Hertfordshire and West Essex Integrated Care System

NHS Hertfordshire and West Essex Integrated Care Board

Evidence Based Intervention

Carpal tunnel syndrome release

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Policy:

This is a national Evidence Based Intervention policy formally adopted by Hertfordshire and West Essex Integrated Care Board. Please see https://ebi.aomrc.org.uk/

Open or endoscopic surgical procedure to release median nerve from carpal tunnel.

Recommendation:

Mild cases with intermittent symptoms causing little or no interference with sleep or activities require no treatment.

Cases with intermittent symptoms which interfere with activities or sleep should first be treated with:

- corticosteroid injection(s) (medication injected into the wrist: good evidence for short (8-12 weeks) term effectiveness)

  OR

- night splints (a support which prevents the wrist from moving during the night: not as effective as steroid injections)

Surgical treatment of carpal tunnel should be considered if one of the following criteria are met:

- The symptoms significantly interfere with daily activities and sleep symptoms and have not settled to a manageable level with either one local corticosteroid injection and/or nocturnal splinting for a minimum of 8 weeks:

  OR

- There is either:
  - a permanent (ever-present) reduction in sensation in the median nerve distribution;

    OR

  - muscle wasting or weakness of thenar abduction (moving the thumb away from the hand).

Nerve Conduction Studies if available are suggested for consideration before surgery to predict positive surgical outcome or where the diagnosis is uncertain.

Patients who are not eligible for treatment under this policy may be considered on an individual basis where their GP or consultant believes exceptional circumstances exist that warrant deviation from the rule of this policy. Individual cases will be reviewed as per the ICB policy.

Rationale for Recommendation

Carpal tunnel syndrome is very common, and mild cases may never require any treatment. Cases which interfere with activities or sleep may resolve or settle to a manageable level with non-operative treatments such as a steroid injection (good evidence of short-term benefit (8-12 weeks) but many progress to surgery within 1 year). Wrist splints worn at night (weak evidence of benefit) may also be used but are less effective than steroid injections and reported as less cost-effective than surgery.

In refractory (keeps coming back) or severe case surgery (good evidence of excellent clinical effectiveness and long-term benefit) should be considered. The surgery has a high success rate (75 to 90%) in patients with intermittent symptoms who have had a good short-term benefit from a previous steroid injection. Surgery will also prevent patients with constant wooliness of their fingers from becoming worse and can restore normal sensation to patients with total loss of sensation over a period of months.

The hand is weak and sore for 3-6 weeks after carpal tunnel surgery, but recovery of normal hand function is expected, significant complications are rare (≈4%) and the lifetime risk of the carpal tunnel syndrome recurring and requiring revision surgery has been estimated at between 4 and 15%.

Patient Information

Information for Patients
In many cases Carpal Tunnel Syndrome (CTS) will not require surgery and this should only be carried out when specific criteria are met. This is because medical evidence tells us that in most cases, alternative treatments should be tried first and can be just as effective.

About the condition
CTS occurs when there is pressure on the median nerve at the wrist. It causes tingling, numbness and pain in the hand and fingers. If it only causes minor symptoms then it requires no treatment.

It's important you and your doctor make a shared decision about what's best for you if CTS is causing you problems. When deciding what's best you should both consider the benefits, risks, the alternatives and what will happen if you do nothing.

What are the BENEFITS of the intervention?
Surgery prevents patients with constant numbness of their fingers from becoming worse and it usually improves the numbness and can restore normal sensation. It also has a high success rate in patients with intermittent symptoms who have had a good, but only short-term, response to other treatments which should be tried first.

What are the RISKS?
Carpal tunnel release surgery is usually very successful but has risks and complications which usually cause temporary problems such as pain, infection, scarring, tenderness and bleeding. Following surgery, the hand may be weak and sore for 3-6 weeks, but recovery of normal hand function is expected.

What are the ALTERNATIVES?
CTS can develop due to an underlying medical condition such as diabetes, arthritis, thyroid dysfunction, or being overweight, but often there's no underlying cause. Treating these conditions can sometimes improve symptoms. Adapting your workplace and getting support with daily activities may reduce your pain and tingling. If you have intermittent symptoms which interfere with everyday activities, you should first be treated with corticosteroid injections or asked to try wearing a splint on your wrist at night. If these options fail to control the symptoms or they come back over time, then surgery can be carried out. If there is constant numbness of the fingers then surgery is the first advised treatment, rather than splints or steroid injections.

What if you do NOTHING?
The symptoms may gradually become worse, but may also improve without any treatment, which is often seen in pregnancy. Mild cases with intermittent symptoms causing little or no interference with sleep or activities should not require any treatment. If more severe cases are left untreated there is a risk of permanent nerve damage, with numbness in the fingers and weakness of the thumb, which may become so severe that it does not respond to treatment.

Further information can be found at https://ebi.aomrc.org.uk/interventions/carpal-tunnel-syndrome-release/ This weblink was correct as of 06/01/2025.

Coding

```
WHEN Primary_Spell_Procedure = 'A651'
AND Primary_Spell_Diagnosis like '%G560%'
-- Only Elective Activity
AND APCS.Admission_Method not like ('2%')
THEN 'M_carpal'
```

Exclusions

```
WHERE 1=1
-- Cancer Diagnosis Exclusion
AND (Any_Spell_Diagnosis not like '%C[0-9][0-9]%'
AND Any_Spell_Diagnosis not like '%D0%'
AND Any_Spell_Diagnosis not like '%D3[789]%'
AND Any_Spell_Diagnosis not like '%D4[012345678]%'
OR Any_Spell_Diagnosis IS NULL)

-- Private Appointment Exclusion
AND apcs.Administrative_Category<>'02'
```

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Change History:

Version	Date	Reviewer(s)	Revision Description

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