

Subject: Orbit-Sella-Neck-Temporal Bone (IAC) including Mastoid-Posterior Fossa MRI (70540, 70542, 70543)		Original Effective Date: 12/13/2017
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### DESCRIPTION OF PROCEDURE/SERVICE/PHARMACEUTICAL

MRI (Magnetic Resonance Imaging) is a no-n X-ray (no ionizing radiation) imaging scan that uses a strong magnetic field and radiofrequency waves to produce detailed cross sectional views of soft tissues, bones and vascular structures. These cross sectional images can be reconstructed, rotated and displayed in many different planes. A MR scan can be performed either without (non-enhanced) or with (contrast enhanced) injection of gadolinium containing contrast material into a vein.

### APPROVAL SUPPORT

For many clinical situations either MRI or CT are appropriate. MRI's often show soft tissue details better, and CT's often show boney detail better. The choice should be made by the radiologist and the ordering provider as to which is best for a given clinical situation.

### Orbit MRI / Sinus MRI / Face MRI

- Trauma with physical exam evidence of damage (does not require x-ray first).
- Decreased range of motion of the eyes.
- Proptosis (exophthalmos). Such as Grave's Disease
- Progressive vision loss.
- Abnormal x-ray
- Unilateral visual deficit.



- Papilledema (including pseudotumor)
- Orbital or facial infection (including osteomyelitis)
- Tumor or mass found on x-ray, physical exam, or ultrasound (including parotid or submandibular)
- Sinus infection/inflammation (and reason for not doing CT is provided). Unresolved sinusitis after four (4) consecutive weeks of medication, e.g., antibiotics, steroids or decongestants

### Orbit MRI combined with Brain MRI

- Person who will need anesthesia for the procedure and there is a suspicion of concurrent intracranial tumor (e.g. "trilateral retinoblastoma")\*
- Unilateral papilledema: (e.g. optic nerve lesion, optic neuritis, central retinal vein occlusion or optic nerve infiltration)

## Neck MRI

### Known tumor

- Initial evaluation of a recently diagnosed cancer
- Follow up of a known tumor or mass after completion of treatment or with new signs/symptoms
- Surveillance of a known tumor or mass according to accepted clinical standards

# Suspected tumor

- Non-thyroid masses in the neck when they have characteristics suspicious for malignancy
- Thyroid abnormalities should be evaluated with ultrasound as the preferred imaging modality
- Suspected parathyroid tumor due to elevated calcium and PTH levels and nuclear medicine scan and/or ultrasound are indeterminate
- Palpable lesions in mouth or throat

# Suspected infections complication:

 Abscess or deep tissue infection suspected because of symptoms, physical exam, or prior imaging results

### Other

- Vocal cord lesions or vocal cord paralysis
- Tracheal stenosis
- Trauma with physical exam evidence of damage
- Congenital abnormalities (e.g. Thyroglossal duct cyst)
- Brachial plexus dysfunction (brachial plexopathy/thoracic outlet syndrome).



### Pre/Post Procedural

- Pre-operative/pre-procedural evaluation when detail is needed
- Post-operative/post-procedural for routine recommended follow up or for potential post-operative complications.
- A repeat study may be needed to help evaluate a patient's progress after treatment procedure intervention or surgery. The reason for the repeat study and that it will affect care must be clear.

NOTE: Use Brain MRI for Pituitary MRI, Sella MRI, IAC (Internal Auditory Canal) MRI, or Mastoid MRI

### ADDITIONAL INFORMATION

The following medical necessity criteria are used to determine the best diagnostic study based on a patient's specific clinical circumstances. The criteria were developed using evidence based recommendations and current accepted clinical practices. Medical necessity will be determined using a combination of established criteria as well as the patient's individual clinical or social circumstances.

- Tests that will not change treatment recommendations should not be approved.
- Tests completed recently need a specific reason for repeat
- Tests done very recently that have an abnormality that requires the test be done again with contrast can be approved.
- Contrast should be used if there is a history of prior surgery, malignancy or known or suspected infection

### REFERENCES USED FOR DETERMINATIONS

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### **CPT**: Description

70540: MRI (Magnetic Resonance Imaging) Face/Neck/Orbit without contrast

70542: MRI (Magnetic Resonance Imaging) Face/Neck/Orbit with contrast

70543: MRI (Magnetic Resonance Imaging) Face/Neck/Orbit without and with contrast