

# Same-day MRI In TIA clinic: have dedicated MRI slots helped improve access to neuroimaging in line with NICE recommendations?

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## Introduction

National Institute for Health and Care Excellence (NICE) transient ischaemic attack (TIA) guidelines (2019) advise against performing CT (unless there is suspicion of a relevant alternative diagnosis that might be diagnosed on CT). They instead recommend TIA clinic assessment to consider MRI (which should be performed on the same day as the assessment).<sup>1</sup> This may be challenging in some trusts due to limited access to MRI. In a university teaching hospital, dedicated MRI slots for TIA clinic use were introduced to improve access to same-day scanning. This audit aimed to assess the timing of neuroimaging in TIA clinic, before and after the introduction of the dedicated MRI slots.

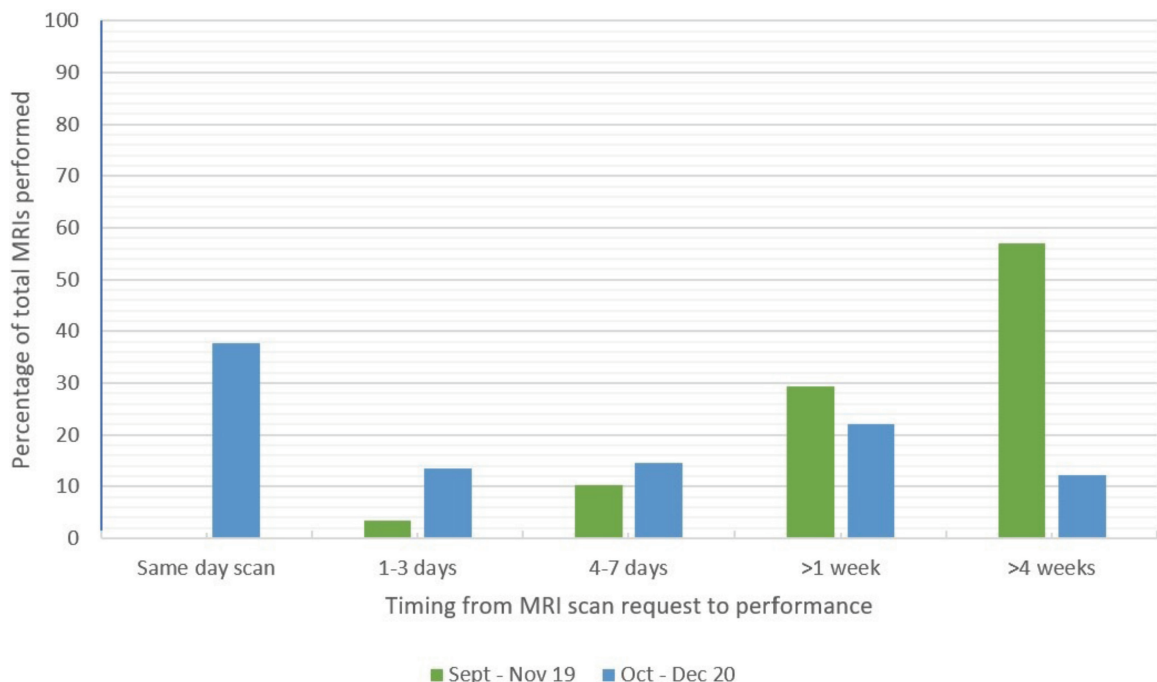
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## Methods

We conducted a retrospective audit of patients seen in TIA clinic. Data were collected from the hospital computer system and analysed using Microsoft Excel. In September 2020 two same-day MRI slots per TIA clinic were introduced. Taking into account COVID-19 disruption, data were collected from a 3-month period prior to, and a 3-month period after, this intervention (September – November 2019 vs October – December 2020). We recorded the neuroimaging performed, the time from scan request to completion and whether the neuroimaging changed the diagnosis or management.

## Results

N = 354 patients were included (170 in initial period vs 184 in second period), of whom 140 had MRI. Prior to the introduction



**Fig 1.** Timing of MRI scans requested in TIA clinic before and after introduction of protected slots.

of the dedicated MRI slots, 0% of MRIs occurred on the same day, 3.4% at 1–3 days, 10.3% 4–7 days, 29.3% at 1–4 weeks, and 56.9% >4 weeks. After the intervention, 37.8% of MRI scans occurred on the same day, 13.4% at 1–3 days, 14.6% at 4–7 days, 22% at 1–4 weeks and 12.2% at >4 weeks. In total, 8.8% of patients had both CT and MRI scanning (7.6% before the intervention and 9.8% after). Across all patients, 12 MRI scans in total were diagnostic (six showed an acute DWI lesion, and six showed non-stroke diagnosis eg tumour), representing 8.6% of the total MRI scans performed. Fig 1 summarises these results.

### Discussion and conclusions

The number of MRIs that changed the diagnosis was relatively low (compared with the 30% identified in the literature);<sup>2</sup> however, we would emphasise that negative scans can also be useful in excluding pathology. The introduction of dedicated MRI slots for TIA clinic improved access to same-day MRI, but overall

access remained suboptimal. Protected slots may help improve access, but current neuroimaging is still not in keeping with NICE guidance; further research should identify reasons for delayed access to MRI to facilitate further service improvements. We identified that a small percentage of patients still get both CT and subsequent MRI imaging, representing potential wasted time and resource, and unnecessary radiation for the patient; this proportion was similar before and after the introduction of the protected MRI slots. ■

### References

- 1 Stroke and transient ischaemic attack in over 16s: diagnosis and initial management, 2019. <https://www.nice.org.uk/guidance/ng128> [Accessed 14 March 2023].
- 2 Coutts SB, Moreau F, Asdaghi N *et al*. Rate and prognosis of brain ischemia in patients with lower-risk transient or persistent minor neurologic events. *JAMA Neurol* 2019;76:1439–45.