National Clinical & Integrated Care Programmes
Person-centred, co-ordinated care

Title: Post-Stroke Pain Care Pathway

Version: 2.1

STROKE

Post-Stroke Pain

Pain is a common complaint in 11-55% of stroke survivors (Hansen et al 2012) and can arise from muscles, joints or viscera, or from the peripheral or central nervous system. Post stroke pain impairs functional recovery and is a major contributor to poor quality of life in stroke survivors. Pain following stroke may be due to exacerbation of longstanding arthritic, neuropathic or inflammatory processes or may occur de-novo due to brain injury and altered perception or due to injury or dysfunction in a paralysed limb.

Common Post Stroke Pain syndromes

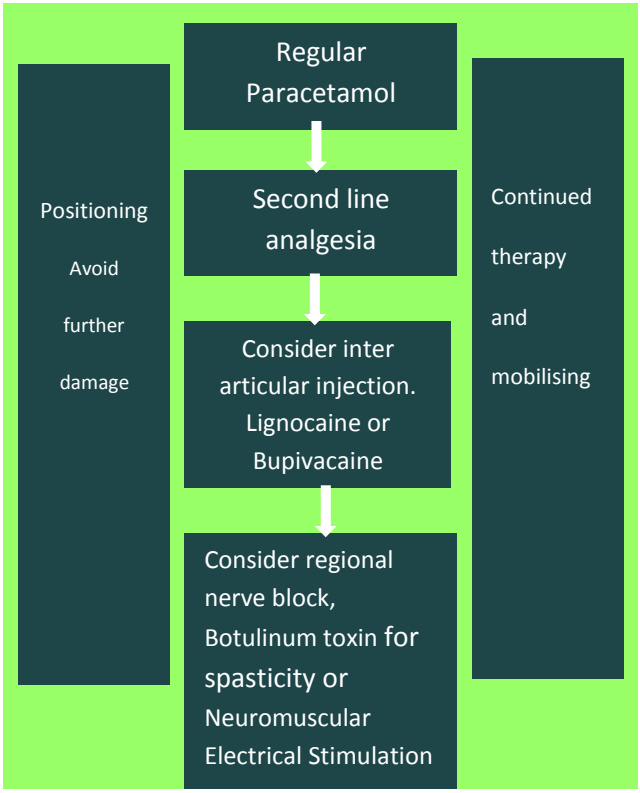
- Regional Shoulder Pain.
- Central Post Stroke Pain (CPSP)
- Complex Regional Pain Syndrome
- Chronic Widespread Pain.
- Post stroke headache

Patients may have several types of post stroke pain concominately (40%).

Every stroke patient should be asked if they have pain.

Risks

- Stroke severity
- Young age
- Females
- Diabetes
- Spasticity
- Low mood
- Poor care/positioning of upper limb.
- Pre-stroke shoulder pain.



Approved by: National Stroke Programme and Working Group including National Clinical Lead for Stroke Prof. Joe Harbison and Clinical Advisory Group Stroke
Approval Date: October 2016
Review Date: October 2018
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Post-Stroke Pain

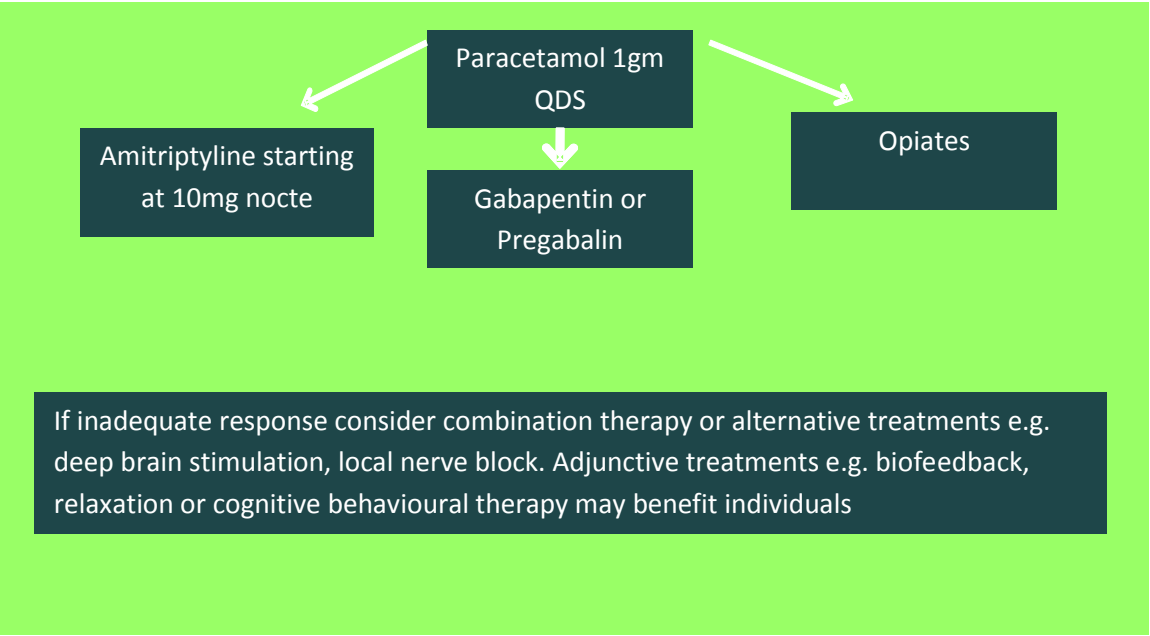
Regional Shoulder Pain.

Causes:

- Adhesive capsulitis (frozen shoulder)
- Spasticity
- Glenohumeral subluxation
- Subacromial bursitis
- Brachial plexus traction injury
- Pre-morbid arthritis

Notes

- ❖ Shoulder x-ray of little use in diagnosis.
- ❖ For patients with troublesome general spasticity a trial of anti-spastic drugs could be considered.
- ❖ Where necessary patients should be referred to pain specialist services.
- ❖ For patients with musculoskeletal pain, treatment may include simple analgesics taken regularly.



Central Post Stroke Pain.

A central neuropathic pain condition in which pain arises as a direct result of a cerebrovascular lesion in the central somatosensory nervous system and can negatively affect the patient's quality of life.
A 2013 population based study found a 11% incidence of CPSP, equally in male & female. 58% developed the pain immediately and 20% developed it in the following month. As central post stroke pain is neuropathic in nature, neuropathic analgesia should be used first line, unless contraindicated.

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Features

- Severe pain, variously described e.g. 'Burning', 'Icy', 'Shooting', 'Lancinating' or 'Gnawing'.
- Associated loss of light touch, pinch pain and temperature in painful area.
- 60% have allodynia to hot/cold, light brush.
- Typically disturbed sleep.
- 60% may result from thalamic lesion ('Dejerine Roussy' syndrome) others from ascending pathways for discriminative pain (slow spinothalmic tract).

Complex Regional Pain Syndrome (Shoulder hand syndrome)

Features

- Uncommon
- Shoulder pain with Swollen hand and Wrist
- Pain intense and burning
- MCP joints and PIP Joints stiff
- MCPs Joints tender to palpation
- Can be associated with local osteoporosis
- Multiple treatments have been tried including, Physiotherapy, steroids, gabapentin, opioids etc. However there is no good evidence of superiority of any of these modalities..

Chronic Widespread Pain

Very uncommon. Can occur after any traumatic event. There appears to be a significant psychological somatisation component and early psychological intervention is recommended.

Other Interventions.

Other non pharmacological interventions that may be of benefit in individuals with chronic pain include relaxation therapy and relaxation therapy, review of positioning, Hot or Cold compresses, distraction therapy and TENS.

References:

Lindgren I et al. 2007 Shoulder Pain After Stroke A Prospective Population-Based Study. *Stroke*. 38:343-348.

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Raffaeli, W. Minella, CE. Magnani, F. Sarti, D. 2013. Population-based study of central post-stroke pain in Rimini district, Italy. *Journal of Pain Research.* 6: 705-711

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