VERIFY Inclusion and Exclusion Criteria

Key Inclusion Criteria:

• Age **18 years** or older

• **Unilateral** stroke due to ischemia or intracerebral hemorrhage

• **Motor deficits** in the acutely affected UE (Shoulder Abduction and Finger Extension [SAFE] score ≤ 8) within 48 to 96 hours of stroke onset (or time last known well). SAFE ≤ 8 **excludes full or nearly full motor** strength in both shoulder abduction and finger extension

• Consent signed within **48 to 96 hours** of stroke onset (or LKW)

• Fluent in **English or Spanish**

Key Exclusion Criteria:

• **UE injury or conditions** that limited use prior to the stroke.

• Unable to abduct the shoulder or extend the fingers of the **non-paretic UE** on verbal command

• Cognitive or communication impairment **precluding informed consent** by the participant.

• **Contraindications** to TMS or MRI

• **Anticipated instability** to perform study procedures within 168 hours of symptom onset.

• Co-enrollment in a trial of an **intervention targeting the incident stroke** (acute treatment or rehabilitation/recovery

Full list of exclusion criteria:

1. UE injury or conditions on paretic side that limited use prior to the stroke
2. Legally blind
3. Dense sensory loss on paretic side indicated by a score of 2 on NIHSS sensory item
4. Unable to abduct the shoulder or extend the fingers of the non-paretic UE on verbal command
5. Isolated cerebellar stroke
6. Bilateral acute strokes
7. Co-enrollment in a trial of an intervention targeting the incident stroke (acute treatment or rehabilitation/recovery intervention) after baseline assessments for VERIFY are initiated
8. Known or expected inability to maintain follow-up with study procedures through 90 days
9. Cognitive or communication impairment precluding informed consent by the participant.
10. Major medical, neurological, or psychiatric condition that would substantially affect functional status
11. Non-cerebrovascular diagnosis associated with unlikely survival at 90 days
12. Pregnancy

13. Contraindication to noncontrast MRI (certain metallic implants, metallic foreign bodies or severe claustrophobia)
14. Contraindication to TMS
    a. Cardiac pacemaker or other electronic devices in the body at or above the level of the seventh cervical vertebra (such as cochlear implant, cortical stimulator, deep brain stimulator, vagus nerve stimulator, cervical spine epidural stimulator, or ventriculoperitoneal shunt)
    b. Skull defect related to current stroke
    c. Seizure after onset of current stroke
    d. Seizure within the last 12 months while taking anti-epileptic medications
    e. Previous serious adverse reaction to TMS
15. Unable to perform behavioral assessments within 48-120 hours of symptom onset (or time last known well).
16. Unable to receive TMS or get MRI within 72-168 hours of symptom onset (or time last known well).
17. Anticipated inability to perform study procedures within 168 hours of symptom onset.