Brain MRI vs. Brain CT: Tips for Prior Authorization

Purpose: Evolent aims to ensure patients receive the most appropriate care. Choosing between a CT and MRI should not be dictated by cost but by which is clinically justified, while helping to reduce the burden on the patient. Many brain MRIs are followed by brain CTs, which subject the patient to two studies, possibly two co-pays or fees associated with the studies, and potential exposure to unnecessary radiation.

Why Brain MRI Is Preferred Over Brain CT

Health plan and Evolent clinical guidelines generally prefer brain MRI over brain CT in non-emergent settings because MRI provides superior diagnostic value for brain parenchyma and neurologic disease.

- **Higher soft-tissue resolution:** MRI better detects tumors, demyelinating disease (e.g., MS), ischemia, infection, inflammatory disease, and subtle structural abnormalities.
- **No ionizing radiation:** Avoiding unnecessary exposure is particularly important for younger patients and those needing serial imaging.
- **Greater diagnostic yield:** Using MRI reduces the need for follow-up imaging and improves care efficiency.

When Brain CT Is Appropriate

Brain CT is appropriate when specific criteria are met, including:

- **Need for bony details,** such as skull fracture and craniosynostosis
- **Acute or emergent scenarios**, such as suspected hemorrhage, acute trauma, or unstable patients
- **MRI contraindications**, including:
    - Non-MRI compatible pacemaker or implanted device[1]
    - Metallic foreign bodies
    - Severe claustrophobia not manageable with sedation
    - Patient exceeds MRI equipment limits

Documentation should address why MRI was not pursued in this case.

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[1]Advances in metallic hardware now allow many patients to undergo MRI. Please check with the surgeon or radiology center for confirmation.

Strong Prior Authorization Requests

Understanding denial drivers can significantly improve approval success.

Top Denial Reasons

1. **Clinical rationale for imaging choice**
    - When brain CT is requested, address why this study best serves the clinical need to help support the request.
2. **No documented symptom progression**
    - Changes in headaches or seizures
    - New or worsening neurologic deficits
3. **Incomplete cognitive or memory workup**
    - Where applicable, documentation of prior clinical evaluations (e.g., cognitive testing) and supporting diagnostic information relevant to the presenting concern strengthens the request.
4. **Supporting clinical documentation**
    - Recent visit notes with detailed neurological exam findings, prior relevant imaging results and recent pertinent lab work (such as CBC, CMP, B12, TSH) help provide a complete clinical picture.
5. **Dizziness criteria not met**
    - Documentation that explains how the study will inform or change the patient's care. It is one of the most impactful elements of a successful request.

Tips to Improve Approval Rates

- Explain main concerns and the rationale leading to the study being ordered and the impact on treatment.
- Submit relevant clinical documentation such as recent office visit notes, physical exam findings, imaging studies, and lab results.
- Include physical exam findings, symptoms (onset, duration, and progression).
- When a brain CT is requested, a brief note addressing why MRI was not pursued in this clinical scenario is helpful.
- Explicitly linking imaging to treatment decisions (e.g., referral, surgery, medication change) markedly improves approval likelihood.

This tip sheet reflects health plan and Evolent clinical guidelines effective January 2026 and is intended as an educational reference, not medical advice.