

# Keele Critically Appraised Topic (CAT Form)



## Clinical Question

Is it safe for adults to drive after receiving a corticosteroid injection (CSI) in a musculoskeletal out patient setting?

## Clinical bottom line

There is currently no high-quality research available to address this Critical Appraised Topic (CAT) question. The responsibility for advising patients on their ability to drive after receiving a corticosteroid injection (CSI) remains unclear. As part of shared decision-making, it is crucial to inform patients that they may not feel safe to drive post corticosteroid injection, may not be insured, and should therefore arrange for someone to accompany them to their appointment.

The guidance needs to be consistent across the entire injection pathway to ensure that every patient receives the same level of care, regardless of where they are treated.

## Plain Language Summary

There is no good quality research to answer this question about driving after a corticosteroid injection (CSI). It is unclear who should tell the patient if they could drive after the injection. Patients need to know they might not feel safe to drive, might not be insured, and should bring someone with them to the appointment.

This advice needs to be available and consistent in healthcare settings where corticosteroid steroid injections are offered.

## Why is this important?

There is notably inconsistency in clinical practice regrading the advice given to patients about driving after receiving a corticosteroid injection (CSI), both locally and nationally and across different care settings. We must consider whether advising patients to have someone drive them home after an injection is best practice or if it unnecessarily adds to their burden and delays.

The DVLA (Drivers& Vehicles Licencing Agency) guidance for healthcare professionals on driving (2024) outlines several requirements for safe driving, including good reaction times, muscle power and control, co-ordination and sensation. However, it does not provide specific guidance on driving after an injection. It does however, emphasise that drivers must ensure they are covered by their insurance policy.

Given the multitude of insurance companies in the United Kingdom, it is impractical for clinicians to be familiar with each policy. Therefore, we sought to explore if any research could help us provide additional informed advice to patients regarding their safety to drive after a CSI.

Search timeframe (2014-2024)

## Search criteria

|  |  |  |
| --- | --- | --- |
| **Population Intervention Comparison Outcomes (PICO) themes** | **Description** | **Search terms** |
| Population | Adults receiving a corticosteroid injection (CSI) in musculoskeletal out patient setting | Corticosteroid injectionCSISteroid injectionLocal anaesthetic injectionIntra-articular injectionSoft tissue injection |
| Intervention or Exposure  | Corticosteroid injection (CSI) | Corticosteroid injectionCSISteroid injectionLocal anaesthetic injectionIntra-articular injectionSort tissue injectionImage guided/ ultrasound guided/clinically guided |
| Comparison, if anye.g. usual care, leaflet  | Nil |  |
| Outcomes of interest | Is it safe to drive | Breaking distanceAdverse systemic effects of steroid/ corticosteroid injectionsReaction times |
| Types of studies |  | RCTs/SR/case studies |

## Databases searched

Clinical Knowledge Summaries (CKS), British Medical Journal (BMJ) Updates, Translation of Research into Practice (TRIP) Database, The Cochrane Library, Cinahl, Embase, Joanna Briggs Institute, Web of Science, Pub Med,Emcare, Google Scholar, Orthoevidence.

## Date of search

05/09/24

## Results of the search:

There were 12 unique downloaded studies. Three were felt to be relevant studies. One is included critical appraised in Table 1 below. Two were excluded, one as a review of practice and the other was a smaller cohort study.

## Table 1- Detail of included studies

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **First author, year and type of study** | **Population and setting** | **Intervention or exposure tested** | **Study results** | **Assessment of quality and comments** |
| Cassidy J et al (2020)Prosepect-ive observation-al study | 45 patients with right knee osteoarthritis (OA) in secondary care received a clinically guided injections of 1ml steroid and 9ml .5% bupivacaine by either a physiotherapists or medic  | Prior to injection each patients break reaction times (BRT) were recorded using the response time monitor – this method has been described and validated in previous studies. Each subject had a practice go and then 3 subsequent goes which were recorded and used. All patients had repeat test within 1 hour of their injection (range 15-50mins, mean 29 +/- 9 mins). | No significant difference in mean break time response pre and post injection.Of the 45 pts, 9 did not feel safe to drive afterwards – no explanation | Small observational study with risks of bias: Same assessors, no blinding and pts had completed the BRT 7 times by the end of the testing, suggesting there could be some learning occurring of a new skill. Power calculation used, however, not sure how they came up with a 20% increase in break time allowed (0.25s) with a SD 0.25sec – This would equate to 0.5 secs (which is half the ‘normal break time response’)Small amount of data displayed in the results section. 9 patients did not feel safe to drive afterwards, would have been nice to explore why this was. |

# Summary

Caution is advised when interpreting this cohort study due to its small sample size, lack of blinding and potential risks of bias. The study focused on one aspect of driving safety, break reaction times, and did not explain why 9 out of 45 (20%) did not feel safe to drive after the procedure.

# Implications for practice

Given the current level of evidence, we cannot definitively answer this Critically Appraised Topic (CAT). Clinicians must use shared decision-making when advising patients about the safety of driving after a CSI. This discussion should be documented in the patients notes to protect both the patient and the clinician.

As a result of this CAT, we have shared the findings at our annual injection competency training meeting and suggested it is added to the injection checklist.

A high-quality randomised control trial is needed to address this question comprehensively. Such a study should examine multiple facets of driving safety and include all joints and soft tissues commonly injected in a musculoskeletal setting to ensure a large and representative sample.

# What would you post on X (previously Twitter)?

Currently there is no high-quality evidence to determine whether it is safe for patients to drive after a CSI. Clinicians should share this information with their patients as part of shared decision-making, enabling them to make informed decisions.

# References

Cassidy JT, McClean A, Hurley ET and Cashman JP (2020). Is it safe for patients to drive after intra-articular knee injections? The Knee. 27. 690-694

[Assessing fitness to drive – a guide for medical professionals (publishing.service.gov.uk)](https://assets.publishing.service.gov.uk/media/66c8b0d0e39a8536eac052f4/assessing-fitness-to-drive-august-2024.pdf) 30.9.24

| **CAT image** | **Evidence quality** | **Checkbox** |
| --- | --- | --- |
| This is a green cat with a happy face | Good quality evidence to support use…. | [ ]  |
| This is an orange cat with an indifferent face | Insufficient or poor quality evidence OR substantial harms suggest intervention used with caution after discussion with patient… | [x]  |
| This is a red cat with an unhappy face | No good quality evidence, do not use until further research is conducted ORGood quality evidence to indicate that harms outweigh the benefits…. | [ ]  |

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