MedPOINT MANAGEMENT	**Clinical Protocol:** Cervical Spine Imaging	
	ORIGINAL EFFECTIVE DATE: 05/03/2011	**REVIEWED/REVISED DATE(S):** 05/29/2019
PREPARED BY: Joanne Calegari	**APPROVED BY:** Richard Powell, M.D.	

PROTOCOL OVERVIEW

This Clinical Protocol advises on indications and guidelines on Cervical Spine Imaging.

INDICATIONS

- Plain X-rays
  - Indicated for ANY ONE of the following:
    - History or suspicion of malignancy
    - History of severe trauma in the past
    - Neuromotor deficit
    - Workers' compensation or litigation cases
    - Age >50 years
    - History suspicious for ankylosing spondylitis
    - No improvement after 4 to 6 weeks of conservative treatment
  - Not indicated for ANY ONE of the following:
    - Most acute whiplash injuries
    - Neck pain and mild to moderate, non-progressing or improving radicular symptoms of relatively short duration, i.e., 6 to 8 weeks
  - Types of plain x-rays to order
    - AP and lateral of cervical spine are appropriate as initial screening.
    - Oblique views to visualize neural foramina should not be done routinely, as they double the dose of radiation exposure.
    - Flexion and extension views are not necessary after acute injuries
    - Odontoid views generally are not indicated.
  - Do not over interpret the findings of a plain x-ray of the spine, whether positive or negative

- MRI, Cervical Spine
  - Indicated for ANY ONE of the following (generally starting with unenhanced, using enhanced to differentiate scar formation or for persistent radicular symptoms in presence of negative unenhanced study)
    - Urgently when ANY ONE of the following is suspected:
      - Evidence of cord compression due to presence of ANY ONE of the following:
        - Urinary incontinence or retention
        - Spasticity, hyperreflexia or clonus, gait disturbance
        - Incontinence of stool
        - Significant or progressive sensory or motor deficits, positive Babinski or Hoffman sign
      - Neoplasm in cervical spine due to presence of ANY ONE of the following:
        - New-onset back pain associated with history of neoplasm
        - Persistent or progressive back pain that fails conservative therapy
      - Suspected infection when the following are present:
        - Pain with suggestive imaging

- Fever, elevated erythrocyte sedimentation rate, positive culture
- Rapidly progressive weakness, history of spinal surgery or immunosuppression

- Disk space infection
- Osteomyelitis of the vertebrae when ANY ONE of the following is present:
  - Positive bone scan
  - Persistent neck pain and ANY ONE of the following:
    - Elevated sedimentation rate
    - Pain exacerbated by motion and relieved by rest
    - Localized tenderness over spine segment
  - Neck pain and ALL of the following:
    - Severe, disabling pain
    - Unresponsive to any comfort measures and conservative therapy
- Trauma
- Inflammatory or demyelinating process suspected

- Less urgently for ANY ONE of the following:
  - Neurologic deficits of any type that either persist or slowly progress
  - Subacute or chronic neck or radicular pain and ALL of the following are present:
    - Fails to improve after at least 6 to 8 weeks or more of conservative treatment
    - After consultation with a musculoskeletal specialist
    - Surgical or invasive treatment is being considered.
  - Previous spine surgery, to differentiate between scar and bulging disk if ALL of the following are present:
    - Significant new symptoms, hemorrhage or hematoma, neurologic findings or pain
    - Surgical management is being considered
  - Cancer history for staging or post-treatment monitoring
  - Congenital spinal malformations

- **CT Scan, Cervical Spine**
  - Indicated for ANY ONE of the following:
    - Inability to undergo magnetic resonance imaging examinations. See Imaging, MRI, Cervical Spine, Neck Pain, Arthritis, and Disk Disease.
    - Possibility of spine fractures
    - Evaluation of positioning of metal implants

- **Myelogram Followed by CT**
  - Indicated only if magnetic resonance imaging and plain CT are inadequate to define bone, soft tissue, and nerve anatomy

- **Bone Scan**
  - Indicated for ANY ONE of the following:
    - Suspected spondyloarthropathies, e.g., ankylosing spondylitis
    - Suspected skeletal metastases due to the presence of ALL of the following:
      - Known malignancy
      - Neck pain
      - No neuromotor deficits
      - Initial plain x-ray

CITATION

Milliman Care Guidelines, Ambulatory Care, 23rd Edition, “Cervical Spine MRI” and “Cervical Spine CT Scan”, 2/26/2019

APPENDIX A

[TITLE OF ATTACHMENT]

POLICY REVISION HISTORY

Originally Written By:		Policy Committee Review Date:	
Approved By:		Date:	Signature
Revised By:		Date:	Signature
Revision(s) Description:			
Approved By:		Date:	Signature
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