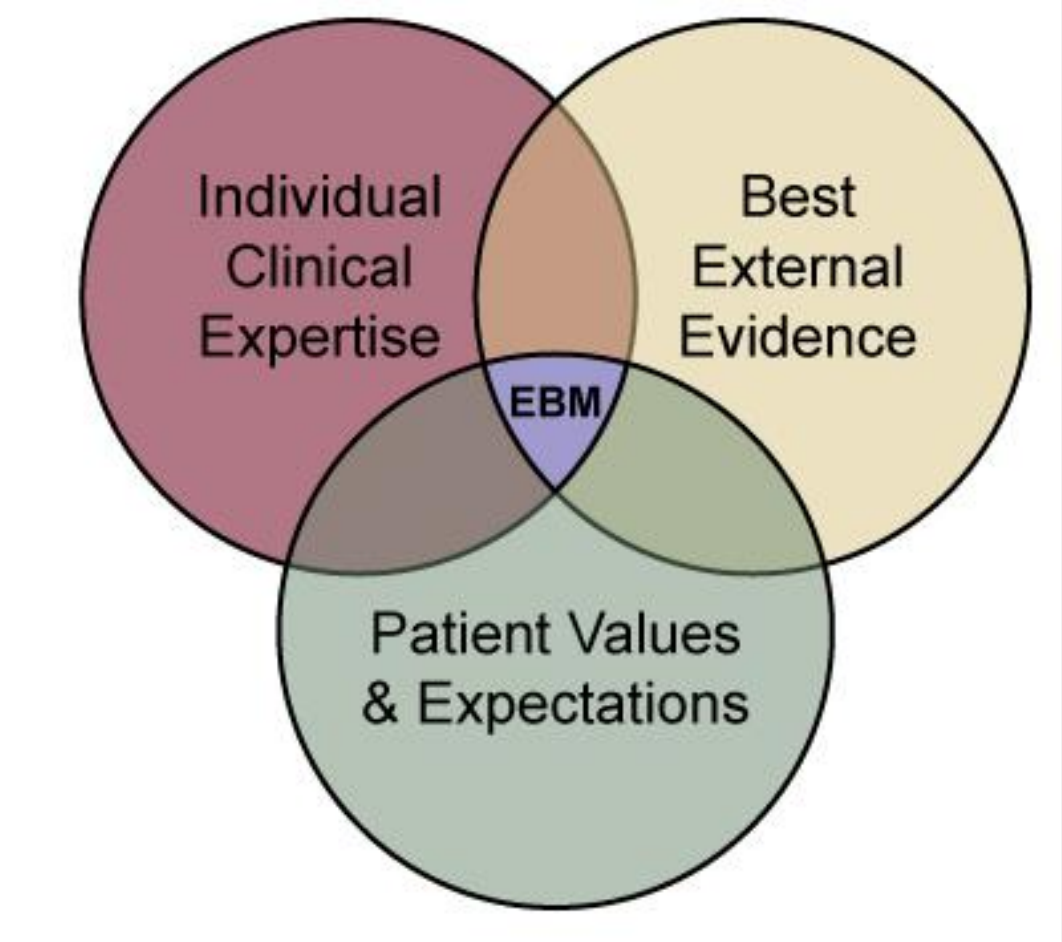
4. Document your referral in the patient’s chart

5. Track the referral to close the loop.

Tracking the Consult or Referral and Closing the Loop

Treatment

Evidence-Informed Practice



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

Standard of Care

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

Clinical Competencies

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

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

Recognizing Patient Safety Incidents

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”

Care Management Considerations

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

Misinformed Treatment Plans

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

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.

https://www.physiotherapyalberta.ca/files/faq_dry_needling_adverse_events.pdf

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.

Chiropractic Clinical Assistant Competency

- **Understand supervision rules for your state**
  - **Specific CA Certification and Training Requirements**
  - **Doctor's responsibility under his/her license requirements**
- Formal training completion with testing
- Patient response
- Doctor communication - orders

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

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?

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?

Theraband Exercise Station

Eye Protection

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

OSHA Safety Considerations

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.

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.

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

Emergency Action Plan

Emergency Action Plan

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

Preventing Blood-borne Pathogens

Bloodborne Pathogen Standard Policy
Sharps/Needle sticks

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 personal 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.

Cleaning Up Blood Spills

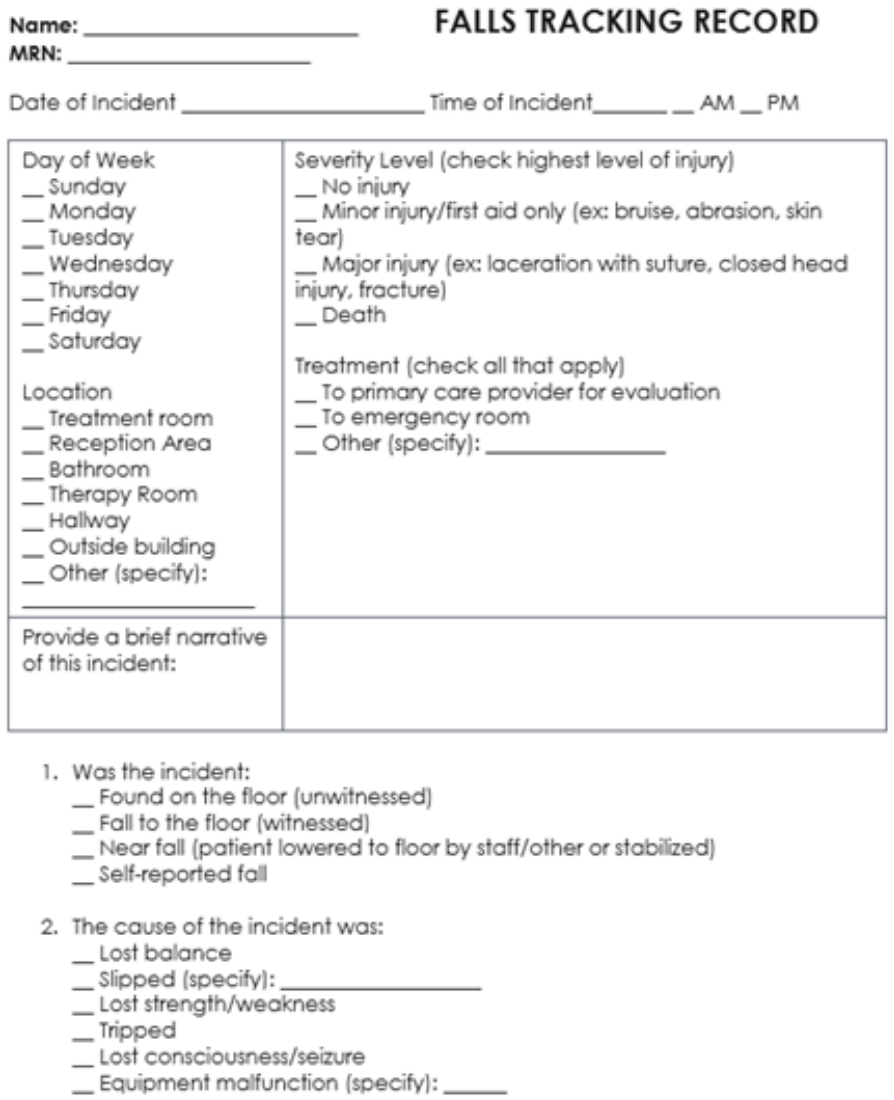
- **Prevent:** Wear mouth, nose, and eye protection during procedures that are likely to generate splashes or spattering of blood or other body fluids. This is why you need disposable gloves, a mask, and a disposable gown. Prevent access to the area. Open windows to ventilate if necessary.
- **Contain and remove the spill**
- **Disinfect:** Gently pour the bleach solution onto the contaminated surface(s). Leave the bleach solution on the contaminated surface(s) for 20 minutes. Conduct a final clean of the area. If you are cleaning up blood that has spilled or splattered, you should carefully cover the spill with paper towels or rags, then gently pour the 10% solution of bleach over the towels or rags, and leave it for at least 10 minutes.
- **Dispose:** Clean the spill area with paper towel to remove most of the spill. Disinfectants cannot work properly if the surface has blood or other bodily fluids on it. Cloth towels should not be used unless they are to be thrown out. All towels used in the disinfecting process should be placed in a biohazard bag and labeled appropriately. Your disposable protective gear (i.e. gloves, gown, and mask) should also go in a biohazard bag. Any reusable products should be soaked in broad-spectrum disinfectant. Contact your local health department for disposal instructions.
- **Sanitize:** applying cleaning solutions. Apply generously and make sure to let it sit for the recommended cure time. Once the cure time has passed, work from the outside toward the center of the spill area, scrubbing with durable cloth towels.

Equipment to Clean Up Blood Spills

- Disposable gloves.
- Disposable gown (depending on the severity of the spill)
- Disposable cloth towels.
- Biohazard bags.
- Biohazard labels.
- Disinfectant with a broad spectrum kill claim.
- Leak-proof sharps containers.
- Brush and dustpan, or tongs and forceps as appropriate

FALLS ACTION PLAN

1. Evaluate Person After the Fall
2. Investigate Fall Circumstances
3. Record Circumstances and Outcome
4. Alert to the Primary Care Provider
5. Implement Immediate Intervention Within First 24 Hours
6. Complete Falls Assessment
7. Develop Plan of Care
8. Monitor Staff Compliance and Response



Name: _____ MRN: _____

FALLS TRACKING RECORD

Date of Incident _____ Time of Incident_____ __ AM __ PM

Day of Week __ Sunday __ Monday __ Tuesday __ Wednesday __ Thursday __ Friday __ Saturday Location __ Treatment room __ Reception Area __ Bathroom __ Therapy Room __ Hallway __ Outside building __ Other (specify): _____	Severity Level (check highest level of injury) __ No injury __ Minor injury/first aid only (ex: bruise, abrasion, skin tear) __ Major injury (ex: laceration with suture, closed head injury, fracture) __ Death Treatment (check all that apply) __ To primary care provider for evaluation __ To emergency room __ Other (specify): _____
Provide a brief narrative of this incident:	

1. Was the incident:
   __ Found on the floor (unwitnessed)
   __ Fall to the floor (witnessed)
   __ Near fall (patient lowered to floor by staff/other or stabilized)
   __ Self-reported fall

2. The cause of the incident was:
   __ Lost balance
   __ Slipped (specify): _____
   __ Lost strength/weakness
   __ Tripped
   __ Lost consciousness/seizure
   __ Equipment malfunction (specify): _____

Preventing Air-borne Pathogens

Exposure Control Plan

OSHA's New COVID-19 Standard Update

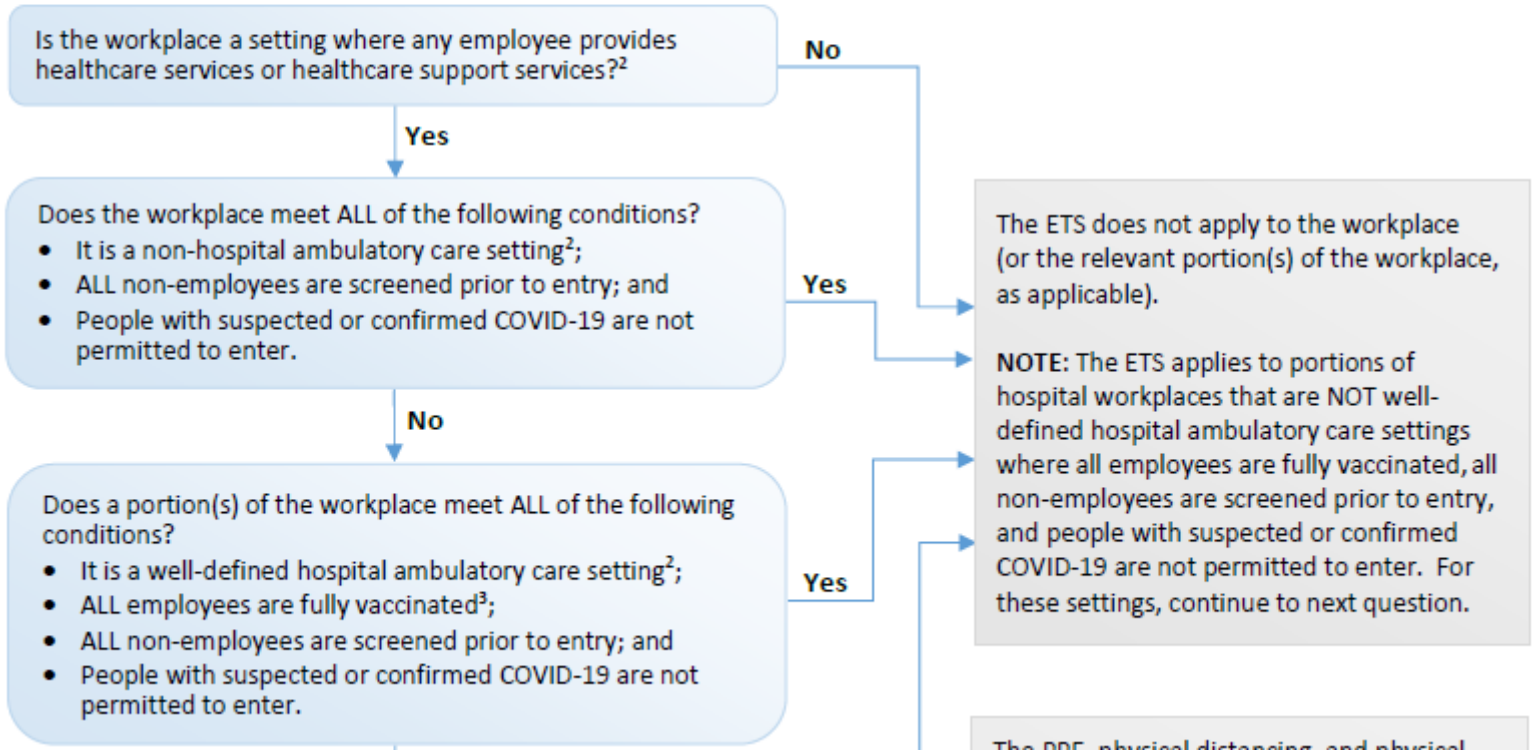
Managing Risk for Staff and Doctors

EMERGENCY TEMPORARY STANDARD

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

OSHA Occupational Safety and Health Administration

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 1910.502** at www.osha.gov/coronavirus/ets.



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_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fhcp%2Finfection-control-after-vaccination.html#print

Mitigating the Exposure Risk

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

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?

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?src=WNL_dne1_220930_MSCPEDIT&uac=395626EV&impID=4698875&faf=1

“substantial or high transmission”

The key is "substantial or high transmission" which needs to be evaluated here: https://covid.cdc.gov/covid-data-tracker/#county-view?list_select_state=all_states&list_select_county=all_counties&data-type=Risk

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

State or territory: South Dakota

County or metro area: Brookings County

Reset Selections

Brookings County, South Dakota

State Health Department

7-day Metrics | 7-day Percent Change

Community Transmission: High

Everyone in **Brookings County, South Dakota** should wear a mask in public, indoor settings. Mask requirements might vary from place to place. Make sure you follow local laws, rules, regulations or guidance.

How is community transmission calculated?

On this page:

- Cases & Deaths
- Testing
- Vaccinations
- Hospitalizations
- Community Characteristics
- Data Downloads and Footnotes

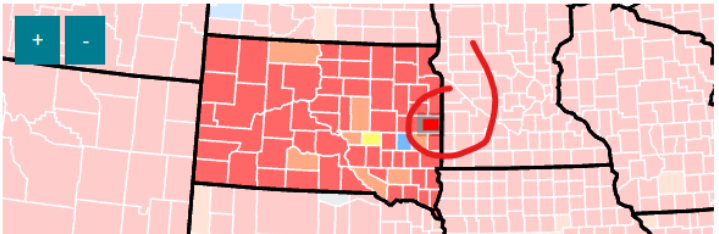
	October 26, 2021
Cases	38
Case Rate per 100k	108.33
% Positivity	7.64%
Deaths	0
% Eligible Population Fully Vaccinated	51.2%
New Hospital Admissions	0

Data Type: Level of Community Trans...

Map Metric: Level of Community Trans...

View a Time Lapse

Download Image



Tracking your Community Spread

https://covid.cdc.gov/covid-data-tracker/#county-view

United States At a Glance

Cases Total 45,363,116 Last 30 Days

Deaths Total 734,752 Last 30 Days

77.7% of People 12+ with At Least One Vaccination

Community Transmission High

- Data Tracker Home
- COVID Data Tracker Weekly Review
- Your Community
  - County View
  - Forecasting
  - Vaccinations in the US
  - Community Profile Report
  - State Profile Report
  - Pandemic Vulnerability Index
- Health Equity Data
- Pediatric Data
- Vaccinations
- Cases, Deaths, and Testing
- Demographic Trends
- Health Care Settings
- Genomic Surveillance
- Seroprevalence
- People at Increased Risk
- Multisystem Inflammatory Syndrome in Children (MIS-C)
- Prevention Measures and Social Impact
- Additional COVID-related Data
- Communications Resources

COVID-19 Integrated County View

Maps, charts, and data provided by CDC, updates daily by 8 pm ET†

This site provides an integrated, county view of key data for monitoring the COVID-19 pandemic in the United States. It allows for the exploration of standardized data across the country.* The footnotes describe each data source and the methods used for calculating the metrics. For the most complete and up-to-date data for any particular county or state, visit the relevant health department website. Additional data and features are forthcoming.

*County level data are not available for territories. Territory level data is available under the **Cases, Deaths, and Testing tab**. Data presented here for District of Columbia may differ from those presented on the **Cases, Deaths, and Testing tab** due to reporting differences for each tab. For CDC's most up to date data for District of Columbia, select District of Columbia in the dropdown on this tab or see the map below.

How to Find a COVID-19 Vaccine

State or territory: Select a State

County or metro area:

Reset Selections

Use the options above or the map below to select a state and county.

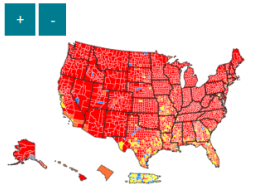
Data Type: Level of Community Trans...

Map Metric: Level of Community Trans...

View a Time Lapse

All Counties

Download Image



Community Transmission in US by County

	Total	Percent	% Ch
High	2545	78.99%	-5
Substantial	427	13.25%	3.
Moderate	188	5.83%	2.
Low	55	1.71%	0.

How is community transmission calculated?

High Substantial Moderate Low No Data

Current 7-days is Mon Oct 18 2021 - Sun Oct 24 2021 for case rate and Tue Oct 12 2021 - Mon Oct 18 2021 for percent positivity. The percent change in counties at each level of transmission is the absolute change compared to the previous 7-day period.

Data Downloads and Footnotes

Multiple Layers of Controls

Removing from the workplace all infected people

Mask wearing

Distancing

Increased ventilation

Proper cleaning/disinfecting

Proper hand hygiene

Training

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

Re-Cap

Clinical Conscientiousness and Situational Awareness

Maintaining your clinical mindset

Welcome
Ask
Listen
Knowledge

The "Walk"

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"?

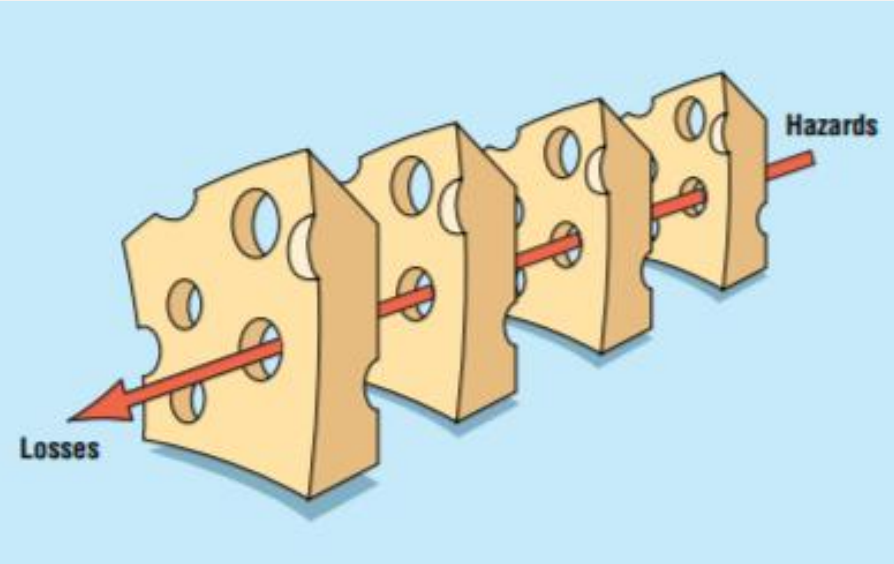
Does the patient's clinical presentation require urgent need for evaluation and/or care?

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

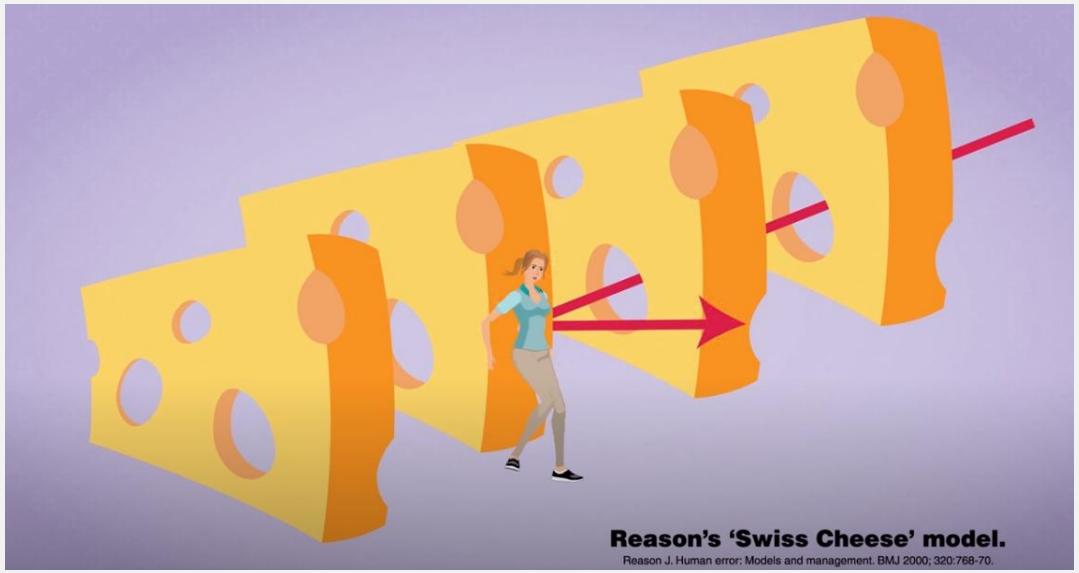
Stay Connected to Established Patients who are under a treatment plan.

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

It just takes one thing to block the incident…



https://www.youtube.com/watch?v=7Y8HupZ2e0s&feature=youtu.be



Questions or Comments?

Thank you!

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