Clinical Practice Guideline on the Management of Stroke in Primary Care

Short version

Clinical Practice Guidelines in the Spanish NHS

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Clinical Practice Guideline on the Management of Stroke in Primary Care

1. Introduction

The objective of this guideline is to help primary care health professionals in the provision of care to adults with suspected stroke or transient ischaemic attack (TIA) seeking medical attention in primary care (PC), as well as the follow-up of people who have had a stroke after discharge from hospital, especially regarding issues that can be dealt with in PC.

This version in English contains the following information:

- **Clinical Questions**
- **Recommendations**
- **Rationale**
- **Complete clinical question** (link to the version in Spanish)
- **References**.

The full version (in a multi-layered format and as a PDF), the methodological material, and material for patients and other information are available, in Spanish, at the following link:

https://portal.guiasalud.es/gpc/guia-de-practica-clinica-sobre-el-manejo-del-ictus-en-atencion-primaria/

2. Initial diagnosis of stroke

Question:

Are pre-hospital scales (administered face-to-face or over the phone) useful in PC settings?

Recommendations:

STRONG, IN FAVOUR

1. We recommend using (preferably validated) scales to help diagnose stroke in PC in people with acute-onset neurological symptoms.

WEAK, IN FAVOUR

2. We suggest assessing symptoms using the Cincinnati Prehospital Stroke Scale (CPSS) in people who seek medical advice over the phone due to acute-onset neurological symptoms (see Appendix 1).
3. We suggest using the Melbourne Ambulance Stroke Scale (MASS) or the Recognition of Stroke in the Emergency Room (ROSIER) scale in PC to support the diagnostic process in people with suspected stroke (see Appendix 1).

GOOD CLINICAL PRACTICE

4. In a person with suspected stroke, it is important to consider not only the initial symptoms and time since their onset, but also functional and cognitive status, which also determine whether or not to activate the stroke alert.

Rationale

Although no studies have been identified comparing the impact of using or not using standardised screening tools on the outcomes of interest, a strong recommendation is made in favour of using such scales in stroke patients. Some studies indicate that screening tools have sufficiently high sensitivity and specificity to identify people experiencing a stroke (though based on poor quality of evidence) and that the use of any tool to help to systematise the screening process and ensure the systematic documentation of symptoms in health records can help improve the identification and management of these cases.

Regarding which scales are best for this purpose, two weak recommendations are made in favour of the CPSS for consultations over the phone, and the MASS or ROSIER scale for face-to-face consultations in a PC centre.

Complete clinical question

For further information on this question, consult the full guideline (in Spanish): http://portal.guiasalud.es/guia-en-capas/gpc_635_manejo_ictus_ap_osteba/#question-1

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3. Prehospital management of acute stroke

Hypertension

Questions:

Should treatment be initiated in people with suspected acute stroke who present in PC with high blood pressure (BP)?

What are the threshold BP values for starting the treatment of hypertension?

When treatment is deemed necessary, which drugs should be used?

Recommendations:

WEAK, AGAINST

5. In people with suspected acute stroke, we suggest not treating high BP in an out-of-hospital setting provided that the BP remains below 220 (systolic BP) or 120 (diastolic BP) mmHg, except in certain emergency cases such as when there is strongly suspected left-sided heart failure, acute coronary syndrome, aortic dissection or preeclampsia/eclampsia.

GOOD CLINICAL PRACTICE

6. When treatment is deemed necessary, avoid sudden sharp drops in BP (over 20% in less than 24 hours).
7. Avoid fast-acting sublingual formulations and preferably use intravenous (IV) drugs, or if not possible, oral formulations (after screening for dysphagia).
8. In cases of low BP, rule out serious concomitant diseases and treat based on the aetiology.

WEAK, AGAINST

9. We suggest not treating hypertension in people who have had an acute ischaemic stroke if their BP levels are below 220/120 mmHg and they are not due to undergo IV thrombolysis or mechanical thrombectomy.

GOOD CLINICAL PRACTICE

10. After an acute ischaemic stroke, in people not treated with IV thrombolysis or mechanical thrombectomy and a BP >220/120 mmHg, it is reasonable to use pharmacological treatments (to lower SBP by less than 15% in 24 hours).

WEAK, IN FAVOUR

11. In people with an acute intracerebral haemorrhage (less than 6 h after the onset of symptoms), we suggest lowering BP to 140 mmHg to reduce haematoma growth.

GOOD CLINICAL PRACTICE

12. In people with an acute intracerebral haemorrhage, start treatment for hypertension as early as possible.

Rationale

Starting treatment for hypertension in PC

The evidence retrieved does not support the prehospital treatment of hypertension in acute stroke patients, but is of poor quality, and hence, a weak recommendation is made against this practice.

Blood pressure thresholds for treatment initiation

No studies have been identified indicating thresholds for initiation of treatment for hypertension. Nonetheless, we have made recommendations on good practice for certain contexts based on studies showing associations between BP levels and clinical outcomes in stroke patients.

Choice of pharmacological treatment

No particular drug can be recommended, given the lack of evidence regarding which is more effective for reducing BP or improving outcomes of interest in this population. Hence, no recommendations are given in favour of any given drug.

Complete clinical questions

For more detailed information concerning these questions, consult the full guideline (in Spanish):
http://portal.guiasalud.es/guia-en-capas/gpc_635_manejo_ictus_ap_osteba/#question-2

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Hyperglycaemia

Questions:

In people with suspected acute stroke, should treatment for hyperglycaemia be started in PC/prehospital settings?

What are the thresholds for initiating treatment to control blood glucose levels?

Recommendations:

WEAK, AGAINST

13. We suggest not treating hyperglycaemia in prehospital settings in people with suspected acute stroke.

STRONG, AGAINST

14. We recommend not treating hyperglycaemia intensively in people with suspected acute stroke.

GOOD CLINICAL PRACTICE

15. Treat hyperglycaemia when glucose levels exceed 155 mg/dl, seeking to keep levels between 140 and 180 mg/dl.

16. Rule out hypoglycaemia as the cause of the symptoms, and if detected, correct blood glucose levels.

Rationale

There is no evidence of a benefit from treating people with a history of acute stroke and hyperglycaemia in prehospital settings. Only one study has been identified assessing the effect of treatment on glucose levels and potential episodes of hypoglycaemia, and hence, a weak recommendation has been made against this practice.

Regarding the thresholds for starting treatment to control glucose levels, we have made recommendations on good practice, but not evidence-based recommendations.

Complete clinical questions

For more detailed information concerning these questions, consult the full guideline (in Spanish):
http://portal.guiasalud.es/guia-en-capas/gpc_635_manejo_ictus_ap_osteba/#question-3

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Antiplatelet therapy

Question:

Should antiplatelet therapy be started immediately in PC in people with suspected acute stroke?

Recommendations:

GOOD CLINICAL PRACTICE

17. Do not start antiplatelet therapy in people having a stroke before ruling out haemorrhage by performing computed tomography or magnetic resonance imaging.

STRONG, IN FAVOUR

18. We recommend starting antiplatelet therapy in people with acute ischaemic stroke as soon as intracranial haemorrhage has been ruled out by imaging.

Rationale

It is considered appropriate to be prudent and follow the approach of not starting antiplatelet therapy in PC until intracranial haemorrhage has been ruled out by imaging. Nonetheless, there is evidence that once intracranial haemorrhage has been ruled out, it is beneficial to start antiplatelet therapy in people with acute ischaemic stroke.

Complete clinical question

For more detailed information concerning this question, consult the full guideline (in Spanish):
http://portal.guiasalud.es/guia-en-capas/gpc_635_manejo_ictus_ap_osteba/#question-4

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4. Management of reported stroke

Question:

Should a person with suspected TIA or stable stroke who reports the onset of symptoms more than 48 hours earlier be urgently referred to hospital care?

Recommendations:

STRONG, IN FAVOUR

19. We recommend urgently referring people with suspected stroke or TIA who seek medical attention in PC within a 48-hour to 7-day window after the onset of symptoms.

Rationale

The key factors underlying this recommendation have been, on the one hand, the moderate-quality evidence indicating health benefits for the target population, and on the other, the lower costs associated with the subsequent management of these cases. Hence, a strong recommendation is made in favour of this practice.

Nonetheless, no recommendations have been made regarding the characteristics of cases that should be given higher or lower priority for urgent care, given that the use of recurrence risk assessment tools is not generally recommended in this context.

Complete clinical question

For more detailed information concerning this question, consult the full guideline (in Spanish):
http://portal.guiasalud.es/guia-en-capas/gpc_635_manejo_ictus_ap_osteba/#question-5

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5. Management of stroke after hospital discharge

Spasticity

Question:

Have oral drugs shown efficacy in the treatment of spasticity in people with a history of stroke?

Recommendations:

WEAK, AGAINST

20. We suggest not using oral drugs such as baclofen or tizanidine to treat focal post-stroke spasticity.

GOOD CLINICAL PRACTICE

21. People with a level of spasticity that interferes with their activities of daily living should be referred to a neurologist, rehabilitation specialist, and/or physiotherapist to decide on the most suitable treatment.

Rationale:

The key factors underlying this recommendation were the very low quality of the evidence on the efficacy and safety of these drugs in the treatment of post-stroke spasticity, and the high risk-benefit ratio. Notably, none of the comparisons found significant differences in terms of improvements in spasticity.

Complete clinical question

For more detailed information concerning this question, consult the full guideline (in Spanish):
http://portal.guiasalud.es/guia-en-capas/gpc_635_manejo_ictus_ap_osteba/#question-6

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Central post-stroke pain

Question:

Which drugs are effective for the treatment of central post-stroke pain?

Recommendations:

WEAK, IN FAVOUR

22. We suggest using amitriptyline as the first line of treatment for central post-stroke pain, always taking into account the adverse effects associated with its use and the risk-benefit ratio in each case.

23. We suggest using lamotrigine as an alternative to amitriptyline for treating central post-stroke pain, although the potential appearance of adverse effects should be considered.

GOOD CLINICAL PRACTICE

24. Refer people with central post-stroke pain that is not controlled in PC to specialised pain management units.

Rationale:

Although the evidence is low or very low quality, both amitriptyline and lamotrigine have positive effects in terms of pain reduction, but they are not free of adverse effects, with higher drug discontinuation rates in the case of lamotrigine.

Further, amitriptyline has lower associated costs per defined daily dose than lamotrigine and other drugs.

Complete clinical question

For more detailed information concerning this question, consult the full guideline (in Spanish):
http://portal.guiasalud.es/guia-en-capas/gpc_635_manejo_ictus_ap_osteba/#question-7

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Dysphagia

Dysphagia assessment in PC

Question:

How should dysphagia be assessed in PC?

Recommendations:

STRONG, IN FAVOUR

25. We recommend ruling out dysphagia as soon as possible, and if detected, assessing whether there are related nutritional problems.

GOOD CLINICAL PRACTICE

26. Re-assess dysphagia after hospital discharge and follow up regularly in PC.

WEAK, IN FAVOUR

27. We suggest using the water swallow test for screening for aspiration in PC, first taking into account the characteristics of the person who has had the stroke and their willingness to perform the test.

    Before this test, a clinical examination should be performed to assess the person's voice quality, whether they can stick out their tongue and move it sideways, and whether they can feel touch at the back of their throat. This type of assessment can help detect cases.

GOOD CLINICAL PRACTICE

28. People with a history of a stroke in whom swallowing difficulties (in general, during or after swallowing) have been detected for the first time should be evaluated by the corresponding specialist.
29. Train people who continue to experience swallowing difficulties, as well as their caregivers, in identifying and managing swallowing problems.
30. Carry out regular monitoring after discharge of people with persistent dysphagia, with weight checks, ensuring that they are adequately nourished, to assess the need for changes in diet and/or the route of feeding.

Rationale:

A weak recommendation is made in favour of using the water swallow test, given that it is easy to perform in PC and, although it is not highly specific, it may be sufficiently sensitive to detect most cases of dysphagia in people who have had a stroke. Further, although there is no direct evidence of the impact of dysphagia screening in PC, there is evidence from the acute hospital setting, where screening does have positive effects on outcomes in stroke patients.

No recommendation has been made concerning the use of the Eating Assessment Tool 10 (EAT-10), given that, while its use for dysphagia screening has been described, good results have not been reported in people with a history of stroke. Therefore, although easy to use, it has not been recommended.

Complete clinical question

For more detailed information concerning this question, consult the full guideline (in Spanish):
http://portal.guiasalud.es/guia-en-capas/gpc_635_manejo_ictus_ap_osteba/#question-8

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Treatment at home

Question:

What treatment plan can be followed at home (dietary adjustments, e.g., thickeners, exercise, etc.)?

Recommendations:

WEAK, IN FAVOUR

31. We suggest providing a suitable diet to people with a history of stroke who have dysphagia and are fed orally.

GOOD CLINICAL PRACTICE

32. Regularly check the patient's status to adapt their diet to their needs at routine check-ups (3, 6, and 12 months) and whenever there is a change in their functional status.

Rationale:

A weak recommendation is made in favour of adapting the diet of people with a history of stroke who have dysphagia, but textures and thickening agents are not mentioned, due to a lack of evidence in this regard and the negative effects of these restrictions on quality of life. The recommendation underlines the importance of regularly checking each patient's status, and if it changes, tailoring measures appropriately (loosening or tightening dietary restrictions).

Complete clinical question

For more detailed information concerning this question, consult the full guideline (in Spanish):
http://portal.guiasalud.es/guia-en-capas/gpc_635_manejo_ictus_ap_osteba/#question-8

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Exercises for dysphagia

Recommendations:

WEAK, IN FAVOUR

33. We suggest encouraging people with a history of stroke who have dysphagia to perform swallowing rehabilitation exercises.
34. We suggest offering shaker and chin tuck against resistance exercises, as well as conventional dysphagia therapy.
35. We suggest offering expiratory muscle strength training for the treatment of dysphagia in people who have had a stroke but have not had a tracheostomy.

Rationale:

Weak recommendations are made in favour of shaker and chin tuck against resistance exercises, as well as expiratory muscle strength training, given the evidence that such exercises ameliorate dysphagia in this population, and even the risk of pneumonia, considering the combined impact of all interventions, although the evidence is of low quality. Further, patients' values and preferences may differ. On the other hand, the evidence is insufficient to make a recommendation in favour of or against tongue-to-palate resistance training for the treatment of dysphagia.

Complete clinical question

For more detailed information concerning this question, consult the full guideline (in Spanish):
http://portal.guiasalud.es/guia-en-capas/gpc_635_manejo_ictus_ap_osteba/#question-8

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Depression, anxiety, and emotional lability

Questions

Should depression, anxiety, and emotional lability be treated pharmacologically after stroke?

Which antidepressants are effective in the treatment of depression, anxiety, and emotional lability in people with a history of stroke?

Is psychotherapy added to pharmacological treatment effective in treating depression and anxiety after stroke?

Recommendations:

WEAK, IN FAVOUR

36. We suggest using antidepressants for the treatment of depression after stroke, assessing the risk of adverse effects on a case-by-case basis.

GOOD CLINICAL PRACTICE

37. Monitor people with a history of stroke who are on antidepressants, to detect adverse effects, assess treatment adherence, etc.

WEAK, IN FAVOUR

38. We suggest treating anxiety pharmacologically in people with a history of stroke.
39. We suggest considering treatment with antidepressants in people who, after stroke, experience persistent emotional lability, with frequent severe episodes, taking into account the adverse effects of these drugs, especially in older people.
40. We suggest adding psychotherapy to pharmacological treatment in people with a history of stroke who have depression and/or anxiety.

Rationale

A weak recommendation is made in favour of antidepressants because very low-quality evidence suggests that they have a beneficial effect compared to placebo in terms of improving symptoms, though they also cause adverse effects that should be taken into account and assessed on an individual basis.

Regarding whether one drug is better than another, no recommendations are made because the classification of drugs used differs between the meta-analyses identified, and while serotonin inhibitors seem to be more effective, they also have adverse effects. Hence, no particular drug is recommended over any other.

A weak recommendation is made in favour of pharmacological treatment for anxiety, given that, although the quality of the evidence is low, it does seem to be beneficial in people who have had a stroke.

A weak recommendation is made in favour of pharmacological treatment for emotional lability because there is low-quality evidence of a positive effect in people who have had a stroke. Prescribing these drugs is feasible and likely to be acceptable to patients.

A weak recommendation is made in favour of adding psychotherapy to pharmacological treatment, given that, although the evidence is of low quality in both cases, positive effects have been observed both for depression and anxiety. Further, these interventions have positive effects in other types of patients, which supports a weak recommendation in favour.

Nonetheless, it is not specified which type of psychotherapy should be used, or whether it should be offered by PC doctors or through referral to a specialist. These decisions will depend on the capacity and organisational structure of each healthcare system in each region.

Complete clinical questions

For more detailed information concerning these questions, consult the full guideline (in Spanish):
http://portal.guiasalud.es/guia-en-capas/gpc_635_manejo_ictus_ap_osteba/#question-9

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Multidisciplinary interventions

Question

Are multidisciplinary interventions (physical therapy together with occupational therapy, speech therapy, etc.) effective in improving independence in activities of daily living in people with a history of stroke?

Recommendations:

WEAK, IN FAVOUR

41. We suggest implementing multidisciplinary interventions that enable the joint assessment of people with a history of stroke and their needs, seeking to ensure that the care provided is as coordinated and comprehensive as possible.
42. We suggest involving nurses, rehabilitation specialists, physiotherapists, and speech and occupational therapists able to help ameliorate the sequelae and address the needs of people with a history of stroke, as long as there are meaningful functional goals that are potentially achievable.

STRONG, IN FAVOUR

43. We recommend involving people with a history of stroke and their caregivers/relatives in the setting of rehabilitation goals and familiarising them with the exercises and types of care that are appropriate for them.
44. After hospital discharge, we recommend the PC team confirm that people who have had a stroke are following or have completed the rehabilitation treatment prescribed in their case.

GOOD CLINICAL PRACTICE

45. The PC team should train caregivers/relatives in the care required by people with a history of stroke who have severe functional impairment and are not candidates for rehabilitation.
46. The PC team should refer people with a history of stroke back to rehabilitation when they experience functional decline due to conditions including depression, fractures, falls, spasticity, or pain, with the goal of regaining their previous functional status, as well as treating potential trigger factors.

Rationale

A weak recommendation is made in favour of multidisciplinary interventions, given that the interventions found to achieve the best outcomes are those based on multidisciplinary meetings for the joint assessment of people who have had a stroke and their needs, as well as those in which there is coordination between PC and specialised care. On the other hand, to implement such interventions and provide the corresponding services as efficiently as possible, it is important to first assess the organisational requirements and available resources.

Complete clinical question

For more detailed information concerning this question, consult the full guideline (in Spanish):
http://portal.guiasalud.es/guia-en-capas/gpc_635_manejo_ictus_ap_osteba/#question-10

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Occupational therapy

Is occupational therapy effective in improving independence in activities of daily living in people with a history of stroke?

Question

Are multidisciplinary interventions (physiotherapy together with occupational therapy, speech therapy, etc) effective in improving independence in activities of daily living in stroke patients?

Recommendations:

WEAK, IN FAVOUR

47. We suggest providing occupational therapist-led treatment for stroke patients who have difficulties with activities of daily living.

Rationale

The evidence indicates that occupational therapy has positive effects, notably reducing mortality and ameliorating other negative outcomes for patients, and a slightly weaker, but still significant effect on activities of daily living, improving patients' independence, in particular, in instrumental activities. Moreover, this is a very important issue for people who have had a stroke, and hence, the strong recommendation in favour of this type of therapy.

Complete clinical question

For more detailed information concerning this question, consult the full guideline (in Spanish):
http://portal.guiasalud.es/guia-en-capas/gpc_635_manejo_ictus_ap_osteba/#question-11

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Dual antiplatelet therapy

Question

In people who have had a mild ischaemic stroke or a non-cardioembolic TIA, who are not candidates for thrombolysis and are on dual antiplatelet therapy, how long should this therapy last?

Recommendations:

STRONG, IN FAVOUR

48. We recommend maintaining therapy with acetylsalicylic acid (ASA) and clopidogrel for the first 3 weeks after a stroke to prevent recurrence in people who have had a mild ischaemic stroke or a high-risk non-cardioembolic TIA and have been started on this dual antiplatelet therapy.

WEAK, IN FAVOUR

49. We suggest maintaining therapy with ASA and ticagrelor up to 30 days to prevent the recurrence of stroke in people who have had a mild ischaemic stroke or a high-risk non-cardioembolic TIA and have been started on this therapy.

GOOD CLINICAL PRACTICE

50. After completion of the dual antiplatelet therapy, antiplatelet therapy with ASA or clopidogrel should be continued indefinitely.

Rationale

Regarding dual antiplatelet therapy and how long it should last in people who have had a mild ischaemic stroke or a high-risk non-cardioembolic TIA, the previous version of this guideline did not address follow-up in PC. Evidence on this question indicates that dual antiplatelet therapy with ASA and clopidogrel for 21 days is beneficial in this population, as is dual therapy with ASA and ticagrelor, despite a higher risk of haemorrhage.

Complete clinical question

For more detailed information concerning this question, consult the full guideline (in Spanish):
http://portal.guiasalud.es/guia-en-capas/gpc_635_manejo_ictus_ap_osteba/#question-12

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